As filed with the Securities and Exchange Commission on October 18, 2017.

Registration No. 333-220451

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Amendment No. 1
to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ACM RESEARCH, INC.

(Exact name of registrant as specified in its charter)

Delaware	3559	94-3290283
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

42307 Osgood Road, Suite I
Fremont, California 94539
(510) 445-3700
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

David H. Wang
Chief Executive Officer and President
ACM Research, Inc.
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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☒

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(1)(2)	Amount of Registration Fee(3)
Class A common stock, $0.0001 par value per share	2,300,000	$9.50	$21,850,000	$2,270.33

(1) Includes 300,000 shares that the underwriters have the option to purchase.
(2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(a) of the Securities Act of 1933, as amended.
(3) A total of $3,998.55 was previously paid in connection with the initial filing of this Registration Statement.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to such Section 8(a), may determine.

Table of Contents

The information in this prospectus is not complete and may be changed. We may not sell these securities until the Securities and Exchange Commission declares our registration statement effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS, SUBJECT TO COMPLETION, DATED OCTOBER 18, 2017

PROSPECTUS

2,000,000 Shares

Class A Common Stock

This is the initial public offering of common stock of ACM Research, Inc. We are selling 2,000,000 shares of Class A common stock. We anticipate that the initial public offering price of shares of Class A common stock will be between $7.50 and $9.50 per share. After the pricing of the offering, we expect that shares of Class A common stock will trade on The Nasdaq Global Market under the symbol "ACMR."

We have two classes of common stock, Class A and Class B. Each share of Class A common stock is entitled to one vote. Each share of Class B common stock is entitled to twenty votes and is convertible at any time into one share of Class A common stock. The rights attributable to each class of common stock are otherwise identical. Immediately following this offering and the concurrent private placement described below, holders of Class B common stock will have 79.1% of the voting power of our outstanding capital stock and holders of Class A common stock will have the remaining 20.9%.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and will be subject to reduced public company reporting requirements. See "Prospectus Summary—Our Company—Implications of Being an Emerging Growth Company" on page 6.

Investing in Class A common stock involves a high degree of risk. See "Risk Factors" beginning on page 12.

	Per Share	Total
Initial public offering price	**$**	**$**
Underwriting discounts and commissions(1)	**$**	**$**
Proceeds to us, before expenses	**$**	**$**

(1) Does not include warrants that are issuable by us to the underwriters for the purchase of 80,000 shares of Class A common stock (92,000 shares if the underwriters' over-allotment option described below is exercised in full) at a price per share equal to 110% of the initial public offering price or certain out-of-pocket expenses of the underwriters that are reimbursable by us. See "Underwriting" beginning on page 141 for additional disclosure regarding underwriter discounts, commissions and estimated offering expenses.

We have entered into agreements pursuant to which we expect to issue and sell, in a concurrent private placement, 833,334 shares of Class A common stock to Xinxin (Hongkong) Capital Co., Limited, a subsidiary of Sino IC Capital Co., Ltd., and 500,000 shares of Class A common stock to Victorious Way Limited, a subsidiary of China Everbright Limited. These shares are to be sold, subject to limitations described under "Concurrent Private Placement" on page 41, at the initial public offering price for the offering made hereby, net of a 3.5% placement fee payable to the firms who are also serving as underwriters of this offering. We expect the closing of the concurrent private placement to occur immediately after the closing of the offering made hereby, but the closing of this offering is not contingent on the closing of the concurrent private placement.

The offering is being underwritten on a firm commitment basis. We have granted the underwriters an option to buy up to an additional 300,000 shares of Class A common stock from us to cover over-allotments. The underwriters may exercise this option at any time and from time to time during the 30-day period from the date of this prospectus.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of Class A common stock to purchasers in the offering on or about , 2017.

Sole Book-Running Manager

Roth Capital Partners

Co-Managers

Craig-Hallum Capital Group

The Benchmark Company

The date of this prospectus is , 2017

TABLE OF CONTENTS

You should rely only on the information contained in this prospectus and any free writing prospectus we may authorize to be delivered to you. We have not, and the underwriters have not, authorized anyone to provide you with information different from, or in addition to, that contained in this prospectus and any related free writing prospectus. We and the underwriters take no responsibility for, and can provide no assurances as to the reliability of, any information that others may give you. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus is only accurate as of the date of this prospectus, regardless of the time of delivery of this prospectus and any sale of shares of Class A common stock.

For investors outside of the United States: Neither we nor the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of Class A common stock and the distribution of this prospectus outside of the United States.

Unless the context requires otherwise, references in this prospectus to "our company," "our," "us," "we" and similar terms refer to ACM Research, Inc. (including its predecessor prior to its redomestication from California to Delaware in November 2016) and its subsidiaries. References to "ACM Research" refer to ACM Research, Inc., and references to "ACM Shanghai" are to ACM Research (Shanghai), Inc., a subsidiary of ACM Research.

SAPS, TEBO, ULTRA C and our logo design are our trademarks. This prospectus also contains other companies' trademarks, registered marks and trade names, which are the property of those companies.

PROSPECTUS SUMMARY

The following summary highlights selected information contained elsewhere in this prospectus. Because the following is only a summary, it does not contain all of the information you should consider before investing in Class A common stock. You should carefully read this entire prospectus, including the risks set forth under the heading "Risk Factors" and our consolidated financial statements and related notes included at the end of this prospectus, before making an investment decision.

Our Company

We develop, manufacture and sell single-wafer wet cleaning equipment, which semiconductor manufacturers can use in numerous manufacturing steps to remove particles, contaminants and other random defects, and thereby improve product yield, in fabricating advanced integrated circuits, or chips. Our Ultra C equipment is designed to remove random defects from a wafer surface effectively, without damaging a wafer or its features, even at an increasingly advanced process node (the minimum line width on a chip) of 22 nanometers, or nm, or less. Our equipment is based on our innovative, proprietary *Space Alternated Phase Shift*, or SAPS, and *Timely Energized Bubble Oscillation*, or TEBO, technologies. We developed our proprietary technologies to enable manufacturers to produce chips that reach their ultimate physical limitations while maintaining product yield, which is the percentage of chips on a wafer that meet manufacturing specifications.

Differentiated technologies for advanced chips. Our SAPS and TEBO single-wafer wet cleaning technologies control the power, intensity and distribution of megasonic cleaning in order to remove random defects from a wafer surface effectively, without damaging the wafer or its features, even at process nodes of 22nm or less. As process nodes continue to shrink to 22nm and less, finer feature sizes and denser, more complex architectures make the cleaning process even more complicated and challenging. Our SAPS and TEBO technologies specifically address the inadequacies of conventional equipment available for the critical cleaning steps in chip manufacturing processes. One of our customers has implemented SAPS-based equipment for the 22nm process node, and we have demonstrated TEBO technology to be effective for the 16nm node. Furthermore, we believe both SAPS and TEBO technologies can be applied for even smaller process nodes. According to Transparency Market Research Pvt. Ltd, the global market for cleaning equipment for single-wafer processing systems totaled $2.6 billion in 2015 and will increase to an estimated $3.7 billion in 2020, a compound annual growth rate of 6.8%.

China-based operations positioned for growth in new chip fabrication plants. In 2006 we established our operational center in Shanghai, and we currently conduct substantially all of our development and manufacturing activities in the People's Republic of China, or the PRC. The PRC's share of worldwide semiconductor manufacturing capacity expanded from 7.3% in 2006 to 12.7% in 2015, and its semiconductor manufacturing revenue increased at a compound annual growth rate of 17.6% over the ten-year period ending in 2015 (PricewaterhouseCoopers, January 2017). Our Shanghai operations position us near potential customers in not only the PRC but also Taiwan, Korea and throughout Asia, giving us increased access to those customers and reducing shipping and manufacturing costs for equipment they purchase. The PRC government is implementing focused policies, including state-led investment initiatives, that aim to create and support an independent domestic semiconductor supply chain spanning from design to final system production.

Referenceable customer base. In commercializing our equipment, we place evaluation equipment with a selected group of leading chip manufacturers, whose use of our products can influence decisions by other manufacturers. We believe this process is helping us penetrate the mature chip manufacturing markets and build credibility with industry leaders. Since beginning to place evaluation SAPS equipment with a small number of selected customers in 2009, we have worked on equipment improvements and qualification with those customers, who include a leading Korean memory chip company and four leading PRC memory and logic chip foundries. In 2016, using a similar "demo-to-sales" process, we placed TEBO evaluation equipment with a leading PRC foundry

and a leading Taiwanese foundry and recognized revenue from our initial sale of TEBO equipment. Our revenue from the selected customers' purchases of single-wafer wet cleaning equipment totaled $10.6 million, or 73.6% of our revenue, in the first six months of 2017, $21.5 million, or 78.4% of our revenue, in 2016 and $26.8 million, or 86.0% of our revenue, in 2015.

Extensive intellectual property protection. Since our formation in 1998, we have focused on building a strategic portfolio of intellectual property to support and protect our key innovations, including most recently our SAPS and TEBO technologies. As of September 30, 2017, we had been issued more than 140 patents in the United States, the PRC, Japan, Korea, Singapore and Taiwan.

Industry Background and Trends

Semiconductors are the foundation of the exponential growth of digital technologies and applications. After 30 years of growth fueled by demand for personal computers, tablet computers, mobile phones and other digital products, semiconductor shipments are expected to reach 1.0 trillion units in 2018 based on demand driven by the migration of computing, networking and storage to the cloud and the proliferation of the "Internet of Things" (IC Insights, Inc., March 2016).

New and enhanced digital applications and products have relied on the development and deployment of progressively faster and more powerful—but ever smaller and less costly—semiconductors known as integrated circuits, or chips. For a half century the number of transistors that can fit in a given area has roughly doubled every two years, a rate of improvement referred to as "Moore's Law." Chip feature sizes have been repeatedly scaled down to pack more transistors in smaller chips, as nodes shrank from 30,000nm in 1963 to 14nm in 2014. In recent years the rate of chip improvement delivered solely by shrinking feature sizes has slowed as conventional two-dimensional, or 2D, chips have begun to approach their critical performance limitations. In order to extend Moore's Law, chip designers and manufacturers are developing and implementing technologies and architectures to transition to advanced chips with three-dimensional, or 3D, structures.

Manufacturing advanced chips at smaller nodes requires a more complex process flow that incorporates enhanced, more expensive capital equipment, or tools, to perform increasingly complex process steps, as well as an increased number of tools to perform a greater number of process steps per wafer. A fabrication plant capable of producing advanced 3D chips may have more than 500 highly specialized tools representing more than 70 categories of equipment and may cost between $5 and $10 billion. Because of significant capital expenditures and manufacturing expenses, chip makers must focus on avoiding product yield loss by implementing additional fabrication process steps and innovative, reliable tool solutions.

Chip yield loss can result directly from random defects, which can originate from nearly every aspect of the manufacturing process. As a result, cleaning steps to eliminate random defects, without damaging features, are critical to chip fabrication. Wet cleaning, which uses liquid chemistry to spray, scrub, etch and dissolve random defects, has become the standard method for wafer cleaning. Wet cleaning's chemistry has not changed appreciably over the past 25 years, but its implementation has shifted from simple immersion to increasingly sophisticated techniques such as tools using jet spraying and megasonic energy, which transmits acoustic waves through a fluid bath to produce bubble oscillation that dislodges random defects.

As chip complexity has increased, cleaning has become the most frequently repeated step in chip fabrication and may be performed in as many as 200 steps for each wafer. As process nodes continue to shrink to 22nm and less, finer feature sizes and denser, more complex architectures make the cleaning process even more complicated and challenging. Effective, damage-free cleaning poses a significant challenge for manufacturers seeking to fabricate chips in the advanced process nodes available today or introduced in the future. In order to extend Moore's law, chip manufacturers must be able to remove ever smaller random defects from not only flat

wafer surfaces but also progressively more intricate, finer-featured 3D chip structures, in each case without incurring damage or material loss that curtails yield and profits.

Our Product Offerings

We have developed single-wafer wet cleaning equipment that chip manufacturers can use in numerous steps of the fabrication process in order to avoid yield loss at existing and future process nodes. Using our proprietary technologies, we have designed our tools to remove random defects from chip wafers with fine feature sizes, complex patterning, dense circuit structures and high aspect ratios (the ratio of the structure's depth to its width) more effectively than traditional jet spray and transient megasonic technologies.

Flat and patterned wafer surfaces. Our SAPS technology, which we introduced in 2009, employs alternating phases of megasonic waves to deliver megasonic energy to flat and patterned wafer surfaces in a highly uniform manner on a microscopic level. We have shown SAPS technology to be more effective than conventional megasonic and jet spray technologies in removing random defects across an entire wafer as node sizes shrink from 300nm to 45nm, including node sizes for which jet spray technology has proven to be ineffective. Based on their initial mass production experience with SAPS equipment, customers have increased their use of SAPS equipment by adding cleaning steps to the manufacturing processes for advanced chips in order to achieve higher yields and reduce chemical usage.

High-aspect ratio conventional 2D and advanced 3D patterned wafer surfaces. Our TEBO technology, which we introduced in March 2016, has been developed to provide effective, damage-free cleaning for both conventional 2D and 3D patterned wafers at advanced process nodes. TEBO technology provides multi-parameter control of bubble cavitation during megasonic cleaning by using a sequence of rapid pressure changes to force bubbles to oscillate at controlled sizes, shapes and temperatures. Because the bubbles oscillate instead of imploding or collapsing, TEBO technology avoids the pattern damage caused by traditional megasonic cleaning processes. We have demonstrated the damage-free cleaning capabilities of TEBO technology on patterned wafers for feature nodes as small as 1xnm (16nm to 19nm), and we have shown that TEBO technology can be applied in manufacturing processes for patterned chips with 3D structures having aspect ratios as high as 60-to-1. We believe TEBO technology can be applied for even smaller process nodes. TEBO tools are currently being evaluated by a selected group of leading memory and logic chip manufacturers.

Custom-made wafer assembly and packaging solutions. In addition to our product offerings for single-wafer cleaning, we leverage our technologies and expertise to provide a wide range of advanced packaging equipment, such as coaters, developers, photoresist strippers, scrubbers, wet etchers and copper-plating tools, to wafer assembly and packaging factories, particularly in the PRC. For these offerings, we focus on providing customized equipment with competitive performance, service and pricing.

Our Strategy

Our objective is to be the leading global provider of a full range of wet cleaning equipment for the manufacture of advanced integrated circuits. To achieve this goal, we are pursuing the following strategies:

Extend technology leadership. We intend to build upon our technology leadership in wet processing by continuing to develop and refine our differentiated SAPS and TEBO technologies and equipment to address cleaning challenges presented by the manufacture of increasingly advanced chip nodes.

Establish referenceable customer base. In commercializing our SAPS equipment, we placed evaluation equipment with selected customers, who subsequently purchased additional SAPS equipment to enable them to add more cleaning steps during their manufacturing processes. Using a similar "demo-to-sales" process, we have

placed TEBO evaluation equipment with a leading PRC foundry and a leading Taiwanese foundry and we recognized revenue from our initial sale of TEBO equipment in 2016. Based on our market experience, we believe that implementation of our SAPS and TEBO equipment by selected leading memory and logic chip manufacturers will encourage evaluation of our equipment by other manufacturers, who will view the leading companies' implementation as a validation of our equipment that facilitates a shorter evaluation process.

Leverage local presence to address growing Chinese market. The market for semiconductor manufacturing equipment in the PRC is expected to grow markedly in the upcoming years. Our experience has shown that chip manufacturers in the PRC demand equipment meeting their specific technical requirements and prefer building relationships with local suppliers. We established our operations in Shanghai a decade ago, and we will continue to work closely with chip manufacturers in China and throughout Asia to understand their specific requirements, encourage them to adopt our SAPS and TEBO technologies, and enable us to design innovative products and solutions to address their needs.

Continue to improve performance through operational excellence. We actively manage our business through principles of operational excellence designed to ensure continuous improvement of our key operational and financial metrics. As we increase the breadth of our product offerings and the size of our operations and customer base, we must continue to develop and implement these principles in order to improve the efficiency and quality of our operations, satisfy our customers' needs, and meet our financial goals.

Pursue strategic acquisitions and relationships. To complement and accelerate our internal growth, we may pursue acquisitions of businesses, technologies, products or business relationships that will expand the functionality of our products, provide access to new markets or customers, or otherwise complement our existing operations.

Acquisition of Outstanding Minority Interests in Our Operating Company

In 2006 we established our operational center in Shanghai in the PRC, where we operate through our subsidiary ACM Shanghai. Until recently ACM Research owned 62.87% of the outstanding equity interests in ACM Shanghai and three PRC-based third-party investors held the remaining 37.13%.

- Effective as of August 31, 2017, ACM Research acquired, for a purchase price of $5.8 million, an additional 18.77% of ACM Shanghai's equity interests from one of the minority investors and issued, for a purchase price of $5.8 million, capital stock that, upon the closing of this offering, will convert into 1,666,170 shares of Class A common stock.
- Pursuant to agreements entered into as of August 31, 2017, ACM Research issued to the other two minority investors a total of 1,906,674 shares of Class A common stock on September 8, 2017 for a purchase price of $14.3 million and will acquire the remaining 18.36% of ACM Shanghai's minority equity interests in the fourth quarter of 2017 for a purchase price of $14.3 million.

As a result of these arrangements, ACM Research owned 81.64% of ACM Shanghai's equity interests as of August 31, 2017 and will own 100% of those equity interests by no later than December 31, 2017.

Risks Related to Our Business

Our business is subject to a number of risks, including risks that may prevent us from achieving our business objectives or may adversely affect our business, financial condition, results of operations, cash flows or prospects. These risks are discussed more fully in "Risk Factors" beginning on page 12. Before making a

decision to invest in Class A common stock, you should carefully consider all of those risks, including the following:

- We have incurred significant losses since our inception and have generated limited revenue to date, and we may not be able to maintain profitability.
- Demand for our tools is subject to substantial variation due to the cyclic nature of the chip industry.
- The commercial success of our tools requires that we demonstrate the differentiated, innovative nature of our technology to gain acceptance by leading chip manufacturers and then leverage our reputation to gain market acceptance by additional manufacturers, which may have existing relationships with our competitors.
- The chip equipment industry is highly competitive, and many of our competitors are larger and better-established than we are, have significantly greater operating and financial resources than we have, and may have existing relationships with our potential customers.
- We depend on a small number of customers for a significant percentage of our revenue and the number of potential customers for our tools is limited, so the loss of a major customer could harm our financial condition.
- Our success depends on our ability to protect the intellectual property of our SAPS and TEBO technologies and to combat infringement from competitors who may try to replicate our technologies.

Preliminary Operating Results for the Nine Months Ended September 30, 2017

Our consolidated financial statements for the nine months ended September 30, 2017 are not yet available. The following expectations regarding our results for this period are solely management estimates based on currently available information. Our independent registered public accounting firm has not audited, reviewed or performed any procedures with respect to this preliminary financial data and, accordingly, does not express an opinion or any other form of assurance with respect to this data.

We expect our revenue for the nine months ended September 30, 2017 to be between $19.0 million and $19.5 million, compared to $12.9 million for the nine months ended September 30, 2016, representing an increase of 47% to 51%. The expected increase in revenue of $6.1 million to $6.6 million in the nine months ended September 30, 2017 principally reflects increased sales of single-wafer cleaning equipment.

We expect our gross margin for the nine months ended September 30, 2017 to be 40% to 41%, compared to 43.7% for the nine months ended September 30, 2016. The decrease in gross margin was the result of a relative decrease in sales of higher-margin products.

Our Corporate Information

We incorporated in California in January 1998 and redomesticated in Delaware in November 2016. Our headquarters are located at 42307 Osgood Road, Suite I, Fremont, California 94539, where our telephone number is (510) 445-3700. Our website address is *www.acmrcsh.com*. The information contained in, or accessible through, our website is not part of, and is not incorporated into, this prospectus, and investors should not rely on any such information in deciding whether to invest in Class A common stock.

Implications of Being an Emerging Growth Company

As a company with less than $1.0 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act. An emerging growth company may take advantage of provisions that reduce its reporting and other obligations from those otherwise generally applicable to public companies. An emerging growth company may, among other things, elect to:

- present only two years of audited financial statements and related disclosure under "Management's Discussion and Analysis of Financial Condition and Results of Operations";
- not obtain from its auditors an attestation and report on the assessment of internal control over financial reporting pursuant to the Sarbanes-Oxley Act;
- provide less extensive disclosure about its executive compensation arrangements; and
- not present to its stockholders non-binding advisory votes on executive compensation and golden parachute arrangements.

We may take advantage of these provisions until the earliest of December 31, 2022 or such time that we have annual revenue greater than $1.0 billion, the market value of our capital stock held by non-affiliates exceeds $700 million or we have issued more than $1.0 billion of non-convertible debt in a three-year period. We have chosen to take advantage of some of these provisions, and as a result we may not provide stockholders with all of the information that is provided by other public companies. For example, Section 107 of the JOBS Act provides that an emerging growth company can use the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933 for complying with new or revised accounting standards. We have, however, irrevocably elected not to avail ourselves of the extended transition period for complying with new or revised accounting standards, and we therefore will be subject to the same new or revised accounting standards as public companies that are not emerging growth companies.

Offering	
Class A common stock offered by us	2,000,000 shares
Class A common stock to be outstanding after this offering and the concurrent private placement	12,702,546 shares
Class B common stock outstanding	2,409,738 shares
Total Class A and Class B common stock to be outstanding after this offering and the concurrent private placement	15,112,184 shares
Over-allotment option of Class A common stock	300,000 shares
Concurrent private placement	We have entered into agreements pursuant to which we expect to issue and sell, in a concurrent private placement, 833,334 shares of Class A common stock to Xinxin (Hongkong) Capital Co., Limited, a subsidiary of China IC Industry Investment Fund, and 500,000 shares of Class A common stock to Victorious Way Limited, a subsidiary of China Everbright Limited. These shares would be sold at the initial public offering price for the offering made hereby, except that: • neither investor will be required to pay more than $10.50 per share; and • if the initial public offering price is less than $8.40, Xinxin (Hongkong) Capital Co., Limited may elect not to purchase any shares, in which case Victorious Way Limited also could elect not to purchase any shares. The private placement investors have agreed with us not to, directly or indirectly, sell, transfer or dispose of any shares of Class A common stock acquired in the private placement for a period of 180 days after the closing of the private placement. Xinxin (Hongkong) Capital Co., Limited will have the right to designate one individual for nomination to our board of directors, and holders who will have 51.2% of the voting power of common stock immediately after this offering have agreed to vote their shares for the election of the nominee.
Use of proceeds	We estimate we will receive net proceeds from this offering and the concurrent private placement of $24.4 million, assuming an initial public offering price of

	$8.50 per share, the midpoint of the initial offering price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. If the underwriters' option to purchase additional shares is exercised in full, we estimate our net proceeds will be $26.8 million. We intend to use our net proceeds from this offering and the concurrent private placement for working capital and other general corporate purposes, which may include financing our growth, developing new products, and acquiring complementary businesses, technologies and products. See "Use of Proceeds."
Proposed NASDAQ symbol	ACMR
Voting Rights	Holders of Class A common stock and Class B common stock will generally vote together as a single class, unless otherwise required by law. Class A common stock is entitled to one vote per share, and Class B common stock is entitled to twenty votes per share. After this offering, our executive officers and directors, some of whom hold Class B common stock, will control 65.2% of the voting power of our outstanding capital stock and therefore may be able to control the outcome of matters submitted to stockholders, including the election of directors. See "Principal Stockholders" and "Description of Capital Stock."

The numbers of shares of Class A and Class B common stock to be outstanding following this offering and the concurrent private placement are based on 9,369,212 shares of Class A common stock and 2,409,738 shares of Class B common stock outstanding as of September 30, 2017, and exclude the following as of September 30, 2017:

- 397,502 shares of Class A common stock issuable upon the exercise of an outstanding warrant, with an exercise price of $7.50 per share, as described under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Issuance of Warrants";
- 3,276,074 shares of Class A common stock issuable upon the exercise of outstanding options, with a weighted-average exercise price of $2.39 per share;
- 120,002 shares of Class A common stock that will be issuable upon the exercise of options approved for grant to employees, effective as of the date of this prospectus, with an exercise price per share equal to the initial public offering price of the offering made hereby; and
- 585,381 shares of Class A common stock reserved for future issuance under our equity incentive plan.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- the issuance of 1,333,334 shares of Class A common stock in the concurrent private placement, which is to be completed immediately following, and subject to, the closing of the offering made hereby;
- effective immediately prior to the completion of this offering, the automatic conversion of all of our outstanding preferred stock into an aggregate of 4,627,577 shares of Class A common stock and the restatement of our charter and bylaws;
- a 1-for-3 reverse split of Class A and Class B common stock effective as of September 13, 2017;

- no exercises of outstanding stock options; and
- no exercise of the underwriters' over-allotment option.

The information in this prospectus does not reflect our issuance to the underwriters of warrants exercisable for 80,000 shares of Class A common stock (92,000 shares if the underwriters' over-allotment option is exercised in full) at a price per share equal to 110% of the initial public offering price, as described in "Underwriting—Discounts, Commissions and Expenses" beginning on page 141.

Summary Consolidated Financial Information

The following tables summarize our consolidated financial data. You should read the following data in conjunction with "Selected Consolidated Financial Information," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our consolidated financial statements and related notes included at the end of this prospectus.

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands, except share and per share data)			
Consolidated Statement of Operations Data:				
Revenue	$ 14,423	$ 8,122	$ 27,371	$ 31,206
Cost of revenue	8,570	5,292	14,042	17,085
Gross profit	5,853	2,830	13,329	14,121
Operating expenses:				
Sales and marketing	2,583	1,818	3,907	4,213
Research and development	1,867	1,486	3,259	2,942
General and administrative	3,158	1,089	2,673	2,103
Total operating expenses, net	7,608	4,393	9,839	9,258
Income (loss) from operations	(1,755)	(1,563)	3,490	4,863
Interest expense, net	(159)	(45)	(165)	(105)
Other income (expense), net	(292)	506	(343)	632
Income (loss) before income taxes	(2,206)	(1,102)	2,982	5,390
Income tax benefit (expense)	(749)	73	(595)	2,525
Net income (loss)	(2,955)	(1,029)	2,387	7,915
Less: Net income (loss) attributable to non-controlling interests(1)	(208)	(476)	1,356	2,535
Net income (loss) attributable to ACM Research, Inc.	$ (2,747)	$ (553)	$ 1,031	$ 5,380
Net income (loss) per common share(2):				
Basic	$ (0.56)	$ (0.27)	$ 0.30	$ 1.50
Diluted	$ (0.56)	$ (0.27)	$ 0.18	$ 0.97
Weighted-average common shares outstanding used in computing per share amounts(2):				
Basic	4,927,973	2,061,339	2,176,315	2,047,383
Diluted	4,927,973	2,061,339	3,792,137	3,144,120
Pro forma net income (loss) per common share(2):				
Basic	$ (0.35)		$ 0.20	
Diluted	$ (0.35)		$ 0.15	
Pro forma weighted-average common shares outstanding used in computing per share amounts(2):				
Basic	7,889,818		5,137,211	
Diluted	7,889,818		6,753,033	

(1) As of each date ACM Research held 62.87% of the outstanding equity interests of its operating subsidiary ACM Shanghai and the remaining 37.13% was held by third-party investors. As described above under "—Our Company—Acquisition of Outstanding Minority Interests in Our Operating Company," we have entered into agreements pursuant to which ACM Research acquired an additional 18.77% of the outstanding ACM Shanghai equity interests as of August 31, 2017 and will acquire, by no later than December 31, 2017, all of the remaining outstanding equity interests held by minority investors.

(2) See note 2 to our consolidated financial statements included at the end of this prospectus for an explanation of the method used to determine the number of shares used in computing historical and pro forma net income (loss) per share.

In the following table:

- "As Adjusted" data gives effect to the following:
  - (a) the closing of strategic investment transactions on September 11, 2017, with Ninebell Co., Ltd. or Ninebell, one of our key subassembly providers, in which we issued 133,334 shares of Class A common stock to Ninebell for a purchase price of $1.0 million and Ninebell issued ordinary shares, representing 20% of its post-closing equity, to us for a purchase price of $1.2 million;
  - (b) the completion of the transactions described under "—Our Company—Acquisition of Outstanding Minority Interests in Our Operating Company" on page 4, pursuant to which, in the third quarter of 2017, (i) we issued 3,572,844 shares of Class A common stock (on an as-converted basis) to minority investors in ACM Shanghai for an aggregate purchase price of $20.1 million and (ii) ACM Research acquired 18.77% of the outstanding ACM Shanghai equity interests, for a purchase price of $5.8 million and will acquire by no later than December 31, 2017, all of the remaining outstanding minority ACM Shanghai equity interests for an aggregate purchase price of $14.3 million; and
  - (c) exercises of stock options in the third quarter of 2017 to acquire 74,334 shares of Class A common stock.
- "Pro Forma" data gives further effect to the automatic conversion of all of our outstanding convertible preferred stock into Class A common stock, which will occur automatically upon completion of this offering; and
- "Pro Forma As Adjusted" data further adjusts "Pro Forma" data to reflect our sale of 2,000,000 shares of Class A common stock in this offering and our sale of 1,333,334 shares of Class A common stock in the concurrent private placement at an assumed initial public offering price of $8.50 per share, the midpoint of the initial public offering price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses.

	As of June 30, 2017			
	Actual	As Adjusted	Pro Forma	Pro Forma As Adjusted
	(in thousands)			
Consolidated Balance Sheet Data:				
Cash and cash equivalents	$13,206	$ 13,062	$ 13,062	$ 37,458
Working capital(1)	23,433	23,289	23,289	47,685
Total assets	47,437	48,493	48,493	72,889
Total indebtedness	4,595	4,595	4,595	4,595
Total liabilities	27,883	27,883	27,883	27,883
Total redeemable convertible preferred stock	18,034	23,834	—	—
Total ACM Research, Inc. stockholders' (deficit) equity	(3,289)	(3,224)	20,610	45,006
Non-controlling interests	4,809	—	—	—
Total stockholders' equity	1,520	(3,224)	20,610	45,006

(1) Calculated as current assets less current liabilities.

To supplement our consolidated financial statements presented in accordance with U.S. generally accepted accounting principles, or GAAP, we monitor and consider adjusted EBITDA, free cash flow and adjusted operating income (loss), which are non-GAAP financial measures. We are presenting adjusted EBITDA, free cash flow and adjusted operating income (loss) because they are key metrics used by our management in tracking business performance. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Components of Results of Operations."

- We define adjusted EBITDA as our net income excluding interest expense (net), income tax expense (benefit), depreciation and amortization, and stock-based compensation. The following table reconciles net income (loss), the most directly comparable GAAP financial measure, to adjusted EBITDA:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Adjusted EBITDA Data:				
Net income (loss)	$ (2,955)	$ (1,029)	$ 2,387	$ 7,915
Interest expense, net	159	45	165	105
Income tax expense (benefit)	749	(73)	595	(2,525)
Depreciation and amortization	118	88	187	160
Stock-based compensation	1,348	193	383	423
Adjusted EBITDA	$ (581)	$ (776)	$ 3,717	$ 6,078

- We define free cash flow as net cash provided by operating activities less purchases of property and equipment (net of proceeds from disposals) and of intangible assets. The following table reconciles net cash provided by operating activities, the most directly comparable GAAP financial measure, to free cash flow:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Free Cash Flow Data:				
Net cash provided by operating activities	$ 2,983	$ 4,739	$ (3,702)	$ 2,702
Purchase of property and equipment, net of proceeds from disposals	(26)	(95)	(788)	(1,371)
Purchase of intangible assets	(36)	(9)	(22)	—
Free cash flow	$ 2,921	$ 4,635	$ (4,512)	$ 1,331

- We define adjusted operating income (loss) as our income (loss) from operations excluding stock-based compensation. The following table reconciles income (loss) from operations, the most directly comparable GAAP financial measure, to adjusted operating income (loss):

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Adjusted Operating Income (Loss) Data:				
Income (loss) from operations	$(1,755)	$(1,563)	$3,490	$4,863
Stock-based compensation	1,348	193	383	423
Adjusted operating income (loss)	$ (407)	$(1,370)	$3,873	$5,286

RISK FACTORS

Investing in Class A common stock involves a high degree of risk. You should consider and read carefully all of the risks and uncertainties described below, as well as other information contained in this prospectus, including our audited consolidated financial statements and related notes appearing at the end of this prospectus, before making an investment decision. The occurrence of any of the following risks or additional risks and uncertainties not presently known to us or that we currently believe to be immaterial could materially and adversely affect our business, financial condition, results of operations or cash flows. In any such case, the trading price of Class A common stock could decline, and you may lose all or part of your investment. This prospectus also contains forward-looking statements and estimates that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of specific factors, including the risks and uncertainties described below.

Risks Related to Our Business and Our Industry

We have incurred significant losses since our inception and we are uncertain about our future profitability.

We have incurred significant losses since our inception in 1998, and as of June 30, 2017 we had an accumulated deficit of $12.4 million. We may not be able to generate sufficient revenue to achieve and sustain profitability. We expect our costs to increase in future periods, which could negatively affect our future operating results if our revenue does not increase. In particular, we expect to continue to expend substantial financial and other resources on:

- research and development, including continued investments in our research and development team;
- sales and marketing, including a significant expansion of our sales organization, both domestically and internationally, building our brand, and providing our single-wafer wet cleaning equipment and other capital equipment, or tools, for evaluation by customers;
- the cost of goods being manufactured and sold for our installed base;
- expansion of field service; and
- general and administrative expenses, including legal and accounting expenses related to being a public company.

These investments may not result in increased revenue or growth in our business. If we are unable to increase our revenue at a rate sufficient to offset the expected increase in our costs, then our business, financial position and results of operations will be harmed and we may not be able to achieve or maintain profitability over the long term. Additionally, we may encounter unforeseen operating expenses, difficulties, complications, delays and other factors that may result in losses in future periods. If our revenue growth does not meet our expectations in future periods, our financial performance may be harmed and we may not achieve or maintain profitability in the future.

We currently have limited revenue and may not be able to regain or maintain profitability.

To date we have only generated limited revenue from sales of our products. Our revenue totaled $31.2 million in 2015, $27.4 million in 2016 and $14.4 million in the first half of 2017. Our revenue was not sufficient to cover our operating expenses prior to 2015, and our net income decreased to $2.4 million in 2016 from $7.9 million in 2015. In the first half of 2017, we incurred an operating loss of $1.8 million, which was an increase from our operating loss of $1.6 million in the first half of 2016, and a net loss of $3.0 million, which was an increase from a net loss of $1.0 million in the first half of 2016. Our ability to generate significant revenue and operate profitably depends upon our ability to commercialize our Ultra C single-wafer wet cleaning equipment based on our Space Alternated Phase Shift, or SAPS, and Timely Energized Bubble Oscillation, or TEBO,

technologies. Our ability to generate significant product revenue from our current tools or future tool candidates also depends on a number of additional factors, including our ability to:

- achieve market acceptance of Ultra C equipment based on SAPS technology as well as Ultra C equipment based on TEBO technology;
- increase our customer base, including the establishment of relationships with companies in the United States;
- continue to expand our supplier relationships with third parties; and
- establish and maintain our reputation for providing efficient on-time delivery of high quality products.

If we fail to regain and sustain profitability on a continuing basis, we may be unable to continue our operations at planned levels and be forced to reduce our operations or even shut down.

We may require additional capital in the future and we cannot give any assurance that such capital will be available at all or available on terms acceptable to us and, if it is available, additional capital raised by us may dilute holders of Class A common stock.

We may need to raise funds in the future, depending on many factors, including:

- our sales growth;
- the costs of applying our existing technologies to new or enhanced products;
- the costs of developing new technologies and introducing new products;
- the costs associated with protecting our intellectual property;
- the costs associated with our expansion, including capital expenditures, increasing our sales and marketing and service and support efforts, and expanding our geographic operations;
- our ability to continue to obtain governmental subsidies for developmental projects in the future;
- future debt repayment obligations; and
- the number and timing of any future acquisitions.

To the extent that our existing sources of cash, together with any cash generated from operations and the net proceeds from this offering and the concurrent private placement, are insufficient to fund our activities, we may need to raise additional funds through public or private financings, strategic relationships, or other arrangements. Additional funding may not be available to us on acceptable terms or at all. If adequate funding is not available, we may be required to reduce expenditures, including curtailing our growth strategies and reducing our product development efforts, or to forego acquisition opportunities.

If we succeed in raising additional funds through the issuance of equity or convertible securities, then the issuance could result in substantial dilution to existing stockholders. Furthermore, the holders of these new securities or debt may have rights, preferences and privileges senior to those of the holders of Class A common stock. In addition, any preferred equity issuance or debt financing that we may obtain in the future could have restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions.

There is no assurance that the concurrent private placement of our Class A common stock will be completed.

There is no assurance that the concurrent private placement of our Class A common stock will be completed or, if completed, on what terms it will be completed. The closing of the concurrent private placement is subject to

standard closing conditions, which may not be completed. In addition, Xinxin (Hongkong) Capital Co., Limited has the option not to purchase its 833,334 shares of Class A common stock if the initial public offering price is less than $8.40 and Victorious Way Limited has the option not to purchase its 500,000 shares of Class A common stock if Xinxin (Hongkong) Capital Co., Limited elects not to purchase its shares for any reason pursuant to the terms of its purchase agreement. If the concurrent private placement is not completed, our stock price and our ability to raise equity in the future may be adversely affected.

Our quarterly operating results can be difficult to predict and can fluctuate substantially, which could result in volatility in the price of Class A common stock.

Our quarterly revenue and other operating results have varied in the past and are likely to continue to vary significantly from quarter to quarter. Accordingly, you should not rely upon our past quarterly financial results as indicators of future performance. Any variations in our quarter-to-quarter performance may cause our stock price to fluctuate. Our financial results in any given quarter can be influenced by a variety of factors, including:

- the cyclicality of the semiconductor industry and the related impact on the purchase of equipment used in the manufacture of integrated circuits, or chips;
- the timing of purchases of our tools by chip fabricators, which order types of tools based on multi-year capital plans under which the number and dollar amount of tool purchases can vary significantly from year to year;
- the relatively high average selling price of our tools and our dependence on a limited number of customers for a substantial portion of our revenue in any period, whereby the timing and volume of purchase orders or cancellations from our customers could significantly reduce our revenue for that period;
- the significant expenditures required to customize our products often exceed the deposits received from our customers;
- the lead time required to manufacture our tools;
- the timing of recognizing revenue due to the timing of shipment and acceptance of our tools;
- our ability to sell additional tools to existing customers;
- the changes in customer specifications or requirements;
- the length of our product sales cycle;
- changes in our product mix, including the mix of systems, upgrades, spare parts and service;
- the timing of our product releases or upgrades or announcements of product releases or upgrades by us or our competitors, including changes in customer orders in anticipation of new products or product enhancements;
- our ability to enhance our tools with new and better functionality that meet customer requirements and changing industry trends;
- constraints on our suppliers’ capacity;
- the timing of investments in research and development related to releasing new applications of our technologies and new products;
- delays in the development and manufacture of our new products and upgraded versions of our products and the market acceptance of these products when introduced;
- our ability to control costs, including operating expenses and the costs of the components and subassemblies used in our products;
- the costs related to the acquisition and integration of product lines, technologies or businesses; and

- the costs associated with protecting our intellectual property, including defending our intellectual property against third-party claims or litigation.

Seasonality has played an increasingly important role in the market for chip manufacturing tools. The period of November through February has been a particularly weak period historically for manufacturers of chip tools, in part because capital equipment needed to support manufacturing of chips for the December holidays usually needs to be in the supply chain by no later than October and chip makers in Asia often wait until after Chinese New Year, which occurs in January or February, before implementing their capital acquisition plans. The timing of new product releases also has an impact on seasonality, with the acquisition of manufacturing equipment occurring six to nine months before a new release.

Many of these factors are beyond our control, and the occurrence of one or more of them could cause our operating results to vary widely. As a result, it is difficult for us to forecast our quarterly revenue accurately. Our results of operations for any quarter may not be indicative of results for future quarters and quarter-to-quarter comparisons of our operating results are not necessarily meaningful. Variability in our periodic operating results could lead to volatility in our stock price. Because a substantial proportion of our expenses are relatively fixed in the short term, our results of operations will suffer if revenue falls below our expectations in a particular quarter, which could cause the price of Class A common stock to decline. Moreover, as a result of any of the foregoing factors, our operating results might not meet our announced guidance or expectations of public market analysts or investors, in which case the price of Class A common stock could decrease significantly.

Cyclicality in the semiconductor industry is likely to lead to substantial variations in demand for our products, and as a result our operating results could be adversely affected.

The chip industry has historically been cyclic and is characterized by wide fluctuations in product supply and demand. From time to time, this industry has experienced significant downturns, often in connection with, or in anticipation of, maturing product and technology cycles, excess inventories and declines in general economic conditions. This cyclicality could cause our operating results to decline dramatically from one period to the next.

Our business depends upon the capital spending of chip manufacturers, which, in turn, depends upon the current and anticipated market demand for chips. During industry downturns, chip manufacturers often have excess manufacturing capacity and may experience reductions in profitability due to lower sales and increased pricing pressure for their products. As a result, chip manufacturers generally sharply curtail their spending during industry downturns and historically have lowered their spending more than the decline in their revenues. If we are unable to control our expenses adequately in response to lower revenue from our customers, our operating results will suffer and we could experience operating losses.

Conversely, during industry upturns we must successfully increase production output to meet expected customer demand. This may require us or our suppliers, including third-party contractors, to order additional inventory, hire additional employees and expand manufacturing capacity. If we are unable to respond to a rapid increase in demand for our tools on a timely basis, or if we misjudge the timing, duration or magnitude of such an increase in demand, we may lose business to our competitors or incur increased costs disproportionate to any gains in revenue, which could have a material adverse effect on our business, results of operations, financial condition or cash flows.

The government of the People’s Republic of China, or the PRC, is implementing focused policies, including state-led investment initiatives, that aim to create and support an independent domestic semiconductor supply chain spanning from design to final system production. If these policies, which include loans and subsidies, result in lower demand for equipment than is expected by equipment manufacturers, the resulting overcapacity in the chip manufacturing equipment market could lead to excess inventory and price discounting that could have a material adverse effect on our business and operating results.

Our success will depend on industry chip manufacturers adopting our SAPS and TEBO technologies.

To date our strategy for commercializing our tools has been to place them with selected industry leaders in the manufacturing of memory and logic chips, the two largest chip categories, to enable those leading manufacturers to evaluate our technologies, and then leverage our reputation to gain broader market acceptance. In order for these industry leaders to adopt our tools, we need to establish our credibility by demonstrating the differentiated, innovative nature of our SAPS and TEBO technologies. Our SAPS technology has been tested and purchased by industry leaders, but has not achieved, and may never achieve, widespread market acceptance. We have initiated a similar commercialization process for our TEBO technology with a selected group of industry leaders. If these leading manufacturers do not agree that our technologies add significant value over conventional technologies or do not otherwise accept and use our tools, we may need to spend a significant amount of time and resources to enhance our technologies or develop new technologies. Even if these leading manufacturers adopt our technologies, other manufacturers may not choose to accept and adopt our tools and our products may not achieve widespread adoption. Any of the above factors would have a material adverse effect on our business, results of operations and financial condition.

If our SAPS and TEBO technologies do not achieve widespread market acceptance, we will not be able to compete effectively.

The commercial success of our tools will depend, in part, on gaining substantial market acceptance by chip manufacturers. Our ability to gain acceptance for our products will depend upon a number of factors, including:

- our ability to demonstrate the differentiated, innovative nature of our SAPS and TEBO technologies and the advantages of our tools over those of our competitors;
- compatibility of our tools with existing or potential customers' manufacturing processes and products;
- the level of customer service available to support our products; and
- the experiences our customers have with our products.

In addition, obtaining orders from new customers may be difficult because many chip manufacturers have pre-existing relationships with our competitors. Chip manufacturers must make a substantial investment to qualify and integrate wet processing equipment into a chip production line. Due, in part, to the cost of manufacturing equipment and the investment necessary to integrate a particular manufacturing process, a chip manufacturer that has selected a particular supplier's equipment and qualified that equipment for production typically continues to use that equipment for the specific production application and process node, which is the minimum line width on a chip, as long as that equipment continues to meet performance specifications. Some of our potential and existing customers may prefer larger, more established vendors from which they can purchase equipment for a wider variety of process steps than our tools address. Further, because the cleaning process with our TEBO equipment can be up to five times longer than cleaning processes based on other technologies, we must convince chip manufacturers of the innovative, differentiated nature of our technologies and the benefits associated with using our tools. If we are unable to obtain new customers and continue to achieve widespread market acceptance of our tools, then our business, operations, financial results and growth prospects will be materially and adversely affected.

If we do not continue to enhance our existing single-wafer wet cleaning tools and achieve market acceptance, we will not be able to compete effectively.

We operate in an industry that is subject to evolving standards, rapid technological changes and changes in customer demands. Additionally, if process nodes continue to shrink to ever-smaller dimensions and conventional two-dimensional chips reach their critical performance limitations, the technology associated with manufacturing chips may advance to a point where our Ultra C equipment based on SAPS and TEBO technologies becomes obsolete. Accordingly, the future of our business will depend in large part upon the continuing relevance of our

technological capabilities, our ability to interpret customer and market requirements in advance of tool deliveries, and our ability to introduce in a timely manner new tools that address chip makers' requirements for cost-effective cleaning solutions. We expect to spend a significant amount of time and resources developing new tools and enhancing existing tools. Our ability to introduce and market successfully any new or enhanced cleaning equipment is subject to a wide variety of challenges during the tool's development, including the following:

- accurate anticipation of market requirements, changes in technology and evolving standards;
- the availability of qualified product designers and technologies needed to solve difficult design challenges in a cost-effective, reliable manner;
- our ability to design products that meet chip manufacturers' cost, size, acceptance and specification criteria, and performance requirements;
- the ability and availability of suppliers and third-party manufacturers to manufacture and deliver the critical components and subassemblies of our tools in a timely manner;
- market acceptance of our customers' products, and the lifecycle of those products; and
- our ability to deliver products in a timely manner within our customers' product planning and deployment cycle.

Certain enhancements to our Ultra C equipment in future periods may reduce demand for our pre-existing tools. As we introduce new or enhanced cleaning tools, we must manage the transition from older tools in order to minimize disruptions in customers' ordering patterns, avoid excessive levels of older tool inventories and ensure timely delivery of sufficient supplies of new tools to meet customer demand. Furthermore, product introductions could delay purchases by customers awaiting arrival of our new products, which could cause us to fail to meet our expected level of production orders for pre-existing tools.

Our success will depend on our ability to identify and enter new product markets.

We expect to spend a significant amount of time and resources identifying new product markets in addition to the market for cleaning solutions and in developing new products for entry into these markets. Our TEBO technology took eight years to develop, and development of any new technology could require a similar, or even longer, period of time. Product development requires significant investments in engineering hours, third-party development costs, prototypes and sample materials, as well as sales and marketing expenses, which will not be recouped if the product launch is unsuccessful. We may fail to predict the needs of other markets accurately or develop new, innovative technologies to address those needs. Further, we may not be able to design and introduce new products in a timely or cost-efficient manner, and our new products may be more costly to develop, may fail to meet the requirements of the market, or may be adopted slower than we expect. If we are not able to introduce new products successfully, our inability to gain market share in new product markets could adversely affect our ability to sustain our revenue growth or maintain our current revenue levels.

If we fail to establish and maintain a reputation for credibility and product quality, our ability to expand our customer base will be impaired and our operating results may suffer.

We must develop and maintain a market reputation for innovative, differentiated technologies and high quality, reliable products in order to attract new customers and achieve widespread market acceptance of our products. Our market reputation is critical because we compete against several larger, more established competitors, many of which supply equipment for a larger number of process steps than we do to a broader customer base in an industry with a limited number of customers. In these circumstances, traditional marketing and branding efforts are of limited value, and our success depends on our ability to provide customers with reliable and technically sophisticated products. If the limited customer base does not perceive our products and services to be of high quality and effectiveness, our reputation could be harmed, which could adversely impact our ability to achieve our targeted growth.

We operate in a highly competitive industry and many of our competitors are larger, better-established, and have significantly greater operating and financial resources than we have.

The chip equipment industry is highly competitive, and we face substantial competition throughout the world in each of the markets we serve. Many of our current and potential competitors have, among other things:

- greater financial, technical, sales and marketing, manufacturing, distribution and other resources;
- established credibility and market reputations;
- longer operating histories;
- broader product offerings;
- more extensive service offerings, including the ability to have large inventories of spare parts available near, or even at, customer locations;
- local sales forces; and
- more extensive geographic coverage.

These competitors may also have the ability to offer their products at lower prices by subsidizing their losses in wet cleaning with profits from other lines of business in order to retain current or obtain new customers. Among other things, some competitors have the ability to offer bundled discounts for customers purchasing multiple products. Many of our competitors have more extensive customer and partner relationships than we do and may therefore be in a better position to identify and respond to market developments and changes in customer demands. Potential customers may prefer to purchase from their existing suppliers rather than a new supplier, regardless of product performance or features. If we are not able to compete successfully against existing or new competitors, our business, operating results and financial condition will be negatively affected.

We depend on a small number of customers for a substantial portion of our revenue, and the loss of, or a significant reduction in orders from, one of our major customers could have a material adverse effect on our revenue and operating results. There are also a limited number of potential customers for our products.

The chip manufacturing industry is highly concentrated, and we derive a significant portion of our revenue from the sale of our products to a small number of customers. In the first half of 2017, 62.8% of our revenue was derived from three customers: SK Hynix Inc., 22.8%; Shanghai Huali Microelectronics Corporation, 20.6%; and Yangtze Memory Technologies Co., Ltd. and a subsidiary, 19.4%. In 2016 99.3% of our revenue was derived from four customers: Shanghai Huali Microelectronics Corporation, 33.7%; Semiconductor Manufacturing International Corporation, 25.0%; SK Hynix Inc., 24.0%; and JiangYin ChangDian Advanced Packaging Co. Ltd., 16.6%. In 2015 all of our revenue was derived from three customers, including SK Hynix Inc., which accounted for 86.0% of our revenue, and JiangYin ChangDian Advanced Packaging Co., Ltd., which accounted for 10.1% of our revenue. As a consequence of the concentrated nature of our customer base, our revenue and results of operations may fluctuate from quarter to quarter and are difficult to estimate, and any cancellation of orders or any acceleration or delay in anticipated product purchases or the acceptance of shipped products by our larger customers could materially affect our revenue and results of operations in any quarterly period.

We may be unable to sustain or increase our revenue from our larger customers or offset the discontinuation of concentrated purchases by our larger customers with purchases by new or existing customers. We expect a small number of customers will continue to account for a high percentage of our revenue for the foreseeable future and that our results of operations may fluctuate materially as a result of such larger customers' buying patterns. Thus, our business success depends on our ability to maintain strong relationships with our customers. The loss of any of our key customers for any reason, or a change in our relationship with any of our key customers, including a significant delay or reduction in their purchases, may cause a significant decrease in our revenue, which we may not be able to recapture due to the limited number of potential customers.

We have seen, and may see in the future, consolidation of our customer base. Industry consolidation generally has negative implications for equipment suppliers, including a reduction in the number of potential customers, a decrease in aggregate capital spending and greater pricing leverage on the part of consumers over equipment suppliers. Continued consolidation of the chip industry could make it more difficult for us to grow our customer base, increase sales of our products and maintain adequate gross margins.

Our customers do not enter into long-term purchase commitments, and they may decrease, cancel or delay their projected purchases at any time.

In accordance with industry practice, our sales are on a purchase order basis, which we seek to obtain three to four months in advance of the expected product delivery date. Until a purchase order is received, we do not have a binding purchase commitment. Our SAPS and TEBO customers to date have provided us with non-binding one- to two-year forecasts of their anticipated demands, but those forecasts can be changed at any time, without any required notice to us. Because the lead-time needed to produce a tool customized to a customer's specifications can extend up to six months, we may need to begin production of tools based on non-binding forecasts, rather than waiting to receive a binding purchase order. No assurance can be made that a customer's forecast will result in a firm purchase order within the time period we expect, or at all.

If we do not accurately predict the amount and timing of a customer's future purchases, we risk expending time and resources on producing a customized tool that is not purchased by a particular customer, which may result in excess or unwanted inventory, or we may be unable to fulfill an order on the schedule required by a purchase order, which would result in foregone sales. Customers may place purchase orders that exceed forecasted amounts, which could result in delays in our delivery time and harm our reputation. In the future a customer may decide not to purchase our tools at all, may purchase fewer tools than it did in the past or may otherwise alter its purchasing patterns, and the impact of any such actions may be intensified given our dependence on a small number of large customers. Our customers make major purchases periodically as they add capacity or otherwise implement technology upgrades. If any significant customers cancel, delay or reduce orders, our operating results could suffer.

We may incur significant expenses long before we can recognize revenue from new products, if at all, due to the costs and length of research, development, manufacturing and customer evaluation process cycles.

We often incur significant research and development costs for products that are purchased by our customers only after much, or all, of the cost has been incurred or that may never be purchased. We allow new customers, or existing customers considering new products, to evaluate products without any payment becoming due unless the product is ultimately accepted, which means we may invest $1.0 to $2.0 million in manufacturing a tool that may never be accepted and purchased or may be purchased months or even years after production. In the past we have borrowed money in order to fund first-time purchase order equipment and next-generation evaluation equipment. When we complete a first-time sale, we may not receive payment for up to 24 months. Even returning customers may take as long as six months to make any payments. If our sales efforts are unsuccessful after expending significant resources, or if we experience delays in completing sales, our future cash flow, revenue and profitability may fluctuate or be materially adversely affected.

Our sales cycle is long and unpredictable, which results in variability of our financial performance and may require us to incur high sales and marketing expenses with no assurance that a sale will result, all of which could adversely affect our profitability.

Our results of operations may fluctuate, in part, because of the resource-intensive nature of our sales efforts and the length and variability of our sales cycle. A sales cycle is the period between initial contact with a prospective customer and any sale of our tools. Our sales process involves educating customers about our tools, participating in extended tool evaluations and configuring our tools to customer-specific needs, after which customers may evaluate the tools. The length of our sales cycle, from initial contact with a customer to the

execution of a purchase order, is generally 6 to 24 months. During the sales cycle, we expend significant time and money on sales and marketing activities and make investments in evaluation equipment, all of which lower our operating margins, particularly if no sale occurs or if the sale is delayed as a result of extended qualification processes or delays from our customers' customers.

The duration or ultimate success of our sales cycle depends on factors such as:

- efforts by our sales force;
- the complexity of our customers' manufacturing processes and the compatibility of our tools with those processes;
- our customers' internal technical capabilities and sophistication; and
- our customers' capital spending plans and processes, including budgetary constraints, internal approvals, extended negotiations or administrative delays.

It is difficult to predict exactly when, or even if, we will make a sale to a potential customer or if we can increase sales to our existing customers. As a result, we may not recognize revenue from our sales efforts for extended periods of time, or at all. The loss or delay of one or more large transactions in a quarter could impact our results of operations for that quarter and any future quarters for which revenue from that transaction is lost or delayed. In addition, we believe that the length of the sales cycle and intensity of the evaluation process may increase for those current and potential customers that centralize their purchasing decisions.

Difficulties in forecasting demand for our tools may lead to periodic inventory shortages or excess spending on inventory items that may not be used.

We need to manage our inventory of components and production of tools effectively to meet changing customer requirements. Accurately forecasting customers' needs is difficult. Our tool demand forecasts are based on multiple assumptions, including non-binding forecasts received from our customers years in advance, each of which may introduce error into our estimates. Inventory levels for components necessary to build our tools in excess of customer demand may result in inventory write-downs and could have an adverse effect on our operating results and financial condition. Conversely, if we underestimate demand for our tools or if our manufacturing partners fail to supply components we require at the time we need them, we may experience inventory shortages. Such shortages might delay production or shipments to customers and may cause us to lose sales. These shortages may also harm our credibility, diminish the loyalty of our channel partners or customers. A failure to prevent inventory shortages or accurately predict customers' needs could result in decreased revenue and gross margins and harm our business.

Some of our products and supplies may become obsolete or be deemed excess while in inventory due to rapidly changing customer specifications, changes in product structure, components or bills of material as a result of engineering changes, or a decrease in customer demand. We also have exposure to contractual liabilities to our contract manufacturers for inventories purchased by them on our behalf, based on our forecasted requirements, which may become excess or obsolete. Our inventory balances also represent an investment of cash. To the extent our inventory turns are slower than we anticipate based on historical practice, our cash conversion cycle extends and more of our cash remains invested in working capital. If we are not able to manage our inventory effectively, we may need to write down the value of some of our existing inventory or write off non-saleable or obsolete inventory. Any such charges we incur in future periods could materially and adversely affect our results of operations.

The difficulty in forecasting demand also makes it difficult to estimate our future results of operations and financial condition from period to period. A failure to accurately predict the level of demand for our products could adversely affect our net revenue and net income, and we are unlikely to forecast such effects with any certainty in advance.

If our tools contain defects or do not meet customer specifications, we could lose customers and revenue.

Highly complex tools such as our may develop defects during the manufacturing and assembly process. We may also experience difficulties in customizing our tools to meet customer specifications or detecting defects during the development and manufacturing of our tools. Some of these failures may not be discovered until we have expended significant resources in customizing our tools, or until our tools have been installed in our customers' production facilities. These quality problems could harm our reputation as well as our customer relationships in the following ways:

- our customers may delay or reject acceptance of our tools that contain defects or fail to meet their specifications;
- we may suffer customer dissatisfaction, negative publicity and reputational damage, resulting in reduced orders or otherwise damaging our ability to retain existing customers and attract new customers;
- we may incur substantial costs as a result of warranty claims or service obligations or in order to enhance the reliability of our tools;
- the attention of our technical and management resources may be diverted;
- we may be required to replace defective systems or invest significant capital to resolve these problems; and
- we may be required to write off inventory and other assets related to our tools.

In addition, defects in our tools or our inability to meet the needs of our customers could cause damage to our customers' products or manufacturing facilities, which could result in claims for product liability, tort or breach of warranty, including claims from our customers. The cost of defending such a lawsuit, regardless of its merit, could be substantial and could divert management's attention from our ongoing operations. In addition, if our business liability insurance coverage proves inadequate with respect to a claim or future coverage is unavailable on acceptable terms or at all, we may be liable for payment of substantial damages. Any or all of these potential consequences could have an adverse impact on our operating results and financial condition.

Warranty claims in excess of our estimates could adversely affect our business.

We have provided warranties against manufacturing defects of our tools that range from 12 to 36 months in duration. Our product warranty requires us to provide labor and parts necessary to repair defects. To date we have not accrued a significant liability contingency for potential warranty claims. Warranty claims substantially in excess of our expectations, or significant unexpected costs associated with warranty claims, could harm our reputation and could cause customers to decline to place new or additional orders, which could have a material adverse effect on our business, results of operations and financial condition.

We rely on third parties to manufacture significant portions of our tools and our failure to manage our relationships with these parties could harm our relationships with our customers, increase our costs, decrease our sales and limit our growth.

Our tools are complex and require components and subassemblies having a high degree of reliability, accuracy and performance. We rely on third parties to manufacture most of the subassemblies and supply most of the components used in our tools. Accordingly, we cannot directly control our delivery schedules and quality assurance. This lack of control could result in shortages or quality assurance problems. These issues could delay shipments of our tools, increase our testing costs or lead to costly failure claims.

We do not have long-term supply contracts with some of our suppliers, and those suppliers are not obligated to perform services or supply products to us for any specific period, in any specific quantities or at any specific

price, except as may be provided in a particular purchase order. In addition, we attempt to maintain relatively low inventories and acquire subassemblies and components only as needed. There are significant risks associated with our reliance on these third-party suppliers, including:

- potential price increases;
- capacity shortages or other inability to meet any increase in demand for our products;
- reduced control over manufacturing process for components and subassemblies and delivery schedules;
- limited ability of some suppliers to manufacture and sell subassemblies or parts in the volumes we require and at acceptable quality levels and prices, due to the suppliers' relatively small operations and limited manufacturing resources;
- increased exposure to potential misappropriation of our intellectual property; and
- limited warranties on subassemblies and components supplied to us.

Any delays in the shipment of our products due to our reliance on third-party suppliers could harm our relationships with our customers. In addition, any increase in costs due to our suppliers increasing the price they charge us for subassemblies and components or arising from our need to replace our current suppliers that we are unable to pass on to our customers could negatively affect our operating results.

Any shortage of components or subassemblies could result in delayed delivery of products to us or in increased costs to us, which could harm our business.

The ability of our manufacturers to supply our tools is dependent, in part, upon the availability certain components and subassemblies. Our manufacturers may experience shortages in the availability of such components or subassemblies, which could result in delayed delivery of products to us or in increased costs to us. Any shortage of components or subassemblies or any inability to control costs associated with manufacturing could increase the costs for our products or impair our ability to ship orders in a timely cost-efficient manner. As a result, we could experience cancellation of orders, refusal to accept deliveries or a reduction in our prices and margins, any of which could harm our financial performance and results of operations.

We depend on a limited number of suppliers, including single source suppliers, for critical components and subassemblies, and our business could be disrupted if they are unable to meet our needs.

We depend on a limited number of suppliers for components and subassemblies used in our tools. Certain components and subassemblies of our tools have only been purchased from our current suppliers to date, and changing the source of those components and subassemblies may result in disruptions during the transition process and entail significant delay and expense. We rely on Product Systems, Inc., or ProSys, as the sole supplier of megasonic transducers, a key subassembly used in our single-wafer cleaning equipment. We also rely on Ninebell Co., Ltd., or Ninebell, which is the principal supplier of robotic delivery system subassemblies used in our single-wafer cleaning equipment. An adverse change to our relationship with ProSys or Ninebell would disrupt our production of single-wafer cleaning equipment and could cause substantial harm to our business.

With some of these suppliers, we do not have long-term agreements and instead purchase components and subassemblies through a purchase order process. As a result, these suppliers may stop supplying us components and subassemblies, limit the allocation of supply and equipment to us due to increased industry demand or significantly increase their prices at any time with little or no advance notice. Our reliance on a limited number of suppliers could also result in delivery problems, reduced control over product pricing and quality, and our inability to identify and qualify another supplier in a timely manner.

Moreover, some of our suppliers may experience financial difficulties that could prevent them from supplying us with components or subassemblies used in the design and manufacture of our products. In addition,

our suppliers, including our sole supplier ProSys, may experience manufacturing delays or shut downs due to circumstances beyond their control, such as labor issues, political unrest or natural disasters. Any supply deficiencies could materially and adversely affect our ability to fulfill customer orders and our results of operations. We have in the past and may in the future, experience delays or reductions in supply shipments, which could reduce our revenue and profitability. If key components or materials are unavailable, our costs would increase and our revenue would decline.

We have depended on PRC governmental subsidies to help fund our technology development since 2008, and our failure to obtain additional subsidies may impede our development of new technologies and may increase our cost of capital, either of which could make it difficult for us to expand our product base.

We received subsidies from local and central governmental authorities in the PRC in 2008, 2009 and 2014. These grants have provided a majority of the funding for our development and commercialization of stress-free polishing and electro copper-plating technologies. If we are unable to obtain similar governmental subsidies for development projects in the future, we may need to raise additional funds through public or private financings, strategic relationships, or other arrangements, which could force us to reduce our efforts to develop technologies beyond SARS and TEBO. To the extent that we receive a lower level of, or no, governmental subsidies in the future, we may need to raise additional funds through public or private financings, strategic relationships, or other arrangements.

The success of our business will depend on our ability to manage any future growth.

We have experienced rapid growth in our business recently due, in part, to an expansion of our product offerings and an increase in the number of customers that we serve. For example, our headcount grew by 18.7% during 2016 and by an additional 28.1% from January 1, 2017 to September 30, 2017. We will seek to continue to expand our operations in the future, including by adding new offices, locations and employees. Managing our growth has placed and could continue to place a significant strain on our management, other personnel and our infrastructure. If we are unable to manage our growth effectively, we may not be able to take advantage of market opportunities, develop new products, enhance our technological capabilities, satisfy customer requirements, respond to competitive pressures or otherwise execute our business plan. In addition, any inability to manage our growth effectively could result in operating inefficiencies that could impair our competitive position and increase our costs disproportionately to the amount of growth we achieve. To manage our growth, we believe we must effectively:

- hire, train, integrate and manage additional qualified engineers for research and development activities, sales and marketing personnel, service and support personnel and financial and information technology personnel;
- manage multiple relationships with our customers, suppliers and other third parties; and
- continue to enhance our information technology infrastructure, systems and controls.

Our organizational structure has become more complex, and we will need to continue to scale and adapt our operational, financial and management controls, as well as our reporting systems and procedures. The continued expansion of our infrastructure will require us to commit substantial financial, operational and management resources before our revenue increases and without any assurances that our revenue will increase.

We are highly dependent on our Chief Executive Officer and President and other senior management and key employees.

Our success largely depends on the skills, experience and continued efforts of our management, technical and sales personnel, including in particular Dr. David H. Wang, our Chair of the Board, Chief Executive Officer, President and founder. If one or more of our senior management were unable or unwilling to continue their

employment with us, we may not be able to replace them in a timely manner. We may incur additional expenses to recruit and retain qualified replacements. We do not currently maintain key person life insurance policies on any of our employees. Our business may be severely disrupted and our financial condition and results of operations may be materially and adversely affected. In addition, our senior management may join a competitor or form a competing company. All of our senior management are at-will employees, which means either we or the employee may terminate his or her employment at any time. The loss of Dr. Wang or other key management personnel could significantly delay or prevent the achievement of our business objectives.

Failure to attract and retain qualified personnel could put us at a competitive disadvantage and prevent us from effectively growing our business.

Our future success depends, in part, on our ability to continue to attract and retain highly skilled personnel. There is substantial competition for experienced management, technical and sales personnel in the chip equipment industry. If qualified personnel become scarce or difficult to attract or retain for compensation-related or other reasons, we could experience higher labor, recruiting or training costs. New hires may require significant training and time before they achieve full productivity and may not become as productive as we expect. If we are unable to retain and motivate our existing employees and attract qualified personnel to fill key positions, we may experience inadequate levels of staffing to develop and market our products and perform services for our customers, which could have a negative effect on our operating results.

Our ability to utilize certain U.S. and state net operating loss carryforwards may be limited under applicable tax laws.

As of June 30, 2017, we had net operating loss carryforward amounts, or NOLs, of $18.9 million for U.S. federal income tax purposes and $322,000 for U.S. state income tax purposes. The federal and state NOLs will expire at various dates beginning in 2036.

Utilization of these NOLs could be subject to a substantial annual limitation if the ownership change limitations under U.S. Internal Revenue Code Sections 382 and 383 and similar U.S. state provisions are triggered by changes in the ownership of our capital stock. Such an annual limitation would result in the expiration of the NOLs before utilization. Our existing NOLs may be subject to limitations arising from previous ownership changes, including in connection with this offering, the concurrent private placement and any future follow-on public offerings. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change. Regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, may cause our existing NOLs to expire or otherwise become unavailable to offset future income tax liabilities. Additionally, U.S. state NOLs generated in one state cannot be used to offset income generated in another U.S. state. For these reasons, we may be limited in our ability to realize tax benefits from the use of our NOLs, even if our profitability would otherwise allow for it.

Acquisitions that we pursue in the future, whether or not consummated, could result in other operating and financial difficulties.

In the future we may seek to acquire additional product lines, technologies or businesses in an effort to increase our growth, enhance our ability to compete, complement our product offerings, enter new and adjacent markets, obtain access to additional technical resources, enhance our intellectual property rights or pursue other competitive opportunities. We may also make investments in certain key suppliers to align our interests with such suppliers. If we seek acquisitions, we may not be able to identify suitable acquisition candidates at prices we consider appropriate. We cannot readily predict the timing or size of our future acquisitions, or the success of any future acquisitions.

To the extent that we consummate acquisitions or investments, we may face financial risks as a result, including increased costs associated with merged or acquired operations, increased indebtedness, economic

dilution to gross and operating profit and earnings per share, or unanticipated costs and liabilities. Acquisitions may involve additional risks, including:

- the acquired product lines, technologies or businesses may not improve our financial and strategic position as planned;
- we may determine we have overpaid for the product lines, technologies or businesses, or that the economic conditions underlying our acquisition have changed;
- we may have difficulty integrating the operations and personnel of the acquired company;
- we may have difficulty retaining the employees with the technical skills needed to enhance and provide services with respect to the acquired product lines or technologies;
- the acquisition may be viewed negatively by customers, employees, suppliers, financial markets or investors;
- we may have difficulty incorporating the acquired product lines or technologies with our existing technologies;
- we may encounter a competitive response, including price competition or intellectual property litigation;
- we may become a party to product liability or intellectual property infringement claims as a result of our sale of the acquired company's products;
- we may incur one-time write-offs, such as acquired in-process research and development costs, and restructuring charges;
- we may acquire goodwill and other intangible assets that are subject to impairment tests, which could result in future impairment charges;
- our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing geographically or culturally diverse enterprises; and
- our due diligence process may fail to identify significant existing issues with the target business.

From time to time, we may enter into negotiations for acquisitions or investments that are not ultimately consummated. These negotiations could result in significant diversion of management time, as well as substantial out-of-pocket costs, any of which could have a material adverse effect on our business, operating results and financial condition.

Future declines in the semiconductor industry, and the overall world economic conditions on which the industry is significantly dependent, could have a material adverse impact on our results of operations and financial condition.

Our business depends on the capital equipment expenditures of chip manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits. With the consolidation of customers within the industry, the chip capital equipment market may experience rapid changes in demand driven both by changes in the market generally and the plans and requirements of particular customers. Global economic and business conditions, which are often unpredictable, have historically impacted customer demand for our products and normal commercial relationships with our customers, suppliers and creditors. Additionally, in times of economic uncertainty our customers' budgets for our tools, or their ability to access credit to purchase them, could be adversely affected. This would limit their ability to purchase our products and services. As a result, economic downturns could cause material adverse changes to our results of operations and financial condition including:

- a decline in demand for our products;
- an increase in reserves on accounts receivable due to our customers' inability to pay us;

- an increase in reserves on inventory balances due to excess or obsolete inventory as a result of our inability to sell such inventory;
- valuation allowances on deferred tax assets;
- restructuring charges;
- asset impairments including the potential impairment of goodwill and other intangible assets;
- a decline in the value of our investments;
- exposure to claims from our suppliers for payment on inventory that is ordered in anticipation of customer purchases that do not come to fruition;
- a decline in the value of certain facilities we lease to less than our residual value guarantee with the lessor; and
- challenges maintaining reliable and uninterrupted sources of supply.

Fluctuating levels of investment by chip manufacturers may materially affect our aggregate shipments, revenue, operating results and earnings. Where appropriate, we will attempt to respond to these fluctuations with cost management programs aimed at aligning our expenditures with anticipated revenue streams, which could result in restructuring charges. Even during periods of reduced revenues, we must continue to invest in research and development and maintain extensive ongoing worldwide customer service and support capabilities to remain competitive, which may temporarily harm our profitability and other financial results.

We conduct substantially all of our operations outside the United States and face risks associated with conducting business in foreign markets.

All of our sales in 2015, 2016 and the first half of 2017 were made to customers outside the United States. Our manufacturing center has been located in Shanghai, PRC since 2006 and substantially all of our operations are located in the PRC. We expect that all of our significant activities will remain outside the United States in the future. We are subject to a number of risks associated with our international business activities, including:

- imposition of, or adverse changes in, foreign laws or regulatory requirements;
- the need to comply with the import laws and regulations of various foreign jurisdictions, including a range of U.S. import laws;
- potentially adverse tax consequences, including withholding tax rules that may limit the repatriation of our earnings, and higher effective income tax rates in foreign countries where we conduct business;
- competition from local suppliers with which potential customers may prefer to do business;
- seasonal reduction in business activity, such as during Chinese, or Lunar, New Year in parts of Asia and in other periods in various individual countries;
- increased exposure to foreign currency exchange rates;
- reduced protection for intellectual property;
- longer sales cycles and reliance on indirect sales in certain regions;
- increased length of time for shipping and acceptance of our products;
- greater difficulty in responding to customer requests for maintenance and spare parts on a timely basis;
- greater difficulty in enforcing contracts and accounts receivable collection and longer collection periods;
- difficulties in staffing and managing foreign operations and the increased travel, infrastructure and legal and compliance costs associated with multiple international locations;

- heightened risk of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements that may impact financial results and result in restatements of, or irregularities in, our consolidated financial statements; and
- general economic conditions, geopolitical events or natural disasters in countries where we conduct our operations or where our customers are located, including political unrest, war, acts of terrorism or responses to such events.

In particular, the Asian market is extremely competitive, and chip manufacturers may be aggressive in seeking price concessions from suppliers, including chip equipment manufacturers.

We may not be successful in developing and implementing policies and strategies that will be effective in managing these risks in each country in which we do business. Our failure to manage these risks successfully could adversely affect our business, operating results and financial condition.

Fluctuation in foreign currency exchange rates may adversely affect our results of operations and financial position.

Our results of operations and financial position could be adversely affected as a result of fluctuations in foreign currency exchange rates. Although our financial statements are denominated in U.S. dollars, a sizable portion of our revenues and costs are denominated in other currencies, primarily the Chinese Renminbi. Because many of our raw material purchases are denominated in Renminbi while the majority of the purchase orders we receive are denominated in U.S. dollars, exchange rates have a significant effect on our gross margin. We have not engaged in any foreign currency exchange hedging transactions to date, and any strategies that we may use in the future to reduce the adverse impact of fluctuations in foreign currency exchange rates may not be successful. Our foreign currency exposure with respect to assets and liabilities for which we do not have hedging arrangements could have a material impact on our results of operations in periods when the U.S. dollar significantly fluctuates in relation to unhedged non-U.S. currencies in which we transact business.

Changes in political and economic policies of the PRC government may materially and adversely affect our business, financial condition and results of operations and may result in our inability to sustain our growth and expansion strategies.

Substantially all of our operations are conducted in the PRC, and a substantial majority of our revenue is sourced from the PRC. Accordingly, our financial condition and results of operations are affected to a significant extent by economics, political and legal developments in the PRC.

The Chinese economy differs from the economies of most developed countries in many respects, including the extent of government involvement, level of development, growth rate, and control of foreign exchange and allocation of resources. Although the PRC government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets and the establishment of improved corporate governance in business enterprises, a substantial portion of productive assets in the PRC are still owned by the government. In addition, the PRC government continues to play a significant role in regulating industry development by imposing industrial policies. The PRC government also exercises significant control over economic growth in the PRC by allocating resources, controlling payment of foreign currency-denominated obligations, setting monetary policy, regulating financial services and institutions, and providing preferential treatment to particular industries or companies.

While the PRC economy has experienced significant growth in the past three decades, growth has been uneven, both geographically and among various sectors of the economy. The PRC government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures may benefit the overall PRC economy, but may also have a negative effect on us. Our financial condition and

results of operation could be materially and adversely affected by government control over capital investments or changes in tax regulations that are applicable to us. In the past the PRC government has implemented measures to control the pace of economic growth, and similar measures in the future may cause decreased economic activity, which in turn could lead to a reduction in demand for our products and consequently have a material adverse effect on our businesses, financial condition and results of operations.

Although the PRC government has been implementing policies to develop an independent domestic semiconductor industry supply chain, there is no guaranteed time frame in which these initiatives will be implemented. We cannot guarantee that the implementation of these policies will result in additional revenue to us or that our presence in the PRC will result in support from the PRC government. To the extent that any capital investment or other assistance from the PRC government is not provided to us, it could be used to promote the products and technologies of our competitors, which could adversely affect our business, operating results and financial condition.

We are subject to government regulation, including import, export, economic sanctions, and anti-corruption laws and regulations, that may limit our sales opportunities, expose us to liability and increase our costs.

Our products are subject to import and export controls in jurisdictions in which we distribute or sell our products. Import and exports control and economic sanctions laws and regulations include restrictions and prohibitions on the sale or supply of certain products and on our transfer of parts, components, and related technical information and know-how to certain countries, regions, governments, persons and entities.

Various countries regulate the importation of certain products through import permitting and licensing requirements and have enacted laws that could limit our ability to distribute our products. The exportation, re-exportation, transfers within foreign countries and importation of our products, including by our partners, must comply with these laws and regulations, and any violations may result in reputational harm, government investigations and penalties, and a denial or curtailment of exporting. Complying with export control and sanctions laws for a particular sale may be time consuming, may increase our costs, and may result in the delay or loss of sales opportunities. If we are found to be in violation of U.S. sanctions or export control laws, or similar laws in other jurisdictions, we and the individuals working for us could incur substantial fines and penalties. Changes in export, sanctions or import laws or regulations may delay the introduction and sale of our products in international markets, require us to spend resources to seek necessary government authorizations or to develop different versions of our products, or, in some cases, prevent the export or import of our products to certain countries, regions, governments, persons or entities, which could adversely affect our business, financial condition and operating results.

We are subject to various domestic and international anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act, as well as similar anti-bribery and anti-kickback laws and regulations. These laws and regulations generally prohibit companies and their intermediaries from offering or making improper payments to non-U.S. officials for the purpose of obtaining, retaining or directing business. Our exposure for violating these laws and regulations increases as our international presence expands and as we increase sales and operations in foreign jurisdictions.

Breaches of our cybersecurity systems could degrade our ability to conduct our business operations and deliver products to our customers, result in data losses and the theft of our intellectual property, damage our reputation, and require us to incur significant additional costs to maintain the security of our networks and data.

We increasingly depend upon our information technology systems to conduct our business operations, ranging from our internal operations and product development and manufacturing activities to our marketing and sales efforts and communications with our customers and business partners. Computer programmers may attempt to penetrate our network security, or that of our website, and misappropriate our proprietary information or cause interruptions of our service. Because the techniques used by such computer programmers to access or sabotage

networks change frequently and may not be recognized until launched against a target, we may be unable to anticipate these techniques. We have also outsourced a number of our business functions to third-party contractors, including our manufacturers, and our business operations also depend, in part, on the success of our contractors' own cybersecurity measures. Accordingly, if our cybersecurity systems and those of our contractors fail to protect against unauthorized access, sophisticated cyberattacks and the mishandling of data by our employees and contractors, our ability to conduct our business effectively could be damaged in a number of ways, including sensitive data regarding our employees or business, including intellectual property and other proprietary data, could be stolen. Should this occur, we could be subject to significant claims for liability from our customers and regulatory actions from governmental agencies. In addition, our ability to protect our intellectual property rights could be compromised and our reputation and competitive position could be significantly harmed. Consequently, our financial performance and results of operations could be adversely affected.

Our production facilities could be damaged or disrupted by a natural disaster, war, terrorist attacks or other catastrophic events.

Our manufacturing facilities are subject to risks associated with natural disasters, such as earthquakes, fires, floods tsunami, typhoons and volcanic activity, environmental disasters, health epidemics, and other events beyond our control such as power loss, telecommunications failures, and uncertainties arising out of armed conflicts or terrorist attacks. A substantial majority of our facilities as well as our research and development personnel are located in the PRC. Any catastrophic loss or significant damage to any of our facilities would likely disrupt our operations, delay production, and adversely affect our product development schedules, shipments and revenue. In addition, any such catastrophic loss or significant damage could result in significant expense to repair or replace the facility and could significantly curtail our research and development efforts in a particular product area or primary market, which could have a material adverse effect on our operations and operating results.

Our management and auditors identified a material weakness in our internal control over financial reporting that, if not properly remediated, could result in material misstatements in our consolidated financial statements that could cause investors to lose confidence in our reported financial information and have a negative effect on the trading price of our stock.

Neither we nor BDO China Shu Lun Pan Certified Public Accountants LLP, or BDO China, our independent registered public accounting firm, has performed a comprehensive assessment of our internal control over financial reporting, as defined by the American Institute of Certified Public Accountants, for purposes of identifying and reporting material weaknesses and other control deficiencies. We are not currently required to comply with Section 404 of the Sarbanes-Oxley Act and therefore are not required to assess the effectiveness of our internal control over financial reporting. Further, BDO China has not been engaged to express, nor has it expressed, an opinion on the effectiveness of our internal control over financial reporting.

In connection with its audits of our consolidated financial statements as of, and for the years ended, December 31, 2016 and 2015, BDO China informed us that it had identified a material weakness in our internal control over financial reporting relating to our lack of sufficient qualified financial reporting and accounting personnel with an appropriate level of expertise to properly address complex accounting issues under accounting principles generally accepted in the United States, or GAAP, and to prepare and review our consolidated financial statements and related disclosures to fulfill GAAP and Securities and Exchange Commission financial reporting requirements. We are taking remedial measures to improve the effectiveness of our controls, including by hiring additional accounting and finance personnel and by engaging outside consulting firms.

The existence of material weaknesses is an indication that there is a more than remote likelihood that a material misstatement of our financial statements will not be prevented or detected in a future period, and the process of designing and implementing effective internal controls and procedures will be a continual effort that may require us to expend significant resources to establish and maintain a system of controls that is adequate to satisfy our reporting obligations as a public company. We cannot assure you that the measures we take will be

sufficient to remediate the material weakness identified by BDO China or that we will implement and maintain adequate controls over our financial processes and reporting in the future in order to avoid additional material weaknesses or controlled deficiencies in our internal control over financing reporting. If our remediation efforts are not successful or other material weaknesses or control deficiencies occur in the future, we may be unable to report our financial results accurately or on a timely basis, which could cause our reported financial results to be materially misstated and result in the loss of investor confidence and cause the trading price of Class A common stock to decline. Moreover, ineffective controls could significantly hinder our ability to prevent fraud.

Our auditor, as a registered public accounting firm operating in the PRC, is not permitted to be inspected by the Public Company Accounting Oversight Board, and consequently investors may be deprived of the benefits of such inspections.

BDO China Shu Lun Pan Certified Public Accountants LLP, or BDO China, is the independent registered public accounting firm that issued the audit report included at the end of this prospectus in connection with our consolidated financial statements as of, and for the years ended, December 31, 2016 and 2015. BDO China, as an auditor of companies that are traded publicly in the United States and a firm registered with the U.S. Public Company Accounting Oversight Board, or PCAOB, is required by the laws of the United States to undergo regular inspections by the PCAOB to assess its compliance with the laws of the United States and applicable professional standards. BDO China is located in the PRC. The PCAOB is currently unable to conduct inspections on auditors in the PRC without the approval of PRC authorities, and therefore BDO China, like other independent registered public accounting firms operating in the PRC, is currently not inspected by the PCAOB.

In May 2013 the PCAOB announced that it has entered into a Memorandum of Understanding on Enforcement Cooperation with the China Securities Regulatory Commission and the Ministry of Finance of China pursuant to which the Ministry of Finance established a cooperative framework between the parties for the production and exchange of audit documents relevant to investigations in both the PRC and the United States. More specifically, the Memorandum of Understanding provides a mechanism for the parties to request and receive from each other assistance in obtaining documents and information in furtherance of their investigative duties. In addition the PCAOB is engaged in continuing discussions with the China Securities Regulatory Commission and the Ministry of Finance to permit joint inspections in the PRC of audit firms that are registered with the PCAOB and to audit PRC companies whose securities are listed on U.S. stock exchanges.

The PCAOB's inspections of firms outside of the PRC have identified deficiencies in audit procedures and quality control procedures, and such deficiencies may be addressed as part of the inspection process to improve future audit quality. The inability of the PCAOB to conduct inspections of BDO China with respect to its audit of our consolidated financial statements may make it more difficult for investors to evaluate BDO China's audit procedures and quality control procedures by depriving investors of potential benefits from improvements that could have been facilitated by PCAOB inspections.

Risks Relating to Our Intellectual Property

Our success depends on our ability to protect our intellectual property, including our SAPS and TEBO technologies.

Our commercial success depends in part on our ability to obtain and maintain patent and trade secret protection for our intellectual property, including our SAPS and TEBO technologies and the design of our Ultra C equipment, as well as our ability to operate without infringing upon the proprietary rights of others. There can be no assurance that our patent applications will result in additional patents being issued or that issued patents will afford sufficient protection against competitors with similar technology, nor can there be any assurance that the patents issued will not be infringed, designed around, or invalidated by third parties. Even issued patents may later be found unenforceable or may be modified or revoked in proceedings instituted by third parties before various patent offices or in courts. The degree of future protection for our intellectual property is uncertain. Only

limited protection may be available and may not adequately protect our rights or permit us to gain or keep any competitive advantage. This failure to properly protect the intellectual property rights relating to our products and technologies could have a material adverse effect on our financial condition and results of operations.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or any of our future development partners will be successful in protecting our product candidates by obtaining and defending patents. These risks and uncertainties include the following:

- The U.S. Patent and Trademark Office and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case.
- Patent applications may not result in any patents being issued.
- Patents that may be issued may be challenged, invalidated, modified, revoked, circumvented, found to be unenforceable or otherwise may not provide any competitive advantage.
- Our competitors may seek or may have already obtained patents that will limit, interfere with, or eliminate our ability to make, use and sell our potential product candidates.
- The PRC and other countries other than the United States may have patent laws less favorable to patentees than those upheld by U.S. courts, allowing foreign competitors a better opportunity to create, develop and market competing product candidates.

In addition, we rely on the protection of our trade secrets and know-how. Although we have taken steps to protect our trade secrets and unpatented know-how, including entering into confidentiality and non-disclosure agreements with third parties and confidential information and inventions agreements with key employees, customers and suppliers, other parties may still obtain this information or may come upon this information independently. If any of these events occurs or if we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced.

We may be involved in lawsuits to protect or enforce our patents, which could be expensive, time consuming and unsuccessful.

Competitors may infringe upon our patents. If our technologies are adopted, we believe that competitors may try to match our technologies and tools in order to compete. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming. An adverse result in any litigation or defense proceedings, including our current suits, could put one or more of our patents at risk of being invalidated, found to be unenforceable or interpreted narrowly and could put our patent applications at risk of not issuing. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation. In addition, any future patent litigation, interference or other administrative proceedings will result in additional expense and distraction of our personnel. Most of our competitors are larger than we are and have substantially greater resources, and they therefore are likely to be able to sustain the costs of complex patent litigation longer than we could. An adverse outcome in such litigation or proceedings may expose us to loss of our proprietary position.

We may not be able to protect our intellectual property rights throughout the world, which could materially, negatively affect our business.

Filing, prosecuting and defending patents on our products or proprietary technologies in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries

outside the United States, including the PRC, can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license and may adversely affect our business.

If we are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in that litigation could have a material adverse effect on our business.

Our success depends on our ability to develop, manufacture, market and sell our products without infringing upon the proprietary rights of third parties. Numerous U.S. and foreign-issued patents and pending patent applications owned by third parties exist in the fields in which we are developing products, some of which may contain claims that overlap with the subject matter of our intellectual property. A third party has claimed in the past, and others may claim in the future, that our technology or products infringe their intellectual property. In some instances third parties may initiate litigation against us in an effort to prevent us from using our technology in alleged violation of their intellectual property rights. The risk of such a lawsuit will likely increase as our size and the number and scope of our products increase and as our geographic presence and market share expand. Any potential intellectual property claims or litigation commenced against us could:

- be time consuming and expensive to defend, whether or not meritorious;
- force us to stop selling products or using technology that allegedly infringes the third party’s intellectual property rights;
- delay shipments of our products;
- require us to pay damages or settlement fees to the party claiming infringement;
- require us to attempt to obtain a license to the relevant intellectual property, which may not be available on reasonable terms or at all;
- force us to attempt to redesign products that contain the allegedly infringing technology, which could be expensive or which we may be unable to do;
- require us to indemnify our customers, suppliers or other third parties for any loss caused by their use of our technology that allegedly infringes the third party’s intellectual property rights; or
- divert the attention of our technical and managerial resources.

Because patent applications can take many years to issue, there may be currently pending applications, unknown to us, that may later result in issued patents upon which our products or technologies may infringe. Similarly, there may be issued patents relevant to our products of which we are not aware.

Risks Related to Our Initial Public Offering and Ownership of Class A Common Stock

The market price of Class A common stock may be volatile or may decline regardless of our operating performance, and you may not be able to resell your shares at or above the initial public offering price.

The initial public offering price for Class A common stock was determined through negotiations between the underwriters and us and may vary from the market price of Class A common stock following this offering. If you purchase shares of Class A common stock in this offering, you may not be able to resell those shares at or above the initial public offering price. We cannot assure you that the market price following this offering will equal or exceed prices in privately negotiated transactions of our stock that have occurred from time to time prior to this offering. The market price of Class A common stock may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated fluctuations in our revenue and other operating results;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- actions of securities analysts who initiate or maintain coverage of us, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- changes in projections for the chips or chip equipment industries or in the operating performance or expectations and stock market valuations of chip companies, chip equipment companies or technology companies in general;
- changes in operating results;
- any changes in the financial projections we may provide to the public, our failure to meet these projections, or changes in recommendations by any securities analysts that elect to follow Class A common stock;
- additional shares of Class A common stock being sold into the market by us or our existing stockholders or the anticipation of such sales;
- price and volume fluctuations in the overall stock market, including as a result of trends in the economy as a whole;
- lawsuits threatened or filed against us;
- litigation and other developments relating to our patents or other proprietary rights or those of our competitors;
- developments in new legislation and pending lawsuits or regulatory actions, including interim or final rulings by judicial or regulatory bodies; and
- general economic trends, including changes in the demand for electronics or information technology or geopolitical events such as war or acts of terrorism, or any responses to such events.

In recent years, the stock market in general, and the NASDAQ Global Market, or NASDAQ, in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to changes in the operating performance of the companies whose stock is experiencing those price and volume fluctuations. These fluctuations may be even more pronounced in the trading market for our stock shortly following this offering.

As a newly public company, our stock price may be volatile, and securities class action litigation has often been instituted against companies following periods of volatility of their stock price. Any such litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

In the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

No public market for Class A common stock currently exists, and an active trading market may not develop or be sustained following this offering.

Prior to this offering, there has been no public market for Class A common stock. An active trading market may not develop following completion of this offering or, if developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value of your shares. There can be no assurance that we will be able to successfully develop a liquid market for Class A common stock.

We have broad discretion in the use of the net proceeds from this offering and the concurrent private placement and may not use them effectively.

We cannot specify with any certainty the particular uses of the net proceeds that we will receive from this offering and the concurrent private placement. Our management will have broad discretion in the application of the net proceeds, including working capital and other general corporate purposes, and we may spend or invest these proceeds in a way with which our stockholders disagree. The failure by our management to apply these funds effectively could harm our business and financial condition. Pending their use, we may invest the net proceeds in a manner that does not produce income or that loses value.

If securities or industry analysts publish inaccurate or unfavorable research about our business, our stock price could decline.

The trading market for Class A common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who cover us downgrade the Class A common stock or publish inaccurate or unfavorable research about our business, the Class A common stock price would likely decline. In addition, if one or more of these analysts ceases coverage of the Class A common stock or fails to publish reports about the Class A common stock on a regular basis, we could lose visibility in the financial markets, which in turn could cause the Class A common stock price or trading volume to decline.

Requirements associated with being a public reporting company will increase our costs significantly, as well as divert significant company resources and management attention.

We will be subject to the reporting requirements of the Securities Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of NASDAQ, and other rules and regulations of the SEC upon consummation of this offering. We are working with our legal, independent accounting and financial advisors to identify those areas in which changes should be made to our financial and management control systems to manage our growth and our obligations as a public reporting company. These areas include corporate governance, corporate control, disclosure controls and procedures, and financial reporting and accounting systems. We have made, and will continue to make, changes in these and other areas. Compliance with the various reporting and other requirements applicable to public reporting companies will require considerable time, attention of management and financial resources. In addition, the changes we make may not be sufficient to allow us to satisfy our obligations as a public reporting company on a timely basis.

The listing requirements of NASDAQ require that we satisfy certain corporate governance requirements relating to director independence, distributing annual and interim reports, stockholder meetings, approvals and voting, soliciting proxies, conflicts of interest and a code of conduct. Our management and other personnel will need to devote a substantial amount of time to ensure that we comply with all of these requirements. The reporting requirements, rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. These reporting requirements, rules and regulations, coupled with the increase in potential litigation exposure associated with being a public company, could also make it more difficult for us to attract and retain qualified persons to serve as our directors or executive officers, or to obtain certain types of insurance, including director and officer liability insurance, on acceptable terms.

We have never paid and do not intend to pay cash dividends and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of Class A common stock.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business, and we do not expect to declare or pay any dividends in the foreseeable future. Accordingly, you may only receive a return on your investment in Class A common stock if the market price of Class A common stock increases.

Our ability to pay dividends on Class A common stock depends significantly on our receiving distributions of funds from our subsidiaries in the PRC. PRC statutory laws and regulations permit payments of dividends by those subsidiaries only out of their retained earnings, which are determined in accordance with PRC accounting standards and regulations that differ from U.S. generally accepted accounting principles. The PRC regulations and our subsidiaries' articles of association require annual appropriations of 10% of net after-tax profits to be set aside, prior to payment of dividends, as a reserve or surplus fund, which restricts our subsidiaries' ability to transfer a portion of their net assets to us. In addition, our subsidiaries' short-term bank loans restrict their ability to pay dividends to us.

If you purchase shares of Class A common stock in this offering, you will experience substantial and immediate dilution.

If you purchase shares of Class A common stock in this offering, you will experience substantial and immediate dilution in the pro forma as adjusted net tangible book value per share of Class A common stock of $2.98 per share as of June 30, 2017. Investors purchasing Class A common stock in this offering will pay a price per share that substantially exceeds the pro forma as adjusted net tangible book value per share. As a result, investors purchasing Class A common stock in this offering will incur immediate dilution of $5.52 per share, based on the initial public offering price of $8.50 per share, the midpoint of the price range on the cover page of this prospectus. This dilution is due in large part to the fact that our earlier investors paid substantially less than the initial public offering price when they purchased their shares of our capital stock. You will experience additional dilution upon exercise of options to purchase Class A common stock under our equity incentive plans or if we issue restricted stock to our employees under our equity incentive plans, and you may experience additional dilution in the future if we otherwise issue additional shares of Class A common stock.

The dual class structure of Class A common stock has the effect of concentrating voting control with our executive officers and directors, including our Chief Executive Officer and President, which will limit or preclude your ability to influence corporate matters.

Class B common stock has twenty votes per share and Class A common stock has one vote per share. Stockholders who hold shares of Class B common stock, who consist principally of our executive officers, employees, directors and their respective affiliates, will collectively hold approximately 79.1% of the voting power of our outstanding capital stock following this offering and the concurrent private placement. Because of the twenty-to-one voting ratio between Class B and Class A common stock, holders of Class B common stock collectively will continue to control a majority of the combined voting power of Class A common stock and therefore be able to control all matters submitted to our stockholders for approval so long as the shares of Class B common stock represent at least 4.8% of all outstanding shares of Class A and Class B common stock. This concentrated control will limit or preclude your ability to influence corporate matters for the foreseeable future. This concentrated control could also discourage a potential investor from acquiring Class A common stock due to the limited voting power of such stock relative to the Class B common stock and might harm the market price of Class A common stock.

Future transfers by holders of Class B common stock will result in those shares converting to Class A common stock, subject to limited exceptions. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term.

Substantial future sales of shares by existing stockholders, or the perception that such sales may occur, could cause our stock price to decline.

If our existing stockholders, particularly our directors and executive officers, sell substantial amounts of Class A common stock in the public market, or are perceived by the public market as intending to sell substantial numbers of shares of Class A common stock, the trading price of Class A common stock could decline below the initial public offering price. Based on shares outstanding as of September 30, 2017, upon completion of this offering and the concurrent private placement, we will have 15,112,284 outstanding shares of common stock. Of these shares, only the shares of Class A common stock sold in this offering and registered shares issued pursuant to our equity plans will be freely tradable in the public market, subject to any applicable lock-up agreements or Rule 144 transfer restrictions applicable to affiliates. Our officers, directors and certain holders of our equity securities have entered into contractual lock-up agreements with the underwriters pursuant to which they have agreed, subject to certain exceptions, not to sell or otherwise transfer any of their common stock or securities convertible into or exchangeable for shares of common stock for a period of 180 days after the date of the final prospectus for this offering. We and the lead underwriter in this offering may, however, permit these holders to sell shares prior to the expiration of the lock-up agreements with the underwriters.

Based on shares outstanding as of September 30, 2017, of the 13,112,284 shares of common stock that were not offered and sold in this offering:

- 523,210 shares will be eligible for sale in the public market immediately upon completion of this offering; and
- up to 12,589,074 shares will be eligible for sale in the public market beginning 180 days from the date of this prospectus, 8,770,975 of which are held by directors, executive officers and other affiliates and will be subject to volume and other limitations under Rule 144 under the Securities Act.

Delaware law and provisions in our restated charter and bylaws could make a merger, tender offer or proxy contest difficult, thereby depressing the trading price of Class A common stock.

Our status as a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law may discourage, delay, or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder, even if a change of control would be beneficial to our existing stockholders. Our restated charter and bylaws contain provisions that may make the acquisition of our company more difficult, including the following:

- our dual class common stock structure provides holders of Class B common stock with the ability to control the outcome of matters requiring stockholder approval, even if they own significantly less than a majority of the total number of outstanding shares of Class A and Class B common stock;
- when the outstanding shares of Class B common stock represent less than a majority of the combined voting power of common stock:
  - amendments to our restated charter or bylaws will require the approval of two-thirds of the combined vote of our then-outstanding shares of Class A and Class B common stock;
  - vacancies on the board of directors will be able to be filled only by the board and not by stockholders;
  - the board, which currently is not staggered, will be automatically separated into three classes with staggered three-year terms;
  - directors will only be able to be removed from office for cause; and
  - our stockholders will only be able to take action at a meeting and not by written consent;
- only our chair, our chief executive officer or a majority of our directors will be authorized to call a special meeting of stockholders;
- advance notice procedures will apply for stockholders to nominate candidates for election as directors or to bring matters before an annual meeting of stockholders;

- our restated charter will authorize undesignated preferred stock, the terms of which may be established, and shares of which may be issued, without stockholder approval; and
- cumulative voting in the election of directors is prohibited.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders holding more than 15% of our outstanding voting stock from engaging in certain business combinations with us. Any provision of our charter or bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of Class A common stock, and could also affect the price that some investors are willing to pay for Class A common stock.

Our restated charter designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or stockholders.

Our restated charter provides that the Court of Chancery of the State of Delaware will, to the fullest extent permitted by law, be the sole and exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed to us, our stockholders, creditors or other constituents by any of our directors, officers, other employees, agents or stockholders;
- any action asserting a claim arising under the Delaware General Corporation Law, our charter or bylaws, or as to which the Delaware General Corporation Law confers jurisdiction on the Court of Chancery of the State of Delaware; or
- any action asserting a claim that is governed by the internal affairs doctrine.

By becoming a stockholder in our company, you will be deemed to have notice of and have consented to the provisions of our restated charter related to choice of forum. The choice of forum provision in our restated charter may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or any of our directors, officers, other employees, agents or stockholders, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our restated charter to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations and financial condition.

We are currently an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make Class A common stock less attractive to investors.

We are currently an "emerging growth company," as defined in the Jumpstart Our Business Startups Act. For so long as we remain an emerging growth company, we are permitted, and intend, to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include reduced disclosure obligations regarding executive compensation and exemptions from the requirements of holding a non-binding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and not being required to comply with any requirement that may be adopted by the PCAOB regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements. In this prospectus, we have not included all of the executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find the Class A common stock less attractive if we rely on these exemptions. If some investors find the Class A common stock less attractive as a result, there may be a less active trading market, and more volatile trading price, for Class A common stock.

We will incur increased costs and demands upon management as a result of complying with the laws and regulations affecting public companies, particularly after we are no longer an "emerging growth company," which could adversely affect our business, operating results and financial condition.

As a public company, and particularly after we cease to be an "emerging growth company," we will continue to incur significant legal, accounting and other expenses. We are subject to the reporting requirements of the Securities and Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, and the rules and regulations of NASDAQ. These requirements have increased and will continue to increase our legal, accounting and financial compliance costs and have made and will continue to make some activities more time consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to maintain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve as our executive officers or on the board of directors, particularly to serve on the audit and compensation committees.

The Sarbanes-Oxley Act requires, among other things, that we assess the effectiveness of our internal control over financial reporting annually and the effectiveness of our disclosure controls and procedures quarterly. In particular, beginning with respect to the year ending December 31, 2018, Section 404 of the Sarbanes-Oxley Act, or Section 404, will require our management to perform system and process evaluation and testing to allow it to report on the effectiveness of our internal control over financial reporting.

We are currently evaluating our internal controls, identifying and remediating deficiencies in those internal controls and documenting the results of our evaluation, testing and remediation. Please see "—Our management and auditors identified a material weakness in our internal control over financial reporting that, if not properly remediated, could result in material misstatements in our consolidated financial statements that could cause investors to lose confidence in our reported financial information and have a negative effect on the trading price of our stock."

Investor perceptions of our company may suffer if deficiencies are found, which could cause a decline in the market price of our stock. Irrespective of compliance with Section 404, any failure of our internal control over financial reporting could have a material adverse effect on our stated operating results and harm our reputation. If we are unable to implement these requirements effectively or efficiently, it could harm our operations, financial reporting, or financial results and could result in an adverse opinion on our internal controls from our independent registered public accounting firm.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expense and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

FORWARD-LOOKING STATEMENTS AND STATISTICAL DATA

Special Note Regarding Forward-Looking Statements

This prospectus contains forward-looking statements that involve risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management are forward-looking statements. The forward-looking statements are contained principally in "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "anticipate," "project," "target," "design," "estimate," "predict," "potential," "plan" or the negative of these terms, and similar expressions intended to identify forward-looking statements.

These statements reflect our current views with respect to future events and are based on our management's belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Some of the key factors that could cause actual results to differ from our expectations include:

- our expectations regarding our expenses and revenue, our ability to maintain and expand gross profit;
- the rate and degree of market acceptance of any of our products, particularly in the PRC;
- the size and growth of the potential markets for our products and our ability to serve those markets;
- the progress and costs of developing and commercializing new products;
- our expectations regarding competition;
- the anticipated trends and challenges in our business and the market in which we operate;
- our anticipated growth strategies;
- our ability to attract or retain key personnel;
- our expectations regarding, and the stability of our, supply chain and manufacturing;
- our expectations regarding federal, state and foreign regulatory requirements, including export controls, tax law changes and interpretations, economic sanctions and anti-corruption regulations;
- regulatory developments in the United States and foreign countries;
- our ability to obtain and maintain intellectual property protection for our products; and
- our use of proceeds from this offering and the concurrent private placement.

Any forward-looking statement made by us in this prospectus speaks only as of the date on which it is made. Except as required by law, we assume no obligation to update these statements publicly, or to update the reasons actual results could differ materially from those anticipated in these statements, even if new information becomes available in the future.

You should read this prospectus, and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

Industry and Market Data

This prospectus contains statistical data and estimates, including forecasts, that are based on independent industry and government organization publications or other publicly available information, as well as other information based on our internal sources. While we are not aware of any misstatements regarding any third-party data presented in this prospectus, estimates, and in particular forecasts, involve numerous assumptions and are subject to risks and uncertainties as well as change based on various factors, including those discussed under "Risk Factors" and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates included in this prospectus.

The following list identifies the sources of certain of the third-party forecasts and other estimates included in this prospectus, together with the section or subsection of this prospectus in which that estimate appears. As of September 30, 2017, each of the following sources was publicly available without charge:

- PricewaterhouseCoopers, *China's impact on the semiconductor industry: 2016 update*, January 2017 ("Prospectus Summary—Our Company" and "Business—Industry Background—Growing Influence of the PRC Across the Semiconductor Industry");
- IC Insights, Inc., *Semiconductor Unit Shipments To Exceed One Trillion Devices in 2018*, March 7, 2016 ("Prospectus Summary—Industry Background and Trends" and "Business—Industry Background");
- Semiconductor Industry Association and Nathan Associates, *Beyond Borders: The Global Semiconductor Value Chain: How an Interconnected Industry Promotes Innovation and Growth*, May 2016 ("Business—Industry Background—Ongoing Need for Improved Chip Manufacturing Equipment");
- Semiconductor Equipment and Materials International, *Fab Equipment Spending Trending Upward in 2016 and 2017*, September 6, 2016 ("Business—Industry Background—Escalating Need for Advanced Chip Manufacturing Equipment");
- International Trade Administration of the United States Department of Commerce, *2016 Top Markets Report Semiconductors and Semiconductor Manufacturing Equipment Country Case Study*, July 1, 2016 ("Business—Industry Background—Growing Influence of the PRC Across the Semiconductor Industry"); and
- Semiconductor Equipment and Materials International, *World Fab Forecast Report*, November 2016 ("Business—Our Solutions—China-based operations").

CONCURRENT PRIVATE PLACEMENT

We have entered into agreements pursuant to which we expect to issue and sell, in a concurrent private placement, an aggregate of 1,333,334 shares of Class A common stock, of which 833,334 shares would be issued to Xinxin (Hongkong) Capital Co., Limited, a subsidiary of Sino IC Capital Co., Ltd., and 500,000 shares would be issued to Victorious Way Limited, a subsidiary of China Everbright Limited. The concurrent private placement is conditioned upon the closing of this offering, as well as other standard closing conditions. We expect the closing of the concurrent private placement to occur immediately after the closing of the offering made hereby, but the closing of this offering is not contingent on the closing of the concurrent private placement.

Subject to specified limitations, the shares in the concurrent private placement would be sold at the initial public offering price for the offering. Neither investor will be required to pay more than $10.50 per share sold in the concurrent private placement. Xinxin (Hongkong) Capital Co., Limited also has the option not to purchase any of the shares if the initial public offering price is less than $8.40 and Victorious Way Limited has the option not to purchase any shares if Xinxin (Hongkong) Capital Co., Limited elects not to purchase its shares for any reason (pursuant to the terms of its purchase agreement).

The private placement investors have agreed with us not to, directly or indirectly, sell, transfer or dispose of any shares of Class A common stock acquired in the private placement for a period of 180 days after the closing of the private placement. See “Shares Eligible for Future Sale—Lock-up Agreements.”

We have granted the investors certain registration rights, including demand registration rights, with respect to Class A common stock issued in the concurrent private placement, as described under “Description of Capital Stock—Registration Rights.”

Xinxin (Hongkong) Capital Co., Limited will have the right, as described under “Management—Board of Directors—Director Nomination Rights,” to designate one individual for nomination to our board of directors. David H. Wang, our Chair of the Board, Chief Executive Officer and President, members of Dr. Wang’s family, and Haiping Dun, our Lead Director, who collectively will beneficially own shares having 51.2% of the voting power of common stock immediately after the closing of this offering and the concurrent private placement, have agreed to vote their shares for the election of the nominee. We expect Xinxin (Hongkong) Capital Co., Limited to designate an individual for nomination to our board shortly after the consummation of this offering and the concurrent private placement.

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering and the concurrent private placement of $24.4 million, assuming an initial public offering price of $8.50 per share, the midpoint of the initial public offering price range reflected on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. If the underwriters' option to purchase additional shares in this offering is exercised in full, we estimate that our net proceeds will be $26.8 million.

A $1.00 increase (decrease) in the assumed initial public offering price of $8.50 per share, the midpoint of the initial public offering price range reflected on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering and the concurrent private placement by $1.9 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. Similarly, each increase (decrease) of 100,000 in the number of shares offered by us would increase (decrease) our net proceeds by $790,500, assuming the assumed initial public offering price of $8.50 per share remains the same, and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses.

We expect the closing of the concurrent private placement to occur immediately after the closing of the offering made hereby, but the closing of this offering is not contingent on the closing of the concurrent private placement. The investors in the concurrent private placement may, as described in "Concurrent Private Placement," have the option not to purchase shares in specified circumstances. We estimate that, if no shares were to be purchased in the concurrent private placement, we would receive net proceeds from this offering of $13.6 million, assuming an initial public offering price of $8.50 per share, the midpoint of the initial public offering price range reflected on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and offering expenses. If the underwriters' option to purchase additional shares in this offering were exercised in full, we estimate that our net proceeds of this offering would be $15.9 million.

We intend to use the net proceeds from this offering and the concurrent private placement for working capital and other general corporate purposes, which may include financing our growth and developing new products. The other principal purposes for this offering are to:

- create a public market for Class A common stock, which will, among other things, provide future liquidity for our existing security holders;
- facilitate our future access to the public capital markets; and
- improve the effectiveness of our equity compensation plans in attracting and retaining directors and key employees.

We may use a portion of our net proceeds to acquire businesses, technologies and products that will help us expand the breadth and features of our product offerings, provide access to new markets or customers, or otherwise complement our existing operations. We assess acquisition opportunities on an ongoing basis. We do not currently have any agreement with respect to an acquisition, and we cannot assure you that we will make any acquisitions in the future.

Our expected use of the net proceeds of this offering and the concurrent private placement represents our current intentions based upon our present plans and business conditions. The amounts and timing of our actual expenditures may vary significantly from our expectations depending upon numerous factors, including our operating costs and capital expenditures and the factors described under "Risk Factors." Because we cannot currently specify with any certainty the particular uses of our net proceeds, our management will have broad discretion in the application of the net proceeds.

Pending use of our net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing instruments, certificates of deposit, or direct or guaranteed obligation of the U.S. government.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends on Class A and Class B common stock is subject to the discretion of the board of directors and will depend upon various factors, including our results of operations, financial condition, liquidity requirements, capital requirements, level of indebtedness, contractual restrictions with respect to payment of dividends, restrictions imposed by applicable law, general business conditions and other factors that the board may deem relevant.

Our ability to pay dividends on Class A and Class B common stock depends significantly on our receiving distributions of funds from our subsidiaries in the PRC. PRC statutory laws and regulations permit payments of dividends by those subsidiaries only out of their retained earnings, which are determined in accordance with PRC accounting standards and regulations that differ from U.S. generally accepted accounting principles. The PRC regulations and our subsidiaries' articles of association require annual appropriations of 10% of net after-tax profits to be set aside, prior to payment of dividends, as a reserve or surplus fund, which restricts our subsidiaries' ability to transfer a portion of their net assets to us. As of June 30, 2017, no cash was restricted under those PRC regulations or our subsidiaries' articles because our subsidiaries had never generated net after-tax profits. In addition, our subsidiaries' short-term bank loans restrict their ability to pay dividends to us.

CAPITALIZATION

The table below sets forth our capitalization as of June 30, 2017:

- on an actual basis;
- as adjusted to reflect the following:
  - (a) the closing of strategic investment transactions on September 11, 2017, with Ninebell Co., Ltd. or Ninebell, one of our key subassembly providers, in which we issued 133,334 shares of Class A common stock to Ninebell for a purchase price of $1.0 million and Ninebell issued ordinary shares, representing 20% of its post-closing equity, to us for a purchase price of $1.2 million;
  - (b) the completion of transactions with minority investors in ACM Shanghai in the third-quarter of 2017, pursuant to which (i) we issued, capital stock consisting of (or convertible, upon the closing of this offering, into) a total of 3,572,844 shares of Class A common stock to the minority investors for an aggregate purchase price of $20.1 million and (ii) ACM Research acquired 18.77% of the outstanding ACM Shanghai equity interests for a purchase price of $5.8 million and will acquire, in the fourth quarter of 2017, all of the remaining outstanding minority ACM Shanghai equity interests for an aggregate purchase price of $14.3 million, as described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Acquisition of Outstanding Minority Interests in Our Operating Company”; and
  - (c) exercises of stock options in the third quarter of 2017 to acquire 74,334 shares of Class A common stock;
- on a pro forma basis to further reflect the automatic conversion of all outstanding shares of our convertible preferred stock into Class A common stock and the restatement of our charter, all of which will occur upon completion of this offering; and
- on a pro forma basis as further adjusted to reflect our issuance and sale of 2,000,000 shares of Class A common stock in this offering and of 1,333,334 shares of Class A common stock in the concurrent private placement at an assumed initial public offering price of $8.50 per share, the midpoint of the price range on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses.

You should read the information in this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes appearing at the end of this prospectus.

	As of June 30, 2017			
	Actual	As Adjusted	Pro Forma	Pro Forma As Adjusted
	(in thousands, except share and per share data)			
Short-term debt	$ 4,595	$ 4,595	$ 4,595	$ 4,595
Redeemable convertible preferred stock, without par value, actual, $0.0001 par value per share, as adjusted, pro forma and pro forma as adjusted:				
Series A: 385,000 shares authorized, issued and outstanding, actual and as adjusted; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	$ 288	$ 288	$ —	$ —
Series B: 1,572,000 shares authorized, issued and outstanding, actual and as adjusted; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	1,572	1,572	—	—
Series C: 1,360,962 shares authorized, issued and outstanding, actual and as adjusted; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	2,041	2,041	—	—
Series D: 2,659,975 shares authorized and 1,326,642 shares issued and outstanding, actual and as adjusted; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	4,975	4,975	—	—
Series E: 10,718,530 shares authorized and no shares issued and outstanding, actual; 10,718,530 shares authorized and 4,998,530 shares issued and outstanding, as adjusted; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	—	5,800	—	—
Series F: 6,000,000 shares authorized and 3,663,254 shares, issued and outstanding, actual and as adjusted; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	9,158	9,158	—	—
Total redeemable convertible preferred stock	18,034	23,834	—	—
Stockholders' (deficit) equity:				
Undesignated preferred stock, $0.0001 par value per share: no shares authorized, issued and outstanding, actual or as adjusted; 25,000,000 shares authorized and no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	—	—
Common stock, $0.0001 par value per share:				
Class A: 100,000,000 shares authorized; 2,627,293 shares issued and outstanding, actual; 4,741,635 shares issued and outstanding, as adjusted; 9,369,212 shares issued and outstanding pro forma; 12,702,546 shares issued and outstanding, pro forma as adjusted	1	1	1	1
Class B: 7,303,533 shares authorized and 2,409,738 shares issued and outstanding, actual, and as adjusted; 2,409,738 shares authorized, issued and outstanding, pro forma and pro forma as adjusted	1	1	1	1
Additional paid-in capital	9,346	9,411	33,245	57,641
Accumulated deficit	(12,390)	(12,390)	(12,390)	(12,390)
Accumulated other comprehensive loss	(247)	(247)	(247)	(247)
Total ACM Research, Inc. stockholders' (deficit) equity	(3,289)	(3,224)	20,610	45,006
Non-controlling interests	4,809	—	—	—
Total stockholders' equity	1,520	(3,224)	20,610	45,006
Total capitalization	$(19,554)	$ (20,610)	$ 20,610	$ 45,006

A $1.00 increase (decrease) in the assumed initial public offering price of $8.50 per share, the midpoint of the initial public offering price range set forth on the cover page of this prospectus, would increase (decrease) the amount of additional paid-in capital, total stockholders' (deficit) equity and total capitalization by $1.9 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. Similarly, each increase (decrease) of 100,000 shares in the number of shares offered by us would

increase (decrease) additional paid-in capital, total stockholders' (deficit) equity and total capitalization by $790,500, assuming the assumed initial public offering price of $8.50 per share remains the same, and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing. Moreover, the investors in the concurrent private placement may, as described in "Concurrent Private Placement" and "Use of Proceeds," have the option not to purchase shares of Class A common stock in specified circumstances, in which case we would receive only the net proceeds of this offering.

The table above excludes the shares of Class A common stock issuable upon the exercise of an outstanding warrant and outstanding options as well as shares of Class A common stock reserved for future issuance under our equity incentive plan, which consisted of:

- 397,502 shares of Class A common stock issuable upon the exercise of an outstanding warrant, with an exercise price of $7.50 per share, at June 30, 2017 and September 30, 2017, as described under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Issuance of Warrant");
- 3,489,959 shares of Class A common stock issuable upon the exercise of outstanding options with a weighted-average exercise price of $2.29 per share at June 30, 2017 and 3,276,074 shares of Class A common stock issuable upon the exercise of outstanding options with a weighted-average exercise price of $2.39 per share at September 30, 2017; and
- 705,383 shares of Class A common stock reserved for issuance under our equity incentive plan at June 30, 2017 and 585,381 shares of Class A common stock reserved for issuance under our equity incentive plan at September 30, 2017 after giving effect to 120,002 shares of Class A common stock to be issuable upon the exercise of options approved for grant to employees, as of the date of this prospectus, with an exercise price per share equal to the initial public offering price of the offering made hereby.

DILUTION

If you invest in Class A common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share you will pay in this offering and the pro forma as adjusted net tangible book value per share of Class A common stock immediately after this offering.

As of June 30, 2017, the actual net tangible book value of Class A and Class B common stock was $14.7 million, or $1.84 per share. Actual net tangible book value per share of common stock represents (a) total tangible assets less total liabilities and non-controlling interests, divided by (b) the total number of shares of common stock outstanding on an as-converted basis, assuming the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 2,960,968 shares of Class A common stock, upon completion of this offering.

As of June 30, 2017, the as adjusted net tangible book value of Class A and Class B common stock was $20.6 million, or $1.75 per share. Our as adjusted net tangible book value per share gives effect to:

- the closing of strategic investment transactions on September 11, 2017, with Ninebell, in which we issued 133,334 shares of Class A common stock to Ninebell for a purchase price of $1.0 million and Ninebell issued ordinary shares, representing 20% of its post-closing equity, to us for a purchase price of $1.2 million;
- the completion of transactions with minority investors in ACM Shanghai, pursuant to which in the third-quarter of 2017 (i) we issued, 3,572,844 shares of Class A common stock (on an as-converted basis) to the minority investors for an aggregate purchase price of $20.1 million and (ii) ACM Research acquired 18.77% of the outstanding ACM Shanghai equity interests for a purchase price of $5.8 million and will acquire, in the fourth quarter of 2017, all of the remaining outstanding minority ACM Shanghai equity interests for an aggregate purchase price of $14.3 million, as described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Acquisition of Outstanding Minority Interests in Our Operating Company”;
- exercises of stock options in the third quarter of 2017 to acquire 74,334 shares of Class A common stock; and
- the conversion, upon completion of this offering, of all outstanding shares of our convertible preferred stock into an aggregate of 4,627,577 shares of Class A common stock.

Our pro forma as adjusted net tangible book value of Class A common stock as of June 30, 2017 would have been $45.0 million, or $2.98 per share. Pro forma as adjusted net tangible book value further adjusts as adjusted data to reflect our sale of 2,000,000 shares of Class A common stock in this offering and 1,333,334 shares of Class A common stock in the concurrent private placement at an assumed initial public offering price of $8.50, the midpoint of the offering price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. This represents an immediate increase in pro forma as adjusted net tangible book value of $1.23 per share to our existing stockholders and an immediate dilution of $5.52 per share to purchasers.

Assumed initial public offering price per share		$8.50
As adjusted net tangible book value per share as of June 30, 2017	$1.75	
Increase in net tangible book value per share attributable to this offering and the concurrent private placement	1.23	
Pro forma as adjusted net tangible book value per share after this offering and the concurrent private placement		2.98
Dilution per share to purchasers of Class A common stock in this offering and the concurrent private placement		$5.52

Each $1.00 increase (decrease) in the assumed initial public offering price of $8.50 per share, the midpoint of the initial public offering price range reflected on the cover page of this prospectus, would increase (decrease) the pro forma as-adjusted net tangible book value by $1.9 million and decrease (increase) the dilution per share to purchasers of Class A common stock in this offering by $0.21 per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. We may also increase (decrease) the number of shares we are offering. An increase (decrease) of 100,000 in the number of shares offered by us would increase (decrease) the as adjusted pro forma net tangible book value by $790,500 and decrease (increase) the dilution per share to purchasers of Class A common stock in this offering by $0.02 per share, assuming the assumed initial public offering price of $8.50 per share remains the same, and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. The pro forma information discussed above is illustrative only and will adjust based on the actual initial public offering price and other terms of this offering determined at pricing. Moreover, the investors in the concurrent private placement may, as described in "Concurrent Private Placement" and "Use of Proceeds," have the option not to purchase shares of Class A common stock in specified circumstances, in which case we would receive only the net proceeds of this offering.

The following table summarizes, on a pro forma as adjusted basis as of June 30, 2017, the differences between existing stockholders, the purchasers of Class A common stock in the concurrent private placement and purchasers of Class A common stock in this offering with respect to the number of shares of Class A common stock purchased from us, the total consideration paid to us and the average price per share paid. The calculation below is based on the assumed initial public offering price of $8.50 per share, the midpoint of the initial public offering price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	11,778,950	78.0%	$ 54,337,150	65.7%	$ 4.61
Purchasers of Class A common stock in the concurrent private placement	1,333,334	8.8	11,333,339	13.7	8.50
Purchasers of Class A common stock in this offering	2,000,000	13.2	17,000,000	20.6	8.50
Totals	15,112,284	100.0%	$82,670,489	100.0%	5.47

The table above excludes the shares of Class A common stock issuable upon the exercise of an outstanding warrant and outstanding options as well as shares of Class A common stock reserved for future issuance under out equity incentive plan, which consisted of:

- 397,502 shares of Class A common stock issuable upon the exercise of an outstanding warrant, with an exercise price of $7.50 per share, at June 30, 2017 and September 30, 2017, as described under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Issuance of Warrant");
- 3,489,959 shares of Class A common stock issuable upon the exercise of outstanding options with a weighted-average exercise price of $2.29 per share at June 30, 2017 and 3,276,074 shares of Class A common stock issuable upon the exercise of outstanding options with a weighted-average exercise price of $2.39 per share at September 30, 2017; and
- 705,383 shares of Class A common stock reserved for issuance under our equity incentive plan at June 30, 2017 and 585,381 shares of Class A common stock reserved for issuance under our equity incentive plan at September 30, 2017 after giving effect to 120,002 shares of Class A common stock to be issuable upon the exercise of options approved for grant to employees, as of the date of this prospectus, with an exercise price per share equal to the initial public offering price of the offering made hereby.

EXCHANGE RATE INFORMATION

This prospectus contains translations of Renminbi, or RMB, amounts into U.S. dollars at specific rates solely for the convenience of the reader. We make no representation that any Renminbi or U.S. dollar amounts could have been, or could be, converted into U.S. dollars or Renminbi, as the case may be, at any particular rate, the rates stated below, or at all. The PRC government imposes control over its foreign currency reserves in part through direct regulation of the conversion of Renminbi into foreign exchange and through restrictions on foreign trade. On September 29, 2017, the conversion rate was RMB 6.6369 to U.S. $1.00.

The following table sets forth information concerning exchange rates between the Renminbi and the U.S. dollar for the periods indicated. These rates are provided solely for your convenience and are not necessarily the exchange rates that we used in this prospectus or will use in the preparation of our periodic reports or any other information to be provided to you.

Period	Exchange Rate			
	Period End	Average(1)	Low	High
	(RMB per U.S. $1.00)			
2012	6.3001	6.2928	6.2670	6.3495
2013	6.2897	6.1933	6.0969	6.2898
2014	6.0990	6.1090	6.0930	6.1710
2015	6.4936	6.2284	6.1079	6.4936
2016	6.9370	6.6423	6.4565	6.9508
2017 (through September 29)	6.6369	6.7983	6.4997	6.9526

Source: safe.gov.cn

(1) Calculated using the average of the daily exchange rates during the relevant period.

SELECTED CONSOLIDATED FINANCIAL INFORMATION

The following tables set forth selected consolidated financial data. We derived the consolidated statement of operations data for the years ended December 31, 2015 and 2016 and the consolidated balance sheet data as of December 31, 2016 from our consolidated financial statements audited by BDO China Shu Lun Pan Certified Public Accountants LLP and included at the end of this prospectus. We derived the consolidated statement of operations data for the six months ended June 30, 2016 and June 30, 2017 and the consolidated balance sheet data as of June 30, 2017 from our unaudited consolidated financial statements included elsewhere in this prospectus. In the opinion of management, the unaudited consolidated financial statements have been prepared on the same basis as our audited consolidated financial statements and include all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information set forth therein. The following tables also show certain operational and non-GAAP financial measures. Our historical results and key metrics are not necessarily indicative of the results to be expected for any future period, and the results for any interim period are not necessarily indicative of the results that may be expected for a full year. The following should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes included at the end of this prospectus.

Pro forma information in the following tables gives effect to the automatic conversion of all outstanding shares of our convertible preferred stock into Class A common stock upon completion of this offering. See note 2 to the consolidated financial statements appearing at the end of this prospectus for an explanation of the method used to determine the number of shares used in computing historical and pro forma net income (loss) per share.

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands, except share and per share data)			
Consolidated Statement of Operations Data:				
Revenue	$ 14,423	$ 8,122	$ 27,371	$ 31,206
Cost of revenue	8,570	5,292	14,042	17,085
Gross profit	5,853	2,830	13,329	14,121
Operating expenses:				
Sales and marketing	2,583	1,818	3,907	4,213
Research and development	1,867	1,486	3,259	2,942
General and administrative	3,158	1,089	2,673	2,103
Total operating expenses, net	7,608	4,393	9,839	9,258
Income (loss) from operations	(1,755)	(1,563)	3,490	4,863
Interest expense, net	(159)	(45)	(165)	(105)
Other income (expense), net	(292)	506	(343)	632
Income (loss) before income taxes	(2,206)	(1,102)	2,982	5,390
Income tax benefit (expense)	(749)	73	(595)	2,525
Net income (loss)	(2,955)	(1,029)	2,387	7,915
Less: Net income (loss) attributable to non-controlling interests(1)	(208)	(476)	1,356	2,535
Net income (loss) attributable to ACM Research, Inc.	$ (2,747)	(553)	$ 1,031	$ 5,380
Net income (loss) per share of common share:				
Basic	$ (0.56)	$ (0.27)	$ 0.30	$ 1.50
Diluted	$ (0.56)	$ (0.27)	$ 0.18	$ 0.97
Weighted-average common shares outstanding used in computing per share amounts:				
Basic	4,927,973	2,061,339	2,176,315	2,047,383
Diluted	4,927,973	2,061,339	3,792,137	3,144,120
Pro forma net income (loss) per common share:				
Basic	$ (0.35)		$ 0.20	
Diluted	$ (0.35)		$ 0.15	
Pro forma weighted-average common shares outstanding used in computing per share amounts:				
Basic	7,889,818		5,137,211	
Diluted	7,889,818		6,753,033	

(1) As of each date, ACM Research held 62.87% of the outstanding equity interests of ACM Shanghai and the remaining 37.13% was held by three third-party investors. As described under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Acquisition of Minority Interests in Our Operating Company," ACM Research acquired an additional 18.77% of the outstanding ACM Shanghai equity interests as of August 31, 2017 and will acquire, in the fourth quarter of 2017, all of the remaining outstanding equity interests held by the minority investors.

	Six Months Ended June 30, 2017	Year Ended December 31, 2016	2015
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 13,206	$ 10,119	$ 4,401
Working capital(1)	23,433	23,278	7,381
Total assets	47,437	44,467	32,151
Total indebtedness	4,595	4,772	9,691
Total liabilities	27,883	23,948	27,754
Total redeemable convertible preferred stock	18,034	18,034	8,876
Total ACM Research, Inc. stockholders' deficit	(3,289)	(2,434)	(8,236)
Non-controlling interests	4,809	4,919	3,757
Total stockholders' (deficit) equity	1,520	2,485	(4,479)

(1) Calculated as current assets minus current liabilities.

To supplement our consolidated financial statements presented in accordance with U.S. generally accepted accounting principles, or GAAP, we monitor and consider adjusted EBITDA, free cash flow and adjusted operating income (loss), which are non-GAAP financial measures. These measures are commonly used by management and investors as performance measures. They are not considered measures of financial performance under GAAP, and the items excluded from the measures are significant components in understanding and assessing our financial performance. Each of adjusted EBITDA, free cash flow and adjusted operating income (loss) has limitations as an analytical tool, and should not be considered in isolation or as an alternative to such GAAP measures as net income, cash flows provided by or used in operations, investing or financing activities, or other financial statement data presented in our consolidated financial statements as an indicator of financial performance or liquidity. In addition, because they are not measures determined in accordance with GAAP and are susceptible to varying calculations, adjusted EBITDA, free cash flow and adjusted operating income (loss), as presented, may not be comparable to other similarly titled measures of other companies.

- We define adjusted EBITDA as our net income excluding interest expense (net), income tax benefit (expense), depreciation and amortization, and stock-based compensation. The following table reconciles net income (loss), the most directly comparable GAAP financial measure, to adjusted EBITDA:

	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016	Year Ended December 31, 2016	Year Ended December 31, 2015
		(in thousands)		
Adjusted EBITDA Data:				
Net income (loss)	$ (2,955)	$ (1,029)	$ 2,387	$ 7,915
Interest expense, net	159	45	165	105
Income tax expense (benefit)	749	(73)	595	(2,525)
Depreciation and amortization	118	88	187	160
Stock-based compensation	1,348	193	383	423
Adjusted EBITDA	$ (581)	$ (776)	$ 3,717	$ 6,078

- We define free cash flow as net cash provided by operating activities less purchases of property and equipment, net of proceeds from disposals, and purchase of intangible assets. The following table reconciles net cash provided by operating activities, the most directly comparable GAAP financial measure, to free cash flow:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Consolidated Statement of Cash Flows and Free Cash Flow Data:				
Net cash provided by operating activities	$ 2,983	$ 4,739	$ (3,702)	$ 2,702
Purchase of property and equipment, net	(26)	(95)	(788)	(1,371)
Purchase of intangible assets	(36)	(9)	(22)	—
Free cash flow	$ 2,921	$ 4,635	$ (4,512)	$ (1,331)

- We define adjusted operating income (loss) as our income (loss) from operations excluding stock-based compensation. The following table reconciles income (loss) from operations, the most directly comparable GAAP financial measure, to adjusted operating income (loss):

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Adjusted Operating Income (Loss) Data:				
Income (loss) from operations	$ (1,755)	$ (1,563)	$ 3,490	$ 4,863
Stock-based compensation	1,348	193	383	423
Adjusted operating income (loss)	$ (407)	$ (1,370)	$ 3,873	$ 5,286

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion in conjunction with our consolidated financial statements and related notes appearing at the end of this prospectus. In addition to historical information, the following discussion contains forward-looking statements that involve risks, uncertainties and assumptions. You should read "Risk Factors" for a discussion of factors that could cause our actual results to differ materially from our expectations.

Overview

We develop, manufacture and sell single-wafer wet cleaning equipment, which semiconductor manufacturers can use in numerous manufacturing steps to remove particles, contaminants and other random defects, and thereby improve product yield, in fabricating advanced integrated circuits, or chips. Our Ultra C equipment is designed to remove random defects from a wafer surface effectively, without damaging a wafer or its features, even at an increasingly advanced process node (the minimum line width on a chip) of 22 nanometers, or nm, or less. Our equipment is based on our innovative, proprietary Space Alternated Phase Shift, or SAPS, and Timely Energized Bubble Oscillation, or TEBO, technologies. We developed our proprietary technologies to enable manufacturers to produce chips that reach their ultimate physical limitations while maintaining product yield, which is the percentage of chips on a wafer that meet manufacturing specifications

We seek to market our wet processing equipment by first establishing a referenceable base of leading logic and memory chip makers, whose use of our products can influence decisions by other manufacturers. We believe this process will help us to penetrate the mature integrated circuit manufacturing markets and to build credibility with industry leaders. We have placed evaluation SAPS equipment with selected memory and logic chip customers since 2009 and recognized revenue from SAPS equipment since 2011. Using a similar "demo-to-sales" process, we began placing TEBO evaluation equipment with selected customers in 2016 and recognized revenue from our initial sale of TEBO equipment in December 2016. As of June 30, 2017, we had sold and deployed more than 30 single-wafer wet cleaning tools. We recognized revenue from the selected customers' purchases of single-wafer wet cleaning equipment totaling $10.6 million, or 73.6% of our revenue, in the first half of 2017, $21.5 million, or 78.4% of our revenue, in 2016, and $26.8 million, or 86.0% of our revenue, in 2015.

We market and sell our products worldwide using a combination of our direct sales force and third-party representatives. We employ direct sales teams in Asia, Europe and North America, and have located these teams near our customers, primarily in the People's Republic of China, or PRC, Korea, Taiwan and the United States. To supplement our direct sales teams, we have contacts with several independent sales representatives in the PRC, Taiwan and Korea. We also provide after-sales services to our customers by installing new replacement parts as well as making small scale modifications to improve our customers' product yields.

We established our operational center in Shanghai in 2006 to help us establish and build relationships with chip manufacturers in China and throughout Asia. In addition to our SAPS and TEBO tools, we offer a range of custom-made wafer assembly and packaging equipment, such as coaters and developers, to wafer assembly and packaging factories, principally in the PRC.

Corporate Background

ACM Research incorporated in California in 1998 and redomesticated to Delaware in November 2016. Key events in our corporate development have included:

- Initially we focused on developing tools for semiconductor manufacturing process steps involving the integration of ultra-low-K materials and copper. In the early 2000s, we sold tools based on stress-free copper-polishing technology.

- In 2006 we moved our operational center to Shanghai, where we began to conduct our business through our subsidiary ACM Shanghai. This move was made to help us establish and build relationships with chip manufacturers in the PRC. We have financed our operations in part through the sale of minority equity interests in ACM Shanghai.
- In 2007 we began to focus our development efforts on single-wafer wet-cleaning solutions for the front-end chip fabrication process.
- In 2008 ACM Shanghai received an initial grant from local and central governmental authorities in the PRC. The grant relates to the development and commercialization of 65nm to 45nm stress-free polishing technology.
- In 2009 we introduced SAPS megasonic technology, which can be applied in wet wafer cleaning at numerous steps during the chip fabrication process.
- In 2011 ACM Shanghai formed a wholly owned subsidiary in the PRC, ACM Research (Wuxi), Inc., to manage sales and service operations.
- In 2014 ACM Shanghai received an additional grant from local and central governmental authorities in the PRC. The grant relates to the development of electro copper-plating technology.
- In March 2016 we introduced TEBO technology, which can be applied at numerous steps during the fabrication of small node conventional two-dimensional and three-dimensional patterned wafers.
- In March and August 2017, we entered into agreements pursuant to which we will acquire all of the outstanding minority equity interests in ACM Shanghai by no later than December 31, 2017, as described below under "—Recent Equity Transactions—Acquisition of Outstanding Minority Interests in Our Operating Company."
- In June 2017 we formed a wholly owned subsidiary in Hong Kong, CleanChip Technologies Limited, to act on our behalf in Asian markets outside the PRC by, for example, serving as a trading partner between ACM Shanghai and its customers, procuring raw materials and components, performing sales and marketing activities, and making strategic investments.

Recent Equity Transactions

Issuance of Warrant

In December 2016 Shengxin (Shanghai) Management Consulting Limited Partnership, or SMC, delivered to our subsidiary ACM Shanghai 20,123,500 RMB (approximately $3.0 million as of the date of funding) in cash, which we refer to as the SMC Investment, for potential investment pursuant to terms to be subsequently negotiated. SMC is a PRC limited partnership owned by Jian Wang, our Vice President, Research and Development and the brother of our Chair of the Board, Chief Executive Officer and President, David H. Wang, and other employees of ACM Shanghai. In March 2017 we issued to SMC a warrant exercisable to purchase 397,502 shares of Class A common stock at a price of $7.50 per share, for a total exercise price of approximately $3.0 million. The warrant may be exercised for cash or on a cashless basis, at the option of SMC, at any time on or before May 17, 2023 to acquire all, but not less than all, of the shares of Class A common stock subject to the warrant.

- If SMC does not exercise the warrant by May 17, 2023, ACM Shanghai will be obligated, subject to approval of PRC governmental authorities and ACM Shanghai's equity holders, to deliver an equity interest of 3.6394% (subject to dilution) in satisfaction of the SMC Investment.
- If SMC exercises the warrant or SMC does not exercise the warrant and the issuance of the equity interest in ACM Shanghai is not completed by August 17, 2023 due to the inability of the parties to obtain required governmental or equity holder approvals, then ACM Shanghai will be obligated to pay to SMC, in satisfaction of the SMC Investment, an amount equal to approximately $3.0 million.

For more information, see "Related Party Transactions—Issuance of Warrant," "Principal Stockholders," and "Description of Capital Stock—Warrant."

Acquisition of Outstanding Minority Interests in Our Operating Company

Until August 31, 2017 ACM Research owned 62.87% of the outstanding equity interests in ACM Shanghai and three PRC-based third-party investors held the remaining 37.13% of equity interests, which are reflected as "non-controlling interests" in our consolidated balance sheets and related notes. We have taken the following actions in order to enable ACM Research to acquire, consistent with requirements of arrangements previously entered into in connection with the investors' acquisition of ACM Shanghai equity interests, the outstanding non-controlling interests in ACM Shanghai:

- In March 2017 we entered into a securities purchase agreement with Shanghai Science and Technology Venture Capital Co., Ltd., or SSTVC, which held 18.77% of the ACM Shanghai equity interests. Pursuant to that agreement, effective as of August 31, 2017, we (a) acquired, for a purchase price of $5.8 million, SSTVC's equity interests in ACM Shanghai and (b) issued to SSTVC, for a purchase price of $5.8 million, shares of Series E preferred stock that will convert, upon the closing of this offering, into 1,666,170 shares of Class A common stock, which SSTVC will have acquired at an effective purchase price of $3.48 per share.
- In August 2017 we entered into a securities purchase agreement with Shanghai Pudong High-Tech Investment Co., Ltd., or PDHTI, and its subsidiary Pudong Science and Technology (Cayman) Co., Ltd., or PST, pursuant to which we (a) submitted the winning bid, in an auction process mandated by PRC regulations, to purchase PDHTI's 10.78% equity interests in ACM Shanghai and (b) issued to PST, on September 8, 2017, 1,119,576 shares of Class A common stock for a purchase price of $7.50 per share, representing an aggregate purchase price of $8.4 million.
- In August 2017 we entered into a securities purchase agreement with Shanghai Zhangjiang Science & Technology Venture Capital Co., Ltd., or ZSTVC, and its subsidiary Zhangjiang AJ Company Limited, or ZJAJ, pursuant to which we (a) submitted the winning bid, in an auction process mandated by PRC regulations, to purchase ZSTVC's 7.58% equity interests in ACM Shanghai and (b) issued to ZJAJ, on September 8, 2017, 787,098 shares of Class A common stock for a purchase price of $7.50 per share, or an aggregate purchase price of $5.9 million.

As a result of the foregoing arrangements, ACM Research owned 81.64% of ACM Shanghai's equity interests as of August 31, 2017 and will own 100% of those equity interests by no later than December 31, 2017.

In accordance with the foregoing agreements, we (a) entered into a voting agreement with SSTVC pursuant to which SSTVC will have certain rights to designate one individual for nomination and election to our board of directors, as described in "Management—Board of Directors—Director Nomination Rights," and (b) granted SSTVC, PST and ZJAJ certain registration rights with respect to the shares of Class A common stock, as described in "Description of Capital Stock—Registration Rights."

Strategic Investment in Key Supplier

Ninebell Co., Ltd., or Ninebell, which is located in Seoul, Korea, is the principal supplier of robotic delivery system subassemblies used in our single-wafer cleaning equipment. On September 6, 2017 we and Ninebell entered into:

- an ordinary share purchase agreement, effective as of September 11, 2017, pursuant to which, contemporaneously with signing, Ninebell issued to us, for a purchase price of $1.2 million, ordinary shares representing 20% of Ninebell's post-closing equity; and
- a common stock purchase agreement, effective as of September 11, 2017, pursuant to which, contemporaneously with signing, we issued 133,334 shares of Class A common stock to Ninebell for a purchase price of $7.50 per share, or an aggregate purchase price of $1.0 million.

In addition, under the ordinary share purchase agreement, Ninebell granted us a preemptive right for all future issuances of equity-related securities by Ninebell and the founder of Ninebell, who is the only other equity holder of Ninebell, granted us a right of first refusal with respect to any future sales of his equity securities.

Key Components of Results of Operations

Revenue

We develop, manufacture and sell single-wafer wet cleaning equipment and custom-made wafer assembly and packaging equipment. Because we currently sell our capital equipment, or tools, to a small number of customers and we customize those tools to fulfill the customers' specific requirements, our revenue generation fluctuates, depending on the length of the sales, development and evaluation phases:

Sales and Development. During the sale process we may, depending on a prospective customer's specifications and requirements, need to perform additional research, development and testing to establish that a tool can meet the prospective customer's requirements. We then host an in-house demonstration of the customized tool prototype. Sales cycles for orders that require limited customization and do not require that we develop new technology usually take from 6 to 12 months, while the product life cycle, including the initial design, demonstration and final assembly phases, for orders requiring development and testing of new technologies can take as long as 2 to 4 years. As we expand our customer base, we expect to gain more repeat purchase orders for tools that we have already developed and tested, which will eliminate the need for a demonstration phase and shorten the development cycle.

Evaluation Periods. When a chip manufacturer proposes to purchase a particular type of tool from us for the first time, we offer the manufacturer an opportunity to evaluate the tool for a period that can extend for 24 months or longer. We do not receive any payment on first-time purchases until the tool is accepted. As a result, we may spend between $1.0 and $2.0 million to produce a tool without receiving payment for more than 24 months or, if the tool is not accepted, without receiving any payment. Please see "Risk Factors—Risks Related to Our Business and Our Industry—We may incur significant expenses long before we can recognize revenue from new products, if at all, due to the costs and length of research, development, manufacturing and customer evaluation process cycles."

Purchase Orders. In accordance with industry practice, sales of our tools are made pursuant to purchase orders. Each purchase order from a customer for one of our tools contains specific technical requirements intended to ensure, among other things, that the tool will be compatible with the customer's manufacturing process line. Until a purchase order is received, we do not have a binding purchase commitment. Our SAPS and TEBO customers to date have provided us with non-binding one- to two-year forecasts of their anticipated demands, and we expect future customers to furnish similar non-binding forecasts for planning purposes. Any of those forecasts would be subject to change, however, by the customer at any time, without notice to us.

Fulfillment. We seek to obtain a purchase order for a tool from three to four months in advance of the expected delivery date. Depending upon the nature of a customer's specifications, the lead time for production of a tool generally will extend from two to four months. The lead-time can be as long as six months, however, and in some cases we may need to begin producing a tool based on a customer's non-binding forecast, rather than waiting to receive a binding purchase order.

We expect our sales prices generally to range between $2.5 million and $5.0 million for SAPs tools and between $3.5 million and $6.5 million for TEBO tools. The sales price of a particular tool will vary depending upon the required specifications. We have designed equipment models using a modular configuration that we customize to meet customers' technical specifications. For example, our Ultra C models for SAPS and TEBO solutions use modular configurations that enable us to create a wet-cleaning tool meeting a customer's specific requirements, while using pre-existing designs for chamber, electrical, chemical delivery and other modules.

Because of the relatively large purchase prices of our tools, customers generally pay in installments. For a customer's repeat purchase of a particular type of tool, the specific payment terms are negotiated in connection with acceptance of a purchase order. Based on our limited experience with repeat sales of SAPS and TEBO tools, we expect that we will receive an initial payment upon delivery of a tool in connection with a repeat purchase, with the balance being paid once the tool has been tested and accepted by the customer. Our sales arrangements for repeat purchases do not include a general right of return.

Since introducing SAPS technology in 2009, we have focused on selling SAPS-based tools and, beginning in 2016, TEBO-based tools. Our revenue from sales of single-wafer wet cleaning equipment totaled $10.6 million, or 73.6% of our revenue, in the first half of 2017 (compared with $5.6 million, or 69.1% of revenue, in the first half of 2016), $21.5 million, or 78.4% of our revenue, in 2016 and $26.8 million, or 86.0% of our revenue, in 2015.

We have generated most of our revenue from a limited number of customers as the result of our strategy of initially placing SAPS- and TEBO-based equipment with a small number of leading chip manufacturers that are driving technology trends and key capability implementation. In the first half of 2017, 62.8% of our revenue was derived from three customers: SK Hynix Inc., a leading Korean memory chip company that accounted for 22.8% of our revenue; Shanghai Huali Microelectronics Corporation, a leading PRC foundry that accounted for 20.6% of our revenue; and Yangtze Memory Technologies Co., Ltd., a leading PRC memory chip company that, together with one of its subsidiaries, accounted 19.4% of our revenue. In 2016 99.3% of our revenue was derived from four customers: Shanghai Huali Microelectronics Corporation, which accounted for 33.7% of our revenue; Semiconductor Manufacturing International Corporation, a leading PRC foundry that accounted for 25.0% of our revenue; SK Hynix Inc., which accounted for 24.0% of our revenue; and JiangYin ChangDian Advanced Packaging Co. Ltd., a leading PRC foundry that accounted for 16.6% of our revenue. In 2015 all of our revenue was derived from three customers, including SK Hynix Inc., which accounted for 86.0% of our revenue, and JiangYin ChangDian Advanced Packaging Co., Ltd., which accounted for 10.1% of our revenue.

Based on our market experience, we believe that implementation of our equipment by one of our selected leading companies will attract and encourage other manufacturers to evaluate our equipment, because the leading company's implementation will serve as validation of our equipment and will enable the other manufacturers to shorten their evaluation processes. We placed our first SAPS-based tool in 2009 as a prototype. We worked closely with the customer for two years in debugging and modifying the tool, and the customer then spent two more years of qualification and running pilot production before beginning volume manufacturing. Our revenue in 2015 included sales of SAPS-based tools following the customer's completion of its qualification process. We expect that the period from new product introduction to high volume manufacturing will be three years or less in the future. Please see "Risk Factors—Business—We depend on a small number of customers for a substantial portion of our revenue, and the loss of, or a significant reduction in orders from, one or more of our major customers could have a material adverse effect on our revenue and operating results. There are also a limited number of potential customers for our products."

All of our sales in 2015, 2016 and the first half of 2017 were to customers located in Asia, and we anticipate that a substantial majority of our revenue will continue to come from customers located in this region for the near future. We have increased our sales efforts to penetrate the markets in North America and Western Europe.

We recognize revenue in accordance with the Securities and Exchange Commission's Staff Accounting Bulletin No. 104, as described below under "—Critical Accounting Policies and Significant Judgments and Estimates—Revenue Recognition."

We offer extended maintenance service contracts to provide services such as trouble-shooting or fine-tuning tools, and installing spare parts, following expiration of applicable initial warranty coverage periods, which for sales to date have extended from 12 to 36 months as described under "—Critical Accounting Policies and Significant Judgments and Estimates—Warranty." A limited number of the single-wafer wet cleaning tools we have sold to date are no longer covered by their initial warranties. In 2015, 2016 and the first half of 2017, we received payments for parts and labor for service activities provided from time to time, but as of June 30, 2017 we had not yet entered into extended maintenance service contracts with respect to any of the tools for which initial warranty coverage had expired. We expect to enter into extended maintenance service contracts with customers as additional initial warranties expire, but we do not expect revenue from extended maintenance service contracts to represent a material portion of our revenue in the future.

The loss or delay of one or more large sale transactions in a quarter could impact our results of operations for that quarter and any future quarters for which revenue from that transaction is lost or delayed, as described under “Risk Factors—Risks Related to Our Business and Our Industry—Our quarterly operating results can be difficult to predict and can fluctuate substantially, which could result in volatility in the price of Class A common stock.” It is difficult to predict accurately when, or even if, we can complete a sale of a tool to a potential customer or to increase sales to any existing customer. Our tool demand forecasts are based on multiple assumptions, including non-binding forecasts received from customers years in advance, each of which may introduce error into our estimates. Difficulties in forecasting demand for our tools make it difficult for us to project future operating results and may lead to periodic inventory shortages or excess spending on inventory or on tools that may not be purchased, as further described in “Risk Factors—Risks Related to Our Business and Our Industry—Difficulties in forecasting demand for our tools may lead to periodic inventory shortages or excess spending on inventory items that may not be used.”

Cost of Revenue

Cost of revenue for capital equipment consists primarily of:

- direct costs, which consist principally of costs of tool components and subassemblies purchased from third-party vendors;
- compensation of personnel associated with our manufacturing operations, including stock-based compensation;
- depreciation of manufacturing equipment;
- amortization of costs of software used for manufacturing purposes;
- other expenses attributable to our manufacturing department; and
- allocated overhead for rent and utilities.

We are not party to any long-term purchasing agreements with suppliers. Please see “Risk Factors—Risks Related to Our Business and Our Industry—Our customers do not enter into long-term purchase commitments, and they may decrease, cancel or delay their projected purchases at any time.”

As our customer base and tool installations continue to grow, we will need to hire additional manufacturing personnel. The rates at which we add customers and install tools will affect the level and time of this spending. In addition, because we often import components and spare parts from the United States, we have experienced, and expect to continue to experience, the effect of the dollar’s growth on our cost of revenue.

Gross Margin

Our gross margin was 40.6% in the first half of 2017 (compared with 34.8% in the first half of 2016), 48.7% in 2016 and 45.3% in 2015. Gross margin may vary from period to period, primarily related to the level of utilization and the timing and mix of purchase orders. We expect gross margin to be between 40% and 45% for the foreseeable future, with direct manufacturing costs approximating 50% to 55% of revenue and overhead costs totaling approximately 5% of revenue.

We seek to maintain our gross margin by continuing to develop proprietary technologies that avoid pricing pressure for our wet cleaning equipment. We actively manage our operations through principles of operational excellence designed to ensure continuing improvement in the efficiency and quality of our manufacturing operations by, for example, implementing factory constraint management and change control and inventory management systems. In addition, our purchasing department actively seeks to identify and negotiate supply contracts with improved pricing to reduce cost of revenue.

A significant portion of our raw materials are denominated in Renminbi, or RMB, while the majority of our purchase orders are denominated in U.S. dollars. As a result, currency exchange rates may have a significant effect on our gross margin. For further information, please see “Exchange Rate Information.”

Operating Expenses

We have experienced, and expect to continue to experience, growth in the dollar amount of our operating expenses, as we make investments to support the anticipated growth of our customer base and the continued development of proprietary technologies. As we continue to grow our business, we expect operating expenses to increase in absolute dollars.

Sales and Marketing

Sales and marketing expense accounted for 17.9% of our revenue in the first half of 2017 (compared with 22.4% of revenue in the first half of 2016), 14.3% of our revenue in 2016 and 13.5% of our revenue in 2015. Sales and marketing expense consists primarily of:

- compensation of personnel associated with pre- and after-sales support and other sales and marketing activities, including stock-based compensation;
- sales commissions paid to independent sales representatives;
- fees paid to sales consultants;
- shipping and handling costs for transportation of products to customers;
- warranty costs;
- cost of trade shows;
- travel and entertainment; and
- allocated overhead for rent and utilities.

Sales and marketing expense can be significant and may fluctuate, in part because of the resource-intensive nature of our sales efforts and the length and variability of our sales cycle. The length of our sales cycle, from initial contact with a customer to the execution of a purchase order, is generally 6 to 24 months.

During the sales cycle, we expend significant time and money on sales and marketing activities, including educating customers about our tools, participating in extended tool evaluations and configuring our tools to customer-specific needs. Sales and marketing expense in a given period can be particularly affected by the increase in travel and entertainment expenses associated with the finalization of purchase orders or the installation of tools.

We expect that, for the foreseeable future, sales and marketing expense will increase in absolute dollars, as we continue to invest in sales and marketing by hiring additional employees and expanding marketing programs in existing or new markets. We must invest in sales and marketing processes in order to develop and maintain close relationships with customers. We are making dollar-based investments in dollars in order to support growth of our customer base in the United States, and the relative strength of the dollar could have a significant effect on our sales and marketing expense.

Research and Development

Research and development expense accounted for 13.0% of our revenue in the first half of 2017 (compared with 18.3% of revenue in the first half of 2016), 11.9% of our revenue in 2016 and 9.4% of our revenue in 2015. Research and development expense relates to the development of new products and processes and encompasses our research, development and customer support activities. Research and development expense consists primarily of:

- compensation of personnel associated with our research and development activities, including stock-based compensation;
- costs of components and other research and development supplies;
- travel expense associated with customer support;
- amortization of costs of software used for research and development purposes; and
- allocated overhead for rent and utilities.

Some of our research and development has been funded by grants from the PRC government, as described in "—PRC Government Research and Development Funding" below.

We expect that, for the foreseeable future, research and development expense will increase in absolute dollars and will range between 10% and 12% of revenue, as we continue to invest in research and development to advance our technologies. We intend to continue to invest in research and development to support and enhance our existing single-wafer wet cleaning products and to develop future product offerings to build and maintain our technology leadership position.

General and Administrative

General and administrative expense accounted for 21.9% of our revenue in the first half of 2017 (compared with 13.4% of revenue in the first half of 2016), 9.8% of our revenue in 2016 and 6.7% of our revenue in 2015. General and administrative expense consists primarily of:

- compensation of executive, accounting and finance, human resources, information technology, and other administrative personnel, including stock-based compensation;
- professional fees, including accounting and legal fees;
- other corporate expenses; and
- allocated overhead for rent and utilities.

We expect that, for the foreseeable future, general and administrative expense will increase in absolute dollars, as we incur additional costs associated with growing our business and operating as a public company.

Stock-Based Compensation Expense

We grant stock options to employees and non-employee consultants and directors, and we accounts for those stock-based awards in accordance with Accounting Standards Codification, or ASC, Topic 718, *Compensation—Stock Compensation* and ASC Subtopic 505-50, *Equity-Based Payments to Non-Employees*, each as adopted by the Financial Accounting Standards Board, or FASB.

- Stock-based awards granted to employees are measured at the fair value of the awards on the grant date and are recognized as expenses either (a) immediately on grant, if no vesting conditions are required, or (b) using the graded vesting method, net of estimated forfeitures, over the requisite service period. The fair value of stock options is determined using the Black-Scholes valuation model. Stock-based compensation expense, when recognized, is charged to cost of revenue or to the category of operating expense corresponding to the employee's service function.

- Stock-based awards granted to non-employees are accounted for at the fair value of the awards at the earlier of (a) the date at which a commitment for performance by the non-employee to earn the awards is reached and (b) the date at which the non-employee's performance is complete. The fair value of such non-employee awards is re-measured at each reporting date using the fair value at each period end until the vesting date. Changes in fair value between the reporting dates are recognized by the graded vesting method.

Cost of revenue and operating expenses during the periods presented below have included stock-based compensation as follows:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Stock-Based Compensation Expense:				
Cost of revenue	$ 10	$ 6	$ 11	$ 9
Sales and marketing expense	18	2	5	4
Research and development expense	26	2	5	4
General and administrative expense	1,294	183	362	406
	$ 1,348	$ 193	$383	$423

We recognized stock-based compensation expense to employees of $128,000 in the first half of 2017 (compared to $46,000 in the first half of 2016), $92,000 in 2016 and $73,000 in 2015. As of June 30, 2017 and December 31, 2016 and 2015, there was $788,000, $726,000 and $299,000 of total unrecognized employee share-based compensation expense, net of estimated forfeitures, related to unvested share-based awards, which are expected to be recognized over a weighted-average period of 2.12 years, 2.25 years and 1.24 years, respectively.

We recognized stock-based compensation expense to non-employees of $1.2 million in the first half of 2017 (compared to $148,000 in the first half of 2016), $291,000 in 2016 and $350,000 in 2015. The fair value of each option granted to a non-employee is re-measured at each period end until the vesting date.

PRC Government Research and Development Funding

ACM Shanghai has received three grants from local and central governmental authorities in the PRC. The first grant, which was awarded in 2008, relates to the development and commercialization of 65nm to 45nm stress-free polishing technology. The second grant was awarded in 2009 to fund interest expense on short-term borrowings. The most recent grant was made in 2014 and relates to the development of electro copper-plating technology. PRC governmental authorities provide the majority of the funding, although ACM Shanghai is also required to invest certain amounts in the projects.

The PRC governmental grants contain certain operating conditions, and we are required to go through a government due diligence process once the project is complete. The grants therefore are recorded as long-term liabilities upon receipt, although we are not required to return any funds we receive. Grant amounts are recognized in our statements of operations and comprehensive income as follows:

- Government subsidies relating to current expenses are reflected as reductions of those expenses in the periods in which they are reported. Those reductions totaled $2.1 million in the first half of 2017 (compared to $2.0 million in the first half of 2016), $6.2 million in 2016 and $3.8 million in 2015.
- Government subsidies for interest on short-term borrowings are reported as reductions of interest expense in the periods the interest is accrued. Those reductions totaled $0 in the first half of 2017 (compared to $101,000 in the first half of 2016), $99,000 in 2016 and $303,000 in 2015.

- Government grants used to acquire depreciable assets are transferred from long-term liabilities to property, plant and equipment when the assets are acquired and then the recorded amounts of the assets are credited to other income over the useful lives of the assets. Related government subsidies recognized as other income totaled $65,000 in the first half of 2017 (compared to $63,000 in the first half of 2016), $127,000 in 2016 and $105,000 in 2015.

Net Income Attributable to Non-Controlling Interests

Since 2006 we have conducted our business through our subsidiary ACM Shanghai, and we have financed our operations in part through sale of minority equity interests in ACM Shanghai. From January 1, 2015 to August 31, 2017, ACM Research owned 62.87% of the equity interests of ACM Shanghai and three non-controlling, unrelated investors held the remaining 37.13%. As described above under "—Our Company—Acquisition of Outstanding Minority Interests in Our Operating Company," ACM Research (a) acquired an additional 18.77% equity interest from one of the minority investors as of August 31, 2017 and (b) entered into agreements with the other two minority investors pursuant to which it will acquire the remaining non-controlling interests in the fourth quarter of 2017.

How We Evaluate Our Operations

We present information below with respect to three measures of financial performance:

- We define "adjusted EBITDA" as our net income excluding interest expense (net), income tax benefit (expense), depreciation and amortization, and stock-based compensation. We define adjusted EBITDA to also exclude restructuring costs, although we have not incurred any such costs to date.
- We define "free cash flow" as net cash provided by operating activities less purchases of property and equipment (net of proceeds from disposals) and of intangible assets.
- We define "adjusted operating income (loss)" as our income (loss) from operations excluding stock-based compensation.

These financial measures are not based on any standardized methodologies prescribed by accounting principles generally accepted in the United States, or GAAP, and are not necessarily comparable to similarly titled measures presented by other companies.

We have presented adjusted EBITDA, free cash flow and adjusted operating income (loss) because they are key measures used by our management and board of directors to understand and evaluate our operating performance, to establish budgets and to develop operational goals for managing our business. We believe that these financial measures help identify underlying trends in our business that could otherwise be masked by the effect of the expenses that we exclude. In particular, we believe that the exclusion of the expenses eliminated in calculating adjusted EBITDA and adjusted operating income (loss) can provide useful measures for period-to-period comparisons of our core operating performance and that the exclusion of property and equipment purchases from operating cash flow can provide a usual means to gauge our capability to generate cash. Accordingly, we believe that these financial measures provide useful information to investors and others in understanding and evaluating our operating results, enhancing the overall understanding of our past performance and future prospects, and allowing for greater transparency with respect to key financial metrics used by our management in its financial and operational decision-making.

Adjusted EBITDA, free cash flow and adjusted operating income (loss) are not prepared in accordance with GAAP, and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with GAAP. There are a number of limitations related to the use of adjusted EBITDA rather than net income (loss), which is the nearest GAAP equivalent. Some of these limitations are:

- adjusted EBITDA excludes depreciation and amortization and, although these are non-cash expenses, the assets being depreciated or amortized may have to be replaced in the future;

- we exclude stock-based compensation expense from adjusted EBITDA and adjusted operating income (loss), although (a) it has been, and will continue to be for the foreseeable future, a significant recurring expense for our business and an important part of our compensation strategy and (b) if we did not pay out a portion of our compensation in the form of stock-based compensation, the cash salary expense included in operating expenses would be higher, which would affect our cash position;
- the expenses and other items that we exclude in our calculation of adjusted EBITDA may differ from the expenses and other items, if any, that other companies may exclude from adjusted EBITDA when they report their operating results;
- adjusted EBITDA does not reflect changes in, or cash requirements for, working capital needs;
- adjusted EBITDA does not reflect interest expense, or the requirements necessary to service interest or principal payments on debt;
- adjusted EBITDA does not reflect income tax expense (benefit) or the cash requirements to pay taxes;
- adjusted EBITDA does not reflect historical cash expenditures or future requirements for capital expenditures or contractual commitments;
- although depreciation and amortization charges are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and adjusted EBITDA does not reflect any cash requirements for such replacements; and
- adjusted EBITDA includes expense reductions and non-operating other income attributable to PRC governmental grants, which may mask the effect of underlying developments in net income (loss), including trends in current expenses and interest expense, and free cash flow includes the PRC governmental grants, the amount and timing of which can be difficult to predict and are outside our control.

The following table reconciles net income (loss), the most directly comparable GAAP financial measure, to adjusted EBITDA:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Adjusted EBITDA Data:				
Net income (loss)	$(2,955)	$(1,029)	$2,387	$ 7,915
Interest expense, net	159	45	165	105
Income tax expense (benefit)	749	(73)	595	(2,525)
Depreciation and amortization	118	88	187	160
Stock-based compensation	1,348	193	383	423
Adjusted EBITDA	$ (581)	$ (776)	$3,717	$ 6,078

Adjusted EBITDA in the six months ended June 30, 2017, as compared with the comparable period in 2016, reflected an increase of $3.2 million in net operating expenses, substantially offset by an increase of $3.0 million in gross profit. Adjusted EBITDA in 2016, as compared with 2016, reflected a decrease of $792,000 in gross profit and an increase of $582,000 in net operating expenses, in addition to the other factors driving net income. We do not exclude from adjusted EBITDA expense reductions and non-operating other income attributable to PRC governmental grants because we consider and incorporate the expected amounts and timing of those grants in incurring expenses and capital expenditures. If we did not receive the grants, our cash expenses therefore would be lower, and our cash position would not be affected, to the extent we have accurately anticipated the amounts of the grants. For additional information regarding our PRC grants, please see "—Key Components of Results of Operations—PRC Government Research and Development Funding."

The following table reconciles net cash provided by operating activities, the most directly comparable GAAP financial measure, to free cash flow:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(in thousands)			
Free Cash Flow Data:				
Net cash (used in) provided by operating activities	$2,983	$4,739	$ (3,702)	$ 2,702
Purchases of property and equipment, net of proceeds from disposals	(26)	(95)	(788)	(1,371)
Purchases of intangible assets	(36)	(9)	(22)	—
Free cash flow	$2,921	$4,635	$ (4,512)	$ 1,331

Free cash flow in the six months ended June 30, 2017, as compared with the comparable period in 2016, reflected, in addition to the factors driving net cash provided by operating activities, (a) decreases in accounts receivable offset by increases in accounts payable and (b) increases in stock-based compensation. Free cash flow in 2016, as compared with 2015, reflected, in addition to the factors driving net cash provided by operating activities, (a) increases in inventory and accounts receivable resulting from increased sales activities and (b) our continued expenditures on property and equipment. Consistent with our methodology for calculating adjusted EBITDA, we do not adjust free cash flow for the effects of PRC government subsidies, because we take those subsidies into account in incurring expenses and capital expenditures.

Adjusted operating income (loss) excludes stock-based compensation from income (loss) from operations. Although stock-based compensation is an important aspect of the compensation of our employees and executives, determining the fair value of certain of the stock-based instruments we utilize involves a high degree of judgment and estimation and the expense recorded may bear little resemblance to the actual value realized upon the vesting or future exercise of the related stock-based awards. Furthermore, unlike cash compensation, the value of stock options, which is an element of our ongoing stock-based compensation expense, is determined using a complex formula that incorporates factors, such as market volatility, that are beyond our control. Management believes it is useful to exclude stock-based compensation in order to better understand the long-term performance of our core business and to facilitate comparison of our results to those of peer companies. The use of non-GAAP financial measures excluding stock-based compensation has limitations, however. If we did not pay out a portion of our compensation in the form of stock-based compensation, the cash salary expense included in operating expenses would be higher, which would affect our cash position. The following tables reflect the exclusion of stock-based compensation from line items comprising income (loss) from operations:

	Six Months Ended June 30,					
	2017			2016		
	Actual (GAAP)	SBC	Adjusted (Non-GAAP)	Actual (GAAP)	SBC	Adjusted (Non-GAAP)
	(in thousands)					
Adjusted Operating Income (Loss):						
Revenue	$ 14,423	$ —	$ 14,423	$ 8,122	$ —	$ 8,122
Cost of revenue	(8,570)	(10)	(8,560)	$ (5,292)	(6)	(5,286)
Gross profit	5,853		5,863	2,830		2,836
Operating expenses:						
Sales and marketing	(2,583)	(18)	(2,565)	(1,818)	(2)	(1,816)
Research and development	(1,867)	(26)	(1,841)	(1,486)	(2)	(1,484)
General and administrative	(3,158)	(1,294)	(1,864)	(1,089)	(183)	(906)
Income (loss) from operations	$ (1,755)	$ (1,348)	$ (407)	$ (1,563)	(193)	$ (1,370)

	Year Ended December 31,					
	2016			2015		
	Actual (GAAP)	SBC	Adjusted (Non-GAAP)	Actual (GAAP)	SBC	Adjusted (Non-GAAP)
	(in thousands)					
Adjusted Operating Income (Loss):						
Revenue	$ 27,371	$ —	$ 27,371	$ 31,206	$ —	$ 31,206
Cost of revenue	(14,042)	(11)	(14,031)	(17,085)	(9)	(17,076)
Gross profit	13,329		13,340	14,121		14,130
Operating expenses:						
Sales and marketing	(3,907)	(5)	(3,902)	(4,213)	(4)	(4,209)
Research and development	(3,259)	(5)	(3,254)	(2,942)	(4)	(2,938)
General and administrative	(2,673)	(362)	(2,311)	(2,103)	(406)	(1,697)
Income (loss) from operations	$ 3,490	$ (383)	$ 3,873	$ 4,863	$ (423)	$ 5,286

Adjusted operating loss in the six months ended June 30, 2017, as compared with the comparable period in 2016, reflected an increase of $1.2 million in stock-based compensation expense. Adjusted operating income in 2016, as compared with 2015, reflected a decrease of $44,000 in stock based compensation expense.

Critical Accounting Policies and Significant Judgments and Estimates

The preparation of our consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions in applying our accounting policies that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosures of contingent assets and liabilities. We base these estimates and assumptions on historical experience, and evaluate them on an on-going basis to ensure that they remain reasonable under current conditions. Actual results could differ from those estimates. The accounting policies that reflect our more significant estimates, judgments and assumptions and that we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

Revenue Recognition

We utilize the guidance set forth in the FASB's ASC Topic 605, *Revenue Recognition*, regarding the recognition, presentation and disclosure of revenue in our financial statements. We recognize revenue when persuasive evidence of an arrangement exists; delivery has occurred and the major risks and remunerations of ownership have been transferred to the customer; collectability is probable; and the selling price is fixed or determinable.

In general, we recognize revenue when a tool has been demonstrated to meet the customer's predetermined specifications and is accepted by the customer. If terms of the sale provide for a lapsing customer acceptance period, we recognize revenue as of the earlier of the expiration of the lapsing acceptance period and customer acceptance. In the following circumstances, however, we recognize revenue upon shipment or delivery, when legal title to the tool is passed to a customer as follows:

- when the customer has previously accepted the same type of tool with the same specifications and when we can objectively demonstrate that the tool meets all of the required acceptance criteria;
- when the sales contract or purchase order does not contain an acceptance agreement or a lapsing acceptance provision and when we can objectively demonstrate that the tool meets all of the required acceptance criteria;
- when the customer withholds acceptance due to issues unrelated to product performance, in which case revenue is recognized when the system is performing as intended and meets predetermined specifications; or
- when our sales arrangements do not include a general right of return.

Customization, production, installation and delivery are essential elements of the functionality of our delivered tools, but the related services we offer, principally warranty services, are not essential to tool functionality. We treat the customization, production, installation and delivery of tools, together with the provision of related warranty and other services, as a single unit of accounting in accordance with the FASB's ASC Subtopic 605-25, *Revenue Recognition—Multiple Element Arrangements.* In the first half of 2017 and in 2016 and 2015 all of our tools were sold in stand-alone arrangements.

We offer post-warranty period services, which consist principally of the installation and replacement of parts and small-scale modifications to the equipment. The related revenue and costs of revenue are recognized when parts have been delivered and installed, risk of loss has passed to the customer, and collection is probable. We do not expect revenue from extended maintenance service contracts to represent a material portion of our revenue in the future.

Stock-Based Compensation

We account for grants of stock options based on their grant date fair value and recognize compensation expense over the vesting periods. We estimate the fair value of stock options as of the date of grant using the Black-Scholes option pricing model. Stock options granted to non-employees are subject to periodic revaluation over their vesting terms.

Stock-based compensation expense represents the cost of the grant date fair value of employee stock option grants recognized over the requisite service period of the awards (usually the vesting period) on a straight-line basis, net of estimated forfeitures. We estimate the fair value of stock option grants using the Black-Scholes option pricing model, which requires the input of highly subjective assumptions, including (a) the risk-free interest rate, (b) the expected volatility of our stock, (c) the expected term of the award and (d) the expected dividend yield.

- The risk-free interest rates for periods within the expected life of the option are based on the yields of zero-coupon U.S. Treasury securities.
- Due to the lack of a public market for the trading of the common stock and a lack of company-specific historical and implied volatility data, we have based our estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. For these analyses, we have selected companies with comparable characteristics to ours including enterprise value, risk profile, position within the industry, and with historical share price information sufficient to meet the expected life of the stock-based awards. We compute the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of our stock-based awards. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.
- The expected term represents the period of time that options are expected to be outstanding. The expected term of stock options is based on the average between the vesting period and the contractual term for each grant according to Staff Accounting Bulletin No. 110.
- The expected dividend yield is assumed to be 0%, based on the fact that we have never paid cash dividends and have no present intention to pay cash dividends.

No stock options were granted to employees during the six months ended June 30, 2016. For employee stock option grants made during the six months ended June 30, 2017 and the years ended December 31, 2016 and 2015, the weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of those grants were as follows:

	Six Months Ended June 30,	Year Ended December 31,	
	2017	2016	2015
Risk-free interest rate	2.22%	2.02% - 2.32%	1.87%
Expected volatility	29.18%	29.93%	37.67%
Expected term (in years)	6.25%	5.75 - 6.25	6.25
Expected dividend yield	0%	0%	0%

For non-employee stock option grants made during the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, the weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of those grants were as follows:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
Risk-free interest rate	1.85% - 2.33%	0.71% - 1.21%	1.00% - 2.25%	1.31% - 1.76%
Expected volatility	28.87% - 29.41%	30.59% - 31.43%	29.93%	33.21%
Expected term (in years)	4.08 - 6.19	2.62 - 5.69	2.11 - 6.24	3.12 - 5.94
Expected dividend yield	0%	0%	0%	0%

The following table summarizes by grant date the number of shares of common stock underlying stock options granted since January 1, 2015, as well as the associated per share exercise price and the estimated fair value per share of common stock on the grant date:

Grant Dates	Number of Common Shares Underlying Options Granted	Exercise Price per Common Share	Estimated Fair Value per Common Share
May 1, 2015	783,338	$ 1.50	$ 1.50
September 8, 2015	263,335	1.50	1.50
December 28, 2016	1,424,596	3.00	2.28
March 9, 2017	33,334	7.50	7.50
May 9, 2017	183,335	7.50	7.50

As of June 30, 2017, the unrecognized compensation cost related to outstanding options was $788,000 and is expected to be recognized as expense over a weighted-average of 2.12 years. As of December 31, 2016, the unrecognized compensation cost related to outstanding options was $726,000 and is expected to be recognized as expense over a weighted-average of 2.25 years. As of December 31, 2015, the unrecognized compensation cost related to outstanding options was $299,000 and is expected to be recognized as expense over a weighted-average of 1.24 years.

As of June 30, 2017, we had outstanding stock options to acquire an aggregate of 3,489,959 shares of Class A common stock with an intrinsic value of $21.7 million. Of those outstanding options, (a) 1,611,595 shares had vested as of June 30, 2017, representing an intrinsic value of $11.6 million and (b) 1,878,364 shares were unvested, representing an intrinsic value of $10.1 million.

Determination of Fair Value of Common Stock

We are required to estimate the fair value of common stock underlying our stock-based awards when performing fair value calculations. All options to purchase shares of common stock are intended to be granted with an exercise price per share no less than the fair value per share of the common stock underlying those options on the date of grant, based on the information known to us on the date of grant. In the absence of a public trading market for the common stock, on each grant date we develop an estimate of the fair value of the common stock with the assistance of a third party valuation specialist to determine an exercise price for the option grants.

We historically have granted stock options at exercise prices equal to the fair value of the common stock as of the date of grant, as determined by the board of directors with input from management. Because there has been no public market for the common stock, the board determined the fair value of the common stock by considering a number of objective and subjective factors, including our financial performance and projections, the relative illiquidity of the common stock, the pricing of sales of convertible preferred stock to third parties, the preferences of our outstanding convertible preferred stock as compared to the common stock, including the liquidation preferences and dividend rights, peer group trading multiples, and trends in the broad semiconductor equipment market.

On December 28, 2016, the compensation committee of the board of directors, acting with the assistance of a third-party valuation specialist, considered the fair value of the common stock. In considering the fair value, the compensation committee took into account the methodologies, approaches and assumptions provided by the *Audit and Accounting Practice Aid Series: Valuation of Privately Held Company Equity Securities Issued as Compensation of the American Institute of Certified Public Accountants*, or the Practice Aid.

There are significant judgments and estimates inherent in the compensation committee's determination of the fair value of the common stock. These judgments and estimates include assumptions regarding our future operating performance, the time to completing an IPO or other liquidity event, and the determination of the appropriate valuation methods. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per common share could have been significantly different.

In accordance with the Practice Aid, the compensation committee considered the various methods for allocating the enterprise value across the classes and series of capital stock to determine the fair value of our common stock at each valuation date.

The compensation committee considered, but did not use, the following methods:

- The *liquidation value method* assumes the discontinuance of the business as a going concern.
- The *single period capitalization method* is most appropriate when a company's current and historical operations can reasonably be considered indicative of its future operations. The compensation committee determined that, since we are planning for higher annual growth than shown by our current and historical results, this method will not produce a value indicative of our growing company.
- The *excess earnings method* estimates the value of a company's intangible assets and assumes that earnings in excess of a reasonable return of the net tangible assets are a product of a company's intangible assets. The compensation committee deemed this method not to be a meaningful indication of value for the same reasons it rejected the single period capitalization method and also because our actual investment in net tangible assets is minimal.
- The *comparative transaction method* derives indications of fair value from actual merger and acquisition transactions in the markets. The purchase prices in merger and acquisition transactions may be a better reflection of investment value than fair value of a target. Given the stage of our growth, the compensation committee determined a comparative transaction would not adequately reflect our value.
- The *capital market method* seeks valuation guidance from prices paid by shareholders for similarly situated publicly traded companies. With the capital market method, the compensation committee

would determine an appropriate multiple to apply to our financial measures by dividing the price of a guideline company's stock and, in some instances, the value of all invested capital, by some relative economic variable observed or calculated from such company's financial statement. Given the stage of our growth, the compensation committee determined the application of value metrics fails to capture value that we have created but that has not yet been reflected in our operating results.

- The *discounted cash flow method* is based on the assumed returns from a company's assets, and converts this into an enterprise value. The present value of a stream of benefits is obtained by a discount rate that takes into account a company's stage of development and risks involved. The compensation committee deemed this method not suitable in the instant case due to our then-recent transactions involving the sale of our securities.

In light of our placement and sale of Series F preferred stock in December 2016, the compensation committee applied the *company transaction method*, which uses the most recent negotiated arm's-length transactions involving the sale or transfer of stock or other equity interests. In applying the company transaction method, the compensation committee used the option-pricing model, or OPM, under which shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The values of preferred stock and common stock are inferred by analyzing these options.

Under the company transaction method, the compensation committee analyzed equity value in the context of both an initial public offering and a sale or merger of our company. Using the OPM and the post-money value of the Series F preferred stock, it was possible to determine the implied equity value for all classes of stock. In applying the OPM, the compensation committee relied on the equity value of our company based upon the Series F preferred stock investment, which was completed at a price of $2.50 per share. This value was then used to determine the implied Class A common stock value using the OPM, considering (a) the applicable conversion rate of 0.3333 shares of Class A common stock for each share of Series F preferred stock and (b) the claims of the various classes of equity securities. The compensation committee then applied a discount for lack of marketability to obtain the value of Class A common stock on a minority/marketable basis. The assumptions used in calculating the fair value of option grants in 2016 were a risk-free rate based on the weighted average of the one year and two year Treasury Constant Maturity Rates, expected expiration at 1.25 years from the valuation date, and expected volatility estimated at 45%. These assumptions represented the best estimates of management and the compensation committee, but the estimates necessarily involve inherent uncertainties and the application of judgment.

Based on the foregoing, the compensation committee determined the fair value of Class A common stock for financial reporting purposes to be $2.28 as of December 28, 2016. As a result, the exercise price of $3.00 of the stock options granted on December 28, 2016 exceeded the fair value of Class A common stock on that date.

On March 9, 2017, the compensation committee of the board of directors considered the fair value of the common stock. In considering the fair value, the compensation committee took into account the methodologies, approaches and assumptions provided by the Practice Aid. In accordance with the Practice Aid, the compensation committee considered the various methods for allocating the enterprise value across the classes and series of capital stock to determine the fair value of our common stock at each valuation date. Consistent with its process and analysis on December 28, 2016, the compensation committee considered, but did not use, the liquidation value, single period capitalization, excess earnings, comparative transaction, capital market and discounted cash flow methods. The compensation committee determined that the terms of a share purchase agreement being negotiated and discussed at arm's length in March 2017 and involving the transfer of Class A common stock provided the best evidence of the fair value of the Class A common stock. In the transaction, we expected to issue, and ultimately issued, 133,334 shares of Class A common stock at a purchase price of $7.50 per share. Because this direct evidence of the fair value of the Class A common stock was available, the compensation committee did not need to apply the company transaction method.

Based on the foregoing, the compensation committee determined the fair value of Class A common stock for financial reporting purposes to be $7.50 as of March 9, 2017. As a result, the exercise price of $7.50 of the stock option granted on March 9, 2017 equaled the fair value of Class A common stock on that date.

On May 9, 2017, the compensation committee of the board of directors considered the fair value of the common stock. In considering the fair value, the compensation committee took into account the methodologies, approaches and assumptions provided by the Practice Aid. In accordance with the Practice Aid, the compensation committee considered the various methods for allocating the enterprise value across the classes and series of capital stock to determine the fair value of our common stock at each valuation date. Consistent with its process and analysis on December 28, 2016 and March 9, 2017, the compensation committee considered, but did not use, the liquidation value, single period capitalization, excess earnings, comparative transaction, capital market and discounted cash flow methods. The compensation committee determined that the terms of the share purchase agreement considered in connection with the option grants on March 9, 2017, but still being negotiated as of May 9, 2017, provided the best evidence of the fair value of the Class A common stock. Pursuant to this proposed agreement, we continued to contemplate the issuance and sale of 133,334 shares of Class A common stock at a purchase price of $7.50 per share. Because this direct evidence of the fair value of the Class A common stock was available, the compensation committee did not need to apply the company transaction method.

Based on the foregoing, the compensation committee determined the fair value of Class A common stock for financial reporting purposes to be $7.50 as of May 9, 2017. As a result, the exercise price of $7.50 of the stock option granted on May 9, 2017 equaled the fair value of Class A common stock on that date.

Since May 9, 2017, the compensation committee has not granted any options, but has allocated 120,002 shares of Class A common stock for options to be granted to employees on the date that this registration statement, of which this prospectus forms a part, is declared effective, at an exercise price per share equal to the initial public offering price of the offering made hereby.

Inventory

Inventories consist of finished goods, raw materials, work-in-process and consumable materials. Finished goods are comprised of direct materials, direct labor, depreciation and manufacturing overhead. Inventory is stated at the lower of cost and net recognizable value of the inventory at June 30, 2017 and at the lower of cost and market value of the inventory at December 31, 2016 and 2015. The cost of a general inventory item is determined using the weighted average method. The cost of an inventory item purchased specifically for a customized tool is determined using the specific identification method. Market value is determined as the lower of replacement cost and net realizable value, which is the estimated selling price, in the ordinary course of business, less estimated costs to complete or dispose.

We assess the recoverability of all inventories quarterly to determine if any adjustments are required. We write down excess or obsolete tool-related inventory based on management’s analysis of inventory levels and forecasted 12-month demand and technological obsolescence and spare parts inventory based on forecasted usage. These factors are affected by market and economic conditions, technology changes, new product introductions and changes in strategic direction, and they require estimates that may include uncertain elements. Actual demand may differ from forecasted demand, and those differences may have a material effect on recorded inventory values.

Our manufacturing overhead standards for product costs are calculated assuming full absorption of forecasted spending over projected volumes, adjusted for excess capacity. Abnormal inventory costs such as costs of idle facilities, excess freight and handling costs, and spoilage are recognized as current period charges.

Allowance for Doubtful Accounts

Accounts receivable are reflected in our consolidated balance sheets at their estimated collectible amounts. A substantial majority of our accounts receivable are derived from sales to large multinational semiconductor manufacturers in Asia. We follow the allowance method of recognizing uncollectible accounts receivable, pursuant to which we regularly assess our ability to collect outstanding customer invoices and make estimates of the collectability of accounts receivable. We provide an allowance for doubtful accounts when we determine that the collection of an outstanding customer receivable is not probable. The allowance for doubtful accounts is reviewed

on a quarterly basis to assess the adequacy of the allowance. We take into consideration (a) accounts receivable and historical bad debts experience, (b) any circumstances of which we are aware of a customer's inability to meet its financial obligations, (c) changes in our customer payment history, and (d) our judgments as to prevailing economic conditions in the industry and the impact of those conditions on our customers. If circumstances change, such that the financial conditions of our customers are adversely affected and they are unable to meet their financial obligations to us, we may need to record additional allowances, which would result in a reduction of our net income.

Deferred Initial Public Offering Costs

Direct costs attributable to this offering have been deferred and recorded in other current assets and will be offset against the gross proceeds received from this offering. At June 30, 2017 and December 30, 2016 and 2015, deferred costs attributable to this offering were $797,000, $41,000 and $0, respectively.

Property, Plant and Equipment

Assets comprising property, plant and equipment are recorded at cost. Depreciation is recorded on a straight-line basis over the estimated useful lives of the assets and begins when the assets are placed in service. Betterments or renewals are capitalized when incurred. Maintenance and repairs with respect to an asset are expensed as incurred if they neither materially add to the value of the asset nor appreciably prolong its life. Assets comprising plant, property and equipment are reviewed each year to determine whether any events or circumstances indicate that the carrying amount of the asset may not be recoverable.

Intangible Assets

Intangible assets represent the fair value of separately recognizable intangible assets acquired in connection with our business operations. We evaluate intangibles for impairment on an annual basis or whenever events or circumstances indicate that an impairment may have occurred.

Valuation of Long-Lived Assets

Long-lived assets are evaluated for impairment whenever events or changes in circumstance indicate that the carrying value of an asset may not be fully recoverable or that the useful life is shorter than we had originally estimated. When these events or changes occur, we evaluate the impairment of the long-lived assets by comparing the carrying value of the assets to an estimate of future undiscounted cash flows expected to be generated from the use of the assets and their eventual disposition. If the sum of the expected future undiscounted cash flow is less than the carrying value of the assets, we recognize an impairment loss based on the excess of the carrying value over the fair value. No impairment charge was recognized in 2015, 2016 and the six months ended June 30, 2017.

Income Taxes

Income taxes are accounted for using the liability method. Under this method, deferred income tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance would be provided for the deferred tax assets if it is more likely than not that the related benefit will not be realized.

On a quarterly basis, we provide income tax provisions based upon an estimated annual effective income tax rate. The effective tax rate is highly dependent upon the geographic composition of worldwide earnings, tax regulations governing each region, availability of tax credits and the effectiveness of our tax planning strategies. We carefully monitor the changes in many factors and adjust our effective income tax rate on a timely basis. If actual results differ from these estimates, this could have a material effect on our financial condition and results of operations.

We maintained a partial valuation allowance as of December 31, 2016 with respect to certain net deferred tax assets based on our estimates of recoverability. We determined that the partial valuation allowance was appropriate given our historical operating losses and uncertainty with respect to our ability to generate profits from our business model sufficient to take advantage of the deferred tax assets in all applicable tax jurisdictions.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. In accordance with the authoritative guidance on accounting for uncertainty in income taxes, we recognize liabilities for uncertain tax positions based on the two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained in audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than fifty-percent likely of being realized upon ultimate settlement. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any change in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision.

Interest and penalties related to uncertain tax positions are recorded in the provision for income tax expense on the consolidated statements of operations.

Foreign Currency Translation

Our consolidated financial statements are presented in U.S. dollars, which is our reporting currency, while the functional currency of our subsidiaries in the PRC is RMB. Transactions in foreign currencies are initially recorded at the functional currency rate prevailing at the date of the transactions. Any difference between the initially recorded amount and the settlement amount is recorded as a gain or loss on foreign currency transaction in our consolidated statements of operations. Monetary assets and liabilities denominated in a foreign currency are translated at the functional currency rate of exchange as of the date of a consolidated balance sheet. Any difference is recorded as a gain or loss on foreign currency translation in the appropriate consolidated statement of operations. In accordance with the FASB's ASC Topic 830, *Foreign Currency Matters*, we translate the assets and liabilities into U.S. dollars from RMB using the rate of exchange prevailing at the applicable balance sheet date and the consolidated statements of operations and cash flows are translated at an average rate during the reporting period. Adjustments resulting from the translation are recorded in stockholders' equity as part of accumulated other comprehensive income.

The PRC government imposes significant exchange restrictions on fund transfers out of the PRC that are not related to business operations. To date these restrictions have not had a material impact on us because we have not engaged in any significant transactions that are subject to the restrictions.

Warranty

We have provided warranty coverage on our tools for 12 to 36 months, covering labor and parts necessary to repair a tool during the warranty period. We account for the estimated warranty cost as sales and marketing expense at the time revenue is recognized. Warranty obligations are affected by historical failure rates and associated replacement costs. Utilizing historical warranty cost records, we calculate a rate of warranty expenses to revenue to determine the estimated warranty charge. We update these estimated charges on a regular basis. The actual product performance and field expense profiles may differ, and in those cases we adjust our warranty accruals accordingly.

Recent Accounting Pronouncements

The following description summarizes recent accounting pronouncements that we have adopted or will be required to adopt in the future.

In July 2017 the FASB issued Accounting Standards Update ("*ASU*") ASU No. 2017-11, *Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815)*: *(Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception*, which addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. For public business entities, the amendments in Part I of this update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. For all other entities, the amendments in Part I of this update are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. We are currently evaluating the impact of adoption of ASU 2017-11.

In May 2017 the FASB issued ASU No. 2017-09, *Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting*, which provides guidance on determining which changes to the terms or conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. The amendments in this ASU are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period, for (a) public business entities for reporting periods for which financial statements have not yet been issued and (b) all other entities for reporting periods for which financial statements have not yet been made available for issuance. The amendments in this ASU should be applied prospectively to an award modified on or after the adoption date. We do not expect the adoption of ASU No. 2017-09 to have a material impact on our consolidated financial statements.

In February 2017 the FASB issued ASU No. 2017-05, *Other Income —Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets*, which clarifies the scope of nonfinancial asset guidance in Subtopic 610-20. This ASU also clarifies that derecognition of all businesses and nonprofit activities (except those related to conveyances of oil and gas mineral rights or contracts with customers) should be accounted for in accordance with the derecognition and deconsolidation guidance in Subtopic 810-10. The amendments in this ASU also provide guidance on the accounting for so-called "partial sales" of nonfinancial assets within the scope of Subtopic 610-20 and contributions of nonfinancial assets to a joint venture or other noncontrolled investee. The amendments in this ASU are effective for annual reporting reports beginning after December 15, 2017, including interim reporting periods within that reporting period. We do not expect the adoption of ASU No. 2017-05 to have a material impact on our consolidated financial statements.

In January 2017 the FASB issued ASU No. 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, which removes Step 2 from the goodwill impairment test. An entity will apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit's carrying amount over its fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The new guidance does not amend the optional qualitative assessment of goodwill impairment. A business entity that is a U.S. Securities and Exchange Commission filer must adopt the amendments in this ASU for its annual or any interim goodwill impairment test in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We do not expect the adoption of ASU No. 2016-18 to have a material impact on our consolidated financial statements.

In November 2016 the FASB issued ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*, which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash

equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this ASU do not provide a definition of restricted cash or restricted cash equivalents. The amendments in this ASU are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact of the adoption of ASU No. 2016-18 on our consolidated financial statements.

In August 2016 the FASB issued Accounting Standards Update, or ASU, No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, which addresses the following cash flow issues: (a) debt prepayment or debt extinguishment costs; (b) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; (c) contingent consideration payments made after a business combination; (d) proceeds from the settlement of insurance claims; (e) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; (f) distributions received from equity method investees; (g) beneficial interests in securitization transactions; and (h) separately identifiable cash flows and application of the predominance principle. The amendments in this ASU are effective for public business entities for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years and are effective for all other entities for fiscal years beginning after December 15, 2018 and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact of the adoption of ASU No. 2016-15 on our consolidated financial statements.

In April 2016 the FASB issued ASU No. 2016-09, *Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*, which simplifies several aspects of the accounting for employee stock-based payment transactions. The areas for simplification in ASU No. 2016-09 include the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The amendments in this ASU will be effective for annual periods beginning after December 15, 2016 and interim periods within those annual periods. The adoption of ASU No. 2016-09 did not have a material impact on our consolidated financial statements.

In February 2016 the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The amendments in this update create Topic 842, *Leases*, and supersede the leases requirements in Topic 840, *Leases*. Topic 842 specifies the accounting for leases. The objective of Topic 842 is to establish the principles that lessees and lessors shall apply to report useful information to users of financial statements about the amount, timing and uncertainty of cash flows arising from a lease. The main difference between Topic 842 and Topic 840 is the recognition of lease assets and lease liabilities for those leases classified as operating leases under Topic 840. Topic 842 retains a distinction between finance leases and operating leases. The classification criteria for distinguishing between finance leases and operating leases are substantially similar to the classification criteria for distinguishing between capital leases and operating leases in the previous leases guidance. The result of retaining a distinction between finance leases and operating leases is that under the lessee accounting model in Topic 842, the effect of leases in the statement of comprehensive income and the statement of cash flows is largely unchanged from previous GAAP. The amendments in ASU No. 2016-02 are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years for public business entities. Early application of the amendments in ASU No. 2016-02 is permitted. We are currently evaluating the impact of the adoption of ASU No. 2016-02 on our consolidated financial statements.

In November 2015 the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*. Topic 740, *Income Taxes*, requires an entity to separate deferred income tax liabilities and assets into current and noncurrent amounts in a classified statement of financial position. Deferred tax liabilities and assets are classified as current or noncurrent based on the classification of the related asset or liability for financial reporting. Deferred tax liabilities and assets that are not related to an asset or liability for financial reporting are classified according to the expected reversal date of the temporary difference. To simplify the presentation of deferred income taxes, the amendments in ASU No. 2015-17 require that deferred income tax

liabilities and assets be classified as noncurrent in a classified statement of financial position. For public business entities, the amendments in this update are effective for financial statements issued for annual periods beginning after December 15, 2016, and interim periods within those annual periods. The adoption of ASU No. 2015-17 did not have a material impact on our consolidated financial statements.

In July 2015 the FASB issued ASU No. 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*. The amendments in this update require an entity to measure inventory within the scope of ASU No. 2015-11 (the amendments in ASU No. 2015-11 do not apply to inventory that is measured using last-in, first-out or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out or average cost) at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Subsequent measurement is uncharged for inventory measured using last-in, first-out or the retail inventory method. The amendments in ASU No. 2015-11 more closely align the measurement of inventory in GAAP with the measurement of inventory in International Financial Reporting Standards. ASU No. 2015-11 is effective for public business entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The amendments in ASU No. 2015-11 should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The adoption of ASU No. 2015-11 did not have a material impact on our consolidated financial statements. The relevant descriptions have been included in the inventory accounting policy.

In August 2014, the FASB issued ASU No. 2014-15, *Presentation of Financial Statements—Going Concern*. The amendments in this update require management to evaluate whether there are conditions and events that raise substantial doubt about an entity's ability to continue as a going concern for both annual and interim reporting. The guidance is effective for us for the annual period ended after December 15, 2016 and interim periods thereafter. Management performed an evaluation of the our ability to fund operations and to continue as a going concern according to ASC Topic 205-40, *Presentation of Financial Statements—Going Concern*. The adoption of ASU No. 2014-15 did not have a material impact on our consolidated financial statements.

In May 2014 the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which ASU No. 2014-09 supersedes the revenue recognition requirements in *Revenue Recognition (Topic 605)* and requires entities to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The FASB issued ASU No. 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, in August 2015. The amendments in ASU No. 2015-14 defer the effective date of ASU No. 2014-09. Public business entities, certain not-for-profit entities and certain employee benefit plans should apply the guidance in ASU No. 2014-09 to annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. Earlier adoption is permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. Further to ASU No. 2014-09 and ASU No. 2015-14, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*, in March 2016, ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing* in April 2016, ASU No. 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*, and ASU No. 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*, respectively. The amendments in ASU No. 2016-08 clarify the implementation guidance on principal versus agent considerations, including indicators to assist an entity in determining whether it controls a specified good or service before it is transferred to the customers. ASU No. 2016-10 clarifies guideline related to identifying performance obligations and licensing implementation guidance contained in the new revenue recognition standard. The updates in ASU No. 2016-10 include targeted improvements based on input the FASB received from the Transition Resource Group for Revenue Recognition and other stakeholders. It seeks to proactively address areas in which diversity in practice potentially could arise, as well as to reduce the cost and complexity

of applying certain aspects of the guidance both at implementation and on an ongoing basis. ASU No. 2016-12 addresses narrow-scope improvements to the guidance on collectability, non-cash consideration and completed contracts at transition. Additionally, the amendments in this ASU provide a practical expedient for contract modifications at transition and an accounting policy election related to the presentation of sales taxes and other similar taxes collected from customers. The amendments in ASU No. 2016-20 represent changes to make minor corrections or minor improvements to the ASC that are not expected to have a significant effect on current accounting practice or create a significant administrative cost to most entities. The effective date and transition requirements for ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12 and ASU No. 2016-20 are the same as ASU No. 2014-09. We will adopt ASU No. 2014-09, ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12 and ASU No. 2016-20 at January 1, 2018 if this offering is completed by December 31, 2017. We are currently in the process of assessing the potential effects of these ASUs on our consolidated financial statements, business processes, systems and controls. While the assessment process is ongoing, we anticipate adopting ASC Topic 606, *Revenue from Contracts with Customers*, using the modified retrospective transition approach. Under this approach, ASC Topic 606 would apply to all new contracts initiated on or after January 1, 2018. For existing contracts that have remaining obligations as of January 1, 2018, any difference between the recognition criteria in these ASUs and our current revenue recognition practices would be recognized using a cumulative effect adjustment to the opening balance of accumulated deficit. We do not expect the adoption of these ASUs to have a material impact on our consolidated financial statements.

Results of Operations

The following table sets forth our results of operations for the periods presented, as percentages of revenue.

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(percentage of revenue)			
Revenue	100.0%	100.0%	100.0%	100.0%
Cost of revenue	59.4	65.2	51.3	54.7
Gross margin	40.6	34.8	48.7	45.3
Operating expenses:				
Sales and marketing	17.9	22.4	14.3	13.5
Research and development	13.0	18.3	11.9	9.4
General and administrative	21.9	13.4	9.7	6.8
Total operating expenses, net	52.8	54.1	35.9	29.7
Income (loss) from operations	(12.2)	(19.3)	12.8	15.6
Interest expense, net	(1.1)	(0.6)	(0.6)	(0.3)
Other income (expense), net	(2.0)	6.2	(1.3)	2.0
Income (loss) before income taxes	(15.3)	(13.7)	10.9	17.3
Income tax (expense) benefit	(5.2)	0.9	(2.2)	8.1
Net income (loss)	(20.5)	(12.8)	8.7	25.4
Less: Net income (loss) attributable to non-controlling interests	(1.4)	(5.9)	4.9	8.2
Net income (loss) attributable to ACM Research, Inc.	(19.1)%	(6.9)%	3.8%	17.2%

Comparison of Six Months Ended June 30, 2017 and 2016

Revenue

	Six Months Ended June 30,		% Change
	2017	2016	2016 v 2017
	(in thousands)		
Revenue	$14,423	$8,122	77.6%

The increase in revenue of $6.3 million in the six months ended June 30, 2017 reflected increases in revenue from single-wafer cleaning equipment of $5.0 million and from advanced packaging equipment of $1.1 million. Our revenue in the six months ended June 30, 2017 compared to the corresponding period of 2016 reflected sales of $4.5 million to two new customers and an increase of $1.8 million in sales to existing customers.

Cost of Revenue and Gross Margin

	Six Months Ended June 30,		% Change
	2017	2016	2016 v 2017
	(in thousands)		
Cost of revenue	$8,570	$5,292	61.9%
Gross profit	$5,853	$2,830	106.8
Gross margin	40.6%	34.8%	16.5

Cost of revenue increased $3.3 million, and gross profit increased $3.0 million, from the six months ended June 30, 2016 to the comparable period in 2017, reflecting the growth in sales. Gross margin increased 5.8%, primarily due to sales of relatively lower-margin tools to new customers during the six months ended June 30, 2016.

Operating Expenses

	Six Months Ended June 30,		% Change
	2017	2016	2016 v 2017
	(in thousands)		
Sales and marketing expense	$2,583	$1,818	42.1%
Research and development expense	1,867	1,486	25.6
General and administrative expense	3,158	1,089	190.0
Total operating expenses, net	$7,608	$4,393	73.2%

Sales and marketing expense increased $765,000 in the six months ended June 30, 2017 as compared to the corresponding period in 2016, primarily due to an increase in employee salaries and sales services.

Research and development expense increased $381,000 in the six months ended June 30, 2017 as compared to the corresponding period in 2016, principally as a result of increases of in employee salaries and research and development parts. Research and development expense represented 12.9% and 18.3% of our revenue in the six months ended June 30, 2017 and 2016, respectively. Without reduction by grant amounts received from PRC governmental authorities (see "—Key Components of Results of Operations—PRC Government Research and Development Funding"), gross research and development expense totaled $5.0 million, or 34.8% of revenue, in the six months ended June 30, 2017 and $3.5 million, or 42.6% of revenue, in the six months ended June 30, 2016.

General and administrative expense increased $2.1 million in the six months ended June 30, 2017 as compared to the corresponding period in 2016, principally resulting from preparations to become a public company. These costs reflected increases of $1.1 million in stock compensation expense, $511,000 in professional fees, $90,000 in consulting fees, $80,000 in personnel costs and $75,000 in tax expense.

Other Income and Expenses

	Six Months Ended June 30,		% Change
	2017	2016	2016 v 2017
	(in thousands)		
Interest expense, net	$(159)	$ (45)	253.3%
Other income (expense), net	(292)	506	(157.7)

Interest expense consists of interest incurred from outstanding short-term borrowings and notes payable. Interest expense increased to $164,000 in the six months ended June 30, 2017 from $51,000 in the six months ended June 30, 2016, principally as a result of increased borrowings under short-term bank loans. We earn interest income from depositary accounts. Interest income was nominal in the six months ended June 30, 2017 and 2016.

Other income, net primarily reflects (a) gains or losses recognized from the effect of exchange rates on our foreign currency-denominated asset and liability balances, (b) depreciation of assets acquired with government subsidies, as described under "—Key Components of Results of Operations—PRC Government Research and Development Funding" above, and (c) losses we recognized upon dispositions of fixed assets.

Income Tax (Expense) Benefit

The following presents components of income tax (expense) benefit for the indicated periods:

	Six Months Ended June 30,	
	2017	2016
	(in thousands)	
Current:		
U.S. federal	$ —	$ —
U.S. state	—	—
Foreign	—	—
Total current income tax (expense) benefit	—	—
Deferred:		
U.S. federal	—	—
U.S. state	—	—
Foreign	(749)	73
Total deferred income tax (expense) benefit	(749)	73
Total income tax (expense) benefit	$ (749)	$ 73

Our effective tax rate differs from statutory rates of 34% for U.S. federal income tax purposes and 15% to 25% for Chinese income tax purpose due to the effects of the valuation allowance and certain permanent differences as it pertains to book-tax differences in the value of client equity securities received for services. Our two PRC subsidiaries, ACM Shanghai and ACM Wuxi, are liable for PRC corporate income taxes at the rates of 15% and 25%, respectively. Pursuant to the Corporate Income Tax Law of the PRC, our PRC subsidiaries generally would be liable for PRC corporate income taxes as a rate of 25%. According to Guoshuihan 2009 No. 203, an entity certified as an "advanced and new technology enterprise" is entitled to a preferential income

tax rate of 15%. ACM Shanghai was certified as an “advanced and new technology enterprise” in 2012 and again in 2016, with an effective period of three years.

We file income tax returns in the United States and state and foreign jurisdictions. Those federal, state and foreign income tax returns are under the statute of limitations subject to tax examinations for 2009 through 2016. To the extent we have tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the Internal Revenue Service or state or foreign tax authorities to the extent utilized in a future period.

We intend to reinvest indefinitely our PRC earnings as of June 30, 2017 outside of the United States, and we therefore have not provided for taxes with respect to the remissions of such earnings from the PRC to the United States.

Comparison of Years Ended 2016 and 2015

Revenue

	Year Ended December 31,		% Change
	2016	2015	2015 v 2016
	(in thousands)		
Revenue	$27,371	$31,206	(12.3)%

The decrease in revenue in 2016 from 2015 reflected a decline in revenue from single-wafer wet cleaning equipment of $5.4 million, offset in part by a $1.5 million increase in revenue from advanced packaging equipment. Our revenue in 2016 compared to 2015 reflected a $20.2 million reduction in sales, from $26.8 million in 2015 to $6.6 million in 2016, to our largest customer in 2015, offset in part by (a) a $1.3 million increase from 2015 to 2016 in purchases by our second largest customer in 2015 and (b) $16.1 million in revenue in 2016 from initial purchases of our single-wafer wet cleaning equipment by two PRC foundries. Chip fabricators typically purchase types of tools in phases based on multi-year capital plans, and their purchases of specific types of tools therefore vary from year to year. We believe the decline in sales to our largest customer from 2015 to 2016 reflected the customer’s multi-year capital plan.

Cost of Revenue and Gross Margin

	Year Ended December 31,		% of Change
	2016	2015	2015 v 2016
	(in thousands)		
Cost of revenue	$14,042	$17,085	(17.8)%
Gross profit	$13,329	$14,121	(5.6)
Gross margin	48.7%	45.3%	7.6%

Cost of revenue decreased $3.0 million in 2016 from 2015, primarily due to decreases in component costs related to lower volume Gross margin increased 3.4%, reflecting a relative increase in sales of higher-margin products.

Operating Expenses

	Year Ended December 31, 2016	2015	% Change 2015 v 2016
	(in thousands)		
Sales and marketing expense	$3,907	$4,213	(7.3)%
Research and development expense	3,259	2,942	10.8
General and administrative expense	2,673	2,103	27.1
Total operating expenses, net	$9,839	$9,258	6.3

Sales and marketing expense decreased $306,000 in 2016 compared to 2015, primarily due to a decrease of $520,000 in sales commissions reflecting our lower level of sales in 2016, offset in part by a $385,000 increase in consulting fees.

Research and development expense increased $317,000 in 2016 from 2015, principally as a result of increases of $147,000 in personnel costs, $104,000 in material consumption expense and $57,000 in travel expense. Research and development expense represented 11.9% of revenue in 2016 and 9.4% of revenue in 2015. Without reduction by grant amounts received from PRC governmental authorities (see "—Key Components of Results of Operations—PRC Government Research and Development Funding"), gross research and development expense totaled $7.5 million, or 27.4% of revenue, in 2016 and $6.6 million, or 21.1% of revenue, in 2015.

General and administrative expense increased $571,000 in 2016 compared to 2015, principally resulting from preparations to become a public company. These costs reflected increases of $321,000 in professional fees, $84,000 in personnel costs and $77,000 in travel expense.

Other Income and Expenses

	Year Ended December 31, 2016	2015	% Change 2015 v 2016
	(in thousands)		
Interest expense, net	$(165)	$(105)	57.1%
Other income, net	(343)	632	(154.3)

Interest expense consists of interest incurred from outstanding short-term borrowings and notes payable. Interest expense increased to $181,000 in 2016 from $122,000 in 2015, principally as a result of increased borrowings under short-term bank loans. We earn interest income from depositary accounts. Interest income totaled $16,000 in 2016 and $17,000 in 2015.

Income Tax Benefit (Expense)

The following presents components of income tax benefit (expense) for the indicated periods:

	Year Ended December 31,	
	2016	2015
	(in thousands)	
Current:		
U.S. federal	$ —	(40)
U.S. state	(1)	30
Foreign	—	—
Total current income tax benefit (expense)	(1)	(10)
Deferred:		
U.S. federal	—	—
U.S. state	—	—
Foreign	(594)	2,535
Total deferred income tax benefit	(594)	2,535
Total income tax benefit	$(595)	$2,525

Our effective tax rate differs from statutory rates of 34% for U.S. federal income tax purposes and 15% to 25% for PRC income tax purposes, due to the effects of the valuation allowance and permanent book-tax differences pertaining to the value of client equity securities received for services.

Liquidity and Capital Resources

Initially we funded our operations principally through issuances of four series of convertible preferred stock from our formation in 1998 through 2001 and issuances of convertible and term promissory notes in 2003 and 2004. We issued additional convertible and term promissory notes in 2005 and 2006 in anticipation of moving our operational center to Shanghai in 2006, and following that transition, our new subsidiary ACM Shanghai initially raised funds through sales of its non-controlling equity interests in 2007. Since 2008 we have funded our technology development and operations through:

- issuances of two additional series of convertible preferred stock in 2016 and the third quarter of 2017;
- an investment deposit in 2016 made in connection with issuance of a Class A common stock warrant in March 2017;
- additional issuances of ACM Shanghai equity interests in 2008 and 2009;
- subsidies received from PRC governmental authorities pursuant to grants made in 2008, 2009 and 2014;
- short-term borrowings by ACM Shanghai from local financial institutions in 2009 and each year since 2011;
- additional issuances of term promissory notes in 2013, 2014 and 2015; and
- operating cash flow in 2015 and the first half of 2017.

We believe our existing cash and cash equivalents, our cash flow from operating activities, short-term bank borrowings by ACM Shanghai and our net proceeds of this offering and the concurrent private placement will be sufficient to meet our anticipated cash needs for at least the next twelve months. We do not expect that our anticipated cash needs for the next twelve months will require our receipt of any PRC government subsidies. Our future working capital needs will depend on many factors, including the rate of our business and revenue growth,

the payment schedules of our customers, and the timing of investment in our research and development as well as sales and marketing. To the extent our cash and cash equivalents, cash flow from operating activities, short-term bank borrowings and net proceeds of this offering are insufficient to fund our future activities, we may need to raise additional funds through bank credit arrangements or public or private debt or equity financings. We also may need to raise additional funds in the event we determine in the future to effect one or more acquisitions of businesses, technologies and products. If additional funding is required, we may not be able to obtain bank credit arrangements or to effect an equity or debt financing on terms acceptable to us or at all.

Sources of Funds

Equity and Equity-Related Securities

Since 1998 we have received gross proceeds of $41.9 million from sales of common stock, convertible preferred stock, convertible preferred notes and a warrant of ACM Research Inc. and sales of equity securities of ACM Shanghai, as described below.

Common Stock. From 1998 through September 30, 2017 we sold common stock to founders, investors and exercising option holders for gross proceeds of $2.7 million.

Convertible Preferred Stock. We have sold convertible preferred stock to investors for gross proceeds of $23.7 million, as follows:

Year Issued	Convertible Preferred Stock	Gross Proceeds (in thousands)
1998	Series A	$ 288
1998	Series B	1,572
1999	Series C	2,041
2001	Series D	4,975
2016	Series F	9,040
2017	Series E	5,800
		$ 23,716

Convertible Promissory Notes. In the years following our issuance of Series D convertible preferred stock in 2001, we borrowed an aggregate of $1.6 million pursuant to promissory “bridge” notes that bore interest at the rate of 6% per annum and subsequently converted into equity securities.

Year Issued	Gross Proceeds (in thousands)
2003	$ 444
2004	292
2005	200
2006	616
	$ 1,552

The convertible promissory notes were issued with common stock warrants, all of which expired unexercised. Upon the closing of our issuance of Series F convertible preferred stock in December 2016, the outstanding convertible promissory notes converted into 47,454 shares of Series F convertible preferred stock and 1,812,069 shares of Class A common stock.

ACM Shanghai Equity. Three investors have paid a total of $11.0 million to purchase from ACM Shanghai equity interests currently representing 37.1% of ACM Shanghai's outstanding equity.

Year Issued	Gross Proceeds (in thousands)
2007	$ 5,252
2008	2,358
2009	3,365
	$ 10,975

We have entered into agreements with the three minority investors pursuant to which ACM Research will acquire, before the closing of this offering, all of the minority equity interests in ACM Shanghai, as described under "—Recent Equity Transactions—Acquisitions of Outstanding Minority Interests in Our Operating Company."

Warrant. In December 2016 SMC delivered to ACM Shanghai 20,123,500 RMB (approximately $3.0 million as of the date of funding) in cash for potential investment pursuant to terms to be subsequently negotiated. In March 2017 we issued to SMC a warrant exercisable to purchase 397,502 shares of Class A common stock at a price of $7.50 per share, for a total exercise price of approximately $3.0 million. ACM Shanghai may become obligated to repay to SMC an amount equal to approximately $3.0 million in the circumstances described under "—Recent Equity Transactions—Issuance of Warrant."

Indebtedness

Promissory Notes. From 2003 through 2014 we borrowed an aggregate of $888,000 pursuant to non-convertible term notes as well as from convertible promissory notes that were repaid in cash. All of these notes bore interest at a rate of 6% per annum.

Date Issued	Gross Proceeds (in thousands)
2003	$ 98
2004	162
2006	468
2013	100
2014	60
	$ 888

ACM Shanghai Short-Term Loan Facilities. ACM Shanghai is a party to lines of credit with three banks, as follows:

Lender	Agreement Date	Maturity Date	Annual Interest Rate	Maximum Borrowing Amount(1)	Amount Outstanding(1)
Bank of China Pudong Branch	August 2017	March 2018	5.69%	RMB30,000	RMB14,500
				$4,521	$2,185
Bank of Shanghai Pudong Branch	August 2017	September 2018	5.66	RMB25,000	RMB8,540
				$3,768	$1,287
Shanghai Rural Commercial Bank	September 2017	September 2018	5.44-5.66	RMB5,000	
				$754	—
				RMB60,000	RMB23,040
				$9,043	$3,472

(1) Converted to dollars as of September 30, 2017

All of the amounts owing under the line of credit with Bank of China Pudong Branch are secured by ACM Shanghai's intellectual property. All of the amounts owing under the lines of credit with Bank of Shanghai Pudong Branch and Shanghai Rural Commercial Bank are guaranteed by David Wang, our Chair of the Board, Chief Executive Officer and President.

Cash Flow from Operating Activities

As we initiated and grew our business from our inception in 1998 through 2014, in 2016 and in the first half of 2017, our operating activities used cash flow. Our operations provided cash flow of $2.7 million in 2015, and used cash flow of $3.7 million in 2016 and provided cash flow of $3.0 million in the first half of 2017. Our cash flow from operating activities is influenced by (a) the amount of cash we invest in personnel and technology development to support anticipated future growth in our business, (b) increases in the number of customers using our products and services, and (c) the amount and timing of payments by customers.

Government Research and Development Grants

As described under "—Key Components of Results of Operations—PRC Government Research and Development Funding," ACM Shanghai has received research and development grants from local and central PRC governmental authorities.

Award Date	Grant Amount (in thousands)
2007-2010	$ 4,288
2011	6,334
2012	3,278
2013	2,442
2014	6,256
2015	6,579
2016	6,620
2017 (through September 30)	2,387
	$ 38,184

Not all grant amounts are received in the year in which a grant is awarded. As of September 30, 2017, ACM Shanghai expected to receive an additional $2.9 million in the future. We currently estimate ACM Shanghai will receive between $1.6 and $2.7 million in 2017, $2.4 million of which had been received as of September 30, 2017. Because of the nature and terms of the grants, the amounts and timing of payments under the grants are difficult to predict and vary from period to period. In addition, we expect to apply for additional grants when available in the future, but the grant application process can extend for a significant period of time and we cannot predict whether, or when, we will determine to apply for any such grants.

Working Capital

The following table sets forth selected working capital information:

	June 30, 2017 (in thousands)
Cash and cash equivalents	$ 13,206
Accounts receivable, less allowance for doubtful amounts	12,310
Inventory	14,106
Working capital	23,433

Our cash and cash equivalents at June 30, 2017 were unrestricted and held for working capital purposes. ACM Shanghai, our only direct PRC subsidiary, is, however, subject to PRC restrictions on distributions to equity holders. We currently intend for ACM Shanghai to retain all available funds any future earnings for use in the operation of its business and do not anticipate its paying any cash dividends. See “Dividend Policy.”

We have not entered into, and do not expect to enter into, investments for trading or speculative purposes.

Our accounts receivable balance fluctuates from period to period, which affects our cash flow from operating activities. Fluctuations vary depending on cash collections, client mix, and the timing of shipment and acceptance of our tools.

Uses of Funds

Capital Expenditures

Our capital expenditures totaled $795,000 in 2016. Substantially all of the capital expenditures were made to purchase equipment or improve infrastructure for our research and development and manufacturing facilities.

During 2017 we are continuing to invest in equipment and infrastructure improvements for our manufacturing and research and development facilities and, to a lesser extent, leasehold improvements for our administrative facilities. The extent of these investments may be affected by the pace with which we add new customers and obtain additional purchase orders. Our capital expenditures totaled $26,000 in the six months ended June 30, 2017. We are not currently party to any purchase contracts related to future capital expenditures.

Contractual Obligations and Requirements

The following table sets forth sets forth our commitments to settle contractual obligations as of December 31, 2016:

	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years	Total
			(in thousands)		
Operating leases:	$ 2,538	$ 8	$ —	$ —	$2,546

Operating lease obligations with respect to office space consisted of amounts arising under lease agreements for our headquarters in Fremont, California, our operation center in Shanghai, PRC, and other small regional office locations. For additional information about these lease agreements, see “Business—Facilities.” The commitment amounts in the table above are associated with contracts that are enforceable and legally binding and that specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. The table does not include obligations under agreements that we can cancel without a significant penalty.

As of June 30, 2017, we did not have any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities, that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. We do not engage in trading activities involving non-exchange traded contracts. We therefore believe we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

Effects of Inflation

Inflation and changing prices have not had a material effect on our business, and we do not expect that they will materially affect our business in the foreseeable future. Any impact of inflation on cost of revenue and operating expenses, especially employee compensation costs, may not be readily recoverable in the price of our product offerings.

Off-Balance Sheet Arrangements

As of June 30, 2017, we did not have any significant off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K of the Securities and Exchange Commission.

Quantitative and Qualitative Disclosures about Market Risks

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of fluctuations in foreign exchange rates and interest rates. We do not hold or issue financial instruments for trading purposes.

Foreign Exchange Risk

Although our financial statements are denominated in U.S. dollars, a sizable portion of our revenues and costs are denominated in other currencies, primarily the Renminbi. The Renminbi is not freely convertible into foreign currencies for capital account transactions. The value of the Renminbi against the U.S. dollar and other currencies is affected by changes in the PRC's political and economic conditions and by the PRC's foreign exchange policies, among other things. In July 2005, the PRC government changed its decades-old policy of pegging the value of the Renminbi to the U.S. dollar, and the Renminbi appreciated more than 20% against the U.S. dollar over the following three years. Between July 2008 and June 2010, this appreciation subsided and the exchange rate between the Renminbi and the U.S. dollar remained within a narrow band. Since June 2010, the Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. It is difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollar in the future.

To date, we have not entered into any hedging transactions in an effort to reduce our exposure to foreign currency exchange risk. To the extent that we need to convert U.S. dollars we received from this offering and the concurrent private placement into Renminbi for our operations or capital expenditures, appreciation of the Renminbi against the U.S. dollar would have an adverse effect on the Renminbi amount we would receive from the conversion. Conversely, if we decide to convert our Renminbi into U.S. dollars for the purpose of making payments for dividends on our Class A common stock or for other business purposes, appreciation of the U.S. dollar against the Renminbi would have a negative effect on the U.S. dollar amount available to us.

We estimate that we will receive net proceeds from this offering and the concurrent private placement of $23.9 million, if the underwriters do not exercise their over-allotment option, assuming an initial public offering price of $8.50 per share, the midpoint of the initial public offering price range reflected on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions, private placement fees, and offering expenses. Assuming that we convert the full amount of the net proceeds from this offering and the concurrent private placement into Renminbi, a 10% appreciation of the U.S. dollar against Renminbi, from a rate of RMB6.6369 to $1.00 to a rate of RMB6.0335 to $1.00, will result in an increase of RMB3.7 million in our estimated net proceeds from this offering and the concurrent private placement. Conversely, a 10% depreciation of the U.S. dollar against the Renminbi, from a rate of RMB6.6369 to $1.00 to a rate of RMB7.3743 to $1.00, will result in a decrease of RMB3.7 million in our estimated net proceeds from this offering and the concurrent private placement.

Interest Rate Risk

At June 30, 2017, we had unrestricted cash and cash equivalents totaling $13.2 million. These amounts were held for working capital purposes and were primarily in checking accounts of various banks. We believe we do not have any material exposure to changes in our cash balance as a result of changes in interest rates. Declines in interest rates, however, would reduce future interest income.

BUSINESS

Overview

We develop, manufacture and sell single-wafer wet cleaning equipment, which semiconductor manufacturers can use in numerous manufacturing steps to remove particles, contaminants and other random defects, and thereby improve product yield, in fabricating advanced integrated circuits, or chips. Our Ultra C equipment is designed to remove random defects from a wafer surface effectively, without damaging a wafer or its features, even at an increasingly advanced process node (the minimum line width on a chip) of 22 nanometers, or nm, or less. Our equipment is based on our innovative, proprietary Space Alternated Phase Shift, or SAPS, and Timely Energized Bubble Oscillation, or TEBO, technologies. We developed our proprietary technologies to enable manufacturers to produce chips that reach their ultimate physical limitations while maintaining product yield, which is the percentage of chips on a wafer that meet manufacturing specifications.

Since 2007 we have focused our development efforts on developing single-wafer wet cleaning equipment based on differentiated proprietary technology:

- Our SAPS technology, which we introduced in 2009, employs alternating phases of megasonic waves to deliver megasonic energy to flat and patterned wafer surfaces in a highly uniform manner on a microscopic level. We have shown SAPS technology to be more effective than conventional megasonic and jet spray technologies in removing random defects across an entire wafer as node sizes shrink from 300nm to 45nm, including node sizes, for which jet spray technology has proven to be ineffective.
- Our TEBO technology, which we introduced in March 2016, has been developed to provide effective, damage-free cleaning for both conventional two-dimensional, or 2D, and three-dimensional, or 3D, patterned wafers at advanced process nodes. We have demonstrated the damage-free cleaning capabilities of TEBO technology on 3D patterned wafers for feature nodes as small as 16nm.

As of September 30, 2017, we had been issued more than 140 patents in the United States, the People’s Republic of China or the PRC, Japan, Korea, Singapore and Taiwan.

We seek to market our single-wafer wet processing equipment by first establishing a referenceable base of leading logic and memory chip makers, whose use of our products can influence decisions by other manufacturers. Our SAPS technology employs alternating phases of megasonic waves to deliver megasonic energy to flat and patterned wafer surfaces in a highly uniform manner on a microscopic level. We believe this process is helping us penetrate the mature integrated circuit manufacturing markets and build credibility with industry leaders. Since beginning to place evaluation SAPS equipment with a small number of selected customers in 2009, we have worked on equipment improvements and qualification with those customers, who include a leading Korean memory chip company and four leading PRC memory and logic chip foundries. Using a similar “demo-to-sales” process, we have placed TEBO evaluation equipment with a leading PRC foundry and a leading Taiwanese foundry and we recognized revenue from our initial sale of TEBO equipment in 2016. Our revenue from the selected customers’ purchases of single-wafer wet cleaning equipment totaled $10.6 million, or 73.6% of our revenue, in the first half of 2017, $21.5 million, or 78.4% of our total revenue, in 2016 and $26.8 million, or 86.0% of our total revenue, in 2015.

In 2006 we established our operational center in Shanghai, and we currently conduct substantially all of our development and manufacturing activities in the PRC. Our Shanghai operations position us near potential customers in not only the PRC but also Taiwan, Korea and throughout Asia, giving us increased access to those customers and reducing shipping and manufacturing costs for equipment they purchase. We continue to perform strategic planning and marketing activities in our corporate headquarters in Fremont, California, and we intend to increase the personnel and functions at our Fremont headquarters as part of our plan to expand our market presence in North America and Europe.

Industry Background

Semiconductors are the foundation of the exponential growth of digital technologies and applications. For more than thirty years, strong demand for personal computers, tablet computers, mobile phones and other digital products has fueled the growth of the semiconductor industry. Today the migration of computing, networking and storage to the cloud and the proliferation of "smart" appliances, buildings, cars and devices—the "Internet of Things"—are driving semiconductor development and manufacturing. IC Insights, Inc. (March 2016) estimates that worldwide semiconductor shipments grew from 103.7 billion units in 1987 to 840.4 billion units in 2015 and will increase at a compound annual growth rate, or CAGR, of 6.7% to reach 1.0 trillion units in 2018.

Continuing Demand for Faster, Better, Cheaper Chips

New and enhanced digital applications and products have relied on the development and deployment of progressively faster and more powerful—but ever smaller and less costly—semiconductors known as integrated circuits, or chips. A chip is an array of transistors and other circuit elements built on a wafer of substrate material, typically silicon, with wiring and other interconnects that connect the circuit elements to each other and to outside devices. Chips store and manipulate data in binary form, with the two largest categories of integrated circuits being memory chips, for data storage and retrieval, and logic chips, for computer processing and control.

For a half century the number of transistors that can fit in a given area has roughly doubled every two years, a rate of improvement referred to as "Moore's Law." Chip feature sizes have been repeatedly scaled down to pack more transistors in smaller chips. The minimum line width on a chip, known as the node, shrank from 30,000nm in 1963 to 1,000nm in 1989, 90nm in 2003 and 14nm in 2014. A chip today may contain more than thirty billion transistors, with features finer than one ten-thousandth of the diameter of a human hair.

In recent years, however, the rate of chip improvement delivered solely by shrinking feature sizes has slowed. At the 22nm node, transistor and interconnect parameters for conventional chips, in which features are arrayed in 2D structures, begin to approach their critical performance limitations. For example, photolithography, a key chip manufacturing process that projects 193nm laser light through masks to print patterns on a wafer surface, may be unable to create patterning with sufficient resolution and selectivity. Moreover, the feature density and power levels of a 22nm chip may require additional circuit elements, such as special circuitry to correct errors or to track and adapt to performance variations, that occupy chip area and increase cost.

In order to extend Moore's Law, chip designers and manufacturers are developing and implementing technologies and architectures to transition to advanced chips with 3D structures. Logic chip makers are rapidly adopting use of 3D, fin-shaped Fin Field Effect Transistors, or *FinFET*, which provide faster switching while consuming less power. For memory chip manufacturers, *3D NAND* stacks memory cells to deliver greater capacity at lower cost and *3D cross point*, a transistor-less memory cell architecture, is being developed to accelerate processing of massive data sets. *EUV lithography* is a promising manufacturing technology that could improve patterning capability and increase feature density at nodes of 5nm and beyond by extending photolithography to the extreme ultraviolet wavelength of 13.5nm.

Escalating Need for Advanced Chip Manufacturing Equipment

Manufacturing steps differ for logic and memory chips, but all chips are manufactured in two general processes:

- In the front-end fabrication process, hundreds of copies of functional circuitry are created on a 100–to 300–millimeter, or mm, silicon wafer over a period of 6 to 8 weeks. A sequence of a few hundred complex, repetitive steps forms transistors, other circuit elements and interconnects on the wafer through the deposit and selective removal of successive material layers, using *photolithography* to create a design, *deposition* to add layers of materials, *etching* to remove unwanted exposed materials, and *chemical mechanical planarization* or *CMP* to smooth the surface for the next cycle of process steps.

- In the back-end assembly and testing process, a completed wafer from the front-end process is cut into individual “dies.” Each die is tested against specifications and, if compliant, encapsulated in a package that protects the die and supports critical power and electrical connections. The resulting chip is then subjected to final electrical and reliability tests.

Manufacturing advanced chips at smaller nodes requires a more complex process flow that incorporates enhanced, more expensive capital equipment, or tools, to perform increasingly complex process steps, as well as an increased number of tools to perform a greater number of process steps per wafer. A chip fabrication plant, or fab, may have more than 500 highly specialized tools representing more than 70 categories of equipment, all situated in an environmentally controlled “clean room.” As a result, construction of a new advanced fab can cost between $5 and $10 billion (Semiconductor Industry Association/Nathan Associates, May 2016). Semiconductor Equipment and Materials International or SEMI (August 2016) estimates that worldwide fab tool billings totaled $36.0 billion in 2015 and will reach $41.4 billion by 2017, a CAGR of 7.2%.

Because of the significant capital expenditures and manufacturing expenses, chip makers focus on improving their yield, which is the percentage of chips on a wafer that conform to specifications. Even with use of precision tools in a controlled manufacturing environment, a substantial number of chips may contain defects and be rejected, directly impacting cost-per-chip and profitability. We estimate that a 1% decrease in yield can reduce annual profits by $30 to $50 million for a fab producing dynamic random-access memory, or DRAM, chips on 100,000 wafers per month—and a 1% yield loss may decrease profits even more for a fab making logic chips, which typically have higher prices. Moreover, lower yield may necessitate greater fab capacity, increasing capital expenditures.

New technologies and architectures introduced in transitioning to more advanced nodes can lead to significant yield loss. We believe chip manufacturers with state-of-the-art, established fabs for process nodes of 22nm or more typically target a yield of 90% or more, but yield can drop to as low as 50% when, for example, a manufacturer migrates to chips incorporating FinFET. To reduce yield loss, a manufacturer transitioning to a more advanced node must implement additional fabrication steps and new process capabilities, which in turn require innovative, reliable front-end tool solutions.

Growing Influence of the PRC Across the Semiconductor Industry

The PRC is both the largest and the fastest-growing market for semiconductors. According to a study by PricewaterhouseCoopers (January 2017), during the ten-year period ending in 2015, the PRC’s semiconductor consumption grew at a CAGR of 14.3% while worldwide consumption increased by only 4.0%, and by 2015 the PRC consumed 58.5% of the world’s semiconductors. The PRC government is implementing focused policies, including state-led investment initiatives, that aim to create and support an independent domestic semiconductor supply chain spanning from design to final system production. The PRC has already made significant progress across the principal semiconductor industry sectors, as shown in the following market information compiled by PricewaterhouseCoopers:

- The chip design, or “fabless,” industry is the fastest growing segment of the PRC’s semiconductor industry, with revenue increasing from $1.5 billion in 2005 to $21.1 billion in 2015, a CAGR of 30.1%.
- China’s share of worldwide semiconductor manufacturing capacity expanded from 7.3% in 2006 to 12.7% in 2015, and its semiconductor manufacturing revenue increased at a CAGR of 17.6% over the ten-year period ending in 2015.
- China’s semiconductor packaging, assembly and test revenue also grew at a CAGR of 18% over the ten-year period ending in 2015.

The PRC’s semiconductor tools industry produced less than 0.5% of the world’s semiconductor manufacturing equipment in 2014 (International Trade Association of U.S. Department of Commerce, July 2016). The PRC’s governmental goals anticipate significant growth in all segments of the domestic semiconductor industry, however, and tool manufacturers with a Chinese presence should experience support from both upstream and downstream Chinese companies in the semiconductor supply chain.

Emerging Criticality of Wafer Cleaning

In the chip fabrication process, random defects such as particles, residual chemicals and other contaminants can lead directly to yield loss by distorting images for pattern formation in a lithographic step, obstructing deposition of a film, blocking an etch or otherwise impairing chip performance. Random defects can originate from substrate material, tools, fab personnel, clean room air and nearly every other aspect of the manufacturing process. Shapes and sizes of random defects vary widely, and with each decrease in process node, the dimension of the smallest random defect that can cause a chip to fail, known as the “killer defect” size, shrinks.

Chip fabrication includes steps designed to eliminate random defects without collapsing patterns, causing loss of materials or otherwise damaging features. The number of these steps has increased dramatically with chip complexity. Cleaning is now the most frequently repeated step in chip fabrication and may be performed in as many as 200 steps for each wafer. A sub-optimal cleaning process has repeated opportunities to reduce yield by being either insufficiently forceful, which leaves random defects behind, or overly aggressive, which damages the chip. Over the past decade, fabricators seeking to improve cleaning performance have switched from batch processes, in which several wafers are processed at the same time, to single-wafer cleaning tools.

There are two basic types of cleaning methods. *Wet cleaning* uses liquid chemistry by applying combinations of solvents, acids and water to spray, scrub, etch and dissolve random defects. *Dry cleaning* uses gas phase chemistry, relying on chemical reactions and techniques such as lasers, aerosols and ozonated chemistries. Wet cleaning typically outperforms dry cleaning in achieving wafer surface cleanliness and smoothness, and it is the standard method for single-wafer cleaning, constituting more than 90% of the cleaning steps in the fabrication process. RCA clean, a standardized process using hot alkaline and acidic hydrogen peroxide solutions, has been the industry standard for wet cleaning for a quarter century.

Wet cleaning’s chemistry has not changed appreciably over the past 25 years, but its implementation has shifted from simple immersion to increasingly sophisticated techniques such as jet spraying and megasonic vibration. Jet spray cleaning shoots high-velocity, tens of micron-sized water droplets at a wafer surface to remove random defects. Megasonic cleaning transmits acoustic waves through a fluid bath to produce, in a process known as transient cavitation, bubble oscillation that dislodges random defects. The cavitation can dislodge defects unreachable by jet spray, but the bubbles collapse quickly and can generate energy that damages wafer features.

As jet spray and megasonic cleaning techniques have continued to develop, chip makers have regularly upgraded from simple tanks with on-off switches to complex, specialized, expensive single-wafer cleaning tools. According to Transparency Market Research Pvt. Ltd, the global market for cleaning equipment for single-wafer processing systems totaled $2.6 billion in 2015 and is expected to increase to $3.7 billion in 2020, a CAGR of 6.8%.

Inadequacy of Traditional Single-Wafer Cleaning Technologies

At process nodes of 100nm or more, chips consisted of 2D features and architectures, which made wafer cleaning relatively straightforward. Cleaning was most commonly performed in batch processes using an immersion tool with megasonic energy. Megasonic vibrations transmit at relatively high frequencies and therefore create smaller bubbles that remove more-diminutive defects and that generate lower levels of destructive transient energy when they collapse.

As process nodes shrank below 100nm, equipment manufacturers introduced single-wafer megasonic cleaning tools, which processed wafers one by one, rather than in batches. Because these tools did not deliver energy uniformly across the wafer surface, manufacturers found the tools did not clean wafers thoroughly and evenly and, increasingly as process nodes continued to shrink, led to damage to patterned wafer structures. Equipment makers also began to offer single-wafer cleaning tools that used jet spraying rather than acoustic

vibrations. The physical energy of jet spraying enabled these tools to be used with less assertive chemicals, which reduced wafer material loss. Once process nodes reach 45nm, however, the force of jet sprayed water droplets can damage finer chip features and jet spraying can fail to eliminate killer defect-sized contaminants due to its reduced lateral fluid speed as the fluid approaches the wafer surfaces.

As process nodes continue to shrink to 22nm and less, finer feature sizes and denser, more complex architectures make the cleaning process even more complicated and challenging:

- Random defects are harder to remove as the killer defect size decreases. Smaller random defects are denser and bind to a wafer more strongly than larger contaminants, and additional energy is required to deliver greater levels of necessary force to more minuscule sizes.
- New 3D architectures are often more delicate or fragile than 2D conventional structures. FinFET structures, for example, are relatively tall, thin and deep, which makes them more susceptible to damage or destruction by the physical force of jet sprays and megasonic transient cavitation used in the cleaning process.
- New chip technologies and architectures amplify cleaning challenges. It is, for example, progressively more difficult to remove random defects from the bottom of a chip structure, such as a via, as the “aspect ratio” of the structure’s depth to its width increases. While conventional 2D structures typically have aspect ratios of 3-to-1 or less, FinFET structures have aspect ratios of 10-to-1 currently and are expected to have aspect ratios in excess of 20-to-1 for future process nodes. Moreover, aspect ratios for 3D NAND, 3D cross point and other 3D structures may reach 60-to-1.

Effective, damage-free cleaning poses a significant challenge for manufacturers seeking to fabricate chips in the advanced process nodes available today or introduced in the future, including the 10nm node announced for 2017 and the 7nm node announced for 2018. In order to extend Moore’s law, chip manufacturers must be able to remove ever smaller random defects from not only flat wafer surfaces but also progressively more intricate, finer-featured 3D chip architectures, in each case without incurring damage or material loss that curtails yield and profits. Because fabrication of chips at 22nm or less requires an increasingly complex, specialized process flow, a next-generation single-wafer cleaning tool solution should be designed to be easily tailored to meet a manufacturer’s unique process requirements. The single-wafer cleaning tools should produce less environmentally harmful chemical waste and should be easily accessible to manufacturers in the burgeoning Chinese market.

Our Solutions

We have developed single-wafer wet cleaning equipment that chip manufacturers can use in numerous steps of the fabrication process in order to avoid yield loss at existing and future process nodes. Using our proprietary technologies, we have designed our wet cleaning equipment to remove random defects from chip wafers with fine feature sizes, complex patterning, dense circuit architectures and high aspect ratios more effectively than traditional jet spray and transient megasonic technologies. Key elements of our solutions include:

Differentiated technologies for advanced chips. Our proprietary single-wafer wet cleaning technologies control the power intensity and distribution of megasonic cleaning in order to remove random defects from a wafer surface effectively, without damaging the wafer or its features, even at process nodes of 22nm or less. We developed these technologies to help semiconductor manufacturers produce chips that reach their ultimate physical limitations.

- *Flat and patterned wafer surfaces.* Our Space Alternated Phase Shift, or SAPS, technology, which we introduced in 2009, employs alternating phases of megasonic waves to deliver megasonic energy to flat and patterned wafer surfaces in a highly uniform manner on a microscopic level. We have shown SAPS technology to be more effective than conventional megasonic and jet spray technologies in removing random defects across an entire wafer as node sizes shrink from 300nm to 45nm, including node sizes

less than 50nm in size, for which jet spray technology has proven to be ineffective. Based on their initial mass production experience with SAPS equipment, customers have increased their use of SAPS equipment by adding cleaning steps to the manufacturing processes for advanced chips in order to achieve higher yields and reduce chemical usage.

- *High-aspect ratio conventional 2D and advanced 3D patterned wafer surfaces.* Our Timely Energized Bubble Oscillation, or TEBO, technology, which we introduced in March 2016, has been developed to provide effective, damage-free cleaning for both conventional 2D and 3D patterned wafers at advanced process nodes. TEBO technology provides multi-parameter control of bubble cavitation during megasonic cleaning by using a sequence of rapid pressure changes to force bubbles to oscillate at controlled sizes, shapes and temperatures. Because the bubbles oscillate instead of imploding or collapsing, TEBO technology avoids the pattern damage caused by transient cavitation in traditional megasonic cleaning processes. We have demonstrated the damage-free cleaning capabilities of TEBO technology on patterned wafers for feature nodes as small as 1xnm (16nm to 19nm), and we have shown that TEBO technology can be applied in manufacturing processes for patterned chips with 3D architectures such as FinFET, DRAM, 3D NAND and 3D cross point memory having aspect ratios as high as 60-to-1. We believe TEBO technology can be applied for even smaller process nodes. TEBO tools are currently being evaluated by a selected group of leading memory and logic chip manufacturers.

China-based operations. In 2006 we established our operational center in Shanghai, and currently we conduct substantially all of our development and manufacturing activities in the PRC. This strategy positions us near potential customers throughout Asia, giving us increased access to those customers and reducing shipping and manufacturing costs for equipment they purchase. An estimated 78% of new front-end facilities and production lines starting operation from 2017 through 2020 are projected to be constructed in Asia, with 42% expected to be built in the PRC. Our Shanghai location also gives us access to a large pool of highly qualified potential employees.

Extensive intellectual property protection. Since our formation in 1998, we have focused on building a strategic portfolio of intellectual property to support and protect our key innovations, including most recently our SAPS and TEBO technologies. As of September 30, 2017, we had been issued more than 140 patents in the United States, the PRC, Japan, Korea, Singapore and Taiwan.

Custom-made wafer assembly packaging solutions. In addition to our product offerings for single-wafer cleaning in the front-end wafer fabrication process, we leverage our technology and expertise to provide a wide range of advanced packaging equipment, such as coaters, developers, photoresist strippers, scrubbers, wet etchers and copper-plating tools, to back-end wafer assembly and packaging factories, particularly in the PRC. For these offerings, we focus on providing customized equipment with competitive performance, service and pricing.

Our Strategy

Our objective is to be the leading global provider of a full range of wet cleaning equipment for the manufacture of advanced integrated circuits. To achieve this goal, we are pursuing the following strategies:

Extend technology leadership. We intend to build upon our technology leadership in wet processing by continuing to develop and refine our differentiated SAPS and TEBO technologies and equipment designed to address cleaning challenges presented by the manufacture of increasingly advanced chip nodes. To continue to build our strategic intellectual property portfolio, which included more than 140 patents as of September 30, 2017. Our investment in research and development totaled $1.9 million, or 12.9% of our revenue, in the first half of 2017 and $3.3 million, or 11.9% of our revenue, in 2016. We will continue to invest in product development and to strengthen our global patent portfolio in strategic jurisdictions.

Establish referenceable customer base. Semiconductors fall into two principal product categories, memory and logic, and the processes associated with manufacturing products in those two categories differ. In

commercializing our SAPS equipment, we placed evaluation equipment with selected customers, who subsequently purchased additional SAPS equipment to enable them to add more cleaning steps during their manufacturing processes. We have initiated a similar process for TEBO equipment, and have placed TEBO evaluation equipment with two leading memory and logic chip customers, whose use of our products can influence decisions by other manufacturers.

Leverage local presence to address growing PRC market. The market for semiconductor manufacturing equipment in the PRC is expected to grow markedly in the upcoming years. Our experience has shown that chip manufacturers in the PRC demand equipment meeting their specific technical requirements and prefer building relationships with local suppliers. Since establishing our operations in Shanghai a decade ago, we have leveraged our local presence to begin displacing some incumbent providers of wet cleaning equipment. We will continue to work closely with PRC-based chip manufacturers to understand their specific requirements, encourage them to adopt our SAPS and TEBO technologies, and enable us to design innovative products and solutions to address their needs.

Continue to improve performance through operational excellence. As we increase the breadth of our product offerings and the size of our operations and customer base, we must continually improve the efficiency and quality of our operations in order to satisfy our customers' needs and meet our financial goals. We actively manage our business through principles of operational excellence designed to ensure continuous improvement of our key operational and financial metrics. We will continue to develop and implement these principles to, for example, identify key quantifiable annual goals for all aspects of our business, implement factory constraint management, change control and inventory management systems, and enhance our risk management system.

Pursue strategic acquisitions and relationships. To complement and accelerate our internal growth, we may pursue acquisitions of businesses, technologies and products that will expand the functionality of our products, provide access to new markets or customers, or otherwise complement our existing operations. We also may seek to expand our product and service offerings by entering into business relationships involving additional distribution channels, investments in other enterprises and joint ventures, or similar arrangements. On September 11, 2017, we acquired 20% of the outstanding equity of Ninebell, one of our key subassembly providers, as described under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Strategic Investment in Key Supplier."

Our Products and Technologies

We develop, manufacture and sell single-wafer wet cleaning equipment usable at numerous steps of the chip manufacturing process flow to improve product yield for conventional 2D and advanced 3D patterned chips at small process nodes. Our equipment, which we market and sell under the brand name "Ultra C," is designed to remove random defects from a wafer surface effectively, without damaging the wafer or its features, even at increasingly advanced process nodes.

After incorporating in 1998, we initially focused on developing tools for manufacturing process steps involving the integration of ultra-low-K materials and copper. Ultra-low-K materials, which insulate better than silicon, presented opportunities for size scaling and performance improvement, and higher conductivity copper had begun to replace aluminum in forming interconnects. Our early efforts focused in particular on stress-free copper-polishing technology, and we sold tools based on that technology in the early 2000s.

In 2006 we established our operational center in Shanghai. This strategic decision was made to help us establish and build relationships with chip manufacturers in China and throughout Asia, which helps us to understand their requirements and to develop innovative technologies and tools addressing their needs.

In 2007 we began to focus our development efforts on single-wafer wet-cleaning solutions for the front-end fabrication process. We have developed innovative, proprietary technologies that reintroduce megasonic

technology to the wafer cleaning process. Our approach is based on our understanding of the shortfalls and limitations of previously existing megasonic cleaning technologies that led to ineffective cleaning and damaged chip features. In 2009 we introduced our proprietary Space Alternated Phase Shift, or SAPS, megasonic technology, which can be applied in flat patterned wafer cleaning at numerous steps during the chip fabrication process. By delivering megasonic energy uniformly across a wafer, SAPS technology eliminates the particle removal inefficiencies that characterized traditional megasonic cleaning technologies. In March 2016 we introduced our proprietary Timely Energized Bubble Oscillation, or TEBO, technology, which can be applied at numerous steps during the fabrication of small node conventional 2D and 3D patterned wafers. By providing multi-parameter control of bubble cavitation during megasonic cleaning, TEBO technology avoids the fine-pattern damage caused by previously existing megasonic cleaning processes.

We have designed our equipment models for SAPS and TEBO solutions using a modular configuration that enables us to create a wet-cleaning tool meeting the specific requirements of a customer, while using pre-existing designs for chamber, electrical, chemical delivery and other modules. Our modular approach supports a wide range of customer needs and facilitates the adaptation of our model tools for use with the optimal chemicals selected to meet a customer's requirements. Our tools are offered principally for use in manufacturing chips from 300mm silicon wafers, but we also offer solutions for 150mm and 200mm wafers and for nonstandard substrates, including quartz, sapphire and glass.

In addition to our SAPS and TEBO tool offerings, we offer a range of custom-made equipment, such as cleaners, coaters, developers, photoresist strippers, wet etchers and copper-plating tools, to back-end wafer assembly and packaging factories, principally in the PRC.

Space Alternated Phase Shift Cleaning

SAPS Technology

SAPS technology delivers megasonic energy uniformly to every point on an entire wafer by alternating phases of megasonic waves in the gap between a megasonic transducer and the wafer. Radicals for removing random defects are generated in dilute solution, and the radical generation is promoted by megasonic energy. Unlike "stationary" megasonic transducers used by conventional megasonic cleaning methods, SAPS technology moves or tilts a transducer while a wafer rotates, enabling megasonic energy to be delivered uniformly across all points on the wafer, even if the wafer is warped. The mechanical force of cavitations generated by megasonic energy enhances the mass transfer rate of dislodged random defects and improves particle removal efficiency.

By delivering megasonic energy in a highly uniform manner on a microscopic level, SAPS technology can precisely control the intensity of megasonic energy and can effectively remove random defects of all sizes across the entire wafer in less total cleaning time than conventional megasonic cleaning products, without loss of material or roughing of wafer surfaces. We have conducted trials demonstrating SAPS technology to be more effective than conventional megasonic and jet spray cleaning technologies as defect sizes shrink from 300nm to 45nm. These trials show that SAPs technology has an even greater relative advantage over conventional jet spray technology when cleaning defects between 50 and 65nm in size and that SAPs technology continues to be effective for defects of sizes between 45 nm and 50nm, for which jet spray technology has proven to be ineffective.

SAPS Applications

SAPS megasonic cleaning technology can be applied during the chip fabrication process to clean wafer surfaces and interconnects. It also can be used to clean, and lengthen the lifetime of, recycled test wafers.

Wafer Surfaces. SAPS technology can enhance removal of random defects following planarization and deposition, which are among the most important, and most repeated, steps in the fabrication process:

- *Post CMP*: Chemical mechanical planarization, or CMP, uses an abrasive chemical slurry following other fabrication processes, such as deposition and etching, in order to achieve a smooth wafer surface

in preparation for subsequent processing steps. SAPS technology can be applied following each CMP process to remove residual random defects deposited or formed during CMP.

- *Post Hard Mask Deposition:* As part of the photolithographical patterning process, a mask is applied with each deposition of a material layer to prevent etching of material intended to be retained. Hard masks have been developed to etch high aspect-ratio features of advanced chips that traditional masks cannot tolerate. SAPS technology can be applied following each deposition step involving hard masks that use nitride, oxide or carbon based materials to achieve higher etch selectivity and resolution.

For these purposes, SAPS technology uses environmentally friendly dilute chemicals, reducing chemical consumption. Chemical types include dilute solutions of chemicals used in RCA cleaning, such as dilute hydrofluoric acid and RCA SC-1 solutions, and, for higher quality wafer cleaning, functional de-ionized water produced by dissolving hydrogen, nitrogen or carbon dioxide in water containing a small amount of chemicals, such as ammonia. Functional water removes random defects by generating radicals, and megasonic excitation can be used in conjunction with functional water to further increase the generation of radicals. Functional water has a lower cost and environmental impact than RCA solutions, and using functional water is more efficient in eliminating random defects than using dilute chemicals or de-ionized water alone. We have shown that SAPS megasonic technology using functional water exhibits high efficiency in removing random defects, especially particles smaller than 65nm, with minimal damage to structures.

Interconnects and Barrier Metals. Each successive advanced process node has led to finer feature sizes of interconnects such as contacts, which form electrical pathways between a transistor and the first metal layer, and vias, which form electrical pathways between two metal layers. Advanced nodes have also resulted in higher aspect ratios for interconnect structures, with thinner, redesigned metal barriers being used to prevent diffusion. SAPS technology can improve the removal of residues and other random defects from interconnects during the chip fabrication process:

- *Post Contact/Via Etch:* Wet etching processes are commonly used to create patterns of high-density contacts and vias. SAPS technology can be applied after each such etching process to remove random defects that could otherwise lead to electrical shorts.
- *Pre Barrier Metal Deposition*: Copper wiring requires metal diffusion barriers at the top of via holes to prevent electrical leakage. SAPS technology can be applied prior to deposition of barrier metal to remove residual oxidized copper, which otherwise would adhere poorly to the barrier and impair performance.

For these applications, SAPS technology uses environmentally friendly dilute chemicals such as dilute hydrofluoric acid, RCA SC-1 solution, ozonated de-ionized water and functional de-ionized water with dissolved hydrogen. These chemical solutions take the place of piranha solution, a high-temperature mixture of sulfuric acid and hydrogen peroxide used by conventional wet wafer cleaning processes. We have shown that SAPS technology exhibits greater efficiency in removing random defects, and lower levels of material loss, than conventional processes, and our chemical solutions are less expensive and more environmentally conscious than piranha solution.

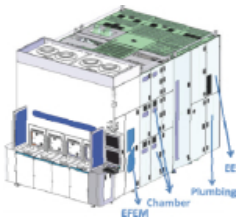
Recycled Test Wafers. In addition to using silicon wafers for chip production, chip manufacturers routinely process wafers through a limited portion of the front-end fabrication steps in order to evaluate the health, performance and reliability of those steps. Manufacturers also use wafers for non-product purposes such as inline monitoring. Wafers used for purposes other than manufacturing revenue products are known as test wafers, and it is typical for twenty to thirty percent of the wafers circulating in a fab to be test wafers. In light of the significant cost of wafers, manufacturers seek to re-use a test wafer for more than one test. As test wafers are recycled, surface roughness and other defects progressively impair the ability of a wafer to complete tests accurately. SAPS technology can be applied to reduce random defect levels of a recycled wafer, enabling the test wafer to be reclaimed for use in additional testing processes. For these purposes, SAPS technology includes improved fan

filter units that balances intake and exhaust flows, precise temperature and concentration controls that ensure better handling of concentrated acid processes, and two-chemical recycle capability that reduces chemical consumption.

SAPS Equipment

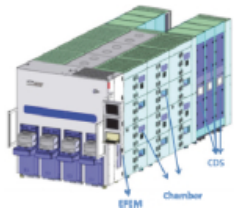
We currently offer two models of wet wafer cleaning equipment based on our SAPS technology, Ultra C SAPS II and Ultra C SAPS V. Each of these models is a single-wafer, serial-processing tool that can be configured to customer specifications and, in conjunction with appropriate dilute chemicals, used to remove random defects from wafer surfaces or interconnects and barrier metals as part of the chip front-end fabrication process or for purposes of recycling test wafers. By combining our megasonic and chemical cleaning technologies, we have designed these tools to remove random defects with greater efficacy and efficiency than conventional wafer cleaning processes, with enhanced process flexibility and reduced quantities of chemicals. Each of our SAPS models was initially built to meet specific requirements of a key customer. We expect the sales prices of our SAPS tools generally to range between $2.5 million and $5.0 million, although the sales price of a particular tool will vary depending upon the required specifications.

SAPS II was released in 2011. Its key features include:



- compact design, with footprint of 2.65m x 4.10m x 2.85m (WxDxH), requiring limited clean room floor space;
- up to 8 chambers, providing throughput of up to 225 wafers per hour;
- double-sided cleaning capability, with up to 5 cleaning chemicals for process flexibility;
- 2-chemical recycling capability for reduced chemical consumption;
- image wafer detection method for lowering wafer breakage rates; and
- chemical delivery module for delivery of dilute hydrofluoric acid, RCA SC-1 solution, functional de-ionized water and carbon dioxide to each of the chambers.

SAPS V, which was released in 2014, offers increased productivity for chip manufacturers moving to advanced nodes. SAPS V provides all of the features and functionality of SAPS II, upgraded as follows:



- compact design, with footprint of 2.55m x 5.1m x 2.85m (WxDxH);
- up to 12 chambers, providing throughput of up to 375 wafers per hour;
- chemical supply system integrated into mainframe;
- inline mixing method replaces tank auto-changing, reducing process time; and
- improved drying technology using hot isopropyl alcohol and de-ionized water.

Timely Energized Bubble Oscillation Cleaning

TEBO Technology

We developed TEBO technology for application in wet wafer cleaning during the fabrication of both conventional 2D and 3D patterned wafers with fine feature sizes. TEBO technology facilitates effective cleaning even with patterned features too small or fragile to be addressed by conventional jet spray and megasonic cleaning technologies.

TEBO technology solves the problems created by transient cavitation in conventional megasonic cleaning processes. Cavitation is the formation of bubbles in a liquid, and transient cavitation is a process in which a bubble in fluid implodes or collapses. In conventional megasonic cleaning processes, megasonic energy forms bubbles and then causes those bubbles to implode or collapse, blasting destructive high-pressure, high-temperature micro jets toward the wafer surface. Our internal testing has confirmed that at any level of megasonic energy capable of removing random defects, the sonic energy and mechanical force generated by transient cavitation are sufficiently strong to damage fragile patterned structures with features less than 70nm.

TEBO technology provides multi-parameter control of cavitation by using a sequence of rapid changes in pressure to force a bubble in liquid to oscillate at controlled sizes, shapes and temperatures, rather than implode or collapse. As a result, cavitation remains stable during TEBO megasonic cleaning processes, and a chip fabricator can, using TEBO technology, apply the level of megasonic energy needed to remove random defects without incurring the pattern damage created by transient cavitation in conventional megasonic cleaning.

We have demonstrated the damage-free cleaning capabilities of TEBO technology on customers' patterned wafers as small as 1xnm (16nm to 19nm), and we believe TEBO technology will be applicable in even smaller fabrication process nodes. TEBO technology can be applied in manufacturing processes for conventional 2D chips with fine features and advanced chips with 3D structures, including FinFET, DRAM, 3D NAND and 3D cross point memory as well as other 3D architectures that may be developed in the future, such as carbon nanotubes and quantum devices. As a result of the thorough, controlled nature of TEBO processes, cleaning time for TEBO-based solutions may take longer than conventional megasonic cleaning processes. Conventional processes have proven ineffective, however, for process nodes of 20nm or less, and we believe the increased yield that can be achieved by using TEBO technology for nodes up to 70nm can more than offset the cost of the additional time in utilizing TEBO technology.

TEBO Applications

At process nodes of 28nm and less, chip makers face escalating challenges in eliminating nanometric particles and maintaining the condition of inside pattern surfaces. In order to maintain chip quality and avoid yield loss, cleaning technologies must control random defects of diminishing killer defect sizes, without roughing or otherwise damaging surfaces of transistors, interconnects or other wafer features. TEBO technology can be applied in numerous steps throughout the manufacturing process flow for effective, damage-free cleaning:

- *Memory Chips:* TEBO technology can be applied in up to a total of 47 steps in the fabrication of a dynamic random-access memory, or DRAM, chip, consisting of 8 steps in cleaning ISO structures, 19 steps in cleaning buried gates, and 20 steps in cleaning high aspect-ratio storage nodes and stacked films.
- *Logic Chips:* In the fabrication process for a logic chip with a FinFET structure, TEBO technology can be used in 15 or more cleaning steps.

For purposes of solving inside pattern surface conditions for memory or logic chips, TEBO technology uses environmentally friendly dilute chemicals such as RCA SC-1 and hydrogen gas doped functional water.

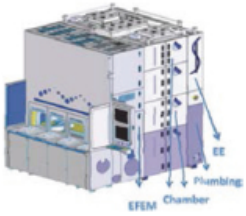
TEBO Equipment

We currently offer two models of wet wafer cleaning equipment based on our TEBO technology, Ultra C TEBO II and Ultra C TEBO V. Each of these models is a single-wafer, serial-processing tool that can be configured to customer specifications and, in conjunction with appropriate dilute chemicals, used at numerous manufacturing processing steps for effective, damage-free cleaning of chips at process nodes 28nm or less. TEBO equipment solves the problem of pattern damage caused by transient cavitation in conventional jet spray and megasonic cleaning processes, providing better particle removal efficiency with limited material loss or roughing. TEBO equipment currently is being evaluated by a select group of leading memory and logic chip customers, some of which recently have indicated an intent to move to production. We expect the sales prices of our TEBO tools generally to range between $3.5 million and $6.5 million, although the sales price of a particular tool will vary depending upon the required specifications.

Each model of TEBO equipment includes:

- an equipment front-end module, or EFEM, which moves wafers from chamber to chamber;
- one or more chamber modules, each equipped with a TEBO megasonic generator system;
- an electrical module to provide power for the tool; and
- a chemical delivery module.

Ultra C TEBO II was released in 2016. Its key features include:



- compact design, with footprint of 2.25m x 2.25m x 2.85m (WxDxH);
- up to 8 chambers with an upgraded transport system and optimized robotic scheduler, providing throughput of up to 300 wafers per hour;
- EFEM module consisting of 4 load ports, transfer robot and 1 process robot; and
- focus on dilute chemicals contributes to environmental sustainability and lower cost of ownership.

Ultra C TEBO V also was introduced in 2016, and its key features include:

- footprint of 2.45m x 5.30m x 2.85m (WxDxH);
- up to 12 chamber modules, providing throughput of up to 300 wafers per hour;
- EFEM module consisting of 4 load ports, 1 transfer robot and 1 process robot; and
- chemical delivery module for delivery of isopropyl alcohol, dilute hydrofluoric acid, RCA SC-1 solution, functional de-ionized water and carbon dioxide to each of the chambers.

Custom-Made Wafer Assembly and Packaging Equipment

We leverage our technology and expertise to provide a range of single-wafer tools for back-end wafer assembly and packaging factories, principally in the PRC. We focus on providing custom-made, differentiated

equipment that incorporates customer-requested features, at a competitive price. The sales prices for these tools generally range between $500,000 and $1.0 million, and these offerings generated $5.7 million, or 20.9%, of our revenue in 2016 and $4.2 million, or 13.5%, of our revenue in 2015.

For example, our Ultra C Coater is used in applying photoresist, a light-sensitive material used in photolithography to transfer a pattern from a mask onto a wafer. Coaters typically provide input and output elevators, shuttle systems and other devices to handle and transport wafers during the coating process. Unlike most coaters, the Ultra C Coater is fully automated. In addition, based on requests from customers, we developed and incorporated the special function of chamber auto-clean module into the Ultra C Coater, which further differentiates it from other products in the market. The Ultra C Coater is designed to deliver improved throughput and more efficient tool utilization while eliminating particle generation.

Our other advanced packaging tools include: Ultra C Developer, which applies liquid developer to selected parts of photoresist to resolve an image; Ultra C PR Megasonic-Assisted Stripper, which removes photoresist; Ultra C Scrubber, which scrubs and cleans wafers; and Ultra C Thin Wafer Scrubber, which addresses a sub-market of cleaning very thin wafers for certain Asian assembly factories; and Ultra C Wet Etcher, which etches silicon wafers and copper and titanium interconnects.

Our Customers

As of June 30, 2017, customers had purchased and deployed more than 30 Ultra C SAPS and TEBO cleaning tools. All of our sales in 2015, 2016 and the first half of 2017 were to customers located in Asia, and we anticipate that a substantial majority of our revenue will continue to come from customers located in this region for the near future. We have increased our efforts to penetrate the markets in North America and Western Europe, and we believe we are well positioned to begin generating sales in those regions.

We generate most of our revenue from a limited number of customers as the result of our strategy of initially placing SAPS- and TEBO-based equipment with a small number of leading chip manufacturers that are driving technology trends and key capability implementation. In the first half of 2017, 62.8% of our revenue was derived from three customers: SK Hynix Inc., a leading Korean memory chip company that accounted for 22.8% of our revenue; Shanghai Huali Microelectronics Corporation, a leading PRC foundry that accounted for 20.6% of our revenue; and Yangtze Memory Technologies Co., Ltd., a leading PRC memory chip company that, together with one of its subsidiaries, accounted 19.4% of our revenue. In 2016 99.3% of our revenue was derived from four customers: Shanghai Huali Microelectronics Corporation accounted for 33.7% of our revenue; Semiconductor Manufacturing International Corporation, a leading PRC foundry that accounted for 25.0% of our revenue; SK Hynix Inc. accounted for 24.0% of our revenue; and JiangYin ChangDian Advanced Packaging Co. Ltd., a leading PRC foundry that accounted for 16.6% of our revenue. In 2015 all of our revenue was derived from three customers, including SK Hynix Inc., which accounted for 86.0% of our revenue, and JiangYin ChangDian Advanced Packaging Co., Ltd., which accounted for 10.1% of our revenue.

Based on our market experience, we believe that implementation of our equipment by one of our selected leading companies will attract and encourage other manufacturers to evaluate our equipment, because the leading company’s implementation will serve as validation of our equipment and will enable the other manufacturers to shorten their evaluation processes. We placed our first SAPS-based tool in 2009 as a prototype. We worked closely with the customer for two years in debugging and modifying the tool, and the customer then spent two more years of qualification and running pilot production before beginning volume manufacturing. Our revenue in 2015 included sales of SAPS-based tools following the customer’s completion of its qualification process. We expect that the period from new product introduction to high volume manufacturing will be three years or less in the future. Please see “Risk Factors—Business—We depend on a small number of customers for a substantial portion of our revenue, and the loss of, or a significant reduction in orders from, one or more of our major customers could have a material adverse effect on our revenue and operating results. There are also a limited number of potential customers for our products.”

Customers continue to establish joint ventures, alliances and licensing arrangements that have the potential to positively or negatively impact our competitive position and market opportunities. A material reduction in orders from our large customers could adversely affect our results of operations and projected financial condition. Our business depends upon the expenditures of semiconductor manufacturers. Semiconductor manufacturers' businesses, in turn, depend on many factors, including their financial capability, the current and anticipated market demand for integrated circuits, the global economy and the availability of equipment capacity to support that demand.

Sales and Marketing

We market and sell our products worldwide using a combination of our direct sales force and third-party representatives. We employ direct sales teams in Asia, Europe and North America, and have located these teams near our customers, primarily in the PRC, Korea, Taiwan and the United States. Each sales person has specific local market expertise. We also employ field application engineers, who are typically co-located with our direct sales teams, to provide technical pre- and post-sale support tours and other assistance to existing and potential customers throughout the customers' fab planning and production line qualification and fab expansion phases. Our field application engineers are organized by end markets as well as core competencies in hardware, control system, software and process development to support our customers.

To supplement our direct sales teams, we have contacts with several independent sales representatives in the PRC, Taiwan and Korea. We select these independent representatives based on their ability to provide effective field sales, marketing forecast and technical support for our products. In the case of representatives, our customers place purchase orders with us directly rather than with the representatives.

Our sales have historically been made using purchase orders with agreed technical specifications. Our sales terms and conditions are generally consistent with industry practice, but may vary from customer to customer. We seek to obtain a purchase order three to four months ahead of the customer's desired delivery date. For some customers, we receive a letter of intent three weeks ahead, followed by the corresponding purchase order five weeks ahead, of the customer's desired delivery date. Consistent with industry practice, we allow customers to reschedule or cancel orders on relatively short notice. Because of our relatively short delivery period and our practice of permitting rescheduling or cancellation, we believe that backlog is not a reliable indicator of our future revenue.

Our marketing team focuses on our product strategy and technology road maps, product marketing, new product introduction processes, demand assessment and competitive analysis, customer requirement communication and public relations. Our marketing team also has the responsibility to conduct environmental scans, study industry trends and arrange our participation at major trade shows.

Manufacturing

All of our products are built to order at our facility in Shanghai. Our manufacturing facility has a total of 36,000 square feet, with 8,000 square feet of class 10,000 clean room space for product assembly and testing, plus 800 square feet of class 1 clean room space for product demonstration purposes. The rest of the area is used for product sub-assembly, component inventory and manufacturing related offices. A class designation for a clean room denotes the number of particles of size 0.5mm or larger permitted per cubic foot of air. Our manufacturing facility is ISO-9000 certified, and we have implemented certain manufacturing science-based factory practices such as constraint management, statistical process control and failure mode and effect analysis methodology.

In each of 2015, 2016 and the first half of 2017, we sourced approximately one-third of the parts and components (by value) for our products from Chinese suppliers and the remaining parts and components were sourced from suppliers in the United States and, to a lesser extent, Japan and Korea. We employ sub-contractors

to make certain sub-systems and software algorithms. Depending upon the nature of a customer's specifications, the lead time for production of a tool generally will extend from two to four months, but can be as long as six months. We plan our production capacity to be about twice the average orders to ensure we can respond to demand fluctuations. Currently we estimate that our production capacity is close to plan, namely sufficient to produce two tools for each tool shipped to a customer.

We purchase some of the components and assemblies that we include in our products from single source suppliers. We believe that we could obtain and qualify alternative sources to supply these components. Nevertheless, any prolonged inability to obtain these components could have an adverse effect on our operating results and could unfavorably impact our customer relationships. Please see "Risk Factors—Risks Related to Our Business and Our Industry—We depend on a limited number of suppliers, including single source suppliers, for critical components and assemblies, and our business could be disrupted if they are unable to meet our needs."

Research and Development

We believe that our success depends in part on our ability to develop and deliver breakthrough technologies and capabilities to meet our customers' ever-more challenging technical requirements. For this reason, we devote significant financial and personnel resources to research and development. Our research and development team is comprised of highly skilled engineers and technologists with extensive experience in megasonic technology, cleaning processes and chemistry, mechanical design, and control system design. As of September 30, 2017, approximately one half of our research and development personnel held advanced technical degrees. To supplement our internal expertise, we also collaborate with external research and development entities such as International SEMATECH, a global consortium of computer chip manufacturers, on specific areas of interests and retain, as technical advisors, several experts in semiconductor technology.

For the foreseeable future we are focusing on enhancing our existing Ultra C SAPS and TEBO tools and integrating additional capabilities to meet and anticipate requirements from our existing and potential customers. Our particular areas of focus include development of the following:

- new cleaning steps for Ultra C SAPS cleaners for application in logic chips and for DRAM, 3D NAND and 3D cross point memory technologies;
- new cleaning steps for Ultra C TEBO cleaners for FinFET in logic chips, gates in DRAM, and deep vias in both 3D NAND and 3D cross point memory technologies;
- new hardware, including new system platforms, new chamber structures and new chemical blending systems; and
- new software to integrate new functionalities to improve tool performance.

Longer term, we are working on new proprietary process capabilities based on our existing tool hardware platforms. We are also working to integrate our tools with third-party tools in adjacent process areas in the chip manufacturing flow.

Our research and development expense was $1.9 million, or 13.0% of revenue, in the first half of 2017, $3.3 million, or 11.9% of revenue, in 2016 and $2.9 million, or 9.0% of revenue, in 2015. Without reduction by grant amounts received from PRC governmental authorities (see "—Key Components of Results of Operations—PRC Government Research and Development Funding"), our gross research and development expense totaled $5.0 million, or 34.8% of revenue, in the first half of 2017, $7.5 million, or 27.4% of revenue, in 2016 and $6.6 million, or 21.0% of revenue, in 2015. We intend to continue to invest in research and development to support and enhance our existing cleaning products and to develop future product offerings to build and maintain our technology leadership position.

Intellectual Property

Our success and future revenue growth depend, in part, on our ability to protect our intellectual property. We control access to and use of our proprietary technologies, software and other confidential information through the use of internal and external controls, including contractual protections with employees, consultants, advisors, customers, partners and suppliers. We rely primarily on patent, copyright, trademark and trade secret laws, as well as confidentiality procedures, to protect our proprietary technologies and processes. All employees and consultants are required to execute confidentiality agreements in connection with their employment and consulting relationships with us. We also require them to agree to disclose and assign to us all inventions conceived or made in connection with the employment or consulting relationship.

We have aggressively pursued intellectual property since our founding in 1998. We focus our patent efforts in the United States, and, when justified by cost and strategic importance, we file corresponding foreign patent applications in strategic jurisdictions such as the European Union, the PRC, Japan, Korea, Singapore, and Taiwan. Our patent strategy is designed to provide a balance between the need for coverage in our strategic markets and the need to maintain costs at a reasonable level.

As of September 30, 2017, we had 20 issued patents and numerous pending applications in the United States. These patents carry expiration dates from 2018 through 2027. Many of the US patents and applications have also been filed internationally, in one or more of the European Union, PRC, Japan, Korea, Singapore and Taiwan.

Specifically, we own patents in wafer cleaning, electro-polishing and plating, wafer preparation, and other semiconductor processing technologies.

We currently manufacture advanced single-wafer cleaning systems equipped with our SAPS and TEBO technologies. Our wafer cleaning technologies are protected by US Patent Numbers 8580042, 8671961, 9070723 and 9281177, as well as their corresponding international patents. We have 22 patents granted internationally protecting our SAPS technologies. We also have filed four international patent applications for key TEBO technologies in accordance with the Patent Cooperation Treaty, in anticipation of filing in the U.S. national phase.

In addition to the above core technologies, we have patents reflecting innovations in other aspects of wafer cleaning systems, such as cleaning solution recycling and wafer holding and positioning. During a wafer cleaning cycle, multiple cleaning solutions may be sequentially used. Our cleaning solution recycling technology prevents cross-contamination and allows recycling of the cleaning solutions. These innovations are protected by US Patent Numbers 6248222, 6495007, 6749728, 6726823, 6447668 and 7136173, as well as their corresponding international patents.

We have technologies for stress-free polishing, or SFP, and electrochemical plating, or ECP, that are used in certain of our tools. SFP is an integral part of the CMP process. Our technology was a breakthrough in electro-chemical-copper-planarization technology when it was first introduced, because it can polish, stress-free, oxidizing tantalum barrier layers used in copper low-K interconnects. Our innovations in SFP and ECP are reflected in US Patent Numbers 6395152, 6837984, 6440295, 6638863, 6391166 and 8518224, and their corresponding international counterparts.

We also have technologies in other semiconductor processing areas, such as wafer preparation and some specific processing steps. The wafer preparation technology is covered by US Patent Numbers 8383429 and 9295167. The specific processing steps include US Patent Number 7119008 titled “Integrating metal layers with ultra-low-K dielectrics,” and US Patent Number 8598039 titled “Barrier layer removal method and apparatus.”

To date we have not granted licenses to third parties under the patents described above. Not all of these patents have been implemented in products. We may enter into licensing or cross-licensing arrangements with other companies in the future.

We cannot assure you that any patents will issue from any of our pending applications. Any rights granted under any of our existing or future patents may not provide meaningful protection or any commercial advantage to us. With respect to our other proprietary rights, it may be possible for third parties to copy or otherwise obtain and use our proprietary technology or marks without authorization or to develop similar technology independently.

The semiconductor equipment industry is characterized by vigorous protection and pursuit of intellectual property rights or positions, which have resulted in often protracted and expensive litigation. We may in the future initiate claims or litigation against third parties to determine the validity and scope of proprietary rights of others. In addition, we may in the future initiate litigation to enforce our intellectual property rights or the rights of our customers or to protect our trade secrets.

Our customers could become the target of litigation relating to the patent or other intellectual property rights of others. This could trigger technical support and indemnification obligations in some of our customer agreements. These obligations could result in substantial expenses, including the payment by us of costs and damages related to claims of patent infringement. In addition to the time and expense required for us to provide support or indemnification to our customers, any such litigation could disrupt the businesses of our customers, which in turn could hurt our relations with our customers and cause the sale of our products to decrease. We do not have any insurance coverage for intellectual property infringement claims for which we may be obligated to provide indemnification.

Additional information about the risks relating to our intellectual property is provided under “Risk Factors—Risks Relating to Our Intellectual Property.”

Competition

The chip equipment industry is characterized by rapid change and is highly competitive throughout the world. We compete with semiconductor equipment companies located around the world, and we may also face competition from new and emerging companies, including new competitors from the PRC. We consider our principal competitors to be those companies that provide single-wafer cleaning products to the market, including Lam Research Corp., DNS Electronics LLC, Tokyo Electron Ltd., SEMES Co. Ltd., Mujin Electronics Co., Ltd. and Beijing Sevenstar Science & Technology Co., Ltd.

Compared to our company, our current and potential competitors may have:

- better established credibility and market reputations, longer operating histories, and broader product offerings;
- significantly greater financial, technical, marketing and other resources, which may allow them to pursue design, development, manufacturing, sales, marketing, distribution and service support of their products;
- more extensive customer and partner relationships, which may position them to identify and respond more successfully to market developments and changes in customer demands; and
- multiple product offerings, which may enable them to offer bundled discounts for customers purchasing multiple products or other incentives that we cannot match or offer.

The principal competitive factors in our market include:

- performance of products, including particle removal efficiency, rate of damage to wafer structures, high temperature chemistry, throughput, tool uptime and reliability, safety, chemical waste treatment, and environmental impact;
- service support capability and spare parts delivery time;

- innovation and development of functionality and features that are must-haves for advanced fabrication nodes;
- ability to anticipate customer requirements, especially for advanced process nodes of less than 45nm;
- ability to identify new process applications;
- brand recognition and reputation; and
- skill and capability of personnel, including design engineers, manufacturing engineers and technicians, application engineers, and service engineers.

In addition, semiconductor manufacturers must make a substantial investment to qualify and integrate new equipment into semiconductor production lines. Some manufacturers have announced they will fabricate chips for the 10nm node beginning in 2017 and the 7nm node commencing in 2018, and we have one customer that currently is evaluating implementation of our equipment for both the 10nm and 7nm nodes. Once a semiconductor manufacturer has selected a particular supplier's equipment and qualified it for production, the manufacturer generally maintains that selection for that specific production application and technology node as long as the supplier's products demonstrate performance to specification in the installed base. Accordingly, we may experience difficulty in selling to a given manufacturer if that manufacturer has qualified a competitor's equipment. If, however, that cleaning equipment constrains chip yield, we expect, based on our experience to date, that the manufacturer will evaluate implementing new equipment that cleans more effectively.

We focus on the high-end fabrication market with advanced nodes, and we believe we compete favorably with respect to the factors described above. Most of our competitors offer single-wafer cleaning products using jet spray technology, which has relatively poor particle removal efficiency for random defects less than 30nm in size and presents increased risk of damage to the fragile patterned architectures of wafers at advanced process nodes. Certain of our competitors offer single-wafer cleaning products with megasonic cleaning capability, but we believe these products, which use conventional megasonic technology, are unable to maintain energy dose uniformity on the entire wafer and often lack the ability to repeat the requisite uniform energy dose wafer to wafer in production, resulting in poor efficiency in removing random defects, longer processing time and greater loss of material. In addition, these conventional megasonic products generate transient cavitation, which results in more incidents of damage to wafer structures with feature sizes of 70nm or less. We design our cleaning tools equipped with our proprietary SAPS and TEBO technologies, which we believe offer better performance, including at advanced process nodes of 22nm or less. Moreover, with our operations based in Shanghai, we are well positioned to take advantage of the Chinese government's policies to develop an independent domestic semiconductor supply chain.

Employees

As of September 30, 2017, we had 187 full-time employees, of whom 23 were in administration, 46 were in manufacturing, 80 were in research and development, and 38 were in sales and marketing and customer services. Of these employees, 179 were located in the PRC, 4 were located in Korea and 4 were based in the United States.

We have never had a work stoppage, and none of our employees are represented by a labor organization or subject to any collective bargaining arrangements. We consider our employee relations to be good.

Facilities

We have occupied our current corporate headquarters in Fremont, California, since February 2008, under a lease that, as amended in March 2017, extends through March 2018. We conduct our research and development and manufacturing and service support operations in a facility of approximately 60,000 square feet, of which 36,000 square feet is dedicated to manufacturing, located in the Zhangjiang Hi-Tech Park in Shanghai, PRC; we have leased this facility since 2007, and our lease, as amended in September 2016, expires in December 2017. In addition, we provide sales support and customer service operations from leased office space in Jiangying, PRC, Wuxi, PRC, and Icheon, Korea.

We believe we can extend or replace our existing lease agreements for our Fremont, California, and Shanghai, PRC, facilities, in each case on acceptable, commercially reasonable terms. We intend to expand our existing facilities as we grow our business and add resources, and we believe that we will be able to obtain, on acceptable, commercially reasonably terms, additional space to accommodate the foreseeable expansion of our operations.

Legal Proceedings

From time to time we may become involved in legal proceedings or may be subject to claims arising in the ordinary course of our business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business, operating results, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

MANAGEMENT

Executive Officers, Directors, Director-Elect and Key Advisors

Our executive officers, directors, director-elect and key advisors, and their ages and positions as of September 30, 2017, are set forth below:

Name	Age	Position
Executive officers:		
David H. Wang	55	Chair of the Board, Chief Executive Officer and President
Min Xu	43	Chief Financial Officer
Fufa Chen	56	Vice President, Sale
Jian Wang	52	Vice President, Research and Development
Sotheara Cheav	65	Vice President, Manufacturing
Non-employee directors:		
Haiping Dun(2)(3)	67	Lead Director
Chenming Hu(1)(3)	70	Director
Tracy Liu (1)(2)	52	Director
Director-elect:		
Yinan Xiang(4)	42	Director-Elect
Key advisors:		
Stephen Chiao	70	Member of Advisory Board
Chenming Hu(1)(3)	70	Member of Advisory Board
Srini Raghavan	69	Member of Advisory Board
Lip-Bu Tan	67	Member of Advisory Board
Chiang Yang	57	Member of Advisory Board

(1) Member of Audit Committee.
(2) Member of Compensation Committee.
(3) Member of Nominating and Governance Committee.
(4) Yinan Xiang has been appointed as a member of our board of directors effective upon the earlier of the completion of this offering and November 15, 2017.

Executive Officers

Each executive officer serves at the discretion of the board of directors and holds office until his successor is duly elected and qualified or until his earlier resignation or removal. Jian Wang, the Vice President, Research and Development of ACM Shanghai is the brother of David H. Wang, our Chair of the Board, Chief Executive Officer and President.

David H. Wang is our founder and has served as Chief Executive Officer, President and one of our directors since 1998. Dr. Wang has served as the Chair of the Board since October 2017. Dr. Wang received a Ph.D. and a Master of Engineering from Osaka University in precision engineering and a Bachelor of Science in precision instruments from Tsinghua University. We believe Dr. Wang is qualified to serve as a director due to his extensive experience with semiconductor equipment and manufacturing processes, including as the result of his studies and work at Osaka University, Cincinnati University and CNS Technology, and his extensive knowledge of our company and markets based on his founding and leadership of our company since 1998.

Min Xu has served as our Chief Financial Officer and Treasurer since November 2016. From August 2014 to November 2016 Mr. Xu served as the Chief Financial Officer of UTStarcom Holding Corp., a global telecom infrastructure provider. From April 2014 to June 2014, Mr. Xu was a senior equity research analyst at Roth Capital Partners, LLC. Roth Capital Partners, LLC is the representative of the several underwriters of this offering. From February 2013 to April 2014, Mr. Xu was an equity research analyst with Wedbush Securities and

from 2010 to 2012, Mr. Xu was an equity research analyst with Jeffries & Co. Mr. Xu received a Master of Business Administration from The Fuqua School of Business at Duke University, a Master of Science in electrical engineering from Purdue University, a Master of Science in physics from Colorado State University and a Bachelor of Science in physics from Peking University.

Fufa Chen has served as the Vice President, Sales of ACM Shanghai since 2007. Dr. Chen received a Ph.D. in electrical engineering from the State University of New York, Stony Brook.

Jian Wang has served as the Vice President, Research and Development of ACM Shanghai since January 2015. From January 2011 to January 2015, Mr. Wang was the Director of Research and Development of ACM Shanghai, focusing on the research and development of SFP and ECP technologies. Mr. Wang received a Master of Science in computer science from Northwestern Polytechnic University, a Master of Science in marine engineering from Kobe University and a Bachelor of Science in mechanical engineering from Southeast University.

Sotheara Cheav has served as the Vice President, Manufacturing of ACM Shanghai since January 2015. From 2011 to December 2014, Mr. Cheav served as the Director of Manufacturing of ACM Shanghai. Mr. Cheav received a Bachelor of Science in science and technology from the University of Cambodia and an Associate of Science in electronics from Bay Valley Technical Institute.

Non-employee Directors

Haiping Dun has served as one of our directors since 2003 and Lead Director since October 2017. Dr. Dun retired as a Senior Director from Intel Corporation in 2004, where he had been employed since 1983. In April 2016, Dr. Dun was appointed as the President of Champion Microelectronic Corp, a public company in Taiwan. Dr. Dun has served as a member of the executive board of directors of Champion Microelectronic Corp. since 2004. Dr. Dun received his Ph.D. in material science and engineering from Stanford University, a Master of Science in physics from the University of Washington and a Bachelor of Science in physics from National Taiwan University. We believe Dr. Dun is qualified to serve as a director due to his extensive experience with technology companies, his deep knowledge of our company, and his academic background in physics and material science.

Chenming C. Hu has served as one of our directors since January 2017. Dr. Hu has also served as a member of the board of advisors since May 2016. Since 1976, Dr. Hu has been a professor in electrical engineering and computer sciences at the University of California, Berkeley, where he has been the Taiwan Semiconductor Manufacturing Company Distinguished Chair Professor Emeritus and Professor of the Graduate School since 2010. Dr. Hu also serves on the board of directors of Ambrella, Inc., developer of semiconductor processing solutions for video, and Inphi Corporation, a fabless semiconductor company. Dr. Hu is a member of the U.S. National Academy of Engineering and the Chinese Academy of Sciences, and Taiwan's Academia Sinica. Dr. Hu received his Master of Science degree and Ph.D. from the University of California, Berkeley and his Bachelor of Science degree from National Taiwan University, all in electrical engineering. We believe Dr. Hu is qualified to serve as a director due to his experience and expertise in semiconductors and related technologies (including FinFET, which he developed in 1999), his experience as the Chief Technology Officer of Taiwan Semiconductor Manufacturing Company Ltd. from 2001 to 2007, and his current and past directorships at other public companies.

Tracy Liu has served as one of our directors since September 2016. Ms. Liu has been the founder and owner of H&M Financial Consulting since 2006, where she provides international accounting and tax solutions to high-technology companies. Ms. Liu has a Bachelor of Science from Nankai University and a Master of Accounting and Tax from Golden Gate University. Ms. Liu is a Certified Public Accountant and is a member of the American Institute of Certified Public Accountants. We believe Ms. Liu is qualified to serve as a director of our company due to her accounting expertise and her extensive experience with our company, including our accounting and finance operations.

Director-Elect

Pursuant to a voting agreement with SSTVC, SSTVC designated Yinan Xiang to our board of directors. Yinan Xiang was appointed as a member of our board effective upon the earlier of the completion of this offering and November 15, 2017. Ms. Xiang has been a General Manager of Shanghai S&T Venture Capital (Group) Co. Ltd. since October 2016, after serving as Manager of the Project Investment Department of Shanghai S&T Venture Capital (Group) Co. Ltd. from September 2014 to September 2016. From February 2012 to August 2014, Ms. Xiang was a Manager of Invest Department II of Shanghai Science and Technology Venture Capital Co., Ltd. Ms. Xiang received a Bachelor degree from Shanghai University of Finance and Economics.

Advisory Board

Our Advisory Board provides management with advice on strategy, industrial trends, organization policies, fundraising, technologies and its related applications.

Stephen Chiao has served as a member of our Advisory Board since December 2016. Since 2009, Dr. Chiao has served as Managing Partner at Sycamore Ventures Inc. Dr. Chiao has a Bachelor of Science degree from the National Cheng Kung University, a Masters in Science from the University of Southern California and a Ph.D. in Materials Science and Engineering from Stanford University.

Chenming C. Hu has served as a member of our Advisory Board since May 2016. For biographical information regarding Dr. Hu, see "—Non-employee Directors" above.

Srini Raghavan has served as a member of our Advisory Board since May 2016. Since 1988 Dr. Raghavan has been a Professor of Materials Science and Engineering at the University of Arizona, Tucson. Also at the University of Arizona, Tucson, Dr. Raghavan has been a Professor of Chemical and Environmental Engineering since 2006 and a Professor of Pharmacy Practice and Science since August 2015. Dr. Raghavan was a member of the Visiting Faculty at the Research and Development Lab of Micron Technology in Boise, Idaho. Dr. Raghavan was a Visiting Professor in the International College of Semiconductor Technology at the National Chiao-Tung University in Hsinchu, Taiwan in August 2015. In July 2014 Dr. Raghavan was an Honorary Professor at the Hebei University of Technology in Tianjin, PRC. Since January 2013 Dr. Raghavan has been a member of the Technical Advisory Board at Product Systems, Inc., specializing in Megasonic Technology for Cleaning and Stripping. Dr. Raghavan received a Bachelor of Science degree in chemistry for the University of Madras, a Bachelor of Education degree in Metallurgy at the Indian Institute of Science in Bangalore, a Master of Science degree in Materials Science and Mineral Engineering from the University of California, Berkeley and a Ph.D. from the University of California, Berkeley.

Lip-Bu Tan has served as a member of our Advisory Board since January 2017. Since 1987 Mr. Tan has served as the founder and Chairman of Walden International, an international venture capital firm. He has also served as President and Chief Executive Officer of Cadence Design Systems, Inc., an electronic design automation software and engineering services company, since 2009. Mr. Tan currently serves on the boards of directors of Cadence Design Systems, Inc., Hewlett Packard Enterprise Company, an information technology enterprise company, Semiconductor Manufacturing International Corporation, a semiconductor manufacturer, and Quantenna Communications, Inc., a wireless communication designer, developer and manufacturer. Mr. Tan holds a B.S. in physics from Nanyang University in Singapore, an M.S. in nuclear engineering from the Massachusetts Institute of Technology, and an M.B.A. from the University of San Francisco.

Chiang Yang has served as a member of our Advisory Board since August 2017, after having served as Senior Strategic Adviser to the President since January 2015. Dr. Yang has worked in the semiconductor industry for 32 years and has significant experience in semiconductor equipment, process development, manufacturing, fab operation, technology transfer and general management. Dr. Yang retired as the General Manager of Intel Mask Operation and Vice President of Technology & Manufacturing Group of Intel Corporation in 2014, where he had been employed since 1984. Dr. Yang's prior experience included semiconductor equipment development

at Applied Materials, Inc. and research on energy storage devices at Brookhaven National Laboratory. He received a Ph.D. in materials science from Massachusetts Institute of Technology, a Master of Science in physics from Northwestern University, and a Bachelor of Science in physics from the National Taiwan University.

Board of Directors

Our business and affairs are managed under the direction of the board of directors, which is currently composed of four members. Our current directors will continue to serve as directors until their resignations or until their successors are duly elected by the holders of common stock.

Director Nomination Rights

In connection with our sale and issuance of capital stock described in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Acquisition of Outstanding Minority Interests in Our Operating Company" and our sale and issuance of Class A common stock in the concurrent private placement described in "Concurrent Private Placement," we, and certain other shareholders, have entered into (a) a voting agreement with SSTVC and (b) a nomination and voting agreement with Xinxin (Hongkong) Capital Co., Limited, which agreements will remain in effect after the completion of this offering. Pursuant to these agreements, each of SSTVC and Xinxin (Hongkong) Capital Co., Limited will have the right to designate one individual for nomination to our board of directors. In addition, holders who will have 51.2% of the voting power of common stock immediately after this offering and the concurrent private placement, including David H. Wang, our Chair of the Board, Chief Executive Officer and President, and Haiping Dun, our Lead Director, have agreed to vote their shares for the election of the nominee designated by Xinxin (Hongkong) Capital Co. Limited.

The rights and obligations of the parties under the agreement with:

- SSTVC will be in effect as long as SSTVC continues to beneficially own all of the 1,666,170 shares of Class A common stock issued to SSTVC; and
- Xinxin (Hongkong) Capital Co., Limited and its affiliates continue to hold at least 625,000 shares of Class A common stock issued to Xinxin (Hongkong) Capital Co., Limited in the concurrent private placement.

SSTVC designated Yinan Xiang, who has been appointed as a member of our board of directors effective upon the earlier of the completion of this offering and November 15, 2017. We expect Xinxin (Hongkong) Capital Co., Limited to designate an individual for nomination to our board shortly after the consummation of this offering and the concurrent private placement.

Independent Directors

We have applied to list Class A common stock on the NASDAQ Global Market. Under NASDAQ rules, independent directors must comprise a majority of a listed company's board of directors within twelve months from the date of listing. In addition, NASDAQ rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and governance committees be independent within twelve months from the date of listing. Audit committee members must also satisfy additional independence criteria, including those set forth in Rule 10A-3 under the Securities Exchange Act, and compensation committee members must also satisfy additional independence criteria, including those set forth in Rule 10C-1 of the Securities Exchange Act. Under NASDAQ rules, a director will qualify as an "independent director" only if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3 under the Securities Exchange Act, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (a) accept, directly or indirectly, any consulting, advisory or

other compensatory fee from the listed company or any of its subsidiaries, other than compensation for board service; or (b) be an affiliated person of the listed company or any of its subsidiaries. In order to be considered independent for purposes of Rule 10C-1 under the Securities Exchange Act, each member of the compensation committee must be a member of the board of directors of the listed company, and must otherwise be independent. In determining independence requirements for members of compensation committees, the national securities exchanges and national securities associations shall consider relevant factors, including: (x) the source of compensation of a member of the board of a listed company, including any consulting, advisory or other compensatory fee paid by the listed company to such member of the board; and (y) whether a member of the board of a listed company is affiliated with the listed company, a subsidiary of the listed company or an affiliate of a subsidiary of the listed company.

In October 2017 the board undertook a review of its composition and that of its committees, as well as the independence of each director that will serve following the consummation of this offering. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, the board has determined that each of Chenming Hu, Haiping Dun and Tracy Liu qualify as independent directors in accordance with the rules of NASDAQ and Rules 10C-1 and 10A-3 under the Securities Exchange Act. The independent members of the board will hold separate regularly scheduled executive session meetings at which only independent directors are present.

Board of Directors

So long as the outstanding shares of Class B common stock represent a majority of the combined voting power of common stock, we will not have a classified board of directors, and all directors will be elected for annual terms. If outstanding shares of Class B common stock represent less than a majority of the combined voting power of common stock at any time, we thereafter would have a classified board consisting of three classes of approximately equal size, each serving staggered three-year terms. Our directors would be assigned by the then-current board of directors to a class.

If and when the board is classified, upon expiration of the term of a class of directors, directors for that class would be elected for three-year terms at the annual meeting of stockholders in the year in which that term expires. As a result, only one class of directors would be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Each director's term would continue until the election and qualification of his or her successor or his or her earlier death, resignation, or removal. Our restated charter provides that our directors may be removed with or without cause only by the affirmative vote of the holders of at least two-thirds of the votes that all of the stockholders would be entitled to cast in any annual election of directors.

So long as the board is classified, only the board could fill vacancies on the board. Any additional directorships resulting from an increase in the number of directors would be distributed among the three classes so that, as nearly as possible, each class would consist of one-third of the total number of directors.

The classification of the board might have the effect of delaying or preventing changes in our control or management. See "Description of Capital Stock—Anti-Takeover Provisions—Restated Charter and Bylaw Provisions."

Board Leadership Structure

The board of directors recognizes that it is important to determine an optimal board leadership structure to ensure the independent oversight of management as the company continues to grow. We do not have a policy on whether the offices of Chair of the Board and Chief Executive Officer should be separate and, if they are to be separate, whether the Chair of the Board should be selected from among the independent directors or should be

an employee. Our board has determined that it is in our best interests to have both a Chair of the Board and a Lead Director. Our board has appointed David H. Wang, our Chief Executive Officer and President, to serve as Chair of the Board and Haiping Dun, an independent director, to serve as Lead Director. Among other things, the Chair of the Board shall prepare agendas for, and preside over, meetings of the board and the Lead Director shall assist the Chair of the Board in preparing agendas and shall serve as the principal liaison between the Chair of the Board and the other directors. Our board believes that this is the appropriate leadership structure for us at this time and will allow the board to fulfill its role with appropriate independence.

The board has concluded that our current leadership structure is appropriate at this time. However, the board will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

Board Oversight of Risk

The board of directors has responsibility for the oversight of our risk management processes and, either as a whole or through its committees, regularly discusses with management our major risk exposures, their potential impact on our business and the steps we take to manage them. The risk oversight process includes receiving regular reports from board committees and members of senior management to enable the board to understand our risk identification, risk management and risk mitigation strategies with respect to areas of potential material risk, including operations, finance, legal, regulatory, strategic and reputational risk.

The audit committee of the board reviews information regarding liquidity and operations, and oversees our management of financial risks. Periodically, the audit committee reviews our policies with respect to risk assessment, risk management, loss prevention and regulatory compliance. Oversight by the audit committee includes direct communication with our external auditors, and discussions with management regarding significant risk exposures and the actions management has taken to limit, monitor or control such exposures. The compensation committee is responsible for assessing whether any of our compensation policies or programs has the potential to encourage excessive risk-taking. The nominating and governance committee of the board manages risks associated with the independence of the board, corporate disclosure practices and potential conflicts of interest. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire board is regularly informed through committee reports about such risks. Matters of significant strategic risk are considered by the board as a whole.

Code of Business Conduct

The board of directors adopted a code of business conduct that applies to each of our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller and persons performing similar functions. The code addresses various topics, including:

- compliance with applicable laws, rules and regulations;
- conflicts of interest;
- public disclosure of information;
- insider trading;
- corporate opportunities;
- competition and fair dealing;
- discrimination, harassment and retaliation;
- record-keeping;
- confidentiality;

- protection and proper use of company assets; and
- reporting illegal and unethical behavior.

Prior to the completion of this offering, the code of business conduct will be posted on the Investor Relations section of our website, which is located at www.acmrcsh.com. Any waiver of the code of business conduct for an executive officer or director may be granted only by the board or a committee thereof and must be timely disclosed as required by applicable law. We intend to disclose future amendments to certain provisions of our code of business conduct, or waivers of those provisions, applicable to any principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions on our website, www.acmrcsh.com.

We have implemented whistleblower procedures, which establish format protocols for receiving and handling complaints from employees. Any concerns regarding accounting or auditing matters reported under these procedures will be communicated promptly to the audit committee.

Board Committees

We have established an audit committee, a compensation committee and a nominating and governance committee. Prior to the completion of this offering, the composition of these committees will meet the criteria for independence under, and the functioning of these committees will comply with the applicable requirements of the rules of NASDAQ and SEC rules and regulations. We intend to comply with future requirements as they become applicable to us.

Each committee operates under a charter that has been approved by the board of directors. Prior to the completion of this offering, copies of each committee's charter will be posted on the Investor Relations section of our website, which is located at www.acmrcsh.com. Each committee has the composition and responsibilities described below. The board may from time to time establish other committees.

Audit Committee

The members of the audit committee are Chenming Hu and Tracy Liu, each of whom is a non-employee member of the board of directors. Tracy Liu serves as the chair of the audit committee. It is expected that Yinan Xiang may be elected to the audit committee upon joining the board. The audit committee's main function is to oversee our accounting and financial reporting processes, internal systems of control, independent registered public accounting firm relationships and the audits of our consolidated financial statements. Pursuant to the audit committee charter, the functions of the committee include, among other things:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting and our disclosure controls and procedures;
- meeting independently with our registered public accounting firm and management;
- furnishing the audit committee report required by SEC rules;
- reviewing and reassessing the adequacy of our conflict of interest policy; and
- overseeing our risk assessment and risk management policies.

All members of the audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and NASDAQ. The board has determined that Tracy Liu is an "audit committee financial expert" as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable NASDAQ rules and regulations.

The board has determined that each of Chenming Hu and Tracy Liu is independent under the applicable rules and regulations of NASDAQ, is a "non-employee director" as defined in Rule 16b-3 promulgated under the Securities Exchange Act and is an "outside director" as that term is defined in Internal Revenue Code Section 162(m).

Compensation Committee

The members of the compensation committee are Haiping Dun and Tracy Liu. Haiping Dun serves as the chair of the compensation committee. The compensation committee reviews and recommends policies relating to compensation and benefits of our officers and employees. Pursuant to the compensation committee charter, the functions of this committee include, among other things:

- evaluating the performance of our chief executive officer and determining the chief executive officer's salary and contingent compensation based on his or her performance and other relevant criteria;
- identifying the corporate and individual objectives governing the chief executive officer's compensation;
- approving the compensation of our other executive officers;
- making recommendations to the board of directors with respect to director compensation;
- reviewing and approving the terms of certain material agreements;
- overseeing and administering our equity incentive plans and employee benefit plans;
- preparing the annual compensation committee report required by SEC rules; and
- conducting a review of executive officer succession planning, as necessary, reporting its findings and recommendations to the board, and working with the board in evaluating potential successors to executive officer positions.

In accordance with NASDAQ listing standards, the board has granted the compensation committee the authority and responsibility required under Rules 10C-1(b)(2), (3) and (4) of the Securities Exchange Act, relating to the authority to retain or obtain the advice of compensation consultants, legal counsel and other compensation advisers, the authority to fund such advisers, and the responsibility to consider the independence factors specified under Rules 10C-1(b)(4)(i) through (vi) and any additional factors the compensation committee deems relevant.

The board has determined that each of Haiping Dun and Tracy Liu is independent under the applicable rules and regulations of NASDAQ, is a "non-employee director" as defined in Rule 16b-3 promulgated under the Securities Exchange Act and is an "outside director" as that term is defined in Internal Revenue Code Section 162(m).

Nominating and Governance Committee

The members of the nominating and governance committee are Chenming Hu and Haiping Dun. Chenming Hu serves as the chair of the nominating and governance committee. Pursuant to the nominating and governance committee charter, the functions of this committee include, among other things:

- identifying, evaluating, and making recommendations to the board of directors and our stockholders concerning nominees for election to the board, to each of the board's committees and as committee chairs;

- annually reviewing the performance and effectiveness of the board and developing and overseeing a performance evaluation process;
- annually evaluating the performance of management, the board and each board committee against their duties and responsibilities relating to corporate governance;
- annually evaluating adequacy of our corporate governance structure, policies and procedures; and
- providing reports to the board regarding the committee's nominations for election to the board and its committees.

Compensation Committee Interlocks and Insider Participation

None of the members of the compensation committee is or has in the past served as an officer or employee of our company. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on the board of directors or compensation committee.

Limitations on Liability and Indemnification Matters

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or controlling persons, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

DIRECTOR COMPENSATION

Fiscal Year 2016 Director Compensation

In 2016 we did not have an established policy with regard to cash or equity-based compensation of non-employee members of the board of directors. Under our 2016 Omnibus Incentive Plan, or the 2016 Plan, pursuant to which we intend to issue awards beginning with the effective date of this offering, the maximum number of shares subject to equity awards, and the maximum size of performance cash awards, that may be granted or paid to participants in any calendar year is limited, as set forth in more detail under "Executive Compensation—Equity Plans" below.

During 2016, our non-employee directors did not receive any cash compensation or stock awards for their service on the board or committees of the board, except that Tracy Liu was granted the option to purchase 50,000 shares of the Class A common stock in December 2016. The following table presents certain information with respect to the compensation of our non-employee directors in 2016:

Name	Option Awards($)(1)	Total($)(1)
Haiping Dun	$ —	$ —
Tracy Liu	114,000	114,000

(1) Amounts represent the aggregate grant date fair value of option awards granted during the year ended December 31, 2016, computed in accordance with FASB ASC Topic 718. See note 2 to our consolidated financial statements included at the end of this prospectus for a discussion of the assumptions made by us in determining the grant date fair value of our equity awards.

David H. Wang, our sole executive officer who served as a member of the board during 2016, did not receive any additional compensation for such service as a director.

Director Compensation Policy

In October 2017 we adopted a policy with respect to the compensation payable to certain of our non-employee directors, which will become effective upon the completion of this offering. Under this policy, each qualifying non-employee director will be eligible to receive compensation for his or her board and committee service consisting of annual cash retainers and equity awards. Our qualifying non-employee directors will receive the following annual retainers for their service:

Position	Retainer
Lead Director	$ 20,000
Other Directors	15,000
Audit Committee Chair	4,000
Other Audit Committee Members	3,000
Compensation Committee Chair	4,000
Other Compensation Committee Members	3,000
Nominating and Governance Committee Chair	4,000
Other Nominating and Governance Committee Members	3,000

Equity awards for qualifying non-employee directors will consist of (i) an initial equity award with a value of $75,000, upon initial election to our board of directors, subject to vesting and to such director's continued service on our board of directors, and (ii) annual equity awards with a value of $35,000, subject to vesting and to such director's continued service on our board of directors.

Directors may be reimbursed for reasonable out-of-pocket expenses incurred in attending board and committee meetings.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table provides information concerning the compensation paid for 2016 and 2015 to our "named executive officers," who consist of our Chief Executive Officer and President, our Treasurer and Chief Financial Officer and Treasurer and our other most highly compensated executive officer during 2016.

Name and Principal Position	Year	Salary ($)(1)	Bonus ($)(1)	Option Awards ($)(2)	All Other Compensation ($)(1)(3)	Total ($)
David H. Wang	2016	$171,364(4)	$ 7,837	$760,000	$ 10,840	$950,041
Chief Executive Officer and President	2015	176,008(5)	51,974	600,000	7,707	835,689
Min Xu(6)	2016	19,696	—	228,000	13,555	261,251
Chief Financial Officer and Treasurer	2015	—	—	—	—	—
Fufa Chen	2016	153,600(7)	7,516	—	10,840	171,956
Vice President, Sales of ACM Shanghai	2015	160,339(8)	25,530	50,000	7,707	243,276

(1) Except as otherwise indicated, compensation amounts were paid in RMB and have been converted to U.S. dollars for purposes of the table. The RMB per U.S. dollar exchange rate used for such conversion reflects the average exchange rate during 2016 and 2015, as appropriate.
(2) Represents the aggregate grant date fair value of option awards granted during 2016 and 2015, computed in accordance with FASB ASC Topic 718, *Compensation—Stock Compensation*. See note 2 to our consolidated financial statements included at the end of this prospectus for a discussion of the assumptions we made in determining the grant date fair value of our equity awards.
(3) Amounts reflect a housing subsidy paid by us.
(4) Reflects a base salary of 1,138,248 RMB.
(5) Reflects a base salary of 1,096,248 RMB.
(6) Mr. Xu was appointed effective November 14, 2016.
(7) Reflects a base salary of 1,020,252 RMB.
(8) Reflects a base salary of 998,652 RMB.

Narrative Explanation of Certain Aspects of the Summary Compensation Table

The compensation paid to our named executive officers consists of the following components:

- base salary;
- performance-based cash bonuses;
- long-term incentive compensation in the form of stock options; and
- benefits consisting of housing subsidies paid by us.

Base Salaries

Annual base salaries of our named executive officers in 2017 were as follows: David H. Wang, $169,192 (1,156,260 RMB); Fufa Chen, $151,879 (1,038,264 RMB); and Min Xu, $150,000. Annual base salaries of our named executive officers in 2016 were as follows: David H. Wang, $171,364 (1,138,248 RMB); Fufa Chen, $153,600 (1,020,252 RMB); and Min Xu, $115,000. For 2015, the annual base salaries for our named executive officers were as follows: David H. Wang, $176,008 (1,096,248 RMB); and Fufa Chen, $160,339 (998,652 RMB).

Performance-Based Bonuses

We do not have any established policy with regard cash incentive bonuses for our executive officers. The compensation committee may decide to pay cash incentive bonuses to compensate executive officers for the achievement of specific business objectives, profitability, and individual performance and objectives established by the compensation committee.

Stock Options

We offer stock options to our employees, including our named executive officers, as the long-term incentive component of our compensation program. Our stock options allow our employees to purchase shares of the Class A common stock at a price equal to the fair market value of the Class A common stock on the date of grant. Our stock options granted to newly hired employees generally vest as to 25% of the total number of option shares on the first anniversary of the award and in equal monthly installments over the following 36 months.

For information regarding the vesting acceleration provisions applicable to the options held by our named executive officers, please see "—Severance Benefits" and "—Change in Control Benefits" below.

Grants of Plan-Based Awards

The following table sets forth information regarding grants of compensation in the form of plan-based awards made during 2016 to our named executive officers who were granted plan-based awards in 2016:

Name	Grant Date	All Other Option Awards: Number of Securities Underlying Options(#)	Exercise or Base Price of Option Awards ($/share)	Grant Date Fair Value of Option Awards($)
David H. Wang	12/28/2016	333,334	$ 3.00	$ 2.28
Min Xu	12/28/2016	100,000	3.00	2.28

Outstanding Equity Awards at 2016 Fiscal Year-End

The following table sets forth information regarding each unexercised option held by each of our named executive officers as of December 31, 2016:

	Option Awards			
	Number of Securities Underlying Unexercised Options		Option	
Name	Exercisable(#)	Unexercisable(#)	Exercise Price($)	Expiration Date
David H. Wang	166,667	—	$ 0.75	09/21/2017
	166,667	—	0.75	05/01/2021
	133,334	—	0.75	05/01/2021
	158,333	241,667	1.50	05/01/2025
	—	333,334	3.00	12/27/2026
Min Xu	100,000	—	3.00	11/14/2026
Fufa Chen	33,334	—	0.75	05/01/2021
	13,195	20,139	1.50	05/01/2025

For information regarding the vesting acceleration provisions applicable to the options held by our named executive officers, please see "—Severance Benefits" and "—Change in Control Benefits" below.

Employee Benefits and Perquisites

Our named executive officers are eligible to participate in our health and welfare plans to the same extent as all full-time employees would be eligible generally. We do not provide our named executive officers with perquisites or other personal benefits.

Executive Retention Agreement

We entered into an executive retention agreement with Min Xu upon his hiring in November 2016. The executive retention agreement generally provides that if we terminate Mr. Xu's employment without cause or if he terminates his employment for good reason, he will be entitled to receive, within thirty days after the date of termination, a cash payment equal to the sum of:

- accrued base salary, commission and vacation pay; and
- an amount equal to his then-current annual base salary.

The executive retention agreement provides that Mr. Xu will be entitled to continue to receive specified benefits for 12 months after the termination date.

The executive retention agreement contains provisions applicable in the event payments due under the agreement would result in tax penalties under Sections 280G and 4999 of the U.S. Internal Revenue Code. Those sections may impose tax penalties on our company or Mr. Xu if the amount of severance payments due to him following a Change in Ownership or Control (as defined in the Internal Revenue Code) exceeds certain limits. Under the provisions of the executive retention agreement, the amount of the benefits that Mr. Xu will be entitled to receive under the executive retention agreement will be reduced by an amount necessary to avoid triggering any penalty taxes if, and only if, the reduction would result in greater net after-tax benefits to Mr. Xu.

Equity Plans

2016 Omnibus Incentive Plan

The board of directors adopted the 2016 Plan on December 28, 2016, and we expect our stockholders to approve the 2016 Plan prior to the completion of this offering. The 2016 Plan became effective immediately on adoption.

Share Reserve. Initially a total of 2,333,334 shares of Class A common stock were available for issuance under the 2016 Plan. As of September 30, 2017, options exercisable for an aggregate of 1,606,064 shares of Class A common stock had been granted under the 2016 Plan and were outstanding, 21,887 shares of Class A common stock had been issued upon exercises of options granted under the 2016 Plan, and 705,383 shares of Class A common stock remained available for issuance under the 2016 Plan. The number of shares of Class A common stock reserved for issuance under the 2016 Plan will be increased automatically on the first business day of each of our fiscal years during the term of the plan, commencing in 2018, by a number equal to the smallest of:

- 4% of the number of shares of Class A and Class B common stock outstanding on December 31 of the prior year; and
- the number of shares Class A common stock determined by the board.

In general, to the extent that any awards under the 2016 Plan are settled in cash or are forfeited, terminate, expire or lapse without the issuance of shares, or if we repurchase the shares subject to awards granted under the 2016 Plan, those shares will again become available for issuance under the 2016 Plan, as will shares applied to pay the exercise or purchase price of an award or to satisfy tax withholding obligations related to any award. All share numbers described in this summary of the 2016 Plan will automatically adjust in the event of a stock split, a stock dividend or a reverse stock split.

Administration. The 2016 Plan may be administered by the board or its compensation committee. The compensation committee, in its discretion, selects the individuals to whom awards may be granted, the time or times at which such awards are granted, and the terms of such awards.

Eligibility. Awards may be granted under the 2016 Plan to officers, employees, consultants and advisors of our company and our affiliates and to non-employee directors of our company. Incentive stock options may be granted only to employees of our company or our subsidiaries.

Adjustments. We will equitably adjust the number and kind of securities for which stock options and other stock-based awards may be made under the 2016 Plan, including any individual award limits under the 2016 Plan, if certain changes in Class A common stock occur by reason of any recapitalization, reclassification, stock split, reverse split, combination of shares, exchange of shares, stock dividend or other distribution payable in stock, or other increase or decrease in the common stock without receipt of consideration by us, or if there occurs any spin-off, split-up, extraordinary cash dividend or other distribution of our assets. In addition, we will equitably adjust the number and kind of securities subject to any outstanding awards and the exercise price of any outstanding stock options or SARs if there occurs any spin-off, split-up, extraordinary cash dividend or other distribution of our assets.

Types of Awards. The 2016 Plan permits the granting of any or all of the following types of awards:

- *Stock Options*. Stock options entitle the holder to purchase a specified number of shares of Class A common stock at a specified price (the exercise price), subject to the terms and conditions of the stock option grant. The compensation committee may grant either incentive stock options, which must comply with Internal Revenue Code Section 422, or nonqualified stock options. The compensation committee sets exercise prices and terms, except that stock options must be granted with an exercise price not less than 100% of the fair market value of the common stock on the date of grant (excluding stock options granted in connection with assuming or substituting stock options in acquisition transactions). Unless the compensation committee determines otherwise, fair market value means, as of a given date, the closing price of the Class A common stock on that date. At the time of grant, the compensation committee determines the terms and conditions of stock options, including the quantity, exercise price, vesting periods, term (which cannot exceed ten years) and other conditions on exercise.
- *Stock Appreciation Rights*. The compensation committee may grant SARs, as a right in tandem with the number of shares underlying stock options granted under the 2016 Plan or as a freestanding award. Upon exercise, SARs entitle the holder to receive payment per share in stock or cash, or in a combination of stock and cash, equal to the excess of the share's fair market value on the date of exercise over the grant price of the SAR. The grant price of a tandem SAR is equal to the exercise price of the related stock option and the grant price for a freestanding SAR is determined by the compensation committee in accordance with the procedures described above for stock options. Exercise of a SAR issued in tandem with a stock option will reduce the number of shares underlying the related stock option to the extent of the SAR exercised. The term of a freestanding SAR cannot exceed ten years, and the term of a tandem SAR cannot exceed the term of the related stock option.
- *Restricted Stock, RSUs and Other Stock-Based Awards*. The compensation committee may grant awards of restricted stock, which are shares of Class A common stock subject to specified restrictions, and RSUs, which represent the right to receive shares of the Class A common stock in the future. These awards may be made subject to repurchase, forfeiture or vesting restrictions at the compensation committee's discretion. The restrictions may be based on continuous service with our company or the attainment of specified performance goals, as determined by the compensation committee. RSUs may be paid in stock, cash, or a combination of stock and cash, as determined by the compensation committee. The compensation committee may also grant other types of equity or equity-based awards subject to the terms of the 2016 Plan and any other terms and conditions determined by the compensation committee.

Performance Awards. The compensation committee may grant performance awards, which entitle participants to receive a payment from us, the amount of which is based on the attainment of performance goals established by the compensation committee over a specified award period. Performance awards may be

denominated in shares of Class A common stock or in cash, and may be paid in stock, cash, or a combination of stock and cash, as determined by the compensation committee. Cash-based performance awards include annual incentive awards.

Clawback. All cash and equity awards granted under the 2016 Plan will be subject to the requirements of all applicable laws and any company policy regarding the recovery of erroneously awarded compensation, including under Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and the implementing rules and regulations under such Act. Awards granted under the 2016 Plan may also be subject to forfeiture or repayment if a recipient breaches a non-competition, non-solicitation, non-disclosure, non-disparagement or other restrictive covenant set forth in an award agreement or any other agreement, between the recipient and our company.

Performance-Based Compensation Under Section 162(m). Under Internal Revenue Code Section 162(m), we generally are prohibited from deducting compensation paid to our principal executive officer and our three other most highly compensated executive officers (other than our principal financial officer) in excess of $1 million per person in any year. However, compensation that qualifies as "performance-based" is not subject to the $1 million limit.

- If the compensation committee intends to qualify an award under the 2016 Plan as "performance-based" compensation under Internal Revenue Code Section 162(m), the performance goals selected by the compensation committee may be based on the attainment of specified levels of one, or any combination, of the following performance criteria: (a) cash flow; (b) earnings per share, as adjusted for any stock split, stock dividend or other recapitalization; (c) earnings measures; (d) return on equity; (e) total stockholder return; (f) share price performance, as adjusted for any stock split, stock dividend or other recapitalization; (g) return on capital; (h) revenue; (i) income; (j) profit margin; (k) return on operating revenue; (l) brand recognition or acceptance; (m) customer satisfaction; (n) productivity; (o) expense targets; (p) market share; (q) cost control measures; (r) balance sheet metrics; (s) strategic initiatives; (t) implementation, completion or attainment of measurable objectives with respect to recruitment or retention of personnel or employee satisfaction; or (u) any other business criteria established by the board. The compensation committee can also select any derivations of these business criteria (for example, income may include pre-tax income, net income or operating income).

- Performance goals may, in the discretion of the compensation committee, be established on a company-wide basis, or with respect to one or more business units, divisions, subsidiaries or business segments, as applicable. Performance goals may be absolute or relative to the performance of one or more comparable companies or indices or based on year-over-year growth.

- The compensation committee may determine at the time that the performance goals are established the extent to which measurement of performance goals may exclude the impact of charges for restructuring, discontinued operations and other extraordinary, unusual or non-recurring items, and the cumulative effects of tax or accounting changes.

- In addition, compensation realized from the exercise of options and SARs granted under the 2016 Plan is intended to meet the requirements of the performance-based compensation exception under Internal Revenue Code Section 162(m). These awards must have an exercise price equal at least to fair market value at the date of grant and be granted to covered individuals by a compensation committee consisting of at least two outside directors, and the 2016 Plan must (and does) limit the number of shares that may be the subject of awards granted to any individual during any calendar year.

Transferability. Awards are not transferable other than by will or the laws of descent and distribution, except that in certain instances transfers may be made to or for the benefit of designated family members of the participant for no value.

Changes in Control. Under the 2016 Plan, in the event of a change in control, except as provided for in an individual award agreement, the board of directors may provide for any one or more of the following actions, which may not be the same for all participants:

- The board may provide for the acceleration of the exercisability, vesting and/or settlement of each or any outstanding award or portion thereof upon such terms and conditions as determined by the board, including a participant's termination of employment in connection with or following a change in control.
- The surviving, continuing, successor or purchasing corporation may either assume or continue our company's rights and obligations under each or any award or substitute for each or any such outstanding award. The board may cancel any award that is neither assumed or continued by the acquiror in connection with the change in control nor exercised or settled as of the time of consummation of the change in control.
- The board may provide that each or any outstanding award shall be canceled in exchange for a payment with respect to each vested share subject to such canceled award in (a) cash, (b) stock of our company or of a corporation or other business entity a party to the change in control or (c) other property. The payment shall be in an amount having a fair market value equal to the fair market value of the consideration to be paid per share in the change in control, reduced by the exercise or purchase price per share, if any, under such award.

"Change in control" is defined under the 2016 Plan and requires consummation of the applicable transaction.

Term, Termination and Amendment of 2016 Plan. Unless terminated earlier by the board of directors, the 2016 Plan will terminate, and no further awards may be granted, ten years after the date on which it is approved by our stockholders. The board may amend, suspend or terminate the 2016 Plan at any time, except that, if required by applicable law, regulation or stock exchange rule, stockholder approval will be required for any amendment. The amendment, suspension or termination of the 2016 Plan or the amendment of an outstanding award generally may not, without a participant's consent, materially impair the participant's rights under an outstanding award.

Non-Qualified Stock Option Agreements

The board of directors or its compensation committee issued stock options pursuant to non-qualified stock option agreements between 2007 and 2015.

Shares Issued. As of September 30, 2017, options to purchase 1,603,342 shares of Class A common stock were outstanding pursuant to such non-qualified stock option agreements.

Administration. The board of directors or its compensation committee selected the individuals to whom options pursuant to such non-qualified stock option agreements were granted, the time or times at which such options were granted, and the terms of such options.

Eligibility. Officers, employees, consultants and advisors of our company and our affiliates and to non-employee directors of our company were eligible to receive stock option grants pursuant to such non-qualified stock option agreements.

Adjustments. We will equitably adjust the number and kind of securities for which options may be made under pursuant to such non-qualified stock option agreements if certain changes in the common stock occur by reason of any merger, consolidation, reorganization, recapitalization, stock dividend, non-cash dividend, stock split, liquidating dividend, combination of shares, exchange or shares, or other change in corporate structure.

Types of Awards. The board of directors or its compensation committee set the terms of such non-qualified stock option agreements, including the quantity, exercise price, vesting periods, term (which does not exceed ten years) and other conditions on exercise.

Transferability. Nonqualified stock options may be transferred pursuant to a qualified domestic relations order.

Corporate Transaction. In the event of a corporate transaction (such as a merger, consolidation, or a sale or transfer of all or substantially all of our assets), the surviving company must assume or substitute new awards for any outstanding options. If the surviving company refuses to do so, outstanding options shall terminate if not exercised before the corporate transaction.

Amendment. The amendment of an outstanding non-qualified stock option generally may not, without a participant's consent, alter or impair the participant's rights under an outstanding option.

1998 Stock Option Plan

The board of directors adopted our 1998 Stock Option Plan, or the 1998 Plan, in April 1998. The 1998 Plan was amended by the board in May 1999, December 2001 and March 2004, and those amendments were approved by our stockholders. The 1998 Plan expired by its terms in March 2014. No additional options may be granted pursuant to the 1998 Plan, but the 1998 Plan will continue to govern the terms and conditions of the outstanding options previously granted thereunder.

Share Reserve. At the time of the 1998 Plan's expiration, a total of 766,667 shares of common stock had been authorized. As of September 30, 2017, options to purchase 66,668 shares of Class A common stock remained outstanding under the 1998 Plan.

Administration. The 1998 Plan may be administered by the board of directors or its compensation committee (the plan administrator). The plan administrator, in its discretion, selected the individuals to whom options may be granted, the time or times at which such options are granted, and the terms of such options.

Eligibility. Officers, employees, consultants and advisors of our company and our affiliates and to non-employee directors of our company were eligible to receive stock option grants under the 1998 Plan.

Adjustments. We will equitably adjust the number and kind of securities for which options may be made under the 1998 Plan if certain changes in the common stock occur by reason of any merger, consolidation, reorganization, recapitalization, stock dividend, non-cash dividend, stock split, liquidating dividend, combination of shares, exchange or shares, or other change in corporate structure.

Types of Awards. The 1998 Plan permits the granting of stock options, which entitle the holder to purchase a specified number of shares of common stock at a specified price (the exercise price), subject to the terms and conditions of the stock option grant. The plan administrator sets exercise prices and terms. At the time of grant, the plan administrator determines the terms and conditions of stock options, including the quantity, exercise price, vesting periods, term (which cannot exceed ten years) and other conditions on exercise.

Transferability. Incentive stock options are not transferable other than by will or the laws of descent and distribution. Nonqualified stock options may be transferred pursuant to a qualified domestic relations order.

Corporate Transaction. Under the 1998 Plan, in the event of a corporate transaction (such as a merger, consolidation, or a sale or transfer of all or substantially all of our assets), the surviving company must assume or substitute new awards for any outstanding options. If the surviving company refuses to do so, outstanding options shall terminate if not exercised before the corporate transaction.

Term, Termination and Amendment. By its terms, the 1998 Plan terminated in March 2014, and no further options have been granted under the 1998 Plan since that time. The 1998 Plan will continue to govern the terms and conditions of the outstanding options previously granted thereunder. The amendment of an outstanding option generally may not, without a participant's consent, alter or impair the participant's rights under an outstanding option.

RELATED-PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2014 to which we have been a party, in which the amount involved exceeded or will exceed $120,000, and in which any of our directors, executive officers or beneficial owners of more than 5% of any series or class of our preferred or common stock, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest, other than compensation, termination and change-in-control arrangements.

All of the transactions set forth below were approved by a majority of the board of directors, including a majority of the independent and disinterested members of the board. We believe we have executed all of the transactions set forth below on terms no less favorable to us than we could have obtained from unaffiliated third parties. It is our intention to ensure that all future transactions between us and our officers, directors and principal stockholders and their affiliates are approved by the audit committee and a majority of the members of the board, including a majority of the independent and disinterested members of the board, and are on terms no less favorable to us than those that we could obtain from unaffiliated third parties.

Issuance of Warrant

In December 2016 Shengxin (Shanghai) Management Consulting Limited Partnership, or SMC, paid 20,123,500 RMB (approximately $3.0 million as of the date of funding) to ACM Shanghai for potential investment pursuant to terms to be subsequently negotiated. SMC is a PRC limited partnership owned by Jian Wang, our Vice President, Research and Development and the brother of our Chief Executive Officer and President, David H. Wang, and other employees of ACM Shanghai. Jian Wang is also the general partner of SMC. In March 2017 we issued to SMC a warrant exercisable to purchase 397,502 shares of Class A common stock at a price of $7.50 per share, for a total exercise price of approximately $3.0 million. The warrant may be exercised for cash or on a cashless basis, at the option of SMC, at any time on or before May 17, 2023 to acquire all, but not less than all, of the shares of Class A common stock subject to the warrant. For more information, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Issuance of Warrant,” “Principal Stockholders,” and “Description of Capital Stock—Warrant.”

Loans and Stock Issuances

In December 2016 we issued (a) 285,221 shares of Class A common stock to David H. Wang, who is our Chair of the Board, Chief Executive Officer and President, and a 5% stockholder, as well as certain immediate family members of Dr. Wang and certain trusts of which Dr. Wang is a trustee, pursuant to the conversion of convertible promissory notes with an aggregate value of $417,722 issued to such parties in 2003, 2004, 2005 and 2006 and (b) 419,728 shares of Class A common stock to H.L. Hsieh, a 5% stockholder, pursuant to the conversion of convertible promissory notes with an aggregate value of $574,735 issued to Mr. Hsieh in 2004, 2005 and 2006.

Director and Executive Compensation

Please see “Director Compensation” and “Executive Compensation” for a discussion regarding the compensation of our non-employee directors and our executive officers.

Indemnification Agreements

In April 2017 we entered enter into indemnification agreements with our directors and executive officers. Under these agreements, we agree to indemnify, to the fullest extent permitted by Delaware law (subject to certain limitations), each of our directors and executive officers against any and all expenses incurred by the director or officer in connection with proceedings because of his or her status as one of our directors or executive officers. In addition, these indemnification agreements provide that, to the fullest extent permitted by Delaware law, we will pay for all expenses incurred by our directors and executive officers in connection with a legal proceeding arising out of their service to us.

Policies and Procedures for Related-Party Transactions

In October 2017 the board of directors adopted a conflict of interest policy which covers related-party transactions and will become effective upon the completion of this offering. Among other things, this policy requires each director and executive officer, including their immediate family members, to provide written notice of any potential related-party transaction, defined by the policy to mirror the definition of Item 404 of Regulation S-K (with the exception that the policy includes a monetary threshold of $100,000 as opposed to the threshold of $120,000 set by Item 404 of Regulation S-K) to the Chair of the Board (or to the Chief Executive Officer if such transaction involves the Chair of the Board, or to the Chief Financial Officer if such transaction involves the Chief Executive Officer) including all information that the Chair of the Board, the Chief Executive Officer or the Chief Financial Officer may request. Upon receiving all relevant information, the board of directors may approve the transaction if they determine that the transaction is in the best interests of, and fair to, us, may require modifications to the transaction to make it acceptable for approval, or may reject it. The board may also establish guidelines for ongoing management of a specific related-party transaction. The policy requires that continuing related-party transactions are reviewed on at least an annual basis. Additionally, the policy requires that all directors and executive officers complete a directors and officers questionnaire in connection with each of our annual proxy statements, in which they are asked to disclose family relationships and other related-party transactions.

PRINCIPAL STOCKHOLDERS

The following table provides information concerning beneficial ownership of our capital stock as of September 30, 2017, and as adjusted to reflect the sale of the Class A common stock being sold in this offering, by:

- each person, or group of affiliated persons, who is known by us to beneficially own more than five percent of the outstanding Class A common stock (on an as-converted basis) or the outstanding Class B common stock;
- each of our named executive officers;
- each of our directors; and
- all of our current directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC, and thus it represents sole or shared voting or investment power with respect to our securities. Shares of common stock subject to options currently exercisable or exercisable by November 29, 2017 (sixty days after September 30, 2017) are deemed outstanding and beneficially owned by the person holding such options for purposes of computing the number of shares and percentage beneficially owned by such person, but are not deemed outstanding for purposes of computing the percentage beneficially owned by any other person. Except as indicated in the footnotes to the below table, and subject to applicable community property laws, the persons or entities named have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

The following table lists the percentage of shares beneficially owned before this offering and the concurrent private placement based on 9,369,212 shares of Class A common stock outstanding, which includes (a) 4,627,577 shares of Class A common stock issuable upon the automatic conversion of all shares of convertible preferred stock upon completion of this offering, as if the conversion had occurred as of September 30, 2017, and (b) 2,409,738 shares of Class B common stock outstanding as of September 30, 2017.

The table also lists the percentage of shares beneficially owned after this offering and the concurrent private placement based on 12,702,546 shares of Class A common stock outstanding immediately after the completion of this offering, assuming no exercise of the underwriters' over-allotment option to purchase up to an additional 300,000 shares of Class A common stock.

Unless otherwise indicated, the principal address of each of the stockholders below is c/o ACM Research, Inc., 42307 Osgood Road, Suite I, Fremont, California 94539.

	Shares Beneficially Owned Before the Offering					Shares Beneficially Owned After the Offering				
	Class A		Class B		% Total Voting Power(1)	Class A		Class B		% Total Voting Power(1)
Name of Beneficial Owner	Shares	%	Shares	%		Shares	%	Shares	%	
Named Executive Officers, Directors and Director-Elect										
David H. Wang(2)	2,415,281	21.3	1,422,270	59.0	50.6	2,415,281	16.4	1,422,270	59.0	50.2
Haiping Dun(3)	517,857	5.4	100,000	4.1	4.2	517,857	4.0	100,000	4.1	4.1
Yinan Xiang(4)	1,666,170	17.8	—	—	2.9	1,666,170	13.1	—	—	2.7
Fufa Chen(5)	127,501	1.4	—	—	*	127,501	*	—	—	*
Chenming Hu(6)	39,584	*	—	—	*	39,584	*	—	—	*
Tracy Liu(7)	28,095	*	—	—	*	28,095	*	—	—	*
Min Xu(8)	33,333	*	—	—	*	33,333	*	—	—	*
All executive officers, directors and director-elect as a group (9 persons)(9)	5,468,044	44.6	1,572,271	65.2	60.0	5,468,044	35.1	1,572,271	65.2	59.4
Other 5% Stockholders										
Shanghai Science and Technology Venture Capital Co., Ltd.(10)	1,666,170	17.8	—	—	2.9	1,666,170	13.1	—	—	2.7
Pudong Science and Technology (Cayman) Co., Ltd.(11)	1,119,576	11.9	—	—	1.9	1,119,576	8.8	—	—	1.8
H.L. Hsieh(12)	1,019,211	10.7	133,334	5.5	6.2	1,019,211	7.9	133,334	5.5	6.1
Zhangjiang AJ Company Limited(13)	787,098	8.4	—	—	1.4	787,098	6.2	—	—	1.3
Jian Wang(14)	552,722	5.6	50,001	2.1	2.6	552,722	4.3	50,001	2.1	2.5
Xinxin (Hongkong) Capital Co., Limited(15)	—	—	—	—	—	833,334	6.6	—	—	1.4

[footnotes appear on following page]

* Less than 1%.

(1) Percentage of total voting power represents voting power with respect to all shares of Class A and Class B common stock, voting as a single class. Holders are entitled to one vote per share of Class A common stock and twenty votes per share of Class B common stock. For more information about the voting rights of Class A and Class B common stock, see "Description of Capital Stock—Common Stock."

(2) Includes (a) 206,667 shares of Class A common stock held by Dr. Wang and Jing Chen, as Trustees for the Wang-Chen Family Living Trust; (b) 60,000 shares of Class A common stock held by Dr. Wang and Jing Chen, as Trustees for The David Hui Wang and Jing Chen Family Irrevocable Trust for Wang Children; (c) 1,422,270 shares of Class A common stock issuable upon conversion of Class B common stock, of which shares of Class B common stock a total of 117,334 are held by Dr. Wang's son, Brian Wang, 117,334 are held by Dr. Wang s daughter, Sophia Wang, 33,334 are held by Dr. Wang's spouse, Jing Chen, and 7,334 are held by Dr. Wang and Jing Chen, as Trustees for The David Hui Wang and Jing Chen Family Irrevocable Trust for Wang Children; and (d) 559,677 shares of Class A common stock issuable upon the exercise of options exercisable by November 29, 2017, including 9,676 shares of Class A common stock issuable upon the exercise of an option issued to Dr. Wang's daughter, Sophia Wang.

(3) Includes 100,000 shares of Class A common stock issuable upon conversion of Class B common stock and 104,166 shares of Class A common stock issuable under options exercisable by November 29, 2017.

(4) Consists of shares owned by Shanghai Science and Technology Venture Co., Ltd., or SSTVC (see note (10) below). As described under "Management—Board of Directors—Director Nomination Rights," SSTVC has exercised a contractual right by designating Ms. Xiang for nomination to the board of directors and the board has elected Ms. Xiang to the board effective upon the earlier of the consummation of the offering made hereby and November 15, 2017. Ms. Xiang disclaims beneficial ownership of the shares owned by SSTVC except to the extent of her pecuniary interest therein.

(5) Includes 54,167 shares of Class A common stock issuable under options exercisable by November 29, 2017.

(6) Consists of shares issuable under options exercisable by November 29, 2017.

(7) Includes 25,695 shares of Class A common stock issuable under options exercisable by November 29, 2017.

(8) Consists of shares issuable under options exercisable by November 29, 2017.

(9) Includes (a) 1,597,938 shares of Class A common stock issuable upon conversion of Class B common stock, (b) 891,622 shares of Class A common stock issuable under options exercisable by November 29, 2017, and (c) 397,502 shares of Class A common stock issuable upon the exercise of an outstanding warrant. See notes (2) through (8).

(10) Weiguo Shen is the Chairman and General Manager of SSTVC and may be deemed to beneficially own the shares held by SSTVC. The address of SSTVC and Mr. Shen is 1634 Huaihai Road, Shanghai, PRC.

(11) Pudong Science and Technology (Cayman) Co., Ltd., or PST, is a wholly owned subsidiary of Shanghai Pudong High-TechInvestment Co., Ltd. Long Ji is the Corporate Representative of Shanghai Pudong High-Tech Investment Co., Ltd. and may be deemed to beneficially own the shares held by PST. The address of PST, its parent and Mr. Ji is 1158 Zhangdong Road, Building 3, 8th Floor, Zhangjiang Hi-tech Park, Pudong District, Shanghai, PRC.

(12) Includes 133,334 shares of Class A common stock issuable upon conversion of Class B common stock.

(13) Zhangjiang AJ Company Limited is a wholly owned subsidiary of Shanghai Zhangjiang Science & Technology Venture Capital Co., Ltd. Weiwei Chen is the Chairman, General Manager and Corporate Representative of Shanghai Zhangjiang Science & Technology Venture Capital Co., Ltd. and may be deemed to beneficially own the shares held by Zhangjiang AJ Company Limited. The address of Zhangjiang AJ Company Limited and its parent and Ms. Chen is 1387 Zhangdong Road, Building 16, Room C305, Zhangjiang Hi-tech Park, Shanghai, PRC.

(14) Includes (a) 50,001 shares of Class A common stock issuable upon conversion of Class B common stock, (b) 20,833 shares of Class A common stock issuable under options exercisable by November 29, 2017 and (c) 397,502 shares of Class A common stock issuable upon the exercise of an outstanding warrant held by Shengxin (Shanghai) Management Consulting Limited Partnership, or SMC. Mr. Wang is the general partner of SMC and may be deemed to beneficially own the warrant and any shares of Class A common stock acquired by SMC upon exercise of the warrant. Mr. Wang is our Vice President, Research and Development and the brother of David H. Wang, our Chair of the Board, Chief Executive Officer and President.

(15) Xinxin (Hongkong) Capital Co., Limited has, but has not yet exercised, a right to designate one individual for nomination and election to the board of directors, as described under "Management—Board of Directors—Director Nomination Rights." Xinxin (Hongkong) Capital Co., Limited is a wholly owned subsidiary of Xunxin (Shanghai) Capital Co., Ltd., which is a wholly owned subsidiary of China IC Industry Investment Fund. Sino IC Capital Co., Limited is the management company of China IC Industry Investment Fund and Kai Ren is the Vice President of Sino IC Capital Co., Limited and may be deemed to beneficially own the shares held by Xinxin (Hongkong) Capital Co., Limited. The address of Xinxin (Hongkong) Capital Co., Limited, Xunxin (Shanghai) Capital Co., Limited, Sino IC Capital Co., Limited, China IC Industry Investment Fund and Kai Ren is 3rd Floor North, No. 7 Financial Street, Xicheng District, Beijing 100033, P. R. China.

DESCRIPTION OF CAPITAL STOCK

General

Following completion of this offering, our authorized capital stock will consist of 50,000,000 shares of Class A common stock, $0.0001 par value per share, 2,409,738 shares of Class B common stock, $0.0001 par value per share, and 10,000,000 shares of preferred stock, $0.0001 par value per share. The following description summarizes some of the terms of our restated charter and restated bylaws that will be in effect upon completion of this offering. This description does not purport to be complete and is qualified in its entirety by the provisions of our restated charter and restated bylaws, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

As of September 30, 2017, assuming conversion of all outstanding shares of preferred stock into shares of Class A common stock immediately prior to completion of this offering there were outstanding:

- 9,369,212 shares of Class A common stock outstanding, held of record by 136 stockholders;
- 2,409,738 shares of Class B common stock outstanding, held of record by 62 stockholders;
- 397,502 shares of Class A common stock issuable upon exercise of an outstanding warrant; and
- 3,276,074 shares of Class A common stock issuable upon exercise of outstanding stock options.

Common Stock

Voting Rights. Except as otherwise required by Delaware law, at every annual or special meeting of stockholders, holders of Class B common stock are entitled to twenty votes per share and holders of Class A common stock are entitled to one vote per share. The holders of Class A common stock and Class B common stock vote together as a single class, unless otherwise required by law. Delaware law could require either holders of Class A common stock or Class B common stock to vote separately as a single class in the following circumstances:

- if we were to seek to amend our charter to increase the authorized number of shares of a class of stock, or to increase or decrease the per share par value of a class of stock, then that class would be required to vote separately to approve the proposed amendment;
- if we were to seek to amend our charter in a manner that alters or changes the powers, preferences or special rights of a class of stock in a manner that affected its holders adversely, then that class would be required to vote separately to approve the proposed amendment; and
- if we were to seek to declare a dividend or distribution that would be disparate as between the two classes.

Stockholders do not have the ability to cumulate votes for the election of directors. Our restated charter and restated bylaws that will be in effect upon completion of this offering will provide for a classified board of directors consisting of three classes of approximately equal size, each serving staggered three-year terms, when the outstanding shares of Class B common stock represent less than a majority of the combined voting power of the common stock. Our directors will be assigned by the then-current board to a class when the outstanding shares of Class B common stock represent less than a majority of the combined voting power of the common stock.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by the board of directors out of legally available funds. The holders of Class A common stock and Class B common stock will be entitled to share equally, identically and ratably, on a per share basis, with respect to any dividend or distribution unless different treatment of the shares of each such class is approved by the

affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class. At present, we have no plans to issue dividends. See “Dividend Policy.”

Liquidation. In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Conversion. Each outstanding share of Class B common stock is convertible into one share of Class A common stock (a) at any time, at the option of the holder, or (b) upon any transfer of such share of Class B common stock, whether or not for value, except for certain transfers described in our restated charter, including transfers to family members, trusts solely for the benefit of the stockholder or their family members, and partnerships, corporations, and other entities exclusively owned by the stockholder or their family members. In addition, on or after the date of this prospectus, all outstanding shares of Class B common stock will convert automatically into shares of Class A common stock, on a one for one basis, upon (a) the election of the holders of a majority of the then outstanding shares of Class B common stock or (b) on the first December 31 that occurs more than five years after the date of this prospectus if the October Market Cap with respect to the month of October immediately preceding such December 31 exceeds $1.0 billion, provided that the conversion provided by this clause (b) shall not apply and no automatic conversion of Class B common stock into Class A common stock will ever occur pursuant to this clause (b) if the October Market Cap for the month of October immediately preceding a December 31 exceeds $1.0 billion prior to the fifth anniversary of the date of this prospectus. For purposes of this paragraph, “October Market Cap” means, with respect to any October throughout which Class A common stock is traded on a registered securities exchange, the product of the average of the daily volume weighted average trading prices of Class A common stock for each of the days in such month of October multiplied by the number of shares of common stock outstanding on the last trading day of such month of October.

Once converted or transferred and converted into Class A common stock, the Class B common stock will not be reissued.

Other Rights and Preferences. Other than as described above, holders of common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable. All of our outstanding shares of common stock are, and the shares of Class A common stock to be issued in this offering and the concurrent private placement will be, fully paid and nonassessable.

Preferred Stock

Upon completion of this offering, we will have no shares of preferred stock outstanding. Our shares of preferred stock outstanding immediately prior to the completion of this offering will convert automatically into 4,627,577 shares of Class A common stock.

Under the terms of our restated charter, the board of directors is authorized to issue preferred stock in one or more series, to establish the number of shares to be included in each such series and to fix the designation, powers, preferences and rights of such shares and any qualifications, limitations or restrictions thereof. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of our company without further action by the stockholders and may adversely affect the voting and other rights of the

holders of common stock. The issuance of preferred stock with voting and conversion rights may adversely affect the voting power of the holders of common stock, including the loss of voting control to others. At present, we have no plans to issue any preferred stock.

Options

As of September 30, 2017, options to purchase 1,606,064 shares of Class A common stock were outstanding pursuant under the 2016 Plan at a weighted-average exercise price of $3.61 per share, of which 324,171 were vested and exercisable.

As of September 30, 2017, options to purchase 66,668 shares of Class A common stock were outstanding under our 1998 Plan at an exercise price of $0.75 per share, all of which were vested and exercisable.

As of September 30, 2017, options to purchase 1,603,342 shares of Class A common stock were outstanding pursuant to certain stand-alone option agreements at a weighted-average exercise price of $1.23 per share, of which 1,150,275 were vested and exercisable.

In total, as of September 30, 2017, options to purchase 3,276,074 shares of Class A common stock were outstanding at a weighted-average exercise price of $2.39 per share, of which 1,541,114 were vested and exercisable at a weighted-average exercise price of $1.51 per share.

Warrant

In December 2016, Shengxin (Shanghai) Management Consulting Limited Partnership, or SMC, delivered to our subsidiary ACM Shanghai 20,123,500 RMB (approximately $3.0 million as of the date of funding) in cash, which we refer to as the SMC Investment, for potential investment pursuant to terms to be subsequently negotiated. In March 2017, we, ACM Shanghai and SMC entered into a securities purchase agreement pursuant to which, in exchange for the SMC Investment, we issued to SMC a warrant exercisable, for cash or on a cashless basis, to purchase, at any time on or before May 17, 2023, all, but not less than all, of 397,502 shares of Class A common stock at a price of $2.50 per share, for a total exercise price of approximately $3.0 million. Under the securities purchase agreement, if SMC does not exercise the warrant by May 17, 2023, ACM Shanghai will be obligated, subject to approval of governmental authorities and ACM Shanghai's equity holders, to deliver an equity interest of 3.6394% (subject to dilution) in satisfaction of the SMC Investment. If SMC exercises the warrant or if SMC does not exercise the warrant and the issuance of the equity interest in ACM Shanghai is not completed by August 17, 2023 due to the inability of the parties to obtain required governmental or equity holder approvals, then ACM Shanghai will be obligated to pay to SMC, in satisfaction of the SMC Investment, an amount equal to approximately $3.0 million. We have granted SMC certain registration rights with respect to Class A common stock issued upon exercise of the warrant, as described under "—Registration Rights" below.

Registration Rights

We entered into a registration rights agreement with the following holders:

- SMC in connection with the warrant described in "—Warrant" above;
- Ninebell Co., Ltd. in connection with its purchase of 133,334 shares of Class A common stock described in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions—Strategic Investment in Key Supplier";
- Shanghai Science and Technology Venture Capital Co., Ltd., Shanghai Pudong High-Tech Investment Co., Ltd. and Zhangjiang AJ Company Limited in connection with the agreements described in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Recent Equity Transactions —Acquisition of Outstanding Minority Interests in Our Operating Company";

- Xinxin (Hongkong) Capital Co., Limited and Victorious Way Limited in connection with the concurrent private placement described in "Concurrent Private Placement"; and
- holders of convertible preferred stock, convertible into 4,627,577 shares of Class A common stock.

In total, all of the intended parties to the registration rights agreement would have the right, under specified circumstances, to require us to register from time to time under the Securities Act up to 8,398,421 shares of Class A common stock.

The following description of the terms of the registration rights agreement is intended as a summary only and is qualified in its entirety by reference to the registration rights agreement filed as an exhibit to the registration statement of which this prospectus forms a part.

- *Demand Registration Rights*. Any time after at least 180 days after the contractual 180-day lockup period described under "Shares Eligible for Future Sale—Lock-up Agreements", on no more than four occasions and no more than one occasion in any six-month period, the private placement investors will have the right to request that we register with the SEC (a) on a registration statement on Form S-1, (i) all or a portion of the shares registrable under the registration rights agreement reasonably anticipated to have an aggregate offering price of at least $7,500,000 or (ii) all of the registrable shares then held by a private placement investor or (b) on a registration statement on Form S-3, (i) all or a portion of the shares registrable under the registration rights agreement reasonably anticipated to have an aggregate offering price of at least $3,750,000 or (ii) all of the registrable shares then held by a private placement investor. Following such a request, the other holders of registrable shares will have the right to request that we include in such registration statement all or a portion of their registrable shares. Such demand registration rights are held by the private placement investors and granting demand registration rights to any other holders will require the consent of the private placement investors.
- *Incidental Registration Rights*. If we propose to register shares of Class A common stock under the Securities Act on a form that may be used for the registration of eligible shares, the holders may request that we register all or a portion of the eligible shares they held by them.

In the event that any registration in which the holders of eligible shares participate pursuant to the registration rights agreement is an underwritten public offering, the number of eligible shares to be included may, in specified circumstances, be limited due to market conditions. If the underwriter determines that less than all of the eligible shares proposed to be sold can be included in such offering, then eligible shares held by executive officers shall only be included in such offering if all the holders that are not executive officers are able to register all of the eligible shares proposed to be sold in such registration.

Under the registration rights agreement, we generally are required to pay all registration expenses other than underwriting discounts and selling commissions and we are required to indemnify each participating holder with respect to each registration of eligible shares that is effected.

Anti-Takeover Provision

So long as the outstanding shares of Class B common stock represent a majority of the combined voting power of common stock, the holders of Class B common stock will effectively control all matters submitted to our stockholders for a vote, as well as the overall management and direction of our company, which will have the effect of delaying, deferring or discouraging another person from acquiring control of our company.

After such time as the shares of Class B common stock no longer represent a majority of the combined voting power of common stock, the provisions of Delaware law, our restated charter and our restated bylaws may have the effect of delaying, deferring or discouraging another person from acquiring control of our company.

Delaware Law

Section 203 of the Delaware General Corporation Law prevents some Delaware corporations from engaging, under some circumstances, in a business combination, which includes a merger or sale of at least 10% of the corporation's assets with any interested stockholder, meaning a stockholder who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of the corporation's outstanding voting stock, unless:

- the transaction is approved by the board of directors prior to the time that the interested stockholder became an interested stockholder;
- upon consummation of the transaction, which resulted in the stockholder's becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding stock owned by directors who are also officers of the corporation; or
- subsequent to such time that the stockholder became an interested stockholder the business combination is approved by the board and authorized at an annual or special meeting of stockholders by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original charter or an express provision in its charter or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Restated Charter and Bylaw Provisions

Our restated charter and our restated bylaws will include a number of provisions that may have the effect of deterring hostile takeovers or delaying or preventing changes in control of our company, even after such time as the shares of Class B common stock no longer represent a majority of the combined voting power of common stock, including the following:

- *Separate Class B Vote for Certain Transactions.* Until the first date on which the outstanding shares of Class B common stock represent less than 35% of the combined voting power of common stock, any transaction that would result in a change in control of our company will require the approval of a majority of our outstanding Class B common stock voting as a separate class. This provision could delay or prevent the approval of a change in control that might otherwise be approved by a majority of outstanding shares of Class A and Class B common stock voting together on a combined basis.
- *Dual Class Stock.* As described above in "—Common Stock—Voting Rights," our restated charter provides for a dual class common stock structure, which provides certain members of our senior management with the ability to control the outcome of matters requiring stockholder approval, even if they collectively own significantly less than a majority of the shares of our outstanding Class A and Class B common stock, including the election of directors and significant corporate transactions, such as a merger or other sale of our company or its assets.
- *Supermajority Approvals*. Our restated charter and restated bylaws do not provide that amendments to our restated charter or restated bylaws by stockholders will require the approval of two-thirds of the combined vote of then-outstanding shares of Class A and Class B common stock. However, when the outstanding shares of Class B common stock represent less than a majority of the combined voting power of common stock, certain amendments to our restated charter or restated bylaws by stockholders will require the approval of two-thirds of the combined vote of our then-outstanding shares of Class A and Class B common stock. This will have the effect of making it more difficult to amend our charter or bylaws to remove or modify certain provisions.
- *Board of Directors Vacancies.* Our restated charter and restated bylaws provide that stockholders may fill vacant directorships. When the outstanding shares of Class B common stock represent less than a

majority of the combined voting power of common stock, our restated charter and restated bylaws authorize only the board of directors to fill vacant directorships. In addition, the number of directors constituting the board is set only by resolution adopted by a majority vote of our entire board. These provisions restricting the filling of vacancies will prevent a stockholder from increasing the size of the board and gaining control of the board by filling the resulting vacancies with its own nominees. Our restated charter provides that directors may be removed with or without cause only by the affirmative vote of the holders of at least two-thirds of the votes that all of the stockholders would be entitled to cast in any annual election of directors.

- *Classified Board*. The board of directors will not initially be classified. Our restated charter and restated bylaws provide that when the outstanding shares of Class B common stock represent less than a majority of the combined voting power of common stock, the board will be classified into three classes of directors each of which will hold office for a three-year term. In addition, thereafter, directors may be removed from the board with our without cause only by the affirmative vote of the holders of at least two-thirds of the voting power of the then outstanding shares of Class A and Class B common stock. The existence of a classified board could delay a successful tender offeror from obtaining majority control of the board, and the prospect of that delay might deter a potential offeror.
- *Stockholder Action; Special Meeting of Stockholders.* Our restated charter provides that stockholders will be able to take action by written consent. When the outstanding shares of Class B common stock represent less than a majority of the combined voting power of common stock, our stockholders will no longer be able to take action by written consent, and will only be able to take action at annual or special meetings of our stockholders. Stockholders will not be permitted to cumulate their votes for the election of directors. The absence of cumulative voting may make it more difficult for stockholders who own less than a majority in voting power to elect any directors to the board of directors. Our restated bylaws further provide that special meetings of our stockholders may be called only by the board, the chair of the board or our chief executive officer. A stockholder may not call a special meeting, which may delay the ability of our stockholders to force consideration of a proposal or for holders controlling a majority in voting power of our capital stock to take any action, including the removal of director.
- *Advance Notice Requirements for Stockholder Proposals and Director Nominations.* Our restated bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at any meeting of stockholders. Our restated bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our meetings of stockholders.
- *Issuance of Undesignated Preferred Stock.* The board of directors has the authority, without further action by the stockholders, to issue shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by the board. The existence of authorized but unissued shares of preferred stock enables the board to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise.

Choice of Forum

Our restated charter provides that the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our restated charter or our restated bylaws; any action to interpret, apply, enforce, or determine the validity of our restated charter or restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable.

Transfer Agent and Registrar

The transfer agent and registrar for the Class A common stock will be Computershare Trust Company, N.A.

NASDAQ Global Market

We have applied to list the Class A common stock on the NASDAQ Global Market under the symbol “ACMR.”

SHARES ELIGIBLE FOR FUTURE SALE

Before this offering, there has not been a public market for shares of Class A common stock. Future sales of substantial numbers of shares of common stock, including shares issued upon the exercise of outstanding options, in the public market after this offering, or the possibility of these sales occurring, could cause the prevailing market price for the common stock to fall or impair our ability to raise equity capital in the future.

After this offering and the concurrent private placement, we will have outstanding 12,702,546 shares of Class A common stock and 2,409,738 shares of Class B common stock, based on the number of shares outstanding as of September 30, 2017 and 1,333,334 shares we are selling in the concurrent private placement. This includes 2,000,000 shares of Class A common stock that we are selling in this offering, which shares may be resold in the public market immediately following this offering, and assumes no additional exercise of outstanding options. Shares of Class B common stock are convertible into an equivalent number of shares of Class A common stock and generally convert into shares of Class A common stock upon transfer.

The 13,112,284 shares of common stock that were not offered and sold in this offering will be upon issuance, "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 under the Securities Act, which are summarized below.

As a result of the contractual 180-day lock-up period described below and the provisions of Rule 144, these shares will be available for sale in the public market as follows:

- 523,210 restricted shares will be eligible for sale in the public market immediately upon completion of this offering; and
- up to 12,589,074 shares will be eligible for sale in the public market beginning 180 days from the date of this prospectus, 8,770,975 of which are held by directors, executive officers and other affiliates and will be subject to volume and other limitations under Rule 144 under the Securities Act.

Lock-up Agreements

We, all of our directors and officers, the purchasers of Class A common stock in the private placement and certain of our other stockholders have agreed not to sell or otherwise transfer or dispose of any of our securities for a period of 180 days from the date of this prospectus, subject to certain exceptions. Roth Capital Partners, as representative of the several underwriters, may permit early releases of shares subject to the lock-up agreements. See "Underwriting" for a description of the lock-up provisions.

Rule 144

In general, a person who has beneficially owned our restricted common shares for at least six months would be entitled to sell their securities subject only to the availability of current public information about us and subject to the lock-up agreements described above, provided that (a) such person is not deemed to have been one of our affiliates at the time of, or at any time during the ninety days preceding, a sale, and (b) we are subject to the Securities Exchange Act periodic reporting requirements for at least ninety days before the sale. In addition, under Rule 144, any person who is not an affiliate of ours and has beneficially owned their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell such shares immediately upon completion of this offering without regard to whether current public information about us is available. Persons who have beneficially owned restricted common shares for at least six months but who are our affiliates at the time of, or any time during the ninety days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell, upon expiration of the lock-up agreements

described above, within any three-month period only a number of shares that does not exceed the greater of either of the following:

- one percent of the number of common shares then outstanding, which will equal approximately 151,122 shares immediately after this offering assuming no exercise of the underwriters' option to purchase additional shares, based on the number of common shares outstanding as of September 30, 2017; or
- the average weekly trading volume of common shares during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale;

provided, in each case, that we are subject to the Securities Exchange Act periodic reporting requirements for at least ninety days before the sale. Such sales both by affiliates and by a person selling shares on behalf of our affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

Rule 701

In general, Rule 701 permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions, including the holding period requirement, of Rule 144. Any employee, officer or director of or consultant to us who purchased shares under a written compensatory plan or contract before the date of this prospectus may be entitled to rely on the resale provisions of Rule 701. Rule 701 permits affiliates to sell their shares acquired pursuant to Rule 701 under Rule 144 without complying with the holding period requirements of Rule 144. Rule 701 further provides that non-affiliates may sell such shares in reliance on Rule 144 without having to comply with the holding period, public information, volume limitation or notice provisions of Rule 144. All holders of shares issued under Rule 701 are required to wait until ninety days after the date of this prospectus before selling such shares. All Rule 701 shares are, however, subject to lock-up agreements and will only become eligible for sale upon the expiration of the lock-up agreements.

Registration Rights

Upon completion of this offering, certain holders of shares of Class A common stock (including shares of Class A common stock issuable upon conversion of Class B common stock) will be entitled to incidental, or piggyback, rights with respect to the registration of the sale of these shares under the Securities Act. Upon completion of the private placement, the private placement investors, in addition to the piggyback, registration rights, will have the right, under certain circumstances, to require us to file a registration statement under the Securities Act to register the shares of Class A common stock sold in the private placement. Registration of the sale of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See "Description of Capital Stock—Registration Rights" for additional information.

Equity Plan

We intend to file with the SEC one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our stock plan. We expect to file the registration statement covering shares offered pursuant to our stock plan shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market subject to compliance with the resale provisions of Rule 144.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of Class A common stock to non-U.S. holders, as defined below, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code, Treasury regulations promulgated thereunder, administrative rulings, and judicial decisions, all as of the date hereof. These authorities may be changed, possibly retroactively, so as to result in U.S. federal income tax consequences different from those set forth below. We have not sought any ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance the IRS will agree with such statements and conclusions. This discussion assumes that the non-U.S. holder holds Class A common stock as a "capital asset" within the meaning of Internal Revenue Code Section 1221 (generally, property held for investment).

This summary also does not address the tax considerations arising under the laws of any foreign, state or local jurisdiction or any U.S. federal non-income tax laws other than U.S. federal estate tax laws to the limited extent described below. In addition, this discussion does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including:

- banks, insurance companies, or other financial institutions;
- persons subject to the alternative minimum or net investment income tax;
- tax-exempt organizations;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of the common stock (except to the extent specifically set forth below);
- certain former citizens or long-term residents of the U.S.;
- persons who hold Class A common stock as a position in a "hedging transaction," "straddle" "conversion transaction" or other risk reduction transaction;
- persons who do not hold Class A common stock as a capital asset within the meaning of Internal Revenue Code Section 1221; or
- persons deemed to sell Class A common stock under the constructive sale provisions of the Internal Revenue Code.

In addition, if a partnership or entity classified as a partnership for U.S. federal income tax purposes holds Class A common stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold Class A common stock, and partners in such partnerships, should consult their tax advisors.

YOU ARE URGED TO CONSULT YOUR TAX ADVISOR WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO YOUR PARTICULAR SITUATION, AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF CLASS A COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX RULES OR UNDER THE LAWS OF ANY STATE, LOCAL, FOREIGN OR OTHER TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.

Non-U.S. Holder Defined

For purposes of this discussion, you are a non-U.S. holder if you are a holder other than a partnership or other entity classified as such for U.S. federal income tax purposes that, for U.S. federal income tax purposes, is not a U.S. person. For purposes of this discussion, you are a U.S. person if you are:

- an individual citizen or resident of the U.S.;
- a corporation or other entity taxable as a corporation created or organized in the U.S. or under the laws of the U.S. or any political subdivision thereof or otherwise treated as such for U.S. federal income tax purposes;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (a) whose administration is subject to the primary supervision of a U.S. court and that has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (b) that has made an election to continue to be treated as a U.S. person.

Distributions

We do not plan to make any distributions on Class A common stock in the foreseeable future. If we do make future distributions on Class A common stock (other than certain pro rata distributions of Class A common stock), however, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in Class A common stock, but not below zero, and then will be treated as gain from the sale of stock.

Any dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 certifying qualification for the reduced rate.

Dividends received by you that are effectively connected with your conduct of a U.S. trade or business (and, if an income tax treaty applies, that are attributable to a permanent establishment (or, if you are an individual, a fixed base) maintained by you in the U.S.) are exempt from such withholding tax. In order to obtain this exemption, you must provide us with an IRS Form W-8ECI or other applicable IRS Form W-8 properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits. In addition, if you are a corporate non-U.S. holder, dividends you receive that are effectively connected with your conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty.

If you are eligible for a reduced rate of withholding tax pursuant to a tax treaty, you may generally obtain a refund of any excess amounts currently withheld if you timely file an appropriate claim for refund with the IRS. If you hold stock through a financial institution or other agent acting on your behalf, you will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Dispositions

You generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of Class A common stock unless:

- the gain is effectively connected with your conduct of a U.S. trade or business (and, if an income tax treaty applies, the gain is attributable to a permanent establishment (or, if you are an individual, a fixed base) maintained by you in the U.S.);

- you are an individual who is present in the U.S. for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met; or
- Class A common stock constitutes a U.S. real property interest by reason of our status as a U.S. real property holding corporation, or a USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or your holding period for Class A common stock.

We believe that we are not currently and will not become a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, however, there can be no assurance we will not become a USRPHC if we acquire real property in the future. Even if we become a USRPHC, however, as long as Class A common stock is regularly traded on an established securities market, Class A common stock will be treated as U.S. real property interests only if you actually or constructively hold more than five percent of such regularly traded common stock. Even if we become a USRPHC, however, as long as Class A common stock is regularly traded on an established securities market, Class A common stock will be treated as U.S. real property interests only if you actually or constructively hold more than five percent of such regularly traded Class A common stock.

If you are a non-U.S. holder described in the first bullet above, you will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates, and corporate non-U.S. holders described in the first bullet above may also be subject to the branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. If you are an individual non-U.S. holder described in the second bullet above, you will be required to pay a flat 30% tax (or such lower rate specified by an applicable tax treaty) on the gain derived from the sale, which tax may be offset by U.S. source capital losses (even though you are not considered a resident of the U.S.). You should consult any applicable income tax treaties that may provide for different rules.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address, and the amount of tax withheld, if any, regardless of whether withholding was required. A similar report is sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence. Payments of dividends or of proceeds on the disposition of stock made to you may be subject to information reporting and backup withholding unless you establish an exemption, for example by properly certifying your non-U.S. status on an IRS Form W-8BEN or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

U.S. Federal Estate Taxes

Class A common stock owned or treated as owned by an individual who is a non-U.S. person (as specifically defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and may be subject to U.S. federal estate tax, unless an applicable estate tax treaty provides otherwise.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under Internal Revenue Code Sections 1471 to 1474, which are commonly referred to as the Foreign Account Tax Compliance Act or FATCA, on certain types of payments

made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a thirty-percent withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, Class A common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Internal Revenue Code), unless (a) the foreign financial institution undertakes certain diligence and reporting obligations, (b) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Internal Revenue Code) or furnishes identifying information regarding each substantial United States owner, or (c) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. Such certification or exemption must typically be evidenced by a non-U.S. holder's delivery of a properly executed IRS Form W-8BEN-E. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (a) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Internal Revenue Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on Class A common stock and will apply to payments of gross proceeds from the sale or other disposition of Class A common stock on or after January 1, 2019.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in Class A common stock.

Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and foreign tax consequences of purchasing, holding and disposing of Class A common stock, including the consequences of any proposed change in applicable laws.

UNDERWRITING

We have entered into an underwriting agreement with Roth Capital Partners, LLC, acting as the representative of the several underwriters named below, with respect to the shares of Class A common stock subject to this offering. Subject to certain conditions, we have agreed to sell to the underwriters, and the underwriters have severally agreed to purchase, the number of shares of Class A common stock provided below opposite their respective names.

Underwriter	Number of Shares
Roth Capital Partners, LLC	
Craig-Hallum Capital Group LLC	
The Benchmark Company, LLC	
Total	

The underwriters are offering the shares subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

Over-Allotment Option

We have granted the underwriters an option, exercisable for thirty days from the date of this prospectus, to purchase up to an aggregate of 300,000 additional shares of Class A common stock to cover over-allotments, if any, at the public offering price set forth on the cover page of this prospectus, less the underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares offered by this prospectus. If the underwriters exercise this option, each underwriter will be obligated, subject to certain conditions, to purchase a number of additional shares proportionate to that underwriter's initial purchase commitment as indicated in the table above for which the option has been exercised.

Discounts, Commissions and Expenses

The underwriters have advised us that they propose to offer the shares of Class A common stock to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $ per share. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of $ per share to certain brokers and dealers. After this offering, the initial public offering price, concession and reallowance to dealers may be changed by the representative. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus. The shares are offered by the underwriters as stated herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part. The underwriters have informed us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

The following table shows the underwriting discounts and commissions payable to the underwriters by us in connection with this offering (assuming both the exercise and non-exercise of the over-allotment option that we have granted to the underwriters):

	Per Share	Total Without Exercise of Over-Allotment Option	Total With Exercise of Over-Allotment Option
Public offering price	$	$	$
Underwriting discounts and commissions(1)	$	$	$

(1) Does not include the warrants to purchase shares of Class A common stock equal to 4.0% of the number of shares sold in the offering, excluding any shares purchased by PRC-based investors identified by us and the option to purchase additional shares, to be issued to the underwriters at the closing.

In addition, we have agreed to pay a placement fee of 3.5% of the gross proceeds of the concurrent private placement to the placement agents, who are the same firms as are serving as underwriters of the offering made hereby.

We estimate that expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $2.8 million. We have agreed to reimburse the underwriters at closing for (a) all reasonable attorneys' fees and expenses not to exceed $100,000 and (b) all other reasonable out-of-pocket fees and expenses.

In addition, we have agreed to issue warrants to the underwriters to purchase a number of shares of Class A common stock equal to 4.0% of the number of shares sold in this offering, excluding any shares purchased by PRC-based investors identified by us and the option to purchase additional shares. These warrants will be exercisable upon issuance, will have an exercise price equal to 110% of the initial public offering price and will terminate on the fifth anniversary of the effective date of the registration statement of which this prospectus is a part. The warrants and the underlying shares of Class A common stock have been deemed compensation by the Financial Industry Regulatory Authority, Inc., or FINRA, and are therefore subject to FINRA Rule 5110(g)(1). In accordance with FINRA Rule 5110(g)(1), neither the underwriter warrants nor any of our shares issued upon exercise of the underwriter warrants may be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such securities by any person, for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which the underwriter warrants are being issued, subject to certain exceptions.

We have also agreed to give Roth Capital Partners, LLC a right of first refusal to act as our lead underwriter or lead financial advisor or placement agent in any subsequent equity or equity-related financing for six months following the date of this prospectus.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act and liabilities arising from breaches of representations and warranties contained in the underwriting agreement, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

Lock-Up Agreements

We, our officers and directors and holders of substantially all of our capital stock have agreed, subject to certain exceptions, for a period of 180 days after the date of the underwriting agreement, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of common stock or any option, warrant, right or other security exercisable or exchangeable for, convertible into or otherwise giving the holder thereof the right to obtain shares of common stock, except with the prior written consent of the representative. This agreement does not apply to any existing employee benefit plans.

Price Stabilization, Short Positions and Penalty Bids

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act:

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

- Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of shares of Class A common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which it may purchase shares through the over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the shares of Class A common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of the Class A common stock or preventing or retarding a decline in the market price of the Class A common stock. As a result, the price of the Class A common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the Class A common stock. In addition, neither we nor the underwriters make any representations that the underwriters will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Passive Market Making

In connection with this offering, the underwriters and any selling group members may engage in passive market making transactions in the Class A common stock on The NASDAQ Stock Market in accordance with Rule 103 of Regulation M under the Securities Exchange Act, during a period before the commencement of offers or sales of Class A common stock and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specified purchase limits are exceeded.

Listing

We have applied to list the Class A common stock on the Nasdaq Global Market under the symbol "ACMR."

Selling Restrictions

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in

compliance with the applicable rules and regulations of that jurisdiction. Outside of the United States, persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions imposed by any applicable laws and regulations outside of the United States relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

European Economic Area

This prospectus does not constitute an approved prospectus under the Prospectus Directive and no such prospectus is intended to be prepared and approved in connection with this offering. Accordingly, in relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), an offer to the public of any shares of common stock which are the subject of the offering contemplated by this prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any shares of Class A common stock may be made at any time under the following exemptions under the Prospectus Directive, if and to the extent that they have been implemented in that Relevant Member State:

- to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the representative of the underwriters for any such offer; or
- in any other circumstances which do not require any person to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of Class A common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of Class A common stock to be offered so as to enable an investor to decide to purchase any shares of Class A common stock, as the expression may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, and the expression "Prospectus Directive" means Directive 2003/71/EC (and any amendments thereto including the 2010 PD Amending Directive to the extent implemented in each Relevant Member State) and includes any relevant implementing measure in each Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, and has not been filed with, or approved by, the Israel Securities Authority. In Israel, this prospectus is being distributed only to, and is directed only at, investors listed in the first addendum (the "Addendum") to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters purchasing for their own account, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals," each as defined in the Addendum, as it may be amended from time to time. These investors may be required to submit written confirmation that they fall within the scope of the Addendum.

United Kingdom

This prospectus is not an approved prospectus for purposes of the UK Prospectus Rules, as implemented under the Prospectus Directive, and has not been approved under section 21 of the UK Financial Services and

Markets Act 2000, as amended, or FSMA, by a person authorized under FSMA. The financial promotions contained in this prospectus are directed at, and this prospectus is only being distributed to, (a) persons who receive this prospectus outside of the United Kingdom, (b) persons in the United Kingdom who fall within the exemptions under articles 19 (investment professionals) and 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), and (c) persons in the United Kingdom who fall within the exemption under article 49(2)(e) of the Order to whom this prospectus may otherwise be lawfully distributed (all such persons together being referred to as "Relevant Persons"). This prospectus must not be acted upon or relied upon by any person who is not a Relevant Person. Any investment or investment activity to which this prospectus relates is available only to Relevant Persons and will be engaged in only with Relevant Persons. This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other person that is not a Relevant Person.

Each underwriter has represented, warranted and agreed that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) in connection with the issue or sale of any of the shares of Class A common stock in circumstances in which section 21(1) of FSMA does not apply; and
- it has complied with and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to the shares of Class A common stock in, from or otherwise involving the United Kingdom.

Hong Kong

The underwriters and each of their affiliates have not (1) offered or sold, and will not offer or sell, in Hong Kong, by means of any document, any shares of Class A common stock other than (a) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and (2) issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere any advertisement, invitation or document relating to the shares of Class A common stock which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares of Class A common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance and any rules made under that Ordinance. The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

The People's Republic of China

This prospectus may not be circulated or distributed in China and the Class A common stock may not be offered or sold, and will not offer or sell to any person for re-offering or resale directly or indirectly to any resident of China except pursuant to applicable laws, rules and regulations of China. For the purpose of this paragraph only, China does not include Taiwan and the special administrative regions of Hong Kong and Macau.

Electronic Distribution

This prospectus in electronic format may be made available on websites or through other online services maintained by one or more of the underwriters, or by their affiliates. Other than this prospectus in electronic

format, the information on any underwriter's website and any information contained in any other website maintained by an underwriter is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other

From time to time, certain of the underwriters and/or their affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees. In the course of their businesses, the underwriters and their affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the underwriters and their affiliates may at any time hold long or short positions in such securities or loans. Except for services provided in connection with this offering, no underwriter has provided any investment banking or other financial services to us during the 180-day period preceding the date of this prospectus and we do not expect to retain any underwriter to perform any investment banking or other financial services for at least 90 days after the date of this prospectus.

LEGAL MATTERS

The validity of the Class A common stock being offered will be passed upon for us by K&L Gates LLP, Boston, Massachusetts. Certain legal matters in connection with this offering will be passed upon for the underwriters by Goodwin Procter LLP, New York, New York.

EXPERTS

BDO China Shu Lun Pan Certified Public Accountants LLP, our independent registered public accounting firm in the PRC, has audited our consolidated financial statements at, and for the years ended, December 31, 2016 and 2015, as set forth in their report included elsewhere herein. We have included our consolidated financial statements in this prospectus and the registration statement in reliance on said firm's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the Class A common stock we are offering. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some items of which are contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and Class A common stock, we refer you to the registration statement, including the exhibits and the consolidated financial statements and notes filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The exhibits to the registration statement should be reviewed for the complete contents of these contracts and documents.

A copy of the registration statement, including the exhibits and the consolidated financial statements and notes filed as a part of the registration statement, may be inspected without charge at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549, and copies of all or any part of the registration statement may be obtained from the SEC upon the payment of fees prescribed by it. You may call the SEC at 1-800-SEC-0330 for more information on the operation of the public reference facilities. The SEC maintains a website at http://www.sec.gov that contains reports, proxy and information statements and other information regarding companies, including ACM, that file electronically with it.

Upon completion of this offering, we will be subject to the information reporting requirements of the Securities Act and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We also maintain a website at www.acmrcsh.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus or in deciding whether to purchase shares of Class A common stock.

ACM RESEARCH, INC.

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of
ACM Research, Inc.

We have audited the accompanying consolidated balance sheets of ACM Research, Inc. and its subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations and comprehensive income, changes in redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company at December 31, 2016 and 2015, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ BDO China Shu Lun Pan Certified Public Accountants LLP

Shenzhen, the People's Republic of China
September 13, 2017

ACM RESEARCH, INC.
Consolidated Balance Sheets

	June 30, 2017	December 31, 2016	December 31, 2015	Pro Forma June 30, 2017
	(unaudited)			(unaudited)
	(in thousands, except share and per share data)			
Assets				
Current assets:				
Cash and cash equivalents	$ 13,206	$ 10,119	$ 4,401	$ 13,206
Accounts receivable, less allowance for doubtful accounts of $0 (unaudited), $0 and $116 as of June 30, 2017 and December 31, 2016 and 2015, respectively (note 3)	12,310	16,026	12,070	12,310
Other receivables	2,220	1,763	1,224	2,220
Inventory (note 4)	14,106	11,666	9,146	14,106
Prepaid expenses	1,382	720	1,100	1,382
Other current assets	816	53	7	816
Total current assets	44,040	40,347	27,948	44,040
Property, plant and equipment, net (note 5)	2,233	2,262	1,770	2,233
Intangible assets, net	41	17	1	41
Deferred tax assets (note 17)	1,123	1,841	2,432	1,123
Total assets	$ 47,437	$44,467	$ 32,151	$ 47,437
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)				
Current liabilities:				
Short-term borrowings (note 6)	$ 4,584	$ 4,761	$ 6,854	$ 4,584
Notes payable (including related-party notes of $4 (unaudited), $4 and $768 as of June 30, 2017 and December 31, 2016 and 2015, respectively (note 12)) (note 8)	11	11	2,837	11
Investors' deposits (note 9)	—	2,902	—	—
Warrant liability (note 10)	2,970	—	—	2,970
Accounts payable	8,225	5,173	2,094	8,225
Advances from customers	—	215	4,635	—
Income taxes payable	44	44	44	44
Other payables and accrued expenses (including amounts due to a related-party of $1,982 (unaudited), $1,883 and $2,070 as of June 30, 2017 and December 31, 2016 and 2015, respectively (note 12)) (note 7)	4,773	3,963	4,103	4,773
Total current liabilities	20,607	17,069	20,567	20,607
Other long-term liabilities (note 11)	7,276	6,879	7,187	7,276
Total liabilities	27,883	23,948	27,754	27,883
Commitments and contingencies (Note 18)				
Redeemable convertible preferred stock, with par value $0.0001 as of June 30, 2017 and December 31, 2016 and without par value as of December 31, 2015:				
Series A: 385,000 shares authorized, issued and outstanding as of June 30, 2017 (unaudited) and December 31, 2016 and 2015 (liquidation value of $308 at June 30, 2017 (unaudited) and December 31, 2016 and 2015); and no shares authorized, issued or outstanding pro forma as of June 30, 2017 (unaudited)	288	288	288	—
Series B: 1,572,000 shares authorized, issued and outstanding as of June 30, 2017 (unaudited) and December 31, 2016 and 2015 (liquidation value of $1,572 at June 30, 2017 (unaudited) and December 31, 2016 and 2015) and no shares authorized, issued or outstanding pro forma as of June 30, 2017 (unaudited)	1,572	1,572	1,572	—
Series C: 1,360,962 shares authorized, issued and outstanding as of June 30, 2017 (unaudited) and December 31, 2016 (liquidation value of $2,041 at June 30, 2017 (unaudited) and December 31, 2016); 1,400,000 shares authorized and 1,360,962 shares issued and outstanding as of December 31, 2015 (liquidation value of $2,041); and no shares authorized, issued or outstanding, pro forma as of June 30, 2017 (unaudited)	2,041	2,041	2,041	—
Series D: 2,659,975 shares authorized and 1,326,642 shares issued and outstanding as of June 30, 2017 (unaudited) and December 31, 2016 (liquidation value of $4,975 at June 30, 2017 (unaudited) and December 31, 2016); 4,800,000 shares authorized and 1,326,642 shares issued and outstanding as of December 31, 2015 (liquidation value of $4,975); and no shares authorized, issued or outstanding, pro forma as of June 30, 2017 (unaudited)	4,975	4,975	4,975	—
Series E: 10,718,530 shares authorized and no shares issued or outstanding as of June 30, 2017 (unaudited) and December 31, 2016; and no shares authorized, issued or outstanding as of December 31, 2015 and pro forma as of June 30, 2017 (unaudited)	—	—	—	—
Series F: 6,000,000 shares authorized and 3,663,254 shares issued and outstanding as of June 30, 2017 (unaudited) and December 31, 2016 (liquidation value of $9,158 at June 30, 2017 (unaudited) and December 31, 2016); and no shares authorized, issued or outstanding as of December 31, 2015 and pro forma as of June 30, 2017 (unaudited)	9,158	9,158	—	—
Total redeemable convertible preferred stock (note 15)	18,034	18,034	8,876	—
Stockholders' equity (deficit):				
Common stock (before redomestication), without par value: no shares authorized, issued or outstanding as of June 30, 2017 (unaudited) and December 31, 2016; 100,000,000 shares authorized and 2,047,403 shares issued and outstanding as of December 31, 2015; and no shares authorized, issued or outstanding pro forma as of June 30, 2017 (unaudited) (note 14)	—	—	280	—
Common stock – Class A (after redomestication), with par value $0.0001: 100,000,000 shares authorized and 2,627,293 shares issued and outstanding as of June 30, 2017 (unaudited); 100,000,000 shares authorized and 2,228,740 shares issued and outstanding as of December 31, 2016; no shares authorized, issued or outstanding as of December 31, 2015; 100,000,000 shares authorized and 5,595,928 shares issued and outstanding pro forma as of June 30, 2017 (unaudited) (note 14)	1	1	—	1
Common stock – Class B (after redomestication), with par value $0.0001: 7,303,533 shares authorized and 2,409,738 shares issued and outstanding as of June 30, 2017 (unaudited) and December 31, 2016; no shares authorized, issued or outstanding as of December 31, 2015; and 7,303,533 shares authorized and 2,409,738 shares issued and outstanding pro forma as of June 30, 2017 (unaudited) (note 14)	1	1	—	1
Additional paid in capital	9,346	7,620	2,243	27,380
Accumulated deficit	(12,390)	(9,643)	(10,675)	(12,390)
Accumulated other comprehensive loss	(247)	(413)	(84)	(247)
Total ACM Research, Inc. stockholders' (deficit) equity	(3,289)	(2,434)	(8,236)	14,745
Non-controlling interests	4,809	4,919	3,757	4,809
Total stockholders' equity (deficit)	1,520	2,485	(4,479)	19,554
Total liabilities, redeemable convertible preferred stock and stockholders' equity	$ 47,437	$44,467	$ 32,151	$ 47,437

The accompanying notes are an integral part of these consolidated financial statements.

ACM RESEARCH, INC.
Consolidated Statements of Operations and Comprehensive Income (Loss)

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(unaudited)		*(in thousands, except share and per share data)*	
Revenue	$ 14,423	$ 8,122	$ 27,371	$ 31,206
Cost of revenue	8,570	5,292	14,042	17,085
Gross profit	5,853	2,830	13,329	14,121
Operating expenses:				
Sales and marketing	2,583	1,818	3,907	4,213
Research and development	1,867	1,486	3,259	2,942
General and administrative	3,158	1,089	2,673	2,103
Total operating expenses, net	7,608	4,393	9,839	9,258
Income (loss) from operations	(1,755)	(1,563)	3,490	4,863
Interest income	5	6	16	17
Interest expense	(164)	(51)	(181)	(122)
Other income (expense), net	(292)	506	(343)	632
Income (loss) before income taxes	(2,206)	(1,102)	2,982	5,390
Income tax (expense) benefit (note 17)	(749)	73	(595)	2,525
Net income (loss)	(2,955)	(1,029)	2,387	7,915
Less: Net income (loss) attributable to non-controlling interests	(208)	(476)	1,356	2,535
Net income (loss) attributable to ACM Research, Inc.	$ (2,747)	$ (553)	$ 1,031	$ 5,380
Comprehensive income (loss):				
Net income (loss)	$ (2,955)	$ (1,029)	$ 2,387	$ 7,915
Foreign currency translation adjustment	264	(133)	(522)	(283)
Comprehensive income (loss)	(2,691)	(1,162)	1,865	7,632
Less: Comprehensive income (loss) attributable to non-controlling interests	(110)	(526)	1,161	2,430
Total comprehensive income (loss) attributable to ACM Research, Inc. (note 2)	$ (2,581)	$ (636)	$ 704	$ 5,202
Net income (loss) per common share (note 2):				
Basic	$ (0.56)	$ (0.27)	$ 0.30	$ 1.50
Diluted	$ (0.56)	$ (0.27)	$ 0.18	$ 0.97
Weighted-average common shares outstanding used in computing per share amounts (note 2):				
Basic	4,927,973	2,061,339	2,176,315	2,047,383
Diluted	4,927,973	2,061,339	3,792,137	3,144,120
Pro forma net income (loss) per common share (note 2):				
Basic	$ (0.35)		$ 0.20	
Diluted	$ (0.35)		$ 0.15	
Pro forma weighted-average common shares outstanding used in computing per share amounts (note 2):				
Basic	7,889,818		5,137,211	
Diluted	7,889,818		6,753,033	

The accompanying notes are an integral part of these consolidated financial statements.

ACM RESEARCH, INC.

Consolidated Statement of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)

	Redeemable Convertible Preferred Stock											Common Stock		Common Stock Class A		Common Stock Class B		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Non-controlling Interest	Total Stockholders' Deficit
	Series A		Series B		Series C		Series D		Series F		Total											
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
	(in thousands, except share data)																					
Balance at January 1, 2015	385,000	$ 288	1,572,000	$ 1,572	1,360,962	$ 2,041	1,326,642	$ 4,975	—	$ —	$ 8,876	2,047,403	$ 280	—	$ —	—	$ —	$ 1,820	$ (16,055)	$ 94	$ 1,327	$ (12,534)
Net income	—	—	—	—	—	—	—	—	—	—	—			—	—	—	—	—	5,380	—	2,535	7,915
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(178)	(105)	(283)
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	423	—	—	—	423
Balance at December 31, 2015	385,000	288	1,572,000	1,572	1,360,962	2,041	1,326,642	4,975	—	—	8,876	2,047,403	280	—	—	—	—	2,243	(10,675)	(84)	3,757	(4,479)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,031	—	1,356	2,387
Foreign currency translation adjustment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(329)	(193)	(522)
Redomestication	—	—	—	—	—	—	—	—	—	—	—	(2,047,403)	(280)	—	—	2,047,403	1	279	—	—	—	—
Issuance of stock	—	—	—	—	—	—	—	—	3,615,800	9,039	9,039	—	—	—	—	—	—	—	—	—	—	—
Debt conversion	—	—	—	—	—	—	—	—	47,454	119	119	—	—	1,812,069	1	—	—	4,131	—	—	—	4,132
Exercise of stock option	—	—	—	—	—	—	—	—	—	—	—	—	—	416,671	—	362,335	—	584	—	—	—	584
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	383	—	—	—	383
Balance at December 31, 2016	385,000	$ 288	1,572,000	$ 1,572	1,360,962	$ 2,041	1,326,642	$ 4,975	3,663,254	$ 9,158	$ 18,034	—	$ —	2,228,740	$ 1	2,409,738	$ 1	$ 7,620	$ (9,643)	$ (413)	$ 4,919	$ 2,485
Net loss (unaudited)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(2,747)	—	(208)	(2,955)
Foreign currency translation adjustment (unaudited)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	166	98	264
Exercise of stock option (unaudited)	—	—	—	—	—	—	—	—	—	—	—	—	—	398,553	0	—	—	378	—	—	—	378
Stock-based compensation (unaudited)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,348	—	—	—	1,348
Balance at June 30, 2017 (unaudited)	385,000	$ 288	1,572,000	$ 1,572	1,360,962	$ 2,041	1,326,642	$ 4,975	3,663,254	$ 9,158	$ 18,034	—	—	2,627,293	$ 1	2,409,738	$ 1	$ 9,346	$ (12,390)	$ (247)	$ 4,809	$ 1,520

The accompanying notes are an integral part of these consolidated financial statements.

ACM RESEARCH, INC.
Consolidated Statements of Cash Flows

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
	(unaudited)		*(in thousands)*	
Cash flows from operating activities:				
Net income (loss)	$ (2,955)	$ (1,029)	$ 2,387	$ 7,915
Adjustments to reconcile net income (loss) from operations to net cash provided by operating activities:				
Depreciation and amortization	118	88	187	160
Loss on disposals of fixed assets, intangible assets and other long-term assets	—	3	3	—
Net loss from debt conversion and interest waiver	—	—	1,608	—
Deferred income taxes	747	(74)	436	(2,432)
Stock-based compensation	1,348	193	383	423
Net changes in operating assets and liabilities:				
Accounts receivable	4,095	11,441	(4,724)	(7,429)
Other receivables	(413)	(181)	(621)	365
Inventory	(2,189)	(1,771)	(3,055)	(2,097)
Prepaid expenses	(631)	339	219	(530)
Other current assets	(762)	(5)	(47)	(35)
Accounts payable	2,921	970	3,177	(2,618)
Advances from customers	(236)	(4,521)	(4,078)	4,599
Income taxes payable	—	—	—	44
Other payables and accrued expenses	704	(432)	276	1,110
Other long-term liabilities	236	(282)	147	3,227
Net cash provided by operating activities	2,983	4,739	(3,702)	2,702
Cash flows from investing activities:				
Purchase of property and equipment	(26)	(102)	(795)	(1,371)
Purchase of intangible assets	(36)	(9)	(22)	—
Proceed from disposal of property and equipment	—	7	7	—
Net cash used in investing activities	(62)	(104)	(810)	(1,371)
Cash flows from financing activities:				
Proceeds from short-term borrowings	4,584	739	5,918	11,879
Repayments of short-term borrowings	(4,861)	(3,770)	(7,575)	(9,605)
Investors' deposit	—	—	2,902	—
Proceeds from potential future investment from related party	—	3,318	—	—
Proceeds from stock option exercise to common stock	378	28	410	—
Proceeds from issuance of Series F convertible preferred stock	—	—	9,040	—
Repayments of notes payable	—	—	(141)	—
Net cash provided by financing activities	101	315	10,554	2,274
Effect of exchange rate changes on cash and cash equivalents	65	238	(324)	(378)
Net increase in cash and cash equivalents	3,087	5,188	5,718	3,227
Cash and cash equivalents at beginning of period	10,119	4,401	4,401	1,174
Cash and cash equivalents at end of period	$13,206	$ 9,589	$10,119	$ 4,401
Supplemental disclosure of cash flow information:				
Interest paid	$ 164	$ 111	$ 181	$ 290
Income taxes refund	$ —	$ —	$ —	$ 33
Non-cash financing activities:				
Debt conversion to Class A common stock	—	—	$ 1,486	$ —
Debt conversion to Series F convertible preferred stock	$ —	$ —	$ 119	$ —
Exercise of stock option in lieu of the cash repayment of notes payable	—	—	$ 174	$ —

The accompanying notes are an integral part of these consolidated financial statements.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

NOTE 1 – DESCRIPTION OF BUSINESS

ACM Research, Inc. ("ACM") and its subsidiaries (ACM and such subsidiaries collectively, the "Company") develop, manufacture and sell single-wafer wet cleaning equipment used to improve the manufacturing process and yield for advanced integrated chips. The Company markets and sells, under the brand name "Ultra C," lines of equipment based on the Company's proprietary Space Alternated Phase Shift ("SAPS") and Timely Energized Bubble Oscillation ("TEBO") technologies. These tools are designed to remove random defects from a wafer surface efficiently, without damaging the wafer or its features, even at increasingly advanced process nodes.

ACM was incorporated in California in 1998, and it initially focused on developing tools for manufacturing process steps involving the integration of ultra low-K materials and copper. The Company's early efforts focused on stress-free copper-polishing technology, and it sold tools based on that technology in the early 2000s.

In 2006, the Company established its operational center in Shanghai in the People's Republic of China (the "PRC"), where it operates through ACM's subsidiary ACM Research (Shanghai), Inc. ("ACM Shanghai"). The establishment of ACM Shanghai was made to help the Company establish and build relationships with integrated circuit manufacturers in the PRC, and the Company financed its Shanghai operations in part through sales of a non-controlling equity interest in ACM Shanghai.

In 2007, the Company began to focus its development efforts on single-wafer wet-cleaning solutions for the front-end chip fabrication process. The Company introduced its SAPS megasonic technology, which can be applied in wet wafer cleaning at numerous steps during the chip fabrication process, in 2009. It introduced its TEBO technology, which can be applied at numerous steps during the fabrication of small node two-dimensional conventional and three-dimensional patterned wafers, in March 2016.

In 2011, ACM Shanghai formed a wholly owned subsidiary in the PRC, ACM Research (Wuxi), Inc. ("ACM Wuxi"), to manage sales and service operations.

In November 2016, ACM redomesticated from California to Delaware pursuant to a merger (the "Merger") in which ACM Research, Inc., a California corporation, was merged into a newly formed, wholly owned Delaware subsidiary, also named ACM Research, Inc.

In June 2017, ACM Research, Inc. formed a wholly owned subsidiary in Hong Kong, CleanChip Technologies Limited ("CleanChip"), to act on the Company's behalf in Asian markets outside the PRC by, for example, serving as a trading partner between ACM Shanghai and its customers, procuring raw materials and components, performing sales and marketing activities, and making strategic investments.

The Company has designed its equipment models for SAPS and TEBO solutions using a modular configuration that enables it to create a wet-cleaning tool meeting the specific requirements of a customer, while using pre-existing designs for chamber, electrical, chemical delivery and other modules. The Company also offers a range of custom-made equipment, including cleaners, coaters and developers, to back-end wafer assembly and packaging factories, principally in the PRC.

As of June 30, 2017 and December 31, 2016 and 2015, ACM owned 62.9% of the outstanding equity interests of ACM Shanghai. As a result, ACM, indirectly through ACM Shanghai, owned 62.9% of the outstanding equity interests of ACM Wuxi as of June 30, 2017 and December 31, 2016 and 2015.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Significant accounting policies followed by the Company in the preparation of the accompanying consolidated financial statements are summarized below.

Principles of Consolidation

The consolidated financial statements include the financial statements of ACM and its subsidiaries, ACM Shanghai, ACM Wuxi and CleanChip. Subsidiaries are those entities in which ACM, directly and indirectly, controls more than one half of the voting power. All significant intercompany transactions and balances have been eliminated upon consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet date and the reported revenues and expenses during the reported period in the consolidated financial statements and accompanying notes. The Company's significant accounting estimates and assumptions include, but are not limited to, those used for the valuation and recognition of stock-based compensation arrangements and warrant liability, realization of deferred tax assets, assessment for impairment of long-lived assets, allowance for doubtful accounts, inventory valuation for excess and obsolete inventories, lower of cost and market value or net realizable value of inventories, depreciable lives of property and equipment, and useful life of intangible assets.

Management evaluates these estimates and assumptions on a regular basis. Actual results could differ from those estimates and assumptions.

Unaudited Interim Consolidated Financial Statements

The unaudited interim consolidated financial statements consist of an unaudited consolidated balance sheet as of June 30, 2017, unaudited consolidated statements of operations and comprehensive loss and cash flows for the six months ended June 30, 2017 and 2016, unaudited consolidated statement of changes in redeemable convertible preferred stock and stockholders' equity for the six months ended June 30, 2017, and the related unaudited footnote disclosures. The unaudited interim consolidated financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, contain all adjustments, consisting only of normal recurring adjustments, necessary to present fairly the financial position, operating results and cash flows of the Company for each of the periods presented. It does not include all the information and footnotes required by GAAP for complete financial statements. The balance sheet as of June 30, 2017 and the operating results for the six months ended June 30, 2017 are not necessarily indicative of the results of operations that may be expected for the year ending December 31, 2017 or any other future period.

Reverse Stock Split

On September 13, 2017, ACM effected a 1-for-3 reverse stock split (the "Reverse Split") of Class A and Class B common stock (note 20). Unless otherwise indicated, all share numbers, per share amount, share prices,

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

exercise prices and conversion rates set forth in those notes and the accompanying consolidated financial statements have been adjusted retrospectively to reflect the Reverse Split.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on hand, bank deposits that are unrestricted as to withdrawal and use, and highly liquid investments with an original maturity date of three months or less at the date of purchase. At times, cash deposits may exceed government-insured limits.

Accounts Receivable

Accounts receivable are presented net of an allowance for doubtful accounts. The Company reviews its accounts receivable on a periodic basis and makes general and specific allowances when there is doubt as to the collectability of individual balances. In evaluating the collectability of individual receivable balances, the Company considers many factors, including the age of the balance, a customer's historical payment history and credit worthiness, and current economic trends. Accounts are written off after all collection efforts have been exhausted. At June 30, 2017 and December 31, 2016 and 2015, the Company had established, based on a review of its outstanding balances, an allowance for doubtful accounts in the amounts of $0, $0 and $116, respectively.

Inventory

Inventory consists of raw materials and related goods, work-in-progress, finished goods, and other consumable materials such as spare parts. Finished goods typically are shipped from the Company's warehouse within one month of completion.

Inventory was recorded at the lower of cost or net realizable value at June 30, 2017 and at the lower of cost or market value at December 31, 2016 and 2015.

- The cost of a general inventory item is determined using the weighted moving average method. Under the weighted moving average method, the Company calculates the new average price of all items of a particular inventory stock each time one or more items of that stock are purchased. The then-current average price of the stock is used for purposes of determining cost of inventory or cost of revenue. The cost of an inventory item purchased specifically for a customized product is determined using the specific identification method. Low-cost consumable materials and packaging materials are expensed as incurred.
- Market value is determined as the lower of replacement cost or net realizable value.
- Net realizable value is the estimated selling price, in the ordinary course of business, less estimated costs to complete or dispose.

The Company assesses the recoverability of all inventories quarterly to determine if any adjustments are required. Potential excess or obsolete inventory is written off based on management's analysis of inventory levels and estimates of future 12-month demand and market conditions.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Deferred Initial Public Offering ("IPO") Costs

Direct costs incurred by the Company attributable to its proposed IPO of Class A common stock in the United States have been deferred and recorded in other current assets and will be offset against the gross proceeds received from the IPO. At June 30, 2017 and December 30, 2016 and 2015, deferred IPO costs were $797, $41 and $0, respectively.

Property, Plant and Equipment, Net

Property, plant and equipment are recorded at cost less accumulated depreciation and any provision for impairment in value. Depreciation begins when the asset is placed in service and is calculated by using the straight-line method over the estimated useful life of an asset (or, if shorter, over the lease term). Betterments or renewals are capitalized when incurred. Plant, property and equipment is reviewed each year to determine whether any events or circumstances indicate that the carrying amount of the assets may not be recoverable.

Estimated useful lives of assets in the United States are as follows:

Computer and office equipment	3 to 5 years
Furniture and fixtures	5 years
Leasehold improvements	shorter of lease term or estimated useful life

ACM's subsidiaries follow regulations for depreciation of fixed assets implemented under the PRC's Enterprise Income Tax Law, which state that the minimum useful lives used for calculating depreciation for fixed assets are as follows:

Manufacturing equipment	for small to medium-sized equipment, 5 years; for large equipment, estimated by purchasing department at time of acceptance
Furniture and fixtures	5 years
Transportation equipment	4 to 5 years
Electronic equipment	3 years
Leasehold improvements	remaining lease term for improvements on leased fixed assets or, for large improvements, estimated useful life; not less than 3 years for non-fixed asset repairs

Expenditures for maintenance and repairs that neither materially add to the value of the property nor appreciably prolong the life of the property are charged to expense as incurred. Upon retirement or sale of an asset, the cost of the asset and the related accumulated depreciation are eliminated from the accounts and any resulting gain or loss is credited or charged to income.

Intangible Assets, Net

Intangible assets consist of software used for finance, manufacturing, and research and development purposes. Assets are valued at cost at the time of acquisition and are amortized over their beneficial periods. If a contract specifies a beneficial period, then the intangible asset is amortized over a term not exceeding the beneficial period. If the contract does not specify a beneficial period, then the intangible asset is amortized over a term not exceeding the valid period specified by local law. If neither the contract nor local law specifies a beneficial period, then the intangible asset is amortized over a period of up to 10 years. Currently, the software that the Company uses is amortized over a two-year period in accordance with the policy described above.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Valuation of Long-Lived Assets

Long-lived assets are evaluated for impairment whenever events or changes in circumstance indicate that the carrying value of the assets may not be fully recoverable or that the useful life of the assets is shorter than the Company had originally estimated. When these events or changes occur, the Company evaluates the impairment of the long-lived assets by comparing the carrying value of the assets to an estimate of future undiscounted cash flows expected to be generated from the use of the assets and their eventual disposition. If the sum of the expected future undiscounted cash flow is less than the carrying value of the assets, the Company recognizes an impairment loss based on the excess of the carrying value over the fair value. No impairment charge was recognized for either of the periods presented.

Leases

Each lease is classified at the inception date as either a capital lease or an operating lease. For the lessee, a lease is a capital lease if any of the following conditions exist: (a) ownership is transferred to the lessee by the end of the lease term; (b) there is a bargain purchase option; (c) the lease term is at least 75% of the property's estimated remaining economic life; or (d) the present value of the minimum lease payments at the beginning of the lease term is 90% or more of the fair value of the leased property to the leasor at the inception date. A capital lease is accounted for as if there was an acquisition of an asset and an incurrence of an obligation at the inception of the lease. All other leases are accounted for as operating leases. Payments made under operating leases are charged to the consolidated statements of operations and comprehensive income on a straight-line basis over the terms of underlying lease. The Company had no capital lease for either of the periods presented.

Redeemable Convertible Preferred Stock

The Company recorded each series of convertible preferred stock at fair value on the date of issuance, net of issuance costs. The convertible preferred stock is recorded outside of stockholders' equity (deficit) because, in the event of certain deemed liquidation events considered not solely within the Company's control (such as a merger, acquisition, or sale of all or substantially all of the Company's assets), the convertible preferred stock will become redeemable at the option of the holders. The Company has not adjusted the carrying value of any series of convertible preferred stock to the liquidation preference of such series because it is uncertain whether or when an event would occur that would obligate the Company to pay the liquidation preferences to holders of convertible preferred stock. Subsequent adjustments to the carrying values to the liquidation preferences will be made only when it becomes probable that such a liquidation event will occur.

Revenue Recognition

The Company recognizes revenue when all the following conditions are met:

- there is persuasive evidence of an arrangement;
- the product delivery has occurred and the Company has transferred major risks and remunerations over the ownership of the product to the buyer or a service has been fully rendered and completed;
- the collection of the receivable is probable; and
- the amount of the payment is fixed or determinable.

The Company derives revenue principally from sales of semiconductor capital equipment. In general, the Company recognizes revenue when the product has been demonstrated to meet the predetermined specifications

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

and is accepted by the customer. If terms of the sale provide for a lapsing customer acceptance period, the Company recognizes revenue upon the earlier of the expiration of the lapsing acceptance period and customer acceptance. In the following circumstances, however, the Company recognizes revenue upon shipment or delivery, when the legal title of the product is passed to a customer:

- when the customer has previously accepted the same tool with the same specifications and when the Company can objectively demonstrate that the tool meets all of the required acceptance criteria;
- when the sales contract or purchase order contains no acceptance agreement or no lapsing acceptance provision and when the Company can objectively demonstrate that the tool meets all of the required acceptance criteria;
- when the customer withholds acceptance due to issues unrelated to product performance, in which case revenue is recognized when the system is performing as intended and meets predetermined specifications; or
- the Company's sales arrangements do not include a general right of return.

Customization, production, installation and delivery are essential elements of the functionality of a delivered machine; the services offered, principally the warranty, are not essential to the functionality of the machine. The Company treats the customization, production, installation and delivery of machines, together with the provision of related warranty and other services, as a single unit of accounting in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Subtopic 605-25, *Revenue Recognition – Multiple-Element Arrangements*. All of the Company's products were sold in stand-alone arrangements during the six months ended June 30, 2017 and the years ended December 31, 2016 and 2015.

After the warranty period has expired, the Company will also provide customers with post-warranty services, which mainly include the installation and replacement of parts and small-scale modifications to the existing products. The related revenue and costs are recognized as revenue and cost of revenue, respectively, when the parts have been delivered and installed, risk of loss has passed to the customer, and collection of the resulting receivable is probable.

Cost of Revenue

Cost of revenue primarily consists of: direct materials, comprised principally of parts used in assembling equipment, together with crating and shipping costs; direct labor, including salaries and other labor related expenses attributable to the Company's manufacturing department; and allocated overhead cost, such as personnel cost, depreciation expense, and allocated administrative costs associated with supply chain management and quality assurance activities, as well as shipping insurance premiums.

Research and Development Costs

Research and development costs relating to the development of new products and processes, including significant improvements and refinements to existing products or to the process of supporting customer evaluations of tools, including the development of new tools for evaluation by customers during the product demonstration process, are expensed as incurred.

Shipping and Handling Costs

Shipping and handling costs, which relate to transportation of products to customer locations, are charged to selling and marketing expense. For the six months ended June 30, 2017 and 2016 and the years ended

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

December 31, 2016 and 2015, shipping and handling costs included in sales and marketing expense were $48, $16, $75 and $15, respectively.

Borrowing Costs

Borrowing costs attributable directly to the acquisition, construction or production of qualifying assets that require a substantial period of time to be ready for their intended use or sale are capitalized as part of the cost of those assets. Income earned on temporary investments of specific borrowings pending their expenditure on those assets is deducted from borrowing costs capitalized. All other borrowing costs are recognized in interest expenses in the consolidated statements of operations and comprehensive income in the period in which they are incurred. No borrowing costs were capitalized for the six months ended June 30, 2017 or the years ended December 31, 2016 and 2015.

Warranty

For each of its products, the Company generally provides a warranty ranging from 12 to 36 months and covering replacement of the product during the warranty period. The Company accounts for the estimated warranty costs as sales and marketing expenses at the time revenue is recognized. Warranty obligations are affected by historical failure rates and associated replacement costs. Utilizing historical warranty cost records, the Company calculates a rate of warranty expenses to revenue to determine the estimated warranty charge. The Company updates these estimated charges on a regular basis. The following table shows changes in the Company's warranty obligations for the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015.

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
Balance at beginning of period	$ 290	$ 459	$ 459	$ 141
Additions	283	161	544	595
Utilized	(154)	(260)	(713)	(277)
Balance at end of period	$ 419	$ 360	$ 290	$ 459

Government Subsidies

ACM Shanghai has been awarded three subsidies from local and central governmental authorities in the PRC. The first subsidy, which was awarded in October 2008, relates to the development and commercialization of 65-45 nanometer Stress Free Polishing technology. The second subsidy was awarded in April 2009 to fund interest expenses for short-term borrowings. The third subsidy was awarded in January 2014 and relates to the development of Electro Copper Plating technology. The PRC governmental authorities will provide the majority of the funding, although ACM Shanghai is also required to invest certain amounts in the projects.

The government subsidies contain certain operating conditions and therefore are recorded as long-term liabilities upon receipt. The grant amounts are recognized in the statements of operations and comprehensive income:

- Government subsidies relating to current expenses are recorded as reductions of those expenses in the periods in which the current expenses are recorded. For the six months ended June 30, 2017 and 2016

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

and the years ended December 31, 2016 and 2015, related government subsidies recognized as reductions of relevant expenses in the consolidated statements of operations and comprehensive income were $2,090, $1,976, $6,244 and $3,799, respectively.

- Government subsidies for short-term borrowings' interest expenses are reported as reductions of interest expenses in the period the interest is accrued, which were $0, $101, $99 and $303, respectively, for the six months ended June 30, 2017 and 2016 and years ended December 31, 2016 and 2015.
- Government subsidies related to depreciable
- assets are credited to income over the useful lives of the related assets for which the grant was received. For the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, related government subsidies recognized as other income in the consolidated statements of operations and comprehensive income were $65, $63, $127 and $105, respectively.

Unearned government subsidies received are deferred for recognition and recorded as other long-term liabilities (note 11) in the balance sheet until the criteria for such recognition are satisfied.

Stock-based Compensation

ACM grants stock options to employees and non-employee consultants and directors and accounts for those stock-based awards in accordance with FASB ASC Topic 718, *Compensation – Stock Compensation*, and FASB ASC Subtopic 505-50, *Equity-Based Payments to Non-Employees*.

Stock-based awards granted to employees are measured at the fair value of the awards on the grant date and are recognized as expenses either (a) immediately on grant, if no vesting conditions are required or (b) using the graded vesting method, net of estimated forfeitures, over the requisite service period. The fair value of stock options is determined using the Black-Scholes valuation model. Stock-based compensation expense, when recognized, is charged to the category of operating expense corresponding to the employee's service function.

Stock-based awards granted to non-employees are accounted for at the fair value of the awards at the earlier of (a) the date at which a commitment for performance by the non-employee to earn the awards is reached and (b) the date at which the non-employee's performance is complete. The fair value of such non-employee awards is re-measured at each reporting date using the fair value at each period end until the vesting date. Changes in fair value between the reporting dates are recognized by the graded vesting method.

Operating and Financial Risks

Concentration of Credit Risk

Financial instruments that potentially subject to credit risk consist principally of cash and cash equivalents and accounts receivable. The Company deposits and invests its cash with financial institutions that management believes are creditworthy.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

The Company is potentially subject to concentrations of credit risks in its accounts receivable. Four customers individually accounted for greater than ten percent of the Company's revenue for the year ended 2016 and two of those customers individually accounted for greater than ten percent of the Company's revenue in 2015:

	Year Ended December 31	
	2016	2015
Customer A	33.7%	*
Customer B	25.0	*
Customer C	24.0	86.0%
Customer D	16.6	10.1

* Customer accounted for less than 10% of revenue in the period.

Interest Rate Risk

As of June 30, 2017 and December 31, 2016 and 2015, the balance of bank borrowings (note 6) and notes payable (note 8) were short-term in nature, matured at various dates within the following year and did not expose the Company to interest rate risk.

Liquidity Risk

The Company's working capital at June 30, 2017 and December 31, 2016 was sufficient to meet its then-current requirements. The Company may, however, require additional cash due to changing business conditions or other future developments, including any investments or acquisitions the Company decides to pursue. In the long run, the Company intends to rely primarily on cash flows from operations and additional borrowings from financial institutions in order to meet its cash needs. If those sources are insufficient to meet cash requirements, the Company may seek to issue additional debt or equity.

Country Risk

The Company has significant investments in the PRC. The operating results of the Company may be adversely affected by changes in the political and social conditions in the PRC and by changes in Chinese government policies with respect to laws and regulations, anti-inflationary measures, currency conversion and remittance abroad, and rates and methods of taxation, among other things.

Foreign Currency Risk and Translation

The Company's consolidated financial statements are presented in U.S. dollars, which is the Company's reporting currency, while the functional currency of ACM's subsidiaries is the Chinese Renminbi ("RMB"). Changes in the relative values of U.S. dollars and Chinese RMB affect the Company's reported levels of revenues and profitability as the results of its operations are translated from RMB into U.S. dollars for reporting purposes. Because the Company has not engaged in any hedging activities, it cannot predict the impact of future exchange rate fluctuations on the results of its operations and it may experience economic losses as a result of foreign currency exchange rate fluctuations.

Transactions of ACM's subsidiaries involving foreign currencies are recorded in functional currency according to the rate of exchange prevailing on the date when the transaction occurs. The ending balances of the

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Company's foreign currency accounts are converted into functional currency using the rate of exchange prevailing at the end of each reporting period. Net gains and losses resulting from foreign exchange transactions are included in the consolidated statements of operations and comprehensive income. Total exchange gain was, respectively, $408 and $383 for the six months ended June 30, 2017 and 2016 and $746 and $659 for the years ended December 31, 2016 and 2015.

In accordance with FASB ASC Topic 830, *Foreign Currency Matters*, the Company translates assets and liabilities into U.S. dollars from RMB using the rate of exchange prevailing at the applicable balance sheet date and the consolidated statements of operations and comprehensive income and consolidated statements of cash flows are translated at an average rate during the reporting period. Adjustments resulting from the translation are recorded in stockholders' (deficit) equity as part of accumulated other comprehensive income (loss). Any differences between the initially recorded amount and the settlement amount are recorded as a gain or loss on foreign currency transaction in the consolidated statements of operations and comprehensive income.

Translations of amounts from RMB into U.S. dollars were made at the following exchange rates for the respective dates and periods:

Consolidated balance sheets:	
At June 30, 2017	RMB 6.7751 to $1.00
At December 31, 2016	RMB 6.9348 to $1.00
At December 31, 2015	RMB 6.4936 to $1.00
Consolidated statements of operations and comprehensive income:	
Six months ended June 30, 2017	RMB 6.8681 to $1.00
Six months ended June 30, 2016	RMB 6.5317 to $1.00
Year ended December 31, 2016	RMB 6.6401 to $1.00
Year ended December 31, 2015	RMB 6.2284 to $1.00

Income Taxes

The Company accounts for income taxes using the liability method whereby deferred tax asset and liability account balances are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable values.

In evaluating the ability to recover its deferred income tax assets, the Company considers all available positive and negative evidence, including its operating results, ongoing tax planning and forecasts of future taxable income on a jurisdiction-by-jurisdiction basis. In the event the Company determines that it would be able to realize its deferred income tax assets in the future in excess of their net recorded amount, it would make an adjustment to the valuation allowance that would reduce the provision for income taxes. Conversely, in the event that all or part of the net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made.

Tax benefits related to uncertain tax positions are recognized when it is more likely than not that a tax position will be sustained during an audit. Interest and penalties related to unrecognized tax benefits are included within the provision for income tax.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Basic and Diluted Net Income (Loss) per Common Share

Basic and diluted net income (loss) per common share are calculated as follows:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
Numerator:				
Net income (loss)	$ (2,955)	$ (1,029)	$ 2,387	$ 7,915
Net income (loss) attributable to non-controlling interest	(208)	(476)	1,356	2,535
Net income allocated to participating securities	—	—	386	2,317
Net income (loss) available to common stockholders, basic and diluted	$ (2,747)	$ (553)	$ 645	$ 3,063
Denominator:				
Weighted average shares outstanding, basic	4,927,973	2,061,339	2,176,315	2,047,383
Effect of dilutive securities: Stock options	—	—	1,615,822	1,096,737
Weighted average shares outstanding, diluted	4,927,973	2,061,339	3,792,137	3,144,120
Net income (loss) per common share:				
Basic	$ (0.56)	$ (0.27)	$ 0.30	$ 1.50
Diluted	$ (0.56)	$ (0.27)	$ 0.18	$ 0.97

Basic and diluted net income (loss) per common share is presented using the two-class method, which allocates undistributed earnings to common stock and any participating securities according to dividend rights and participation rights on a proportionate basis. Under the two-class method, basic net income (loss) per common share is computed by dividing the sum of distributed and undistributed earnings attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Shares of ACM's Series A, B, C, D and F convertible preferred stock are participating securities, as the holders are entitled to participate in and receive the same dividends as may be declared for common stockholders on a pro-rata, if-converted basis.

ACM has been authorized to issue Class A and Class B common stock since redomesticating in Delaware in November 2016. The two classes of common stock are substantially identical in all material respects, except for voting rights. Since ACM did not declare any dividends for the six months ended June 30, 2017 or the year ended December 31, 2016, the net income (loss) per common share attributable to each class is the same under the "two-class" method. As such, the two classes of common stock have been presented on a combined basis in the consolidated statements of operations and comprehensive (loss) income and in the above computation of net income (loss) per common share.

Diluted net income (loss) per common share reflects the potential dilution from securities that could share in ACM's earnings. All potential dilutive securities, including potentially dilutive convertible preferred stocks and stock options, if any, were excluded from the computation of dilutive net loss per common share for the six

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

months ended June 30, 2017 and 2016, as their effects are antidilutive due to our net loss for those periods. The potentially dilutive securities that were not included in the calculation of diluted net income per share in the periods presented where their inclusion would be anti-dilutive are as follows:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
Series A convertible preferred stock	128,334	128,334	128,334	128,334
Series B convertible preferred stock	524,003	524,003	524,003	524,003
Series C convertible preferred stock	482,288	482,288	482,288	453,666
Series D convertible preferred stock	605,244	605,244	605,244	442,226
Series F convertible preferred stock	1,221,099	—	1,221,099	—
Stock options	3,489,959	2,996,686	1,424,596	—
Warrant	397,502	—	—	—
	6,848,429	4,736,555	4,385,564	1,548,229

Comprehensive Income (Loss) Attributable to the Company

The Company applies FASB ASC Topic 220, *Comprehensive Income*, which establishes standards for the reporting and display of comprehensive income or loss, requiring its components to be reported in a financial statement with the same prominence as other financial statements. The comprehensive income (loss) attributable to the Company was $(2,581), $(636), $704 and $5,202 for the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, respectively.

Appropriated Retained Earnings

The income of ACM's PRC subsidiaries is distributable to their shareholders after transfers to reserves as required under relevant PRC laws and regulations and the subsidiaries' Articles of Association. As stipulated by the relevant laws and regulations in the PRC, the PRC subsidiaries are required to maintain reserves, including reserves for statutory surpluses and public welfare funds that are not distributable to shareholders. A PRC subsidiary's appropriations to the reserves are approved by its board of directors. At least 10% of annual statutory after-tax profits, as determined in accordance with PRC accounting standards and regulations, is required to be allocated to the statutory surplus reserves. If the cumulative total of the statutory surplus reserves reaches 50% of a PRC subsidiary's registered capital, any further appropriation is optional.

Statutory surplus reserves may be used to offset accumulated losses or to increase the registered capital of a PRC subsidiary, subject to approval from the relevant PRC authorities, and are not available for dividend distribution to the subsidiary's shareholders. The PRC subsidiaries are prohibited from distributing dividends unless any losses from prior years have been offset. Except for offsetting prior years' losses, however, statutory surplus reserves must be maintained at a minimum of 25% of share capital after such usage. No retained earnings of either PRC subsidiary had been appropriated to statutory surplus reserves as the PRC subsidiaries recorded accumulated losses as of June 30, 2017 and December 31, 2016 and 2015.

Unaudited Pro Forma Balance Sheet and Basic and Diluted Net Income (Loss) per Common Share

The unaudited pro forma consolidated balance sheet as of June 30, 2017 gives effect to the automatic conversion of all of the Company's outstanding redeemable convertible preferred stock into shares of Class A

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

common stock, which will occur upon completion of an IPO of common stock with aggregate proceeds of at least $20,000 and a per share price of at least $15.00. The unaudited pro forma consolidated balance sheet was prepared as though the completion of the IPO had occurred on June 30, 2017.

Pro forma net income per share applicable to common stockholders is computed using the weighted-average number of common shares outstanding after giving effect to the conversion of all the outstanding convertible redeemable preferred stock into shares of Class A common stock as if such conversion had occurred at the beginning of the period presented, or the date of original issuance, if later.

Fair Value of Financial Instruments

Under the FASB's authoritative guidance on fair value measurements, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining the fair value, the Company uses various methods including market, income and cost approaches. Based on these approaches, the Company often utilizes certain assumptions that market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. These inputs can be readily observable, market corroborated or generally unobservable inputs. The Company uses valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based on observability of the inputs used in the valuation techniques, the Company is required to provide the following information according to the fair value hierarchy. The fair value hierarchy ranks the quality and reliability of the information used to determine fair values. Financial assets and liabilities carried at fair value are classified and disclosed in one of the following three categories:

Level 1: Valuations for assets and liabilities traded in active exchange markets. Valuations are obtained from readily available pricing sources for market transactions involving identical assets or liabilities.

Level 2: Valuations for assets and liabilities traded in less active dealer or broker markets. Valuations are obtained from third party pricing services for identical or similar assets or liabilities.

Level 3: Valuations for assets and liabilities that are derived from other valuation methodologies, including option pricing models, discounted cash flow models and similar techniques, and not based on market exchange, dealer or broker traded transactions. Level 3 valuations incorporate certain unobservable assumptions and projections in determining the fair value assigned to such assets.

All transfers between fair value hierarchy levels are recognized by the Company at the end of each reporting period. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, an investment's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement in its entirety requires judgment, and considers factors specific to the investment. The inputs or methodology used for valuing financial instruments are not necessarily an indication of the risks associated with investment in those instruments.

Fair Value Measured or Disclosed on a Recurring Basis

Short-term borrowings—Interest rates under the borrowing agreements with the lending parties were determined based on the prevailing interest rates in the market. The Company classifies the valuation techniques that use these inputs as Level 2 fair value measurement.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Warrant liability—The fair value of the warrant liability derives from the Black-Scholes valuation model which incorporates certain unobservable assumptions (note 10). The Company classifies the valuation techniques that use these inputs as Level 3 fair value measurement.

Other financial items for disclosure purpose—The fair value of other financial items of the Company for disclosure purpose, including cash and cash equivalents, accounts receivable, other receivables, prepaid expenses, other current assets, notes payable, investors' deposits, accounts payable, advances from customers, income taxes payable, and other payables and accrued expenses, approximate their carrying value due to their short-term nature.

As of June 30, 2017 and December 31, 2016 and 2015, information about inputs into the fair value measurement of the Company's liabilities that are measured and recorded at fair value on a recurring basis in periods subsequent to their initial recognition is as follows:

	Fair Value Measurement at Reporting Date Using			
	Quoted Prices in Active Markets for Identical Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
		(in thousands)		
As of June 30, 2017 (unaudited):				
Liabilities:				
Short-term borrowings (unaudited)	$ —	$ 4,584	$ —	$4,584
Warrant liability (unaudited)	—	—	2,970	2,970
	—	4,584	2,970	7,554
As of December 31, 2016:				
Liabilities:				
Short-term borrowings	$ —	$ 4,761	$ —	$4,761
As of December 31, 2015:				
Liabilities:				
Short-term borrowings	$ —	$ 6,854	$ —	$6,854

Fair Value Measured on a Non-Recurring Basis

The Company reviews long-lived assets for impairment annually or more frequently if events or changes in circumstances indicate the possibility of impairment. Long-lived assets are measured at fair value on a nonrecurring basis when there is an indicator of impairment, and they are recorded at fair value only when impairment is recognized. In determining the fair value, the Company used projections of cash flows directly associated with, and which are expected to arise as a direct result of, the use and eventual disposition of the assets. This approach required significant judgments including the Company's projected net cash flows, which were derived using the most recent available estimate for the reporting unit containing the assets tested. Several key assumptions included periods of operation, projections of product pricing, production levels, product costs, market supply and demand, and inflation.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Reclassification of Accounts

Certain prior year's amounts have been reclassified to conform to current year presentations. There was no change to previously reported stockholders' deficit or net income.

Recent Accounting Pronouncements

Accounting Pronouncements Recently Adopted in the Consolidated Financial Statements for the Six Months Ended June 30, 2017

In April 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-09, *Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*, which simplifies several aspects of the accounting for employee stock-based payment transactions. The areas for simplification in ASU No. 2016-09 include the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The amendments in this ASU were effective for annual periods beginning after December 15, 2016 and interim periods within those annual periods. The adoption of ASU No. 2016-09 did not have a material impact on the Company's consolidated financial statements.

In November 2015, the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*. Topic 740, *Income Taxes*, requires an entity to separate deferred income tax liabilities and assets into current and noncurrent amounts in a classified statement of financial position. Deferred tax liabilities and assets are classified as current or noncurrent based on the classification of the related asset or liability for financial reporting. Deferred tax liabilities and assets that are not related to an asset or liability for financial reporting are classified according to the expected reversal date of the temporary difference. To simplify the presentation of deferred income taxes, the amendments in ASU No. 2015-17 require that deferred income tax liabilities and assets be classified as noncurrent in a classified statement of financial position. For public business entities, the amendments in this update are effective for financial statements issued for annual periods beginning after December 15, 2016, and interim periods within those annual periods. The adoption of ASU No. 2015-17 did not have a material impact on the Company's consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*. The amendments in this update require an entity to measure inventory within the scope of ASU No. 2015-11 (the amendments in ASU No. 2015-11 do not apply to inventory that is measured using last-in, first-out or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out or average cost) at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is uncharged for inventory measured using last-in, first-out or the retail inventory method. The amendments in ASU No. 2015-11 more closely align the measurement of inventory in GAAP with the measurement of inventory in International Financial Reporting Standards. ASU No. 2015-11 is effective for public business entities for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The amendments in ASU No. 2015-11 should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The adoption of ASU No. 2015-11 did not have a material impact on the Company's consolidated financial statements. The relevant descriptions have been included in the inventory accounting policy.

In August 2014, the FASB issued ASU No. 2014-15, *Presentation of Financial Statements—Going Concern*. The amendments in this update require management to evaluate whether there are conditions and

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

events that raise substantial doubt about an entity's ability to continue as a going concern for both annual and interim reporting. The guidance is effective for the Company for the annual period ended after December 15, 2016 and interim periods thereafter. Management performed an evaluation of the Company's ability to fund operations and to continue as a going concern according to ASC Topic 205-40, *Presentation of Financial Statements—Going Concern*. The adoption of ASU No. 2014-15 did not have a material impact on the Company's consolidated financial statements.

Recent Accounting Pronouncements Not Yet Adopted

In July 2017, the FASB issued ASU No. 2017-11, *Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception*, which addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. For public business entities, the amendments in Part I of this Update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. For all other entities, the amendments in Part I of this Update are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. The Company is currently evaluating the impact of the adoption of ASU No. 2017-11 on its consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting*, which provides guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. The amendments in this ASU are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period, for (1) public business entities for reporting periods for which financial statements have not yet been issued and (2) all other entities for reporting periods for which financial statements have not yet been made available for issuance. The amendments in this ASU should be applied prospectively to an award modified on or after the adoption date. The Company does not expect the adoption of ASU No. 2017-09 to have a material impact on its consolidated financial statements.

In February 2017, the FASB issued ASU No. 2017-05, *Other Income—Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets*, which clarifies the scope of nonfinancial asset guidance in Subtopic 610-20. This ASU also clarifies that derecognition of all businesses and nonprofit activities (except those related to conveyances of oil and gas mineral rights or contracts with customers) should be accounted for in accordance with the derecognition and deconsolidation guidance in Subtopic 810-10. The amendments in this ASU also provide guidance on the accounting for so-called "partial sales" of nonfinancial assets within the scope of Subtopic 610-20 and contributions of nonfinancial assets to a joint venture or other noncontrolled investee. The amendments in this ASU are effective for annual reporting reports beginning after December 15, 2017, including interim reporting periods within that reporting period. The Company does not expect the adoption of ASU No. 2017-05 to have a material impact on its consolidated financial statements.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, which removes Step 2 from the goodwill impairment test. An entity will apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit's carrying amount over its fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The new guidance does not amend the optional qualitative assessment of goodwill impairment. A business entity that is a U.S. Securities and Exchange Commission filer must adopt the amendments in this ASU for its annual or any interim goodwill impairment test in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the impact of the adoption of ASU 2017-04 on its consolidated financial statements.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*, which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this ASU do not provide a definition of restricted cash or restricted cash equivalents. The amendments in this ASU are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. The Company does not expect the adoption of ASU No. 2016-18 to have a material impact on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, which addresses the following cash flow issues: (1) debt prepayment or debt extinguishment costs; (2) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; (3) contingent consideration payments made after a business combination; (4) proceeds from the settlement of insurance claims; (5) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; (6) distributions received from equity method investees; (7) beneficial interests in securitization transactions; and (8) separately identifiable cash flows and application of the predominance principle. The amendments in this ASU are effective for public business entities for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years and are effective for all other entities for fiscal years beginning after December 15, 2018 and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating the impact of the adoption of ASU No. 2016-15 on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The amendments in this update create Topic 842, *Leases*, and supersede the leases requirements in Topic 840, *Leases*. Topic 842 specifies the accounting for leases. The objective of Topic 842 is to establish the principles that lessees and lessors shall apply to report useful information to users of financial statements about the amount, timing, and uncertainty of cash flows arising from a lease. The main difference between Topic 842 and Topic 840 is the recognition of lease assets and lease liabilities for those leases classified as operating leases under Topic 840. Topic 842 retains a distinction between finance leases and operating leases. The classification criteria for distinguishing between finance leases and operating leases are substantially similar to the classification criteria for distinguishing between capital leases and operating leases in the previous leases guidance. The result of retaining a distinction

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

between finance leases and operating leases is that under the lessee accounting model in Topic 842, the effect of leases in the statement of comprehensive income and the statement of cash flows is largely unchanged from previous GAAP. The amendments in ASU No. 2016-02 are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years for public business entities. Early application of the amendments in ASU No. 2016-02 is permitted. The Company is currently in the process of evaluating the impact of the adoption of ASU No. 2016-02 on its consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*. ASU No. 2014-09 supersedes the revenue recognition requirements in "*Revenue Recognition (Topic 605)*", and requires entities to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. The FASB issued ASU No. 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date* in August 2015. The amendments in ASU No. 2015-14 defer the effective date of ASU No. 2014-09. Public business entities, certain not-for-profit entities, and certain employee benefit plans should apply the guidance in ASU No. 2014-09 to annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. Earlier adoption is permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. Further to ASU No. 2014-09 and ASU No. 2015-14, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)* in March 2016, ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing* in April 2016, ASU No. 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*, and ASU No. 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*, respectively. The amendments in ASU No. 2016-08 clarify the implementation guidance on principal versus agent considerations, including indicators to assist an entity in determining whether it controls a specified good or service before it is transferred to the customers. ASU No. 2016-10 clarifies guideline related to identifying performance obligations and licensing implementation guidance contained in the new revenue recognition standard. The updates in ASU No. 2016-10 include targeted improvements based on input the FASB received from the Transition Resource Group for Revenue Recognition and other stakeholders. It seeks to proactively address areas in which diversity in practice potentially could arise, as well as to reduce the cost and complexity of applying certain aspects of the guidance both at implementation and on an ongoing basis. ASU No. 2016-12 addresses narrow-scope improvements to the guidance on collectability, non-cash consideration, and completed contracts at transition. Additionally, the amendments in this ASU provide a practical expedient for contract modifications at transition and an accounting policy election related to the presentation of sales taxes and other similar taxes collected from customers. The amendments in ASU No. 2016-20 represents changes to make minor corrections or minor improvements to the Codification that are not expected to have a significant effect on current accounting practice or create a significant administrative cost to most entities. The effective date and transition requirements for ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12 and ASU No. 2016-20 are the same as ASU No. 2014-09. The Company will adopt ASU No. 2014-09, ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12 and ASU No. 2016-20 at January 1, 2018 if the IPO is completed by December 31, 2017. The Company is currently in the process of assessing the potential effects of these ASUs on its consolidated financial statements, business processes, systems and controls. While the assessment process is ongoing, the Company anticipates adopting ASC Topic 606, *Revenue from Contracts with Customers*, using the modified retrospective transition approach. Under this approach, ASC Topic 606 would apply to all new contracts initiated on or after January 1, 2018. For existing contracts that have remaining obligations as of January 1, 2018, any difference between the recognition criteria in these ASUs and the Company's current revenue recognition

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

practices would be recognized using a cumulative effect adjustment to the opening balance of accumulated deficit. The Company does not expect the adoption of these ASUs to have a material impact on its consolidated financial statements.

NOTE 3 – ACCOUNTS RECEIVABLE

At June 30, 2017 and December 31, 2016 and 2015, accounts receivable consisted of the following:

	June 30, 2017	December 31, 2016	December 31, 2015
Accounts receivable	$ 12,310	$ 16,026	$ 12,186
Less: Allowance for doubtful accounts	—	—	(116)
Total	$ 12,310	$ 16,026	$ 12,070

The Company reviews accounts receivable on a periodic basis and makes general and specific allowances when there is doubt as to the collectability of individual balances. The movements of allowance for doubtful accounts for the six months ended June 30, 2017 and the years ended December 31, 2016 and 2015 are as follows:

	Six Months Ended June 30,		Year Ended December 31,	
	2017	2016	2016	2015
Balance at beginning of period	$ —	$ 116	$ 116	$116
Additions	—	—	—	—
Write-off	—	—	(116)	—
Balance at end of period	$ —	$ 116	$ —	$116

As of December 31, 2015, the Company had pledged its accounts receivable of $6,670 as security under a short-term bank loan, which was paid during the year ended December 31, 2016 (note 6). As of June 30, 2017 and December 31, 2016, no accounts receivable were pledged as collateral for borrowings from financial institutions.

NOTE 4 – INVENTORY

At June 30, 2017 and December 31, 2016 and 2015, inventory consisted of the following:

	June 30, 2017	December 31, 2016	December 31, 2015
Raw materials	$ 7,662	$ 7,698	$4,454
Work in process	3,307	1,260	878
Finished goods	3,137	2,708	3,814
Total inventory, gross	14,106	11,666	9,146
Inventory reserve	—	—	—
Total inventory, net	$14,106	$11,666	$9,146

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

The Company did not set up any inventory reserve as of June 30, 2017 or December 31, 2016 or 2015. As of June 30, 2017 and December 31, 2016 and 2015, no inventory was pledged as collateral for borrowings from financial institutions.

NOTE 5 – PROPERTY, PLANT AND EQUIPMENT, NET

At June 30, 2017 and December 31, 2016 and 2015, property, plant and equipment consisted of the following:

	June 30, 2017	December 31, 2016	December 31, 2015
Manufacturing equipment	$ 8,768	$ 8,566	$ 9,810
Office equipment	439	410	549
Transportation equipment	196	191	181
Leasehold improvement	235	224	79
Total cost	9,638	9,391	10,619
Less: Total accumulated depreciation	(7,849)	(7,562)	(8,857)
Construction in progress	444	433	8
Total property, plant and equipment, net	$ 2,233	$ 2,262	$ 1,770

Depreciation expense was $107, $88, $180 and $140 for the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, respectively.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

NOTE 6 – SHORT-TERM BORROWINGS

At June 30, 2017 and December 31, 2016 and 2015, short-term borrowings consisted of the following:

	June 30, 2017	December 31, 2016	December 31, 2015
Line of credit up to $3,850 from Bank of Shanghai Pudong Branch, due on August 6, 2016 with annual interest rate of 5.35%, guaranteed by David H. Wang, the chief executive officer and a director of ACM ("Wang") and fully repaid on February 3, 2016	$ —	$ —	$3,850
Borrowings from Shanghai Rural Commercial Bank Co., Ltd., due on September 14, 2016 with annual interest rate of 5.52%, guaranteed by Wang and secured by the Company's accounts receivable of $6,760 and fully repaid on September 12, 2016	—	—	3,004
Borrowings from Bank of China, due on February 10, 2017 with annual interest rate of 4.8%, secured by certain of the Company's intellectual property and fully repaid on February 13, 2017	—	1,222	—
Borrowings from Bank of Shanghai Pudong Branch, due on June 24, 2017 with an annual interest rate of 5.66%, guaranteed by Wang and fully repaid on June 25, 2017	—	281	—
Line of credit up to $3,605 from Bank of Shanghai Pudong Branch, due on July 3, 2017 with an annual interest rate of 5.66%, guaranteed by Wang and fully repaid on May 18, 2017	—	1,455	—
Line of credit up to $3,670 from Bank of Shanghai Pudong Branch, due on July 3, 2017 with an annual interest rate of 3.2%, guaranteed by Wang and fully repaid on June 7, 2017	—	1,803	—
Borrowings from Bank of China, due on July 2, 2017 with annual interest rate of 4.8%, secured by the Company's intellectual property and fully repaid on July 3, 2017	3,173	—	—
Line of credit up to RMB 25,000 or equivalent US dollars from Bank of Shanghai Pudong Branch, due on September 19, 2017 with an annual interest rate of 5.66%, guaranteed by Wang	714	—	—
Line of credit up to RMB 25,000 or equivalent US dollars from Bank of Shanghai Pudong Branch, due on October 5, 2017 with an annual interest rate of 5.66%, guaranteed by Wang	697	—	—
Total	$4,584	$4,761	$6,854

For the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, interest expense related to short-term borrowings amounted to $164, $111, $179 and $316, respectively.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

NOTE 7 – OTHER PAYABLE AND ACCRUED EXPENSES

At June 30, 2017 and December 31, 2016 and 2015, other payable and accrued expenses consisted of the following:

	June 30, 2017	December 31, 2016	December 31, 2015
Lease expenses and payable for leasehold improvement due to a related party (note 12)	$1,982	$1,883	$2,070
Commissions	766	757	737
Accrued warranty	419	290	459
Accrued payroll	—	398	398
Accrued professional fees	752	46	—
Others	854	589	439
Total	$4,773	$3,963	$4,103

NOTE 8 – NOTES PAYABLE

Notes payable consists of convertible promissory notes and term loans. As of June 30, 2017 and December 31, 2016 and 2015, the outstanding principal and accrued interest with respect to the convertible promissory notes and the term notes consisted of the following:

	June 30, 2017	December 31, 2016	December 31, 2015
Convertible promissory notes:			
Issued in 2003 and due on October 10, 2008	$ —	$—	$ 780
Issued in 2004 and due on June 10, 2009	—	—	498
Issued in 2006 and due on November 8, 2011	11	11	1,291
Total principal and accrued interest of convertible promissory notes	11	11	2,569
Term notes:			
Issued in 2004 and due on March 31, 2004	—	—	92
Issued in 2013 and due on March 26, 2014	—	—	112
Issued in 2014 and due in March 2015	—	—	64
Total principal and accrued interest of term notes	—	—	268
Total	$ 11	$ 11	$2,837

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Of the outstanding promissory notes described in the preceding table, the following amounts of principal and accrued interest pertain to notes held by related parties of the Company:

	June 30, 2017	December 31, 2016	December 31, 2015
Convertible promissory notes:			
Issued in 2003 and due on October 10, 2008	$ —	$—	$158
Issued in 2004 and due on June 10, 2009	—	—	80
Issued in 2006 and due on November 8, 2011	4	4	262
Total principal and accrued interest of convertible promissory notes	4	4	500
Term notes:			
Issued in 2004 and due on March 31, 2004	—	—	92
Issued in 2013 and due on March 26, 2014	—	—	112
Issued in 2014 and due in March 2015	—	—	64
Total principal and accrued interest of term notes	—	—	268
Total	$ 4	$ 4	$768

During 2003, 2004 and 2006, ACM issued convertible promissory notes in the principal amount of $542, $401 and $1,084, respectively. The convertible promissory notes bare interest at the rate of 6% per annum computed on the basis of a 360-day year and the actual number of days elapsed until maturity, which is five years after issuance. Upon ACM's issuance and sale of a new series of preferred stock, principal and accrued interest on the notes were to automatically convert into shares of the new series of preferred stock at a conversion price equal to the price per share of the new preferred stock to new investors.

In conjunction with the convertible promissory notes, each convertible promissory noteholder was granted, for every dollar of principal amount of convertible promissory notes, one warrant to purchase two to four shares of common stock at an exercise price of $0.72 to $ 0.75 per share. The warrants are exercisable until the earlier of (1) five years after the warrant issue date and (2) the occurrence of a merger or consolidation of ACM or ACM's sale, transfer or other disposition of all or substantially all of ACM's assets.

The Company accounted for the convertible promissory notes and warrants in accordance with FASB ASC paragraph 470-20-25, *Debt – Debt With Conversion and Other Options*. Proceeds from the issuance of promissory notes and warrants were allocated to the two elements based on the relative fair values of the convertible promissory notes without the warrants and of the warrants themselves at time of issuance. The Company did not identify any derivative liabilities and beneficial conversion features.

During 2004, 2005, 2013 and 2014, ACM issued term notes in the aggregate principal amounts of $53, $200, $100 and $60, respectively. All of such term notes were issued to Wang and one other director, except that $140 in principal amount of the term notes issued in 2005 were issued to third parties. The term notes bore interest at 6% per annum and became due three months after the note issuance date. The $200 in principal amount of term notes issued in 2005, together with $4 in accrued interest, were exchanged for convertible promissory notes in 2006.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

As of December 31, 2015, no convertible promissory notes had been converted into preferred stock as no new series of preferred stock had been issued and sold and all warrants expired as no warrant holder exercised the warrants.

During 2016, the Company modified the terms of the convertible promissory notes and provided the note holders with the option of converting the principal amount of their convertible promissory notes into Class A common stock at $0.75 or $1.50 per share on the condition that they agree to waive all accrued interest. For those holders who did not elect to convert their notes into Class A common stock, the principal of, and accrued interest on, their convertible promissory notes were converted into Series F convertible preferred stock at $2.50 per share. The convertible promissory notes converted into 1,812,069 shares of Class A common stock and 47,454 shares of Series F convertible preferred stock on December 30, 2016. Net loss due to extinguishment of debt from these conversions totaled $1,670 during 2016. The balance of $11 of notes payable at June 30, 2017 and December 31, 2016 represented accrued interest that ACM was liable to pay to convertible promissory note holders.

NOTE 9 – INVESTORS' DEPOSITS

On December 9, 2016, Shengxin (Shanghai) Management Consulting Limited Partnership ("SMC"), a related party (note 12), delivered RMB 20,124 (approximately $2,981 as of the close of business on such date) in cash (the "SMC Investment") to ACM Shanghai for potential investment pursuant to terms to be subsequently negotiated. On March 14, 2017, ACM, ACM Shanghai and SMC entered into a securities purchase agreement pursuant to which, in exchange for the SMC Investment, ACM issued to SMC a warrant exercisable to purchase 397,502 shares of ACM's Class A common stock at a price of $7.50 per share. (note 10).

NOTE 10 – WARRANT LIABILITY

On December 9, 2016, SMC delivered the SMC Investment to ACM Shanghai for potential investment pursuant to terms to be subsequently negotiated. As of December 31, 2016, the terms of the SMC Investment had not yet been negotiated and the SMC Investment was recorded as investors' deposit.

On March 14, 2017, ACM, ACM Shanghai and SMC entered into a securities purchase agreement (the "SMC Agreement") pursuant to which, in exchange for the SMC Investment, ACM issued to SMC a warrant exercisable, for cash or on a cashless basis, to purchase, at any time on or before May 17, 2023, all, but not less than all, of 397,502 shares of ACM's Class A common stock at a price of $7.50 per share. Under the SMC Agreement, if SMC does not exercise the warrant by May 17, 2023, ACM Shanghai will be obligated, subject to approval of governmental authorities and ACM Shanghai's equity holders, to deliver an equity interest of 3.6394% (subject to dilution) in satisfaction of the SMC Investment. If SMC exercises the warrant or if SMC does not exercise the warrant and the issuance of the equity interest in ACM Shanghai is not completed by August 17, 2023 due to the inability of the parties to obtain required governmental or equity holder approvals, then ACM Shanghai will be obligated to pay to SMC, in satisfaction of the SMC Investment, an amount equal to $2,981, converted into RMB at the lesser of 6.75 and the then-current RMB-to- US dollar exchange rate.

In accordance with FASB ASC 480, *Distinguishing Liabilities from Equity*, the warrant is classified as a liability as the warrant is conditional puttable. The fair value of the warrant is adjusted for changes in fair value at each reporting period but cannot be lower than the proceeds of the SMC Investment. The corresponding

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

non-cash gain or loss of the changes in fair value is recorded in earnings. The methodology used to value the warrant was the Black-Scholes valuation model with the following assumptions:

	June 30, 2017
Fair value of common share (1)	$ 7.59
Expected term in years (2)	5.88
Volatility (3)	28.31%
Risk-free interest rate (4)	1.85%
Expected dividend (5)	0%

(1) As the common stock was not publicly traded, the Company used an independent third-party valuation firm to value the common stock for the six months ended June 30, 2017.
(2) Expected term of the warrant represents the period from the current balance sheet date to the warrant expiration date.
(3) Volatility is calculated based on the historical volatility of ACM's comparable companies in the period equal to the expected term of the warrant.
(4) Risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the warrant.
(5) Expected dividend is assumed to be 0% as ACM has no history or expectation of paying a dividend on its common stock.

NOTE 11 – OTHER LONG-TERM LIABILITIES

Other long-term liabilities represent government subsidies received from PRC governmental authorities for development and commercialization of certain technology but not yet recognized (note 2). As of June 30, 2017 and December 31, 2016 and 2015, other long-term liabilities consisted of the following unearned government subsidies:

	June 30, 2017	December 31, 2016	December 31, 2015
Subsidies to Stress Free Polishing project, commenced in 2008	$ 1,938	$ 1,958	$ 1,836
Subsidies to Electro Copper Plating project, commenced in 2014	5,338	4,921	5,250
Subsidies to short-term borrowings' interest expenses	—	—	101
Total	$ 7,276	$ 6,879	$ 7,187

NOTE 12 – RELATED PARTY BALANCES AND TRANSACTIONS

In 2007, ACM Shanghai entered into an operating lease agreement with Shanghai Zhangjiang Group Co., Ltd. ("Zhangjiang Group"), one of whose affiliates then held non-controlling interests in ACM Shanghai, to lease manufacturing and office space located in Shanghai, China. Pursuant to the lease agreement, Zhangjiang Group provided $771 to ACM Shanghai for leasehold improvements. In September 2016, the lease agreement was amended to modify payment terms and extend the lease through December 31, 2017. During the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, the Company incurred leasing expenses under the lease agreement of $321, $330, $640 and $692, respectively. As of June 30, 2017 and

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

December 31, 2016 and 2015, payables to Zhangjiang Group for lease expenses and leasehold improvements recorded as other payables and accrued expenses, amounted to $1,982, $1,883 and $2,070, respectively (note 7).

Prior to 2015, the Company issued convertible promissory notes and term loans to Wang (note 8).

On December 9, 2016, ACM Shanghai received the SMC Investment from SMC for potential investment pursuant to terms to be subsequently negotiated (notes 9, 10 and 20). SMC is a limited partnership incorporated in the PRC, whose partners consist of employees of ACM Shanghai. As of June 30, 2017 and December 31, 2016 and 2015, investors' deposits from SMC amounted to $0, $2,902 and $0, respectively. On March 14, 2017, ACM, ACM Shanghai and SMC entered into a securities purchase agreement (the "SMC Agreement") pursuant to which, in exchange for the SMC Investment, ACM issued to SMC a warrant exercisable, for cash or on a cashless basis, to purchase, at any time on or before May 17, 2023, all, but not less than all, of 397,502 shares of ACM's Class A common stock at a price of $7.50 per share, for a total exercise price of $2,981. Under the SMC Agreement, if SMC does not exercise the warrant by May 17, 2023, ACM Shanghai will be obligated, subject to approval of governmental authorities and ACM Shanghai's equity holders, to deliver an equity interest of 3.6394% (subject to dilution) in satisfaction of the SMC Investment. If SMC exercises the warrant or if SMC does not exercise the warrant and the issuance of the equity interest in ACM Shanghai is not completed by August 17, 2023 due to the inability of the parties to obtain required governmental or equity holder approvals, then ACM Shanghai will be obligated to pay to SMC, in satisfaction of the SMC Investment, an amount equal to $2,981, converted into RMB at the lesser of 6.75 and the then-current RMB-to-US dollar exchange rate.

NOTE 13 – LEASES

ACM entered into a two-year lease agreement in March 2015 for office and warehouse space of approximately 3,000 square feet for its headquarters in Fremont, California, at a rate of $2 per month. On March 22, 2017, ACM amended the lease agreement to extend the lease term through March 31, 2018 and increase the base rent to $3 per month.

ACM Shanghai entered into an operating lease agreement with Zhangjiang Group (a related party, see note 12) in 2007 for manufacturing and office space of approximately 63,510 square feet in Shanghai, China. The lease agreement has been amended several times to modify payment terms and extend the lease term, most recently through December 31, 2017. Monthly rent is $58 during 2017 and 2016.

ACM Wuxi leases office space in Wuxi, China, at a rate of less than $1 per month.

Future minimum lease payments under non-cancelable lease agreements as of June 30, 2017 and December 31, 2016 were as follows:

	June 30, 2017	December 31, 2016
2017	$2,318	$ 2,538
2018	8	8
Total	$2,326	$ 2,546

Rent expense was $336, $342, $675 and $718 for the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, respectively.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

NOTE 14 – COMMON STOCK

Prior to the Merger in November 2016, ACM was authorized to issue 100,000,000 shares of common stock, without par value. Each share of common stock entitled the holder to one vote on all matters submitted to a vote by ACM's stockholders. Common stockholders were entitled to dividends when and if declared by the Board of Directors. At December 31, 2015, there were 2,047,403 shares issued and outstanding.

Upon the Merger, ACM became authorized to issue 100,000,000 shares of Class A common stock and 7,303,533 shares of Class B common stock, each with a par value of $0.0001. Each share of Class A common stock is entitled to one vote, and each share of Class B common stock is entitled to twenty votes and is convertible at any time into one share of Class A common stock. Shares of Class A common stock and Class B common stock are treated equally, identically and ratably with respect to any dividends if declared by the Board of Directors unless the Board of Directors declares different dividends to the Class A common stock and Class B common stock by getting approval from a majority of common stock holders. Each share of ACM's common stock outstanding immediately prior to the Merger was converted into one share of Class B common stock as a result of the Merger.

At June 30, 2017 and December 31, 2016, the number of shares of Class A common stock issued and outstanding was 2,627,293 and 2,228,740, respectively, of which 1,812,069 and 1,812,069 aggregated shares derived from conversion of convertible promissory notes, and 815,224 and 416,671 aggregated shares derived from exercises of stock options, respectively. At June 30, 2017 and December 31, 2016, the number of shares of Class B common stock issued and outstanding was 2,409,738, of which 2,047,403 aggregated shares derived from conversion of the original common stock upon the Merger and 362,335 aggregated shares derived from exercises of stock options.

NOTE 15 – REDEEMABLE CONVERTIBLE PREFERRED STOCK

As of December 31, 2015, ACM had 8,157,000 authorized shares of preferred stock, of which 385,000, 1,572,000, 1,400,000 and 4,800,000 shares were designated as Series A, Series B, Series C and Series D preferred stock, respectively. On August 1, 2016, the Company amended the Articles of Incorporation and was further authorized to issue 10,718,530 shares of Series E preferred stock and 6,000,000 shares of Series F preferred stock. Upon the Merger in November 2016, the numbers of authorized shares of Series C and Series D were reduced to 1,360,962 and 2,659,975, respectively. Each share of ACM's convertible preferred stock outstanding immediately prior to the Merger was converted into one share of the same series of convertible preferred stock as a result of the Merger. Accordingly, as of December 31, 2016 and June 30, 2017, ACM had 22,696,467 authorized shares of preferred stock, of which 385,000, 1,572,000, 1,360,962, 2,659,975, 10,718,530, and 6,000,000 shares were designated as Series A, Series B, Series C, Series D, Series E and Series F preferred stock, respectively.

During the six months ended June 30, 2017, no activities occurred with respect to convertible preferred stock. During 2016, ACM issued 3,663,254 shares of Series F preferred stock, consisting of 3,615,800 shares issued at $2.50 per share for cash totaling $9,040 and 47,454 shares issued upon conversion of convertible promissory notes.

The number of outstanding shares of Series A, Series B, Series C, Series D, Series E and Series F was 385,000, 1,572,000, 1,360,962, 1,326,642, 0 and 3,663,254, respectively, at June 30, 2017 and December 31, 2016 and 385,000, 1,572,000, 1,360,962, 1,326,642, 0 and 0, respectively, at December 31, 2015.

Shares of ACM's convertible preferred stock have rights, preferences and privileges as follows:

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Voting Rights

Each share of Series A through Series F convertible preferred stock is entitled to a number of votes equal to the number of whole shares of common stock into which such share can be converted.

Dividends

Holders of Series A through Series F convertible preferred stock have a non-cumulative right to participate in and receive the same dividends as may be declared for common stockholders, as and if declared by the Board of Directors, payable out of funds legally available.

Conversion

Each share of Series A through Series F convertible preferred stock is convertible at any time, at the option of the holder. At June 30, 2017, each share of Series A, B and F convertible preferred stock was convertible into one-third share of Class A common stock, each share of Series C convertible preferred stock was convertible into 0.3544 shares of Class A common stock, and each share of Series D convertible preferred stock was convertible into 0.4562 shares of Class A common stock. The Series A through Series F convertible preferred stock will convert automatically into Class A common stock upon the closing of an initial public offering of Class A common stock with aggregate proceeds of at least $20,000 and a per-share price of at least $15.00. At June 30, 2017 and 2016 and December 31, 2016, 2,960,968 shares of Class A common stock were reserved for issuance upon conversion of outstanding Series A through Series F convertible preferred stock.

Liquidation Preferences

Holders of Series A through Series F convertible preferred stock are entitled to receive specified liquidation amounts in the event of a liquidation, dissolution or winding-up of ACM or of certain deemed liquidation events. The deemed liquidation events generally include (a) a merger or stock sale after which new stockholders would own a majority of the voting stock of ACM and (b) a sale of all or substantially all of the assets of the Company.

In the event of a liquidation, dissolution or winding-up of ACM or a deemed liquidation, the holders of Series A through Series F convertible preferred stock shall be entitled to be paid, prior to and in preference to the holders of common stock, an amount equal to $0.80, $1.00, $1.50, $3.75, $1.00 and $2.50 per share of Series A through Series F convertible preferred stock, respectively, plus any accumulated and unpaid dividends as of the redemption date.

NOTE 16 – STOCK-BASED COMPENSATION

On April 29, 1998, ACM adopted the 1998 Stock Option Plan (the “1998 Plan”). The options issued under the Plan consisted of incentive stock options (“ISOs”) and nonstatutory stock options (“NSOs”) that should be determined at the time of grant. ISOs could be granted only to employees. NSOs could be granted to employees, directors and consultants. The option price of each ISO and each NSO could not be less than 100% or less than 85% of the fair market value of stock price at the time of grant, respectively. The vesting period was to be determined by the Board of Directors for each grant. The total number of shares of common stock reserved under the 1998 Plan, as amended, was 766,667. If any option granted under the 1998 Plan expires or otherwise terminates without having been exercised in full, the shares of common stock subject to that option would become available for re-grant. At March 3, 2014, the 1998 Plan terminated and no further grants under the 1998 Plan could be made thereunder, although certain previously granted options remained outstanding in accordance with their terms.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

On December 28, 2016, ACM adopted the 2016 Omnibus Incentive Plan (the "2016 Plan"). Under the 2016 Plan, the aggregate number of shares of Class A common stock that may be issued shall equal the sum of (a) 2,333,334 and (b) an annual increase on the first day of each year beginning in 2018 and ending in 2026 equal to the lesser of (i) 4% of the shares of Class A and Class B common stock outstanding (on an as-converted basis) on the last day of the immediately preceding year and (ii) such smaller number of shares as may be determined by the Board. A maximum of 2,333,334 shares is available for issuance as ISOs under the 2016 Plan. Besides the stock options, the 2016 Plan also authorizes issuance of stock appreciation rights, restricted stock, restricted stock units, and other share-based and cash awards. The 2016 Plan will terminate on December 27, 2026.

Employee Awards

The following table summarizes ACM's employee share option activities:

	Number of Option Shares	Weighted Average Grant Date Fair Value	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding at January 1, 2015	1,000,009	$ 0.39	$ 0.75	4.23
Granted	550,003	0.66	1.50	
Exercised	—	—	—	
Expired	(50,002)	0.54	0.75	
Forfeited	—	—	—	
Outstanding at December 31, 2015	1,500,010	0.48	1.02	5.60
Granted	1,009,371	0.54	3.00	
Exercised	(409,004)	0.42	0.75	
Expired	—	—	—	
Forfeited	—	—	—	
Outstanding at December 31, 2016	2,100,377	0.54	2.03	7.83
Granted	83,334	2.58	7.50	
Exercised	(166,667)	0.45	0.75	
Expired	—	—	—	
Forfeited	(7,099)	0.54	3.00	
Outstanding at June 30, 2017	2,009,945	0.63	2.36	7.99
Vested and exercisable at December 31, 2015	942,367			
Vested and exercisable at December 31, 2016	758,708			
Vested and exercisable at June 30, 2017	821,598			

During the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, ACM recognized employee stock-based compensation expense of $128, $46, $92 and $73, respectively. As of June 30, 2017 and December 31, 2016 and 2015, $788, $726 and $299, respectively, of total unrecognized employee stock-based compensation expense, net of estimated forfeitures, related to stock-based awards were expected to be recognized over a weighted-average period of 2.12 years, 2.25 years and 1.24 years, respectively. Total unrecognized compensation cost may be adjusted for future changes in estimated forfeitures.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

The fair value of each option granted to employee is estimated on the grant date using the Black-Scholes valuation model with the following assumptions. No options were granted to employees during the six months ended June 30, 2016.

	June 30, 2017	December 31, 2016	December 31, 2015
Fair value of common share(1)	$ 7.59	$ 2.28	$ 1.59
Expected term in years(2)	6.25	5.75-6.25	6.25
Volatility(3)	29.18%	29.93%	37.67%
Risk-free interest rate(4)	2.22%	2.02%-2.32%	1.87%
Expected dividend(5)	0%	0%	0%

(1) As the common stock was not publicly traded, the Company used an independent third-party valuation firm to value the common stock in 2014, 2015, 2016 and the six months ended June 30, 2017. The fair value of common stock issued prior to January 1, 2014 was determined to be $0.75, which was the price most investors paid to purchase common stock prior to that date.
(2) Expected term of stock options is based on the average of the vesting period and the contractual term for each grant according to Staff Accounting Bulletin 110.
(3) Volatility is calculated based on the historical volatility of ACM's comparable companies in the period equal to the expected term of each grant.
(4) Risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the stock options in effect at the time of grant.
(5) Expected dividend is assumed to be 0% as ACM has no history or expectation of paying a dividend on its common stock.

In addition to the assumptions used in the Black-Scholes valuation model, the Company estimates, based on the historical turnover rate, a forfeiture rate of 10% for use in calculating the stock-based compensation for its stock-based awards.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Non-employee Awards

The following table summarizes ACM's non-employee share option activities:

	Number of Option Shares	Weighted Average Grant Date Fair Value	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding at January 1, 2015	1,036,673	$ 0.39	$ 0.75	4.60
Granted	496,670	0.66	1.50	
Exercised	—	—	—	
Expired	—	—	—	
Forfeited	—	—	—	
Outstanding at December 31, 2015	1,533,343	0.48	0.99	5.53
Granted	415,225	0.54	3.00	
Exercised	(370,003)	0.45	0.75	
Expired	—	—	—	
Forfeited	—	—	—	
Outstanding at December 31, 2016	1,578,565	0.51	1.58	6.81
Granted	133,335	2.46	7.50	
Exercised	(231,886)	0.36	0.99	
Expired	—	—	—	
Forfeited	—	—	—	
Outstanding at June 30, 2017	1,480,014	0.72	2.20	6.91
Vested and exercisable at December 31, 2015	1,006,117			
Vested and exercisable at December 31, 2016	877,097			
Vested and exercisable at June 30, 2017	789,997			

During the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015, the Company recognized non-employee stock-based compensation expense of $1,220, $148, $291 and $350, respectively.

The fair value of each option granted to non-employees is re-measured at each period end until the vesting date using the Black-Scholes valuation model with the following assumptions:

	June 30,		December 31,	
	2017	2016	2016	2015
Fair value of common share(1)	$6.87-$7.59	$1.86	$2.28	$1.59
Expected term in years(2)	4.08-6.19	2.62-5.69	2.11-6.24	3.12-5.94
Volatility(3)	28.87%-29.41%	30.59%-31.43%	29.93%	33.21%
Risk-free interest rate(4)	1.85%-2.33%	0.71%-1.21%	1.00%-2.25%	1.31%-1.76%
Expected dividend(5)	0%	0%	0%	0%

(1) As the common stock was not publicly traded, the Company used an independent third-party valuation firm to value the common stock in 2014, 2015, 2016 and the six months ended June 30, 2017. The fair value of common stock issued prior to January 1, 2014 was determined to be $0.75, which was the price most investors paid to purchase common stock prior to that date.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

(2) Expected term of share options is based on the average of the vesting period and the contractual term for each grant according to Staff Accounting Bulletin 110.
(3) Volatility is calculated based on the historical volatility of ACM's comparable companies in the period equal to the expected term of each grant.
(4) Risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the share options in effect at the time of grant.
(5) Expected dividend is assumed to be 0% as ACM has no history or expectation of paying a dividend on its common stock.

NOTE 17 – INCOME TAXES

The following represent components of the income tax benefit (expense) for the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015:

	Six Months Ended June 30,		December 31,	
	2017	2016	2016	2015
Current:				
U.S. federal	$—	$—	$ —	$ (40)
U.S. state	—	—	(1)	30
Foreign	—	—	—	—
Total current tax benefit (expense)	—	—	(1)	(10)
Deferred:				
U.S. federal	—	—	—	—
U.S. state	—	—	—	—
Foreign	(749)	73	(594)	2,535
Total deferred tax benefit (expense)	(749)	73	(594)	2,535
Total income tax benefit (expense)	$(749)	73	$(595)	2,525

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Tax effects of temporary differences that give rise to significant portions of the Company's deferred tax assets at June 30, 2017 and December 31, 2016 and 2015 are presented below:

	June 30, 2017	December 31, 2016	December 31, 2015
Deferred tax assets:			
Net operating loss carry forwards (offshore)	$1,275	$ 1,029	$ 1,568
Net operating loss carry forwards (U.S.) and credit	7,124	5,815	5,141
Deferred revenue (offshore)	589	840	1,130
Accruals (U.S.)	42	18	472
Reserves and other (offshore)	43	43	72
Stock-based compensation (U.S.)	760	342	298
Property and equipment (U.S.)	3	3	3
Total gross deferred tax assets	9,836	8,090	8,684
Less: valuation allowance	(8,713)	(6,249)	(6,148)
Total deferred tax assets	1,123	1,841	2,536
Total deferred tax liabilities	—	—	—
Translation difference	—	—	(104)
Deferred tax assets, net	$1,123	$ 1,841	$ 2,432

The Company considers all available evidence to determine whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become realizable. Management considers the scheduled reversal of deferred tax liabilities (including the impact of available carryback and carry-forward periods), and projected taxable income in assessing the realizability of deferred tax assets. In making such judgments, significant weight is given to evidence that can be objectively verified. Based on all available evidence, a partial valuation allowance has been established against some net deferred tax assets as of June 30, 2017 and December 31, 2016 and 2015, based on estimates of recoverability. While the Company has optimistic plans for its business strategy, it determined that such a valuation allowance was necessary given its historical losses and the uncertainty with respect to its ability to generate sufficient profits from its business model from all tax jurisdictions. In order to fully realize the U.S. deferred tax assets, the Company must generate sufficient taxable income in future periods before the expiration of the deferred tax assets governed by the tax code. The valuation allowance in the U.S. increased by approximately $1,811, $264 and $106 during the six months ended June 30, 2017 and the years ended December 31, 2016 and 2015, respectively. The valuation allowance in China increased by approximately $653 and decreased by $163 and $2,469 during six months ended June 30, 2017 and the years ended December 31, 2016 and 2015, respectively.

The Company did not have any significant temporary differences relating to deferred tax liabilities as of June 30, 2017 or December 31, 2016 or 2015.

As of June 30, 2017 and December 31, 2016, the Company had net operating loss carry-forwards of respectively, $18,886 and $15,037 for U.S federal purposes, $322 for U.S. state purposes and $8,409 and $6,822 for Chinese income tax purposes. Such losses are set to expire in 2019, 2032, and 2017 for U.S. federal, U.S. state and Chinese income tax purposes, respectively.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

As of June 30, 2017 and December 31, 2016, the Company had research credit carry-forwards of $606 for U.S. federal purposes, and $377 for U.S. state purposes. Such credits are set to expire in 2025 for U.S. federal carry-forwards. There is no expiration date for U.S. state carry-forwards.

A limitation may apply to the use of the U.S. net operating loss and credit carry-forwards, under provisions of the U.S. Internal Revenue Code that would be applicable if ACM experiences an "ownership change." Should these limitations apply, the carry-forwards would be subject to an annual limitation, resulting in a substantial reduction in the gross deferred tax assets before considering the valuation allowance. As of June 30, 2017 and December 31, 2016, the Company had not performed an analysis to determine if its net operating loss and credit carry-forwards would be subject to such limitations.

The Company's effective tax rate differs from statutory rates of 34% for U.S. federal income tax purposes and 15%-25% for Chinese income tax purpose due to the effects of the valuation allowance and certain permanent differences as it pertains to book-tax differences in the value of client shares received for services. Pursuant to the Corporate Income Tax Law of the PRC, all of the Company's PRC subsidiaries are liable to PRC Corporate Income Taxes at a rate of 25% except for ACM Shanghai. According to Guoshuihan 2009 No. 203, if an entity is certified as an "advanced and new technology enterprise," it is entitled to a preferential income tax rate of 15%. ACM Shanghai obtained the certificate of "advanced and new technology enterprise" in 2012 and again in 2016 with an effective period of three years, and the provision for PRC corporate income tax for ACM Shanghai is calculated by applying the income tax rate of 15% for the six months ended June 30, 2017 and 2016 and the years ended December 31, 2016 and 2015.

Income tax (expense) benefit for the six months ended June 30, 2017 and 2016 and years ended December 31, 2016 and 2015 differed from the amounts computed by applying the statutory federal income tax rate of 34% to pretax income (loss) as a result of the following:

	Six Months Ended June 30,		December 31,	
	2017	2016	2016	2015
Effective tax rate reconciliation:				
Income tax provision at statutory rate	34.0%	34.0%	(34.0)%	(34.0)%
State taxes, net of Federal benefit	0.0	0.0	0.0	0.6
Foreign rate differential	4.5	20.4	38.7	20.7
Other permanent difference	5.6	(32.4)	(20.9)	(2.0)
Change in valuation allowance	(78.0)	(16.0)	(3.8)	61.6
Total income tax (expense) benefit	(33.9)%	6.0%	(20.0)%	46.9%

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

Tax positions are evaluated in a two-step process. The Company first determines whether it is more likely than not that a tax position will be sustained upon examination. If a tax position meets the more-likely-than-not recognition threshold it is then measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured as the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement. The aggregate changes in the balance of gross unrecognized tax benefits, which excludes interest and penalties, for the six months ended June 30, 2017 and the years ended December 31, 2016 and 2015, are as follows:

	June 30, 2017	December 31, 2016	December 31, 2015
Beginning balance	$ 44	$ 44	$—
Increase/(Decrease) of unrecognized tax benefits taken in prior years	—	—	—
Increase/(Decrease) of unrecognized tax benefits related to current year	—	—	44
Increase/(Decreases) of unrecognized tax benefits related to settlements	—	—	—
Reductions to unrecognized tax benefits related to lapsing statute of limitations	—	—	—
Ending balance	$ 44	$ 44	$ 44

The Company files income tax returns in the United States, and state and foreign jurisdictions. The federal, state and foreign income tax returns are under the statute of limitations subject to tax examinations for the tax years ended December 31, 2009 through June 30, 2017. To the extent the Company has tax attribute carry-forwards, the tax years in which the attribute was generated may still be adjusted upon examination by the U.S. Internal Revenue Service, state or foreign tax authorities to the extent utilized in a future period.

The Company had $44 of unrecognized tax benefits as of June 30, 2017 and December 31, 2016 and 2015. The Company does not anticipate a significant change to its unrecognized tax benefits in the year ending December 31, 2017.

The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. As of June 30, 2017 and December 31, 2016 and 2015, the Company had $44 of accrued penalties and $0 of accrued penalties related to uncertain tax positions, none of which has been recognized in the Company's consolidated statements of operations and comprehensive income for the six months ended June 30, 2017 and the year ended December 31, 2016. There were no ongoing examinations by taxing authorities as of June 30, 2017 and December 31, 2016.

The Company intends to indefinitely reinvest the PRC earnings outside of the U.S. as of June 30, 2017 and December 31, 2016. Thus, deferred taxes are not provided in the U.S. for unremitted earnings in the PRC.

NOTE 18 – COMMITMENTS AND CONTINGENCIES

The Company leases offices under non-cancelable operating lease agreements. The rental expenses were $336, $342, $675 and $718 for the six months ended June 30, 2017 and the years ended December 31, 2016 and

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended
June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

2015, respectively. See note 13 for future minimum lease payments under non-cancelable operating lease agreements with initial terms of one year or more.

The Company did not have any capital commitments during the reported periods.

From time to time the Company is subject to legal proceedings, including claims in the ordinary course of business and claims with respect to patent infringements.

NOTE 19 – RESTRICTED NET ASSETS

In accordance with the PRC's Foreign Enterprise Law, ACM Shanghai and ACM Wuxi are required to make contributions to a statutory surplus reserve (note 2).

As a result of PRC laws and regulations that require annual appropriations of 10% of net after-tax profits to be set aside prior to payment of dividends as general reserve fund or statutory surplus fund, ACM Shanghai is restricted in its ability to transfer a portion of its net assets to ACM (including any assets received as distributions from ACM Wuxi). Amounts restricted included paid-in capital and statutory reserve funds, as determined pursuant to PRC accounting standards and regulations, were $29,927 as of June 30, 2017 and December 31, 2016 and 2015.

NOTE 20 – SUBSEQUENT EVENTS

ACM has entered into the following agreements with minority third-party investors holding a minority, or non-controlling, equity interest in ACM Shanghai, which are reflected as "non-controlling interests" in the Company's consolidated financial statements:

- In March 2017 ACM entered into a securities purchase agreement with Shanghai Science and Technology Venture Capital Co., Ltd. ("SSTVC") pursuant to which, effective as of August 31, 2017, ACM acquired SSTVC's equity interests in ACM Shanghai for a purchase price of $5,800 and issued to SSTVC 4,998,508 shares of Series E convertible preferred stock for a purchase price of $5,800.
- In August 2017 ACM entered into a securities purchase agreement with Shanghai Pudong High-Tech Investment Co., Ltd. ("PDHTI") and its subsidiary Pudong Science and Technology (Cayman) Co., Ltd. ("PST"), in which ACM agreed to bid, in an auction process mandated by PRC regulations, to purchase PDHTI's 10.78% equity interests in ACM Shanghai and to sell shares of Class A common stock to PST. On September 8, 2017, ACM issued 1,119,576 shares of Class A common stock to PST for a purchase price of $7.50 per share, representing an aggregate purchase price of $8,397.
- In August 2017 ACM entered into a securities purchase agreement with Shanghai Zhangjiang Science & Technology Venture Capital Co., Ltd. ("ZSTVC") and its subsidiary Zhangjiang AJ Company Limited ("ZJAJ"), in which ACM agreed to bid, in an auction process mandated by PRC regulations, to purchase ZSTVC's 7.58% equity interests in ACM Shanghai and to sell shares of Class A common stock to ZJAJ. On September 8, 2017, ACM issued 787,098 shares of Class A common stock to ZJAJ for a purchase price of $7.50 per share, or an aggregate purchase price of $5,903.

On September 6, 2017 ACM and Ninebell Co., Ltd. ("Ninebell") entered into:

- an ordinary share purchase agreement, effective as of September 11, 2017, pursuant to which, contemporaneously with signing, Ninebell issued to ACM, for a purchase price of $1,200, ordinary shares representing 20% of Ninebell's post-closing equity; and

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

- a common stock purchase agreement, effective as of September 11, 2017, pursuant to which, contemporaneously with signing, ACM issued 133,334 shares of Class A common stock to Ninebell for a purchase price of $7.50 per share, or an aggregate purchase price of $1,000.

On September 13, 2017, ACM effected the Reverse Split. Under the terms of the Reverse Split, each share of Class A and Class B common stock, issued and outstanding as of such effective date, was automatically reclassified and changed into one-third of one share of Class A and Class B common stock, as applicable, without any action by the stockholders. Fractional shares were rounded up to the nearest whole share on a holder-by-holder basis. All share and per share amounts have been restated to reflect the Reverse Split for all periods presented.

NOTE 21 – PARENT COMPANY ONLY CONDENSED FINANCIAL INFORMATION

The Company performed a test on the restricted net assets of consolidated subsidiaries in accordance with Rule 4-08(e)(3) of Regulation S-X of the SEC and concluded that it was applicable for the Company to disclose the financial information for ACM only. Certain information and footnote disclosures generally included in financial statements prepared in accordance with GAAP have been condensed or omitted. The footnote disclosure contains supplemental information relating to the operations of ACM separately.

ACM’s subsidiaries did not pay any dividends to ACM during the periods presented.

ACM did not have significant capital or other commitments, long-term obligations, or guarantees as of June 30, 2017 or December 31, 2016 or 2015.

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
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(in thousands, except share and per share data)

The following represents condensed unconsolidated financial information of ACM only as of and for the years ended December 31, 2016 and 2015:

CONDENSED BALANCE SHEET

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 7,264	$ 504
Inventory	1,042	732
Due from intercompany	1,986	—
Other receivable	3	—
Total current assets	10,295	1,236
Investment in unconsolidated subsidiaries	6,583	3,250
Total assets	$16,878	4,486
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit		
Notes payable	$ 11	$ 2,837
Accounts payable	1,176	685
Due to intercompany	—	280
Other payable	47	—
Income taxes payable	44	44
Total liabilities	1,278	3,846
Total redeemable convertible preferred stocks	18,034	8,876
Total stockholders' deficit	(2,434)	(8,236)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$16,878	$ 4,486

ACM RESEARCH, INC.
Notes to Consolidated Financial Statements
(Information as of June 30, 2017 and for the six months ended June 30, 2017 and 2016 is unaudited)
(in thousands, except share and per share data)

CONDENSED STATEMENT OF OPERATIONS

	Year Ended December 31,	
	2016	2015
Revenue	$ 5,803	$ 6,787
Cost of revenue	(5,346)	(6,185)
Gross profit	457	602
Operating expenses:		
Sales and marketing expenses	(64)	(1)
General and administrative expenses	(1,202)	(715)
Research and development expenses	(6)	—
Loss from operations	(815)	(114)
Equity in earnings of unconsolidated subsidiaries	3,561	5,611
Other income (expense), net	(1,608)	1
Interest expense, net	(106)	(108)
Income before income taxes	1,032	5,390
Income tax expense	(1)	(10)
Net income	$ 1,031	$ 5,380

CONDENSED STATEMENT OF CASH FLOWS

	Year Ended December 31,	
	2016	2015
Net cash (used in) provided by operating activities	$(2,220)	$ 357
Net cash provided by financing activities	9,309	—
Net increase in cash and cash equivalents	7,089	357
Cash and cash equivalents, beginning of year	504	326
Effect of exchange rate changes on cash and cash equivalents	(329)	(179)
Cash and cash equivalents, end of year	$ 7,264	$ 504

NOTES TO CONDENSED FINANCIAL INFORMATION

Basis of Presentation

The condensed financial information has been prepared using the same accounting policies as set out in the Company's consolidated financial statements except that ACM has used the equity method to account for its investments in subsidiaries.

Investments in Subsidiaries

For the ACM-only condensed financial information, ACM records its investments in its subsidiaries under the equity method of accounting as prescribed in FASB ASC Topic 323, *Investment – Equity Method and Joint Ventures*. ACM's investments in subsidiaries are stated at cost plus its equity interest in undistributed earnings of subsidiaries less impairment loss, if any, since inception, and are presented on its condensed balance sheet as "Investments in unconsolidated subsidiaries" and ACM's share of the subsidiaries' income or loss as "Equity in earnings of unconsolidated subsidiaries" on ACM's condensed statement of operations.

2,000,000 Shares

Class A Common Stock

PROSPECTUS

Sole Book-Running Manager

Roth Capital Partners

Co-Managers

Craig-Hallum Capital Group **The Benchmark Company**

, 2017

Through and including , 2017 (the 25th day after the date of this offering), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table presents the costs and expenses, other than underwriting discounts and commissions, payable in connection with the sale of Class A common stock being registered. All amounts are estimates except the SEC registration fee, the FINRA filing fee and the exchange listing fee. Except as otherwise noted, all the expenses below will be paid by us.

SEC registration fee	$ 2,720
FINRA filing fee	5,675
Exchange listing fee	125,000
Printing and engraving expenses	106,000
Legal fees and expenses	1,135,000
Accounting fees and expenses	500,000
Transfer agent and registrar fees	3,500
Miscellaneous fees and expenses	372,105
Total	$ 2,250,000

Item 14. Indemnification of Directors and Officers.

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, officer, employee or agent of the corporation or is or was serving at the request of a corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

In connection with the completion of this offering, the registrant's restated charter will contain provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of the registrant's directors for monetary damages for breach of their fiduciary duties as directors. The registrant's restated bylaws to be in effect immediately prior to the completion of this offering provide that the registrant must indemnify its directors and officers and may indemnify its employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

The registrant has entered into indemnification agreements with its directors and executive officers, in addition to the indemnification provided for in its restated bylaws, and intends to enter into indemnification agreements with any new directors and executive officers in the future.

The registrant has purchased and intends to maintain insurance on behalf of any person who is or was a director or officer of the registrant against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

The Underwriting Agreement, the form of which is attached as Exhibit 1.1 hereto, provides for indemnification by the underwriters of the registrant and its executive officers and directors, and by the registrant

of the underwriters, for certain liabilities, including liabilities arising under the Securities Act and affords certain rights of contribution with respect thereto.

See also "Undertakings" set out in response to Item 17 herein.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding the shares of common stock and preferred stock, and options granted, by us since January 30, 2014 that were not registered under the Securities Act of 1933.

(1) We granted stock options to purchase shares of Class A common stock to certain of our employees, officers, directors, consultants and advisors, as follows: (a) on May 1, 2015, we granted stock options to purchase an aggregate of 783,338 shares of Class A common stock at a price of $1.50 per share; (b) on September 8, 2015 we granted stock options to purchase an aggregate of 263,335 shares of Class A common stock at an exercise price of $1.50 per share; (c) on December 28, 2016 we granted stock options to purchase an aggregate of 1,424,596 shares of Class A common stock at a price of $3.00 per share; (d) on March 9, 2017 we granted a stock option to purchase 33,334 shares of Class A common stock at a price of $7.50 per share and (e) on May 9, 2017 we granted a stock option to purchase an aggregate of 183,335 shares of Class A common stock at a price of $2.50 per share.

(2) Options have been exercised to acquire a total of 889,558 shares of Class A common stock for consideration aggregating $723,910.

(3) Options have been exercised to acquire a total of 362,335 shares of Class B common stock for consideration aggregating $271,750.

(4) In December 2016 we issued (a) 3,615,800 shares of Series F convertible preferred stock for an aggregate purchase price of $9,039,500, (b) 47,454 shares of Series F convertible preferred stock pursuant to conversion of $118,665 of principal and accrued interest of convertible promissory notes and (c) 1,812,069 shares of Class A common stock pursuant to the conversion of $2,522,784 of principal of convertible promissory notes.

(5) In March 2017 we entered into a securities purchase agreement pursuant to which we issued a warrant to acquire 397,502 shares of Class A common stock for an aggregate purchase price of $2,981,265.

(6) In March 2017 we entered into a securities purchase agreement pursuant to which we issued 4,998,508 shares of Series E convertible preferred stock for an aggregate purchase price of $5,800,000.

(7) In August 2017 we entered into a securities purchase agreement pursuant to which we issued 1,119,576 shares of Class A common stock for an aggregate purchase price of $8,396,820.

(8) In August 2017 we entered into a securities purchase agreement pursuant to which we issued 787,098 shares of Class A common stock for an aggregate purchase price of $5,903,235.

(9) In September 2017 we entered into a securities purchase agreement pursuant to which we issued 133,334 shares of Class A common stock for an aggregate purchase price of $1,000,000.

(10) In October 2017 we entered into securities purchase agreements pursuant to which we agreed to issue, subject to the closing of this offering, 1,333,334 shares of Class A common stock in a concurrent private placement at an exercise price per share equal to the initial public offering price of this offering (subject to adjustment).

The offers, sales, grants and issuances of the securities described in paragraphs (1), (2) and (3) were deemed to be exempt from registration under the Securities Act in reliance on Rule 701. The recipients of such securities were our employees, officers, directors, bona fide consultants and advisors and received the securities under our 1998 Stock Option Plan, written compensation contracts or our 2016 Omnibus Incentive Plan. Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us.

The offer, sale and issuance of the securities described in paragraphs (4) through (10) were deemed to be exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act in that the

issuance of the securities to the accredited investors did not involve a public offering. The recipients of the securities in these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the securities issued in these transactions. The recipients of the securities in these transactions were accredited investors under Rule 501 of Regulation D.

Item 16. Exhibits and Consolidated Financial Statement Schedules.

(a) Exhibits

Exhibit No.	Description
1.01	Form of Underwriting Agreement to be entered into between ACM Research, Inc. and the underwriters of this offering
3.01#	Certificate of Incorporation of ACM Research, Inc. (currently in effect)
3.02#	Bylaws of ACM Research, Inc. (currently in effect)
3.03	Form of Restated Certificate of Incorporation (to be effective following completion of this offering)
3.04	Form of Restated Bylaws of ACM Research, Inc. (to be effective upon completion of this offering)
4.01	Specimen stock certificate evidencing Class A common stock of ACM Research, Inc.
4.02	Form of Class A Common Stock Warrant of ACM Research Inc. to be issued to the underwriters of this offering
5.01*	Opinion of K&L Gates LLP
10.01#	Lease dated March 22, 2017 between ACM Research, Inc. and D&J Construction, Inc.
10.02#	Lease dated September 6, 2016 between ACM Research (Shanghai), Inc. and Shanghai Zhangjiang Group Co., Ltd.
10.03#	Securities Purchase Agreement dated March 14, 2017 by and among ACM Research, Inc., Shengxin (Shanghai) Management Consulting Limited Partnership and ACM Research (Shanghai), Inc.
10.03(a)#	Warrant dated March 14, 2017 issued by ACM Research, Inc. to Shengxin (Shanghai) Management Consulting Limited Partnership
10.04	Securities Purchase Agreement dated March 23, 2017 between ACM Research, Inc. and Shanghai Science and Technology Venture Capital Co., Ltd., as amended
10.05#	Securities Purchase Agreement dated August 31, 2017 by and among ACM Research, Inc., Shanghai Pudong High-Tech Investment Co., Ltd. and Pudong Science and Technology (Cayman) Co., Ltd.
10.06#	Securities Purchase Agreement dated August 31, 2017 by and among ACM Research, Inc., Shanghai Zhangjiang Science & Technology Venture Capital Co., Ltd. and Zhangjiang AJ Company Limited
10.07	Ordinary Share Purchase Agreement dated September 6, 2017 by and among ACM Research, Inc., Ninebell Co., Ltd. and Moon-Soo Choi
10.08	Class A Common Stock Purchase Agreement dated September 6, 2017 by and among ACM Research, Inc., Ninebell Co., Ltd. and Moon-Soo Choi
10.09	Form of Second Amended and Restated Registration Rights Agreement to be entered into between ACM Research, Inc. and certain of its stockholders
10.10	Stock Purchase Agreement, dated October 11, 2017, by and among ACM Research, Inc., Xunxin (Shanghai) Capital Co., Limited, Xinxin (Hongkong) Capital Co., Limited and David H. Wang

Exhibit No.	Description
10.11	Stock Purchase Agreement, dated October 16, 2017, by and between ACM Research, Inc. and Victorious Way Limited
10.12	Nomination and Voting Agreement, dated October 11, 2017, by and among Xinxin (Hongkong) Capital Co., Limited, ACM Research, Inc., David H. Wang, and the individuals named therein
10.13	Voting Agreement, dated March 23, 2017, by and among Shanghai Technology Venture Capital Co., Ltd. (also known as Shanghai Science and Technology Venture Capital Co., Ltd.) and ACM Research, Inc.
10.14+#	2016 Omnibus Incentive Plan of ACM Research, Inc.
10.14(a)+#	Form of Incentive Stock Option Grant Notice and Agreement under 2016 Omnibus Incentive Plan
10.14(b)+#	Form of Non-qualified Stock Option Grant Notice and Agreement under 2016 Omnibus Incentive Plan
10.14(c)+#	Form of Restricted Stock Unit Grant Notice and Agreement under 2016 Omnibus Incentive Plan
10.15+#	Form of Nonstatutory Stock Option Agreement of ACM Research, Inc.
10.16+#	1998 Stock Option Plan of ACM Research, Inc.
10.16(a)+#	Form of Incentive Stock Option Agreement under 1998 Stock Option Plan
10.16(b)+#	Form of Non-statutory Stock Option Agreement under 1998 Stock Option Plan
10.17#	Form of Indemnification Agreement to be entered into between ACM Research, Inc. and certain of its directors and officers
10.18+#	Executive Retention Agreement dated November 14, 2016 between ACM Research, Inc. and Min Xu
10.19*	Line of Credit Agreement dated August 21, 2017 between ACM Research (Shanghai), Inc. and Bank of China Pudong Branch
10.20*	Line of Credit Agreement dated August 21, 2017 between ACM Research (Shanghai), Inc. and Bank of Shanghai Pudong Branch
21.01#	List of Subsidiaries of ACM Research, Inc.
23.01	Consent of BDO China Shu Lan Pan Certified Public Accountants LLP
23.02*	Consent of K&L Gates LLP (included in Exhibit 5.01)
24.01#	Power of Attorney (included on signature page of Form S-1 filed on September 13, 2017)

Previously filed.
* To be filed by amendment.
+ Indicates management contract or compensatory plan.

(b) Consolidated Financial Statement Schedules

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant

has been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act of 1933, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes to provide the underwriters, at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

The undersigned registrant hereby undertakes that:

1. For purposes of determining any liability under the Securities Act of 1933, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this registration statement as of the time it was declared effective.

2. For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fremont, State of California, on October 18, 2017.

ACM RESEARCH, INC.

By: /S/ DAVID H. WANG
David H. Wang
Chief Executive Officer and President

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities indicated on October 18, 2017:

Signature	Title
/S/ DAVID H. WANG **David H. Wang**	Chief Executive Officer, President and Director (*Principal Executive Officer*)
/S/ MIN XU **Min Xu**	Chief Financial Officer and Treasurer (*Principal Financial and Accounting Officer*)
* **Haiping Dun**	Director
* **Chenming Hu**	Director
* **Tracy Liu**	Director

*BY: /S/ MIN XU
Min Xu
Attorney-in-Fact

EXHIBIT INDEX

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Previously filed.
* To be filed by amendment.
+ Indicates management contract or compensatory plan.

Exhibit 1.01

ACM RESEARCH, INC.

UNDERWRITING AGREEMENT

[●] Shares of Common Stock

●, 2017

Roth Capital Partners, LLC
As Representative of the
Several Underwriters Named on Schedule I hereto

c/o Roth Capital Partners, LLC
888 San Clemente Drive, Suite 400
Newport Beach, CA 92660

Ladies and Gentlemen:

ACM Research, Inc., a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell to the underwriters named in Schedule I hereto (the "Underwriters," or each, an "Underwriter"), for whom Roth Capital Partners, LLC is acting as representative (the "Representative"), an aggregate of [●] authorized but unissued shares (the "Firm Shares") of Class A common stock, par value $0.0001 per share (the "Common Stock"), of the Company. The Company also proposes to sell to the Underwriters, upon the terms and conditions set forth in Section 7 hereof, up to an additional [●] shares of Common Stock (the "Option Shares"). The Firm Shares and the Option Shares are hereinafter collectively referred to as the "Shares".

The Company and the several Underwriters hereby confirm their agreement as follows:

1. Registration Statement and Prospectus.

The Company has prepared and filed with the Securities and Exchange Commission (the "Commission") a registration statement covering the Shares on Form S-1 (File No. 333-220451) under the Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations (the "Rules and Regulations") of the Commission thereunder, including a preliminary prospectus relating to the Shares and such amendments to such registration statement (including post effective amendments) as may have been required to the date of this Agreement. Such registration statement, as amended (including any post effective amendments), has been declared effective by the Commission. Such registration statement, including amendments thereto (including post effective amendments thereto) at the time of effectiveness thereof (the "Effective Time"), the exhibits and any schedules thereto at the Effective Time or thereafter during the period of effectiveness and the documents and information otherwise deemed to be a part thereof or included therein by the Securities Act or otherwise pursuant to the Rules and Regulations at the Effective Time or thereafter during the period of effectiveness, is herein called the "Registration Statement." If the Company has filed or files an abbreviated registration statement pursuant to Rule 462(b) under the Securities Act (the "Rule 462 Registration Statement"), then any reference

herein to the term Registration Statement shall include such Rule 462 Registration Statement. Any preliminary prospectus included in the Registration Statement or filed with the Commission pursuant to Rule 424(a) under the Securities Act is hereinafter called a "Preliminary Prospectus." The Preliminary Prospectus relating to the Shares that was included in the Registration Statement immediately prior to the pricing of the offering contemplated hereby is hereinafter called the "Pricing Prospectus."

The Company is filing with the Commission pursuant to Rule 424 under the Securities Act a final prospectus covering the Shares, which includes the information permitted to be omitted therefrom at the Effective Time by Rule 430A under the Securities Act. Such final prospectus, as so filed, is hereinafter called the "Final Prospectus." The Final Prospectus, the Pricing Prospectus and any Preliminary Prospectus in the form in which they were included in the Registration Statement or filed with the Commission pursuant to Rule 424 under the Securities Act is hereinafter called a "Prospectus."

2. Representations and Warranties of the Company Regarding the Offering.

(a) The Company represents and warrants to, and agrees with, the several Underwriters, as of the date hereof and as of the Closing Date (as defined in Section 5(d) below) and as of each Option Closing Date (as defined in Section 5(b) below), as follows:

(i) **No Material Misstatements or Omissions**. At the Effective Time, at the date hereof, at the Closing Date, and at each Option Closing Date, if any, the Registration Statement and any post-effective amendment thereto complied or will comply in all material respects with the requirements of the Securities Act and the Rules and Regulations and did not, does not, and will not, as the case may be, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Time of Sale Disclosure Package (as defined in Section 2(a)(v)(A)(1) below) as of [●] (Eastern time) the date hereof (the "Applicable Time"), on the Closing Date and on each Option Closing Date, if any, and the Final Prospectus, as amended or supplemented, as of its date, at the time of filing pursuant to Rule 424(b) under the Securities Act at the Closing Date, and at each Option Closing Date, if any, and any individual Written Testing-the-Waters Communication, when considered together with the Time of Sale Disclosure Package, did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences shall not apply to statements in or omissions from the Registration Statement, the Time of Sale Disclosure Package, or any Prospectus in reliance upon, and in conformity with, written information furnished to the Company by any Underwriter specifically for use in the preparation thereof, which written information is described in Section 8(f). The Registration Statement contains all exhibits and schedules required to be filed by the Securities Act or the Rules and Regulations. No order preventing or suspending the effectiveness or use of the Registration Statement or any Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission.

(ii) **Marketing Materials**. The Company has not distributed any prospectus or other offering material in connection with the offering and sale of the Shares other than the Time of Sale Disclosure Package and the roadshow or investor presentations delivered to and approved by the Representative for use in connection with the marketing of the offering of the Shares (the "Marketing Materials").

(iii) **Emerging Growth Company**. The Company is an "emerging growth company," as defined in Section 2(a) of the Securities Act (an "Emerging Growth Company").

(iv) **Testing-the-Waters Communications.** The Company (A) has not alone engaged in any Testing-the-Waters Communication, other than Testing-the-Waters Communications with the written consent of the Representative and (B) has not authorized anyone other than the Underwriters to engage in Testing-the-Waters Communications. The Company has not distributed any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act ("Written Testing-the-Waters Communications"), other than those previously provided the Representative on Schedule II. "Testing-the-Waters Communication" means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act. The Company has filed publicly on the Electronic Data Gathering, Analysis, and Retrieval system ("EDGAR") at least 15 calendar days prior to any "road show" (as defined in Rule 433 und the Securities Act), any confidentially submitted registration statement and registration statement amendments relating to the offer and sale of Shares. Each Written Testing-the-Waters Communication, did not, as of the Applicable Time, and at all times through the completion of the public offer and sale of Shares will not, include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus.

(v) **Accurate Disclosure**. (A) The Company has provided a copy to the Underwriters of each Issuer Free Writing Prospectus (as defined below) used in the sale of Shares. The Company has filed all Issuer Free Writing Prospectuses required to be so filed with the Commission, and no order preventing or suspending the effectiveness or use of any Issuer Free Writing Prospectus is in effect and no proceedings for such purpose have been instituted or are pending, or, to the knowledge of the Company, are contemplated or threatened by the Commission. When taken together with the rest of the Time of Sale Disclosure Package or the Final Prospectus, no Issuer Free Writing Prospectus, as of its issue date and at all subsequent times though the completion of the public offer and sale of Shares, has, does or will include (1) any untrue statement of a material fact or omission to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or (2) information that conflicted, conflicts or will conflict with the information contained in the Registration Statement or the Final Prospectus. The representations and warranties set forth in the immediately preceding sentence shall not apply to statements in or omissions from the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by any Underwriter specifically for use in the preparation thereof, which written information is described in Section 8(f). As used in this paragraph and elsewhere in this Agreement:

(1) "Time of Sale Disclosure Package" means the Pricing Prospectus, each Issuer Free Writing Prospectus listed on Schedule IV and the description of the transaction provided by the Underwriters included on Schedule III.

(2) "Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, relating to the Shares that (A) is required to be filed with the Commission by the Company, or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) or (d)(8) under the Securities Act, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g) under the Securities Act.

(B) At the time of filing of the Registration Statement and at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405 under the Securities Act or an "excluded issuer" as defined in Rule 164 under the Securities Act.

(C) Each Issuer Free Writing Prospectus listed on Schedule IV satisfied, as of its issue date and at all subsequent times through the Prospectus Delivery Period, all other conditions as may be applicable to its use as set forth in Rules 164 and 433 under the Securities Act, including any legend, record-keeping or other requirements.

(vi) **Financial Statements**. The financial statements of the Company, together with the related notes, included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus comply in all material respects with the applicable requirements of the Securities Act and the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations of the Commission thereunder, and fairly present in all material respects the financial condition of the Company as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with U.S. generally accepted accounting principles ("GAAP") consistently applied throughout the periods involved. No other financial statements, pro forma financial information or schedules are required under the Securities Act, the Exchange Act, or the Rules and Regulations to be included in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus.

(vii) **Independent Accountants.** To the Company's knowledge, BDO China Shu Lun Pan Certified Public Accountants LLP, which has expressed its opinion with respect to the financial statements included as part of the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, is an independent public accounting firm with respect to the Company within the meaning of the Securities Act and the Rules and Regulations.

(viii) **Accounting Controls.** The Company and its subsidiaries maintain systems of "internal control over financial reporting" (as defined under Rules 13a-15 and

15d-15 under the Exchange Act) that are designed to comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (A) transactions are executed in accordance with management's general or specific authorizations; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (C) access to assets is permitted only in accordance with management's general or specific authorization; and (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Since the date of the latest audited financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(ix) **Forward-Looking Statements**. The Company had a reasonable basis for, and made in good faith, each "forward-looking statement" (within the meaning of Section 27A of the Securities Act or Section 21E of the Exchange Act) contained in the Registration Statement, the Time of Sale Disclosure Package, the Final Prospectus or the Marketing Materials.

(x) **Trading Market**. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act and is approved for listing on the Nasdaq Global Market ("Nasdaq"). When issued, the Shares will be listed on Nasdaq.

(xi) **Absence of Manipulation**. The Company has not taken, directly or indirectly, any action that is designed to or that has constituted or that would reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(xii) **Investment Company Act**. The Company is not and, after giving effect to the offering and sale of the Shares and the application of the net proceeds thereof, will not be an "investment company," as such term is defined in the Investment Company Act of 1940, as amended.

(b) Any certificate signed by any officer of the Company and delivered to the Underwriters or to counsel for the Underwriters shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

3. Representations and Warranties Regarding the Company.

(a) The Company represents and warrants to, and agrees with, the several Underwriters, as of the date hereof and as of the Closing Date and as of each Option Closing Date, as follows:

(i) **Good Standing**. Each of the Company and its subsidiaries has been duly organized and is validly existing as a corporation or other entity in good standing under the laws of its jurisdiction of incorporation or organization. Each of the Company and its subsidiaries has the power and authority (corporate or otherwise) to own its properties and conduct its business as currently being carried on and as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, and is duly qualified to do business as a foreign corporation or other entity in good standing in each jurisdiction in which it owns or leases real property or in which the conduct of its business makes such qualification necessary, except where the failure to so qualify would not have or be reasonably likely to result in a material adverse effect upon the business, prospects, properties, operations, condition (financial or otherwise) or results of operations of the Company and its subsidiaries, taken as a whole, or in its ability to perform its obligations under this Agreement ("Material Adverse Effect").

(ii) **Authorization**. The Company has the power and authority to enter into this Agreement and the Underwriter Warrants (as defined below) and to authorize, issue and sell the Shares and the Warrant Shares (a defined below) (as contemplated by this Agreement and the Underwriter Warrants). This Agreement and the Underwriter Warrants have been duly authorized by the Company, and when executed and delivered by the Company, will constitute the valid, legal and binding obligations of the Company, enforceable against the Company in accordance with their respective terms, except as rights to indemnity hereunder may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity.

(iii) **Contracts**. The execution, delivery and performance of this Agreement and the Underwriter Warrants and the consummation of the transactions herein and therein contemplated will not (A) result in a breach or violation of any of the terms and provisions of, or constitute a default under, any law, order, rule or regulation to which the Company or any subsidiary is subject, or by which any property or asset of the Company or any subsidiary is bound or affected, except to the extent that such breach or violation would not reasonably likely to result in a Material Adverse Effect, (B) conflict with, result in any violation or breach of, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or give to others any right of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) (a "Default Acceleration Event") of, any agreement, lease, credit facility, debt, note, bond, mortgage, indenture or other instrument (the "Contracts") or obligation or other understanding to which the Company or any subsidiary is a party or by which any property or asset of the Company or any subsidiary is bound or affected, except to the extent that such conflict, violation, breach, default, or Default Acceleration Event would not reasonably likely to result in a Material Adverse Effect, or (C) result in a breach or violation of any of the terms and provisions of, or constitute a default under, the Company's certificate of incorporation or by-laws.

(iv) **No Violations of Governing Documents**. Neither the Company nor any of its subsidiaries is in violation, breach or default under its certificate of incorporation, by-laws or other equivalent organizational or governing documents.

(v) **Consents**. No consents, approvals, orders, authorizations or filings are required on the part of the Company in connection with the execution, delivery or performance of this Agreement and the Underwriter Warrants and the issue and sale of the Shares, except (A) the registration under the Securities Act of the Shares, which has been effected, (B) the necessary filings and approvals from Nasdaq to list the Shares and the Underwriter Warrant Shares, when issued, (C) such consents, approvals, authorizations, registrations or qualifications as may be required under state or foreign securities or Blue Sky laws in connection with the purchase of the Shares, the Underwriter Warrants and the Underwriter Warrant Shares and distribution of the Shares by the several Underwriters, (D) such consents and approvals as have been obtained and are in full force and effect, and (E) such consents, approvals, orders, authorizations and filings the failure of which to make or obtain is not reasonably likely to result in a Material Adverse Effect.

(vi) **Capitalization**. The Company has an authorized capitalization as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus. All of the issued and outstanding shares of capital stock of the Company are duly authorized and validly issued, fully paid and nonassessable, and have been issued in compliance in all material respects with all applicable securities laws, and conform in all material respects to the description thereof in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus. All of the issued shares of capital stock of each subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and, except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims. Except for the issuances of options or restricted stock in the ordinary course of business, since the respective dates as of which information is provided in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company has not entered into or granted any convertible or exchangeable securities, options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company any shares of the capital stock of the Company. The Shares, when issued and paid for as provided herein, will be duly authorized and validly issued, fully paid and nonassessable, will be issued in compliance with all applicable securities laws, and will be free of preemptive, registration or similar rights and will conform in all material respects to the description of the capital stock of the Company contained in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus. The shares of Common Stock issuable upon the exercise of the Underwriter Warrants (the "Underwriter Warrant Shares"), when issued, paid for and delivered upon due exercise of the Underwriter Warrants, will be duly authorized and validly issued, fully paid and nonassessable, will be issued in compliance with all applicable securities laws, and will be free of preemptive, registration or similar rights. The Underwriter Warrant Shares have been reserved for issuance. The Underwriter Warrants, when issued, will conform in all material respects to the descriptions thereof set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus.

(vii) **Taxes**. Except as would not reasonably be expected to result in a Material Adverse Effect, each of the Company and its subsidiaries has (A) filed all foreign, federal, state and local tax returns (as hereinafter defined) required to be filed with taxing

authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof and (B) paid all taxes (as hereinafter defined) shown as due and payable on such returns that were filed and has paid all taxes imposed on or assessed against the Company or such respective subsidiary. The provisions for taxes payable, if any, shown on the financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. No issues have been raised (and are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company or its subsidiaries, and no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company or its subsidiaries. The term "taxes" mean all federal, state, local, foreign, and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments, or charges of any kind whatever, together with any interest and any penalties, additions to tax, or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements, and other documents required to be filed in respect to taxes.

(viii) **Material Change**. Since the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, (A) neither the Company nor any of its subsidiaries has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (B) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock, (C) there has not been any change in the capital stock of the Company or any of its subsidiaries (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants, upon the conversion of outstanding shares of preferred stock or other convertible securities or the issuance of restricted stock awards or restricted stock units under the Company's existing stock awards plan, or any new grants thereof in the ordinary course of business), (D) there has not been any material change in the Company's long-term or short-term debt, and (E) there has not been the occurrence of any Material Adverse Effect.

(ix) **Absence of Proceedings**. There is not pending or, to the knowledge of the Company, threatened, any action, suit or proceeding to which the Company or any of its subsidiaries is a party or of which any property or assets of the Company or any of its subsidiaries is the subject before or by any court or governmental agency, authority or body, or any arbitrator or mediator, which is reasonably likely to result in a Material Adverse Effect.

(x) **Permits**. The Company and each of its subsidiaries holds, and is in compliance with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders ("Permits") of any governmental or self-regulatory agency, authority or body required for the conduct of its business, and all such Permits are in full force and effect, in each case except where the failure to hold, or comply with, any of them is not reasonably likely to result in a Material Adverse Effect.

(xi) **Good Title**. The Company and each of its subsidiaries have good and marketable title to all property (whether real or personal) described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus as being owned by them that are material to the business of the Company, in each case free and clear of all liens, claims, security interests, other encumbrances or defects, except as disclosed in the Time of Sale Disclosure Package or those that are not reasonably likely to result in a Material Adverse Effect. The property held under lease by the Company and its subsidiaries is held by them under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Company and its subsidiaries.

(xii) **Intellectual Property**. The Company and its subsidiaries, taken as a whole, own, license, possess or otherwise have a valid right to use, or can acquire on reasonable terms all the rights necessary to use, trademarks, trade names, patent rights, copyrights, domain names, licenses, trade secrets, inventions, technology, know-how and other intellectual property, and similar rights, including registrations and applications for registration thereof (collectively, "Intellectual Property Rights") necessary to the conduct of the business now conducted or proposed in the Time of Sale Disclosure Package to be conducted by them. Except as disclosed in the Time of Sale Disclosure Package, (A) there are no rights of third parties to any of the Intellectual Property Rights owned by the Company or its subsidiaries; (B) to the knowledge of the Company, there is no infringement, misappropriation breach, default or other violation, or the occurrence of any event that with notice or the passage of time would constitute any of the foregoing, by third parties of any of the Intellectual Property Rights of the Company or its subsidiaries; (C) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the Company's or any subsidiary's rights in or to, or the violation of any of the terms of, any of their Intellectual Property Rights; (D) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any such Intellectual Property Rights; (E) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company or any subsidiary infringes, misappropriates or otherwise violates or conflicts with any Intellectual Property Rights or other proprietary rights of others; and (F) none of the Intellectual Property Rights used by the Company or its subsidiaries in their businesses has been obtained or is being used by the Company or its subsidiaries in violation of any contractual obligation binding on the Company or any of its subsidiaries or, to the Company's knowledge, in violation of the rights of any persons, except in each case covered by clauses (A) – (F) such as would not, if determined adversely to the Company or any of its subsidiaries, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company and its subsidiaries own or have a valid right to access and us or can acquire on reasonable terms all computer systems, networks, hardware, software, databases, websites, and equipment necessary to process, store, maintain, deliver and operate data, information, and functions necessary in connection with the business of the Company and its subsidiaries (the "Company IT Systems"). The Company IT Systems operate and perform in all material

respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted or proposed in the Time of Sale Disclosure Package to be conducted by them. The Company and its subsidiaries have implemented such backup, security and disaster systems as the Company reasonably believes are prudent and customary for similarly sized companies in the businesses in which they are engaged.

(xiii) **Employment Matters**. There is (A) no unfair labor practice complaint pending against the Company or any of its subsidiaries, nor to the Company's knowledge, threatened against it or any of its subsidiaries, before the National Labor Relations Board, any state or local labor relation board or any foreign labor relations board, and no grievance or arbitration proceeding arising out of or under any collective bargaining agreement is so pending against the Company or any of its subsidiaries, or, to the Company's knowledge, threatened against it or any of its subsidiaries and (B) no labor disturbance by the employees of the Company or any of its subsidiaries exists or, to the Company's knowledge, is imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its subsidiaries, principal suppliers, manufacturers, customers or contractors, that could reasonably be expected, singularly or in the aggregate, to have a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company or any subsidiary plans to terminate employment with the Company or any such subsidiary.

(xiv) **ERISA Compliance**. No "prohibited transaction" (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the "Code")) or "accumulated funding deficiency" (as defined in Section 302 of ERISA) or any of the events set forth in Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or could reasonably be expected to occur with respect to any employee benefit plan of the Company or any of its subsidiaries which would reasonably be expected to, singularly or in the aggregate, have a Material Adverse Effect. Each employee benefit plan of the Company or any of its subsidiaries is in compliance in all material respects with applicable law, including ERISA and the Code. The Company and its subsidiaries have not incurred and would not reasonably be expected to incur liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in ERISA). Each pension plan for which the Company or any of its subsidiaries would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and to the Company's knowledge nothing has occurred, whether by action or by failure to act, which could, singularly or in the aggregate, cause the loss of such qualification.

(xv) **Environmental Matters**. The Company and its subsidiaries are in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to their businesses ("Environmental Laws"), except where the failure to comply has not had and would not reasonably be expected to have, singularly or in the aggregate, a Material Adverse Effect.

There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances by, due to, or caused by the Company or any of its subsidiaries (or, to the Company's knowledge, any other entity for whose acts or omissions the Company or any of its subsidiaries is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company or any of its subsidiaries, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability, except for any violation or liability which has not had and would not reasonably be expected to have, singularly or in the aggregate, a Material Adverse Effect; and there has been no disposal, discharge, emission or other release of any kind onto such property or into the environment surrounding such property of any toxic or other wastes or other hazardous substances with respect to which the Company or any of its subsidiaries has knowledge.

(xvi) **SOX Compliance**. The Company is in compliance in all material respects with all provisions of the Sarbanes-Oxley Act of 2002 and all rules and regulations promulgated thereunder or implementing the provisions thereof that are in effect and with which the Company is required to be in compliance as of the Effective Time.

(xvii) **No Restrictions on Payments by Subsidiaries.** No subsidiary of the Company is currently prohibited, directly or indirectly, under any agreement or other instrument to which it is a party or is subject, (A) from paying any dividends to the Company, (B) from making any other distribution on such subsidiary's capital stock, (C) from repaying to the Company any loans or advances to such subsidiary from the Company or (D) from transferring any such subsidiary's material properties or assets to the Company or any other subsidiary of the Company.

(xviii) **Money Laundering Laws**. The operations of the Company and its subsidiaries are and have been conducted at all times in compliance in all material respects with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the "Money Laundering Laws"); and no action, suit or proceeding by or before any Governmental Entity involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened. "Governmental Entity" shall be defined as any arbitrator, court, governmental body, regulatory body, administrative agency or other authority, body or agency (whether foreign or domestic) having jurisdiction over the Company or any of its subsidiaries or any of their respective properties, assets or operations.

(xix) **Foreign Corrupt Practices Act**. Neither the Company nor, any of its subsidiaries, or any director or officer of the Company or any subsidiary, nor, to the knowledge of the Company, any employee, representative, agent, affiliate of the Company or any of its subsidiaries or any other person acting on behalf of the Company or any of its subsidiaries, is aware of or has taken any action, directly or indirectly, that would result in

a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the "FCPA"), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any "foreign official" (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA and the Company and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure and promote continued compliance therewith.

(xx) **OFAC**. Neither the Company nor any of its subsidiaries or any director or officer of the Company or any subsidiary, nor, to the knowledge of the Company, any employee, representative, agent or affiliate of the Company or any of its subsidiaries or any other person acting on behalf of the Company or any of its subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Company will not directly or indirectly use the proceeds of the offering of the Shares contemplated hereby, or lend, contribute or otherwise make available such proceeds to any person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(xxi) **Insurance**. The Company and each of its subsidiaries carries, or is covered by, insurance in such amounts and covering such risks as is commercially reasonable and customary for the conduct of its business and the value of its properties.

(xxii) **No Violation**. Neither the Company nor any its subsidiaries nor, to the Company's knowledge, any other party is in violation, breach or default of any Contract that has resulted in or could reasonably be expected to result in a Material Adverse Effect.

(xxiii) **Continued Business**. No supplier, customer, distributor or sales agent of the Company or any subsidiary has notified the Company or any subsidiary in writing that it intends to discontinue or decrease the rate of business done with the Company or any subsidiary, except where such discontinuation or decrease has not resulted in and would not reasonably be expected to result in a Material Adverse Effect.

(xxiv) **No Finder's Fee**. There are no claims, payments, issuances, arrangements or understandings for services in the nature of a finder's, consulting or origination fee with respect to the introduction of the Company to any Underwriter or the sale of the Shares hereunder or any other arrangements, agreements, understandings, payments or issuances with respect to the Company that may affect the Underwriters' compensation, as determined by the Financial Industry Regulatory Authority, Inc. ("FINRA").

(xxv) **Statistical and Market Related Data**. Any third-party statistical and market-related data included in a Registration Statement, the General Disclosure Package, the Final Prospectus or any Testing-the-Waters Communications are based on or derived from sources that the Company believes to be reliable and accurate in all material respects and, to the extent required, the Company has obtained the written consent to the use of such data from such sources.

(xxvi) **No Fees.** Except as disclosed to the Representative in writing, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to (A) any person, as a finder's fee, investing fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who provided capital to the Company, (B) any FINRA member, or (C) any person or entity that has any direct or indirect affiliation or association with any FINRA member within the 12-month period prior to the date on which the Registration Statement was filed with the Commission ("Filing Date") or thereafter.

(xxvii) **Proceeds**. None of the net proceeds of the offering contemplated by this Agreement will be paid by the Company to any participating FINRA member or any affiliate or associate of any participating FINRA member, except as specifically authorized herein.

(xxviii) **No FINRA Affiliations**. Except as disclosed to the Representative in writing, to the Company's knowledge, no (A) officer or director of the Company or its subsidiaries, (B) owner of 5% or more of any class of the Company's securities or (C) owner of any amount of the Company's unregistered equity securities acquired within the 180-day period prior to the Filing Date, has any direct or indirect affiliation or association with any FINRA member. The Company will advise the Representative if it becomes aware that any officer, director of the Company or its subsidiaries or any owner of 5% or more of any class of the Company's equity securities is or becomes an affiliate or associated person of a FINRA member participating in the offering contemplated by this Agreement.

(xxix) **No Financial Advisor**. Other than the Underwriters, no person has the right to act as an underwriter or as a financial advisor to the Company in connection with the transactions contemplated hereby.

(xxx) **Certain Statements**. The statements set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus under the captions "Description of Capital Stock" and "Material U.S. Federal Income Tax Considerations," insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair in all material respects, and under the caption "Description of Capital Stock" insofar as they purport to constitute a summary of (A) the terms of the Company's outstanding securities, (B) the terms of the Shares, and (C) the terms of the documents referred to therein, are accurate, complete and fair in all material respects.

(xxxi) **No Registration Rights**. Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right (other than rights which have been waived in writing or otherwise satisfied) to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company owned or to be owned by such person or to require the Company to include such securities in the securities registered pursuant to the Registration Statement or in any securities being registered pursuant to any other registration statement filed by the Company under the Securities Act.

(xxxii) **Prior Sales of Securities**. Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, the Company has not sold or issued any shares of Common Stock during the six-month period preceding the date hereof, including any sales pursuant to Rule 144A under, or Regulations D or S of, the Securities Act, other than shares issued pursuant to employee benefit plans, stock option plans or other employee compensation plans or pursuant to outstanding preferred stock, options, rights or warrants or other outstanding convertible securities.

(b) Any certificate signed by any officer of the Company and delivered to the Representative on behalf of the Underwriters or to counsel for the Underwriters shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

4. Representations and Warranties of the Company Regarding the PRC.

(a) The Company represents and warrants to, and agrees with, the Underwriters, as of the date hereof and as of the Closing Date, as follows:

(i) Since January 1, 2015, the Company has conducted substantially all of its operations and generated substantially all of its revenue through (i) ACM Research (Shanghai), Inc., ("ACM Shanghai") a majority foreign-owned enterprise formed under the laws of the People's Republic of China (the "PRC") and (ii) ACM Research (Wuxi), Inc.[1] (together with ACM Shanghai, the "PRC Subsidiaries" or each, a "PRC Subsidiary").

(ii) Each PRC Subsidiary has been duly established, is validly existing as a company in good standing under the laws of the PRC, has the corporate power and authority to own, lease and operate its property and to conduct its business as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not, singly or in the aggregate, reasonably be expected to have a Material Adverse Effect. Each PRC Subsidiary has applied for and obtained all requisite business licenses and permits required under PRC law as necessary for the conduct of its businesses, , and all such permits are validly subsisting, in each case except where the failure to have applied for or

[1] NTD: To be revised based on subs listed in Ex. 21.1

obtained such licenses, clearances or permits is not reasonably likely to result in a Material Adverse Effect. Each PRC Subsidiary has complied with all PRC laws, including carrying out all relevant filings, registrations and applications for relevant permits with the PRC State Administration of Foreign Exchange and any other relevant authorities, except where the failure to comply is not reasonably likely to result in a Material Adverse Effect. The registered capital of each PRC Subsidiary has been fully paid up in accordance with the schedule of payment stipulated in its respective articles of association, approval document, certificate of approval and legal person business license (hereinafter referred to as the "Establishment Documents") and in compliance in all material respects with PRC laws and regulations, and there is no outstanding capital contribution commitment for any PRC Subsidiary. The Establishment Documents of the PRC Subsidiaries have been duly approved in accordance with the laws of the PRC and are valid and enforceable. The business scope specified in the Establishment Documents of each PRC Subsidiary complies in all material respects with the requirements of all relevant PRC laws and regulations. The equity interests of each PRC Subsidiary are owned of record by the respective entities identified as the registered holders thereof in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus.

(iii) None of the PRC Subsidiaries nor any of their properties, assets or revenues are entitled to any right of immunity on the grounds of sovereignty from any legal action, suit or proceeding, from set-off or counterclaim, from the jurisdiction of any court, from services of process, from attachment prior to or in aid of execution of judgment, or from any other legal process or proceeding for the giving of any relief or for the enforcement of any judgment.

(iv) It is not necessary that this Agreement, the Registration Statement, the Time of Sale Disclosure Package, the Prospectus or any other document be filed or recorded with any governmental agency, court or other authority in the PRC.

(v) No transaction, stamp, capital or other issuance, registration, transaction, transfer or withholding taxes or duties are payable in the PRC by or on behalf of the Underwriters to any PRC taxing authority in connection with (A) the issuance, sale and delivery of the Shares by the Company and the delivery of the Shares to or for the account of the Underwriters, (B) the purchase from the Company and the initial sale and delivery by the Underwriters of the Shares to purchasers thereof, or (C) the execution and delivery of this Agreement.

(vi) The Company is aware of, and has been advised as to, the content of the Rules on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors jointly promulgated on August 8, 2006, as amended on June 22, 2009, by the PRC Ministry of Commerce, the PRC State Assets Supervision and Administration Commission, the PRC State Administration of Taxation, the PRC State Administration of Industry and Commerce, the China Securities Regulatory Commission ("CSRC") and the PRC State Administration of Foreign Exchange of the PRC (the "M&A Rules"), in particular the relevant provisions thereof that purport to require offshore special purpose vehicles controlled directly or indirectly by PRC-incorporated companies or PRC residents and established for the purpose of obtaining a stock exchange listing outside of the PRC to

obtain the approval of the CSRC prior to the listing and trading of their securities on any stock exchange located outside of the PRC. The Company has received legal advice specifically with respect to the M&A Rules from its PRC counsel and the Company understands such legal advice. In addition, the Company has communicated such legal advice in full to each of its directors that signed the Registration Statement and each such director has confirmed that he or she understands such legal advice.

(vii) The issuance and sale of the Shares, the listing and trading of the Shares on Nasdaq and the consummation of the transactions contemplated by this Agreement, the Registration Statement, the Time of Sale Disclosure Package and the Prospectus are not and will not be, as of the date hereof and on the Closing Date, adversely affected in any material respect by the M&A Rules or any official clarifications, guidance, interpretations or implementation rules in connection with or related to the M&A Rules (together with the M&A Rules, the "M&A Rules and Related Clarifications").

(viii) The Company has taken all reasonably necessary steps to promote compliance by each of its shareholders, option holders, directors, officers and employees that, to the Company's knowledge, is, or is directly or indirectly owned or controlled by, a PRC resident or citizen with any applicable rules and regulations of the relevant PRC government agencies (including but not limited to the PRC Ministry of Commerce, the PRC National Development and Reform Commission and the PRC State Administration of Foreign Exchange) relating to overseas investment by PRC residents and citizens (the "PRC Overseas Investment and Listing Regulations"), including, requesting each shareholder, option holder, director, officer, employee and participant that is, or is directly or indirectly owned or controlled by, a PRC resident or citizen to complete any registration and other procedures required under applicable PRC Overseas Investment and Listing Regulations.

(ix) As of the date hereof, the M&A Rules and Related Clarifications do not require the Company to obtain the approval of the CSRC prior to the issuance and sale of the Shares, the listing and trading of the Shares on Nasdaq, or the consummation of the transactions contemplated by this Agreement, the Registration Statement, the Time of Sale Disclosure Package or the Prospectus.

5. Purchase, Sale and Delivery of Shares.

(a) On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell the Firm Shares to the several Underwriters, and the several Underwriters agree, severally and not jointly, to purchase the Firm Shares set forth opposite the names of the Underwriters in Schedule I hereto. The purchase price for each Firm Share shall be $[●] per share.

(b) The Company hereby grants to the Underwriters the option to purchase some or all of the Option Shares and, upon the basis of the warranties and representations and subject to the terms and conditions herein set forth, the Underwriters shall have the right, severally and not jointly, to purchase at the purchase price set forth in Section 5(a) all or any portion of the Option Shares as may be necessary to cover over-allotments made in connection with the

transactions contemplated hereby. This option may be exercised by the Underwriters at any time and from time to time on or before the thirtieth (30th) day following the date hereof, by written notice to the Company (the "Option Notice"). The Option Notice shall set forth the aggregate number of Option Shares as to which the option is being exercised, and the date and time when the Option Shares are to be delivered (such date and time being herein referred to as the "Option Closing Date"); *provided*, *however*, that the Option Closing Date shall not be earlier than the Closing Date (as defined below) nor earlier than the first business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised unless the Company and the Underwriters otherwise agree. If the Underwriters elect to purchase less than all of the Option Shares, the Company agrees to sell to the Underwriters the number of Option Shares obtained by multiplying the number of Option Shares specified in such notice by a fraction, the numerator of which is the number of Option Shares set forth opposite the name of the Underwriter in Schedule I hereto under the caption "Number of Option Shares to be Sold" and the denominator of which is the total number of Option Shares.

(c) Payment of the purchase price for and delivery of the Option Shares shall be made on an Option Closing Date in the same manner and at the same office as the payment for the Firm Shares as set forth in subparagraph (d) below.

(d) The Firm Shares will be delivered by the Company to the Representative, for the respective accounts of the several Underwriters, against payment of the purchase price therefor by wire transfer of same day funds payable to the order of the Company at the offices of Roth Capital Partners, LLC, 888 San Clemente Drive, Suite 400, Newport Beach, CA 92660, or such other location as may be mutually acceptable, at 6:00 a.m. Pacific Time, on the third (or if the Firm Shares are priced, as contemplated by Rule 15c6-1(c) under the Exchange Act, after 4:30 p.m. Eastern time, the fourth) full business day following the date hereof, or at such other time and date as the Representative and the Company determine pursuant to Rule 15c6-1(a) under the Exchange Act, or, in the case of the Option Shares, at such date and time set forth in the Option Notice. The time and date of delivery of the Firm Shares is referred to herein as the "Closing Date." On the Closing Date, the Company shall deliver the Firm Shares which shall be registered in the name or names and shall be in such denominations as the Representative may request on behalf of the Underwriters at least one (1) business day before the Closing Date, to the respective accounts of the several Underwriters, which delivery shall be made through the facilities of the Depository Trust Company's DWAC system.

(e) On the Closing Date, the Company shall issue to the Representative (and/or its designees), warrants (the "Underwriter Warrants"), in form and substance acceptable to the Representative, for the purchase of an aggregate of [●] shares of Class A Common Stock of the Company, which shall be registered in the name or names and shall be in such denominations as the Representative may request at least one (1) business day before the Closing Date.

6. Covenants.

(a) The Company covenants and agrees with the Underwriters as follows:

(i) The Company shall prepare the Final Prospectus in a form approved by the Representative and file such Final Prospectus pursuant to Rule 424(b) under the

Securities Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by the Rules and Regulations.

(ii) During the period beginning on the date hereof and ending on the later of the Closing Date or such date as determined by the Representative the Final Prospectus is no longer required by law to be delivered in connection with sales by an underwriter or dealer (the "Prospectus Delivery Period"), prior to amending or supplementing the Registration Statement, including any Rule 462 Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, the Company shall furnish to the Representative for review and comment a copy of each such proposed amendment or supplement, and the Company shall not file any such proposed amendment or supplement to which the Representative reasonably objects.

(iii) From the date of this Agreement until the end of the Prospectus Delivery Period, the Company shall promptly advise the Representative in writing (A) of the receipt of any comments of, or requests for additional or supplemental information from, the Commission, (B) of the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus, (C) of the time and date that any post-effective amendment to the Registration Statement becomes effective and (D) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending its use or the use of the Time of Sale Disclosure Package, the Final Prospectus or any Issuer Free Writing Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Common Stock from any securities exchange upon which it is listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time during the Prospectus Delivery Period, the Company will use its reasonable efforts to obtain the lifting of such order at the earliest possible moment. Additionally, the Company agrees that it shall comply with the provisions of Rules 424(b), 430A, 430B or 430C, as applicable, under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission (without reliance on Rule 424(b)(8) or 164(b) of the Securities Act).

(iv) (A) During the Prospectus Delivery Period, the Company will comply with all requirements imposed upon it by the Securities Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, and by the Exchange Act, as now and hereafter amended, so far as necessary to permit the continuance of sales of or dealings in the Shares as contemplated by the provisions hereof, the Time of Sale Disclosure Package, the Registration Statement and the Final Prospectus. If during the Prospectus Delivery Period any event occurs the result of which would cause the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is

necessary or appropriate in the opinion of the Company or its counsel or the Representative or counsel to the Underwriters to amend the Registration Statement or supplement the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) to comply with the Securities Act, the Company will promptly notify the Representative, allow the Representative the opportunity to provide reasonable comments on such amendment, prospectus supplement or document, and will amend the Registration Statement or supplement the Final Prospectus (or if the Final Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(B) If at any time during the Prospectus Delivery Period there occurred or occurs an event or development the result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or any Prospectus or included or would include, when taken together with the Time of Sale Disclosure Package, an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(v) The Company shall take or cause to be taken all necessary action to qualify the Shares for sale under the securities laws of such jurisdictions as the Representative reasonably designates and to continue such qualifications in effect so long as required for the distribution of the Shares, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified, to execute a general consent to service of process in any state or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise subject.

(vi) The Company will furnish to the Underwriters and counsel to the Underwriters copies of the Registration Statement, each Prospectus, any Issuer Free Writing Prospectus, and all amendments and supplements to such documents, in each case as soon as available and in such quantities as the Underwriters may from time to time reasonably request.

(vii) The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company’s current fiscal quarter, an earnings statement (which need not be audited) covering a 12-month period that shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 of the Rules and Regulations.

(viii) The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, will pay or cause to be paid (A) all expenses (including transfer taxes allocated to the respective transferees) incurred in connection with the delivery to the Underwriters of the Shares (including all fees and

expenses of the registrar and transfer agent of the Shares and the Underwriter Warrants, and the cost of preparing and printing stock certificates and warrant certificates), (B) all expenses and fees (including, without limitation, fees and expenses of the Company's counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Shares, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, any Issuer Free Writing Prospectus and any amendment thereof or supplement thereto, (C) all reasonable filing fees and reasonable fees and disbursements of the Underwriters' counsel incurred in connection with the qualification of the Shares for offering and sale by the Underwriters or by dealers under the securities or blue sky laws of the states and other jurisdictions that the Representative, (D) the reasonable filing fees and reasonable fees and disbursements of counsel to the Underwriters incident to any required review and approval by FINRA, of the terms of the sale of the Shares, the reimbursements set forth in clauses (C) and (D) not to exceed $35,000 in the aggregate, (E) listing fees, if any, and (F) all other costs and expenses incident to the performance of its obligations hereunder that are not otherwise specifically provided for herein. The Company will reimburse the Representative for the Underwriters' reasonable out-of-pocket expenses, including legal fees and disbursements, in connection with the purchase and sale of the Shares contemplated hereby up to an aggregate of $100,000 (excluding amounts payable pursuant to clauses (C) and (D) above). If this Agreement is terminated by the Representative in accordance with the provisions of Section 7, Section 10 or Section 11, the Company will reimburse the Underwriter for all out-of-pocket disbursements (including, but not limited to, reasonable fees and disbursements of counsel, travel expenses, postage, facsimile and telephone charges) incurred by the Underwriters in connection with their investigation, preparing to market and marketing the Shares or in contemplation of performing its obligations hereunder.

(ix) The Company will apply the net proceeds from the sale of the Shares to be sold by it hereunder for the purposes set forth in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus under the heading "Use of Proceeds."

(x) The Company represents and agrees that, unless it obtains the prior written consent of the Representative, and the each Underwriter , severally, and not jointly, represents and agrees that, unless it obtains the prior written consent of the Company, it has not made and will not make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in Schedule IV. Any such free writing prospectus consented to by the Company and the Representative is hereinafter referred to as a "Permitted Free Writing Prospectus." The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied or will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record-keeping.

(xi) The Company hereby agrees that, without the prior written consent of the Representative, it will not, during the period ending one hundred eighty (180) days after the date hereof ("Lock-Up Period"), (A) offer, pledge, issue, sell, contract to sell, purchase, contract to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock; or (B) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (A) or (B) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise; or (C) file any registration statement with the Commission relating to the offering of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock. The restrictions contained in the preceding sentence shall not apply to (1) the Shares to be sold hereunder, (2) the issuance of Common Stock upon the exercise of options or warrants or the conversion of outstanding preferred stock or other outstanding convertible securities disclosed as outstanding in the Registration Statement (excluding exhibits thereto), the Time of Sale Disclosure Package, and the Final Prospectus, (3) the issuance of employee stock options not exercisable during the Lock-Up Period and the grant of restricted stock awards or restricted stock units or shares of Common Stock pursuant to equity incentive plans described in the Registration Statement (excluding exhibits thereto), the Time of Sale Disclosure Package, and the Final Prospectus, (4) the filing of a registration statement on Form S-8 to register shares of Common Stock issuable pursuant to the terms of any stock option, stock bonus or other stock plan or arrangement described in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, or (5) the issuance of shares of Common Stock in connection with any joint venture, commercial or collaborative relationship or the acquisition or license by the Company of the securities, businesses, property or other assets of another person or entity; provided, however, that in the case of clause (5), such shares of Common Stock shall not in the aggregate exceed 10% of the Company's outstanding shares of Common Stock on a fully diluted basis after giving effect to the sale of the Shares, the Underwriter Warrants, the Underwriter Warrant Shares contemplated by this Agreement and the sale of the shares issued to all purchasers (the "Private Placement Investors") of Common Stock in the private placement described in the "Concurrent Private Placement" section of the Registration Statement, the Time of Sale Disclosure Package, and the Final Prospectus.

(xii) The Company agrees to engage and maintain, at its expense, a registrar and transfer agent for the Common Stock (if other than the Company).

(xiii) The Company agrees to use its reasonable best efforts to obtain approval to list the Shares and the Underwriter Warrant Shares on Nasdaq.

(xiv) The Company agrees to not take, directly or indirectly, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, under the Exchange Act or otherwise, the stabilization or manipulation of the price of any securities of the Company to facilitate the sale or resale of the Shares.

(xv) The Company will promptly notify the Representative if the Company ceases to be an Emerging Growth Company at any time prior to the later of (a) the end of the Prospectus Delivery Period and (b) the expiration of the Lock-Up Period.

7. Conditions of the Underwriter's Obligations. The respective obligations of the several Underwriters hereunder to purchase the Shares are subject to the accuracy, as of the date hereof and at all times through the Closing Date, and on each Option Closing Date (as if made on the Closing Date or such Option Closing Date, as applicable), of and compliance with all representations, warranties and agreements of the Company contained herein, the performance by the Company of its obligations hereunder and the following additional conditions:

(a) If filing of the Final Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, is required under the Securities Act or the Rules and Regulations, the Company shall have filed the Final Prospectus (or such amendment or supplement) or such Issuer Free Writing Prospectus with the Commission in the manner and within the time period so required (without reliance on Rule 424(b)(8) or 164(b) under the Securities Act); the Registration Statement shall remain effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof, any Rule 462 Registration Statement, or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened by the Commission; any request of the Commission or the Representative for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, any Issuer Free Writing Prospectus or otherwise) shall have been complied with to the satisfaction of the Representative.

(b) (b) The Shares shall be approved for listing on Nasdaq, subject to official notice of issuance.

(c) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(d) The Representative shall not have reasonably determined, and advised the Company, that the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus, or any amendment thereof or supplement thereto, or any Issuer Free Writing Prospectus, contains an untrue statement of fact which, in the reasonable opinion of the Representative, is material, or omits to state a fact which, in the reasonable opinion of the Representative, is material and is required to be stated therein or necessary to make the statements therein not misleading.

(e) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Representative on behalf of the Underwriter the opinion and negative assurance letters of K&L Gates LLP, U.S. counsel to the Company, dated the Closing Date or the Option Closing Date, as applicable, and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(f) On the Closing Date and on each Option Closing Date, there shall have

been furnished to the Representative on behalf of the Underwriter the opinion and negative assurance letters of K&L Gates LLP, intellectual property counsel to the Company, dated the Closing Date or the Option Closing Date, as applicable, and addressed to the Representative, in form and substance reasonably satisfactory to the Representative.

(g) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Representative the opinion and negative assurance letter of King & Wood Mallesons, PRC counsel to the Company, dated the Closing Date or the Option Closing Date, as applicable, and addressed to the Representative, in form and substance reasonably satisfactory to the Representative**.**

(h) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Representative the negative assurance letter of Goodwin Procter LLP, counsel to the Underwriters, dated the Closing Date or the Option Closing Date, as applicable, and addressed to the Representative, in form and substance reasonably satisfactory to Representatives.

(i) The Representative shall have received a letter of BDO China Shu Lun Pan Certified Public Accountants LLP, on the date hereof, on the Closing Date and on each Option Closing Date, addressed to the Representative, confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualifications of accountants under Rule 2-01 of Regulation S-X of the Commission, and confirming, as of the date of each such letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Registration Statement, the Time of Sale Disclosure Package and the Final Prospectus, as of a date not prior to the date hereof or more than five days prior to the date of such letter), the conclusions and findings of said firm with respect to the financial information and other matters reasonably required by the Representative.

(j) On the Closing Date and on each Option Closing Date, there shall have been furnished to the Representative a certificate, dated the Closing Date and on each Option Closing Date and addressed to the Representative, signed by the chief executive officer and the chief financial officer of the Company, in their capacity as officers of the Company, to the effect that:

(i) The representations and warranties of the Company in this Agreement that are qualified by materiality or by reference to any Material Adverse Effect are true and correct in all respects, and all other representations and warranties of the Company in this Agreement are true and correct, in all material respects, as if made at and as of the Closing Date and on the Option Closing Date, and the Company has complied with all the agreements and satisfied all the conditions on its part required to be performed or satisfied at or prior to the Closing Date or on the Option Closing Date, as applicable;

(ii) No stop order or other order (A) suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof, (B) suspending the qualification of the Shares for offering or sale, or (C) suspending or preventing the use of the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus, has been issued, and no proceeding for that purpose has been instituted or, to their knowledge, is contemplated by the Commission or any state or regulatory body; and

(iii) There has been no occurrence of any event resulting or reasonably likely to result in a Material Adverse Effect during the period from and after the date of this Agreement and prior to the Closing Date or the Option Closing Date, as applicable.

(k) On or before the date hereof, the Representative shall have received duly executed lock-up agreement, substantially in the form of Exhibit A hereto (each a "Lock-Up Agreement") by and between the Representative and (i) holders of at least 95% of the shares of Common Stock outstanding as of the date hereof (on an as converted basis, assuming the conversion of all outstanding shares of the Company's convertible preferred stock and Class B common stock) and (ii) the Private Placement Investors.

If the Representative, in its sole discretion, agrees to release or waive the restrictions set forth in the Lock-Up Agreement for an officer, as defined in Rule 16a-1(f) under the Exchange Act, or director of the Company and provide the Company with notice of the impending release or waiver substantially in the form of Exhibit B hereto at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit B hereto through a major news service at least two business days before the effective date of the release or waiver.

(l) The Company shall have furnished to the Representative and its counsel such additional documents, certificates and evidence as the Representative or its counsel may have reasonably requested.

If any condition specified in this Section 7 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Representative by notice to the Company at any time at or prior to the Closing Date or on the Option Closing Date, as applicable, and such termination shall be without liability of any party to any other party, except that Section 6(a)(viii), Section 8 and Section 9 shall survive any such termination and remain in full force and effect.

8. Indemnification and Contribution.

(a) The Company agrees to indemnify, defend and hold harmless each Underwriter, its affiliates, directors and officers and employees, and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (each, a "Company Indemnified Party"), from and against any losses, claims, damages or liabilities to which such Underwriter or such person may become subject, under the Securities Act or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon (i) an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the information deemed to be a part of the Registration Statement at the Effective Time and at any subsequent time pursuant to Rules 430A and 430B of the Rules and Regulations, or arise out of or are based upon the omission from the Registration Statement, or alleged omission to state therein, a material fact

required to be stated therein or necessary to make the statements therein not misleading (ii) an untrue statement or alleged untrue statement of a material fact contained in the Time of Sale Disclosure Package, any Written Testing-the-Waters Communications, any Prospectus, or any amendment or supplement thereto, any Issuer Free Writing Prospectus, or the Marketing Materials or in any other materials used in connection with the offering of the Shares, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, (iii) in whole or in part, any inaccuracy in the representations and warranties of the Company contained herein, or (iv) in whole or in part, any failure of the Company to perform its obligations hereunder or under law, and will reimburse each Company Indemnified Party for any legal or other expenses reasonably incurred by it in connection with evaluating, investigating or defending against such loss, claim, damage, liability or action; *provided*, *however*, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Time of Sale Disclosure Package, any Written Testing-the-Waters Communications, any Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus, in reliance upon and in conformity with written information furnished to the Company by such Underwriter specifically for use in the preparation thereof, which written information is described in Section 8(f).

(b) Each Underwriter, severally and not jointly, will indemnify, defend and hold harmless the Company, its affiliates, directors, officers and employees, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (each, an "Underwriter Indemnified Party"), from and against any losses, claims, damages or liabilities to which the Company may become subject, under the Securities Act or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, or any amendment or supplement thereto or any Issuer Free Writing Prospectus or Written Testing-the-Waters Communication in reliance upon and in conformity with written information furnished to the Company by such Underwriter specifically for use in the preparation thereof, which written information is described in Section 8(f), and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with evaluating, investigating, and defending against any such loss, claim, damage, liability or action. The obligation of each Underwriter to indemnify the Underwriter Indemnified Party shall be limited to the amount of the underwriting discount applicable to the Shares to be purchased by such Underwriter hereunder actually received by such Underwriter.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in

respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the failure to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof; *provided*, *however*, that if (i) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (ii) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party), or (iii) the indemnifying party has not in fact employed counsel reasonably satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, the indemnified party shall have the right to employ a single counsel to represent it in any claim in respect of which indemnity may be sought under subsection (a) or (b) of this Section 8, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the indemnified party as incurred.

The indemnifying party under this Section 8 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is a party or could be named and indemnity was or would be sought hereunder by such indemnified party, unless such settlement, compromise or consent (i) includes an unconditional release of such indemnified party from all liability for claims that are the subject matter of such action, suit or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 8 is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering and sale of the Shares or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with

the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discount received by the Underwriters, in each case as set forth in the table on the cover page of the Final Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters and the parties' relevant intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were to be determined by pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the first sentence of this subsection (d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim that is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount of the underwriting discount applicable to the Shares to be purchased by such Underwriter hereunder actually received by such Underwriter. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' respective obligations to contribute as provided in this Section 8 are several in proportion to their respective underwriting commitments and not joint.

(e) The obligations of the Company under this Section 8 shall be in addition to any liability that the Company may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to each Company Indemnified Party; and the obligations of each Underwriter under this Section 8 shall be in addition to any liability that each Underwriter may otherwise have and the benefits of such obligations shall extend, upon the same terms and conditions, to each Underwriter Indemnified Party.

(f) For purposes of this Agreement, each Underwriter severally confirms, and the Company acknowledges, that there is no information concerning such Underwriter furnished in writing to the Company by such Underwriter specifically for preparation of or inclusion in the Registration Statement, the Time of Sale Disclosure Package, any Prospectus, the Final Prospectus or any Issuer Free Writing Prospectus, other than (i) the statement set forth in the last paragraph on the cover page of the Prospectus, (ii) the marketing and legal names of each Underwriter, and (iii) the statements set forth in the "Underwriting" section of the Registration Statement, the Time of Sale Disclosure Package, and the Final Prospectus only insofar as such statements relate to the amount of selling concession and re-allowance, if any, or to over-allotment, stabilization and related activities that may be undertaken by the Underwriters.

9. Representations and Agreements to Survive Delivery. All representations, warranties, indemnities and agreements of the Company or its officers and of the Underwriters set forth in or made pursuant to this Agreement shall remain operative and in full force and effect

regardless of any investigation made by or on behalf of the several Underwriters or any controlling person thereof, or the Company or any of its officers, directors, or controlling persons, and shall survive delivery of, and payment for, the Shares to and by the Underwriters hereunder. The provisions of Sections 6(a)(viii), 9 and 10 hereof shall survive the termination or cancellation of this Agreement.

10. Termination of this Agreement.

(a) The Representative shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the Closing Date or any Option Closing Date (as to the Option Shares to be purchased on such Option Closing Date only), if in the discretion of the Representative, (i) there has occurred any material adverse change in the securities markets or any event, act or occurrence that has materially disrupted, or in the opinion of the Representative, will in the future materially disrupt, the securities markets or there shall be such a material adverse change in general financial, political or economic conditions or the effect of international conditions on the financial markets in the United States or the PRC is such as to make it, in the judgment of the Representative, inadvisable or impracticable to market the Shares or enforce contracts for the sale of the Shares (ii) trading in the Company's Common Stock shall have been suspended by the Commission or the Nasdaq or trading in securities generally on the Nasdaq Stock Market, the NYSE or the NYSE MKT shall have been suspended, (iii) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the Nasdaq Stock Market, the NYSE or NYSE MKT, by such exchange or by order of the Commission or any other governmental authority having jurisdiction, (iv) a banking moratorium shall have been declared by federal or state or the PRC authorities, (v) there shall have occurred any attack on, outbreak or escalation of hostilities or act of terrorism involving the United States or the PRC, any declaration by the United States or the PRC of a national emergency or war, any substantial change or development involving a prospective substantial change in United States or the PRC or other international political, financial or economic conditions or any other calamity or crisis, or (vi) the Company suffers any loss by strike, fire, flood, earthquake, accident or other calamity, whether or not covered by insurance, or (vii) in the judgment of the Representative, there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the Registration Statement, the Time of Sale Disclosure Package or the Final Prospectus, any material adverse change in the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiaries considered as a whole, whether or not arising in the ordinary course of business. Any such termination shall be without liability of any party to any other party except that the provisions of Section 6(a)(viii) and Section 8 hereof shall at all times be effective and shall survive such termination.

(b) If the Representative elects to terminate this Agreement as provided in this Section, the Company shall be notified promptly by the Representative by telephone, confirmed by letter.

11. Substitution of Underwriters. If any Underwriter or Underwriters shall default in its or their obligations to purchase Shares hereunder on the Closing Date or any Option Closing Date and the aggregate number of Shares which such defaulting Underwriter or Underwriters agreed but failed to purchase does not exceed ten percent (10%) of the total number of Shares to be

purchased by all Underwriters on such Closing Date or Option Closing Date, the other Underwriters shall be obligated severally, in proportion to their respective commitments hereunder, to purchase the Shares which such defaulting Underwriter or Underwriters agreed but failed to purchase on such Closing Date or Option Closing Date. If any Underwriter or Underwriters shall so default and the aggregate number of Shares with respect to which such default or defaults occur is more than ten percent (10%) of the total number of Shares to be purchased by all Underwriters on such Closing Date or Option Closing Date and arrangements satisfactory to the remaining Underwriters and the Company for the purchase of such Shares by other persons are not made within forty-eight (48) hours after such default, this Agreement shall terminate.

If the remaining Underwriters or substituted Underwriters are required hereby or agree to take up all or part of the Shares of a defaulting Underwriter or Underwriters on such Closing Date or Option Closing Date as provided in this Section 11, (i) the Company shall have the right to postpone such Closing Date or Option Closing Date for a period of not more than five (5) full business days in order to permit the Company to effect whatever changes in the Registration Statement, the Final Prospectus, or in any other documents or arrangements, which may thereby be made necessary, and the Company agrees to promptly file any amendments to the Registration Statement or the Final Prospectus which may thereby be made necessary, and (ii) the respective numbers of Shares to be purchased by the remaining Underwriters or substituted Underwriters shall be taken as the basis of their underwriting obligation for all purposes of this Agreement. Nothing herein contained shall relieve any defaulting Underwriter of its liability to the Company or any other Underwriter for damages occasioned by its default hereunder. Any termination of this Agreement pursuant to this Section 11 shall be without liability on the part of any non-defaulting Underwriters or the Company, except that the representations, warranties, covenants, indemnities, agreements and other statements set forth in Sections 2, 3, 4, 6(a)(viii), 8, 9, 10 and 18, inclusive, shall not terminate and shall remain in full force and effect.

12. Notices. Except as otherwise provided herein, all communications hereunder shall be in writing and, if to the Representative, shall be mailed, delivered or telecopied to Roth Capital Partners, LLC, 800 San Clemente Drive, Suite 400, Newport Beach, California 92660, telecopy number (949) 720-7227, Attention: Managing Director, with a copy to Goodwin Procter LLP, 620 Eighth Avenue, New York, New York 10018, telecopy number (646) 558-4145; and if to the Company, shall be mailed, delivered or telecopied to it at ACM Research, Inc., 42307 Osgood Road, Suite I, Fremont, California 94539, Attention: David H. Wang, with a copy to K&L Gates LLP, One Lincoln Street, Boston, Massachusetts 02111, telecopy number (617) 261-3175, Attention: Mark Johnson; or in each case to such other address as the person to be notified may have requested in writing. Any party to this Agreement may change such address for notices by sending to the other parties to this Agreement written notice of a new address for such purpose.

13. Persons Entitled to Benefit of Agreement. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 8. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term “successors and assigns” as herein used shall not include any purchaser, as such purchaser, of any of the Shares from any Underwriter.

14. Absence of Fiduciary Relationship. The Company acknowledges and agrees that: (a) each Underwriter has been retained solely to act as underwriter in connection with the sale of the Shares and that no fiduciary, advisory or agency relationship between the Company and any Underwriter has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Underwriter has advised or is advising the Company on other matters; (b) the price and other terms of the Shares set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Underwriters and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Underwriters and their affiliates are engaged in a broad range of transactions that may involve interests that differ from those of the Company and that no Underwriter has any obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and (d) it has been advised that each Underwriter is acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of such Underwriter, and not on behalf of the Company.

15. Amendments and Waivers. No supplement, modification or waiver of this Agreement shall be binding unless executed in writing by the party to be bound thereby. The failure of a party to exercise any right or remedy shall not be deemed or constitute a waiver of such right or remedy in the future. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (regardless of whether similar), nor shall any such waiver be deemed or constitute a continuing waiver unless otherwise expressly provided.

16. Partial Unenforceability. The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision.

17. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York.

18. Submission to Jurisdiction. The Company irrevocably (a) submits to the jurisdiction of any court of the State of New York for the purpose of any suit, action, or other proceeding arising out of this Agreement, or any of the agreements or transactions contemplated by this Agreement, the Registration Statement, the Time of Sale Disclosure Package, and any Prospectus (each a "Proceeding"), (b) agrees that all claims in respect of any Proceeding may be heard and determined in any such court, (c) waives, to the fullest extent permitted by law, any immunity from jurisdiction of any such court or from any legal process therein, (d) agrees not to commence any Proceeding other than in such courts, and (e) waives, to the fullest extent permitted by law, any claim that such Proceeding is brought in an inconvenient forum. THE COMPANY (ON BEHALF OF ITSELF AND, TO THE FULLEST EXTENT PERMITTED BY LAW, ON BEHALF OF ITS RESPECTIVE EQUITY HOLDERS AND CREDITORS) HEREBY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY CLAIM BASED UPON, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, THE REGISTRATION STATEMENT, THE TIME OF SALE DISCLOSURE PACKAGE, AND ANY PROSPECTUS.

19. Counterparts. This Agreement may be executed and delivered (including by facsimile transmission or electronic mail) in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

[*Signature Page Follows*]

Please sign and return to the Company the enclosed duplicates of this Agreement whereupon this Agreement will become a binding agreement between the Company and the several Underwriters in accordance with its terms.

Very truly yours,

ACM RESEARCH, INC.

By: _____
Name: David H. Wang
Title: Chief Executive Officer and President

Confirmed as of the date first above-mentioned
by the Representative of the several Underwriters.

ROTH CAPITAL PARTNERS, LLC

By: _____
Name: Aaron M. Gurewitz
Title: Head of Equity Capital Markets

SCHEDULE I

Name	Number of Firm Shares to be Purchased	Number of Option Shares to be Purchased
Roth Capital Partners, LLC		
Craig-Hallum Capital Group LLC		
The Benchmark Company, LLC		
Total		

SCHEDULE II

Written Testing-the-Waters Communications

SCHEDULE III

Firm Shares Offered: [●]
Option Shares Offered: [●]
Public Offering Price Per Share: $[●]
Underwriting Discount: [●]%

SCHEDULE IV

FREE WRITING PROSPECTUS
Filed Pursuant to Rule 433

EXHIBIT A

Form of Lock-Up Agreement

EXHIBIT B

Form of Press Release

ACM Research, Inc.
[Date]

ACM Research, Inc. (the "Company") announced today that Roth Capital Partners, LLC the Representative in the Company's recent public sale of shares of common stock are releasing a lock-up restriction with respect to shares of the Company's common stock held by [certain officers or directors] [an officer or director] of the Company. The release will take effect on , 20 , and the shares may be sold on or after such date.

This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

Exhibit 3.03

RESTATED CERTIFICATE OF INCORPORATION

OF

ACM RESEARCH, INC.

The name of the corporation is ACM Research, Inc. The corporation was incorporated under the name "ACM Research, Inc." by the filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware on September 27, 2016, and such Certificate of Incorporate was amended by the filing of a Certificate of Amendment on September 13, 2017. This Restated Certificate of Incorporation, which restates and integrates and also further amends the provisions of the corporation's Certificate of Incorporation, as previously amended, was duly adopted in accordance with the provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware by (a) the written consent of the board of directors of the corporation in accordance with Section 141(f) of the General Corporation Law of the State of Delaware and (b) the written consent of the stockholders of the corporation in accordance with Section 228 of the General Corporation Law of the State of Delaware. The corporation's Certificate of Incorporation, as previously amended, is hereby amended, integrated and restated to read in its entirety as follows:

[Remainder of page intentionally left blank]

ARTICLE I. NAME AND ADDRESS

The name of the corporation is ACM Research, Inc. (the "*Corporation*"). The address of the Corporation's registered office in the State of Delaware is c/o Corporation Service Company, 251 Little Falls Drive, County of New Castle, Wilmington, Delaware 19808. The name of its registered agent at such address is Corporation Service Company.

ARTICLE II. PURPOSE

The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware (the "*DGCL*").

ARTICLE III. CAPITAL STOCK

The total number of shares of capital stock that the Corporation is authorized to issue is 62,409,738, each of which shares has a par value of $0.0001. The Corporation is authorized to issue three classes of capital stock, which are designated "*Class A Common Stock*," "*Class B Common Stock*" and "*Preferred Stock*." Of the 62,409,738 authorized shares of capital stock, 50,000,000 shares shall be designated as Class A Common Stock ("*Class A Common Shares*"), 2,409,738 shares shall be designated as Class B Common Stock ("*Class B Common Shares*") and 10,000,000 shares shall be designated as Preferred Stock ("*Preferred Shares*"). Class A Common Shares and Class B Common Shares are referred to collectively as "*Common Shares*."

A. Common Stock.

(1) Change in Authorized Shares. The number of authorized Class A Common Shares or Class B Common Shares may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of this Restated Certificate of Incorporation or any certificate of designation with respect to a series of Preferred Stock (a "*Certificate of Designation*") authorized pursuant to Section 151(g) of the DGCL), the affirmative vote of the holders of capital stock representing a majority of the voting power of the then-outstanding Common Shares and Preferred Shares, voting together as a single class on an as-converted basis.

(2) Dividends. Class A Common Shares and Class B Common Shares shall be treated equally, identically and ratably, on a per share basis, with respect to any dividends or distributions as may be declared and paid from time to time out of any assets of the Corporation legally available therefor, *provided* that in the event a dividend is paid in the form of Class A Common Shares or Class B Common Shares (or rights to acquire such shares), then holders of Class A Common Shares shall receive Class A Common Shares (or rights to acquire such shares, as the case may be) and holders of Class B Common Shares shall receive Class B Common Shares (or rights to acquire such shares, as the case may be), with holders of Class A Common Shares and Class B Common Shares receiving, on a per share basis, an identical number of Class A Common Shares or Class B Common Shares, as applicable. Notwithstanding the foregoing, the board of directors of the Corporation (the "*Board*") may declare a dividend or distribution that is not identical or equivalent on a per share basis as between the Class A Common Shares and Class B Common Shares (whether in the amount of such dividend or distribution payable per share, the form in which such dividend or distribution is payable, the timing of the payment, or otherwise) if such disparate dividend or distribution is approved in advance by the affirmative vote of the holders of a majority of the then-outstanding Class A Common Shares and a majority of the then-outstanding Class B Common Shares, voting separately as classes.

(3) Voting. On any matter submitted to a vote of the stockholders of the Corporation, holders of Common Shares are entitled to one vote for each Class A Common Share held and twenty votes for each Class B Common Share held. Except as otherwise provided in this Restated Certificate of Incorporation or the DGCL, the holders of Class A Common Shares and Class B Common Shares shall vote together as one class on all matters submitted to a vote of stockholders. Holders of Common Shares, as such, shall not be entitled to vote on any amendment to this Restated Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Restated Certificate of Incorporation or the DGCL.

(4) Conversion Rights.

(a) Voluntary Conversion. Each Class B Common Share shall be convertible at any time, at the option of the holder thereof upon written notice to the Corporation, into one fully paid and nonassessable Class A Common Share. Before any holder may convert any Class B Common Shares, the holder shall (i) surrender the certificate or certificates therefor, duly endorsed, at the principal corporate office of the Corporation or of the transfer agent for the Class B Common Stock and (ii) provide written notice to the Corporation, at its principal corporate office, of the holder's election to convert such Class B Common Shares and the name or names in which the certificate or certificates for Class A Common Shares are to be issued. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder, or to the nominee or nominees or such holder, a certificate or certificates for the number of Class A Common Shares to which such holder shall be entitled upon such conversion. The conversion of such Class B Common Shares shall be deemed to have been made immediately prior to the close of business on the first date as of which the holder has, in accordance with this Section III.A(4)(a), both delivered written notice to the Corporation and surrendered the certificate or certificates for such shares, and the person or persons entitled to receive the Class A Common Shares issuable upon such conversion shall be treated for all purposes as the record holder or holders of such Class A Common Shares as of such time and date. Each Class B Common Share that is converted pursuant to this Section III.A(4)(a) shall be retired by the Corporation and shall not be available for reissuance.

(b) Automatic Conversion.

(i) A Class B Common Share shall be immediately and automatically converted into one fully paid and nonassessable Class A Common Share, upon any of the following (each a "*Common Conversion Event*" with respect to such Class B Common Share):

(A) the occurrence of a Transfer, other than a Permitted Transfer, of such Class B Common Share;

(B) the receipt by the Corporation of the affirmative vote at a duly noticed stockholders meeting of the holders of a majority of the Class B Common Shares then outstanding in favor of the conversion of all of the Class B Common Shares; or

(C) at 11:59 p.m. (Eastern standard time) on the first December 31 that occurs more than five years after the date of filing of this Restated Certificate of Incorporation with the Secretary of State of the State of Delaware (the "*Filing Date*") if the October Market Cap with respect to the month of October

immediately preceding such December 31 exceeds $1,000,000,000.00, *provided* that this clause (C) shall be of no further effect, and no Common Conversion Event shall ever occur pursuant to this clause (C), as of any December 31 occurring less than five years after the Filing Date if the October Market Cap for the month of October immediately preceding such December 31 exceeds $1,000,000,000.00.

For purposes of clarity, a Common Conversion Event pursuant to the preceding clause (A) shall apply only with respect to the share or shares being Transferred (other than in a Permitted Transfer) and not with respect to any other outstanding Class B Common Shares and a Common Conversion Event pursuant to the preceding clause (B) or (C) shall apply to all outstanding Class B Common Shares.

(ii) Each outstanding stock certificate that, immediately prior to a Common Conversion Event, represented one or more Class B Common Shares subject to such Common Conversion Event shall, upon such Common Conversion Event, be deemed to represent an equal number of Class A Common Shares, without the need for surrender or exchange thereof. The Corporation shall, upon the request of any holder whose Class B Common Shares have been converted into Class A Common Shares as a result of a Common Conversion Event and upon surrender by such holder to the Corporation of the outstanding certificate or certificates formerly representing such holder's Class B Common Shares, issue and deliver to such holder a certificate or certificates representing the Class A Common Shares into which such holder's Class B Common Shares were converted as a result of such Common Conversion Event. Each Class B Common Share that is converted pursuant to this Section III.A(4)(a) shall thereupon be retired by the Corporation and shall not be available for reissuance.

(iii) The Corporation may, from time to time, establish such policies and procedures, not in violation of the other provisions of this Restated Certificate of Incorporation or of applicable law, relating to the conversion of Class B Common Shares into Class A Common Shares, as it may deem necessary or advisable in connection therewith. If the Corporation has reason to believe that a Transfer giving rise to a conversion of Class B Common Shares into Class A Common Shares has occurred but has not theretofore been reflected on the books of the Corporation, the Corporation may request that the holder of such shares furnish affidavits or other evidence to the Corporation as the Corporation deems necessary to determine whether a conversion of Class B Common Shares to Class A Common Shares has occurred, and if such holder does not within ten days after the date of such request furnish sufficient evidence to the Corporation (in the manner provided in the request) to enable the Corporation to determine that no such conversion has occurred, any such Class B Common Shares, to the extent not previously converted, shall be automatically converted into Class A Common Shares and the same shall thereupon be registered on the books and records of the Corporation. In the event of any issue, question or uncertainty, the Board shall have full power and authority to take all actions and to make all determinations required as to whether a proposed or past Transfer of Class B Common Shares qualifies or qualified as a Permitted Transfer.

(c) Special Definitions. For purposes of this Restated Certificate of Incorporation, the following definitions shall apply:

(i) "*Family Member*" shall mean, with respect to any natural person who is a Qualified Stockholder, the spouse, or a parent, grandparent, lineal descendant, sibling or lineal descendant of a sibling, of such Qualified Stockholder. A lineal descendant shall include an adopted person if, but only if, he or she is adopted during minority.

(ii) "*October Market Cap*" shall mean, with respect to any October throughout which Class A Common Stock is traded on a securities exchange registered with the Securities and Exchange Commission, the product of:

(A) the average of the VWAPs for each of the days in such month of October on which Class A Common Stock is traded on a securities exchange registered with the Securities and Exchange Commission, where "VWAP" means, for any such trading day, the daily volume weighted average price for the regular trading day session (the total dollar amount traded during regular trading hours on such day divided by trading volume during such trading hours) of the Class A Common Stock on The NASDAQ Global Market (or such other exchange or market as is then the principal trading exchange or market for the Class A Common Stock). as reported by Bloomberg L.P. (or, if not reported on Bloomberg, L.P., on such reporting service as shall be approved by the Board), multiplied by

(B) the number of Common Shares outstanding as of 11:59 p.m. (Eastern daylight saving time) on the last trading day of such month of October.

(iii) "*Permitted Entity*" shall mean, with respect to a Qualified Stockholder:

(A) a bona fide trust for which (1) the trustee is such Qualified Stockholder, the trustee of such Qualified Stockholder, a Family Member of such Qualified Stockholder, or a professional in the business of providing trustee services (including a private professional fiduciary, trust company or bank trust department) and (2) the beneficiaries are comprised solely of (A) such Qualified Stockholder, one or more Family Members or trust beneficiaries of such Qualified Stockholder, or one or more other Permitted Entities of such Qualified Stockholder, or

(B) a general partnership, limited partnership, limited liability company, corporation or other entity owned exclusively by such Qualified Stockholder or one or more Family Members or other Permitted Entities of such Qualified Stockholder.

(iv) "*Permitted Transfer*" shall mean, and be restricted to, any Transfer of a Class B Common Share:

(A) by a Qualified Stockholder to one or more Family Members or Permitted Entities of such Qualified Stockholder;

(B) by a Permitted Entity of a Qualified Stockholder to such Qualified Stockholder or one or more Family Members or other Permitted Entities of such Qualified Stockholder; or

(C) by a Qualified Stockholder to a natural person or entity that both:

(i) was, as of the date on which such Qualified Stockholder became a Qualified Stockholder (that is, the later of the Filing Date and the date of a Permitted Transfer to such Qualified Stockholder described in clause (ii) of Section III.A(4)(c)(v)), and

(ii) is, as of the date of such Transfer,

the sole equity owner of such Qualified Stockholder.

(v) "*Qualified Stockholder*" shall mean, with respect to a Class B Common Share, (i) the holder of such Class B Common Share as of the Filing Date or (ii) a Transferee of such Class B Common Share pursuant to a Permitted Transfer after the Filing Date.

(vi) "*Transfer*" shall mean, with respect to a Class B Common Share, any sale, assignment, transfer, conveyance, hypothecation or other transfer or disposition of such share or any legal or beneficial interest in such share, whether or not for value and whether voluntary or involuntary or by operation of law, including a transfer of a Class B Common Share to a broker or other nominee (regardless of whether there is a corresponding change in beneficial ownership), or the transfer of, or entering into a binding agreement with respect to, Voting Control over such Class B Common Share by proxy or otherwise, *provided* that the following shall not be considered a "Transfer," whether entered into before or after the Filing Date:

(A) the granting of a revocable proxy to officers or directors of the Corporation at the request of the Board in connection with actions to be taken at an annual or special meeting of stockholders;

(B) the entry into of a voting trust, agreement or arrangement (with or without granting a proxy) as part of, or in connection with, a director nomination agreement entered into by the Corporation in favor of one or more persons as part of an equity financing transaction;

(C) the entry into of a voting trust, agreement or arrangement (with or without granting a proxy) solely with stockholders who are holders of Class B Common Shares that (1) is disclosed either in a Schedule 13D filed with the Securities and Exchange Commission or in writing to the Secretary of the Corporation, (2) either has a term not exceeding one year or is terminable by the holder of the shares subject thereto at any time and (3) does not involve any payment of cash, securities, property or other consideration to the holder of the shares subject thereto other than the mutual promise to vote shares in a designated manner; or

(D) a pledge of Class B Common Shares by a stockholder that creates a mere security interest in such shares pursuant to a bona fide loan or indebtedness transaction for so long as such stockholder continues to exercise Voting Control over such pledged shares, *provided* that a foreclosure on such shares or other similar action by the pledgee shall constitute a "Transfer" unless such foreclosure or similar action qualifies as a "Permitted Transfer."

A "*Transfer*" shall also be deemed to have occurred with respect to a Class B Common Share beneficially held by (i) an entity that is a Permitted Entity, if there occurs any act or circumstance that causes such entity to no longer be a Permitted Entity or (ii) an entity that is a Qualified Stockholder, if there occurs a Transfer on a cumulative basis, from and after the Filing Date, of a majority of the voting power of the voting securities of such entity or any other entity that directly or indirectly owns or controls a majority of the voting power of the voting securities of such initial entity, other than a Transfer to parties that are, as of the Filing Date, holders of voting securities of any such initial entity or other entity.

(vii) "*Voting Control*" shall mean, with respect to a Class B Common Share, the power (whether exclusive or shared) to vote or direct the voting of such share by proxy, voting agreement or otherwise.

(viii) "*Voting Threshold Date*" shall mean 5:00 p.m. (Eastern time) on the first day falling on or after the date on which the outstanding Class B Common Shares represent less than a majority of the total voting power of the then outstanding shares of the Corporation then entitled to vote generally in the election of directors.

(5) Reservation of Shares. The Corporation shall at all times reserve and keep available out of its authorized but unissued Class A Common Shares, solely for the purpose of effecting the conversion of the Class B Common Shares, such number of Class A Common Shares as shall from time to time be sufficient to effect the conversion of all outstanding Class B Common Shares into Class A Common Shares.

(6) Subdivision or Combinations. If the Corporation in any manner subdivides or combines the outstanding shares of one class of Common Stock, the outstanding shares of the other class of Common Stock will be subdivided or combined in the same manner.

(7) Equal Status. Except as expressly provided in this Article III or required by applicable law, Class A Common Shares and Class B Common Shares shall have the same rights, preferences, powers and restrictions and limitations, shall rank equally, shall share ratably and shall be identical in all respects as to all matters.

(8) Protective Provision. The Corporation shall not, whether by merger, consolidation or otherwise, amend, alter, repeal or waive any provision of this Section III.A (or adopt any provision inconsistent therewith), without first obtaining the affirmative vote of the holders of a majority of the then outstanding Class B Common Shares, voting as a separate class, in addition to any other vote required by the DGCL, this Restated Certificate of Incorporation or the Bylaws of the Corporation.

(9) Change of Control Vote. Until the first date on which the outstanding Class B Common Shares represent less than 35% of the total voting power of the then-outstanding capital stock of the Corporation then entitled to vote generally in the election of directors, the Corporation shall not consummate a Change in Control Transaction without first obtaining the affirmative vote (or written consent if action by written consent of stockholders is permitted at such time under this Restated Certificate of Incorporation) of the holders of a majority of the then outstanding Class B Common Shares, voting as a separate class, in addition to any other vote required by applicable law, this Restated Certificate of Incorporation or the Bylaws of the Corporation. For the foregoing purposes, each of the following events shall be considered a "*Change in Control Transaction*":

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, a majority, by voting power, of the capital stock of (y) the surviving or

resulting corporation or (z) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, in a single transaction or in a series of related transactions, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

B. Preferred Stock.

(1) Series of Preferred Stock. The Board is hereby authorized to provide for the issuance of Preferred Shares in one or more series and, by filing a Certificate of Designation, to establish from time to time the number of shares to be included in each such series, and such voting powers, full or limited, or no voting powers, and such designations, preferences and relative participating, optional or other special rights, and qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be stated and expressed in such resolutions, all to the full extent now or hereafter permitted by the DGCL. Without limiting the generality of the foregoing, the resolutions providing for the issuance of any series of Preferred Stock may provide that such series shall be superior or rank equally or be junior to any other series of Preferred Stock to the extent permitted by law.

(2) Change in Authorized Shares. The number of authorized Preferred Shares may be increased or decreased (but not below the number of shares then outstanding) by the affirmative vote of the holders of a majority of the voting power of the capital stock of the Corporation entitled to vote thereon, voting as a single class, irrespective of the provisions of Section 242(b)(2) of the DGCL, unless a vote of such holders is required pursuant to the terms of any Certificate of Designation or this Restated Certificate of Incorporation.

ARTICLE IV. DIRECTORS

A. General Powers.

The business and affairs of the Corporation shall be managed by or under the direction of the Board.

B. Number of Directors.

Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the Corporation shall be determined exclusively by resolution adopted by a number of directors constituting a majority of the total number of authorized directors of the Corporation, whether or not there exist any vacancies in previously authorized directorships.

C. Classified Board.

Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, immediately following the Voting Threshold Date, the directors shall be divided, with respect to the time for which they severally hold office, into three classes designated as Class I, Class II and Class III, respectively (the "*Classified Board*"). The Board shall assign directors in office immediately prior to the Classified Board becoming effective to the several classes of the Classified Board, which assignments shall become effective at the same time the Classified Board becomes

effective. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by a majority of the Board, with the number of directors in each class to be divided as nearly equal as reasonably possible. The initial term of office of the Class I directors shall expire at the Corporation's first annual meeting of stockholders following the date on which the Classified Board becomes effective, the initial term of office of the Class II directors shall expire at the Corporation's second annual meeting of stockholders following the date on which the Classified Board becomes effective, and the initial term of office of the Class III directors shall expire at the Corporation's third annual meeting of stockholders following the date on which the Classified Board becomes effective. At each annual meeting of stockholders following the date on which the Classified Board becomes effective, directors elected to succeed those directors of the class whose terms then expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election.

D. Removal.

Subject to the rights of holders of any series of Preferred Stock, from and after the effectiveness of the Classified Board, directors of the Corporation may be removed with or without cause only by the affirmative vote of the holders of at least sixty-six and two-thirds of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors.

E. Vacancies.

Subject to the rights of holders of any series of Preferred Stock, any vacancy or newly created directorship in the Board, however occurring, shall be filled only by vote of a majority of the remaining directors then in office, although less than a quorum, or by a sole remaining director and shall not be filled by the stockholders. A director elected to fill a vacancy or newly created directorship shall hold office until the election and qualification of a successor or such director's earlier death, resignation or removal.

F. Stockholder Nominations and Business, etc.

Advance notice of stockholder nominations for election of directors and other business to be brought by stockholders before a meeting of stockholders shall be given in the manner provided by the Bylaws of the Corporation.

G. Election of Directors.

No stockholder will be permitted to cumulate votes in any election of directors. The election of directors need not be by written ballot.

ARTICLE V. ACTION BY WRITTEN CONSENT

Subject to the rights of holders of any series of Preferred Stock, from and after the Voting Threshold Date, stockholders of the Corporation may not take any action by written or electronic consent in lieu of a meeting, and all stockholder action shall be taken at a meeting of stockholders.

ARTICLE VI. SPECIAL MEETINGS

Special meetings of stockholders for any purpose or purposes may be called at any time only by (a) the Board pursuant to a resolution adopted by a number of directors constituting a majority of the total number of authorized directors of the Corporation, whether or not there exist any vacancies in previously

authorized directorships, (b) the Chairman of the Board or (c) the Chief Executive Officer, and may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

ARTICLE VII. BYLAWS

A. Amendments by the Board.

In furtherance and not in limitation of the powers conferred upon it by the DGCL, the Board shall have the power to adopt, amend, alter or repeal the Bylaws of the Corporation.

B. Amendments by the Stockholders.

The stockholders shall also have the power to adopt, amend or repeal the Bylaws of the Corporation. Prior to the Voting Threshold Date, in addition to any vote of the holders of any class or series of stock of the Corporation required by applicable law or by this Restated Certificate of Incorporation, such adoption, amendment or repeal of the Bylaws of the Corporation by the stockholders shall require the affirmative vote of a majority in voting power of all of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. From and after the Voting Threshold Date, in addition to any vote of the holders of any class or series of stock of the Corporation required by applicable law or by this Restated Certificate of Incorporation, such adoption, amendment or repeal of the Bylaws of the Corporation by the stockholders shall require the affirmative vote of the holders of at least two-thirds of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE VIII. AMENDMENTS

Notwithstanding any other provisions of this Restated Certificate of Incorporation or any provision of law, this Restated Certificate of Incorporation or the Bylaws of the Corporation, but in addition to any vote of the holders of any class or series of stock required by law, this Restated Certificate of Incorporation or a Certificate of Designation, from and after the Voting Threshold Date, the affirmative vote of the holders of at least s sixty-six and two-thirds of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors shall be required to amend or repeal, or to adopt any provision inconsistent with, Articles IV through XI.

ARTICLE IX. FORUM SELECTION

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for all “internal corporate claims.” “Internal corporate claims” means claims, including claims in the right of the Corporation, (a) that are based upon a violation of a duty by a current or former director or officer or stockholder in such capacity, or (b) as to which Title 8 of the Delaware Code confers jurisdiction upon the Court of Chancery, except for, as to each of (a) and (b) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article IX shall be held to be invalid, illegal or unenforceable as

applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article IX (including each portion of any sentence of this Article IX containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

ARTICLE X. INDEMNIFICATION

The Corporation shall indemnify (and advance expenses to) its officers and directors to the full extent permitted by the DGCL, as amended from time to time.

ARTICLE XI. EXCULPATION

To the fullest extent permitted by law, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability. No amendment to or repeal of this provision, nor the adoption of any provision of the Corporation's Certificate of Incorporation inconsistent with this Article XI, shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal. If the DGCL is amended to permit further elimination or limitation of the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL as so amended.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, this Restated Certificate of Incorporation, which restates, integrates and amends the Certificate of Incorporation of the Corporation, as previously amended, and which has been duly adopted in accordance with Sections 141(f), 228, 242 and 245 of the General Corporation Law of the State of Delaware, has been executed by its duly authorized officer as of , 2017.

ACM RESEARCH, INC.

By: _____

David H. Wang
Chief Executive Officer and President

Exhibit 3.04

RESTATED BY-LAWS

OF

ACM RESEARCH, INC.
(A DELAWARE CORPORATION)

TABLE OF CONTENTS

ARTICLE I

OFFICES

1.1 Offices. The address of the registered office of ACM Research, Inc. (the "*Corporation*") is c/o Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, New Castle County, Delaware, 19808. The registered agent at such address is Corporation Service Company. The Corporation may also have offices at such other places both within and outside the State of Delaware as the Board of Directors may from time to time determine or the business of the Corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

2.1 Annual Meeting. If required by applicable law, the annual meeting of the stockholders of the Corporation shall be held on such date, at such time and at such ace, if any, within or outside the State of Delaware as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting.

2.2 Special Meetings. Special meetings of the stockholders of the Corporation shall be held on such date, at such time and at such place, if any, as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting.

2.3 Notice of Meetings. Whenever stockholders are required or permitted to take any action at a meeting, a notice of the meeting shall be given that shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting) and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Unless otherwise provided by law, the Certificate of Incorporation or these Bylaws, the notice of any meeting shall be given not less than ten nor more than sixty days before the date of the meeting to each stockholder entitled to vote at the meeting as of the record date for determining the stockholders entitled to notice of the meeting. If mailed, such notice shall be deemed to be given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation.

2.4 Quorum and Adjournment. Except as otherwise required by law, by the Certificate of Incorporation or by these Bylaws, the presence, in person or by proxy, of the holders of a majority of the aggregate voting power of the stock issued and outstanding, entitled to vote thereat, shall constitute a quorum for the transaction of business at all meetings of the stockholders. Whether or not a quorum is present at a meeting of stockholders, the chair of the meeting shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting.

2.5 Adjourned Meetings. Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of any such adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for determination of stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix as the record date for determining stockholders entitled to notice of such

adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting.

2.6 Vote Required. Except as otherwise provided by law, these Bylaws, the rules or regulations of any stock exchange applicable to the Corporation, any regulation applicable to the Corporation or its securities or by the Restated Certificate of Incorporation:

(a) Directors shall be elected by a plurality of the votes present in person or represented by proxy at a meeting of the stockholders and entitled to vote in the election of directors; and

(b) Whenever any corporate action other than the election of Directors is to be taken, it shall be authorized by the affirmative vote of a majority in voting power of the shares present in person or represented by proxy at a meeting of stockholders and entitled to vote on the subject matter.

2.7 Manner of Voting. At each meeting of stockholders, each stockholder having the right to vote shall be entitled to vote in person or by proxy. Proxies need not be filed with the Secretary of the Corporation until the meeting is called to order, but shall be filed before being voted. Each stockholder shall be entitled to vote each share of stock having voting power registered in his or her name on the books of the Corporation on the record date fixed for determination of stockholders entitled to vote at such meeting.

2.8 Stockholder Action without a Meeting. Unless otherwise provided in the Restated Certificate of Incorporation and subject to the rights of the holders of the shares of any series of preferred stock, any action that is required to be or may be taken by the stockholders of the Corporation must be effected at a duly held meeting of stockholders of the Corporation at which a quorum is presented or represented and may not be effected by a consent in writing or by electronic communication by stockholder.

2.9 Inspectors of Election. The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors of election, who may be employees of the Corporation, to act at the meeting or any adjournment thereof and to make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. In the event no inspector so appointed or designated is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath to execute faithfully the duties of inspector with strict impartiality and according to the best of his or her ability. The inspector or inspectors so appointed or designated shall (a) ascertain the number of shares of capital stock of the Corporation outstanding and the voting power of each such share, (b) determine the shares of capital stock of the Corporation represented at the meeting and the validity of proxies and ballots, (c) count all votes and ballots, (d) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors, and (e) certify their determination of the number of shares of capital stock of the Corporation represented at the meeting and such inspectors' count of all votes and ballots. Such certification and report shall specify such other information as may be required by law. In determining the validity and counting of proxies and ballots cast at any meeting of stockholders of the Corporation, the inspectors may consider such information as is permitted by applicable law. No person who is a candidate for an office at an election may serve as an inspector at such election.

2.10 Conduct of Meetings. The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting by the person presiding over the meeting. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the person

presiding over any meeting of stockholders shall have the right and authority to convene and (for any or no reason) to adjourn the meeting, to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding person, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the presiding person of the meeting, may include, without limitation, the following: (a) the establishment of an agenda or order of business for the meeting; (b) rules and procedures for maintaining order at the meeting and the safety of those present; (c) limitations on attendance at or participation in the meeting to stockholders entitled to vote at the meeting, their duly authorized and constituted proxies or such other persons as the presiding person of the meeting shall determine; (d) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (e) limitations on the time allotted to questions or comments by participants. The presiding person at any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and if such presiding person should so determine, such presiding person shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board of Directors or the person presiding over the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

2.11 Notice of Stockholder Business and Nominations.

(a) Annual Meetings of Stockholders.

(i) Nominations of persons for election to the Board of Directors of the Corporation and the proposal of other business to be considered by the stockholders may be made at an annual meeting of stockholders only (a) pursuant to the Corporation's notice of meeting (or any supplement thereto), (b) by or at the direction of the Board of Directors or any committee thereof or (c) by any stockholder of the Corporation who was a stockholder of record of the Corporation at the time the notice provided for in this Section 2.11 of Article II is delivered to the Secretary of the Corporation, who is entitled to vote at the meeting and who complies with the notice procedures set forth in Article II.

(ii) For any nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of paragraph (a)(i) of this Section 2.11 of Article II, the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation and any such proposed business (other than the nominations of persons for election to the Board of Directors) must constitute a proper matter for stockholder action. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the 90th day, nor earlier than the close of business on the 120th day, prior to the first anniversary of the preceding year's annual meeting (*provided, however*, in the event no annual meeting was held in the previous year or if the date of the annual meeting is more than 30 days before or more than 70 days after such anniversary date, notice by the stockholder must be so delivered not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made by the Corporation). In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the

giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (a) as to each person whom the stockholder proposes to nominate for election as a director (i) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to and in accordance with Section 14(a) of the Securities Exchange Act of 1934, as amended (the "*Exchange Act*"), and the rules and regulations promulgated thereunder, and (ii) such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected; (b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws of the Corporation, the language of the proposed amendment), the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner, (ii) the class or series and number of shares of capital stock of the Corporation that are owned beneficially and of record by such stockholder and such beneficial owner, (iii) a description of any agreement, arrangement or understanding with respect to the nomination or proposal between or among such stockholder and/or such beneficial owner, any of their respective affiliates or associates, and any others acting in concert with any of the foregoing, including, in the case of a nomination, the nominee, (iv) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder and such beneficial owners, whether or not such instrument or right shall be subject to settlement in underlying shares of capital stock of the Corporation, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner, with respect to securities of the Corporation, (v) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination, (vi) a representation whether the stockholder or the beneficial owner, if any, intends or is part of a group that intends (a) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal or elect the nominee and/or (b) otherwise to solicit proxies or votes from stockholders in support of such proposal or nomination, and (vii) any other information relating to such stockholder and beneficial owner, if any, required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in an election contest pursuant to and in accordance with Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder. The foregoing notice requirements of this Section 2.11 of Article II shall be deemed satisfied by a stockholder with respect to business other than a nomination if the stockholder has notified the Corporation of his, her or its intention to present a proposal at an annual meeting in compliance with applicable rules and

regulations promulgated under the Exchange Act and such stockholder's proposal has been included in a proxy statement that has been prepared by the Corporation to solicit proxies for such annual meeting. The Corporation may require any proposed nominee to furnish such other information as the Corporation may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the Corporation.

(iii) Notwithstanding anything in the second sentence of paragraph (a)(ii) of this Section 2.11 of Article II to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation at the annual meeting is increased effective after the time period for which nominations would otherwise be due under paragraph (a)(ii) of this Section 2.11 of Article II and there is no public announcement by the Corporation naming the nominees for the additional directorships at least 100 days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 2.11 of Article II shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the Corporation.

(b) Special Meetings of Stockholders. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (1) by or at the direction of the Board of Directors or any committee thereof or (2) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time the notice provided for in Section 2.11 of Article II is delivered to the Secretary of the Corporation, who is entitled to vote at the meeting and upon such election and who complies with the notice procedures set forth in Section 2.11 of Article II. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice required by paragraph (a)(ii) of this Section 2.11 of Article II shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the 120th day prior to such special meeting and not later than the close of business on the later of the 90th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(c) General.

(iv) Except as otherwise expressly provided in any applicable rule or regulation promulgated under the Exchange Act, only such persons who are nominated in accordance with the procedures set forth in Section 2.11 of Article II shall be eligible to be elected at an annual or special meeting of stockholders of the Corporation to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in

accordance with the procedures set forth in Section 2.11 Article II. Except as otherwise provided by law, the chair of the meeting shall have the power and duty (a) to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in Article II (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination or proposal is made solicited (or is part of a group that solicited) or did not so solicit, as the case may be, proxies or votes in support of such stockholder's nominee or proposal in compliance with such stockholder's representation as required by clause (a)(ii)(c)(vi) of Section 2.11 of Article II) and (b) if any proposed nomination or business was not made or proposed in compliance with Section 2.11 of Article II, to declare that such nomination shall be disregarded or that such proposed business shall not be transacted. Notwithstanding the foregoing provisions of this Article II, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual or special meeting of stockholders of the Corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of Article II, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders.

(v) For purposes of Article II, "public announcement" shall include disclosure in a press release reported by the Dow Jones News Service, Associated Press or other national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act and the rules and regulations promulgated thereunder.

(vi) Notwithstanding the foregoing provisions of this Section 2.11 of Article II, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations promulgated thereunder with respect to the matters set forth in Article II; *provided*, *however*, that any references in these bylaws to the Exchange Act or the rules and regulations promulgated thereunder are not intended to and shall not limit any requirements applicable to nominations or proposals as to any other business to be considered pursuant to this Section 2.11 of Article II (including paragraphs (a)(i)(c) and (b) hereof), and compliance with paragraphs (a)(i)(c) and (b) of this Section 2.11 of Article II shall be the exclusive means for a stockholder to make nominations or submit other business (other than, as provided in the penultimate sentence of Section 2.11(a)(ii) of Article II, business other than nominations brought properly under and in compliance with Rule 14a-8 of the Exchange Act, as may be amended from time to time). Nothing in Article II shall be deemed to affect any rights (a) of stockholders to request inclusion of proposals or nominations in the Corporation's proxy statement pursuant to applicable rules and regulations promulgated under the Exchange Act or (b) of the holders of any series of Preferred Stock to elect directors pursuant to any applicable provisions of the Restated Certificate of Incorporation.

ARTICLE III

DIRECTORS

3.1 Number; Term of Office. Subject to the Restated Certificate of Incorporation, the number of directors that shall constitute the whole Board of Directors shall be determined from time to time by resolution adopted by the Board of Directors. Each director shall hold office until a successor is duly elected and qualified or until the director's earlier death, resignation, disqualification or removal.

3.2 General Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. The Board of Directors may adopt such rules and procedures, not inconsistent with the Certificate of Incorporation, these bylaws or applicable law, as it may deem proper for the conduct of its meetings and the management of the Corporation.

3.3 Resignations. Any Director may resign at any time by giving notice in writing or by electronic transmission to the Corporation. Such resignation shall take effect at the date of receipt of such notice or at any later time specified therein. Acceptance of such resignation shall not be necessary to make it effective.

3.4 Removal. Except as prohibited by applicable law or the Certificate of Incorporation, the stockholders entitled to vote in an election of directors may remove any director from office at any time, with or without cause, by the affirmative vote of sixty-six and two-thirds percent of the Corporation's outstanding voting power.

3.5 Vacancies. Any vacancies occurring in the Board of Directors, shall be filled only by the affirmative votes of a majority of the remaining members of the Board of Directors, although less than a quorum, or by a sole remaining director. A director so elected shall be elected to hold office until the earlier of the expiration of the term of office of the director whom he or she has replaced, a successor is duly elected and qualified or the earlier of such director's death, resignation or removal.

3.6 Annual Meetings. The Board of Directors may meet each year immediately following the annual meeting of stockholders, at the place where such meeting of stockholders has been held, or at such other place as shall be fixed by the person presiding over the meeting of the stockholders, for the purpose of election of officers and consideration of such other business as the Board of Directors considers relevant to the management of the Corporation.

3.7 Regular Meetings. Regular meetings of the Board of Directors may be held on such dates and at such times and places, if any, within or without the State of Delaware, as shall from time to time be determined by the Board of Directors. In the absence of any such determination, such meetings shall be held at such times and places, within or without the State of Delaware, as shall be designated by the Chair of the Board on not less than 24 hours' notice to each Director, given verbally or in writing, whether personally, by telephone (including by message or recording device), by facsimile transmission, or by other electronic transmission, or on not less than 3 calendar days' notice to each Director given in writing by mail.

3.8 Special Meetings. Special meetings of the Board of Directors may be held at the call of the Chair of the Board at such times and places, if any, within or without the State of Delaware, as he or she shall designate, on not less than 24 hours' notice to each Director, given verbally or in writing, whether personally, by telephone (including by message or recording device), by facsimile transmission, or by other electronic transmission, or on not less than 3 calendar days' notice to each Director given in writing by mail. Special meetings may also be called by the Secretary on like notice at the written request of a majority of the Directors then in office.

3.9 Quorum and Powers of a Majority. At all meetings of the Board of Directors or committee of the Board of Directors, the directors entitled to cast a majority of the votes of the whole Board of Directors or committee, as the case may be, shall constitute a quorum for the transaction of business, and except in cases in which the Certificate of Incorporation, these Bylaws or applicable law otherwise provides, a majority of the votes entitled to be cast by the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors or of such committee. In the absence of a quorum, a majority of the members present at any meeting may, without notice other than announcement at the meeting, adjourn such meeting from time to time until a quorum is present.

3.10 Manner of Acting.

(a) Members of the Board of Directors, or any committee thereof, may participate in any meeting of the Board of Directors or such committee by means of conference telephone or similar communications equipment by means of which all persons participating therein can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(b) Any action required or permitted to be taken at any meeting of the Board of Directors or any committee thereof may be taken without a meeting if all members of the Board of Directors or such committee, as the case may be, consent thereto in writing or by electronic transmission, and the writings or electronic transmissions are filed with the minutes of proceedings of the Board of Directors or such committee.

3.11 Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent permitted by law and to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (a) approve or adopt or recommend to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (b) adopt, amend or repeal any bylaw of the Corporation.

3.12 Committee Procedure.

(a) Except as otherwise provided by these Bylaws or by the Board of Directors, each committee shall adopt its own rules governing the time, place, and method of holding its meetings and the conduct of its proceedings. In the absence of such rules, each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to Article III of these Bylaws.

(b) Each committee shall keep regular minutes of its proceedings and report the same to the Board of Directors when required.

(c) Any member of any committee may be removed from such committee either with or without cause, at any time, by the Board of Directors at any meeting thereof. Any vacancy in any committee shall be filled by the Board of Directors in the manner prescribed by the Certificate of Incorporation, these Bylaws or applicable law for the original appointment of the members of such committee.

3.13 Compensation.

(a) The Board of Directors, by a resolution or resolutions, may fix, and from time to time change, the compensation of Directors.

(b) Each Director shall be entitled to reimbursement from the Corporation for his or her reasonable expenses incurred with respect to duties as a member of the Board of Directors or any committee thereof.

(c) Nothing contained in these Bylaws shall be construed to preclude any Director from serving the Corporation in any other capacity and from receiving compensation from the Corporation for service rendered to it in such other capacity.

ARTICLE IV

OFFICERS

4.1 Number. The officers of the Corporation shall include a President and a Secretary. The Board of Directors may also elect such other officers as the Board of Directors may from time to time deem appropriate or necessary. Any two or more offices may be held by the same person.

4.2 Election of Officers, Qualification and Term. The officers of the Corporation shall be appointed from time to time by the Board of Directors and, shall hold office at the pleasure of the Board of Directors.

4.3 Removal. Any officer of the Corporation may be removed, with or without cause, by the Board of Directors, without prejudice to the rights, if any, of such officer under any contract to which it is a party.

4.4 Resignations. Any officer of the Corporation may resign at any time by giving notice to the Board of Directors. Such resignation shall take effect at the date of the receipt of such notice or at any later time specified therein and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

4.5 Salaries. The salaries of all officers of the Corporation shall be fixed by the Board of Directors from time to time, and no officer shall be prevented from receiving such salary by reason of the fact that he is also a Director of the Corporation.

4.6 The Chair of the Board. The Chair of the Board, if any, shall have the powers and duties customarily and usually associated with the office of the Chair of the Board.

4.7 Vice Chair of the Board. The Vice Chair of the Board, if any, shall have the powers and duties customarily and usually associated with the office of the Vice Chair of the Board.

4.8 The President. The President shall be the chief executive officer of the Corporation, shall have, subject to the supervision, direction and control of the Board of Directors, the general powers and duties of supervision, direction, and management of the affairs and business of the Corporation usually vested in the chief executive officer of a corporation, including all powers necessary to direct and control the organizational and reporting relationships within the Corporation. If at any time the office of the Chair of the Board and the Vice Chair of the Board shall not be filled, or in the event of the temporary absence or disability of the Chair of the Board and the Vice Chair of the Board, the President shall have the powers and duties of the Chair of the Board; *provided* such person also is a director of the Corporation.

4.9 The Vice Presidents. Each Vice President, if any, shall have such powers and perform such duties as may from time to time be assigned to him or her by the Board of Directors or the President.

4.10 The Secretary and Assistant Secretaries.

(a) The Secretary shall attend meetings of the Board of Directors and meetings of the stockholders and record all votes and minutes of all such proceedings in a book kept for such purpose. He or she shall have all such further powers and duties as generally are incident to the position of Secretary or as may from time to time be assigned to him or her by the Board of Directors or the President.

(b) Each Assistant Secretary, if any, shall have such powers and perform such duties as may from time to time be assigned to him or her by the Board of Directors, the President, or the Secretary. In case of the absence or disability of the Secretary, the Assistant Secretary designated by the President (or, in the absence of such designation, by the Secretary) shall perform the duties and exercise the powers of the Secretary.

4.11 The Treasurer and Assistant Treasurers. To the extent that the officers of the Corporation include a Treasurer and any Assistant Treasurers:

(a) The Treasurer shall have custody of the Corporation's funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit or cause to be deposited moneys or other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. The Treasurer shall also maintain adequate records of all assets, liabilities, and transactions of the Corporation, and shall see that adequate audits thereof are currently and regularly made. The Treasurer shall have such other powers and perform such other duties that generally are incident to the position of the Treasurer or as may from time to time be assigned to him or her by the Board of Directors or the President.

(b) The Treasurer shall be responsible for maintaining the accounting records and statements, and shall properly account for all monies and obligations due to the Corporation and all properties, assets, and liabilities of the Corporation. The Treasurer shall render to the Chair of the Board or the President such periodic reports covering the results of operations of the Corporation as may be required by either of them or by law.

(c) Each Assistant Treasurer shall have such powers and perform such duties as may from time to time be assigned to him or her by the Board of Directors, the President, or the Treasurer. In case of the absence or disability of the Treasurer, the Assistant Treasurer designated by the President (or, in the absence of such designation, by the Treasurer) shall perform the duties and exercise the powers of the Treasurer.

ARTICLE V

CAPITAL STOCK

5.1 Certificates. The shares of the Corporation shall be represented by certificates, *provided* that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a

certificate until such certificate is surrendered to the Corporation. Every holder of stock represented by certificates shall be entitled to have a certificate signed by or in the name of the Corporation by any two duly authorized officers of the Corporation. Any of or all the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were such officer, transfer agent, or registrar at the date of issue.

5.2 Transfers. Transfers of stock of the Corporation shall be made on the books of the Corporation only upon surrender to the Corporation of a certificate (if any) for the shares duly endorsed or accompanied by proper evidence of succession, assignment, or authority to transfer, *provided* such succession, assignment, or transfer is not prohibited by the Certificate of Incorporation, these Bylaws, applicable law, or contract. Thereupon, the Corporation shall issue a new certificate (if requested) to the person entitled thereto, cancel the old certificate (if any) and record the transaction upon its books.

5.3 Lost, Stolen, or Destroyed Certificates. Any person claiming a certificate of stock to be lost, stolen, or destroyed shall make an affidavit or an affirmation of that fact, and shall give the Corporation a bond of indemnity in satisfactory form and with one or more satisfactory sureties, whereupon a new certificate (if requested) may be issued of the same tenor and for the same number of shares as the one alleged to be lost, stolen, or destroyed.

5.4 Record Stockholders. The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares as the person entitled to exercise the rights of a stockholder and shall not be bound to recognize any equitable or other claim to or interest in any such shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise expressly provided by the General Corporation Law of the State of Delaware.

5.5 Additional Powers of the Board.

(a) In addition to those powers set forth in Article III, the Board of Directors shall have power and authority to make all such rules and regulations as it shall deem expedient concerning the issue, transfer and registration of certificates for shares of stock of the Corporation, including the use of uncertificated shares of stock subject to the provisions of the General Corporation Law of the State of Delaware.

(b) The Board of Directors may appoint and remove transfer agents and registrars of transfers, and may require all stock certificates to bear the signature of any such transfer agent and/or any such registrar of transfers.

ARTICLE VI

INDEMNIFICATION

6.1 Indemnification. The Corporation shall indemnify, to the full extent that it shall have power under applicable law to do so and in a manner permitted by such law, any person made or threatened to be made a party to or is otherwise involved in any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, or investigative (hereinafter, a "*Proceeding*"), by reason of the fact that such person, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation, or is or was serving at the request of Corporation as a director or officer of another corporation, partnership, joint venture, trust, or other enterprise. The Corporation may indemnify, to the full extent that it shall have power under applicable law to do so and in a manner permitted by such law, any person made or threatened to be made party to any Proceeding, by reason of

the fact that such person is or was an employee or agent of the Corporation, or is or was serving at the request of the Corporation as an employee or agent of another corporation, partnership, joint venture, trust, or other enterprise. Notwithstanding the preceding sentence, except as otherwise provided in Section 6.3 of this Article VI, the Corporation shall be required to indemnify any person in connection with a Proceeding (or part thereof) commenced by such person only if the commencement of such Proceeding (or part thereof) by the person was authorized in the specific case by the Board of Directors of the Corporation.

6.2 Advancement of Expenses. With respect to any person made or threatened to be made a party to any threatened, pending, or completed Proceeding, by reason of the fact that such person, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation, the Corporation shall pay the expenses (including attorneys' fees) incurred by such person in defending any such Proceeding in advance of its final disposition (hereinafter an "*advancement of expenses*"); *provided, however,* that the payment of expenses (including attorneys' fees) incurred by such person in advance of the final disposition of such Proceeding shall be made only upon receipt of an undertaking (hereinafter an "*undertaking*") by such person to repay all amounts advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "*final adjudication*") that such person is not entitled to be indemnified for such expenses under this Article VI or otherwise. With respect to any person made or threatened to be made a party to any Proceeding, by reason of the fact that such person is or was an employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise, the Corporation may, in its discretion and upon such terms and conditions, if any, as the Corporation deems appropriate, pay the expenses (including attorneys' fees) incurred by such person in defending any such Proceeding in advance of its final disposition.

6.3 Claims. With respect to any person made or threatened to be made a party to any Proceeding, by reason of the fact that such person is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust, or other enterprise, the rights to indemnification and to the advancement of expenses conferred in Sections 6.1 and 6.2 of this Article VI shall be contract rights. If a claim under Sections 6.1 or 6.2 of this Article VI with respect to such rights is not paid in full by the Corporation within sixty days after a written demand has been received by the Corporation, except in the case of a claim for an advancement of expenses by an officer or director of the Corporation, in which case the applicable period shall be thirty days, the person seeking to enforce a right to indemnification or an advancement of expenses hereunder may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. If successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the person seeking to enforce a right to indemnification or an advancement of expenses hereunder or the person from whom the Corporation seeks to recover an advancement of expenses shall also be entitled to be paid the expenses (including attorneys' fees) of prosecuting or defending such suit. In any suit brought by a person seeking to enforce a right to indemnification hereunder (but not in a suit brought by a person seeking to enforce a right to an advancement of expenses hereunder) it shall be a defense that the person seeking to enforce a right to indemnification has not met any applicable standard for indemnification under applicable law. In any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that the person from whom the Corporation seeks to recover an advancement of expenses has not met any applicable standard for indemnification under applicable law. In any suit brought by a person seeking to enforce a right to indemnification or to an advancement of expenses hereunder, or by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the person seeking to enforce a right to indemnification or to an advancement of expenses or the person from whom the Corporation seeks to recover an advancement of expenses is not entitled to be indemnified, or to such an advancement of expenses, under this Article VI or otherwise shall be on the Corporation.

6.4 Non-exclusive Rights. The indemnification and advancement of expenses provided in this Article VI shall not be deemed exclusive of any other rights to which any person indemnified may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be such director, officer, employee, or agent and shall inure to the benefit of the heirs, executors and administrators of such person.

6.5 Insurance. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee, or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such liability under the provisions of this Article VI or otherwise.

6.6 Amendment or Repeal. Any right to indemnification or to advancement of expenses of any person arising hereunder shall not be eliminated or impaired by an amendment to or repeal of these Bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought.

ARTICLE VII

GENERAL PROVISIONS

7.1 Place and Inspection of Books.

(a) The books of the Corporation other than such books as are required by law to be kept within the State of Delaware shall be kept in such place or places either within or without the State of Delaware as the Board of Directors may from time to time determine.

(b) The officer who has charge of the stock ledger shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting (*provided, however,* if the record date for determining the stockholders entitled to vote is less than ten days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date), arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting at least ten days prior to the meeting (i) on a reasonably accessible electronic network, *provided* that the information required to gain access to such list is provided with the notice of meeting or (ii) during ordinary business hours at the principal place of business of the Corporation. If the meeting is to be held at a place, then a list of stockholders entitled to vote at the meeting shall be produced and kept at the time and place of the meeting during the whole time thereof and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Except as otherwise provided by law, the stock ledger shall be the only evidence as to who are the stockholders entitled to examine the list of stockholders required by this Section 7.1(b) of Article VII or to vote in person or by proxy at any meeting of stockholders.

(c) The Board of Directors shall determine from time to time whether and, if allowed, when and under what conditions and regulations the accounts and books of the Corporation (except such as may be by law specifically open to inspection or as otherwise provided by these Bylaws) or any of them shall be open to the inspection of the stockholders and the stockholders' rights in respect thereof.

7.2 Waivers of Notice. Any waiver of notice, given by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at nor the purpose of any regular or special meeting of the stockholders, directors, or members of a committee of directors need be specified in a waiver of notice.

7.3 Voting Shares in Other Corporations. The President or any other officer of the Corporation designated by the Board of Directors may vote any and all shares held by the Corporation in any other corporation.

7.4 Fiscal Year. The fiscal year of the Corporation shall be such fiscal year as the Board of Directors from time to time by resolution shall determine.

7.5 Gender/Number. As used in these Bylaws, the masculine, feminine, or neuter gender, and the singular and plural number, shall each include the other whenever the context so indicates.

7.6 Paragraph Titles. The titles of the paragraphs have been inserted as a matter of reference only and shall not control or affect the meaning or construction of any of the terms and provisions hereof.

7.7 Amendment. These Bylaws may be altered, amended or repealed, and new bylaws made, by the Board of Directors or by the stockholders of the Corporation: *provided, however,* in the case of amendments to the Bylaws by stockholders, no amendments may be made to Articles II, III, VI or this Section 7.7 of Article VII without the affirmative vote of sixty-six and two-thirds percent of the outstanding voting power of the Corporation.

7.8 Certificate of Incorporation. Notwithstanding anything to the contrary contained herein, if any provision contained in these Bylaws is inconsistent with or conflicts with a provision of the Certificate of Incorporation, such provision of these Bylaws shall be superseded by the inconsistent provision in the Certificate of Incorporation to the extent necessary to give effect to such provision in the Certificate of Incorporation.

ZQ|CERT#|COY|CLS|RGSTRY|ACCT#|TRANSTYPE|RUN#|TRANS#

ACM RESEARCH

PO BOX 43004, Providence, RI 02940-3004

MR A SAMPLE
DESIGNATION (IF ANY)
ADD 1
ADD 2
ADD 3
ADD 4

CUSIP XXXXXX XX X
Holder ID XXXXXXXXXX
Insurance Value 1,000,000.00
Number of Shares 123456
DTC 12345678 12345678912345

Certificate Numbers	Num/No.	Denom.	Total
12345678912345678901	1	1	1
12345678912345678902	2	2	2
12345678912345678903	3	3	3
12345678912345678904	4	4	4
12345678912345678905	5	5	5
12345678912345678906	6	6	6
Total Transaction			7

CLASS A COMMON STOCK

PAR VALUE $0.0001

CLASS A COMMON STOCK

Certificate Number
ZQ00000000

ACM RESEARCH

Shares
000000
***000000*
****000000
*****000000
******000000

ACM RESEARCH, INC.

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

THIS CERTIFIES THAT

MR. SAMPLE & MRS. SAMPLE &
MR. SAMPLE & MRS. SAMPLE

SEE REVERSE FOR CERTAIN DEFINITIONS

CUSIP 00108J 10 9

is the owner of

***ZERO HUNDRED THOUSAND
ZERO HUNDRED AND ZERO***

THIS CERTIFICATE IS TRANSFERABLE IN CITIES DESIGNATED BY THE TRANSFER AGENT, AVAILABLE ONLINE AT www.computershare.com

FULLY-PAID AND NON-ASSESSABLE SHARES OF CLASS A COMMON STOCK OF

ACM Research, Inc. (hereinafter called the "Company"), transferable on the books of the Company in person or by duly authorized attorney, upon surrender of this Certificate properly endorsed. This Certificate and the shares represented hereby, are issued and shall be held subject to all of the provisions of the Certificate of Incorporation, as amended, and the By-Laws, as amended, of the Company (copies of which are on file with the Company and with the Transfer Agent), to all of which each holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

Witness the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.

DATED DD-MMM-YYYY

FACSIMILE SIGNATURE TO COME

President

ACM RESEARCH, INC. INCORPORATED SEAL Sept. 27, 2016 DELAWARE

COUNTERSIGNED AND REGISTERED:
COMPUTERSHARE TRUST COMPANY, N.A.
TRANSFER AGENT AND REGISTRAR,

FACSIMILE SIGNATURE TO COME

Treasurer

By _____
AUTHORIZED SIGNATURE

SECURITY INSTRUCTIONS ON REVERSE

1234567

ACM RESEARCH, INC.

THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH SHAREHOLDER WHO SO REQUESTS, A SUMMARY OF THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OF THE COMPANY AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND RIGHTS, AND THE VARIATIONS IN RIGHTS, PREFERENCES AND LIMITATIONS DETERMINED FOR EACH SERIES, WHICH ARE FIXED BY THE CERTIFICATE OF INCORPORATION OF THE COMPANY, AS AMENDED, AND THE RESOLUTIONS OF THE BOARD OF DIRECTORS OF THE COMPANY, AND THE AUTHORITY OF THE BOARD OF DIRECTORS TO DETERMINE VARIATIONS FOR FUTURE SERIES. SUCH REQUEST MAY BE MADE TO THE OFFICE OF THE SECRETARY OF THE COMPANY OR TO THE TRANSFER AGENT. THE BOARD OF DIRECTORS MAY REQUIRE THE OWNER OF A LOST OR DESTROYED STOCK CERTIFICATE, OR HIS LEGAL REPRESENTATIVES, TO GIVE THE COMPANY A BOND TO INDEMNIFY IT AND ITS TRANSFER AGENTS AND REGISTRARS AGAINST ANY CLAIM THAT MAY BE MADE AGAINST THEM ON ACCOUNT OF THE ALLEGED LOSS OR DESTRUCTION OF ANY SUCH CERTIFICATE.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	- as tenants in common	UNIF GIFT MIN ACT	-.....(Cust).....Custodian.....(Minor).....
TEN ENT	- as tenants by the entireties		under Uniform Gifts to Minors Act.....(State).....
JT TEN	- as joint tenants with right of survivorship and not as tenants in common	UNIF TRF MIN ACT	-.....(Cust).....Custodian (until age .....)
			.....(Minor).....under Uniform Transfers to Minors Act .....(State).....

Additional abbreviations may also be used though not in the above list.

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

For value received, _____ hereby sell, assign and transfer unto

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING POSTAL ZIP CODE, OF ASSIGNEE)

_____

_____

_____ Shares

of the Class A Common Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ Attorney

to transfer the said stock on the books of the within-named Incorporation with full power of substitution in the premises.

Dated: _____ 20____

Signature: _____

Signature: _____

Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

Signature(s) Guaranteed: Medallion Guarantee Stamp

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (Banks, Stockbrokers, Savings and Loan Associations and Credit Unions) WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM, PURSUANT TO S.E.C. RULE 17Ad-15.

SECURITY INSTRUCTIONS

THIS IS WATERMARKED PAPER. DO NOT ACCEPT WITHOUT NOTED WATERMARK. HOLD TO LIGHT TO VERIFY WATERMARK.

The IRS requires that the named transfer agent ("we") report the cost basis of certain shares or units acquired after January 1, 2011. If your shares or units are covered by the legislation, and you requested to sell or transfer the shares or units using a specific cost basis calculation method, then we have processed as you requested. If you did not specify a cost basis calculation method, then we have defaulted to the first in, first out (FIFO) method. Please consult your tax advisor if you need additional information about cost basis.

If you do not keep in contact with the issuer or do not have any activity in your account for the time period specified by state law, your property may become subject to state unclaimed property laws and transferred to the appropriate state.

153457

Exhibit 4.02

CLASS A COMMON STOCK PURCHASE WARRANT

ACM RESEARCH, INC.

Warrant Shares: [●][1] Original Issue Date: [●], 2017

THIS CLASS A COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, [●] or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after [●], 2017 (the "Original Issue Date") and, in accordance with FINRA Rule 5110(f)(2)(H)(i), will expire at 5:00 p.m. (New York time) on the [●], 2022[2] (the "Termination Date") but not thereafter, to subscribe for and purchase from ACM Research, Inc. a Delaware corporation (the "Company"), up to [●][3] shares (as subject to adjustment hereunder, the "Warrant Shares") of the Company's Class A common stock, $0.0001 par value per share ("Common Stock"). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock Equivalents" means any securities of the Company which would entitle the holder thereof to acquire at any time shares of Common Stock including any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable for, or otherwise entitles the holder thereof to receive, Common Stock.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1 To be 4.0% of the shares sold in the offering, less PRC based investors
2 To be the date that is five years following the Original Issue Date
3 To be 4.0% of the shares sold in the offering, less PRC based investors

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange or the OTC Bulletin Board (or any successors to any of the foregoing).

"Transfer Agent" means Computershare Trust Company, N.A., the current transfer agent of the Company, with a mailing address of 480 Washington Bouleva, Jersey City, New Jersey 07310 and a facsimile number of 201-680-4606, and any successor transfer agent of the Company.

"Underwriting Agreement" means the Underwriting Agreement dated [●], 2017, between the Company and Roth Capital Partners, LLC, as representative of the several Underwriters named therein.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (or, if not reported on Bloomberg, L.P., another reporting service reasonably agreed to by the parties) (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the Common Stock is not then listed or quoted for trading on a Trading Market and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink OTC Markets, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (c) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Original Issue Date and on or before the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy

(or email attachment) of the Notice of Exercise form annexed hereto and, within two (2) Trading Days of the date said Notice of Exercise is delivered to the Company, payment of the aggregate Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank or, if available, pursuant to the cashless exercise procedure specified in Section 2(c) below if specified in the applicable Notice of Exercise. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within two (2) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise Form within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be $[●][4], subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may be exercised, in whole or in part, by means of a "cashless exercise" in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the last VWAP immediately preceding the time of delivery of the Notice of Exercise giving rise to the applicable "cashless exercise", as set forth in the applicable Notice of Exercise (to clarify, the "last VWAP" will be the last VWAP as calculated over an entire Trading Day such that, in the event that this Warrant is exercised at a time that the Trading Market is open, the prior Trading Day's VWAP shall be used in this calculation);

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

4 To be 110% of IPO per share sale price

d) Mechanics of Exercise.

i. Delivery of Certificates Upon Exercise. Certificates for shares purchased hereunder shall be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is three (3) Trading Days after the latest of (x) the delivery to the Company of the Notice of Exercise, (y) surrender of this Warrant (if required) and (z) payment of the aggregate Exercise Price as set forth above (including by cashless exercise, if permitted) (such date, the "Warrant Share Delivery Date"). The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised, with payment to the Company of the Exercise Price (or by cashless exercise, if permitted) and all taxes required to be paid by the Holder, if any, pursuant to Section 2(d)(vi) prior to the issuance of such shares, having been paid. If the Company fails for any reason to deliver to the Holder certificates evidencing the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such certificates are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exerciseable.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the certificate or certificates representing Warrant Shares (or at the time the Holder's or its designee's balance account is credited through DWAC pursuant to Section 2(d)(i)), deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder a certificate or the certificates representing the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder a certificate or the certificates representing the Warrant Shares (or otherwise credit Holder's or its designee's balance account through DWAC pursuant to Section 2(d)(i)) pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the

extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this

Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) [RESERVED]

c) Subsequent Rights Offerings. If the Company, at any time while the Warrant is outstanding, shall issue rights, options or warrants to all holders of Common Stock (and not to the Holder) entitling them to subscribe for or purchase shares of Common Stock at a price per share less than the VWAP on the record date mentioned below, then the Exercise Price shall be multiplied by a fraction, of which the denominator shall be the number of shares of the Common Stock outstanding on the date of issuance of such rights, options or warrants plus the number of additional shares of Common Stock offered for subscription or purchase, and of which the numerator shall be the number of shares of the Common Stock outstanding on the date of issuance of such rights, options or warrants plus the number of shares which the aggregate offering price of the total number of shares so offered (assuming receipt by the Company in full of all consideration payable upon exercise of such rights, options or warrants) would purchase at such VWAP. Such adjustment shall be made whenever such rights, options or warrants are issued, and shall become effective immediately after the record date for the determination of stockholders entitled to receive such rights, options or warrants.

d) Pro Rata Distributions. If the Company, at any time while this Warrant is outstanding, shall distribute to all holders of Common Stock (and not to the Holder) evidences of its indebtedness or assets (including cash and cash dividends) or rights or warrants to subscribe for or purchase any security, then in each such case the Exercise Price shall be adjusted by multiplying the Exercise Price in effect immediately prior to the record date fixed for determination of stockholders entitled to receive such distribution by a fraction of which the denominator shall be the VWAP determined as of the record date mentioned above, and of which the numerator shall be such VWAP on such record date less the then per share fair market value at such record date of the portion of such assets or evidence of indebtedness so distributed applicable to one outstanding share of the Common Stock as determined by the Board of Directors in good faith. In either case the adjustments shall be described in a statement provided to the Holder of the portion of assets or evidences of indebtedness so distributed or such subscription rights applicable to one share of Common Stock. Such adjustment shall be made whenever any such distribution is made and shall become effective immediately after the record date mentioned above.

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of

Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental

Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders

of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of the subsidiaries of the Company, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Pursuant to Rule FINRA 5110(g)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

i. by operation of law or by reason of reorganization of the Company;

ii. to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;

iii. if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered;

iv. that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

v. the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restriction, any applicable securities laws and the conditions set forth in Section 4(d), this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register; No Registration Rights. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. The Holder acknowledges, by receipt of this Warrant, that the Company is not obligated to register for resale the Warrant Shares underlying this Warrant.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i).

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Underwriting Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Underwriting Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Underwriting Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

ACM RESEARCH, INC.

By: _____

Name:
Title:

NOTICE OF EXERCISE

TO: ACM RESEARCH, INC.
ATTN:

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] [if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please register and issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number or by physical delivery of a certificate to:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute
this form and supply required information.
Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, [____] all of or [_____] shares of the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____.

_____

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

_____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

Exhibit 10.04

SECURITIES PURCHASE AGREEMENT

THIS SECURITIES PURCHASE AGREEMENT (this "*Agreement*") is made as of March 23, 2017 (the *"Agreement Date"*) by and between ACM Research, Inc. ("*ACM*") and Shanghai Science and Technology Venture Capital Co., Ltd. ("*SSTVC*").

WHEREAS, ACM desires to sell, and SSTVC desires to purchase, on the terms set forth herein, a total of 4,998,508 shares of Series E Preferred Stock of ACM, US$0.0001 par value per share (the "*Shares*");

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the Required Approval described herein, ACM and SSTVC agree as follows:

1. Shares.

1.1 Purchase Price. ACM shall sell all of the Shares to SSTVC for an aggregate purchase price, payable in US$, equal to the product of RMB40,000,000 multiplied by the average of the RMB-to-US$ exchange rates, as reported by safe.gov.cn, for the three business days immediately preceding the date of the Closing (as defined below).

1.2 Preclosing Approval. The parties acknowledge and agree that the purchase and sale of the Shares in accordance with the terms of this Agreement is subject to the receipt by SSTVC of approval of, and consent to, the issuance and sale of the Shares and the transfer of the purchase price therefor by all relevant authorities of the People's Republic of China (the "*Required Approval*"). SSTVC shall use it best efforts to obtain the Required Approval as promptly as practicable. If the Required Approval is not obtained within three months after the Agreement Date, both parties shall agree in a written document on whether this Agreement shall be extended and the new expiration date. If the Required Approval is not obtained by the later of three months after the Agreement Date and the new expiration date so agreed upon by the parties, this Agreement shall be considered void and without further effect or enforceability by either party as soon as ACM becomes public.

1.3 Closing; Delivery.

(a) Subject to the satisfaction of each of the conditions set forth in Sections 1.4 and 1.5, the purchase and sale of the Shares (the "*Closing*") shall take place at the corporate headquarters of ACM at such time and on such date after, and subject to, the receipt of the Required Approval, as SSTVC and ACM mutually agree upon, but in no event later than thirty days following the date on which the Required Approval is received.

(b) At the Closing, ACM shall deliver to SSTVC a certificate evidencing the Shares, free and clear of all liens, pledges, security interests, charges, claims, encumbrances, agreements, options, voting trusts, proxies and other arrangements or restrictions of any kind or nature ("*Encumbrances*"), against payment at the Closing of the aggregate purchase price set forth in Section 1.1 by transmission of a wire transfer to a bank account designated by ACM.

1.4 Conditions to SSTVC's Obligations at Closing. The obligation of SSTVC to purchase the Shares from ACM at the Closing is subject to the fulfillment, on or before the date of the Closing, of each of the following conditions, unless otherwise waived:

(a) The representations and warranties of ACM contained in Section 2 shall be true and correct in all respects as of the Closing.

(b) ACM shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by ACM as of or before the Closing.

(c) The Required Approval and all authorizations, approvals or permits of any governmental authority or regulatory body that are required in connection with the lawful issuance and sale of the Subsidiary Shares pursuant to this Agreement shall be obtained and effective as of the Closing.

(d) ACM shall have executed and delivered an adoption agreement of SSTVC (the "*RRA Adoption Agreement*") with respect to the Registration Rights Agreement by and among ACM and certain of its stockholders, pursuant to which RRA Adoption Agreement SSTVC shall become a "Holder" under such Registration Rights Agreement with respect to the Shares.

1.5 Conditions to ACM's Obligations at Closing. The obligation of ACM to sell the Shares to SSTVC at the Closing is subject to the fulfillment, at or before the Closing, of each of the following conditions, unless otherwise waived:

(a) The representations and warranties of SSTVC contained in Section 2 shall be true and correct in all material respects as of the Closing.

(b) SSTVC shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by SSTVC as of or before the Closing.

(c) The Required Approval and all other authorizations, approvals or permits of any governmental authority or regulatory body that are required in connection with the lawful purchase and sale of the Subsidiary Shares pursuant to this Agreement shall be obtained by SSTVC and effective as of the Closing.

2. Representations and Warranties of ACM. ACM hereby represents and warrants to SSTVC, as of the date hereof and as of the Closing, as follows:

2.1 Authorization. All corporate action required to be taken to authorize ACM to enter into and perform this Agreement, including authorization of the execution of the RRA Adoption Agreement, has been taken as of the date of this Agreement and shall remain in effect as of the Closing. Each of this Agreement and the Registration Rights Agreement constitutes as of the date of this Agreement, and shall constitute as of the Closing, a valid and legally binding obligation of ACM, enforceable against ACM in accordance with its respective terms except as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

2.2 Capitalization. As of March 1, 2017, the capital stock of ACM consisted of 130,110,529 shares designated as three classes, each having a par value of $0.0001 per share, as follows:

(a) 100,000,000 shares were designated as Class A Common Stock, of which 8,031,820 shares were issued and outstanding;

(b) 7,303,533 shares were designated as Class B Common Stock, of which 7,229,148 shares were issued and outstanding; and

(c) 22,797,996 shares of Preferred Stock, of which (i) 385,000 shares were designated as Series A Preferred Stock, all of which were issued and outstanding; (ii) 1,572,000 shares were designated as Series B Preferred Stock, all of which were issued and outstanding; (iii) 1,400,000 shares were designated as Series C Preferred Stock, 1,360,962 shares of which were issued and outstanding; (iv) 4,800,000 shares were designated as Series D Preferred Stock, 1,326,642 shares of which were issued and outstanding, (v) 10,718,530 shares were designated as Series E Preferred Stock, none of which were issued or outstanding; and (vi) 6,000,000 shares were designated as Series F Preferred Stock, 3,663,254 shares of which were issued and outstanding.

The issuance and sale of the Shares pursuant to this Agreement will not result in any anti-dilutive adjustment to the conversion price of any series of preferred stock of ACM.

2.3 Governmental Consents and Filings. Assuming the accuracy of the representations made by SSTVC in Section 3, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority of the United States of America is required on the part of ACM in connection with the issuance of the Shares, except for any filings made pursuant to the U.S. Securities Act of 1933, which will be made by ACM in a timely manner.

2.4 Compliance with Other Instruments. ACM is not in violation or default (a) of any provision of its certificate of incorporation or bylaws, (b) of any instrument, judgment, order, writ or decree, (c) under any note, indenture or mortgage, or (d) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound, or, to its knowledge, of any provision of U.S. federal or state statute, rule or regulation applicable to ACM, the violation of which would have a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property or operating results of ACM. The execution, delivery and performance of this Agreement and the consummation of the transaction contemplated by this Agreement will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement or (ii) an event that results in the creation of any lien, charge or encumbrance upon any assets of ACM or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to ACM.

2.5 Legal Proceedings. There are no actions, suits, claims, investigations or other legal proceedings pending or, to the knowledge of ACM, threatened against or by ACM that challenge or seek to prevent, enjoin or otherwise delay the transaction contemplated by this Agreement.

2.6 Intellectual Property. ACM owns or possesses or believes it can acquire on commercially reasonable terms sufficient legal rights to all ACM Intellectual Property (as defined below) without any known conflict with, or infringement of, the rights of others. To the knowledge of ACM, no product marketed or sold (or proposed to be marketed or sold) by ACM violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the ACM Intellectual Property, nor is ACM bound by or a party to any options, licenses or agreements of any kind with respect to the patents,

trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. For purposes of this Section 2.6, ACM shall be deemed to have "knowledge" of a patent right if ACM has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent laws. "*ACM Intellectual Property*" means all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, mask works, information and proprietary rights and processes, similar or other intellectual property rights, subject matter of any of the foregoing, tangible embodiments of any of the foregoing, licenses in to and under any of the foregoing, and any and all such cases that are owned or used by ACM in the conduct of ACM's business as now conducted.

2.7 Permits. ACM has all franchises, permits, licenses and any similar authority necessary for the conduct of its business as now being conducted by it, the lack of which could materially and adversely affect the business, properties, prospects or financial condition of ACM and believes it can obtain, without undue burden or expense, any similar authority for the conduct of its business as planned to be conducted. ACM is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

3. Representations and Warranties of SSTVC. SSTVC hereby represents and warrants to ACM, as of the date hereof and as of the Closing, as follows:

3.1 Authorization. All corporate action required to be taken to authorize SSTVC to enter into and perform this Agreement has been taken as of the date of this Agreement and shall remain in effect as of the Closing. This Agreement constitutes as of the date hereof, and this Agreement shall constitute as of the Closing, a valid and legally binding obligation of SSTVC, enforceable against SSTVC in accordance with its respective terms except as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

3.2 Governmental Consents and Filings. Except for the Required Approval (which shall have been obtained by SSTVC if the Closing is held), no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any national, provincial or local governmental authority of the People's Republic of China is required on the part of SSTVC as of the Closing, in connection with the transaction contemplated by this Agreement.

3.3 Compliance with Other Instruments. The execution, delivery and performance of this Agreement and the consummation of the transaction contemplated by this Agreement will not result in any violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either:

(a) default (i) of any provision of its formation document or bylaws, (ii) of any instrument, judgment, order, writ or decree, (iii) under any note, indenture or mortgage, or (iv) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound, or, to its knowledge, of any provision of any national, provincial or local governmental authority of the People's Republic of China applicable to SSTVC; or

(b) an event that results in the creation of any lien, charge or encumbrance upon any assets of SSTVC or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to SSTVC.

3.4 Legal Proceedings. There are no actions, suits, claims, investigations or other legal proceedings pending or, to the knowledge of SSTVC, threatened against or by SSTVC that challenge or seek to prevent, enjoin or otherwise delay the transaction contemplated by this Agreement.

3.5 Purchase Entirely for Own Account. SSTVC is acquiring the Shares for investment for its own account, not as a nominee or agent and not with a view to the resale or distribution of any interest in the Shares. SSTVC has no present intention of selling, granting any participation in or otherwise distributing any interest in the Shares. SSTVC does not presently have any contract, undertaking, agreement or arrangement with any individual or entity to sell, transfer or grant participations to either such individual or entity or any third party, with respect to the Shares.

3.6 Disclosure of Information. SSTVC has had an opportunity to discuss with ACM's management ACM's business, management and financial affairs and the terms and conditions of the offering of the Shares, and SSTVC has had an opportunity to review ACM's facilities. The foregoing, however, does not limit or modify the representations and warranties of ACM in Section 2 or the right of SSTVC to rely thereon.

3.7 Restricted Securities. SSTVC understands that the Shares have not been, and will not be, registered under the U.S. Securities Act, by reason of a specific exemption from the registration provisions of the U.S. Securities Act that depends upon, among other things, the bona fide nature of the investment intent and the accuracy of SSTVC's representations as expressed in this Section 3. SSTVC understands that the Shares are, and the shares of Class A Common Stock ("*Conversion Shares*") issuable upon conversion of the Shares will be, "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to those laws, SSTVC must hold the Shares and the Conversion Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available, including a transfer outside of the United States in an offshore transaction in compliance with Rule 904 under the U.S. Securities Act of 1933 (if applicable). SSTVC acknowledges that ACM has no obligation to register or qualify for resale the Shares or, except as set forth in the Registration Rights Agreement referenced above, the Conversion Shares. SSTVC further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including the time and manner of sale, the holding period for the Shares or the Conversion Shares, and on requirements relating to ACM that are outside of SSTVC's control and that ACM is under no obligation, and may not be able, to satisfy.

3.8 No Public Market. SSTVC understands that (a) no public market now exists for the Shares or the Conversion Shares, (b) ACM has made no assurances that a public market will ever exist for the Shares or the Conversion Shares and (c) the Shares and the Conversion Shares may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons.

3.9 Legends. SSTVC understands that the Shares and the Conversion Shares may be notated with the following legend, together with any other legend required by the securities laws of any state to the extent such laws are applicable to the Shares or the Conversion Shares represented by the certificate, instrument, or book entry so legended:

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AND (A) HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF OR (B) IT IS NOT A U.S. PERSON AND IS ACQUIRING

THIS SECURITY IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH RULE 904 UNDER THE US. SECURITIES ACT OF 1933. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO ACM RESEARCH, INC. THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE U.S. SECURITIES ACT OF 1933."

3.10 Investor Status. SSTVC (a) is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the U.S. Securities Act of 1933 or (b) is not a U.S. person as defined in Regulation S under the U.S. Securities Act of 1933 and the Shares have not been offered or sold within the United States as defined under the U.S. Securities Act of 1933. SSTVC has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to receive the Shares or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Shares, and (v) SSTVC's receipt and continued beneficial ownership of the Shares will not violate any applicable securities or other laws of SSTVC's jurisdiction.

3.11 No General Solicitation. Neither SSTVC, nor any of its officers, directors, employees, agents, stockholders or partners, has either directly or indirectly (a) engaged in any general solicitation or (b) published any advertisement in connection with the offering and issuance of the Shares.

4. Miscellaneous.

4.1 Survival. Unless otherwise set forth in this Agreement, the representations and warranties of each party contained in this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of the other party.

4.2 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

4.3 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware.

4.4 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original but both of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

4.5 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

4.6 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt and: (a) personal delivery to the party to be notified; (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day; (c) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (d) one business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on the signature page, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 4.6. If notice is given to ACM, a copy shall also be sent to Mark L. Johnson at K&L Gates LLP, State Street Financial Center, One Lincoln Street, Boston, Massachusetts 02111.

4.7 Attorneys' Fees. If any action at law or in equity (including arbitration) is necessary to enforce or interpret the terms of any of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

4.8 Amendments and Waivers. Any term of this Agreement may be amended or waived only with the written consent of SSTVC and ACM.

4.9 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

4.10 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to either party under this Agreement, upon any breach or default of the other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of either party of any breach or default under this Agreement, or any waiver on the part of either party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to either party, shall be cumulative and not alternative.

4.11 Entire Agreement. This Agreement, together with the Registration Rights Agreement and the Shares, constitutes the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

4.12 Agreement Translations. This Agreement is drafted and executed by the parties in both English and Chinese. To the best of both parties' knowledge, the terms of the English agreement and the Chinese agreement are consistent.

4.13 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to Singapore International Arbitration Centre for the purpose of any dispute arising out of or based upon this Agreement; and (b) agree not to commence any suit, action, dispute or other proceeding arising out of or based upon this Agreement except in Singapore International Arbitration Centre in accordance with the preceding clause (a).

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ACM RESEARCH, INC.

By: /s/ Hui Wang

Name: HUI WANG

Title: President and CEO

Address:
42307 Osgood Road, Suite I
Fremont, CA 94539
USA

SHANGHAI SCIENCE AND TECHNOLOGY VENTURE CAPITAL CO., LTD.

By: /s/ Weiguo Shen

Name: Weiguo Shen

Title:

Address:
1634 Huaihai Rd. (C)
Shanghai, Zip 200031
P. R. China

AMENDMENT TO SECURITIES PURCHASE AGREEMENT

THIS AMENDMENT dated July 27, 2017 is entered into with respect to the Securities Purchase Agreement dated as of March 23, 2017 by and between ACM Research, Inc. and Shanghai Science and Technology Venture Capital Co., Ltd. (the "*Prior Agreement*").

The parties agree as follows:

1. Section 1.1 of the Prior Agreement is hereby amended by deleting the existing text in its entirety and replacing it with the following:

"1.1 Purchase Price. ACM shall sell all of the Shares to SSTVC for the lower of the following aggregate purchase prices, payable in US$: 1) US$5,800,000.00, or 2) US$ amount equal to the product of RMB40,000,000 multiplied by the actual RMB-to-US$ exchange rate when SSTVC wires the fund."

2. Except as set forth in Section 1 of this Amendment, the terms of the Prior Agreement shall remain in full force and effect.

3. This Amendment may be executed in counterparts, each of which shall be deemed an original but both of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

4. This Amendment is drafted and executed by the parties in both English and Chinese. To the best of both parties' knowledge, the terms of the English agreement and the Chinese agreement are consistent.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ACM RESEARCH, INC.

By: /s/ Hui Wang
Name: HUI WANG
Title: President and CEO

SHANGHAI SCIENCE AND TECHNOLOGY VENTURE CAPITAL CO., LTD.

By: /s/ Weiguo Shen
Name: Weiguo Shen
Title:

SECOND AMENDMENT TO SECURITIES PURCHASE AGREEMENT

Reference is hereby made to that certain Securities Purchase Agreement dated as of March 23, 2017 by and between ACM Research, Inc. and Shanghai Science and Technology Venture Capital Co., Ltd., as amended by that certain Amendment to Securities Purchase Agreement dated July 27, 2017 (the "*Prior Agreement*"), the parties agree as follows:

The parties to the Prior Agreement agree as follows:

1. Section 1.3(a) of the Prior Agreement is hereby amended by deleting the existing text in its entirety and replacing it with the following:

"(a) Subject to the satisfaction of each of the conditions set forth in Sections 1.4 and 1.5, the purchase and sale of the Shares (the "*Closing*") shall take place at the corporate headquarters of ACM on August 31, 2017 (or at such later date and time as such parties mutually agree)."

2. Except as set forth in Section 1 of this Amendment, the terms of the Prior Agreement shall remain in full force and effect.

3. This Amendment may be executed in counterparts, each of which shall be deemed an original but both of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

4. This Amendment is drafted and executed by the parties in both English and Chinese. To the best of both parties' knowledge, the terms of the English agreement and the Chinese agreement are consistent.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ACM RESEARCH, INC.

By: /s/ David H. Wang
Name: David H. Wang
Title: President and Chief Executive Officer

SHANGHAI SCIENCE AND TECHNOLOGY VENTURE CAPITAL CO., LTD.

By: /s/ Weiguo Shen
Name: Weiguo Shen
Title:

Exhibit 10.07

ORDINARY SHARE PURCHASE AGREEMENT

THIS ORDINARY SHARE PURCHASE AGREEMENT (this "*Agreement*") is made as of September 6, 2017 by and among ACM Research, Inc. ("*ACM*"), Ninebell Co., Ltd. ("*Ninebell*") and Moon-Soo Choi ("*Shareholder*"). Certain definitions are used with the meanings ascribed to them in Section 1.

RECITALS

A. Ninebell is a valued supplier of robotic systems to ACM Research (Shanghai), Inc., a subsidiary of ACM, for use in the manufacture of semiconductor fabrication equipment, and ACM Research (Shanghai), Inc. is a valued customer of Ninebell.

B. In order to support and build upon their existing relationship, ACM and Ninebell desire to enter into arrangements under which each will purchase equity securities of the other.

C. Pursuant and subject to the terms and conditions of this Agreement, Ninebell proposes to sell, and ACM proposes to purchase, a total of 20,000 Ninebell Ordinary Shares (the "*Shares*") for US$1,200,000, which Shares, together with 80,000 Ninebell Ordinary Shares held by Shareholder, will constitute all of the Ninebell Ordinary Shares outstanding immediately after such purchase.

D. Contemporaneously herewith, the parties are entering into a Class A Common Stock Purchase Agreement (the "*Corollary Agreement*") pursuant to which, among other things, ACM proposes to sell, and Ninebell proposes to purchase, a total of 400,000 shares of ACM's Class A common stock for US$1,000,000.

In consideration of the mutual covenants and agreements set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Defined Terms Used in this Agreement. In addition to the terms defined elsewhere in this Agreement, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

1.1 "*Affiliate*" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 "*Encumbrance*" means any lien, hypothecation, pledge, mortgage, security interest, charge, claim, encumbrance, option, voting trust, proxy and other arrangement or restriction of any kind or nature.

1.3 "*Immediate Family Member*" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including, adoptive relationships, of a natural person referred to herein.

1.4 "*Intellectual Property*" means all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, mask works, information and proprietary rights and processes, similar or other intellectual property rights, subject matter of any of the foregoing, tangible embodiments of any of the foregoing, licenses in to and under any of the foregoing, and any and all such cases that are owned or used by Ninebell in the conduct of its business as now conducted.

1.5 "*MAE*" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, prospects or results of operations of Ninebell.

1.6 "*Ninebell Convertible Securities*" means any evidences of indebtedness, shares or other securities of any type whatsoever of Ninebell that are, or may become, directly or indirectly convertible into or exchangeable for Ninebell Equity Securities, but excluding Ninebell Options.

1.7 "*Ninebell Equity Securities*" means equity securities (including Ninebell Ordinary Shares) of Ninebell, whether or not currently authorized.

1.8 "*Ninebell Equity-Related Securities*" means, collectively, Ninebell Equity Securities, Ninebell Convertible Securities and Ninebell Options.

1.9 "*Ninebell Options*" means rights, options or warrants to subscribe for, purchase or otherwise acquire Ninebell Equity Securities or Ninebell Convertible Securities.

1.10 "*Ninebell Ordinary Shares*" means ordinary shares of Ninebell.

1.11 "*Person*" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.12 "*Proposed Shareholder Transfer*" means any assignment, sale, offer to sell, Encumbrance, disposition or other transfer of any Shareholder Transfer Shares (or any interest therein) proposed by Shareholder.

1.13 "*Proposed Shareholder Transfer Notice*" means written notice from Shareholder setting forth the terms and conditions of a Proposed Shareholder Transfer.

1.14 "*Prospective Transferee*" means any Person to whom Shareholder proposes to make a Proposed Shareholder Transfer.

1.15 "*Shareholder Transfer Shares*" means Ninebell Equity-Related Securities beneficially owned by Shareholder, whether such beneficial ownership exists as of the date hereof or is acquired hereafter (including in connection with any stock split, stock dividend, recapitalization, reorganization, or the like).

2. Closing. Upon the terms and subject to the conditions of this Agreement, at a closing (the "*Closing*") to be held on a date mutually agreed upon by the parties, but in no event later than seven days following the date of this Agreement:

(a) ACM shall deliver to Ninebell a payment of US$1,200,000 by wire transfer of immediately available funds to an account designated by Ninebell at least two days prior to the Closing; and

(b) Ninebell shall issue and deliver to ACM a certificate, duly endorsed to the order of ACM and representing the Shares, which shares shall be fully paid, non-assessable, and free and clear of all Encumbrances.

3. Representations and Warranties of ACM. ACM hereby represents and warrants to Ninebell and Shareholder as follows:

3.1 Organization and Good Standing. ACM is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. ACM has all requisite corporate (or similar) power and authority to carry on its business as presently conducted and as proposed to be conducted.

3.2 Authorization. All corporate action required to be taken to authorize ACM to enter into and perform this Agreement has been taken. This Agreement constitutes a valid and legally binding obligation of ACM, enforceable against ACM in accordance with its terms except as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

3.3 Compliance with Other Instruments. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated by this Agreement will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement or (ii) an event that results in the creation of any Encumbrance upon any assets of ACM or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to ACM.

3.4 Legal Proceedings. There are no actions, suits, claims, investigations or other legal proceedings pending or, to the knowledge of ACM, threatened against or by ACM that challenge or seek to prevent, enjoin or otherwise delay the transactions contemplated by this Agreement.

4. Representations and Warranties of Ninebell. Ninebell and Shareholder hereby severally represent and warrant to ACM as follows:

4.1 Organization and Good Standing. Ninebell is a corporation duly organized, validly existing and in good standing under the laws of the Republic of Korea. Ninebell has all requisite corporate (or similar) power and authority to carry on its business as presently conducted and as proposed to be conducted.

4.2 Authorization. All corporate action required to be taken to authorize Ninebell to enter into and perform this Agreement, including the issuance of the Shares, has been taken. This Agreement constitutes a valid and legally binding obligation of each of Ninebell and Shareholder, enforceable against each of Ninebell and Shareholder in accordance with its terms except as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

4.3 Capitalization. The capital stock of Ninebell outstanding as of the date hereof consists, and as of immediately prior to the Closing will consist, of 80,000 Ninebell Ordinary Shares, all of which are and will be held of record and beneficially by Shareholder. When issued and delivered in accordance with the terms of this Agreement, the Shares will be validly issued, fully paid and non-assessable and free of restrictions on transfer other than restrictions created by or imposed by this Agreement.

4.4 Governmental Consents and Filings. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any national, provincial or local governmental authority of the Republic of Korea is required on the part of Ninebell or Shareholder in connection with the consummation of the transactions contemplated by this Agreement, except for such other actions as have been timely taken by Ninebell or Shareholder prior to the date hereof.

4.5 Compliance with Other Instruments. Ninebell is not in violation or default (a) of any provisions of its organizational documents, (b) of any instrument, judgment, order, writ or decree, (c) under any note, indenture or mortgage, or (d) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound, or, to its knowledge, of any provision of any Korean or U.S. federal statute, rule or regulation applicable to Ninebell, the violation of which would have an MAE. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated by this Agreement will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement or (ii) an event that results in the creation of any lien, charge or encumbrance upon any assets of Ninebell or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to Ninebell.

4.6 Legal Proceedings. There are no actions, suits, claims, investigations or other legal proceedings pending or, to the knowledge of Ninebell or Shareholder, threatened against or by Ninebell or Shareholder that (a) would have an MAE or (b) challenge or seek to prevent, enjoin or otherwise delay the transactions contemplated by this Agreement.

4.7 Intellectual Property. Ninebell owns or possesses or believes it can acquire on commercially reasonable terms sufficient legal rights to all Intellectual Property without any known conflict with, or infringement of, the rights of others. To the knowledge of Ninebell and Shareholder, no product marketed or sold (or proposed to be marketed or sold) by Ninebell violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Intellectual Property, nor is Ninebell bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. For purposes of this Section 4.7, Ninebell or Shareholder shall be deemed to have "knowledge" of a patent right if such party has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to U.S. patent laws.

4.8 Permits. Ninebell has all franchises, permits, licenses and any similar authority necessary for the conduct of its business as now being conducted by it, the lack of which could have an MAE. Ninebell is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

4.9 Certain Transactions. There are no agreements, understandings or proposed transactions between Ninebell, on the one hand, and any of the officers, directors, consultants or employees, or any Affiliate of any of the foregoing, of Ninebell, on the other hand. Ninebell is not indebted, directly or indirectly, to any of its directors, officers or employees, or to any spouse, child or Affiliate of any of the foregoing, other than in connection with expenses or advances of expenses incurred in the ordinary course of business or employee relocation expenses and for other customary employee benefits made generally available to all employees. None of the directors, officers or employees of Ninebell, or any members of their immediate families, or any Affiliate of the foregoing are, directly or indirectly, indebted to Ninebell.

4.10 Financial Statements. Ninebell has made available to ACM its financial statements as of, and for the years ended, December 31, 2015 and 2016 (collectively, the "*Financial Statements*"). The Financial Statements fairly present in all material respects the financial condition and operating results of Ninebell as of the dates, and for the periods, indicated therein, subject to normal year-end audit adjustments and to the omission of footnotes. Since December 31, 2016, there has not been:

(a) any damage, destruction or loss, whether or not covered by insurance, that could have an MAE;

(b) any material change to a material contract or agreement by which Ninebell or any of its assets is bound or subject;

(c) any loans or guarantees made by Ninebell to or for the benefit of its employees, officers or directors, or any members of their immediate families, other than travel advances and other advances made in the ordinary course of its business;

(d) any declaration, setting aside or payment or other distribution in respect of any of Ninebell's capital stock, or any direct or indirect redemption, purchase, or other acquisition of any of such stock by Ninebell;

(e) any sale, assignment or transfer of any of Ninebell's Intellectual Property that could reasonably be expected to result in an MAE; or

(f) any arrangement or commitment by Ninebell to do any of the things described in the preceding clauses (a) through (e).

4.11 U.S. Foreign Corrupt Practices Act. Neither Ninebell, nor any of its directors, officers, employees or agents (including Shareholder), has, directly or indirectly, made, offered, promised or authorized any payment or gift of any money or anything of value to or for the benefit of any "foreign official" (as such term is defined in the U.S. Foreign Corrupt Practices Act of 1977), foreign political party or official thereof or candidate for foreign political office for the purpose of (a) influencing any official act or decision of such official, party or candidate, (b) inducing such official, party or candidate to use his, her or its influence to affect any act or decision of a foreign governmental authority, or (c) securing any improper advantage, in the case of (a), (b) and (c) above, in order to assist Ninebell or any of its Affiliates in obtaining or retaining business for or with, or directing business to, any person. Neither Ninebell, nor any of is directors, officers, employees or agents, have made or authorized any bribe, rebate, payoff, influence payment, kickback or other unlawful payment of funds or received or retained any funds in violation of any law, rule or regulation. Ninebell has maintained, and has caused each of its Affiliates to maintain, systems of internal controls (including accounting systems, purchasing systems and billing systems) to ensure compliance with the U.S. Foreign Corrupt Practices Act of 1977 or any other applicable anti-bribery or anti-corruption law. Neither Ninebell, nor to Ninebell's knowledge none of its officers, directors or employees, are the subject of any allegation, voluntary disclosure, investigation, prosecution or other enforcement action related to such Act or any other anti-corruption law.

5. Additional Agreements.

5.1 Election of ACM Directors. Shareholder agrees to vote, or cause to be voted, all shares of Ninebell Equity Securities beneficially owned by Shareholder, or over which Shareholder otherwise has voting control, from time to time and at all times, in whatever manner as shall be necessary to ensure that:

(a) the size of the board of directors of Ninebell shall be set and remain at three directors, unless otherwise approved by unanimous consent of the board of directors of Ninebell, including the ACM Designee; and

(b) at each annual or special meeting of shareholders at which an election of directors is held or pursuant to any written consent of the shareholders, one nominee for the board of directors of Ninebell (the "*ACM Designee*) selected by ACM is elected as a director of Ninebell.

5.2 Right of First Offer.

(a) Subject to the terms and conditions of this Section 5.2 (including Section 5.2(b)) and applicable securities laws, if Ninebell proposes to offer or sell any Ninebell Equity-Related Securities Ninebell shall first offer such Ninebell Equity-Related Securities to ACM.

(i) Ninebell shall give notice (the "Ninebell Offer Notice") to ACM, stating (A) its bona fide intention to offer such Ninebell Equity-Related Securities, (B) the number of such Ninebell Equity-Related Securities to be offered, and (C) the price and terms, if any, upon which it proposes to offer such Ninebell Equity-Related Securities.

(ii) By notification to Ninebell within 15 days after the Ninebell Offer Notice is given, ACM may elect to purchase or otherwise acquire, at the price and on the terms specified in the Ninebell Offer Notice, up to the aggregate number of Ninebell Equity-Related Securities referred to in the Ninebell Offer Notice. The closing of any sale pursuant to this Section 5.2 shall occur within the later of ninety days of the date that the Ninebell Offer Notice is given and the date of initial sale of Ninebell Equity-Related Securities pursuant to Section 5.2(a)(iii).

(iii) If all Ninebell Equity-Related Securities referred to in the Ninebell Offer Notice are not elected to be purchased or acquired as provided in Section 5.2(a)(ii), Ninebell may, during the ninety day period following the expiration of the periods provided in Section 5.2(a)(ii), offer and sell the remaining unsubscribed portion of such Ninebell Equity-Related Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Ninebell Offer Notice. If Ninebell does not enter into an agreement for the sale of the Ninebell Equity-Related Securities within such period, or if such agreement is not consummated within thirty days of the execution thereof, the right provided hereunder shall be deemed to be revived and such Ninebell Equity-Related Securities shall not be offered unless first reoffered to ACM in accordance with this Section 5.2(a).

(b) The right of first offer in Section 5.2(a) shall not be applicable to:

(i) Ninebell Equity-Related Securities issued by reason of a dividend, stock split, split-up or other distribution made equally on all outstanding shares of Ninebell Equity Securities;

(ii) Ninebell Equity Securities or Ninebell Options issued to employees or directors of, or consultants or advisors to, Ninebell or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the board of directors of Ninebell, including approval of the ACM Designee;

(iii) Ninebell Equity Securities or Ninebell Convertible Securities actually issued upon the exercise, and in accordance with the terms, of a Ninebell Option;

(iv) Ninebell Equity Securities actually issued upon the conversion or exchange, and in accordance with the terms, of Ninebell Convertible Securities;

(v) Ninebell Equity-Related Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the board of directors of Ninebell, including approval of the ACM Designee;

(vi) Ninebell Equity-Related Securities issued to suppliers or third-party service providers in connection with the provision of goods or services pursuant to transactions approved by the board of directors of Ninebell, including approval of the ACM Designee;

(vii) Ninebell Equity-Related Securities issued pursuant to the acquisition of another corporation by Ninebell by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided such issuance is approved by the board of directors of Ninebell, including approval of the ACM Designee; or

(viii) Ninebell Equity-Related Securities issued in connection with sponsored research, collaboration, technology license, development, original equipment manufacturing, marketing or other similar agreements or strategic partnerships approved by the board of directors of Ninebell, including approval of the ACM Designee.

(c) ACM may assign its rights to future issuances of Ninebell Equity Securities under this Section 5.2 to an Affiliate of, or successor entity to, ACM, *provided* ACM and such Affiliate or successor entity provide written notice to Ninebell of the name and address of such Affiliate or successor entity.

(d) The provisions of this Section 5.2 shall terminate and be of no further force or effect as of immediately before the consummation of Ninebell's initial public offering within the United States, the Republic of Korea, Taiwan, or the Hong Kong Special Administrative Region of the People's Republic of China.

5.3 Right of First Refusal.

(a) Shareholder hereby unconditionally and irrevocably grants to ACM a right of first refusal to purchase all, but not less than all, of any Shareholder Transfer Shares that Shareholder may propose to transfer in a Proposed Shareholder Transfer, at the same price and on the same terms and conditions as those offered to the Prospective Transferee.

(b) If Shareholder proposes to make a Proposed Shareholder Transfer, Shareholder must deliver a Proposed Shareholder Transfer Notice to Ninebell and ACM not later than thirty days prior to the consummation of such Proposed Shareholder Transfer. Such Proposed Shareholder Transfer Notice shall contain the material terms and conditions (including price and form of consideration) of the Proposed Shareholder Transfer, the identity of the Prospective Transferee and the intended date of the Proposed Shareholder Transfer. To exercise its right of first refusal under this Section 5.3, ACM must deliver a written notice to

Ninebell and Shareholder that ACM intends to exercise its right of first refusal as to all of the Shareholder Transfer Shares with respect to the Proposed Shareholder Transfer within thirty days after delivery of the Proposed Shareholder Transfer Notice (the "ROFR Notice Period").

(c) If ACM does not exercise its right of first refusal in accordance with Section 5.3(b), Shareholder shall have the option to sell to the Prospective Transferee all, but not less than all, of the offered Shareholder Transfer Shares on terms and conditions substantially similar to (and in no event more favorable than) the terms and conditions set forth in the Proposed Shareholder Transfer Notice, it being understood and agreed that (i) any future Proposed Shareholder Transfer shall remain subject to the terms and conditions of this Agreement, including this Section 5.3, and (ii) such sale shall be consummated within ninety days after receipt of the Proposed Shareholder Transfer Notice by ACM and, if such sale is not consummated within such ninety day period, such sale shall again become subject to the right of first refusal on the terms set forth in this Section 5.3.

(d) If the consideration proposed to be paid for the Shareholder Transfer Shares is in property, services or other non-cash consideration, the fair market value of the consideration shall be as determined in good faith by the board of directors of Ninebell. If ACM cannot for any reason pay for the Shareholder Transfer Shares in the same form of non-cash consideration, ACM may pay the cash value equivalent thereof, as determined in good faith by the board of directors of Ninebell. The closing of the purchase of Shareholder Transfer Shares by ACM shall take place, and all payments from ACM shall have been delivered to Shareholder, by the later of (i) the date specified in the Proposed Shareholder Transfer Notice as the intended date of the Proposed Shareholder Transfer and (ii) thirty days after delivery of the Proposed Shareholder Transfer Notice.

(e) Any Proposed Shareholder Transfer not made in compliance with the requirements of this Agreement shall be null and void ab initio, shall not be recorded on the books of Ninebell or its transfer agent, and shall not be recognized by Ninebell. Ninebell and Shareholder acknowledge and agree that any breach of this Section 5.3 would result in substantial harm to ACM for which monetary damages alone could not adequately compensate. Therefore, the parties hereto unconditionally and irrevocably agree that any non-breaching party hereto shall be entitled to seek protective orders, injunctive relief, and other remedies available at law or in equity (including seeking specific performance or the rescission of purchases, sales and other transfers of Shareholder Transfer Shares not made in strict compliance with this Agreement).

(f) If Shareholder becomes obligated to sell any Shareholder Transfer Shares to ACM under this Section 5.3 and fails to deliver such Shareholder Transfer Shares in accordance with the terms of this Section 5.3, ACM may, at its option, in addition to all other remedies it may have, send to Shareholder the purchase price for such Shareholder Transfer Shares as is herein specified and request that Ninebell effect such transfer in the name of ACM on Ninebell's books any certificates, instruments, or book entry representing the Shareholder Transfer Shares to be sold.

(g) Notwithstanding anything to the contrary herein, the provisions of this Section 5.3 shall not apply to a transfer of Shareholder Transfer Shares made for bona fide estate planning purposes, either during Shareholder's lifetime or on death by will or intestacy, to any Immediate Family Member of Shareholder, or any other relative or Person approved by majority of the board of directors of Ninebell, including the ACM Designee, or any custodian or trustee of any trust, partnership or limited liability company for the benefit of, or the

ownership interests of which are owned wholly by Shareholder or any such Immediate Family Members, provided that (i) Shareholder shall deliver prior written notice to ACM of such pledge, gift or transfer and such shares of Shareholder Transfer Shares shall at all times remain subject to the terms and restrictions set forth in this Agreement and such transferee shall, as a condition to such issuance, deliver a counterpart signature page to this Agreement as confirmation that such transferee shall be bound by all the terms and conditions of this Agreement (but only with respect to the securities so transferred to the transferee), including the obligations with respect to Proposed Shareholder Transfers of such Shareholder Transfer Shares and (ii) such transfer is made pursuant to a transaction in which there is no consideration actually paid for such transfer.

5.4 Election of Ninebell Director. ACM intends to form under the laws of the Republic of Korea a direct or indirect subsidiary ("*ACM Korea*") on or prior to December 31, 2017. Promptly following such formation, ACM will vote, or cause to be voted, all shares of capital stock of ACM Korea beneficially owned by ACM, or over which ACM otherwise has voting control, from time to time and at all times, in whatever manner as shall be necessary to ensure that at each annual or special meeting of shareholders at which an election of directors is held or pursuant to any written consent of the shareholders, one nominee for the board of directors of ACM Korea selected by Shareholder is elected as a director of ACM Korea.

5.5 Repurchase of Shares. In the event the Closing is completed but the Follow-On Closing (as defined in the Corollary Agreement) is not completed, ACM shall have the right, but not the obligation, to demand that Ninebell and/or Shareholder to purchase the Shares from ACM for an aggregate price of US$1,200,000, *provided* that if the Follow-On Closing is not completed solely as the result of a material failure by ACM to perform its material obligations under the Corollary Agreement, then ACM shall have no such demand right and instead Ninebell shall have the right, but not the obligation, to require ACM to resell the Shares to Ninebell for an aggregate price of US$1,200,000. In order to exercise its rights under this Section 5.5, ACM or Ninebell (as the case may be) shall deliver written notice of such exercise to the other parties hereto in accordance with Section 6.7, and the related repurchase and resale of the Shares shall occur on a mutually agreed date no later than seven days after delivery of such notice. The provisions of this Section 5.5 shall terminate as of 5 p.m., Pacific daylight saving time, on June 30, 2017.

6. Miscellaneous.

6.1 Expenses and Taxes. Each party is responsible for all of its own expenses incurred in connection with this Agreement, including all applicable taxes.

6.2 Survival. Unless otherwise set forth in this Agreement, the representations and warranties of each party contained in this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of the other parties.

6.3 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

6.4 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware.

6.5 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.6 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.7 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt and: (a) personal delivery to the party to be notified; (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day; (c) ten days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (d) two of the recipient's business days after deposit with an internationally recognized courier, freight prepaid, specifying one- or two-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on the signature page, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 6.7. If notice is given to ACM, a copy shall also be sent to Mark L. Johnson at K&L Gates LLP, State Street Financial Center, One Lincoln Street, Boston, Massachusetts 02111.

6.8 Attorneys' Fees. If any action at law or in equity (including arbitration) is necessary to enforce or interpret the terms of any of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

6.9 Amendments and Waivers. Any term of this Agreement may be amended or waived only with the written consent of the parties.

6.10 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

6.11 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to a party under this Agreement, upon any breach or default of another party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of a party of any breach or default under this Agreement, or any waiver on the part of a party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to a party, shall be cumulative and not alternative.

6.12 Entire Agreement. This Agreement and the Corollary Agreement, including the Lock-Up Agreement delivered pursuant to the Corollary Agreement, constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof and thereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties, including the Share Exchange Agreement dated as of March 23, 2017 and the Share Exchange Agreement dated as of August 22, 2017 among the parties, are expressly canceled.

6.13 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the State of California and to the jurisdiction of the U.S. District Court for the Northern District of California for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of California or the U.S. District Court for the Northern District of California, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE SHARES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ACM RESEARCH, INC.

By: /s/ David H. Wang
David H. Wang
Chief Executive Officer and President
Address: 42307 Osgood Road, Suite I
Fremont, CA 94539 USA

NINEBELL CO., LTD.

By: /s/ Moon-Soo Choi
Moon-Soo Choi
Chief Executive Officer
Address: C-104, Bundang Technopark
145 Yatap-Dong, Bundang-Gu
Seongnam-Si
Gyeonggi-Do, Korea, 463-760

MOON-SOO CHOI

/s/ Moon-Soo Choi
Address: C-104, Bundang Technopark
145 Yatap-Dong, Bundang-Gu
Seongnam-Si
Gyeonggi-Do, Korea, 463-760

Exhibit 10.08

CLASS A COMMON STOCK PURCHASE AGREEMENT

THIS CLASS A COMMON STOCK PURCHASE AGREEMENT (this "*Agreement*") is made as of September 6, 2017 by and among ACM Research, Inc. ("*ACM*"), Ninebell Co., Ltd. ("*Ninebell*") and Moon-Soo Choi ("*Shareholder*"). Certain definitions are used with the meanings ascribed to them in Section 1.

RECITALS

A. Ninebell is a valued supplier of robotic systems to ACM Research (Shanghai), Inc., a subsidiary of ACM, for use in the manufacture of semiconductor fabrication equipment, and ACM Research (Shanghai), Inc. is a valued customer of Ninebell.

B. In order to support and build upon their existing relationship, ACM and Ninebell desire to enter into arrangements under which each will purchase equity securities of the other.

C. Pursuant and subject to the terms and conditions of this Agreement, ACM proposes to sell, and Ninebell proposes to purchase, a total of 400,000 shares (the "*Shares*") of ACM's Class A Common Stock for US$1,000,000.

D. Contemporaneously herewith, the parties are entering into an Ordinary Stock Purchase Agreement (the "*Corollary Agreement*") pursuant to which, among other things, Ninebell proposes to sell, and ACM proposes to purchase, a total of 20,000 of Ninebell's Ordinary Shares for US$1,200,000.

In consideration of the mutual covenants and agreements set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Defined Terms Used in this Agreement. In addition to the terms defined elsewhere in this Agreement, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

1.1 "*Affiliate*" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 "*Encumbrance*" means any lien, hypothecation, pledge, mortgage, security interest, charge, claim, encumbrance, option, voting trust, proxy and other arrangement or restriction of any kind or nature.

1.3 "*Immediate Family Member*" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including, adoptive relationships, of a natural person referred to herein.

1.4 "*Intellectual Property*" means all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, mask works, information and proprietary rights and processes, similar or other intellectual property rights, subject matter of any of the foregoing, tangible embodiments of any of the foregoing, licenses in to and under any of the foregoing, and any and all such cases that are owned or used by ACM in the conduct of its business as now conducted.

1.5 "*MAE*" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, prospects or results of operations of ACM.

1.6 "*Person*" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.7 "*Securities Act*" means the U.S. Securities Act of 1933.

2. Follow-On Closing. Upon the terms and subject to the conditions of this Agreement, at a closing (the "*Follow-On Closing*") to be held on a date mutually agreed upon by the parties, but in no event later than seven days following the date of the Closing held pursuant ot the Corollary Agreement:

(a) Ninebell shall deliver to ACM a payment of US$1,000,000 by wire transfer of immediately available funds to an account designated by ACM at least two days prior to the Follow-On Closing;

(b) ACM shall issue and deliver to Ninebell a certificate, duly endorsed to the order of Ninebell and representing the Shares, which shares shall be fully paid, non-assessable, and free and clear of all Encumbrances; and

(c) Ninebell shall enter into a Lock-Up agreement in the form presented to Ninebell by ACM prior to the date hereof.

3. Representations and Warranties of ACM. ACM hereby represents and warrants to Ninebell and Shareholder as follows:

3.1 Organization and Good Standing. ACM is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. ACM has all requisite corporate (or similar) power and authority to carry on its business as presently conducted and as proposed to be conducted.

3.2 Authorization. All corporate action required to be taken to authorize ACM to enter into and perform this Agreement, including the issuance of the Shares, has been taken. This Agreement constitutes a valid and legally binding obligation of ACM, enforceable against ACM in accordance with its terms except as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

3.3 Capitalization.

(a) As of September 6, 2017, the capital stock of ACM consisted of three classes, each having a par value of US$0.0001 per share, as follows:

(i) 100,000,000 shares were designated as Class A Common Stock, of which 7,904,820 shares were issued and outstanding;

(ii) 7,303,533 shares were designated as Class B Common Stock, of which 7,229,148 shares were issued and outstanding; and

(iii) 22,797,996 shares of Preferred Stock, of which (a) 385,000 shares were designated as Series A Preferred Stock, all of which were issued and outstanding; (b) 1,572,000 shares were designated as Series B Preferred Stock, all of which

were issued and outstanding; (c) 1,400,000 shares were designated as Series C Preferred Stock, 1,360,962 shares of which were issued and outstanding; (d) 4,800,000 shares were designated as Series D Preferred Stock, 1,326,642 shares of which were issued and outstanding, (e) 10,718,530 shares were designated as Series E Preferred Stock, 4,998,508 of which were issued or outstanding; and (e) 6,000,000 shares were designated as Series F Preferred Stock, 3,663,254 shares of which were issued and outstanding.

Each share of Series A Preferred Stock, Series B Preferred Stock and Series F Preferred Stock is convertible into 1.0000 shares of Class A Common Stock, (B) each share of Series C Preferred Stock is convertible into 1.0631 shares of Class A Common Stock, and (C) each share of Series D Preferred Stock is convertible into 1.3686 shares of Class A Common Stock. All of the outstanding shares of capital stock have been duly authorized and are fully paid and non-assessable. True and complete copies of the certificate of incorporation and the bylaws of ACM, each as currently in effect, have been provided to Ninebell.

(b) As of September 6, 2017, options to purchase a total of 10,228,062 shares of Class A Common Stock had been granted by ACM and were outstanding, and an additional 2,116,278 shares of Class A Common Stock had been reserved, and were available for issuance, under ACM's 2016 Omnibus Incentive Plan, a true and complete copy of which has been provided to Ninebell.

(c) As of September 6, 2017, there were no outstanding options, warrants or rights (including conversion or preemptive rights and rights of first refusal or similar rights) to purchase or acquire from ACM any shares of Class A Common Stock, Class B Common Stock or Preferred Stock, or any securities convertible into or exchangeable for shares of Class A Common Stock, Class B Common Stock or Preferred Stock, except for (i) the conversion privileges of Class B Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Series E Preferred Stock and Series F Preferred Stock, (ii) the options described in Section 3.3(b), and (iii) a Warrant to Purchase Class A Common Stock dated March 14, 2017 exercisable to acquire a total of 1,192,504 shares of Class A Common Stock at a purchase price of US$2.50 per share (subject to adjustment as provided therein).

(d) When issued and delivered in accordance with the terms of this Agreement, the Shares will be validly issued, fully paid and non-assessable and free of restrictions on transfer other than restrictions on transfer under applicable U.S. federal, state and other securities laws and other restrictions created by or imposed by this Agreement.

3.4 Governmental Consents and Filings. Assuming the accuracy of the representations made by Shareholder and Ninebell in Section 4, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any U.S. federal, state or local governmental authority is required on the part of ACM in connection with the issuance of the Shares, except for filings pursuant to Regulation D of the Securities Act, which will be made by ACM in a timely manner.

3.5 Compliance with Other Instruments. ACM is not in violation or default (a) of any provision of its certificate of incorporation or bylaws, (b) of any instrument, judgment, order, writ or decree, (c) under any note, indenture or mortgage, or (d) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound, or, to its knowledge, of any provision of U.S. or Korean federal or state statute, rule or regulation applicable to ACM, the violation of which would have an MAE. The execution, delivery and performance of this Agreement and the

consummation of the transactions contemplated by this Agreement will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement or (ii) an event that results in the creation of any lien, charge or encumbrance upon any assets of ACM or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to ACM.

3.6 Legal Proceedings. There are no actions, suits, claims, investigations or other legal proceedings pending or, to the knowledge of ACM, threatened against or by ACM that (a) would have an MAE or (b) challenge or seek to prevent, enjoin or otherwise delay the transactions contemplated by this Agreement.

3.7 Intellectual Property. ACM owns or possesses or believes it can acquire on commercially reasonable terms sufficient legal rights to all Intellectual Property without any known conflict with, or infringement of, the rights of others. To the knowledge of ACM, no product marketed or sold (or proposed to be marketed or sold) by ACM violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to Intellectual Property, nor is ACM bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. For purposes of this Section 3.7, ACM shall be deemed to have "knowledge" of a patent right if ACM has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to U.S. patent laws.

3.8 Permits. ACM has all franchises, permits, licenses and any similar authority necessary for the conduct of its business as now being conducted by it, the lack of which could have an MAE. ACM is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

4. Representations and Warranties of Ninebell. Ninebell and Shareholder hereby severally represent and warrant to ACM as follows:

4.1 Organization and Good Standing. Ninebell is a corporation duly organized, validly existing and in good standing under the laws of the Republic of Korea. Ninebell has all requisite corporate (or similar) power and authority to carry on its business as presently conducted and as proposed to be conducted.

4.2 Authorization. All corporate action required to be taken to authorize Ninebell to enter into and perform this Agreement has been taken. This Agreement constitutes a valid and legally binding obligation of each of Ninebell and Shareholder, enforceable against each of Ninebell and Shareholder in accordance with its terms except as limited by (a) applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally or (b) laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

4.3 Governmental Consents and Filings. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any national, provincial or local governmental authority of the Republic of Korea is required on the part of Ninebell or Shareholder in connection with the consummation of the transactions contemplated by this Agreement, except for such other actions as have been timely taken by Ninebell or Shareholder prior to the date hereof.

4.4 Compliance with Other Instruments. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated by this Agreement will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement or (ii) an event that results in the creation of any lien, charge or encumbrance upon any assets of Ninebell or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to Ninebell.

4.5 Legal Proceedings. There are no actions, suits, claims, investigations or other legal proceedings pending or, to the knowledge of Ninebell or Shareholder, threatened against or by Ninebell or Shareholder that challenge or seek to prevent, enjoin or otherwise delay the transactions contemplated by this Agreement.

4.6 Securities Matters Regarding Shares.

(a) Ninebell has had an opportunity to discuss with ACM's management the business, management and financial affairs of ACM and the terms and conditions of the offering of the Shares. The foregoing, however, does not limit or modify the representations and warranties of ACM in Section 3 or the right of Ninebell or Shareholder to rely thereon.

(b) Ninebell understands that the Shares have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of such Act that depends upon, among other things, the bona fide nature of the investment intent and the accuracy of Ninebell's representations as expressed in this Section 4.6. Ninebell understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to those laws, Ninebell must hold the Shares indefinitely unless they are registered with the U.S. Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available, including a transfer outside of the United States in an offshore transaction in compliance with Rule 904 under the Securities Act (if applicable). Ninebell acknowledges that ACM has no obligation to register or qualify for resale the Shares. Ninebell further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including the time and manner of sale, the holding period for the Shares, and on requirements relating to ACM that are outside of Ninebell's control and that ACM is under no obligation, and may not be able, to satisfy.

(c) Ninebell understands that no public market now exists for the Shares and that ACM has made no assurances that a public market will ever exist for the Shares, and that the Shares may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except as set forth herein.

(d) Ninebell understands that the certificate for the Shares may be notated with the following legend, together with any other legend required by the securities laws of any state to the extent such laws are applicable to the Shares represented by the certificate, instrument, or book entry so legended:

"THESE SHARES HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933. THESE SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION OF THE U.S. SECURITIES ACT OF 1933."

(e) Ninebell (i) is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act and (ii) is not a U.S. person as defined in Regulation S under the Securities Act and the Shares have not been offered or sold within the United States as defined under the Securities Act. At the time of the origination of discussion regarding the offer and sale of the Shares and the date of the execution and delivery of this Agreement, Ninebell was at all times outside of the United States. Ninebell has satisfied itself as to the full observance of the laws of the Republic of Korea in connection with any invitation to receive the Shares or any use of this Agreement, including (A) the legal requirements within the Republic of Korea for the purchase of the Shares, (B) any governmental or other consents that may need to be obtained, (C) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Shares, and (D) Ninebell's receipt and continued beneficial ownership of the Shares will not violate any applicable securities or other laws of the Republic of Korea.

(f) Ninebell has not either directly or indirectly engaged in any general solicitation or published any advertisement in connection with the offering and issuance of the Shares.

5. Miscellaneous.

5.1 Expenses and Taxes. Each party is responsible for all of its own expenses incurred in connection with this Agreement, including all applicable taxes.

5.2 Survival. Unless otherwise set forth in this Agreement, the representations and warranties of each party contained in this Agreement shall survive the execution and delivery of this Agreement and the Follow-On Closing and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of the other parties.

5.3 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

5.4 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware.

5.5 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

5.6 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

5.7 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt and: (a) personal delivery to the party to be notified; (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day; (c) ten days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (d) two of the recipient's business days

after deposit with an internationally recognized courier, freight prepaid, specifying one- or two-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on the signature page, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 5.7. If notice is given to ACM, a copy shall also be sent to Mark L. Johnson at K&L Gates LLP, State Street Financial Center, One Lincoln Street, Boston, Massachusetts 02111.

5.8 Attorneys' Fees. If any action at law or in equity (including arbitration) is necessary to enforce or interpret the terms of any of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

5.9 Amendments and Waivers. Any term of this Agreement may be amended or waived only with the written consent of the parties.

5.10 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

5.11 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to a party under this Agreement, upon any breach or default of another party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of a party of any breach or default under this Agreement, or any waiver on the part of a party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to a party, shall be cumulative and not alternative.

5.12 Entire Agreement. This Agreement, including the Lock-Up Agreement delivered pursuant to Section 2(c), and the Corollary Agreement constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof and thereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties, including the Share Exchange Agreement dated as of March 23, 2017 and the Share Exchange Agreement dated as of August 22, 2017 among the parties, are expressly canceled.

5.13 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the State of California and to the jurisdiction of the U.S. District Court for the Northern District of California for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of California or the U.S. District Court for the Northern District of California, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE SHARES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE

SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ACM RESEARCH, INC.

By: /s/ David H. Wang
David H. Wang
Chief Executive Officer and President
Address: 42307 Osgood Road, Suite I
Fremont, CA 94539 USA

NINEBELL CO., LTD.

By: /s/ Moon-Soo Choi
Moon-Soo Choi
Chief Executive Officer
Address: C-104, Bundang Technopark
145 Yatap-Dong, Bundang-Gu
Seongnam-Si
Gyeonggi-Do, Korea, 463-760

MOON-SOO CHOI

/s/ Moon-Soo Choi
Address: C-104, Bundang Technopark
145 Yatap-Dong, Bundang-Gu
Seongnam-Si
Gyeonggi-Do, Korea, 463-760

Exhibit 10.09

[EXECUTION VERSION]

SECOND AMENDED AND RESTATED
REGISTRATION RIGHTS AGREEMENT

TABLE OF CONTENTS

THIS SECOND AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT (this "*Agreement*") is made as of , 2017, by and among ACM Research, Inc., a Delaware corporation (the "*Company*"), Shengxin (Shanghai) Management Consulting Limited Partnership ("*SMC*"), Xinxin (Hongkong) Capital Co., Limited and Victorious Way Limited. Certain capitalized terms used herein are defined in Section 1.

RECITALS

A. The Company and SMC previously entered into a Registration Rights Agreement dated as of March 10, 2017, pursuant to which the Company provided SMC with certain registration rights with respect to SMC's equity interests in the Company, which agreement was subsequently amended and restated pursuant to the Amended and Restated Registration Rights Agreement dated as of September 24, 2017 (the "*Original Agreement*").

B. Contemporaneously herewith, each of Xinxin (Hongkong) Capital Co., Limited and Victorious Way Limited is entering into a Stock Purchase Agreement dated as of the date hereof, pursuant to which it proposes to purchase Class A Shares subject to the respective terms and conditions set forth therein, which conditions include the execution and delivery of this Agreement.

C. In order to facilitate such purchases of Class A Shares, the Company and SMC desire to amend and restate the Original Agreement in its entirety as provided herein.

The parties hereto agree as follows:

1. Definitions. For purposes of this Agreement:

(a) "*Adoption Agreement*" means an agreement in the form attached as EXHIBIT A or in such other form as the Company may require from time to time.

(b) "*Affiliate*" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

(c) "*Class A Shares*" means shares of Class A Common Stock of the Company.

(d) "*Comprehensive Rights Holder*" means a party listed on SCHEDULE II.

(e) "*Damages*" means any loss, damage, claim or liability (joint or several) to which a party to this Agreement may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect to this Agreement) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements to this Agreement; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

(f) "*Demand Registrable Securities*" means Class A Shares that are held by the Comprehensive Rights Holders and listed across from a Comprehensive Rights Holder's name on SCHEDULE II.

(g) "*Exchange Act*" means the U.S. Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(h) "*Excluded Registration*" means: (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Class A Shares being registered are Class A Shares issuable upon conversion of debt securities that are also being registered.

(i) "*Form S-1*" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

(j) "*Form S-3*" means such form under the Securities Act as in effect on the date of this Agreement or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

(k) "*Holder*" means an Incidental Rights Holder or Comprehensive Rights Holder.

(l) "*Immediate Family Member*" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

(m) "*Incidental Rights Holders*" a party listed on Schedule I from time to time, including any subsequent securities holders, or transferees, who become parties hereto as "Incidental Rights Holders" pursuant to Sections 12(a) and 12(b).

(n) "*Initiating Holders*" means any Holder or Holders of a majority of the then-outstanding Demand Registrable Securities.

(o) "*IPO*" means the Company's first underwritten public offering of its Class A Shares under the Securities Act.

(p) "*Original Agreement*" has the meaning set forth in Recital A.

(q) "*Person*" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(r) "*Preferred Series*" means Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock or Series F Preferred Stock of the Company.

(s) "*Registrable Securities*" means:

(i) Class A Shares that are held by the Incidental Rights Holders and listed across from an Incidental Rights Holder's name on SCHEDULE I;

(ii) Demand Registrable Securities;

(iii) any Class A Shares that are issued or issuable (directly or indirectly) upon conversion or exercise of any other securities of the Company and that are held by the Incidental Rights Holders and listed across from an Incidental Rights Holder's name on SCHEDULE I; and

(iv) any Class A Shares that are issued as (or issuable upon the conversion or exercise of any warrant, right or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the securities referenced in clauses (i), (ii) and (iii) above;

excluding, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Section 12(a) and any shares for which registration rights have terminated pursuant to Section 11.

(t) "*Registrable Securities then outstanding*" means the sum of (i) the number of outstanding Class A Shares that are Registrable Securities (including the Demand Registrable Securities) and (ii) the number of Class A Shares issuable (directly or indirectly) pursuant to then exercisable or convertible securities that are Registrable Securities.

(u) "*SEC*" means the U.S. Securities and Exchange Commission.

(v) "*SEC Rule 144*" means Rule 144 promulgated by the SEC under the Securities Act.

(w) "*SEC Rule 145*" means Rule 145 promulgated by the SEC under the Securities Act.

(x) "*Securities Act*" means the U.S. Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(y) "*Selling Expenses*" means all underwriting discounts, selling commissions, stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Section 6.

2. Registration Rights 1. The Company covenants and agrees as follows:

(a) *Demand Registration*.

(i) If, at any time at least 180 days after the closing date of the IPO, the Company receives a request from the Initiating Holders that the Company file a Form S-1 registration statement covering either (x) the potential sale of all or a portion of the Registrable Securities then outstanding with an anticipated aggregate offering price (excluding the offering price of any shares subject to an over-allotment option) of at least $7,500,000 or (y) all of the Registrable Securities then held by a Comprehensive Rights Holder whose rights under this Agreement have not terminated pursuant to Section 11, then the Company shall: (A) within ten days after the date such request is given, give notice thereof (the "*Demand Notice*") to all Holders other than the Initiating Holders; and (B) as soon as practicable, and in any event within sixty days after the date such request is given by the Initiating Holders, use its reasonable best efforts to file and make effective a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the

Company within twenty days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2(a)(iii) and Section 3.

(ii) If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from the Initiating Holders that the Company file a Form S-3 registration statement covering either (x) the potential sale of all or a portion of the Registrable Securities then outstanding with an anticipated aggregate offering price (excluding the offering price of any shares subject to an over-allotment option) of at least $3,750,000 or (y) all of the Registrable Securities then held by a Comprehensive Rights Holder whose rights under this Agreement have not terminated pursuant to Section 11, then the Company shall: (A) within ten days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (B) as soon as practicable, and in any event within 45 days after the date such request is given by the Initiating Holders, file and make effective a Form S-3 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2(a)(iii) and Section 3.

(iii) Notwithstanding the foregoing obligations, if the Company furnishes to Initiating Holders requesting a registration pursuant to this Section 2(a) a certificate signed by the Company's Chief Executive Officer stating that in the good faith judgment of the Board of Directors of the Company it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (A) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company, (B) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential, or (C) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than 120 days after the request of the Initiating Holders is given; *provided, however*, that the Company may not invoke this right more than once in any consecutive twelve-month period; and *provided further* that the Company shall not register any securities for its own account or that of any other stockholder during such 120-day period other than Excluded Registrations.

(iv) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2(a) (A) after the Company has effected a total of four registrations pursuant thereto, or (B) if the Company has effected a registration pursuant to Section 2(a) within the six-month period immediately preceding the date of such request. The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2(a)(i) (A) during the period that is sixty days before the Company's good faith estimate of the date of filing of, and ending on a date that is 180 days after the effective date of, a Company-initiated registration, *provided* that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective, or (B) if the Initiating Holders propose to dispose of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2(a)(ii). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2(a)(ii) during the period that is thirty days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety days after the effective

date of, a Company-initiated registration, *provided* that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective. A registration shall not be counted as "effected" for purposes of this Section 2(a)(iv) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Section 6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section 2(a)(iv).

(b) *Company Registration*. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its Class A Shares under the Securities Act in connection with the public offering of such securities solely for cash (other than in: (A) the IPO or (B) an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty days after such notice is given by the Company, the Company shall, subject to the provisions of Section 3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2(b) before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Section 6.

3. Underwriting Requirements.

(a) If, pursuant to Section 2(a), the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2(a), and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their Registrable Securities through such underwriting shall (together with the Company as provided in Section 4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Section 3(a), if the managing underwriter advises the Initiating Holders in writing that marketing factors require a limitation on the number of Class A Shares to be underwritten, then the Initiating Holders shall so advise all Holders that otherwise would be underwritten pursuant hereto and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities to be included in such underwriting shall not be reduced unless all other Class A Shares are first entirely excluded from the underwriting. To facilitate the allocation of Class A Shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated for sale by any Holder to the nearest 100 Registrable Securities.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2(b), the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such

quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, that the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, or (ii) the number of Registrable Securities included in the offering be reduced below thirty percent of the total number of securities included in such offering. For purposes of this Section 3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

4. Obligations of the Company. Whenever required under this Agreement to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to 180 days, in the case of a registration statement pursuant to clause (y) of Section 2(a)(i) (regardless of whether such registration also complies with clause (x) of Section 2(a)(i)) or clause (y) of Section 2(a)(ii) (regardless of whether such registration also complies with clause (x) of Section 2(a)(ii)), or otherwise 120 days or, if earlier, until the distribution contemplated in the registration statement has been completed, *provided* that such 180-day or 120-day period (as the case may be) shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Class A Shares (or other securities) of the Company, from selling any securities included in such registration;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders, *provided* that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(h) notify each selling Holder, promptly after the Company receives notice of this Agreement, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(i) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

5. Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Agreement, with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

6. Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to this Agreement, including all registration, filing,

and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements, not to exceed $50,000, of one counsel for the selling Holders ("*Selling Holder Counsel*"), shall be borne and paid by the Company; *provided*, *however*, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2(a) if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Section 2(a); *provided further* that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Section 2(a). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 6 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

7. Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Agreement.

8. Indemnification. If any Registrable Securities are included in a registration statement under this Agreement:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder, and each Person, if any, that controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred, provided that the indemnity agreement contained in this Section 8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which

Damages may result, as such expenses are incurred, provided that the indemnity agreement contained in this Section 8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Sections 8(b) and (d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect to this Agreement is to be made against any indemnifying party under this Section 8, give the indemnifying party notice of the commencement of this Agreement. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense of this Agreement with counsel mutually satisfactory to the parties, provided that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party to this Agreement for which indemnification is provided under this Section 8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission, provided that, in any such case (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation and provided further that in no event shall a Holder's liability pursuant to this Section 8(d), when combined with the amounts paid or payable by such Holder pursuant to Section 8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 8 shall survive the completion of any offering of Registrable Securities in a registration under this Agreement, and otherwise shall survive the termination of this Agreement.

9. Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies) and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

10. Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would (a) provide to such holder the right to include securities in any registration on other than either a pro rata basis with respect to the Registrable Securities or on a subordinate basis after all Holders have had the opportunity to include in the registration and offering all shares of Registrable Securities they wish to so include or (b) allow such holder or prospective holder to initiate a demand for registration of any securities held by such holder or prospective holder.

11. Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Section 2(a) or 2(b) shall terminate upon the earliest to occur of:

(a) such time as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's Registrable Securities shares without restriction by volume limitations; and

(b) the fifth anniversary of the closing of the IPO.

12. Changes in Holders and Updating of Schedules.

(a) *Successors and Assigns*. The rights of a Holder, either as an Incidental Rights Holder or a Comprehensive Rights Holder, under this Agreement may be assigned (but only with all related obligations) by such Holder to a transferee of Registrable Securities that is (i) an Affiliate of such Holder or (ii) an Immediate Family Member of such Holder or a trust for the benefit of such individual Holder or one or more of such Holder's Immediate Family Members, *provided* that (A) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred and (B) such transferee agrees, by executing and delivering an Adoption Agreement to the Company, to be bound by and subject to the terms and conditions of this Agreement. Upon such execution and delivery of an Adoption Agreement by such transferee and the Company, such transferee shall be deemed to be a party to this Agreement and an Incidental Rights Holder or a Comprehensive Rights Holder, to the same extent as the transferring Holder, as if such transferee's signature appeared on the signature page of this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties to this Agreement or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in Section 12(b)(i), Section 12(b)(ii) or elsewhere herein.

(b) *Additional Holders*.

(i) Each of Ninebell Co., Ltd. (with respect to 133,334 Class A Shares purchased from the Company as of September 11, 2017), Pudong Science and Technology (Cayman) Co., Ltd. (with respect to 1,119,576 Class A Shares purchased from the Company as of September 8, 2017), Shanghai Science and Technology Venture Capital Co., Ltd. (with respect to 4,998,508 shares of Series E Preferred Stock of the Company purchased from the Company as of August 31, 2017), and Zhangjiang AJ Company Limited (with respect to 787,098 Class A Shares purchased from the Company as of September 8, 2017) may, at its election, become subject to the terms of this Agreement as an Incidental Rights Holder by executing and delivering an Adoption Agreement. Upon the execution and delivery of an Adoption Agreement to the Company by any such Person (with respect to the securities referenced above), the Company shall countersign such Adoption Agreement and (A) such Person shall be deemed to be a party to this Agreement as if such Person's signature appeared on the signature pages of this Agreement and shall be deemed to be an Incidental Rights Holder and (B) such Person shall be added to Schedule I in accordance with Section 12(c).

(ii) Each Person who holds shares of any Preferred Series shall, automatically without the need to execute or deliver an adoption or joinder agreement, become subject to the terms of this Agreement as an Incidental Rights Holder with respect to such shares upon the receipt by ACM of a waiver and/or consent, executed by the holders of a majority of the outstanding shares of such Preferred Series, terminating all of the registration rights currently set forth in one or more purchase agreements with respect to shares of such Preferred Series, all satisfactory to the Company in form and substance. Upon delivery of such a waiver and/or consent with respect to shares of a Preferred Series, (A) each Person who is a holder of record

of shares of such Preferred Series as of the date of such delivery shall be deemed to be a party to this Agreement as if such Person's signature appeared on the signature pages of this Agreement and shall be deemed to be an Incidental Rights Holder and (B) such Person shall be added to Schedule I in accordance with Section 12(c), it being understood that for such purpose the initial address of such Person shall be its record address in the stock register for such Preferred Series.

(iii) At the election of the Company, any Person may become subject to the terms of this Agreement as an Incidental Rights Holder at any time after the date hereof by executing and delivering an Adoption Agreement. Upon the execution and delivery of an Adoption Agreement by such Person and the Company, (A) such Person shall be deemed to be a party to this Agreement as if such Person's signature appeared on the signature pages of this Agreement and shall be deemed to be an Incidental Rights Holder and (B) such Person shall be added to Schedule I in accordance with Section 12(c).

(c) The Company shall maintain each of Schedule I and Schedule II, which shall set forth:

(i) in Schedule I, the names of all Incidental Rights Holders from time to time, including Incidental Rights Holders who become party to this Agreement in accordance with Section 12(a) or clause (i), (ii) or (iii) of Section 12(b), and in Schedule II, the names of all Comprehensive Rights Holders from time to time, including Comprehensive Rights Holders who become party to this Agreement in accordance with Section 12(a);

(ii) the respective contact address of each Holder, as provided to the Company by such Holder at the time such Holder becomes party to this Agreement, becomes subject to this Agreement or as subsequently provided to the Company in accordance with Section 13(d); and

(iii) the numbers and types of securities of the Company held by each Holder that constitute Registrable Securities or that are convertible or exercisable for Registrable Securities.

The Company shall update SCHEDULE I or SCHEDULE II, as the case may be, upon any change in, or addition of, a Holder in accordance with Section 12(a) or Section 12(b), any change in the contact address of a Holder delivered to the Company in accordance with Section 13(d), or any other change or event that the Company determines, in good faith, is necessary or desirable to fulfill the purposes of SCHEDULE I or SCHEDULE II. Upon request of any Holder from time to time, the Company shall promptly deliver to such Holder, in accordance with Section 13(d), a copy of the then-current versions of SCHEDULE I and SCHEDULE II.

13. Miscellaneous.

(a) *Governing Law*. This Agreement shall be governed by the internal law of the State of Delaware.

(b) *Counterparts*. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. Electronic Signatures in Global and National Commerce Act, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(c) *Construction*. As used in this Agreement:

(i) headings used in this Agreement are for convenience of reference only and shall not, for any purpose, be deemed a part of this Agreement;

(ii) any references herein to a Section or Exhibit refer to a Section of, or Exhibit attached to, this Agreement, unless specified otherwise;

(iii) the words "herein," "hereof," "hereby," "hereto" and "hereunder" refer to this Agreement as a whole;

(iv) the words "include," "includes" and "including" as used herein shall not be construed so as to exclude any other thing not referred to or described;

(v) the word "or" is not exclusive;

(vi) the definition given for any term in this Agreement shall apply equally to both the singular and plural forms of the term defined;

(vii) whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms;

(viii) unless the context otherwise requires, (A) references herein to an agreement, instrument or other document mean such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and (B) references herein to a statute means such statute as amended from time to time and includes any successor legislation thereto and any rules and regulations promulgated thereunder; and

(ix) this Agreement shall be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted.

(d) *Notices*. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon (i) personal delivery to the party to be notified, (ii) if sent by electronic mail, then (A) when sent, if sent between 9 a.m. and 5 p.m., Pacific time, on a Business Day or (B) as of 9 a.m. Pacific time on the next Business Day, if sent at any other time, (iii) if sent by U.S. registered or certified mail, return receipt requested, postage prepaid, the earlier of actual receipt and the fifth Business Day after having been deposited with the U.S. Postal Service, or (iv) if sent via an internationally recognized overnight courier, freight prepaid, specifying next or two Business Day delivery, with written verification of receipt, two Business Days after deposit with such courier. "*Business Day*" means any day other than (i) a Saturday or Sunday or (ii) a day on which the Federal Reserve Bank of San Francisco is closed. All communications shall be sent to the respective Holders at their addresses as set forth on Schedule I or Schedule II, as applicable, or to the Company at its principal office, to the attention of the Chief Executive Officer, or by email to dwang@acmrcsh.com, or to such other street or email address as subsequently modified by written notice given in accordance with this Section 13(d). If notice is given to the Company, a copy shall also be sent to Mark L. Johnson at K&L Gates LLP, State Street Financial Center, One Lincoln Street, Boston, Massachusetts 02111.

(e) *Amendments and Waivers*. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular

instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding, *provided* that any provision of this Agreement may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term of this Agreement may not be waived with respect to any Holder without the written consent of such Holder, unless such amendment, termination, or waiver applies to all Holders in the same fashion (it being agreed that a waiver of the provisions of this Agreement with respect to a particular transaction shall be deemed to apply to all Holders in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Holders may nonetheless, by agreement with the Company, purchase securities in such transaction). Further, this Agreement may not be amended, and no provision hereof may be waived, in each case, in any way that would adversely affect the rights of the Comprehensive Rights Holders hereunder in a manner disproportionate to any adverse effect such amendment or waiver would have on the rights of the Holders hereunder (it being agreed that any modification of the terms of Section 2(a) in any fashion shall be deemed to be disproportionate for such purposes), without the written consent of the holders of at least a majority of the Demand Registrable Securities then outstanding. The Company shall give prompt notice of any amendment or termination of this Agreement or waiver hereunder to any party to this Agreement that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Section 13(e) shall be binding on all parties to this Agreement, regardless of whether any such party has consented to this Agreement. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

(f) *Severability*. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

(g) *Aggregation of Stock*. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

(h) *Entire Agreement*. This Agreement (including any Schedules and Exhibits to this Agreement) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter of this Agreement, and any other written or oral agreement relating to the subject matter of this Agreement existing between the parties is expressly canceled.

(i) *Dispute Resolution*. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of Delaware and any federal court located in the State of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Delaware or any federal court located in the State of Delaware, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter of this Agreement may not be enforced in or by such court. Each party will bear its own costs in respect of any disputes arising under this Agreement.

(j) *Waiver of Jury Trial*. EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

(k) *Delays or Omissions*. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default heretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

(l) *Amendment and Restatement of the Original Agreement*. The Original Agreement is hereby amended in its entirety and restated herein. Upon such execution and delivery, all provisions of, rights granted and covenants made in the Original Agreement are hereby waived, released and superseded in their entirety and shall have no further force or effect.

(m) *Additional Registration Rights*. While Xinxin (Hongkong) Capital Co., Limited or Victorious Way Limited continues to be a Comprehensive Rights Holder under this Agreement whose rights have not terminated pursuant to Section 11, the Company shall not, without the prior written consent of each such Comprehensive Rights Holder, enter into any arrangement (other than pursuant to this Agreement) with any holder or prospective holder of securities of the Company under which such Person shall have the right to request or demand that the Company file a registration statement covering the potential sale of all or a portion of such securities under the Securities Act.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, each of the parties has executed this Agreement or caused the same to be executed by its duly authorized representative as of the date first written above.

ACM RESEARCH, INC.

By: _____
David H. Wang
President and Chief Executive Officer

SHENGXIN (SHANGHAI) MANAGEMENT CONSULTING LIMITED PARTNERSHIP

By: _____
Jian Wang
General Partner

Address:
Rm. 210-32, 2nd Fl., Building 1
38 Debao Rd.
Pilot Free Trade Zone
Shanghai, China
Email: _____

XINXIN (HONGKONG) CAPITAL CO., LIMITED

By: _____
Name:
Title:

Address:
3rd Floor North, No. 7 Financial Street
Xicheng District, Beijing 100033, P. R. China
Email: _____

VICTORIOUS WAY LIMITED

By: _____
Name:
Title:

Address:
Vistra Corporate Services Centre,
Wickhams Cay II, Road Town
Tortola, VG1110, British Virgin Islands
Email: _____

SCHEDULE I
Incidental Rights Holders

Name	*Securities*
SHENGXIN (SHANGHAI) MANAGEMENT CONSULTING LIMITED PARTNERSHIP Rm. 210-32, 2nd Fl., Building 1 38 Debao Rd. Pilot Free Trade Zone Shanghai, China Email: jian.wang@acmrcsh.com	Warrant dated March 14, 2017 issued by ACM Research, Inc. with respect to 397,502 Class A Shares (after giving effect to post-reverse split effected on September 13, 2017)

SCHEDULE II
Comprehensive Rights Holders

Name	***Securities***
XINXIN (HONGKONG) CAPITAL CO., LIMITED 3rd Floor North, No. 7 Financial Street Xicheng District, Beijing 100033, P. R. China	833,334 Class A Shares
VICTORIOUS WAY LIMITED Vistra Corporate Services Centre, Wickhams Cay II, Road Town Tortola, VG1110, British Virgin Islands	500,000 Class A Shares

EXHIBIT A

Adoption Agreement

This Adoption Agreement (this "*Adoption Agreement*") is executed on , 20 , by the undersigned ("*Acquirer*") pursuant to the terms of the Second Amended and Restated Registration Rights Agreement dated as of , 2017 (the "*Agreement*"), by and among ACM Research, Inc. and certain of its security holders, as such Agreement may be further amended or restated. Capitalized terms used but not defined in this Adoption Agreement shall have the respective meanings ascribed to such terms in the Agreement. By the execution of this Adoption Agreement, Acquirer agrees as follows.

1. Acknowledgement. Acquirer acknowledges that Acquirer is acquiring certain Registrable Securities (which term, for purposes of this Adoption Agreement, shall include securities convertible or exercisable for Registrable Securities) for one of the following reasons *(check the correct box)*:

   ☐ as a transferee of Registrable Securities from a party in such party's capacity as an "Incidental Rights Holder," bound by the Agreement in accordance with Section 12(a), and after such transfer, Acquirer shall be considered an "Incidental Rights Holder" for all purposes of the Agreement;

   ☐ as a transferee of Registrable Securities from a party in such party's capacity as a "Comprehensive Rights Holder," bound by the Agreement in accordance with Section 12(a), and after such transfer, Acquirer shall be considered a "Comprehensive Rights Holder" for all purposes of the Agreement;

   ☐ as a purchaser of Registrable Securities from the Company in accordance with Section 12(b)(i), after which Acquirer shall be considered an "Incidental Rights Holder" for all purposes of the Agreement;

   ☐ as a holder of shares of a Preferred Series in accordance with Section 12(b)(ii), after which Acquirer shall be considered an "Incidental Rights Holder" for all purposes of the Agreement; or

   ☐ as a holder of securities of the Company in accordance with Section 12(b)(iii), after which Acquirer shall be considered an "Incidental Rights Holder" for all purposes of the Agreement.

2. Agreement. Acquirer adopts the Agreement with the same force and effect as if Acquirer were originally a party to this Agreement.

3. Conflicts. In the event that the terms of the Agreement conflict with any other agreement pursuant to which Acquirer is bound, Acquirer expressly acknowledges and agrees that the terms of the Agreement shall govern.

4. Notice. Any notice required or permitted by the Agreement shall be given to Acquirer at the address or email address listed below Acquirer's signature to this Agreement.

ACQUIRER: _____

By: _____
Name: _____
Title: _____

Address: _____
_____
_____

Email: _____

ACCEPTED AND AGREED:

ACM RESEARCH, INC.

By: _____
Name: _____
Title: _____

Exhibit 10.10

[EXECUTION VERSION]

STOCK PURCHASE AGREEMENT

TABLE OF CONTENTS

THIS STOCK PURCHASE AGREEMENT (this "*Agreement*") is made as of October 11, 2017, by and among ACM Research, Inc., a Delaware corporation (the "*Company*"), Xunxin (Shanghai) Capital Co., Limited ("*Sino IC Shanghai*"), Xinxin (Hongkong) Capital Co., Limited (the "*Purchaser*"), and, solely for the purpose of Section 2(c)(iii), David H. Wang ("*Wang*"). Certain capitalized terms used in this Agreement are defined in Section 1.

RECITALS

A. The Company intends to offer and sell Class A Shares in a firm-commitment underwritten initial public offering pursuant to the Registration Statement (the "*IPO*") and to list the Class A Shares for trading on the Nasdaq Global Market.

B. The Company desires to sell, and the Purchaser desires to purchase, the Shares immediately following the IPO, on the terms and subject to the conditions set forth in this Agreement.

C. Sino IC Shanghai intends to financially support the Purchaser, its wholly owned subsidiary, and to hold the Shares through the Purchaser.

D. In accordance with the terms set forth in this Agreement, contemporaneously with the execution and delivery of this Agreement, (i) the Purchaser is executing and delivering a Lock-Up Agreement, (ii) the Company, Shengxin (Shanghai) Management Consulting Limited Partnership, Victorious Way Limited and the Purchaser are executing and delivering the RRA, and (iii) the Purchaser, the Company and the Voting Holders named therein are executing and delivering the NVA.

In consideration of the foregoing, the representations, warranties, covenants and agreements contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are by this Agreement acknowledged, and intending to be legally bound by this Agreement, the parties to this Agreement agree as follows:

1. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

(a) "*Affiliate*" has the meaning set forth in Rule 405 under the Securities Act.

(b) "*Business Day*" means any day other than (i) a Saturday or Sunday or (ii) a day on which the Federal Reserve Bank of San Francisco is closed.

(c) "*Class A Shares*" means shares of Class A Common Stock, $0.0001 par value per share, of the Company.

(d) "*Closing*" has the meaning set forth in Section 2(c)(i).

(e) "*Closing Date*" has the meaning set forth in Section 2(c)(ii).

(f) "*Company*" has the meaning set forth in the first paragraph of this Agreement.

(g) "*Draft Preliminary Prospectus*" means the prospectus subject to completion forming a part of the Draft S-1 Amendment.

(h) "*Draft S-1 Amendment*" means the draft amendment to the Registration Statement disclosing the transactions contemplated by this Agreement, in substantially the form to be furnished by the Company to the Purchaser.

(i) "*Effective Date*" means the time as of which the Registration Statement, as then amended, is declared effective by the SEC.

(j) "*Exchange Act*" means the U.S. Securities Exchange Act of 1934 and the rules and regulations of the SEC thereunder.

(k) "*IPO*" has the meaning set forth in Recital A.

(l) "*IPO Price*" means the initial price to the public per share for the Class A Shares offered in the IPO.

(m) "*Indemnified Parties*" has the meaning set forth in Section 8(a).

(n) "*Judgment Currency*" has the meaning set forth in Section 8(b).

(o) "*Lock-Up Agreement*" means the lock-up agreement dated as of the date of this Agreement being executed and delivered, contemporaneously with this Agreement by the Purchaser, in favor of, and in a form provided by, Roth Capital, as representative of the several underwriters of the IPO.

(p) "*Losses*" has the meaning set forth in Section 8(a).

(q) "*Material Adverse Effect*" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, prospects or results of operations of the Company and the Subsidiaries, taken as a whole.

(r) "*NVA*" means the nomination and voting agreement dated as of the date of this Agreement being executed and delivered, contemporaneously with this Agreement, by and among the Purchaser, the Company and the several Voting Holders named in Schedule I thereto.

(s) "*Permits*" has the meaning set forth in Section 3(l).

(t) "*Person*" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(u) "*Purchaser Price*" has the meaning set forth in Section 2(a).

(v) "*Purchaser*" has the meaning set forth in the first paragraph of this Agreement.

(w) "*RRA*" means the Second Amended and Restated Registration Rights Agreement dated as of the date of this Agreement, by and among the Company, Shengxin (Shanghai) Management Consulting Limited Partnership, the Purchaser and Victorious Way Limited.

(x) "*Registration Statement*" means the Registration Statement on Form S-1 (File No. 333-220451) filed by the Company with the SEC under the Securities Act, as such Registration Statement is amended as of the Effective Date.

(y) "*Roth Capital*" means Roth Capital Partners, LLC.

(z) "*SEC*" means the U.S. Securities and Exchange Commission.

(aa) "*Securities Act*" means the U.S. Securities Act of 1933 and the rules and regulations of the SEC thereunder.

(bb) "*Shares*" means 833,334 Class A Shares to be issued to the Purchaser pursuant to this Agreement.

(cc) "*Sino IC Shanghai*" has the meaning set forth in the first paragraph of this Agreement.

(dd) "*Subsidiary*" means, as of a specified date, each Person identified as a subsidiary of the Company in Exhibit 21.01 to the Registration Statement, as amended as of such date.

(ee) "*Transaction Agreements*" means, collectively, this Agreement, the RRA and the NVA.

(ff) "*UA*" means the underwriting agreement for the IPO to be signed by the Company and Roth Capital, as representative of the several underwriters of the IPO.

(gg) "*Wang*" has the meaning set forth in the first paragraph of this Agreement.

2. Purchase and Sale of the Shares.

(a) *Sale and Issuance*. The Purchaser shall pay an aggregate of $8,750,000 for the Shares, which consist of 833,334 Class A Shares, at a purchase price per Share (as may be adjusted pursuant to clauses (i) through (iii) below, the "*Purchase Price*") of $10.50, subject to the terms and conditions of this Agreement (including Section 2(c)(iii) with respect to potential payment by Wang of a portion of the aggregate Purchase Price, which payment shall be in addition to the Purchaser's payment of such $8,750,000). Immediately after the Closing, the Shares shall represent at least 5.34% of all issued and outstanding shares of Common Stock of the Company, on an as-converted basis. The Closing Date is expected to be no later than November 30, 2017.

(i) If the IPO Price is between $8.40 and $10.50, the Purchaser agrees to purchase at the Closing, and the Company agrees to sell and issue to the Purchaser at the Closing, all of the Shares at a Purchase Price equal to the IPO Price.

(ii) If the IPO Price is less than $8.40, the Purchaser shall elect, by written notice delivered to the Company by no later than 6 a.m., Pacific time, on the second Business Day before the Expected Pricing Date, (x) to purchase at the Closing all of the Shares at a Purchase Price equal to the IPO Price or (y) not to proceed with the transactions contemplated hereunder, in which case this Agreement shall immediately and automatically terminate upon the execution of the UA.

(iii) If the IPO Price is equal to or greater than $10.50, the Purchase Price shall be $10.50 and the Purchaser agrees to purchase at the Closing, and the Company agrees to sell and issue to the Purchaser at the Closing, all of the Shares at $10.50 per Share.

(b) C*ontemporaneous Deliveries*. Contemporaneously with the execution and delivery of this Agreement:

(i) the Purchaser is executing and delivering to the Company, for transmittal to Roth Capital, the Lock-Up Agreement;

(ii) the Purchaser and the Company are executing and delivering the RRA with respect to the Shares; and

(iii) the Purchaser, the Company and the Voting Holders named therein are executing and delivering the NVA.

(c) *Closing; Delivery*.

(i) The closing of the purchase and sale of the Shares (the "*Closing*") shall take place remotely via the exchange of documents and signatures immediately after, and subject to, the closing of the IPO and the other conditions set forth in this Agreement.

(ii) Delivery of and payment for the Shares shall be made at 10:00 a.m., Eastern daylight saving time, on the closing date of the IPO (the "*Closing Date*"). Delivery of the Shares shall be made to the Purchaser against payment by or on behalf of the Purchaser of the Purchase Price therefor by transmission of a wire transfer to a bank account designated by the Company, *provided* that any payment by Wang pursuant to Section 2(c)(iii) may be made in cash or by check, as acceptable to the Company. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of the Purchaser under this Agreement. In furtherance of the foregoing with respect to the delivery of and payment for the Shares, the parties hereto agree as follows:

(A) The Company shall provide the Purchaser with written notice stating (1) the date (the "*Expected Pricing Date*") on which the UA is expected to be signed and (2) whether the Company, in good faith and based on advice of Roth Capital, as representative of the several underwriters of the IPO, believes there is a reasonable possibility the IPO Price will be less than $8.40. The Company shall use commercially reasonable efforts to deliver such notice at least five Business Days in advance of the Expected Pricing Date, but in no event shall such notice be delivered later than the fourth Business Day before the Expected Pricing Date. If such notice states that there is a possibility the IPO Price will be less than $8.40, then

(y) at the request of the Purchaser following its receipt of such notice, management of the Company shall participate, at a mutually acceptable time on the third or fourth Business Day before the Expected Pricing Date, in a telephone conference with representatives of the Purchaser to answer questions the Purchaser has with respect to the information provided in such notice; and

(z) in accordance with Section 2(a)(ii), the Purchaser shall notify the Company by 6 a.m., Pacific time, on the second Business Day before the Expected Pricing Date, whether the Purchaser will, or will not, purchase the Shares if the Purchase Price is less than $8.40.

Following, and subject to, the receipt of notice from the Company pursuant to this Section 2(c)(ii)(A), the Purchaser shall deposit, by 5 p.m., Pacific time, on the second Business Day before the Expected Pricing Date, the amount of $8,750,000 in an account with a bank in Hong Kong held in the name of the Purchaser.

(B) Subject to Section 2(a)(ii) and the satisfaction of all of the conditions set forth under Section 6 (or waiver thereof by the Purchaser), by 8 p.m., Pacific time, on the first day on which Class A Shares trade on the Nasdaq Global Market, the Purchaser shall arrange for a wire transfer in the amount of the Purchase Price for all of the Shares (or, if less, $8,750,000), in immediately available funds, to be made to an account specified by the Company prior to the Expected Pricing Date.

(C) If the closing for the IPO is not completed within three Business Days after the date on which the UA is executed or if this Agreement is terminated in accordance with

Section 9, then the Company shall promptly arrange for a wire transfer, in immediately available funds, of any funds received by the Company in accordance with Section 2(c)(ii)(B) to an account specified by the Purchaser.

(iii) If and only if the Purchase Price per Class A Share is equal to $10.50, then the Purchase Price payable by the Purchaser pursuant to this Agreement shall be paid as follows: (A) $8,750,000 by the Purchaser and (B) $7 by Wang, on behalf of the Purchaser, *provided* that the Purchaser shall have no obligation to pay or reimburse Wang for such amount.

(iv) In addition to the Shares to be delivered to the Purchaser in accordance with Section 2(c)(ii), on the Closing Date, the Company shall deliver or caused to be delivered to the Purchaser:

(A) a written opinion dated the Closing Date issued by K&L Gates LLP, counsel for the Company, substantially in the form attached to this Agreement as Exhibit A;

(B) a "screen shot" sent by the transfer agent for the Class A Shares of the Company, depicting the certificate or certificates to be issued to represent the Shares. Such transfer agent shall, by 5 p.m., Pacific time, on the Closing Date, deposit such certificate or certificates with a courier or other agent identified by the Purchaser for delivery in accordance with instructions provided to the Company at least two Business Days prior to the Closing Date.

(v) On the Closing Date, other purchasers in any private placement shall fulfill their respective purchase obligations under their respective Stock Purchase Agreements with the Company with regards to the purchase of Class A Shares thereunder.

3. Representations and Warranties of the Company. The Company by this Agreement represents and warrants to the Purchaser as of the date of this Agreement and as of the Closing Date, as follows:

(a) *IPO.*

(i) The Company will file the Draft S-1 Amendment with the SEC under the Securities Act, in the form to be provided to the Purchaser, without change other than such typographical and other revisions that are, in the aggregate, immaterial. Except for the omission of pricing information related to the IPO, the Draft S-1 Amendment and the Draft Preliminary Prospectus will conform in all material respects upon filing with the SEC, with the requirements of the Securities Act. The Company will file the UA with the SEC by 2 p.m., Pacific time, as an exhibit to a current report on Form 8-K. The Registration Statement as of the Effective Date and the final prospectus relating to the Class A Shares, as filed with the SEC pursuant to Rule 424(b), as of the Closing Date will conform in all material respects with the requirements of the Securities Act.

(ii) Except for the omission of pricing information related to the IPO, the Draft S-1 Amendment will not as of the time of filing with the SEC and as of the Effective Date, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, *provided* that no representation or warranty is made as to information contained in or omitted from the Draft S-1 Amendment in reliance upon and in conformity with written information furnished to the Company by the Purchaser specifically for inclusion therein. Except for the omission of pricing information related to the IPO, the Draft Preliminary Prospectus as of the filing of the Draft S-1 Amendment

with the SEC and as of the Closing Date will not, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, *provided* that no representation or warranty is made as to information contained in or omitted from the Draft Preliminary Prospectus in reliance upon and in conformity with written information furnished to the Company by the Purchaser specifically for inclusion therein.

(iii) Neither the Company nor any of its Affiliates, directly or indirectly, has taken or will take any action in connection with the IPO or the offering of the Shares that is designed to, or that has constituted or could reasonably be expected to, cause or result in the stabilization or manipulation of the price of the Class A Shares.

(iv) In the event the Company determines, or Roth Capital, as representative of the several underwriters of the IPO, notifies the Company in writing that it has decided, not to proceed with the IPO, the Company will promptly, but in any event by 5 p.m., Pacific time, on the next Business Day following such determination or receipt of notice by the Company, notify the Purchaser that the IPO has been discontinued.

(b) *Organization and Standing*. Each of the Company and the Subsidiaries has been duly organized, is validly existing and in good standing (where such concept is applicable) as a corporation or other business entity under the laws of its jurisdiction of organization and is duly qualified to do business and in good standing as a foreign corporation or other business entity in each jurisdiction in which its ownership or lease of property or the conduct of its businesses requires such qualification, except where the failure to be so qualified or in good standing would not, in the aggregate, reasonably be expected to have a Material Adverse Effect. Each of the Company and the Subsidiaries has all power and authority necessary to own or hold its properties and to conduct the businesses in which it is engaged. Exhibit 3.01 to the Registration Statement on Form S-1 (File No. 333 220451) filed by the Company with the SEC under the Securities Act on September 13, 2017, contains a true and complete copy of the Certificate of Incorporation of the Company, as amended and in effect as of the date of this Agreement. Exhibit 21.01 to the Registration Statement lists as of the date of this Agreement, and will list as of the Effective Date, each "subsidiary" of the Company, as defined in Rule 405 under the Securities Act.

(c) *Capitalization*. The Company has an authorized capitalization as set forth in the Draft Preliminary Prospectus, and all of the issued shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and non-assessable, conform in all material respects to the descriptions thereof contained in the Draft Preliminary Prospectus, were issued in compliance with U.S. federal and state and foreign securities laws and not in violation of any preemptive right, resale right, right of first refusal or similar right. All of the Company's options, warrants and other rights to purchase or exchange any securities for shares of the Company's capital stock have been duly authorized and validly issued, conform in all material respects to the descriptions thereof contained in the Draft Preliminary Prospectus, and were issued in compliance with U.S. federal and state securities laws. Except as disclosed in the Draft Preliminary Prospectus, all of the issued shares of capital stock or other ownership interests of each of the Subsidiaries have been duly authorized and validly issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims, except for such liens, encumbrances, equities or claims as would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(d) *Shares.*

(i) The Shares have been duly authorized and, upon payment and delivery in accordance with this Agreement, will be validly issued, fully paid and non-assessable, will conform in all

material respects to the description of Class A Shares contained in the Draft Preliminary Prospectus, will be issued in compliance with U.S. federal and state securities laws and will be issued free of statutory and contractual preemptive rights, rights of first refusal and similar rights.

(ii) The Company has not sold or issued any securities that would be integrated with the offering of the Shares for purposes of the Securities Act. Neither the Company nor any of its Affiliates nor any person acting on its or their behalf has engaged or will engage in any directed selling efforts (as defined in Regulation S under the Securities Act) in connection with the offering of the Shares.

(iii) Neither the Company nor any of the Subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against the Purchaser for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares. No stamp or other issuance or transfer taxes or duties and no withholding taxes are or will be payable by or on behalf of the Purchaser in connection with the execution, delivery or performance of this Agreement.

(e) *Authority*. The Company has all requisite corporate power and authority to execute, deliver and perform its obligations under the Transaction Agreements. Each of the Transaction Agreements has been duly and validly authorized, executed and delivered by the Company and, when executed and delivered by the Purchaser, will constitute a valid and legally binding obligation of the Company, enforceable in accordance with its terms, except as limited (i) by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent either Section 8 of this Agreement or Section 8 of the RRA is found to violate public policy.

(f) *No Conflicts or Violations.*

(i) The issue and sale of the Shares, the execution, delivery and performance of the Transaction Agreements by the Company, the consummation of the transactions contemplated by the Transaction Agreements, and the application of the proceeds from the sale of the Shares as described under "Use of Proceeds" in the Draft Preliminary Prospectus will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, impose any lien, charge or other encumbrance upon any property or assets of the Company or any of the Subsidiaries, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement, license, lease or other agreement or instrument to which the Company or any of the Subsidiaries is a party or by which the Company or any of the Subsidiaries is bound or to which any of the property or assets of the Company or any of the Subsidiaries is subject, (B) result in any violation of the provisions of the certificate of incorporation, constitution, memorandum and articles of association (or similar organizational documents) of the Company or any of the Subsidiaries, or (C) result in any violation of any statute or any judgment, order, decree, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of the Subsidiaries or any of their properties or assets, except, with respect to clauses (A) and (C), conflicts, violations, encumbrances or defaults that would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(ii) Neither the Company nor any of the Subsidiaries is (A) in violation of its certificate of incorporation, constitution, memorandum or articles of association (or similar organizational documents), (B) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant,

condition or other obligation contained in any indenture, mortgage, deed of trust, loan agreement, license or other agreement or instrument to which it is a party or by which it is bound or to which any of its properties or assets is subject, or (C) in violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over it or its property or assets or has failed to obtain any license, permit, certificate, franchise or other governmental authorization or permit necessary to the ownership of its property or to the conduct of its business, except in the case of clauses (B) and (C), to the extent any such conflict, breach, violation or default would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(g) *Financial Statements*. The consolidated financial statements (including the related notes) included in the Draft Preliminary Prospectus comply as to form in all material respects with the requirements of Regulation S-X under the Securities Act and present fairly in all material respects the financial condition, results of operations and cash flows of the Company and the Subsidiaries at the dates and for the periods indicated and have been prepared in conformity with accounting principles generally accepted in the United States applied on a consistent basis throughout the periods involved. BDO China Shu Lun Pan Certified Public Accountants LLP are independent public accountants with respect to the Company and the Subsidiaries, as required by the Securities Act.

(h) *Controls*.

(i) The Company and the Subsidiaries maintain internal accounting controls sufficient to provide reasonable assurances regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States, including internal accounting controls sufficient to provide reasonable assurance that (A) transactions are executed in accordance with management's general or specific authorization, (B) transactions are recorded as necessary to permit preparation of the Company's consolidated financial statements in conformity with accounting principles generally accepted in the United States and to maintain accountability for its assets, (C) access to the their assets is permitted only in accordance with management's general or specific authorization, and (D) the recorded accountability for their assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(ii) The Company and the Subsidiaries maintain disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that are (A) designed to ensure that information is accumulated and communicated to management of the Company and the Subsidiaries, including their respective principal executive officers and principal financial officers, as appropriate, and (B) effective in all material respects to perform the functions for which they were established.

(iii) Except as described in the Draft Preliminary Prospectus, since December 31, 2016, (A) the Company has not been advised of or otherwise become aware of (1) any significant deficiencies in the design or operation of internal controls that could adversely affect the ability of the Company or any of the Subsidiaries to record, process, summarize and report financial data, or any material weaknesses in internal controls or (2) any fraud, whether or not material, that involves management or other employees who have a significant role in the internal controls of the Company or any of the Subsidiaries and (B) there have been no significant changes in internal controls or in other factors that could significantly adversely affect internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses.

(i) *Compliance with Laws*.

(i) No consent, approval, authorization or order of, or filing, registration or qualification with, any court or governmental agency or body having jurisdiction over the Company or any of the Subsidiaries or any of their properties or assets is required for the issue and sale of the Shares, the execution, delivery and performance of the Transaction Agreements by the Company, the consummation of the transactions contemplated by the Transaction Agreements, the application of the proceeds from the sale of the Shares as described under "Use of Proceeds" in the Draft Preliminary Prospectus, except as are required under applicable U.S. federal and state securities laws and will be obtained or otherwise complied with prior to the Closing Date.

(ii) The Company will take all necessary actions to ensure that, as of the Effective Date, the Company and its directors and officers in their capacities as such will comply with any then-applicable provision of the U.S. Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder.

(iii) Neither the Company nor any of the Subsidiaries is, or as of the Closing Date after giving effect to the offer and sale of Class A Shares sold in the IPO and the Shares and the application of the proceeds therefrom as described under "Use of Proceeds" in the Draft Preliminary Prospectus will be, (A) an "investment company" or a company "controlled" by an "investment company" within the meaning of the U.S. Investment Company Act of 1940 and the rules and regulations of the SEC thereunder or (B) a "business development company" (as defined in Section 2(a)(48) of the U.S. Investment Company Act of 1940).

(iv) Neither the Company nor any of the Subsidiaries, nor, to the knowledge of the Company after due inquiry, any director, officer, agent, employee or other person associated with or acting on behalf of the Company or any of the Subsidiaries, has in the course of its actions for, or on behalf of, the Company or any of the Subsidiaries: (A) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (B) made any direct or indirect payment to any foreign or domestic government official from corporate funds in violation of the U.S. Foreign Corrupt Practices Act of 1977 or otherwise violated any applicable provision of such Act or of any other applicable anti-bribery statute or regulation; or (C) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any domestic government official, foreign official or employee that, in the aggregate, would reasonably be expected to result in a Material Adverse Effect. The Company and the Subsidiaries and, to the knowledge of the Company, the Affiliates of the Company and the Subsidiaries have conducted their respective businesses in compliance with the U.S. Foreign Corrupt Practices Act of 1977 and, except as would not reasonably be expected to result in a Material Adverse Effect, all other applicable anti-bribery statutes and regulations, and the Company and the Subsidiaries maintain policies and procedures designed to ensure, and that are reasonably expected to continue to ensure, continued compliance with the U.S. Foreign Corrupt Practices Act of 1977 and other applicable anti-bribery statutes and regulations.

(v) The operations of the Company and the Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the money laundering statutes of all applicable jurisdictions (including the U.S. Currency and Foreign Transactions Reporting Act of 1970), the rules and regulations under such statutes, and any applicable related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency. No action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of the Subsidiaries with respect to any such statutes, rules, regulations or guidelines is pending or, to the knowledge of the Company, threatened.

(vi) Each Subsidiary formed under the laws of the People's Republic of China will timely reapply for, and obtain, social security registration certificates.

(j) *Material Adverse Events*. Since December 31, 2016, except as disclosed in the Draft Preliminary Prospectus, neither the Company nor any of the Subsidiaries has:

(i) sustained any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree,

(ii) issued or granted any securities,

(iii) incurred any material liability or obligation, direct or contingent, other than liabilities and obligations that were incurred in the ordinary course of business,

(iv) entered into any material transaction not in the ordinary course of business, or

(v) declared or paid any dividend on its capital stock.

Since December 31, 2016, except as disclosed in the Draft Preliminary Prospectus, there has not been any change in the capital stock (other than the issuance of Class A Shares, if any, pursuant to employee incentive plans or other stock options granted to employees) or long-term debt of the Company or any of the Subsidiaries or any adverse change, or any development involving a prospective adverse change, in or affecting the condition (financial or otherwise), results of operations, stockholders' equity, properties, management, business or prospects of the Company and the Subsidiaries taken as a whole, in each case except as would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(k) *Assets*.

(i) The Company and the Subsidiaries have good and marketable title to all personal property owned by them and that are material to the business of the Company and the Subsidiaries, taken as a whole, in each case free and clear of all liens, encumbrances and defects, except such liens, encumbrances and defects as are described in the Draft Preliminary Prospectus or do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries. All assets held under lease by the Company and the Subsidiaries that are material to the business of the Company are held by them under valid, subsisting and enforceable leases, with such exceptions as do not materially interfere with the use made and proposed to be made of such assets by the Company and the Subsidiaries.

(ii) The Company and the Subsidiaries own or possess adequate rights to use all material patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, know-how, software, systems and technology (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) necessary for the conduct of their respective businesses and have no reason to believe that the conduct of their respective businesses will conflict with, and have not received any notice of any claim of conflict with, any such rights of others.

(l) *Permits*. The Company and each of the Subsidiaries have such permits, licenses, patents, franchises, certificates of need and other approvals or authorizations of governmental or regulatory authorities as are necessary under applicable law to own their properties and conduct their businesses in the manner described in the Draft Preliminary Prospectus, except for any of the foregoing that would not, in the aggregate, reasonably be expected to have a Material Adverse Effect (the "*Permits*"). Neither the Company nor any of the Subsidiaries is in violation of, or in default under, any of the Permits, except as would not, in the aggregate, reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of the Subsidiaries has received notice of any revocation or modification of any Permits that, in the aggregate, if revoked or modified, would reasonably be expected to have a Material Adverse Effect.

(m) *Proceedings.* There are no legal or governmental proceedings pending to which the Company or any of the Subsidiaries is a party or of which any property or assets of the Company or any of the Subsidiaries is the subject that would, in the aggregate, reasonably be expected to have a Material Adverse Effect or a material adverse effect on the performance of this Agreement or the consummation of the transactions contemplated by this Agreement; and to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or others.

(n) *Contracts.* There are no contracts or other documents required to be described in the Draft S-1 Amendment or the Draft Preliminary Prospectus, or filed as exhibits to the Registration Statement, that are not described and filed as required. The statements made in the Draft Preliminary Prospectus, insofar as they purport to constitute summaries of the terms of the contracts and other documents described and filed, constitute accurate summaries of the terms of such contracts and documents in all material respects. Neither the Company nor any of the Subsidiaries has knowledge that any other party to any such contract or other document has any intention not to render full performance in all material respects as contemplated by the terms thereof. Except as described in the Draft Preliminary Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company owned or to be owned by such person or to require the Company to include such securities in the securities registered pursuant to the Registration Statement.

(o) *Insurance.* Except as would not reasonably be expected to have a Material Adverse Effect, the Company and each of the Subsidiaries carry, or are covered by, insurance from insurers of recognized financial responsibility in such amounts and covering such risks as is adequate for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar businesses in similar industries. All policies of insurance of the Company and the Subsidiaries are in full force and effect. The Company and the Subsidiaries are in compliance with the terms of such policies in all material respects. Neither the Company nor any of the Subsidiaries has received notice from any insurer or agent of an insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance. There are no material claims by the Company or any of the Subsidiaries under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause. Neither the Company nor any of the Subsidiaries has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not reasonably be expected to have a Material Adverse Effect.

(p) *Related-Party Transactions.* No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, on the other hand, that is required by the Securities Act and the rules and regulations thereunder to be described in the Draft Preliminary Prospectus and that is not so described.

(q) *Employees*.

(i) No labor disturbance by or dispute with the employees of the Company or any of the Subsidiaries exists or, to the knowledge of the Company, is imminent that could reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of the Subsidiaries is in violation of or has received notice of any violation with respect to any U.S. federal or state or foreign law relating to discrimination in the hiring, promotion or pay of employees, nor any applicable U.S. federal or state or foreign wage and hour laws, the violation of any of which could reasonably be expected to have a Material Adverse Effect.

(ii) The board of directors of the Company has adopted and approved a form of Confidentiality, Non-Competition and Intellectual Property Rights Agreement for execution by employees of the Company and its subsidiaries in the People's Republic of China, a true and correct copy of which form has been provided to the Purchaser. Such board has directed management of the Company to seek to enter into, by March 31, 2018, agreements substantially in such form with all the Company's employees working in the People's Republic of China, except any such employee with whom the Company has previously entered into a similar agreement that continues to be in effect. The Company and the Chief Executive Officer and President of the Company will enter into an agreement in such form by no later than October 12, 2017.

(r) *Taxes.* The Company and each of the Subsidiaries have filed all U.S. federal, state, local and foreign tax returns required to be filed through the date of this Agreement, subject to permitted extensions, and have paid all taxes due, and no tax deficiency has been determined adversely to the Company or any of the Subsidiaries, nor does the Company have any knowledge of any tax deficiencies that have been, or would reasonably be expected to be asserted against the Company, that would, in the aggregate, reasonably be expected to have a Material Adverse Effect.

4. Representations and Warranties of the Purchaser. The Purchaser by this Agreement represents and warrants to the Company as of the date of this Agreement and as of the Closing Date, as follows:

(a) *Authority.* The Purchaser has all requisite power and authority to execute, deliver and perform its obligations under the Lock-Up Agreement and each of the Transaction Agreements. The Lock-Up Agreement and each of the Transaction Agreements has been duly and validly authorized, executed and delivered by the Purchaser and, when executed and delivered by the Company, will constitute a valid and legally binding obligation of the Purchaser, enforceable in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance and any other laws of general application affecting enforcement of creditors' rights generally and as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

(b) *Acquisition of Shares.* The Purchaser is acquiring the Shares for investment for its own account, not as a nominee or agent and not with a view to the resale or distribution of any interest in the Shares. The Purchaser has no present intention of selling, granting any participation in or otherwise distributing any interest in the Shares. The Purchaser does not presently have any contract, undertaking, agreement or arrangement with any individual or entity to sell, transfer or grant participations to either such individual or entity or any third party, with respect to the Shares.

(c) O*pportunity to Investigate.* The Purchaser has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Shares with the Company's management and has had an opportunity to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 3 or the right of the Purchaser to rely thereon.

(d) *Restricted Securities.* The Purchaser understands that the offering and sale of the Shares have not been, and will not be, registered under the Securities Act by reason of a specific exemption from the registration provisions of such Act that depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed in this Section 4. The Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to those laws, the Purchaser must hold the Shares indefinitely unless either they are registered with the SEC and qualified by state authorities or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify for resale the Shares, except as set forth in the RRA. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements, including the time and manner of sale and the holding period for the Shares, and on requirements relating to the Company that are outside of the Purchaser's control and that the Company is under no obligation, and may not be able, to satisfy.

(e) *Regulation S Status.* The Purchaser is not a U.S. person (as such term is defined in Regulation S under the Securities Act). At the time of the origination of discussion regarding the offer and sale of the Shares and the date of the execution and delivery of this Agreement, the Purchaser was at all times outside of the United States.

(f) *Legend.* The Purchaser understands that the Shares may be notated with the following legend together with any other legend required by the securities laws of any state to the extent such laws are applicable to the Shares represented by the certificate, instrument, or book entry so legended:

> "THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AND (A) THESE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF OR (B) THE HOLDER OF THESE SECURITIES IS NOT A U.S. PERSON AND IS ACQUIRING THIS SECURITY IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH RULE 904 UNDER THE U.S. SECURITIES ACT OF 1933. NO TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL, IN A FORM SATISFACTORY TO ACM RESEARCH, INC., THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE U.S. SECURITIES ACT OF 1933."

The Purchaser consents to the Company making a notation in its records and giving instructions to any transfer agent of the Class A Shares in order to implement the restrictions on transfer set forth in this Agreement. The foregoing legend shall be removed from the certificate, instrument or book entry evidencing the Shares and the Company shall, or shall cause its transfer agent to, issue, no later than three Business Days after receipt of a request from the Purchaser, a certificate or certificates evidencing all or a portion of the Shares, as requested by the Purchaser, without such legend if: (i) the Shares have been resold under an effective registration statement under the Securities Act, (ii) the Shares have been transferred in compliance with Rule 144 under the Securities Act, (iii) all of the Shares are eligible for resale pursuant to such Rule 144 without restriction, or (iv) the Purchaser shall

have provided the Company with an opinion of counsel reasonably acceptable to the Company, in form and substance, stating that the Shares may lawfully be transferred without registration under the Securities Act and that the foregoing legend may be removed following such transfer.

5. Conditions of the Company's Obligations at the Closing. The obligations of the Company to sell the Shares to the Purchaser under this Agreement are subject to the following conditions:

(a) *Representations.* The representations and warranties of the Purchaser contained in Section 4 shall be true and correct in all material respects as of the Closing.

(b) *Covenants.* The Purchaser shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Purchaser as of or before the Closing.

(c) *Lock-Up Agreement.* The Lock-Up Agreement of shall continue to be in full force and effect.

(d) *IPO.* The IPO shall have been consummated.

6. Conditions of the Purchaser's Obligations to Initiate Wire Transfer. The obligations of the Purchaser to initiate the wire transfer in accordance with Section 2(c)(ii)(B) are subject to the satisfaction of each of the following conditions by no later than 8 p.m., Pacific time, on the date of the UA (which date will be the last Business Day before the Class A Shares commence trading on the Nasdaq Global Market):

(a) *Subsidiaries.* All of the subsidiaries of the Company, including ACM Research (Shanghai), Inc., shall be one hundred percent (100%) owned by the Company.

(b) *IPO.* The Company shall have provided to the Purchaser a copy of the UA, duly signed by the Company and Roth Capital, and such UA shall remain in full force and effect. The Nasdaq Global Market shall have approved the Shares for listing, which approval shall state that such approval is subject only to official notice of issuance and evidence of satisfactory distribution.

(c) *Officers' Certificate.* The Company shall have furnished to the Purchaser a certificate, dated as of the date of the UA and effective as of a specified time between 3 p.m. and 8 p.m., Pacific time, on such date, of its Chief Executive Officer and its Chief Financial Officer certifying that no stop order suspending the effectiveness of the Registration Statement has been issued, and no proceedings or examination for that purpose have been instituted or, to the knowledge of such officers, threatened.

7. Conditions of the Purchaser's Obligations at the Closing. The obligations of the Purchaser to purchase the Shares under this Agreement are subject to the following conditions:

(a) *Representations.* The representations and warranties of the Company contained in Section 3 shall be true and correct in all material respects as of the Closing.

(b) *Covenants.* The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company as of or before the Closing.

(c) *Corporate Proceedings.* All corporate proceedings and other legal matters incidental to the authorization, form and validity of this Agreement and all other legal matters relating to this Agreement and the transactions contemplated by this Agreement, including the filing of the Restated Certificate of Incorporation of ACM Research, Inc. (in the form filed with the SEC by the Company as

Exhibit 3.03 to the Registration Statement), shall be reasonably satisfactory in all material respects to the Purchaser, and the Company shall have furnished to the Purchaser all documents and information that it may reasonably request to enable them to pass upon such matters.

(d) *Officers' Certificate.* The Company shall have furnished to the Purchaser a certificate, dated the Closing Date, of its Chief Executive Officer and its Chief Financial Officer certifying that:

(i) the representations and warranties of the Company in Section 3 are true and correct on and as of the Closing Date;

(ii) the Company has complied with all its agreements contained in this Agreement, and satisfied all the conditions on its part to be performed or satisfied under this Agreement, to the extent such agreements and conditions were to be performed or satisfied at or prior to the Closing Date; and

(iii) no stop order suspending the effectiveness of the Registration Statement has been issued, and no proceedings or examination for that purpose have been instituted or, to the knowledge of such officers, threatened.

(e) *RRA.* The RRA shall continue to be in full force and effect.

(f) *NVA and Indemnification Agreement.*

(i) The NVA shall continue to be in full force and effect.

(ii) The board of directors of the Company shall have elected, as described in Section 2(a) of the NVA, , as the Designee (as defined in the NVA), to the board of directors, effective upon the Closing, and the Company shall have provided the Purchaser with a certificate of the Secretary of the Company certifying to such effect.

(iii) Pursuant to Section 8 of the NVA, the Company shall execute and deliver to [Mr.][Ms.] , as the Designee, an indemnification agreement substantially in the form of Exhibit A to the NVA.

8. Indemnification.

(a) *Indemnity.* The Company by this Agreement agrees to indemnify, defend and hold harmless the Purchaser, its Affiliates and each of their respective, directors, officers, employees, shareholders, representatives and agents ("*Indemnified Parties*") from, against and in respect of any damages, losses, charges, liabilities, claims demands, actions, suits, proceedings, payments, judgments, settlements, assessments, deficiencies, interest and costs and expenses ("*Losses*") imposed on, sustained, incurred or suffered by or asserted against any of the Indemnified Parties (whether in respect of third party claims, claims between the parties to this Agreement, or otherwise) directly or indirectly relating to or arising out of any breach by the Company of any of representations, warranty or agreement made by it in this Agreement. The indemnity set forth in this Section 8 will not be prejudiced, adversely affected or deemed waived by:

(i) reason of any investigation made by or on behalf of an Indemnified Party (including by any of its representatives or advisors) or by reason of the fact that an Indemnified Party or any of its representatives or advisors knew or should have known that any representation or warranty is, was or might be inaccurate or by reason of an Indemnified Party's waiver of any condition set forth in Section 5 or 7;

(ii) the execution, delivery or the performance of this Agreement; or

(iii) any other act or thing that may be done by or on behalf of any Indemnified Party in connection with this Agreement and that might, apart from this clause, prejudice or adversely affect such rights or remedies.

The Company further agrees to indemnify each of the Indemnified Parties against any Losses incurred by such Indemnified Party related to or arising from efforts to enforce or protect its rights under this Agreement or from the exercise of its rights or powers consequent upon or arising out of any breach of this Agreement by the Company. The remedies set forth in this Section 8 shall be without prejudice to all other rights and remedies that an Indemnified Party may have under applicable law and shall not be the sole and exclusive remedy of any Indemnified Party for any Loss suffered under this Agreement. Each Indemnified Party shall be entitled to pursue any remedy that is available to it under applicable law.

(b) *Judgment Currency*. The obligation of the Company in respect of any sum due to the Purchaser or any other Indemnified Party under this Agreement shall, notwithstanding any judgment in a currency other than U.S. dollars or any other applicable currency (the "*Judgment Currency*"), not be discharged until the first Business Day, following receipt by such Indemnified Party of any sum adjudged to be so due in the Judgment Currency, on which (and only to the extent that) such Indemnified Party may in accordance with normal banking procedures purchase U.S. dollars or any other applicable currency with the Judgment Currency. If the U.S. dollars or other applicable currency so purchased are less than the sum originally due to such Indemnified Party under this Agreement, the Company agrees, as a separate obligation and notwithstanding any such judgment, to indemnify such Indemnified Party against such Loss. If the U.S. dollars or other applicable currency so purchased are greater than the sum originally due to such Indemnified Party under this Agreement, such Indemnified Party agrees to pay to the Company an amount equal to the excess of the U.S. dollars or other applicable currency so purchased over the sum originally due to such Indemnified Party under this Agreement.

9. Termination. This Agreement shall terminate and be of no more force or effect upon the earliest to occur, if any, of: (a) the delivery by the Company or the Purchaser to each of the parties hereto, at any time before the Company files the Draft S-1 Amendment with the SEC under the Securities Act, of a notice to the effect that this Agreement is being terminated, (b) the execution of the UA, if the Purchaser has elected to terminate in accordance with Section 2(a)(ii), (c) the delivery by the Company of notice to the Purchaser pursuant to Section 3(a)(iv), (d) if the Company fails to satisfy any of the conditions set forth in Section 6, the delivery by the Purchaser to the Company, at any time between 8 p.m., Pacific time, on the date of the UA and 8 p.m., Pacific time, on the first day on which Class A Shares trade on the Nasdaq Global Market, of notice to the effect that the Purchaser has elected to terminate as the result of such failure, (e) the filing by the Company with the SEC of a request for withdrawal of the Registration Statement, (f) June 30, 2018, if the IPO has not consummated by such date, and (g) the written consent of each of the parties to this Agreement.

10. Miscellaneous.

(a) *Governing Law; Forum and Remedies*. The internal laws of the State of Delaware, irrespective of its conflicts of law principles, shall govern the validity of this Agreement, the construction of its terms, and the interpretation and enforcement of the rights and duties of the parties to this Agreement. The parties to this Agreement by this Agreement irrevocably submit to the exclusive jurisdiction of first, the Court of Chancery in the State of Delaware (and any appellate court thereof) and to the extent such Court of Chancery (or appellate court thereof) lacks jurisdiction over the matter, the Federal courts of the United States of America located in the State of Delaware (or

appellate court thereof located within such county) solely in respect of the interpretation and enforcement of the provisions of this Agreement and of the documents referred to in this Agreement, and in respect of the transactions contemplated by this Agreement and thereby, and by this Agreement waive, and agree not to assert, as a defense in any action, suit or proceeding for the interpretation or enforcement of this Agreement or thereof, that it is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in said courts or that the venue thereof may not be appropriate or that this Agreement or any such document may not be enforced in or by such courts, and the parties to this Agreement irrevocably agree that all claims with respect to such action or proceeding shall be heard and determined in such a Delaware state or Federal court. The parties by this Agreement consent to and grant any such court jurisdiction over the person of such parties and over the subject matter of such dispute and agree that mailing of process or other papers in connection with any such action or proceeding in the manner provided in Section 10(e), shall be valid and sufficient service thereof. Except as otherwise expressly provided in this Agreement, any and all remedies in this Agreement expressly conferred upon a party under this Agreement shall be deemed cumulative with and not exclusive of any other remedy conferred by this Agreement or by law on such party, and the exercise of any one remedy shall not preclude the exercise of any other. The parties to this Agreement agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to specific performance, an injunction or injunctions, or other equitable relief to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement, in accordance with this Section 10(a).

(b) *WAIVER OF JURY TRIAL*. EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE SHARES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THE PROVISIONS OF THIS PARAGRAPH HAVE BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

(c) *Amendments; No Waiver*. This Agreement may be amended, modified or waived if, and only if, such amendment, modification or waiver is in writing and signed, in the case of an amendment or modification, by each party to this Agreement, or in the case of a waiver, by the party against whom the waiver is to be effective. Any waiver by any party of a breach of any provision of this Agreement shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Agreement. The failure of a party to insist upon strict adherence to any term of this Agreement on one or more occasions shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.

(d) *Entire Agreement*. This Agreement, together with the Lock-Up Agreement, the RRA and the NVA, constitutes the full and entire understanding and agreement between the parties with respect to the subject matter of this Agreement, and any other written or oral agreement relating to the subject matter of this Agreement existing between the parties is expressly canceled.

(e) *Notices*. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon (i) personal delivery to the party to be notified, (ii) if sent by electronic mail, then (A) when sent, if sent between 9 a.m. and 5 p.m., Pacific time, on a Business Day or (B) as of 9 a.m. Pacific time on the next Business Day, if sent at any other time, (iii) if sent by U.S. registered or certified mail, return receipt requested, postage prepaid, the earlier of actual receipt and the fifth Business Day after having been deposited with the U.S. Postal Service, or (iv) if sent via an internationally recognized overnight courier, freight prepaid, specifying next or two Business Day delivery, with written verification of receipt, two Business Days after deposit with such courier. All communications shall be sent to a party to this Agreement at their respective addresses set forth below or to such other street or email address as subsequently modified by written notice given in accordance with this Section 10(e):

If to the Company or Wang:

ACM Research, Inc.
42307 Osgood Road, Suite I
Fremont, California 94539
Attention: David H. Wang
Email: dwang@acmrcsh.com

With a copy to (which shall not constitute notice):

K&L Gates LLP
State Street Financial Center
One Lincoln Street
Boston, MA 02111-2950
Attention: Mark L. Johnson
Email: mark.johnson@klgates.com

If to the Purchaser or Sino IC Shanghai:

Sino IC Capital Co., Ltd.
3rd Floor North, No. 7 Financial Street
Xicheng District, Beijing 100033, P. R. China
Attention: Qian Zhao
Email: zhaoqian@ic-capital.com

(f) *Severability*. If at any time subsequent to the date of this Agreement, any provision of this Agreement shall be held by any court of competent jurisdiction to be illegal, void or unenforceable, such provision shall be of no force and effect, but the illegality or unenforceability of such provision shall have no effect upon the legality or enforceability of any other provision of this Agreement.

(g) *Counterparts*. This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(h) *Successors and Assigns*. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties to this Agreement or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(i) *Persons Entitled to Benefit of Agreement*. This Agreement shall inure to the benefit of and be binding upon the Purchaser, the Company and their respective successors. This Agreement and the terms and provisions of this Agreement are for the sole benefit of only those persons, except that the representations, warranties, indemnities and agreements of the Company contained in this Agreement shall also be deemed to be for the benefit of the Indemnified Parties. Nothing in this Agreement is intended or shall be construed to give any person, other than the persons referred to in this Section 10(i), any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained in this Agreement.

(j) *Attorneys' Fees*. If any action at law or in equity (including arbitration) is necessary to enforce or interpret the terms of any of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

(k) *Delays or Omissions*. No delay or omission to exercise any right, power or remedy accruing to a party under this Agreement, upon any breach or default of another party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of a party of any breach or default under this Agreement, or any waiver on the part of a party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to a party, shall be cumulative and not alternative.

(l) *Interpretation and Construction*. For purposes of this Agreement:

(i) headings used in this Agreement are for convenience of reference only and shall not, for any purpose, be deemed a part of this Agreement;

(ii) any references in this Agreement to a Section or Exhibit refer to a Section of, or Exhibit attached to, this Agreement, unless specified otherwise;

(iii) the words "include" and "including" as used herein shall not be construed so as to exclude any other thing not referred to or described;

(iv) the word "or" is not exclusive;

(v) the definition given for any term in this Agreement shall apply equally to both the singular and plural forms of the term defined;

(vi) whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms;

(vii) unless the context otherwise requires, (A) references in this Agreement to an agreement, instrument or other document mean such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and (B) references in this Agreement to a statute means such statute as amended from time to time and include any successor legislation thereto and any rules and regulations promulgated thereunder; and

(viii) this Agreement shall be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted.

(m) *Waiver of Immunity*. With respect to any suit or proceeding arising out of or relating to this Agreement or the transactions contemplated by this Agreement, each party irrevocably waives, to the fullest extent permitted by applicable law, all immunity (whether on the basis of sovereignty or otherwise) from jurisdiction, service of process, attachment (both before and after judgment) and execution to which it might otherwise be entitled, and with respect to any such suit or proceeding, each party waives any such immunity in any court of competent jurisdiction, and will not raise or claim or cause to be pleaded any such immunity at or in respect of any such suit or proceeding, including any immunity pursuant to the U.S. Foreign Sovereign Immunities Act of 1976.

(n) *Other Private Placement*. To the extent that the Closing has not occurred and this Agreement has not been terminated in accordance with Section 9, the Company shall not, without the prior written consent of the Purchaser, enter into, amend or supplement any private placement arrangement or agreement in connection with the sale and purchase of the securities of the Company with any third-party financial investor, including any amendment or supplement to the Stock Purchase Agreement between the Company and Victorious Way Limited.

[Signature Page Follows]

IN WITNESS WHEREOF, each of the parties has executed this Agreement or caused the same to be executed by its duly authorized representative as of the date first written above.

ACM RESEARCH, INC.

By: /s/ David H. Wang
David H. Wang
Chief Executive Officer and President

XUNXIN (SHANGHAI) CAPITAL CO., LIMITED

By: /s/ Xinxin (Shanghai) Capital Co., Limited
Name: Xinxin (Shanghai) Capital Co., Limited
Title:

XINXIN (HONGKONG) CAPITAL CO., LIMITED

By: /s/ Xinxin (Hongkong) Capital Co., Limited
Name: Xinxin (Hongkong) Capital Co., Limited
Title:

As to Section 2(c)(iii) only

DAVID H. WANG

/s/ David H. Wang

STOCK PURCHASE AGREEMENT

TABLE OF CONTENTS

THIS STOCK PURCHASE AGREEMENT (this "*Agreement*") is made as of October 16, 2017, by and between ACM Research, Inc., a Delaware corporation (the "*Company*") and Victorious Way Limited (the "*Purchaser*"). Certain capitalized terms used in this Agreement are defined in Section 1.

RECITALS

A. The Company intends to offer and sell Class A Shares in a firm-commitment underwritten initial public offering pursuant to the Registration Statement (the "*IPO*") and to list the Class A Shares for trading on the Nasdaq Global Market.

B. The Company desires to sell, and the Purchaser desires to purchase, the Shares immediately following the IPO, on the terms and subject to the conditions set forth in this Agreement.

D. In accordance with the terms set forth in this Agreement, contemporaneously with the execution and delivery of this Agreement, (i) the Purchaser is executing and delivering a Lock-Up Agreement, (ii) the Company, Shengxin (Shanghai) Management Consulting Limited Partnership, Xinxin (Hongkong) Capital Co., Limited ("*Sino IC*") and the Purchaser are executing and delivering the RRA, and (iii) the Purchaser, Roth Capital and California Bank & Trust, as escrow holder, are executing and delivering the Escrow Agreement.

In consideration of the foregoing, the representations, warranties, covenants and agreements contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are by this Agreement acknowledged, and intending to be legally bound by this Agreement, the parties to this Agreement agree as follows:

1. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

(a) "*Affiliate*" has the meaning set forth in Rule 405 under the Securities Act.

(b) "*Business Day*" means any day other than (i) a Saturday or Sunday or (ii) a day on which the Federal Reserve Bank of San Francisco and any chartered bank in Hong Kong is closed.

(c) "*Class A Shares*" means shares of Class A Common Stock, $0.0001 par value per share, of the Company.

(d) "*Closing*" has the meaning set forth in Section 2(b)(i).

(e) "*Closing Date*" has the meaning set forth in Section 2(b)(ii).

(f) "*Company*" has the meaning set forth in the first paragraph of this Agreement.

(g) "*Draft Preliminary Prospectus*" means the prospectus subject to completion forming a part of the Draft S-1 Amendment.

(h) "*Draft S-1 Amendment*" means the draft amendment to the Registration Statement disclosing the transactions contemplated by this Agreement and a bona fide price range, in substantially the form to be furnished by the Company to the Purchaser.

(i) "*Effective Date*" means the time as of which the Registration Statement, as then amended, is declared effective by the SEC.

(j) "*Escrow Agreement*" means the escrow agreement dated as of the date of this agreement between the Purchaser, Roth Capital and California Bank & Trust, as escrow holder.

(k) "*Exchange Act*" means the U.S. Securities Exchange Act of 1934 and the rules and regulations of the SEC thereunder.

(l) "*IPO*" has the meaning set forth in Recital A.

(m) "*IPO Price*" means the initial price to the public per share for the Class A Shares offered in the IPO.

(n) "*Indemnified Parties*" has the meaning set forth in Section 7(a).

(o) "*Judgment Currency*" has the meaning set forth in Section 7(b).

(p) "*Lock-Up Agreement*" means the lock-up agreement dated as of the date of this Agreement being executed and delivered, contemporaneously with this Agreement by the Purchaser, in favor of, and in a form provided by, Roth Capital, as representative of the several underwriters of the IPO.

(q) "*Losses*" has the meaning set forth in Section 7(a).

(r) "*Material Adverse Effect*" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, prospects or results of operations of the Company and the Subsidiaries, taken as a whole.

(s) "*Permits*" has the meaning set forth in Section 3(l).

(t) "*Person*" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(u) "*Purchaser Price*" has the meaning set forth in Section 2(a).

(v) "*Purchaser*" has the meaning set forth in the first paragraph of this Agreement.

(w) "*RRA*" means the Second Amended and Restated Registration Rights Agreement dated as of the date of this Agreement, by and among the Company, Shengxin (Shanghai) Management Consulting Limited Partnership, Sino IC and the Purchaser.

(x) "*Registration Statement*" means the Registration Statement on Form S-1 (File No. 333-220451) filed by the Company with the SEC under the Securities Act, as such Registration Statement is amended as of the Effective Date.

(y) "*Roth Capital*" means Roth Capital Partners, LLC.

(z) "*SEC*" means the U.S. Securities and Exchange Commission.

(aa) "*Securities Act*" means the U.S. Securities Act of 1933 and the rules and regulations of the SEC thereunder.

(bb) "*Shares*" means 500,000 Class A Shares to be issued to the Purchaser pursuant to this Agreement.

(cc) "*Sino IC*" has the meaning set forth in Recital (D) of this Agreement.

(dd) “Sino IC Agreement” has the meaning set forth in Section 6(j).

(ee) “*Subsidiary*” means, as of a specified date, each Person identified as a subsidiary of the Company in Exhibit 21.01 to the Registration Statement, as amended as of such date.

(ff) “*UA*” means the underwriting agreement for the IPO to be signed by the Company and Roth Capital, as representative of the several underwriters of the IPO.

2. Purchase and Sale of the Shares.

(a) *Sale and Issuance*. Subject to the terms and conditions of this Agreement, the Purchaser agrees to purchase at the Closing, and the Company agrees to sell and issue to the Purchaser at the Closing, all of the Shares at a purchase price per Share (the “*Purchase Price*”) equal to the lesser of (x) $10.50 and (y) the IPO Price.

(b) *Closing; Delivery*.

(i) The closing of the purchase and sale of the Shares (the “*Closing*”) shall take place remotely via the exchange of documents and signatures immediately after, and subject to, the closing of the IPO and the other conditions set forth in this Agreement.

(ii) Delivery of and payment for the Shares shall be made at 10:00 a.m., Eastern daylight saving time, on the closing date of the IPO (the “*Closing Date*”). Delivery of the Shares shall be made to the Purchaser against payment by or on behalf of the Purchaser of the Purchase Price therefor by transmission of a wire transfer to a bank account designated by the Company. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of the Purchaser under this Agreement.

(c) C*ontemporaneous Deliveries*. Contemporaneously with the execution and delivery of this Agreement:

(i) the Purchaser is executing and delivering to the Company, for transmittal to Roth Capital, the Lock-Up Agreement;

(ii) the Purchaser and the Company are executing and delivering the RRA with respect to the Shares; and

(iii) the Purchaser, Roth Capital and California Bank & Trust, as escrow holder, are executing and delivering the Escrow Agreement.

3. Representations and Warranties of the Company. The Company by this Agreement represents and warrants to the Purchaser as of the date of this Agreement and as of the Closing Date, as follows:

(a) *IPO.*

(i) The Company will file the Draft S-1 Amendment with the SEC under the Securities Act, in the form to be provided to the Purchaser, without change other than such typographical and other revisions that are, in the aggregate, immaterial. Except for the omission of pricing information related to the IPO, the Draft S-1 Amendment and the Draft Preliminary Prospectus will conform in all material respects upon filing with the SEC, with the requirements of the Securities Act. The Company will file the UA with the SEC by 2 p.m., Pacific time, as an exhibit to a current report on Form 8-K. The Registration Statement as of the Effective Date and the final prospectus relating to the Class A Shares, as filed with the SEC pursuant to Rule 424(b), as of the Closing Date will conform in all material respects with the requirements of the Securities Act.

(ii) Except for the omission of pricing information related to the IPO, the Draft S-1 Amendment will not as of the time of filing with the SEC and as of the Effective Date, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, *provided* that no representation or warranty is made as to information contained in or omitted from the Draft S-1 Amendment in reliance upon and in conformity with written information furnished to the Company by the Purchaser specifically for inclusion therein. Except for the omission of pricing information related to the IPO, the Draft Preliminary Prospectus as of the filing of the Draft S-1 Amendment with the SEC and as of the Closing Date will not, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, *provided* that no representation or warranty is made as to information contained in or omitted from the Draft Preliminary Prospectus in reliance upon and in conformity with written information furnished to the Company by the Purchaser specifically for inclusion therein.

(iii) Neither the Company nor any of its Affiliates, directly or indirectly, has taken or will take any action in connection with the IPO or the offering of the Shares that is designed to, or that has constituted or could reasonably be expected to, cause or result in the stabilization or manipulation of the price of the Class A Shares.

(iv) In the event the Company determines, or Roth Capital, as representative of the several underwriters of the IPO, notifies the Company in writing that it has decided, not to proceed with the IPO, the Company will promptly, but in any event by 5 p.m., Pacific time, on the next Business Day following such determination or receipt of notice by the Company, notify the Purchaser that the IPO has been discontinued.

(b) *Organization and Standing*. Each of the Company and the Subsidiaries has been duly organized, is validly existing and in good standing (where such concept is applicable) as a corporation or other business entity under the laws of its jurisdiction of organization and is duly qualified to do business and in good standing as a foreign corporation or other business entity in each jurisdiction in which its ownership or lease of property or the conduct of its businesses requires such qualification, except where the failure to be so qualified or in good standing would not, in the aggregate, reasonably be expected to have a Material Adverse Effect. Each of the Company and the Subsidiaries has all power and authority necessary to own or hold its properties and to conduct the businesses in which it is engaged. Exhibit 3.01 to the Registration Statement on Form S-1 (File No. 333 220451) filed by the Company with the SEC under the Securities Act on September 13, 2017, contains a true and complete copy of the Certificate of Incorporation of the Company, as amended and in effect as of the date of this Agreement. Exhibit 21.01 to the Registration Statement lists as of the date of this Agreement, and will list as of the Effective Date, each "subsidiary" of the Company, as defined in Rule 405 under the Securities Act.

(c) *Capitalization*. The Company has an authorized capitalization as set forth in the Draft Preliminary Prospectus, and all of the issued shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and non-assessable, conform in all material respects to the descriptions thereof contained in the Draft Preliminary Prospectus, were issued in compliance with U.S. federal and state and foreign securities laws and not in violation of any preemptive right, resale right, right of first refusal or similar right. All of the Company's options, warrants and other rights to purchase or exchange any securities for shares of the Company's capital stock have been duly

authorized and validly issued, conform in all material respects to the descriptions thereof contained in the Draft Preliminary Prospectus, and were issued in compliance with U.S. federal and state securities laws. Except as disclosed in the Draft Preliminary Prospectus, all of the issued shares of capital stock or other ownership interests of each of the Subsidiaries have been duly authorized and validly issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims, except for such liens, encumbrances, equities or claims as would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(d) *Shares.*

(i) The Shares have been duly authorized and, upon payment and delivery in accordance with this Agreement, will be validly issued, fully paid and non-assessable, will conform in all material respects to the description of Class A Shares contained in the Draft Preliminary Prospectus, will be issued in compliance with U.S. federal and state securities laws and will be issued free of statutory and contractual preemptive rights, rights of first refusal and similar rights.

(ii) The Company has not sold or issued any securities that would be integrated with the offering of the Shares for purposes of the Securities Act. Neither the Company nor any of its Affiliates nor any person acting on its or their behalf has engaged or will engage in any directed selling efforts (as defined in Regulation S under the Securities Act) in connection with the offering of the Shares.

(iii) Neither the Company nor any of the Subsidiaries is a party to any contract, agreement or understanding with any person (other than this Agreement) that would give rise to a valid claim against the Purchaser for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares. No stamp or other issuance or transfer taxes or duties and no withholding taxes are or will be payable by or on behalf of the Purchaser in connection with the execution, delivery or performance of this Agreement.

(e) *Authority*. The Company has all requisite corporate power and authority to execute, deliver and perform its obligations under this Agreement and the RRA. Each of this Agreement and the RRA has been duly and validly authorized, executed and delivered by the Company and, when executed and delivered by the Purchaser, will constitute a valid and legally binding obligation of the Company, enforceable in accordance with its terms, except as limited (i) by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) to the extent either Section 7 of this Agreement or Section 8 of the RRA is found to violate public policy.

(f) *No Conflicts or Violations.*

(i) The issue and sale of the Shares, the execution, delivery and performance of this Agreement and the RRA by the Company, the consummation of the transactions contemplated by this Agreement and the RRA, and the application of the proceeds from the sale of the Shares as described under "Use of Proceeds" in the Draft Preliminary Prospectus will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, impose any lien, charge or other encumbrance upon any property or assets of the Company or any of the Subsidiaries, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement, license, lease or other agreement or instrument to which the Company or any of the Subsidiaries is a party or by which the Company or any of the Subsidiaries is bound or to which any of the property or assets of the Company or any of the Subsidiaries is subject, (B) result in

any violation of the provisions of the certificate of incorporation, constitution, memorandum and articles of association (or similar organizational documents) of the Company or any of the Subsidiaries, or (C) result in any violation of any statute or any judgment, order, decree, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of the Subsidiaries or any of their properties or assets, except, with respect to clauses (A) and (C), conflicts, violations, encumbrances or defaults that would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(ii) Neither the Company nor any of the Subsidiaries is (A) in violation of its certificate of incorporation, constitution, memorandum or articles of association (or similar organizational documents), (B) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant, condition or other obligation contained in any indenture, mortgage, deed of trust, loan agreement, license or other agreement or instrument to which it is a party or by which it is bound or to which any of its properties or assets is subject, or (C) in violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over it or its property or assets or has failed to obtain any license, permit, certificate, franchise or other governmental authorization or permit necessary to the ownership of its property or to the conduct of its business, except in the case of clauses (B) and (C), to the extent any such conflict, breach, violation or default would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(g) *Financial Statements*. The consolidated financial statements (including the related notes) included in the Draft Preliminary Prospectus comply as to form in all material respects with the requirements of Regulation S-X under the Securities Act and present fairly in all material respects the financial condition, results of operations and cash flows of the Company and the Subsidiaries at the dates and for the periods indicated and have been prepared in conformity with accounting principles generally accepted in the United States applied on a consistent basis throughout the periods involved. BDO China Shu Lun Pan Certified Public Accountants LLP are independent public accountants with respect to the Company and the Subsidiaries, as required by the Securities Act.

(h) *Controls*.

(i) The Company and the Subsidiaries maintain internal accounting controls sufficient to provide reasonable assurances regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States, including internal accounting controls sufficient to provide reasonable assurance that (A) transactions are executed in accordance with management's general or specific authorization, (B) transactions are recorded as necessary to permit preparation of the Company's consolidated financial statements in conformity with accounting principles generally accepted in the United States and to maintain accountability for its assets, (C) access to the their assets is permitted only in accordance with management's general or specific authorization, and (D) the recorded accountability for their assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(ii) The Company and the Subsidiaries maintain disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that are (A) designed to ensure that information is accumulated and communicated to management of the Company and the Subsidiaries, including their respective principal executive officers and principal financial officers, as appropriate, and (B) effective in all material respects to perform the functions for which they were established.

(iii) Except as described in the Draft Preliminary Prospectus, since December 31, 2016, (A) the Company has not been advised of or otherwise become aware of (1) any significant deficiencies in the design or operation of internal controls that could adversely affect the ability of the Company or any of the Subsidiaries to record, process, summarize and report financial data, or any material weaknesses in internal controls or (2) any fraud, whether or not material, that involves management or other employees who have a significant role in the internal controls of the Company or any of the Subsidiaries and (B) there have been no significant changes in internal controls or in other factors that could significantly adversely affect internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses.

(i) *Compliance with Laws.*

(i) No consent, approval, authorization or order of, or filing, registration or qualification with, any court or governmental agency or body having jurisdiction over the Company or any of the Subsidiaries or any of their properties or assets is required for the issue and sale of the Shares, the execution, delivery and performance of this Agreement and the RRA by the Company, the consummation of the transactions contemplated by this Agreement and the RRA, or the application of the proceeds from the sale of the Shares as described under "Use of Proceeds" in the Draft Preliminary Prospectus, except as are required under applicable U.S. federal and state securities laws and will be obtained or otherwise complied with prior to the Closing Date.

(ii) The Company will take all necessary actions to ensure that, as of the Effective Date, the Company and its directors and officers in their capacities as such will comply with any then-applicable provision of the U.S. Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder.

(iii) Neither the Company nor any of the Subsidiaries is, or as of the Closing Date after giving effect to the offer and sale of Class A Shares sold in the IPO and the Shares and the application of the proceeds therefrom as described under "Use of Proceeds" in the Draft Preliminary Prospectus will be, (A) an "investment company" or a company "controlled" by an "investment company" within the meaning of the U.S. Investment Company Act of 1940 and the rules and regulations of the SEC thereunder or (B) a "business development company" (as defined in Section 2(a)(48) of the U.S. Investment Company Act of 1940).

(iv) Neither the Company nor any of the Subsidiaries, nor, to the knowledge of the Company after due inquiry, any director, officer, agent, employee or other person associated with or acting on behalf of the Company or any of the Subsidiaries, has in the course of its actions for, or on behalf of, the Company or any of the Subsidiaries: (A) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (B) made any direct or indirect payment to any foreign or domestic government official from corporate funds in violation of the U.S. Foreign Corrupt Practices Act of 1977 or otherwise violated any applicable provision of such Act or of any other applicable anti-bribery statute or regulation; or (C) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any domestic government official, foreign official or employee that, in the aggregate, would reasonably be expected to result in a Material Adverse Effect. The Company and the Subsidiaries and, to the knowledge of the Company, the Affiliates of the Company and the Subsidiaries have conducted their respective businesses in compliance with the U.S. Foreign Corrupt Practices Act of 1977 and, except as would not reasonably be

expected to result in a Material Adverse Effect, all other applicable anti-bribery statutes and regulations, and the Company and the Subsidiaries maintain policies and procedures designed to ensure, and that are reasonably expected to continue to ensure, continued compliance with the U.S. Foreign Corrupt Practices Act of 1977 and other applicable anti-bribery statutes and regulations.

(v) The operations of the Company and the Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the money laundering statutes of all applicable jurisdictions (including the U.S. Currency and Foreign Transactions Reporting Act of 1970), the rules and regulations under such statutes, and any applicable related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency. No action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of the Subsidiaries with respect to any such statutes, rules, regulations or guidelines is pending or, to the knowledge of the Company, threatened.

(vi) Each Subsidiary formed under the laws of the People's Republic of China will timely reapply for, and obtain, social security registration certificates.

(j) *Material Adverse Events*. Since December 31, 2016, except as disclosed in the Draft Preliminary Prospectus, neither the Company nor any of the Subsidiaries has:

(i) sustained any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree,

(ii) issued or granted any securities,

(iii) incurred any material liability or obligation, direct or contingent, other than liabilities and obligations that were incurred in the ordinary course of business,

(iv) entered into any material transaction not in the ordinary course of business, or

(v) declared or paid any dividend on its capital stock.

Since December 31, 2016, except as disclosed in the Draft Preliminary Prospectus, there has not been any change in the capital stock (other than the issuance of Class A Shares, if any, pursuant to employee incentive plans or other stock options granted to employees) or long-term debt of the Company or any of the Subsidiaries or any adverse change, or any development involving a prospective adverse change, in or affecting the condition (financial or otherwise), results of operations, stockholders' equity, properties, management, business or prospects of the Company and the Subsidiaries taken as a whole, in each case except as would not, in the aggregate, reasonably be expected to have a Material Adverse Effect.

(k) *Assets*.

(i) The Company and the Subsidiaries have good and marketable title to all personal property owned by them and that are material to the business of the Company and the Subsidiaries, taken as a whole, in each case free and clear of all liens, encumbrances and defects, except such liens, encumbrances and defects as are described in the Draft Preliminary Prospectus or do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries. All assets held under lease by the Company and

the Subsidiaries that are material to the business of the Company are held by them under valid, subsisting and enforceable leases, with such exceptions as do not materially interfere with the use made and proposed to be made of such assets by the Company and the Subsidiaries.

(ii) The Company and the Subsidiaries own or possess adequate rights to use all material patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, know-how, software, systems and technology (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) necessary for the conduct of their respective businesses and have no reason to believe that the conduct of their respective businesses will conflict with, and have not received any notice of any claim of conflict with, any such rights of others.

(l) *Permits*. The Company and each of the Subsidiaries have such permits, licenses, patents, franchises, certificates of need and other approvals or authorizations of governmental or regulatory authorities as are necessary under applicable law to own their properties and conduct their businesses in the manner described in the Draft Preliminary Prospectus, except for any of the foregoing that would not, in the aggregate, reasonably be expected to have a Material Adverse Effect (the "*Permits*"). Neither the Company nor any of the Subsidiaries is in violation of, or in default under, any of the Permits, except as would not, in the aggregate, reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of the Subsidiaries has received notice of any revocation or modification of any Permits that, in the aggregate, if revoked or modified, would reasonably be expected to have a Material Adverse Effect.

(m) *Proceedings.* There are no legal or governmental proceedings pending to which the Company or any of the Subsidiaries is a party or of which any property or assets of the Company or any of the Subsidiaries is the subject that would, in the aggregate, reasonably be expected to have a Material Adverse Effect or a material adverse effect on the performance of this Agreement or the consummation of the transactions contemplated by this Agreement; and to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or others.

(n) *Contracts.* There are no contracts or other documents required to be described in the Draft S-1 Amendment or the Draft Preliminary Prospectus, or filed as exhibits to the Registration Statement, that are not described and filed as required. The statements made in the Draft Preliminary Prospectus, insofar as they purport to constitute summaries of the terms of the contracts and other documents described and filed, constitute accurate summaries of the terms of such contracts and documents in all material respects. Neither the Company nor any of the Subsidiaries has knowledge that any other party to any such contract or other document has any intention not to render full performance in all material respects as contemplated by the terms thereof. Except as described in the Draft Preliminary Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company owned or to be owned by such person or to require the Company to include such securities in the securities registered pursuant to the Registration Statement.

(o) *Insurance.* Except as would not reasonably be expected to have a Material Adverse Effect, the Company and each of the Subsidiaries carry, or are covered by, insurance from insurers of recognized financial responsibility in such amounts and covering such risks as is adequate for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar businesses in similar industries. All policies of insurance of the Company and the Subsidiaries are in full force and effect. The Company and the Subsidiaries are in compliance with the terms of such policies in all material respects. Neither the Company nor any of

the Subsidiaries has received notice from any insurer or agent of an insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance. There are no material claims by the Company or any of the Subsidiaries under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause. Neither the Company nor any of the Subsidiaries has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not reasonably be expected to have a Material Adverse Effect.

(p) *Related-Party Transactions.* No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company, on the other hand, that is required by the Securities Act and the rules and regulations thereunder to be described in the Draft Preliminary Prospectus and that is not so described.

(q) *Employees*.

(i) No labor disturbance by or dispute with the employees of the Company or any of the Subsidiaries exists or, to the knowledge of the Company, is imminent that could reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of the Subsidiaries is in violation of or has received notice of any violation with respect to any U.S. federal or state or foreign law relating to discrimination in the hiring, promotion or pay of employees, nor any applicable U.S. federal or state or foreign wage and hour laws, the violation of any of which could reasonably be expected to have a Material Adverse Effect.

(ii) The board of directors of the Company has adopted and approved a form of Confidentiality, Non-Competition and Intellectual Property Rights Agreement for execution by employees of the Company and its subsidiaries in the People's Republic of China, a true and correct copy of which form has been provided to the Purchaser. Such board has directed management of the Company to seek to enter into, by March 31, 2018, agreements substantially in such form with all the Company's employees working in the People's Republic of China, except any such employee with whom the Company has previously entered into a similar agreement that continues to be in effect. The Company and the Chief Executive Officer and President of the Company will enter into an agreement in such form by no later than October 12, 2017.

(r) *Taxes.* The Company and each of the Subsidiaries have filed all U.S. federal, state, local and foreign tax returns required to be filed through the date of this Agreement, subject to permitted extensions, and have paid all taxes due, and no tax deficiency has been determined adversely to the Company or any of the Subsidiaries, nor does the Company have any knowledge of any tax deficiencies that have been, or would reasonably be expected to be asserted against the Company, that would, in the aggregate, reasonably be expected to have a Material Adverse Effect.

4. Representations and Warranties of the Purchaser. The Purchaser by this Agreement represents and warrants to the Company as of the date of this Agreement and as of the Closing Date, as follows:

(a) *Authority.* The Purchaser has all requisite power and authority to execute, deliver and perform its obligations under the Lock-Up Agreement, this Agreement, the RRA and the Escrow Agreement. Each of the Lock-Up Agreement, this Agreement, the RRA and the Escrow Agreement has been duly and validly authorized, executed and delivered by the Purchaser and, when executed and delivered by the Company, will constitute a valid and legally binding obligation of the Purchaser, enforceable in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance and any other laws of general application affecting enforcement of creditors' rights generally and as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

(b) *Acquisition of Shares.* The Purchaser is acquiring the Shares for investment for its own account, not as a nominee or agent and not with a view to the resale or distribution of any interest in the Shares. The Purchaser has no present intention of selling, granting any participation in or otherwise distributing any interest in the Shares. The Purchaser does not presently have any contract, undertaking, agreement or arrangement with any individual or entity to sell, transfer or grant participations to either such individual or entity or any third party, with respect to the Shares.

(c) O*pportunity to Investigate.* The Purchaser has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Shares with the Company's management and has had an opportunity to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 3 or the right of the Purchaser to rely thereon.

(d) *Restricted Securities.* The Purchaser understands that the offering and sale of the Shares have not been, and will not be, registered under the Securities Act by reason of a specific exemption from the registration provisions of such Act that depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed in this Section 4. The Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to those laws, the Purchaser must hold the Shares indefinitely unless either they are registered with the SEC and qualified by state authorities or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify for resale the Shares, except as set forth in the RRA. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements, including the time and manner of sale and the holding period for the Shares, and on requirements relating to the Company that are outside of the Purchaser's control and that the Company is under no obligation, and may not be able, to satisfy.

(e) *Regulation S Status.* The Purchaser is not a U.S. person (as such term is defined in Regulation S under the Securities Act). At the time of the origination of discussion regarding the offer and sale of the Shares and the date of the execution and delivery of this Agreement, the Purchaser was at all times outside of the United States.

(f) *Legend.* The Purchaser understands that the Shares may be notated with the following legend together with any other legend required by the securities laws of any state to the extent such laws are applicable to the Shares represented by the certificate, instrument, or book entry so legended:

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AND (A) THESE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF OR (B) THE HOLDER OF THESE SECURITIES IS NOT A U.S. PERSON AND IS ACQUIRING THIS SECURITY IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH RULE 904 UNDER THE U.S. SECURITIES ACT OF 1933. NO TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL, IN A FORM SATISFACTORY TO ACM RESEARCH, INC., THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE U.S. SECURITIES ACT OF 1933."

The Purchaser consents to the Company making a notation in its records and giving instructions to any transfer agent of the Class A Shares in order to implement the restrictions on transfer set forth in this Agreement. The foregoing legend shall be removed from the certificate, instrument or book entry evidencing the Shares and the Company shall, or shall cause its transfer agent to, issue, no later than three Business Days after receipt of a request from the Purchaser, a certificate or certificates evidencing all or a portion of the Shares, as requested by the Purchaser, without such legend if: (i) the Shares have been resold under an effective registration statement under the Securities Act, (ii) the Shares have been transferred in compliance with Rule 144 under the Securities Act, (iii) all of the Shares are eligible for resale pursuant to such Rule 144 without restriction, or (iv) the Purchaser shall have provided the Company with an opinion of counsel reasonably acceptable to the Company, in form and substance, stating that the Shares may lawfully be transferred without registration under the Securities Act and that the foregoing legend may be removed following such transfer.

5. Conditions of the Company's Obligations at the Closing. The obligations of the Company to sell the Shares to the Purchaser under this Agreement are subject to the following conditions:

(a) *Representations.* The representations and warranties of the Purchaser contained in Section 4 shall be true and correct in all material respects as of the Closing.

(b) *Covenants*. The Purchaser shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Purchaser as of or before the Closing.

(c) *Lock-Up Agreement.* The Lock-Up Agreement shall continue to be in full force and effect.

(d) *IPO.* The IPO shall have been consummated.

6. Conditions of the Purchaser's Obligations at the Closing. The obligations of the Purchaser to purchase the Shares under this Agreement are subject to the following conditions:

(a) *Representations.* The representations and warranties of the Company contained in Section 3 shall be true and correct in all material respects as of the Closing.

(b) *Covenants*. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company as of or before the Closing.

(c) *Corporate Proceedings.* All corporate proceedings and other legal matters incidental to the authorization, form and validity of this Agreement and all other legal matters relating to this Agreement and the transactions contemplated by this Agreement, including the filing of the Restated Certificate of Incorporation of ACM Research, Inc. (in the form filed with the SEC by the Company as Exhibit 3.03 to the Registration Statement) shall be reasonably satisfactory in all material respects to the Purchaser, and the Company shall have furnished to the Purchaser all documents and information that they may reasonably request to enable them to pass upon such matters.

(d) *Subsidiaries*. As of the Closing, all of the subsidiaries of the Company, including ACM Research (Shanghai), Inc., shall be owned, directly or indirectly, by the Company.

(e) *IPO.* The IPO shall have been consummated, and K&L Gates LLP, counsel for the Company, shall have sent notice to the Purchasers and Sino IC confirming the completion of the closing of the IPO. The Nasdaq Global Market shall have approved the Shares for listing, subject only to official notice of issuance and evidence of satisfactory distribution.

(f) *Officers' Certificate.* The Company shall have furnished to the Purchaser a certificate, dated the Closing Date, of its Chief Executive Officer and its Chief Financial Officer certifying that:

(i) the representations and warranties of the Company in Section 3 are true and correct on and as of the Closing Date;

(ii) the Company has complied with all its agreements contained in this Agreement, and satisfied all the conditions on its part to be performed or satisfied under this Agreement, to the extent such agreements and conditions were to be performed or satisfied at or prior to the Closing Date; and

(iii) no stop order suspending the effectiveness of the Registration Statement has been issued, and no proceedings or examination for that purpose have been instituted or, to the knowledge of such officers, threatened.

(g) *RRA.* The RRA shall continue to be in full force and effect.

(h) *Legal Opinion Letter.* The Purchaser shall have received from K&L Gates LLP, counsel for the Company, a written opinion dated the Closing Date, substantially in the form attached to this Agreement as EXHIBIT A.

(i) *Share Certificates*. Prior to the Closing, the Purchaser shall have received from the transfer agent for the Class A Shares a "screen shot" depicting the certificate or certificates to be issued to represent the Shares. Such transfer agent shall, by 5 p.m., Pacific time, on the Closing Date, deposit such certificate or certificates with a courier or other agent identified by the Purchaser for delivery in accordance with instructions provided to the Company at least two Business Days prior to the Closing Date.

(j) *Sino IC Closing.* The closing of Sino IC's purchase of 833,334 Class A Shares pursuant to the Sino IC Agreement shall have closed simultaneously with or prior to the Closing.

7. Indemnification.

(a) *Indemnity.* The Company by this Agreement agrees to indemnify, defend and hold harmless the Purchaser, its Affiliates and each of their respective, directors, officers, employees, shareholders, representatives and agents ("*Indemnified Parties*") from, against and in respect of any damages, losses, charges, liabilities, claims demands, actions, suits, proceedings, payments, judgments, settlements, assessments, deficiencies, interest and costs and expenses ("*Losses*") imposed on, sustained, incurred or suffered by or asserted against any of the Indemnified Parties (whether in respect of third party claims, claims between the parties to this Agreement, or otherwise) directly or indirectly relating to or arising out of any breach by the Company of any of representations, warranty or agreement made by it in this Agreement. The indemnity set forth in this Section 7 will not be prejudiced, adversely affected or deemed waived by:

(i) reason of any investigation made by or on behalf of an Indemnified Party (including by any of its representatives or advisors) or by reason of the fact that an Indemnified Party or any of its representatives or advisors knew or should have known that any representation or warranty is, was or might be inaccurate or by reason of an Indemnified Party's waiver of any condition set forth in Section 5 or 6;

(ii) the execution, delivery or the performance of this Agreement; or

(iii) any other act or thing that may be done by or on behalf of any Indemnified Party in connection with this Agreement and that might, apart from this clause, prejudice or adversely affect such rights or remedies.

The Company further agrees to indemnify each of the Indemnified Parties against any Losses incurred by such Indemnified Party related to or arising from efforts to enforce or protect its rights under this Agreement or from the exercise of its rights or powers consequent upon or arising out of any breach of this Agreement by the Company. The remedies set forth in this Section 7 shall be without prejudice to all other rights and remedies that an Indemnified Party may have under applicable law and shall not be the sole and exclusive remedy of any Indemnified Party for any Loss suffered under this Agreement. Each Indemnified Party shall be entitled to pursue any remedy that is available to it under applicable law.

(b) *Judgment Currency*. The obligation of the Company in respect of any sum due to the Purchaser or any other Indemnified Party under this Agreement shall, notwithstanding any judgment in a currency other than U.S. dollars or any other applicable currency (the "*Judgment Currency*"), not be discharged until the first Business Day, following receipt by such Indemnified Party of any sum adjudged to be so due in the Judgment Currency, on which (and only to the extent that) such Indemnified Party may in accordance with normal banking procedures purchase U.S. dollars or any other applicable currency with the Judgment Currency. If the U.S. dollars or other applicable currency so purchased are less than the sum originally due to such Indemnified Party under this Agreement, the Company agrees, as a separate obligation and notwithstanding any such judgment, to indemnify such Indemnified Party against such Loss. If the U.S. dollars or other applicable currency so purchased are greater than the sum originally due to such Indemnified Party under this Agreement, such Indemnified Party agrees to pay to the Company an amount equal to the excess of the U.S. dollars or other applicable currency so purchased over the sum originally due to such Indemnified Party under this Agreement.

8. Termination. This Agreement shall terminate and be of no more force or effect upon the earliest to occur, if any, of: (a) the delivery by the Company or the Purchaser to each of the parties hereto, at any time before the Company files the Draft S-1 Amendment with the SEC under the Securities Act, of a notice to the effect that this Agreement is being terminated, (b) the delivery by the Company of notice to the Purchaser pursuant to Section 3(a)(iv), (c) the filing by the Company with the SEC of a request for withdrawal of the Registration Statement, (d) November 15, 2017, if the IPO has not consummated by such date, (e) upon delivery by the Purchase of an notice to the Company, if Sino IC has determined to not to proceed with the closing of its purchase of 833,334 Class A Shares pursuant to the Sino IC Agreement, or the Sino IC Agreement has been terminated, and (f) the written consent of each of the parties to this Agreement.

9. Miscellaneous.

(a) *Governing Law; Forum and Remedies*. The internal laws of the State of Delaware, irrespective of its conflicts of law principles, shall govern the validity of this Agreement, the construction of its terms, and the interpretation and enforcement of the rights and duties of the parties to this Agreement. The parties to this Agreement by this Agreement irrevocably submit to the exclusive jurisdiction of first, the Court of Chancery in the State of Delaware (and any appellate court thereof) and to the extent such Court of Chancery (or appellate court thereof) lacks jurisdiction over the matter, the Federal courts of the United States of America located in the State of Delaware (or appellate court thereof located within such county) solely in respect of the interpretation and enforcement of the provisions of this Agreement and of the documents referred to in this Agreement, and in respect of the transactions contemplated by this Agreement and thereby, and by this Agreement

waive, and agree not to assert, as a defense in any action, suit or proceeding for the interpretation or enforcement of this Agreement or thereof, that it is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in said courts or that the venue thereof may not be appropriate or that this Agreement or any such document may not be enforced in or by such courts, and the parties to this Agreement irrevocably agree that all claims with respect to such action or proceeding shall be heard and determined in such a Delaware state or Federal court. The parties by this Agreement consent to and grant any such court jurisdiction over the person of such parties and over the subject matter of such dispute and agree that mailing of process or other papers in connection with any such action or proceeding in the manner provided in Section 9(e), shall be valid and sufficient service thereof. Except as otherwise expressly provided in this Agreement, any and all remedies in this Agreement expressly conferred upon a party under this Agreement shall be deemed cumulative with and not exclusive of any other remedy conferred by this Agreement or by law on such party, and the exercise of any one remedy shall not preclude the exercise of any other. The parties to this Agreement agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to specific performance, an injunction or injunctions, or other equitable relief to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement, in accordance with this Section 9(a).

(b) *WAIVER OF JURY TRIAL*. EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE SHARES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THE PROVISIONS OF THIS PARAGRAPH HAVE BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

(c) *Amendments; No Waiver*. This Agreement may be amended, modified or waived if, and only if, such amendment, modification or waiver is in writing and signed, in the case of an amendment or modification, by each party to this Agreement, or in the case of a waiver, by the party against whom the waiver is to be effective. Any waiver by any party of a breach of any provision of this Agreement shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Agreement. The failure of a party to insist upon strict adherence to any term of this Agreement on one or more occasions shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.

(d) *Entire Agreement*. This Agreement, together with the Lock-Up Agreement, the RRA and the Escrow Agreement, constitutes the full and entire understanding and agreement between the parties with respect to the subject matter of this Agreement, and any other written or oral agreement relating to the subject matter of this Agreement existing between the parties is expressly canceled.

(e) *Notices*. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon (i) personal delivery to the party to be

notified, (ii) if sent by electronic mail, then (A) when sent, if sent between 9 a.m. and 5 p.m., Pacific time, on a Business Day or (B) as of 9 a.m. Pacific time on the next Business Day, if sent at any other time, (iii) if sent by U.S. registered or certified mail, return receipt requested, postage prepaid, the earlier of actual receipt and the fifth Business Day after having been deposited with the U.S. Postal Service, or (iv) if sent via an internationally recognized overnight courier, freight prepaid, specifying next or two Business Day delivery, with written verification of receipt, two Business Days after deposit with such courier. All communications shall be sent to a party to this Agreement at their respective addresses set forth below or to such other street or email address as subsequently modified by written notice given in accordance with this Section 9(e):

If to the Company:
ACM Research, Inc.
42307 Osgood Road, Suite I
Fremont, California 94539
Attention: David H. Wang
Email: dwang@acmrcsh.com

With a copy to (which shall not constitute notice):
K&L Gates LLP
State Street Financial Center
One Lincoln Street
Boston, MA 02111-2950
Attention: Mark L. Johnson
Email: mark.johnson@klgates.com

If to the Purchaser:
Victorious Way Limited
Room 601, GF, Overseas World Centre, No. 28, Ping'anli West Street
Xicheng District, Beijing 100034 China
Attention: Ms. Wenhan FAN
Email: Wenhan.Fan@everbright.com

(f) *Severability*. If at any time subsequent to the date of this Agreement, any provision of this Agreement shall be held by any court of competent jurisdiction to be illegal, void or unenforceable, such provision shall be of no force and effect, but the illegality or unenforceability of such provision shall have no effect upon the legality or enforceability of any other provision of this Agreement.

(g) *Counterparts*. This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(h) *Successors and Assigns*. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties to this Agreement or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(i) *Persons Entitled to Benefit of Agreement*. This Agreement shall inure to the benefit of and be binding upon the Purchaser, the Company and their respective successors. This Agreement and the

terms and provisions of this Agreement are for the sole benefit of only those persons, except that the representations, warranties, indemnities and agreements of the Company contained in this Agreement shall also be deemed to be for the benefit of the Indemnified Parties. Nothing in this Agreement is intended or shall be construed to give any person, other than the persons referred to in this Section 9(i), any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained in this Agreement.

(j) *Attorneys' Fees*. If any action at law or in equity (including arbitration) is necessary to enforce or interpret the terms of any of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

(k) *Delays or Omissions*. No delay or omission to exercise any right, power or remedy accruing to a party under this Agreement, upon any breach or default of another party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of a party of any breach or default under this Agreement, or any waiver on the part of a party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to a party, shall be cumulative and not alternative.

(l) *Interpretation and Construction*. For purposes of this Agreement:

(i) headings used in this Agreement are for convenience of reference only and shall not, for any purpose, be deemed a part of this Agreement;

(ii) any references in this Agreement to a Section or Exhibit refer to a Section of, or Exhibit attached to, this Agreement, unless specified otherwise;

(iii) the words "include" and "including" as used herein shall not be construed so as to exclude any other thing not referred to or described;

(iv) the word "or" is not exclusive;

(v) the definition given for any term in this Agreement shall apply equally to both the singular and plural forms of the term defined;

(vi) whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms;

(vii) unless the context otherwise requires, (A) references in this Agreement to an agreement, instrument or other document mean such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and (B) references in this Agreement to a statute means such statute as amended from time to time and include any successor legislation thereto and any rules and regulations promulgated thereunder; and

(viii) this Agreement shall be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted.

(m) *Waiver of Immunity*. With respect to any suit or proceeding arising out of or relating to this Agreement or the transactions contemplated by this Agreement, each party irrevocably waives, to the fullest extent permitted by applicable law, all immunity (whether on the basis of sovereignty or otherwise) from jurisdiction, service of process, attachment (both before and after judgment) and execution to which it might otherwise be entitled, and with respect to any such suit or proceeding, each party waives any such immunity in any court of competent jurisdiction, and will not raise or claim or cause to be pleaded any such immunity at or in respect of any such suit or proceeding, including any immunity pursuant to the U.S. Foreign Sovereign Immunities Act of 1976.

(n) *Other Private Placement*. To the extent that the Closing has not occurred and this Agreement has not been terminated in accordance with Section 8, the Company shall not, without the prior written consent of the Purchaser, enter into, amend or supplement any private placement arrangement or agreement in connection with the sale and purchase of the securities of the Company with any third-party financial investor ("*Other Placements*"), including any amendment or supplement to the Stock Purchase Agreement dated as , 2017 among the Company, Xunxin (Shanghai) Capital Co., Limited, Sino IC and David H. Wang (the "*Sino IC Agreement*"). The Company shall provide to the Purchaser any agreements related to such Other Placements promptly after the date of execution and delivery thereof (including the Sino IC Agreement and any other agreements signed in connection therewith).

[Signature Page Follows]

IN WITNESS WHEREOF, each of the parties has executed this Agreement or caused the same to be executed by its duly authorized representative as of the date first written above.

ACM RESEARCH, INC.

By: /s/ David H. Wang
David H. Wang
Chief Executive Officer and President

VICTORIOUS WAY LIMITED

By: /s/ Victorious Way Limited
Name:
Title:

SIGNATURE PAGE TO STOCK PURCHASE AGREEMENT

Exhibit 10.12

[EXECUTION VERSION]

NOMINATION AND VOTING AGREEMENT

TABLE OF CONTENTS

NOMINATION AND VOTING AGREEMENT

THIS NOMINATION AND VOTING AGREEMENT (this "*Agreement*"), dated as of October 11, 2017, is made by and among ACM Research, Inc., a Delaware corporation (the "*Company*"), Xinxin (Hongkong) Capital Co., Limited (the "*Holder*"), and the several individuals and entities named on SCHEDULE I (the "*Voting Holders*"). Certain capitalized terms used herein are defined in Section 1.

RECITALS

A. The Investors propose to purchase the Shares pursuant to the Purchase Agreement.

B. In connection with the Purchase Agreement and the Holder's acquisition of the Shares, the Holder desires to have the right, commencing as of the Closing, to identify a Designee for nomination and election to the Board at any Stockholder Meeting.

C. The Board has deemed it to be in the best interests of the Company and its stockholders to (i) elect the Designee to the Board effective upon the Closing and (ii) include the Designee in its slate of nominees for election as a director of the Company at each Stockholder Meeting thereafter during the term of this Agreement.

D. In consideration of the transactions contemplated by the Purchase Agreement, each of the Voting Holders desires to vote such Voting Holder's Voting Shares in favor of the election of the Designee at each such Stockholder Meeting, on the terms and conditions contained herein.

In consideration of and reliance upon the mutual covenants and agreements hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, intending to be legally bound, the parties hereto agree as follows:

1. Definitions.

(a) "*Affiliate*" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

(b) "*Board*" means the board of directors of the Company.

(c) "*Business Day*" means any day other than (i) a Saturday or Sunday or (ii) a day on which the Federal Reserve Bank of San Francisco is closed.

(d) "*Closing*" has the meaning set forth in the Purchase Agreement.

(e) "*Designee*" means an individual designated by the Holder for purposes of this Agreement.

(f) "*Exchange Act*" means the U.S. Securities Exchange Act of 1934, as amended.

(g) "*Expiration Date*" means the first date on which the Holder and its Affiliates collectively hold fewer than 625,000 of the Shares.

(h) "*Holder Observer*" has the meaning set forth in Section 4(c).

(i) "*Investors*" means the Holder and the other "Purchasers" named in the Purchase Agreement.

(j) "*Purchase Agreement*" means the Stock Purchase Agreement being entered into as of the date hereof among the Company and the Investors.

(k) "*Shares*" means the shares of the Company's Class A Common Stock to be sold to the Investors at the Closing pursuant to the Purchase Agreement.

(l) "*Stockholder Meeting*" means any annual or special meeting of the Company's stockholders at which directors of the Company are to be elected and that is held after the date of the Closing and before the Expiration Date.

(m) "*Voting Shares*" means, with respect to a Voting Holder, all shares of capital stock of the Company for which such Voting Holder either is the holder of record or otherwise has the power to direct the voting.

2. Designation Right.

(a) Prior to the Closing, the Board shall vote unanimously to elect to the Board, effective upon the Closing, , as the initial Designee. The Company confirms its understanding that the election of [Mr.][Ms.] to the Board effective upon the Closing is a condition precedent to the Holder's obligation to purchase the Shares at the Closing.

(b) Following the Closing and continuing until the Expiration Date, the Holder shall have the right, but not the obligation, to designate one person for nomination and election to the Board on the terms and conditions contained herein.

3. Nomination. Subject to Section 2(b):

(a) The Company shall use commercially reasonable efforts to include the Designee in its slate of nominees for election as a director of the Company at each Stockholder Meeting.

(b) As a condition of the Designee's election to the Board effective upon the Closing and any subsequent nomination for election of the Designee to the Board at a Stockholder Meeting, the Holder shall provide to the Company information required, together with any information reasonably determined by the Company (based upon the advice of its U.S. securities counsel and consistent with requests made by the Company of other similarly situated directors) to be appropriate, (i) for disclosure for directors, candidates for directors, and Affiliates of directors or director candidates in a proxy statement or any other filing by the Company under applicable law or stock exchange rules or listing standards, (ii) in connection with assessing eligibility, independence and other criteria applicable to directors or satisfying compliance and legal obligations, or (iii) in connection with the nomination and election of the Designee at a Stockholder Meeting.

(c) In the event of a vacancy on the Board created by the resignation, removal or death of a Designee, the Holder may identify a replacement Designee, in which case:

(i) if at such time (A) the Voting Shares of the Voting Holders, together with the Shares held by the Holder, represent a majority of the voting power needed to elect directors and (B) the certificate of incorporation of the Company, as then amended or restated, does not prohibit stockholders of the Company from acting by written consent in lieu of a meeting, then, within ten Business Days after receiving a written

request from the Holder, the Voting Holders and the Holder shall deliver a written consent of stockholders electing the replacement Designee as a member of the Board; or

(ii) if the Voting Holders and the Holder are unable, or otherwise fail for any reason, to deliver a written consent of stockholders in accordance with the preceding clause (i), then, upon receipt of a written request from the Holder, the Chairman of the Board shall, to the extent not precluded by applicable fiduciary duties or other legal requirements, either (A) include in the agenda for the next scheduled meeting of the Board the consideration of the replacement Designee for election as a member of the Board or (B) if the next meeting of the Board is not scheduled for a date within twenty Business Days after the Chairman of the Board receives such written request from the Holder, then the Chairman of the Board shall provide to members of the Board for their consideration a form of unanimous written consent of directors setting forth a resolution for the election of the replacement Designee as a member of the Board.

Notwithstanding the foregoing, if such vacancy is created between the date on which a proxy statement is mailed with respect to a Stockholder Meeting and the date on which such Stockholder Meeting is held, then, in lieu of the foregoing, the Company shall use commercially reasonable efforts to include the replacement Designee in its slate of nominees for election as a director of the Company at such Stockholder Meeting, including, subject to receipt of required consents and approvals of the Board and to the Holder's provision of the information described in Section 3(b), to amend such proxy statement as necessary to include the replacement Designee as a director nominee.

4. Voting Agreement. Subject to Section 2:

(a) Each Voting Holder shall appear in person or by proxy at each Stockholder Meeting, shall vote (or cause to be voted) all of such Voting Holder's Voting Shares in favor of the election of the Designee to the Board at each Stockholder Meeting at which the Designee is a Board nominee, and shall not vote in favor of the removal of the Designee except at the Holder's request.

(b) Solely in the event of a failure by a Voting Holder to act in accordance with Section 4(a) within ten Business Days (as defined in Section 10(d)) of such Voting Holder's receipt of a written request by the Company or any other party for his consent or signature in connection with the election of the Designee at a Stockholder Meeting, such Voting Holder hereby irrevocably grants to and appoints the Holder (and any Affiliate thereof) as such Voting Holder's proxy and attorney-in-fact (with full power of substitution), for and in the name, place and stead of such Voting Holder, to (i) represent such Voting Holder's Voting Shares at such Stockholder Meeting for quorum purposes and (ii) vote the Voting Shares at such Stockholder Meeting in accordance with Section 4(a) until, subject to applicable law, the Expiration Date, to the same extent and with the same effect as such Voting Holder could do under applicable law. Each Voting Holder intends that the proxy granted by such Voting Holder pursuant to this Section 4(b) be irrevocable and coupled with an interest and hereby revokes any proxy previously granted by such Voting Holder with respect to such Voting Holder's Voting Shares. Each Voting Holder hereby ratifies and confirms all actions that the proxy appointed hereunder may lawfully do or cause to be done in accordance with this Agreement. Notwithstanding the foregoing, each Voting Holder's proxy pursuant to this Section 4(b) shall automatically be revoked on the Expiration Date. The Holder may terminate this proxy with respect to any Voting Holder at any time at its sole election by written notice provided to such Voting Holder.

(c) Notwithstanding any other provision in this Agreement to the contrary, at any time the Designee is not serving as a member of the Board, the Holder shall have the right to designate one individual (the "*Holder Observer*") who will be permitted to (i) attend and observe, but not otherwise participate in, all meetings of the Board and (ii) receive (on a concurrent basis) all notices and other information provided by the Company to directors in their capacity as directors, except that (A) as a condition to allowing the Holder Observer to attend meetings of the Board or to receive any information, the Company may require that the Holder Observer execute a confidentiality agreement, reasonably satisfactory in form and substance to the Company, with respect to the information to be provided, or the matters to be discussed, at any meeting of the Board and (B) the Company may exclude the Holder Observer from any meeting of the Board, or any portion thereof, or deny access to any information or portion thereof provided to directors, if the Company reasonably determines that the Holder Observer's participation in such meeting, or access to such applicable information, could (1) result in a waiver of the attorney-client privilege (based on the advice of Company counsel) with respect to any matters to be discussed or any matters included in the information to be distributed, (2) cause the Company to violate obligations with respect to confidential or proprietary information of third parties, *provided* that the Holder Observer shall not be so excluded from any such meeting, or denied access to any such information, unless the Company also excludes all other persons whose participation in such meeting, or receipt of such information, could result in a violation of such third-party obligations, or (3) pose an actual or potential conflict of interest for the Holder, any of its Affiliates or the Holder Observer.

5. Representations and Warranties of the Company. The Company represents and warrants to the Holder as follows:

(a) The Company has the power and authority to execute, deliver and carry out the terms and provisions of this Agreement and to perform its obligations hereunder.

(b) This Agreement has been duly and validly authorized, executed and delivered by the Company and, assuming due execution and delivery by the other parties, constitutes a valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

6. Representations and Warranties of the Holder. The Holder represents and warrants to the Company and each of the Voting Holders as follows:

(a) The Holder has the power and authority to execute, deliver and carry out the terms and provisions of this Agreement and to perform its obligations hereunder.

(b) This Agreement has been duly and validly authorized, executed and delivered by the Holder and, assuming due execution and delivery by the other parties, constitutes a valid and binding obligation of the Holder, enforceable against the Holder in accordance with its terms.

7. Representations and Warranties of the Voting Holders. Each of the Voting Holders severally, but not jointly, represents and warrants to the Holder as follows:

(a) If such Voting Holder is an entity, it (i) has the power and authority to execute, deliver and carry out the terms and provisions of this Agreement and to perform its obligations hereunder and (ii) has duly and validly authorized the execution and delivery of this Agreement.

(b) This Agreement has been duly and validly executed and delivered by such Voting Holder and, assuming due execution and delivery by the other parties, constitutes a valid and binding obligation of such Voting Holder, enforceable against such Voting Holder in accordance with its terms.

8. Indemnification Agreement. , as the initial Designee, shall be offered the opportunity to enter into, effective as of the Closing, an indemnification agreement with the Company in the form of Exhibit A. The Company confirms that the indemnification agreement attached as Exhibit A is consistent in all material respects with the form previously approved by the Board and the stockholders of the Company for execution with, and delivery to, members of the Board from time to time.

9. Termination. This Agreement shall automatically terminate without further action by any of the parties hereto as of the Expiration Date. Upon termination of this Agreement, no party shall have any further obligations or liabilities under this Agreement, *provided* that (i) nothing set forth in this Section 9 shall relieve any party from liability for any breach of this Agreement occurring prior to the termination hereof and (ii) the provisions of this Section 9 and Section 10 shall survive any termination of this Agreement.

10. Miscellaneous.

(a) *Governing Law; Forum and Remedies*. The internal laws of the State of Delaware, irrespective of its conflicts of law principles, shall govern the validity of this Agreement, the construction of its terms, and the interpretation and enforcement of the rights and duties of the parties hereto. The parties hereto hereby irrevocably submit to the exclusive jurisdiction of first, the Court of Chancery in the State of Delaware (and any appellate court thereof) and to the extent such Court of Chancery (or appellate court thereof) lacks jurisdiction over the matter, the Federal courts of the United States of America located in the State of Delaware (or appellate court thereof located within such county) solely in respect of the interpretation and enforcement of the provisions of this Agreement and of the documents referred to in this Agreement, and in respect of the transactions contemplated hereby and thereby, and hereby waive, and agree not to assert, as a defense in any action, suit or proceeding for the interpretation or enforcement hereof or thereof, that it is not subject thereto or that such action, suit or proceeding may not be brought or is not maintainable in said courts or that the venue thereof may not be appropriate or that this Agreement or any such document may not be enforced in or by such courts, and the parties hereto irrevocably agree that all claims with respect to such action or proceeding shall be heard and determined in such a Delaware state or Federal court. The parties hereby consent to and grant any such court jurisdiction over the person of such parties and over the subject matter of such dispute and agree that mailing of process or other papers in connection with any such action or proceeding in the manner provided in Section 10(d), shall be valid and sufficient service thereof. Except as otherwise expressly provided herein, any and all remedies herein expressly conferred upon a party hereunder shall be deemed cumulative with and not exclusive of any other remedy conferred hereby or by law on such party, and the exercise of any one remedy shall not preclude the exercise of any other. The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, in accordance with this Section 10(a).

(b) *Amendments; No Waiver*. This Agreement may be amended, modified or waived if, and only if, such amendment, modification or waiver is in writing and signed, in the case of an amendment or modification, by each party to this Agreement, or in the case of a waiver, by the party against whom the waiver is to be effective. Any waiver by any party of a breach of any provision of this Agreement shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Agreement. The failure of a party to insist upon strict adherence to any term of this Agreement on one or more occasions shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.

(c) *Entire Agreement*. This Agreement constitutes the sole and entire agreement of the parties to this Agreement with respect to the subject matter contained herein.

(d) *Notices*. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon (i) personal delivery to the party to be notified, (ii) if sent by electronic mail, then (A) when sent, if sent between 9 a.m. and 5 p.m., Pacific time, on a Business Day or (B) as of 9 a.m. Pacific time on the next Business Day, if sent at any other time, (iii) if sent by U.S. registered or certified mail, return receipt requested, postage prepaid, the earlier of actual receipt and the fifth Business Day after having been deposited with the U.S. Postal Service, or (iv) if sent via an internationally recognized overnight courier, freight prepaid, specifying next or two Business Day delivery, with written verification of receipt, two Business Days after deposit with such courier. All communications shall be sent to the Company or the Holder at their respective addresses set forth below or to any Voting Holder at such Voting Holder's address as set forth on Schedule I or to such other street or email address as subsequently modified by written notice given in accordance with this Section 10(d).

If to the Company:

ACM Research, Inc.
42307 Osgood Road, Suite I
Fremont, California 94539
Attention: David H. Wang
Email: dwang@acmrcsh.com

With a copy to (which shall not constitute notice)

K&L Gates LLP
State Street Financial Center
One Lincoln Street
Boston, MA 02111-2950
Attention: Mark L. Johnson
Email: mark.johnson@klgates.com

If to the Holder:

Xinxin (Hongkong) Capital Co., Limited
3rd Floor North, No. 7 Financial Street
Xicheng District, Beijing 100033, P. R. China
Attention: Qian Zhao
Email: zhaoqian@ic-capital.com

(e) *Severability*. If at any time subsequent to the date hereof, any provision of this Agreement shall be held by any court of competent jurisdiction to be illegal, void or unenforceable, such provision shall be of no force and effect, but the illegality or unenforceability of such provision shall have no effect upon the legality or enforceability of any other provision of this Agreement.

(f) *Counterparts*. This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(g) *Successors and Assigns*. This Agreement and the rights hereunder shall not be assignable or assigned, directly or indirectly, by operation of law or otherwise, by any of the parties to this Agreement.

(h) *No Third Party Beneficiaries*. This Agreement is solely for the benefit of the parties hereto and is not enforceable by any other persons.

(i) *Fees and Expenses*. All costs and expenses incurred in connection with this Agreement shall be paid by the party incurring such cost or expense.

(j) *Interpretation and Construction*. For purposes of this Agreement:

(i) headings used in this Agreement are for convenience of reference only and shall not, for any purpose, be deemed a part of this Agreement;

(ii) any references herein to a Section or Exhibit refer to a Section of, or Exhibit attached to, this Agreement, unless specified otherwise;

(iii) the words “herein,” “hereof,” “hereby,” “hereto” and “hereunder” refer to this Agreement as a whole;

(iv) the words “include,” “includes” and “including” as used herein shall not be construed so as to exclude any other thing not referred to or described;

(v) the word “or” is not exclusive;

(vi) the definition given for any term in this Agreement shall apply equally to both the singular and plural forms of the term defined;

(vii) whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms;

(viii) unless the context otherwise requires, (i) references herein to an agreement, instrument or other document mean such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and (ii) references herein to a statute means such statute as amended from time to time and includes any successor legislation thereto and any rules and regulations promulgated thereunder; and

(ix) this Agreement shall be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted.

[Signature Page Follows]

IN WITNESS WHEREOF, each of the parties has executed this Agreement or caused the same to be executed by its duly authorized representative as of the date first written above.

ACM RESEARCH, INC.

By: /s/ David H. Wang
David H. Wang
Chief Executive Officer and President

XINXIN (HONGKONG) CAPITAL CO., LIMITED

By: /s/ Xinxin (Hongkong) Capital Co., Limited
Name:
Title:

VOTING HOLDERS:

DAVID H. WANG

/s/ David H. Wang

JING CHEN

/s/ Jing Chen

BRIAN WANG

/s/ Brian Wang

SOPHIA WANG

/s/ Sophia Wang

HAIPING DUN

/s/ Haiping Dun

EXHIBIT A

Form of Indemnification Agreement

SCHEDULE I

VOTING HOLDERS

Name and Address
David H. Wang
Jing Chen
Brian Wang
Sophia Wang
Haiping Dun

Exhibit 10.13

VOTING AGREEMENT

THIS VOTING AGREEMENT (this "**Agreement**") is made and entered into as of March 23, 2017, by and among ACM Research, Inc. (the "**Company**"), Shanghai Technology Venture Capital Co., Ltd. ("**STVC**"), and each holder of the Company's Class B common stock, $0.0001 par value per share (the "**Class B Stock**"), listed on SCHEDULE A (collectively with any subsequent investors, or transferees, who become parties hereto as "Stockholders" pursuant to Section 4.1 or 4.2, the "**Stockholders**").

WHEREAS, concurrently with the execution of this Agreement, the Company and STVC are entering into a Securities Purchase Agreement providing for the sale of shares (the "**Shares**") of the Company's Series E preferred stock, $0.0001 par value per share ("**Series E Stock**"), to STVC, and in connection with that agreement the parties desire to provide STVC with rights regarding STVC's designation of one nominee to serve as a member of the board of directors of the Company (the "**Board**") in accordance with the terms of this Agreement.

NOW, THEREFORE, the parties agree as follows:

1. Voting Provisions Regarding Board.

1.1 Board Composition. Subject to and effective upon the parties' execution and delivery of this Agreement, the Board has approved an increase in the size of the Board by one seat and the appointment of Xiang, Yinan, who has been designated by STVC, to fill such vacancy. For so long as STVC beneficially owns (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended) (x) all of the Shares that have not been converted into shares of the Company's Class A Common Stock, $0.0001 par value per share, in accordance with the terms of the Company's Certificate of Incorporation, as amended and restated from time to time, (y) all of the shares of such Class A Common Stock into which any or all of the Shares have been so converted, and (z) all of the shares of any voting capital stock then:

(a) the Company will include one individual designated by STVC (the "**Designee**") in any slate of nominees for election as directors of the Company at each annual meeting of stockholders of the Company held after the date of this Agreement, including any adjournment, recess or postponement of any such meeting, or in connection with any written consent of the stockholders of the Company in lieu of such an annual meeting (each, a "**Stockholder Vote**");

(b) the Company will use its reasonable best efforts to cause the election of the Designee to the Board in connection with any Stockholder Vote for which the Company is required to include the Designee in its slate of nominees pursuant to clause (a) above and to otherwise support the Designee for election to the Board in a manner no less rigorous and favorable than the manner in which the Company supports its other nominees in the aggregate in connection with such Stockholder Vote; and

(c) in connection with each Stockholder Vote for which the Company is required to include the Designee in its slate of nominees pursuant to clause (a) above, each Stockholder will, to the extent that its Covered Shares (as defined below) are entitled to vote thereon or consent thereto: (i) appear at any meeting for a Stockholder Vote or otherwise cause all of its Covered Shares to be counted as present thereat for purposes of calculating a quorum; and (ii) vote (or cause to be voted), in person or by proxy, or deliver (or cause to be delivered) a written consent covering, all of its Covered Shares in favor of the election of the Designee.

"**Covered Shares**" means, with respect to a Stockholder, any shares of voting capital stock of the Company that are beneficially owned by the Stockholder on the date hereof, together with any other shares of voting capital stock of the Company that the Stockholder acquires beneficial ownership of after the date of this Agreement.

1.2 Failure to Designate a Nominee. In the absence of any designation by STVC, the director previously designated by it and then serving shall be deemed the Designee for purposes of Section 1.1 if still eligible to serve as provided herein.

1.3 Removal of Board Member. Each Stockholder also agrees to vote, or cause to be voted, all of its Covered Shares, at each Stockholder Vote, in whatever manner as shall be necessary for the purpose of providing that:

(a) no Designee serving on the Board may be removed from office other than for cause unless (i) such removal is directed or approved by STVC or (ii) STVC is no longer entitled to designate a Designee;

(b) any vacancy created by the resignation, removal or death of a Designee shall be filled pursuant to the provisions of this Section 1 or otherwise in accordance with the Company's certificate of incorporation (as may be amended), provided any such person shall be approved by STVC in advance; and

(c) upon the request of STVC, a Designee is removed from the Board.

1.4 No Liability for Election of Designee. Neither STVC, nor any affiliate of STVC, shall have any liability as a result of designating a person for election as a director for any act or omission by such Designee in his or her capacity as a director of the Company, nor shall any Stockholder have any liability as a result of voting for any such Designee in accordance with the provisions of this Agreement.

2. Remedies.

2.1 Specific Enforcement. The Company and the Stockholders acknowledge and agree that STVC will be irreparably damaged in the event any of the provisions of Section 1 are not performed by the Company or any Stockholder in accordance with their specific terms or are otherwise breached. Accordingly, it is agreed that STVC shall be entitled to an injunction to prevent breaches of this Agreement, and to specific enforcement of this Agreement and its terms and provisions in any action instituted in any court of the United States or any state having subject matter jurisdiction.

2.2 Remedies Cumulative. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

3. Term. This Agreement shall be effective as of the date hereof and shall continue in effect until and shall terminate automatically upon the earlier to occur of (a) termination in accordance with Section 4.8 and (b) the first date on which STVC is no longer entitled to designate a Designee.

4. Miscellaneous.

4.1 Additional Parties. If the Company issues additional shares of Series E Stock after the date hereof, as a condition to the issuance of such shares the Company shall require that any purchaser thereof become a party to this Agreement by executing and delivering (i) the Adoption Agreement attached to this Agreement as Exhibit A or (ii) a counterpart signature page hereto agreeing to be bound by and subject to the terms of this Agreement as a Stockholder hereunder. In either event, each such

person shall thereafter be deemed a Stockholder for all purposes under this Agreement. Nothwithstanding the foregoing, no purchaser of Series E Stock shall be required to become a party to this Agreement if, immediately after its purchase of shares, STVC and the other Stockholders, if any, party to this Agreement collectively beneficially own a majority of the then-outstanding shares of Series E Stock

4.2 Transfers. Each transferee or assignee of any Class B Stock or Series E Stock subject to this Agreement shall continue to be subject to the terms hereof, and, as a condition precedent to the Company's recognizing such transfer, each transferee or assignee shall agree in writing to be subject to each of the terms of this Agreement by executing and delivering an Adoption Agreement substantially in the form attached hereto as Exhibit A. Upon the execution and delivery of an Adoption Agreement by any transferee, such transferee shall be deemed to be a party hereto as if such transferee were the transferor and such transferee's signature appeared on the signature pages of this Agreement and shall be deemed to be a Stockholder. The Company shall not permit the transfer of the Class B Stock or Series E Stock subject to this Agreement on its books or issue a new certificate representing any such stock unless and until such transferee shall have complied with the terms of this Section 4.2. Each certificate instrument representing shares of Class B Stock or Series E Stock subject to this Agreement if issued on or after the date of this Agreement shall be notated by the Company with an appropriate legend indicating the requirements under this Section 4.2.

4.3 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

4.4 Governing Law. This Agreement shall be governed by the internal law of the State of Delaware.

4.5 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

4.6 Headings. The headings used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

4.7 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon (a) personal delivery to the party to be notified, (b) if sent by electronic mail, then (i) when sent, if sent between 9 a.m. and 5 p.m., Pacific time, on a Business Day or (ii) as of 9 a.m. Pacific time on the next Business Day, if sent at any other time, (c) if sent by U.S. registered or certified mail, return receipt requested, postage prepaid, the earlier of actual receipt and the fifth Business Day after having been deposited with the U.S. Postal Service, or (d) if sent via an internationally recognized overnight courier, freight prepaid, specifying next or two Business Day delivery, with written verification of receipt, two Business Days after deposit with such courier. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which the Federal Reserve Bank of San Francisco is closed. All communications shall be sent to the respective parties at their email or street address as set forth on SCHEDULE A, or to such email or street address as subsequently modified by written notice given in accordance with this Section 4.7. If notice is given to the Company, a copy shall also be sent to K&L Gates LLP, One Lincoln Street, Boston, MA 02111, Attn: Mark L. Johnson, and if notice is given to any or all of the Stockholders, a copy shall also be given to the Company at 42307 Osgood Road, Suite 1, Fremont, CA 94539, Attn: Chief Executive Officer.

4.8 Consent Required to Amend, Terminate or Waive. This Agreement may be amended or terminated and the observance of any term hereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only by a written instrument executed by the Company, STVC; and the holders of a majority of the shares of each of Class B Stock and Series E Stock held by the Stockholders. Notwithstanding the foregoing:

(a) this Agreement may not be amended or terminated and the observance of any term of this Agreement may not be waived with respect to any Stockholder without the written consent of such Stockholder unless such amendment, termination or waiver applies to all Stockholders in the same fashion;

(b) SCHEDULE A may be amended by the Company from time to time to add information regarding additional Stockholders without the consent of the other parties hereto; and

(c) any provision hereof may be waived by the waiving party on such party's own behalf, without the consent of any other party.

The Company shall give prompt written notice of any amendment, termination, or waiver hereunder to any party that did not consent in writing thereto. Any amendment, termination, or waiver effected in accordance with this Section 4.8 shall be binding on each party and all of such party's successors and permitted assigns, whether or not any such party, successor or assignee entered into or approved such amendment, termination or waiver. For purposes of this Section 4.8, the requirement of a written instrument may be satisfied in the form of an action by written consent of the Stockholders circulated by the Company and executed by the Stockholder parties specified, whether or not such action by written consent makes explicit reference to the terms of this Agreement.

4.9 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default previously or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

4.10 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

4.11 Entire Agreement. This Agreement (including the Exhibits hereto), the Purchase Agreement and the Tripartite Agreement, by and among the Company, STVC and Shanghai Venture Capital Co., Ltd. constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

4.12 Further Assurances. At any time or from time to time after the date hereof, the parties agree to cooperate with each other, and at the request of any other party, to execute and deliver any further instruments or documents and to take all such further action as the other party may reasonably

request in order to evidence or effectuate the consummation of the transactions contemplated hereby and to otherwise carry out the intent of the parties hereunder.

4.13 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of Delaware and to the jurisdiction of the United States District Court for the District of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Delaware or the United States District Court for the District of Delaware, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

Each party will bear its own costs in respect of any disputes arising under this Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Voting Agreement as of the date first written above.

ACM Research Inc.

By: /s/ David H. Wang
Name:
Title:

Shanghai Technology Venture Capital Co., Ltd.:

By: /s/ Shanghai Technology Venture Capital Co., Ltd.
Name:
Title:

STOCKHOLDERS:

[For individual:]

(Name)

[For entity:]

(Name)

By:
Name:
Title:

SCHEDULE A

STOCKHOLDERS

Name and Email and Street Addresses	Number of Shares of Class B Stock Held	Number of Shares of Series E Stock Held

EXHIBIT A

ADOPTION AGREEMENT

This Adoption Agreement (this "**Adoption Agreement**") is executed on _____, 20__, by the undersigned (the "**Holder**") pursuant to the terms of the Voting Agreement as of _____, 2017 (the "**Agreement**"), by and among the Company, Shanghai Technology Venture Capital Co., Ltd. and certain other Stockholders party thereto, as such Agreement may be amended from time to time. Capitalized terms used but not defined in this Adoption Agreement shall have the respective meanings ascribed to such terms in the Agreement. By the execution of this Adoption Agreement, the Holder agrees as follows.

1.1 Acknowledgement. The Holder is acquiring shares of capital stock of the Company for one of the following reasons and agrees as follows (check the correct box):

☐ As a transferee of Class B Stock from a party in such party's capacity as a "Stockholder" bound by the Agreement, and after such transfer, the Holder shall be considered a "Stockholder" for all purposes of the Agreement.

☐ As a transferee of Series E Stock from a party in such party's capacity as a "Stockholder" bound by the Agreement, and after such transfer, the Holder shall be considered a "Stockholder" for all purposes of the Agreement.

☐ As a new Stockholder in accordance with Section 4.1 of the Agreement, in which case the Holder will be a "Stockholder" for all purposes of the Agreement.

1.2 Agreement. The Holder (a) agrees that the Holder's Class B Stock and/or Series E Stock, and any other shares of capital stock or securities required by the Agreement to be bound thereby, shall be bound by and subject to the terms of the Agreement and (b) adopts the Agreement with the same force and effect as if the Holder were originally a party thereto.

1.3 Notice. Any notice required or permitted by the Agreement shall be given to the Holder at the email or street address listed below the Holder's signature hereto.

HOLDER:_____

By:_____
Name and Title of Signatory

Address:_____

_____

_____

Email Address:_____

ACCEPTED AND AGREED:

ACM Research Inc.

By:_____

Title:_____

Exhibit 23.01

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

ACM Research, Inc.
42307 Osgood Road, Suite I
Fremont, California 94539
United States

We hereby consent to the use in the Prospectus constituting a part of this Registration Statement on Form S-1 of ACM Research, Inc. of our report dated September 13, 2017, relating to the consolidated financial statements of ACM Research, Inc. for the years ended December 31, 2016 and 2015, which is contained in that Prospectus.

We also consent to the reference to us under the caption “Experts” in the Prospectus.

/s/ BDO China Shu Lun Pan Certified Public Accountants LLP

Shenzhen, the People’s Republic of China
October 18, 2017