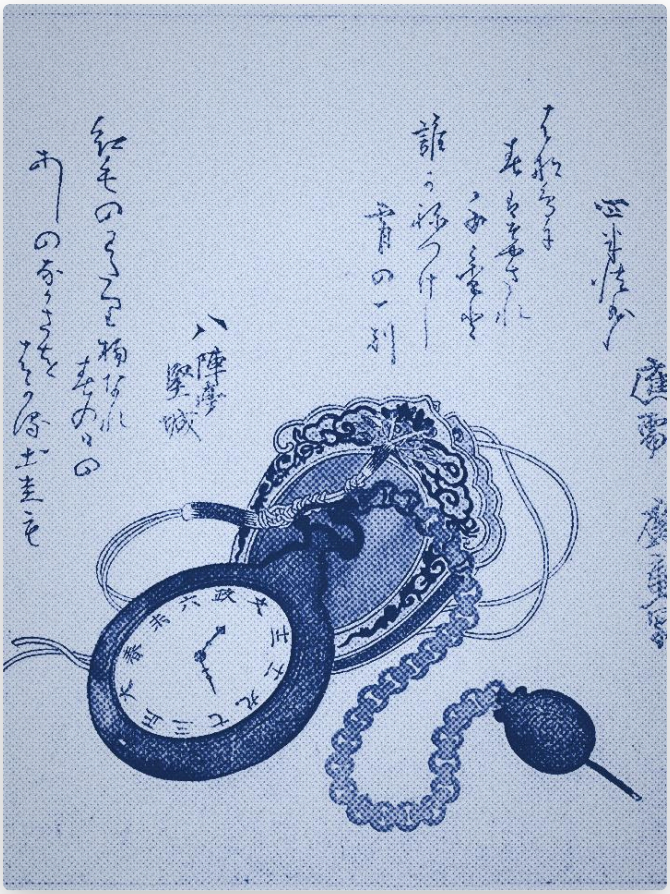
FORM S-1 · REGISTRATION STATEMENT

SITIME Corp

IPO priced 2019-11-21 · $13.00 a share · SITM



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As filed with the Securities and Exchange Commission on October 23, 2019.

REGISTRATION NO. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

SITIME CORPORATION

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

Delaware	3674	02-0713868
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE NUMBER)	(I.R.S. EMPLOYER IDENTIFICATION NUMBER)

SITIME CORPORATION

5451 PATRICK HENRY DRIVE

SANTA CLARA, CALIFORNIA 95054

(408) 328-4400

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

RAJESH VASHIST

CHIEF EXECUTIVE OFFICER

SITIME CORPORATION

5451 PATRICK HENRY DRIVE

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes 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, 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, a 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.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐	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	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(1)(2)	AMOUNT OF REGISTRATION FEE
Common Stock, $0.0001 par value per share	$100,000,000	$12,980

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(2) Includes the aggregate offering price of additional shares that the underwriters have the option to purchase to cover over-allotments, if any.

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 the provisions of 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 said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities.

PRELIMINARY PROSPECTUS

(SUBJECT TO COMPLETION, DATED OCTOBER 23, 2019)

SHARES

COMMON STOCK

This is the initial public offering of shares of common stock of SiTime Corporation. We are offering shares of our common stock. No public market currently exists for our shares. We anticipate that the initial public offering price will be between $ and $ per share. We are currently a wholly owned subsidiary of MegaChips Corporation, or MegaChips. Upon completion of this offering, MegaChips will own approximately % of our outstanding common stock (approximately % if the underwriters exercise their over-allotment option in full). For additional information regarding our relationship with MegaChips, see "Certain Relationships and Related Party Transactions" and "Principal Stockholder." Upon completion of this offering, we will be a "controlled company" within the meaning of the listing rules of The Nasdaq Stock Market LLC.

WE HAVE APPLIED TO HAVE OUR COMMON STOCK LISTED ON THE NASDAQ GLOBAL SELECT MARKET UNDER THE SYMBOL "SITM."

We are an "emerging growth company," as defined under the federal securities laws and are subject to reduced public company reporting requirements. Investing in our common stock involves risks. See "Risk Factors" beginning on page 14.

PRICE $ PER SHARE

	Price to Public	Underwriting Discounts and Commissions[1]	Proceeds to SiTime
Per share		$	$
Total		$	$

(1) See "Underwriting" for a description of the compensation payable to the underwriters.

We have granted the underwriters the right to purchase up to additional shares of common stock from us, solely to cover over-allotments, if any.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of common stock to purchasers on or about , 2019.

Barclays		STIFEL
Needham & Company	RAYMOND JAMES	**Roth Capital Partners**

, 2019

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Neither we nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. Neither we nor the underwriters take any responsibility for, or can provide any assurance as to the reliability of, any other information that others may give you. We are not offering to sell, or seeking offers to buy, shares of our common stock in any jurisdiction where these offers and sales are not permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations, and prospects may have and are likely to have changed since that date.

Through and including , 2019 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

For investors outside 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 in the United States. Persons outside 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 our common stock and the distribution of this prospectus outside of the United States.

Prospectus Summary

PROSPECTUS SUMMARY *This summary highlights information contained elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and related notes and the information set forth in "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Unless the context otherwise requires, the terms "SiTime," "the company," "we," "us," and "our" in this prospectus refer to SiTime Corporation and its subsidiaries.*

Our Mission

Our mission is to be the preeminent timing systems solutions provider for today's electronics and tomorrow's technological advances by providing the highest performance timing solutions.

Company Overview

We are a leading provider of silicon timing systems solutions. Our timing solutions are the heartbeat of our customers' electronic systems, solving complex timing problems and enabling industry-leading products. We are disrupting a timing market generally addressed by 70-year old technology. According to Dedalus Consulting and our estimates, the global timing market is over $7.7 billion as of 2018 and is expected to grow to $10.1 billion by 2024. To date, we have generated substantially all of our revenue from sales of oscillator systems, which represent approximately $3.8 billion of this $7.7 billion market. Our current products also include resonators and clock ICs, which represent approximately $2.9 billion and $1.0 billion of this market, respectively. We have generated modest revenue to date from sales of resonators and de minimis revenue from sales of clock ICs, which we began sampling in the second quarter of 2019. We believe we are disrupting this market from a technological perspective since we are focused on designing system-level timing solutions based entirely on silicon, in contrast to legacy quartz-based timing solutions, and we believe we are currently the only company focused on designing and producing all components of a timing solution, in contrast to other companies which typically design only one or two components. We believe we are also disrupting this market because we offer products differentiated by high

performance and reliability, programmability, small size, low power consumption, temperature stability, and resilience to mechanical shock and vibration, at an optimum price. We believe we are the only semiconductor company focused entirely on all aspects of timing technology. In addition, we are the only silicon timing systems solutions provider that designs sophisticated system-level timing solutions based entirely on silicon technology. We believe we are also the only such provider that operates a fabless business model, which allows us to quickly scale production and reduce our capital expenditures. We believe we are also the only silicon timing systems solution provider that offers a lifetime warranty on its products. At the forefront of a revolution in timing, our all-silicon solutions enjoy significant competitive advantages and are based on three fundamental areas of expertise: Microelectromechanical Systems, or MEMS, analog mixed-signal design capabilities, and advanced system-level integration expertise. Our solutions have been designed into over 200 applications across our target markets, including enterprise and telecommunications infrastructure, automotive, industrial, Internet of Things, or IoT, and mobile, and aerospace and defense. As of September 30, 2019, we have shipped over 1.5 billion units to over 10,000 end customers, which we believe is a substantially greater number of units shipped than any other MEMS timing company. Our top end customers by revenue for the six months ended June 30, 2019 include Apple Inc., or Apple, Fitbit, Inc., or Fitbit, Garmin Ltd., or GARMIN, Hangzhou Hikvision Digital Technology Co., Ltd., or HiKVision, Samsung Electronics Co., Ltd., or Samsung, Google Inc., or Google, Microsoft Corporation, or Microsoft, Dell Inc., or Dell, and Huami Corporation, or Huami.

Timing solutions ensure that electronic systems run reliably by providing a precise timing signal tailored to specific application requirements. To solve our customers' timing challenges, we focus on designing sophisticated system-level timing solutions based entirely on silicon technology. Our customers turn to us for our system-level expertise that allows us to integrate numerous timing building blocks into a single system, which in turn enables us to optimize performance with minimal lead times.

We view timing solutions through a historical lens. For over 250 years, timing solutions have focused on providing increased accuracy under harsh environmental conditions, while also accommodating the increasing need for smaller sizes, greater portability, and lower cost. As electronics continue to evolve at a rapid pace, suppliers require increasingly advanced timing solutions to solve performance, reliability, power, and size challenges in applications ranging from large high-power equipment to small low-power battery-operated devices. Our silicon-based timing solutions are designed to be resilient to extreme environmental interference. For IoT products, our silicon-based timing solutions have the advantage of offering high performance at optimal power consumption and size as our customers fit more functionality into smaller devices. For the automotive market, our solutions can be utilized in advanced driver assistance systems for self-driving cars, which require increased timing accuracy.

Substantially all of our revenue to date has been derived from sales of oscillator systems across our target end markets. We generated modest revenue from sales of our resonators in 2018 and began sampling our first clock integrated circuit, or IC, to customers in 2019. We seek to aggressively expand our presence in these two markets. We operate a fabless business model, which allows us to quickly scale production and reduce our capital expenditures. We leverage our internal direct sales force as well as our global network of distributors and resellers to address the broad set of end markets we serve. For the year ended December 31, 2018, our revenue was $85.2 million and our net loss was $9.3 million. For the nine months ended September 30, 2019, our revenue was $56.0 million and our net loss was $7.2 million. We are currently a wholly owned subsidiary of MegaChips, a fabless semiconductor company based in Japan and traded on the Tokyo Stock Exchange. Upon completion of this offering, MegaChips will continue to hold a majority controlling interest in our common stock. We currently anticipate that MegaChips will remain a strategic stakeholder for the foreseeable future.

Industry Background

Timing Solutions Enable Innovation and are Rapidly Evolving

The ability to accurately measure and reference time has been essential to humankind's greatest inventions and technological progress. For example, the invention of the marine chronometer in the 18th century, which accurately measured time and geographic longitude for seafaring vessels, ushered in an era of unprecedented exploration and innovation that continues to this day. Timing is the heartbeat of every electronic system, ensuring that the system runs smoothly and reliably by providing and distributing clock signals to various critical components such as central processing units, or CPUs, communication and interface chips, and radio frequency components. As electronics are expected to operate at higher performance levels in

increasingly challenging environments, while also being more complex and footprint-constrained, we believe they will require more sophisticated timing solutions. For example, as 5G communications networks mature, we expect that they will require higher precision from a greater number of oscillators and timing systems.

Key Building Blocks of Timing Solutions

Timing solutions are comprised of three key building blocks:

- Resonators – mechanical silicon structures that vibrate at a precise frequency and provide the core accuracy and stability in oscillator systems;
- Oscillators – active systems that combine resonators with analog mixed-signal ICs that cause the resonators to vibrate, generating accurate clock signals; and
- Clock ICs – integrated analog mixed-signal circuits such as phase-locked loops, or PLLs, clock dividers, and drivers. Clock ICs require resonators and oscillators for timing references and may integrate these components into complex systems.

These three building blocks may be used individually or in combination, depending on the end product's performance, price, and size requirements.

Limitations of Legacy Quartz-based Solutions

For the past 70 years, quartz crystal has been the predominant technology of choice for resonators and will continue to play a role in the timing market. However, quartz timing devices, largely unchanged in decades, have many inherent limitations, including limited frequency ranges, sensitivity to vibration and mechanical shock, susceptibility to frequency jumps at particular temperatures, and limited programmability. In addition, quartz devices must be housed in ceramic packaging, and thus are difficult to integrate into standard semiconductor packages and require dedicated quartz manufacturing facilities and relatively long lead times. Furthermore, as electronic systems become more complex, feature-rich, and robust, they require more sophisticated timing systems that can seamlessly integrate a variety of resonators, oscillators, and clock ICs in various system-level combinations. This seamless integration is more difficult with legacy quartz systems.

Silicon Timing Solutions Poised to Disrupt the Market

We believe that MEMS is an ideal process technology for resonator design. Specifically, its ability to integrate with other circuits in standard semiconductor packages has made scalable standard silicon manufacturing possible for resonator and broader timing technology. MEMS and silicon-based technologies are able to operate in a wide range of frequencies, are resistant to vibration and mechanical shock, and are less susceptible to frequency jumps. These technologies are also inherently well-suited to produce timing solutions that are small in size, and offer high performance, robustness, and programmability. Timing solutions based on these technologies can be manufactured using mainstream fabless semiconductor processes and capacity, allowing for cost-effective high-volume manufacturing.

Significant Market Opportunity for Timing Solutions

The overall timing market represents over a $7.7 billion opportunity as of 2018 and is expected to grow to approximately $10.1 billion by 2024, representing a cumulative average growth rate, or CAGR, of 4%. Dedalus Consulting estimates that oscillators and standalone resonators represent approximately $3.8 billion and $2.9 billion total addressable markets, respectively, as of 2018. Based on our internal estimates, we believe clock ICs represent an approximate $1.0 billion total addressable market. As a subset of the broader timing market, the market for MEMS oscillators is projected to grow from $0.1 billion in 2018 to $0.6 billion by 2024, representing a CAGR of 35.2%, according to Yole Développement.

The Opportunity for Advanced Solutions

End markets where we believe our silicon-based timing is enabling greater functionality than legacy solutions:

Telecommunications, Enterprise, and Cloud Infrastructure

Communications infrastructure equipment used in wireless base stations, wired infrastructure equipment, enterprise networks, and cloud data centers must provide high performance and stability in demanding environments, which may include temperature fluctuations, mechanical shocks, and vibration. According to Gartner, "Recent reports on 5G pilots and testing have identified a wide range of projected data throughput speeds ranging from 10 times up to 1,000 times faster than 4G. Other reports estimate ranges of one to 10 gigabytes per second."[1]

(1) Gartner, Starting Now, Supply Chain Leaders Should Assess the Potential for 5G Mobile Communications Networks, May 2019. The Gartner Report described herein, represents research opinion or viewpoints published, as part of a syndicated subscription service, by Gartner, Inc. ("Gartner"), and are not representations of fact. Each Gartner Report speaks as of its original publication date (and not as of the date of this prospectus) and the opinions expressed in the Gartner Report is subject to change without notice.

Industrial

Industrial equipment, ranging from factory machinery to medical devices, is often exposed to environments characterized by temperature fluctuation, mechanical shocks, and vibration. We believe silicon-based timing solutions can perform better than legacy quartz-based solutions in demanding industrial environments at comparable cost and with lower power consumption.

Automotive

For automotive applications, timing technology must perform well and be reliable over the life of an automobile in an environment characterized by vibration, mechanical shocks, electromagnetic interference, wide temperature ranges, and rapid temperature change. Toyota estimates that the "data volume between vehicles and the cloud will reach 10 exabytes per month around 2025, approximately 10,000 times larger than the present volume." These communication systems will require precise timing. We believe silicon-based timing can address many of the challenges associated with this demanding automotive ecosystem.

IoT and Mobile

The IoT revolution will enable the proliferation of billions of internet-connected devices in industrial and consumer applications. According to IHS Markit, the global installed base of IoT devices will increase from 27 billion in 2017 to 73 billion in 2025. Many of these devices need to package a significant amount of electronics in a limited battery-powered and size-constrained envelope, while still requiring high performance and high accuracy. Due to the ability to integrate with ICs, we believe silicon-based timing solutions are well-suited to optimize footprint, reliability, and power consumption of the overall system within IoT and mobile devices.

Aerospace and Defense

Timing devices used in aerospace and defense applications such as rockets and satellites need to withstand extreme vibration forces and temperature gradients during operation. MEMS timing devices are well-suited for these applications, as they provide up to 40 times better stability under vibration than comparable quartz-based solutions.

Our Solution and Technology

Our silicon timing solutions are comprised of:

- **MEMS resonators**: We pioneered the MEMS-based timing industry with the MEMS First™, EpiSeal™, and TempFlat™ processes. These processes improve resonator stability, decrease aging effects, and enhance stability over temperature and time. We believe our MEMS resonators are easy to integrate into silicon-based oscillators and clock ICs, and allow us to develop tightly-integrated high performance timing solutions.

- **Clock ICs**: Our analog mixed-signal technologies include several innovative low noise oscillators, high-performance PLLs, low noise data converters, stable low phase noise oscillators, and precision low aging reference circuits. Many of our oscillators use temperature sensing to maximize frequency stability. Our low-power nano-ampere and high-resolution DualMEMS™ micro-kelvin-resolution sensing technologies stabilize our timing solutions despite rapid temperature changes.

- **Advanced system-level integration**: We have extensive know-how in integrating various timing components into elegant system-level solutions. Our ability to integrate MEMS-based devices with analog mixed-signal products allows us to develop oscillators and clock ICs in diverse permutations, which helps us solve difficult timing challenges. Using advanced packaging designs, we believe we can design our products to fit in the smallest footprints in the industry.

We design each key building block of the timing system, from MEMS resonators to oscillators to clock ICs. Our ability to combine our MEMS resonators with analog-mixed signal components in a fabless manufacturing process allows us to build full timing solutions from the ground up, enabling our customers to focus on their core expertise.

Our solutions are programmable across multiple characteristics including frequencies, stability metrics, voltage parameters, and temperature ranges, among others, and offer the following benefits:

- **High performance**: Our portfolio of silicon-based MEMS resonators allows us to provide our customers with high performance solutions across a wide range of attributes including temperature, vibration, phase jitter, and other metrics.
- **Small footprint**: Our solutions have a small footprint and package size, optimizing the end customer's board area.
- **Low power**: Our solutions operate at ultra-low power levels and are well-suited for portable battery-operated applications.
- **Programmability**: Our devices are configurable across a wide range of parameters, including frequencies, stability metrics, voltage parameters, and temperature ranges, among others, resulting in design flexibility for the customer, and enabling us to produce a vast number of custom timing products on demand with short lead times.
- **High quality and reliability**: The combination of our design and manufacturing processes enables us to produce high quality products with long-term reliability. Our solutions offer low sensitivity to electromagnetic energy, mechanical shock, vibration, airflow, and temperature gradient.
- **Flexible integration**: Our MEMS resonators and clock ICs allow a wide range of packaging and integration methodologies to support various levels of size, cost and electrical, thermal, and mechanical performance.
- **Leveraged product development**: Our solutions employ different combinations of MEMS and circuit components, enabling us to generate a vast number of custom part numbers, including over 30,000 uniquely programmable part numbers shipped to date.
- **Rapid time to market**: Our solutions can typically be delivered within weeks of initial configuration, enabling us to reduce our end customers' time to market.

Our Competitive Strengths

Our leadership in silicon timing systems solutions results from the following core strengths:

- **Exclusive focus on timing**. Our research and development, engineering, manufacturing, sales, and marketing activities are focused solely on timing solutions, unlike companies who allocate their resources to a diverse set of competencies. We believe this significant expertise in timing allows us to solve complex timing problems for our customers, enabling higher value and better end products. This in turn enables our customers to develop innovative products using our timing solutions.
- **Leading differentiated MEMS technology**. We believe we are at the forefront of the MEMS timing market, which is expected to grow at a 35.2% CAGR from $0.1 billion in 2018 to $0.6 billion by 2024 according to Yole Développement. Our portfolio of silicon-based MEMS resonators enables our entire portfolio of timing solutions and allows us to provide our customers with high performance solutions across a range of attributes including temperature, vibration, phase jitter, and other metrics.
- **Broad customer base and end-market diversification**. Our end customer base has grown from approximately 1,700 end customers as of December 31, 2013 to over 10,000 individual end customers

across our end markets. We believe the increasing breadth of our customer base provides us with opportunities to diversify our revenue streams and expand our know-how as we develop solutions for a variety of use cases.

- **Collaboration with industry leaders**. We often collaborate with industry leaders at the front end of their design cycles, providing us with enhanced visibility into the future requirements of our industry-leading customers.

- **Flexible outsourced manufacturing.** By working with world-class foundries and top-tier test and assembly and supply chain partners, we are able to quickly scale production using mainstream semiconductor manufacturing and wafer scale integration and reduce our capital expenditures without compromising the quality of our end product. In addition, the inherently small size of our MEMS die allows system designs to be flexible with broad layouts and achieve smaller form factors.

- **Experienced management team leading customer solution focused organization.** We were built as a customer-first organization, focused on solving our customers' most complex timing challenges. Our highly technical and experienced management team has created an engineering focused culture that has enabled us to hire and retain some of the best timing engineering talent, with engineers comprising approximately 45% of our workforce.

Our Strategy

Our objective is to be the leading timing solution provider for advanced and challenging applications. Our solutions not only displace existing products by providing improved performance across a range of operational attributes, but also enable next-generation devices by providing high performance timing solutions at affordable price points. Key elements of our strategy include:

- **Extend our silicon-based timing leadership.** We intend to continue driving innovation in the timing market and working with our ecosystem partners to help set the timing standards of the future. We plan to improve the performance of our current solution suite across a variety of key metrics, including size, power, frequency stability, phase noise, and signal quality, while adding new functionality.

- **Advocate benefits of silicon technology.** We intend to continue to educate current and prospective customers about the benefits of our silicon timing systems solutions relative to their existing and future products.

- **Identify and promote new and emerging applications for our technologies.** We intend to continue to collaborate with our end customers to identify timing challenges related to their product roadmaps and to develop innovative solutions to help them realize these products.

- **Enable future technology innovation.** We plan to continue to partner with leading technology companies to develop innovative products.

- **Broaden our product portfolio.** We intend to continue to broaden our product portfolio by offering additional varieties of oscillators, expanding our business in standalone resonators, and entering the clock IC market.

- **Continue to attract and acquire new customers.** We intend to expand our end customer base by focusing on direct dialogue with large strategic accounts as well as partnerships with large distributors and resellers. We believe this multi-track strategy will allow us to provide differentiated solutions to a broad array of customers.

- **Drive margin expansion of our products.** We intend to use our technological expertise to deliver higher value and higher margin products. In addition, we intend to continue to reduce our costs through operational improvements and supply-chain management initiatives.

- **Offer value on business metrics.** In addition to differentiating our solutions based on technical features and value, we also intend to provide value to our customers on business metrics by leveraging our fabless semiconductor infrastructure. These benefits may include shorter lead times, higher quality and reliability, and therefore lower cost of ownership for the end user.

Risks Associated with Our Business

Our business is subject to numerous risks, as more fully described in "Risk Factors" immediately following this prospectus summary. You should read these risks before you invest in our common stock. We may be unable, for many reasons, including those that are beyond our control, to implement our business strategy. In particular, risks associated with our business include, among others:

- Since we currently depend on one end customer for a large portion of our revenue, the loss of, or a significant reduction in orders from this end customer, could significantly reduce our revenue. In addition, if our distributors' relationships with this end customer are disrupted for any reason, it could have a significant negative impact on our business.

- If we are unable to expand or further diversify our customer base, our business, financial condition, and results of operations could suffer.
- We generally do not have long-term purchase commitments with our customers, and orders may be cancelled, reduced, or rescheduled with little or no notice, which in turn exposes us to inventory risk and may harm our operating results.
- Our revenue and operating results may fluctuate from period to period due to, among other factors, customer demand, product life cycles, fluctuations in inventories held by our distributors or end customers, the gain or loss of significant customers, research and development costs, and warranty claims. This in turn could cause our stock price to decline.
- We have an accumulated deficit and have incurred net losses in the past, and we may continue to incur net losses in the future.
- Our history of net operating losses, loan obligations, and our accumulated deficit raise substantial doubt regarding our ability to continue as a going concern.
- Our success and future revenue depend on our ability to achieve design wins and to convince our current and prospective customers to design our products into their product offerings.
- We provide a lifetime warranty on our products and may be subject to warranty or product liability claims, which could harm our reputation, result in unexpected expenses, and cause us to lose market share.
- We may fail to adequately protect our intellectual property and have received, and may in the future receive, claims of intellectual property infringement, which in turn could result in significant expense, result in the loss of significant rights, and harm our relationship with our end customers and distributors.
- We may be impacted by risks associated with MegaChips and may have potential conflicts of interest with MegaChips or its affiliates, which in turn could impact our business and operating results.

Emerging Growth Company Status

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act, or the JOBS Act, enacted in April 2012. We intend to take advantage of certain exemptions under the JOBS Act from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. We may take advantage of these exemptions until the earlier of the last day of the fiscal year following the fifth anniversary of the completion of this offering or the date we cease to be an "emerging growth company."

We have irrevocably elected not to avail ourselves of the provision of the JOBS Act that permits emerging growth companies to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Corporate Information

We were incorporated in Delaware on December 3, 2003. Our principal executive offices are located at 5451 Patrick Henry Drive, Santa Clara, California 95054, and our telephone number is (408) 328-4400. Our corporate website address is *www.sitime.com*. Information contained on or accessible through our website is not a part of this prospectus and should not be relied on in determining whether to make an investment decision. The inclusion of our website address in this prospectus is an inactive textual reference only.

In November 2014, we were acquired by MegaChips, a fabless semiconductor company based in Japan and traded on the Tokyo Stock Exchange. As a result of the acquisition, we became a wholly owned subsidiary of MegaChips. After completion of this offering, MegaChips will own approximately % of our outstanding common stock, assuming the underwriters do not exercise their over-allotment option, and approximately % if the underwriters exercise their over-allotment option in full. As a result of this ownership interest, MegaChips controls and will continue to control, us upon completion of this offering. There are potential conflicts of interest between us and MegaChips and its affiliates. Also, MegaChips currently holds two out of three seats on our board of directors. Effective November 1, 2019 and after this offering, for so long as it continues to hold at least 50% of our outstanding common stock, MegaChips is expected to hold at least one out of seven seats on our board of directors. Although we do not have any agreement with MegaChips that provides MegaChips the right to such board seats, as a controlled company, we expect that for as long as it holds 50% or more of our outstanding common stock, it will have the ability to elect all of the members of our board of directors. Our director, Akira Takata, is the managing director of MegaChips, and our director, Koichi Akeyama, is the president and chief executive officer of MegaChips Technology America Corporation, or MegaChips America, a wholly owned subsidiary of MegaChips. Our Chief Executive Officer Rajesh Vashist also serves as an officer of MegaChips' MEMS business. Messrs. Takata's, Akeyama's, and Vashist's positions with us and MegaChips and some of its affiliated entities could create actual or perceived conflicts of interest with respect to a variety of matters, such as matters requiring stockholder approval, corporate opportunities, and business relationships. See "Management—Non-Employee Directors."

We have obtained registered trademarks for Apex MEMS, Elite Platform, EPISEAL, MEMS FIRST, SITIME, Super-TCXO, TEMPFLAT, TempFlat MEMS, and TEMPFLAT MEMS. In addition, DualMEMS, Emerald, Endura, TimeMaster, and TurboCompensation are our trademarks. This prospectus contains references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork, and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

The Offering

Common stock offered by us	shares
Over-allotment option	shares
Common stock to be outstanding after this offering	shares (shares if the underwriters exercise their over-allotment option in full)
Controlled company	Upon completion of this offering, we will be a "controlled company" within the meaning of the listing rules of The Nasdaq Stock Market LLC.
Use of proceeds	We estimate that the net proceeds to us from this offering will be approximately $ million (or $ million if the underwriters exercise their over-allotment option in full), based on an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering primarily for general corporate purposes, including working capital, sales and marketing activities, product development, general and administrative matters, and capital expenditures, although we do not currently have any specific plans with respect to use of proceeds for such purposes. We also may use a portion of the net proceeds to acquire complementary businesses, products, services, or technologies, or to pay down a portion of our outstanding indebtedness. However, we do not have agreements, commitments, or plans for any specific acquisitions or debt repayments at this time. See "Use of Proceeds."
Risk factors	You should read "Risk Factors" for a discussion of certain of the factors to consider carefully before deciding to purchase any shares of our common stock.

Proposed trading symbol on The Nasdaq Global Select Market	"SITM"

Unless otherwise indicated, the number of shares of our common stock to be outstanding after this offering is based on 15,000,000 shares of common stock outstanding as of September 30, 2019 (after giving effect to a 1-for-30,000 stock split), and excludes 4,700,000 shares of our common stock reserved for future issuance under our 2019 Stock Incentive Plan, or the 2019 Plan, which will become effective as of immediately prior to the completion of this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2019 Plan.

Unless otherwise indicated, all information contained in this prospectus assumes or gives effect to:

- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws upon completion of this offering;
- a 1-for-30,000 split of our common stock which became effective on October 18, 2019; and
- no exercise by the underwriters of their option to purchase up to additional shares of our common stock from us to cover over-allotments, if any.

Summary Consolidated Financial Data

The summary consolidated statements of operations data presented below for the years ended December 31, 2017 and 2018 are derived from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the summary consolidated statement of operations data for the nine months ended September 30, 2018 and 2019 and our balance sheet data as of September 30, 2019 from our unaudited interim consolidated financial statements included elsewhere in this prospectus. The unaudited interim consolidated financial statements have been prepared on the same basis as our audited consolidated financial statements and reflect, in the opinion of management, all adjustments, consisting only of normal, recurring adjustments that are necessary for a fair presentation of the unaudited interim consolidated information. The following summary consolidated financial data should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected for any period in the future, and the results for the nine months ended September 30, 2019 are not necessarily indicative of results to be expected for the full year ending December 31, 2019 or any other period.

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands, except share and per share amounts)			
Consolidated Statements of Operations Data:				
Revenue	$101,065	$85,214	$62,363	$55,985
Cost of revenue[(1)]	53,147	49,009	39,909	29,875
Gross profit	47,918	36,205	22,454	26,110
Operating expenses:				
Research and development[(1)]	20,988	22,775	16,544	17,846
Sales and marketing[(1)]	13,383	14,607	11,288	8,710
General and administrative[(1)]	7,957	6,613	4,501	5,457
Total operating expenses	42,328	43,995	32,333	32,013

Income (loss) from operations[1]	5,590	(7,790)	(9,879)	(5,903)
Interest expense	(870)	(1,512)	(1,069)	(1,320)
Other expense, net	(29)	(66)	(41)	(16)
Income (loss) before income taxes	4,691	(9,368)	(10,989)	(7,239)
Income tax benefit (expense)	32	26	(1)	(1)
Net income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)
Net income (loss) attributable to common stockholder and comprehensive income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)
Net income (loss) per share attributable to common stockholder, basic and diluted[2]	$0.31	$(0.62)	$(0.73)	$(0.48)
Weighted-average shares used to compute basic and diluted net income (loss) per share[2]	15,000,000	15,000,000	15,000,000	15,000,000

Other Financial Data:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
	(unaudited)			
	(in thousands, except percentages)			
Adjusted EBITDA[3]	$14,803	$2,154	$(2,077)	$256
Adjusted EBITDA margin[3]	15%	3%	(3)%	0%

(1) Stock-based compensation included in the consolidated statements of operations data above was as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands)			
Cost of revenue	$131	$58	$58	$ —
Research and development	2,774	1,588	1,588	—
Sales and marketing	1,569	736	736	—
General and administrative	1,192	149	149	—
Total	$5,666	$2,531	$2,531	$—

(2) See Note 3 to our audited financial statements included elsewhere in this prospectus for an explanation of the calculations of our basic and diluted net income (loss) per share.

(3) See “Non-GAAP Financial Measures” for a reconciliation of adjusted EBITDA and adjusted EBITDA margin to net income (loss) attributable to common stockholder and comprehensive income (loss), the most directly comparable GAAP financial measure, and for a discussion of how we define adjusted EBITDA and adjusted EBITDA margin, why management believes these non-GAAP financial measures provide useful information to investors, and the purposes for which management uses these non-GAAP financial measures.

	As of September 30, 2019		
	Actual	Pro Forma	Pro Forma As Adjusted
	(unaudited)		
	(in thousands)		
Consolidated Balance Sheet Data:			

Cash and cash equivalents	$9,232	$9,232	$
Working capital (deficit)[(a)]	(15,009)	(15,009)	
Total assets	71,193	71,193	
Total debt	46,000	46,000	
Total liabilities	67,418	67,418	
Total stockholders' equity	3,775	3,775	

(a) Working capital (deficit) is defined as total current assets less total current liabilities. See our unaudited condensed consolidated interim financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

The table above presents a summary of our consolidated balance sheet data as of September 30, 2019:

- on an actual basis;
- on a pro forma basis, giving effect to the effectiveness of our amended and restated certificate of incorporation upon completion of this offering; and
- on a pro forma as adjusted basis, giving effect to the pro forma adjustment discussed above, and giving further effect to the sale of shares of our common stock by us in this offering at an assumed initial public offering price of $ per share (the midpoint of the range set forth on the cover of this prospectus), after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Non-GAAP Financial Measures

We have included adjusted EBITDA and adjusted EBITDA margin, which are non-GAAP financial measures, in this prospectus because they are key measures used by our management team to help us analyze our financial results, establish budgets and operational goals for managing our business, evaluate our performance, and make strategic decisions. Accordingly, we believe that these non-GAAP financial measures provide useful information to investors and others in understanding and evaluating our operating results in the same manner as our management team and board of directors. In addition, we believe these measures are useful for period-to-period comparisons of our business, as it removes the effect of certain non-cash expenses and certain variable charges. We also believe that the presentation of these non-GAAP financial measures in this prospectus provides an additional tool for investors to use in comparing our core business and results of operations over multiple periods with other companies in our industry, many of which present similar non-GAAP financial measures to investors, and to analyze our cash performance.

The non-GAAP financial measures presented in this prospectus may not be comparable to similarly titled measures reported by other companies due to differences in the way that these measures are calculated. The non-GAAP financial measures presented in this prospectus should not be considered as the sole measure of our performance and should not be considered in isolation from, or as a substitute for, comparable financial measures calculated in accordance with GAAP. The information in the table below sets forth the non-GAAP financial measures along with the most directly comparable GAAP financial measures.

We define adjusted EBITDA as our net income (loss) excluding: (1) depreciation and amortization; (2) interest expense, net; (3) stock-based compensation; (4) other expense, net; and (5) income tax benefit. We define adjusted EBITDA margin as adjusted EBITDA divided by revenue.

	Year Ended December 31,		**Nine Months Ended September 30,**	
	2017	**2018**	**2018**	**2019**
	(unaudited)			
	(in thousands, except percentages)			
GAAP income (loss) from operations	$5,590	$(7,790)	$(9,879)	$(5,903)
Adjusted EBITDA (unaudited)	14,803	2,154	(2,077)	256

Adjusted EBITDA margin (unaudited)	15%	3%	(3)%	0%

Reconciliation

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
	(unaudited)			
	(in thousands)			
Net income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)
Depreciation and amortization	3,547	7,413	5,271	6,159
Interest expense, net	870	1,512	1,069	1,320
Stock-based compensation	5,666	2,531	2,531	—
Other expense, net	29	66	41	16
Income tax benefit (expense)	(32)	(26)	1	1
Adjusted EBITDA (unaudited)	$14,803	$2,154	$(2,077)	$256

Risk Factors

Risk Factors

RISK FACTORS *Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this prospectus, including our audited consolidated financial statements and related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before investing in our common stock. If any of the following risks are realized, in whole or in part, our business, financial condition, results of operations, and prospects could be materially and adversely affected. In that event, the price of our common stock could decline, and you could lose part or all of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operation.*

Risks Related to Our Business and Our Industry

We currently depend on one end customer for a large portion of our revenue. The loss of, or a significant reduction in orders from our customers, including this end customer, could significantly reduce our revenue and adversely impact our operating results.

We believe that our operating results for the foreseeable future will continue to depend to a significant extent on revenue attributable to Apple Inc., or Apple, our largest end customer. Sales attributable to this end customer have historically accounted for a large portion of our revenue and accounted for approximately 61%, 40%, 33%, and 35% of our revenue for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively. Revenue attributable to this end customer has decreased in absolute dollars and as a percentage of revenue from 2017 to 2018. We anticipate revenue attributable to this customer will fluctuate from period to period, although we expect to remain dependent on this end customer for a substantial portion of our revenue for the foreseeable future. Although we sell our products to this customer through distributors on a purchase order basis, including Pernas Electronics Co., Ltd., or Pernas, Arrow Electronics, Inc., or Arrow, and Quantek Technology Corporation, or Quantek, we have a development and supply agreement, which provides a general framework for our transactions with Apple. This agreement continues until either party terminates for material breach. Under this agreement, we have agreed to develop and deliver new products to this end customer at its request, provided it also meets our business purposes, and have agreed to indemnify it for intellectual property infringement or any injury or damages caused by our products. This end customer does not have any minimum or binding purchase obligations to us under this agreement and could elect to discontinue making purchases from us with little or no notice. If our

end customers were to choose to work with other manufacturers or our relationships with our customers is disrupted for any reason, it could have a significant negative impact on our business. Any reduction in sales attributable to our larger customers, including our largest end customer, would have a significant and disproportionate impact on our business, financial condition, and results of operations.

Because our sales are made pursuant to standard purchase orders, orders may be cancelled, reduced, or rescheduled with little or no notice and without penalty. Cancellations of orders could result in the loss of anticipated sales without allowing us sufficient time to reduce our inventory and operating expenses. In addition, changes in forecasts or the timing of orders from our customers expose us to the risks of inventory shortages or excess inventory. This in turn could cause our operating results to fluctuate. For example, in 2018 we incurred approximately $8.0 million in cost of inventory in anticipation of an order that did not materialize. This resulted in an inventory write-down of approximately $8.0 million for 2018. We were able to sell approximately $3.0 million of such inventory in the fourth quarter of 2018 and approximately $2.4 million of such inventory in the nine months ended September 30, 2019.

Our end customers, or the distributors through which we sell to these customers, may choose to use products in addition to ours, use a different product altogether, or develop an in-house solution. Any of these events could significantly harm our business, financial condition, and results of operations. In addition, if our distributors' relationships with our end customers, including our larger end customers, are disrupted for inability to deliver sufficient products or for any other reason, it could have a significant negative impact on our business, financial condition, and results of operations.

If we are unable to expand or further diversify our customer base, our business, financial condition, and results of operations could suffer.

We sell our products primarily through distributors and resellers, who in turn sell to our end customers. For the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, our top three distributors by revenue together accounted for approximately 79%, 65%, 64%, and 60% of our revenue, respectively. Based on our shipment information, we believe that revenue attributable to our top ten end customers accounted for 74%, 60%, 58%, and 57% of our revenue in 2017, 2018, and the nine months ended September 30, 2018 and 2019, respectively. Sales attributable to our largest end customer accounted for approximately 61%, 40%, 33%, and 35% of our revenue for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively. We expect the composition of our top end customers to vary from period to period, and that revenue attributable to our top ten end customers in any given period may decline over time. Our relationships with existing customers may deter potential customers who compete with these customers from buying our silicon timing systems solutions. If we are unable to expand or further diversify our customer base, it could harm our business, financial condition, and results of operations.

Because we do not have long-term purchase commitments with our customers, orders may be cancelled, reduced, or rescheduled with little or no notice, which in turn exposes us to inventory risk, and may cause our business and results of operations to suffer.

We sell our products primarily through distributors and resellers, with no long-term or minimum purchase commitments from them or their end customers. Substantially all of our sales to date have been made on a purchase order basis, which orders may be cancelled, changed, or rescheduled with little or no notice or penalty. As a result, our revenue and operating results could fluctuate materially and could be materially and disproportionately impacted by purchasing decisions of our customers, including our larger customers. In the future, our distributors or their end customers may decide to purchase fewer units than they have in the past, may alter their purchasing patterns at any time with limited or no notice, or may decide not to continue to purchase our silicon timing systems solutions at all, any of which could cause our revenue to decline materially and materially harm our business, financial condition, and results of operations. Cancellations of, reductions in, or rescheduling of customer orders could also result in the loss of anticipated sales without allowing us sufficient time to reduce our inventory and operating expenses, as a substantial portion of our expenses are fixed at least in the short term. In addition, changes in forecasts or the timing of orders expose us to the risks of inventory shortages or excess inventory. As we no longer intend to acquire inventory to pre-build custom products, we may not be able to fulfill increased demand, at least in the short term. Any of the foregoing events could materially and adversely affect our business, financial condition, and results of operations.

Our revenue and operating results may fluctuate from period to period, which could cause our stock price to fluctuate.

Our revenue and operating results have fluctuated in the past and may fluctuate from period to period in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include the following factors, as well as other factors described elsewhere in this prospectus:

- customer demand and product life cycles;
- the receipt, reduction, or cancellation of, or changes in the forecasts or timing of, orders by customers;
- fluctuations in the levels of inventories held by our distributors or end customers;
- the gain or loss of significant customers;
- market acceptance of our products and our customers' products;
- our ability to develop, introduce, and market new products and technologies on a timely basis;
- the timing and extent of product development costs;
- new product announcements and introductions by us or our competitors;
- our research and development costs and related new product expenditures and our ability to achieve cost reductions in a timely or predictable manner;
- seasonality and fluctuations in sales by product manufacturers that incorporate our silicon timing systems solutions into their products;
- end-market demand into which we have limited insight, including cyclicality, seasonality, and the competitive landscape;
- cyclical fluctuations in the semiconductor market;
- fluctuations in our manufacturing yields;
- significant warranty claims, including those not covered by our suppliers;
- changes in our pricing, product cost, and product mix; and
- supply chain disruptions, delays, shortages, and capacity limitations.

As a result of these and other factors, you should not rely on the results of any prior quarterly or annual periods, or any historical trends reflected in such results, as indications of our future revenue or operating performance. Fluctuations in our revenue and operating results could cause our stock price to decline and, as a result, you may lose some or all of your investment.

We have an accumulated deficit and have incurred net losses in the past, and we may continue to incur net losses in the future.

As of December 31, 2017 and 2018 and September 30, 2019, we had an accumulated deficit of $38.1 million, $47.4 million, and $54.7 million, respectively. We generated net income of $4.7 million in 2017 and incurred a net loss of $9.3 million in 2018 and a net loss of $7.2 million for the nine months ended September 30, 2019. The loss in 2018 was primarily attributable to a reduction in revenue from our largest end customer. The loss in the nine months ended September 30, 2019 was primarily due to a decrease in revenue from customers in Asia primarily as a result of lower sales volume, as well as a reduction in revenue from our largest end customer. We may continue to incur net losses in the future.

We have a history of net operating losses and our accumulated deficit raises substantial doubt regarding our ability to continue as a going concern. If we do not continue as a going concern, investors could lose their entire investment.

Since our acquisition by MegaChips in 2014, we have financed our operations primarily through debt financing. As of September 30, 2019, we had an accumulated deficit of $54.7 million and loan obligations of $46.0 million, of which $43.0 million are due in 2019. For more information regarding our loan obligations, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Debt Obligations." Although we expect to use cash generated from operations in 2019 to help finance our operations and capital needs, we will need additional funding in 2019 to repay our loan obligations and other capital needs if this offering is not completed.

As a result of the above, management concluded that there is substantial doubt in our ability to continue as a going concern. Management's plans to address this uncertainty are discussed in Note 1 to our consolidated financial statements. The report of our independent registered public accountant on our financial statements as of and for the years ended December 31, 2017 and 2018 also includes explanatory language describing the existence of substantial doubt about our ability to continue as a going concern. There have been no adjustments to the accompanying financial statements to reflect this uncertainty.

Our ability to continue as a going concern is dependent upon us becoming profitable in the future or to obtain the necessary capital to meet our obligations and repay our liabilities when they become due. Our determination of substantial doubt as going concern could materially limit our ability to raise additional funds through the issuance of equity securities or otherwise. There can be no assurance that we will ever become profitable again or continue as a going concern.

Our success and future revenue depend on our ability to achieve design wins and to convince our current and prospective customers to design our products into their product offerings. If we do not continue to win designs or our products are not designed into our customers' product offerings, our results of operations and business will be harmed.

We sell our silicon timing systems solutions to customers who select our solutions for inclusion in their product offerings. This selection process is typically lengthy and may require us to incur significant design and development expenditures and dedicate scarce engineering resources in pursuit of a single design win with no assurance that our solutions will be selected. If we fail to convince our current or prospective customers to include our products in their product offerings or to achieve a consistent number of design wins, our business, financial condition, and results of operations will be harmed.

Because of our extended sales cycle, our revenue in future years is highly dependent on design wins we are awarded in prior years. It is typical that a design win will not result in meaningful revenue until one year or more later, if at all. If we do not continue to achieve design wins in the short term, our revenue in the following years will deteriorate.

Further, a significant portion of our revenue in any period may depend on a single product design win with a large customer. As a result, the loss of any key design win or any significant delay in the ramp of volume production of the customer's products into which our product is designed could adversely affect our business, financial condition, and results of operations. We may not be able to maintain sales to our key customers or continue to secure key design wins for a variety of reasons, and our customers can stop incorporating our products into their product offerings with limited notice to us and suffer little or no penalty.

If we fail to anticipate or respond to technological shifts or market demands, or to timely develop new or enhanced products or technologies in response to the same, it could result in decreased revenue and the loss of our design wins to our competitors. Due to the interdependence of various components in the systems within which our products and the products of our competitors operate, customers are unlikely to change to another design, once adopted, until the next generation of a technology. As a result, if we fail to introduce new or enhanced products that meet the needs of our customers or penetrate new markets in a timely fashion, and our designs do not gain acceptance, we will lose market share and our competitive position.

The loss of a key customer or design win, a reduction in sales to any key customer, a significant delay or negative development in our customers' product development plans, or our inability to attract new significant customers or secure new key design wins could seriously impact our revenue and materially and adversely affect our business, financial condition, and results of operations.

We may experience difficulties demonstrating the value to customers of newer solutions if they believe existing solutions are adequate to meet end customer expectations. If we are unable to sell new generations of our product, our business would be harmed.

As we develop and introduce new solutions, we face the risk that customers may not value or be willing to bear the cost of incorporating these newer solutions into their product offerings, particularly if they believe their customers are satisfied with prior offerings. Regardless of the improved features or superior performance of the newer solutions, customers may be unwilling to adopt our new solutions due to design or pricing constraints. Because of the extensive time and resources that we invest in developing new solutions, if we are unable to sell new generations of our solutions, our revenue could decline and our business, financial condition, and results of operations would be negatively affected.

The success of our products is dependent on our customers' ability to develop products that achieve market acceptance, and our customers' failure to do so could negatively affect our business.

The success of our silicon timing systems solutions is heavily dependent on the timely introduction, quality, and market acceptance of our customers' products incorporating our solutions, which are impacted by factors beyond our control. Our customers' products are often very complex and subject to design complexities that may result in design flaws, as well as potential defects, errors, and bugs. We have in the past been subject to delays and project cancellations as a result of design flaws in the products developed by our customers, changing market requirements, such as the customer adding a new feature, or because a customer's product fails their end customer's evaluation or field trial. In other cases, customer products are delayed due to incompatible deliverables from other vendors. We incur significant design and development costs in connection with designing our products for customers' products that may not ultimately achieve market acceptance. If our customers discover design flaws, defects, errors, or bugs in their products, or if they experience changing market requirements, failed evaluations or field trials, or incompatible deliverables from other vendors, they may delay, change, or cancel a project, and we may have incurred significant additional development costs and may not be able to recoup our costs, which in turn would adversely affect our business, financial condition, and results of operations.

Our target customer and product markets may not grow or develop as we currently expect, and if we fail to penetrate new markets and scale successfully within those markets, our revenue and financial condition would be harmed.

Our target markets include the enterprise and telecommunications infrastructure, automotive, industrial, IoT and mobile, and aerospace and defense markets. Substantially all of our revenue for the years ended December 31, 2017 and 2018 and for the nine months ended September 30, 2018 and 2019 was derived from sales in the IoT and mobile, industrial, and consumer markets. In 2017, we began introducing products for the automotive market. In addition, within the timing market, substantially all of our revenue to date has been attributable to sales of MEMS oscillators. We intend to introduce products into the clock IC market, which we began sampling in the second quarter of 2019, and to focus on clock IC and timing sync solutions in the future. Any deterioration in our target customer or product markets or reduction in capital spending to support these markets could lead to a reduction in demand for our products, which would adversely affect our revenue and results of operations. Further, if our target customer markets, including the 5G communications or IoT and mobile markets, do not grow or develop in ways that we currently expect, demand for our technology may not materialize as expected, which would also negatively impact our business, financial condition, and results of operations.

We may be unable to predict the timing or development of trends in our target markets with any accuracy. If we fail to accurately predict market requirements or market demand for these solutions, our business will suffer. A market shift towards an industry standard that we may not support could significantly decrease the demand for our solutions.

Our future revenue growth, if any, will depend in part on our ability to expand within our existing markets, our ability to continue to penetrate emerging markets, such as the 5G communications market, which we entered in 2019, and our ability to enter into new markets, such as the industrial, medical, and military markets. Each of these markets presents distinct and substantial challenges and risks and, in many cases, requires us to develop new customized solutions to address the particular requirements of that market. Meeting the technical requirements and securing design wins in any of these new markets will require a substantial investment of our time and resources. We cannot assure you that we will secure design wins from these or other new markets, or that we will achieve meaningful revenue from sales in these markets. If any of these markets do not develop as we currently anticipate or if we are unable to penetrate them and scale in them successfully, our revenue could decline.

The average selling prices of our individual products have decreased historically over time and may do so in the future, which could harm our revenue and gross margins.

Although on average selling prices of our products have increased over time as we introduce higher end products, the average selling prices of our individual products generally decrease over time. Our revenue is derived from sales to large distributors and, in some cases, we have agreed in advance to price reductions, generally over a period of time ranging from two months to three years, once the specified product begins to ship in volume. However, our customers may change their purchase orders and demand forecasts at any time with limited notice due in part to fluctuating end-market demand, which can sometimes lead to price renegotiations. Although these price renegotiations can sometimes result in the average selling prices fluctuating over the shorter term, we expect average selling prices generally to decline over the longer term as our products and our end customers' products mature.

We seek to offset the anticipated reductions in our average selling prices by reducing the cost of our products through improvements in manufacturing yields and lower wafer, assembly, and testing costs, developing new products, enhancing lower-cost products on a timely basis, and increasing unit sales. However, if we are unable to offset these anticipated reductions in our average selling prices, our business, financial condition, and results of operations could be negatively affected.

If we are not able to successfully introduce and ship in volume new products in a timely manner, our business and revenue will suffer.

We have developed products that we anticipate will have product life cycles of ten years or more, as well as other products in more volatile high growth or rapidly changing areas, which may have shorter life cycles. Our future success depends, in part, on our ability to develop and introduce new technologies and products that generate new sources of revenue to replace, or build upon, existing revenue streams. If we are unable to repeatedly introduce, in successive years, new products that ship in volume, or if our transition to these new products does not successfully occur prior to any decrease in revenue from our prior products, our revenue will likely decline significantly and rapidly.

Our gross margins may fluctuate due to a variety of factors, which could negatively impact our results of operations and our financial condition.

Our gross margins may fluctuate due to a number of factors, including customer and product mix, market acceptance of our new products, timing and seasonality of the end-market demand, yield, wafer pricing, packaging and testing costs, competitive pricing dynamics, and geographic and market pricing strategies.

To attract new customers or retain existing customers, we have in the past and will in the future offer certain customers favorable prices, which would decrease our average selling prices and likely impact gross margins. Further, we may also offer pricing incentives to our customers on earlier generations of products that inherently have a higher cost structure, which would negatively affect our gross margins. In addition, in the event our customers, including our larger end customers, exert more pressure with respect to pricing and other terms with us, it could put downward pressure on our margins.

Because we do not operate our own manufacturing, assembly, or testing facilities, we may not be able to reduce our costs as rapidly as companies that operate their own facilities, and our costs may even increase, which could further reduce our gross margins. We rely primarily on obtaining yield improvements and volume-based cost reductions to drive cost reductions in the manufacture of existing products, introducing new products that incorporate advanced features and optimize die size, and other price and performance factors that enable us to increase revenue while maintaining gross margins. To the extent that such cost reductions or revenue increases do not occur at a sufficient level and in a timely manner, our business, financial condition, and results of operations could be adversely affected.

In addition, we maintain an inventory of our products at various stages of production and in finished good inventory. We hold these inventories in anticipation of customer orders. If those customer orders do not materialize in a timely manner, we may have excess or obsolete inventory which we would have to reserve or write-down, and our gross margins would be adversely affected.

Our revenue in recent periods may not be indicative of future performance and our revenue may fluctuate over time.

Our recent revenue should not be considered indicative of our future performance. For the years ended December 31, 2017 and 2018, our revenue was $101.1 million and $85.2 million, respectively, and for the nine months ended September 30, 2018 and 2019, our revenue was $62.4 million and $56.0 million, respectively. You should not rely on our revenue for any previous quarterly or annual period as any indication of our revenue in future periods or for the full year ending December 31, 2019. As we grow our business, our revenue may fluctuate in future periods due to a number of reasons, which may include slowing demand for our products, increasing competition, a decrease in the growth of our overall market or market saturation, and challenges and our failure to capitalize on growth opportunities.

If we are unable to manage our growth effectively, we may not be able to execute our business plan and our operating results could suffer.

In order to succeed in executing our business plan, we will need to manage our growth effectively as we make significant investments in research and development and sales and marketing, and expand our operations and infrastructure both domestically and internationally. In addition, in connection with operating as a public company, we will incur additional significant legal, accounting and other expenses that we did not incur as a private company. If our revenue does not increase to offset these increases in our expenses, we may not achieve or maintain profitability in future periods.

To manage our growth effectively, we must continue to expand our operations, engineering, financial accounting, internal management, and other systems, procedures, and controls. This may require substantial managerial and financial resources, and our efforts may not be successful. Any failure to successfully implement systems enhancements and improvements will likely have a negative impact on our ability to manage our expected growth, as well as our ability to ensure uninterrupted operation of key business systems and compliance with the rules and regulations applicable to public companies. If we are unable to manage our growth effectively, we may not be able to take advantage of market opportunities or develop new silicon timing systems solutions, and we may fail to satisfy customer product or support requirements, maintain the quality of our solutions, execute our business plan or respond to competitive pressures, any of which could negatively affect our business, financial condition, and results of operations.

Our customers require our products and our third-party contractors to undergo a lengthy and expensive qualification process, which does not assure product sales. If we are unsuccessful or delayed in qualifying any of our products with a customer, our business and operating results would suffer.

Prior to purchasing our silicon timing systems solutions, our customers require that both our solutions and our third-party contractors undergo extensive qualification processes, which involve testing of our products in the customers' systems, as well as testing for reliability. This qualification process may continue for several months. However, qualification of a product by a customer does not assure any sales of the product to that customer. Even after successful qualification and sales of a product to a customer, a subsequent revision in our third-party contractors' manufacturing process or our selection of a new supplier may require a new qualification process with our customers, which may result in delays and in our holding excess or obsolete inventory. After our products are qualified, it can take several months or more before the customer commences volume production of components or systems that incorporate our products. Despite these uncertainties, we devote substantial resources, including design, engineering, sales, marketing, and management efforts, to qualifying our products with customers in anticipation of sales. If we are unsuccessful or delayed in qualifying any of our products with a customer, sales of those products to the customer may be precluded or delayed, which would cause our business, financial condition, and results of operations to suffer.

We provide a lifetime warranty on our products and may be subject to warranty or product liability claims, which could result in unexpected expenses and loss of market share.

We provide a lifetime warranty on our products and generally agree to indemnify our customers for defects in our products. We may be subject to warranty or product liability claims. These claims may require us to make significant expenditures to defend those claims, replace our solutions, refund payments, or pay damage awards. This risk is exacerbated by the lifetime warranty of our products, which exposes us to warranty claims for the entire product lifecycle.

Our silicon timing systems solutions have only been incorporated into end products for the past 12 years. Accordingly, the operation of our products and technology has not been validated over longer periods. If a customer's product fails in use, the customer may incur significant monetary damages, including a product recall or associated replacement expenses as well as

lost revenue. The customer may claim that a defect in our product caused the product failure and assert a claim against us to recover monetary damages. In certain situations, circumstances might warrant that we consider incurring the costs or expenses related to a recall of one of our products in order to avoid the potential claims that may be raised should a customer reasonably rely upon our product and suffer a failure due to a design or manufacturing process defect. In addition, the cost of defending these claims and satisfying any arbitration award or judgment with respect to these claims would result in unexpected expenses, which could be substantial, and could harm our business, financial condition, and results of operations. Although we carry product liability insurance, this insurance is subject to significant deductibles and may not adequately cover our costs arising from defects in our products or otherwise.

Defects in our products could harm our relationships with our customers and damage our reputation.

Defects in our products may cause our customers to be reluctant to buy our products, which could harm our ability to retain existing customers and attract new customers and adversely impact our reputation. The process of identifying a defective or potentially defective product in systems that have been widely distributed may be lengthy and require significant resources. Further, if we are unable to determine the root cause of a problem or find an appropriate solution, we may delay shipment to customers. As a result, we may incur significant replacement costs and contract damage claims from our customers, and our reputation, business, financial condition, and results of operations may be adversely affected.

If we fail to accurately anticipate and respond to rapid technological change in the industries in which we operate, our ability to attract and retain customers could be impaired and our competitive position could be harmed.

We operate in industries characterized by rapidly changing technologies as well as technological obsolescence. The introduction of new products by our competitors, the delay or cancellation of any of our customers' product offerings for which our silicon timing systems solutions are designed, the market acceptance of products based on new or alternative technologies, or the emergence of new industry standards could render our existing or future products uncompetitive, obsolete, and otherwise unmarketable. Our failure to anticipate or timely develop new or enhanced products or technologies in response to changing market demand, whether due to technological shifts or otherwise, could result in the loss of customers and decreased revenue and have an adverse effect on our business, financial condition, and results of operations.

If our products do not conform to, or are not compatible with, existing or emerging industry standards, demand for our existing solutions may decrease, which in turn would harm our business and operating results.

We design certain of our products to conform to current industry standards. Some industry standards may not be widely adopted or implemented uniformly, and competing standards may emerge that may be preferred by our distributors or our end customers.

Our ability to compete in the future will depend on our ability to identify and ensure compliance with evolving industry standards in our target markets, as well as in the timing IC industry. The emergence of new industry standards could render our products incompatible with products developed by third-party suppliers or make it difficult for our products to meet the requirements of certain original equipment manufacturers, or OEMs. If our customers or our third-party suppliers adopt new or competing industry standards with which our solutions are not compatible, or if industry groups fail to adopt standards with which our solutions are compatible, our products would become less desirable to our current or prospective customers. As a result, our sales would suffer, and we could be required to make significant expenditures to develop new products. Although we believe our products are compliant with applicable industry standards, proprietary enhancements may not in the future result in conformance with existing industry standards under all circumstances. If our products do not conform to, or are not compatible with, existing or emerging standards, it would harm our business, financial condition, and results of operations.

We may be unable to make the substantial investments that are required to remain competitive in our business.

The semiconductor industry requires substantial and continuous investment in research and development in order to bring to market new and enhanced solutions. We expect our research and development expenditures to increase in the future as part of our strategy to increase demand for our solutions in our current markets and to expand into additional markets. We are a

smaller company with limited resources, and we may not have sufficient resources to maintain the level of investment in research and development required to remain competitive. In addition, we cannot assure you that the technologies, which are the focus of our research and development expenditures, will become commercially successful or generate any revenue.

If we fail to compete effectively, we may lose or fail to gain market share, which could negatively impact our operating results and our business.

The global semiconductor market in general, and the timing IC market in particular, is highly competitive. We expect competition to increase and intensify as additional semiconductor companies enter our target markets, and as internal silicon design resources of large OEMs grow. Increased competition could result in price pressure, reduced gross margins and loss of market share, any of which could harm our business, financial condition, and results of operations. Our competitors range from large, international companies offering a wide range of semiconductor products to smaller companies specializing in narrow market verticals. In the MEMS-based oscillator market, we primarily compete against Microchip Technology Inc., or MCHP. In the analog mixed-signal IC and clocking market, we primarily compete against Renesas Electronics Corporation (through their acquisition of Integrated Device Technology, Inc.), Silicon Laboratories Inc., Texas Instruments Incorporated, Microsemi Corporation (which is owned by MCHP), and Analog Devices, Inc. In the oscillator market, we primarily compete against quartz crystal suppliers such as Rakon Limited, Daishinku Corp., or Daishinku, Nihon Dempa Kogyo Co., Ltd., TXC Corporation, Seiko Epson Corporation, and Vectron International (which is owned by MCHP). We expect competition in our current markets to increase in the future as existing competitors improve or expand their product offerings and as new competitors enter these markets. In addition, our future growth will depend in part on our ability to successfully enter and compete in new markets, such as the access market. Some of these markets will likely be served by only a few large, multinational OEMs with substantial negotiating and buying power relative to us and, in some instances, with internally developed silicon solutions that can be competitive to our products.

Our ability to compete successfully depends, in part, on factors that are outside of our control, including industry and general economic trends. Many of our competitors are substantially larger, have greater financial, technical, marketing, distribution, customer support, government support, and other resources, are more established than we are and have significantly better brand recognition and broader product offerings. This in turn may enable them to better withstand adverse economic or market conditions in the future and significantly reduce their pricing so as to compete against us. Our ability to compete successfully will depend on a number of factors, including:

- our ability to define, design, and regularly introduce new products that anticipate the functionality and integration needs of our customers' next-generation products and applications;
- our ability to build strong and long-lasting relationships with our customers and other industry participants;
- our ability to capitalize on, and prevent losses due to, vertical integration by significant customers;
- our solutions' performance and cost-effectiveness relative to those of competing products;
- our ability to achieve design wins;
- the effectiveness and success of our customers' products utilizing our solutions within their competitive end markets;
- our research and development capabilities to provide innovative solutions and maintain our product roadmap;
- the strength of our sales and marketing efforts, including those of our distributors, and our brand awareness and reputation;
- our ability to deliver products in volume on a timely basis at competitive prices;
- our ability to withstand or respond to significant price competition;

- our ability to build and expand international operations in a cost-effective manner;
- our ability to obtain, maintain, protect, and enforce our intellectual property rights, including obtaining intellectual property rights from third parties that may be necessary to meet the evolving demands of the market;
- our ability to defend potential patent infringement claims arising from third parties;
- our ability to promote and support our customers' incorporation of our solutions into their products; and
- our ability to retain high-level talent, including our management team and engineers.

Our competitors may also establish cooperative relationships among themselves or with third parties or may acquire companies that provide similar products to ours. As a result, new competitors or alliances may emerge that could capture significant market share. Any of these factors, alone or in combination with others, could harm our business, financial condition, and results of operations and result in a loss of market share and an increase in pricing pressure.

We depend on our executive officers and other key employees, and the loss of one or more of these employees or an inability to attract or retain highly skilled employees could adversely affect our business.

Our success depends largely upon the continued services of our executive officers and other key employees, including our engineering and sales and marketing personnel. From time to time, there may be changes in our executive management team or other key personnel, which could disrupt our business. We do not have employment agreements with our executive officers or other key personnel that require them to continue to work for us for any specified period and, therefore, they could terminate their employment with us at any time. The loss of one or more of our executive officers or other key employees could have an adverse effect on our business.

In addition, to execute our growth plan, we must attract and retain highly qualified personnel. Competition for these personnel in the San Francisco Bay Area, where our headquarters is located, and in other locations where we maintain offices, is intense, especially for engineers with MEMS technology and advanced clock IC design expertise. We have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than we have. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached legal obligations, resulting in a diversion of our time and resources. In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity awards declines, it may adversely affect our ability to recruit and retain highly skilled employees. Further, changes in immigration policies may negatively impact our ability to attract and retain personnel, including personnel with specialized technical expertise. If we fail to attract new personnel or fail to retain or motivate our current personnel, our business and future growth prospects could be adversely affected.

Our company culture has contributed to our success and if we cannot maintain this culture as we grow, our business could be harmed.

We believe that our company culture, which promotes innovation, open communication, and teamwork, has been critical to our success. We face a number of challenges that may affect our ability to sustain our corporate culture, including:

- failure to identify, attract, reward, and retain people in leadership positions in our organization who share and further our culture, values and mission;
- the increasing size and geographic diversity of our workforce;
- competitive pressures to move in directions that may divert us from our mission, vision, and values;
- the continued challenges of a rapidly-evolving industry; and

- the increasing need to develop expertise in new areas of business that affect us.

If we are not able to maintain our culture, our business, financial condition, and results of operations could be adversely affected.

We depend on third parties for our wafer fabrication, assembly and testing operations, which exposes us to certain risks that may harm our business.

We operate an outsourced manufacturing business model. As a result, we rely on third parties for all of our manufacturing operations, including wafer fabrication, assembly, and testing. Although we use multiple third-party supplier sources, we depend on these third parties to supply us with material of a requested quantity in a timely manner that meets our standards for yield, cost, and manufacturing quality. Except for our agreement with Robert Bosch LLC, or Bosch, for MEMS wafers, we do not have any long-term supply agreements with any of our other manufacturing suppliers. These third-party manufacturers often serve customers that are larger than us or require a greater portion of their services, which may decrease our relative importance and negotiating leverage with these third parties.

If market demand for wafers or production and assembly materials increases, or if a supplier of our wafers ceases or suspends operations, our supply of wafers and other materials could become limited. We currently have a ten-year supply agreement with Bosch for the fabrication of our MEMS wafers. This agreement expires in 2027 and may be terminated with three years' advance notice beginning in February 2024. We currently rely on Bosch for our MEMS fabrication, and Taiwan Semiconductor Manufacturing Company, or TSMC, for our analog circuits fabrication, and any disruption in their supply of wafers or any increases in their wafer or materials prices could adversely affect our gross margins and our ability to meet customer demands in a timely manner, or at all, and lead to reduced revenue. Moreover, wafers constitute a large portion of our product cost. If we are unable to negotiate volume discounts or otherwise purchase wafers at favorable prices and in sufficient quantities in a timely manner, our gross margins would be adversely affected.

To ensure continued wafer supply, we may be required to establish alternative wafer supply sources, which could require significant expenditures and limit our negotiating leverage. We currently rely on Bosch and TSMC as our primary foundries and suppliers for our MEMS timing devices and analog circuits, respectively, and only a few foundry vendors have the capability to manufacture our most advanced solutions, in particular with respect to our MEMS solution. If we engage alternative supply sources, we may encounter difficulties and incur additional costs. For example, we also have a license agreement with Bosch under which Bosch granted us a license to use certain patents. Under this agreement, we are required to pay a royalty fee to Bosch if we engage third parties to manufacture, or if we decide to manufacture ourselves, certain generations of our MEMS wafers through March 31, 2024. In addition, shipments could be significantly delayed while these sources are qualified for volume production. If we are unable to maintain our relationship with Bosch or TSMC, our ability to produce high-quality products could suffer, which in turn could harm our business, financial condition, and results of operations.

We currently rely on Advanced Semiconductor Engineering, Inc., or ASE, Carsem (M) Sdn. Bhd., or Carsem, and United Test and Assembly Center Ltd., or UTAC, for assembly and testing, as well as Daishinku and UTAC for ceramic packaging for some of our products. Certain of our manufacturing, packaging, assembly, and testing facilities are located outside of the United States, including Malaysia, Taiwan, and Thailand, where we are subject to increased risk of political and economic instability, difficulties in managing operations, difficulties in enforcing contracts and our intellectual property, severe weather, and employment and labor difficulties. Although we maintain business disruption insurance, this insurance may not be adequate to cover any losses we may experience as a result of such difficulties. Any of these factors could result in manufacturing and supply problems, and delays in our ability to provide our solutions to our customers on a timely basis, or at all. If we experience manufacturing problems at a particular location, we may be required to transfer manufacturing to a new location or supplier. Converting or transferring manufacturing from a primary location or supplier to a backup facility could be expensive and could take several quarters or more. During such a transition, we would be required to meet customer demand from our then-existing inventory, as well as any partially finished goods that could be modified to the required product specifications. In addition, our end customers may require requalification with a new wafer manufacturer. We typically

maintain at least a six-month supply of our MEMS wafers for which Bosch is our primary supplier. We do not otherwise maintain sufficient inventory to address a lengthy transition period. As a result, we may not be able to meet customer needs during such a transition, which could damage our customer relationships.

If one or more of these vendors terminates its relationship with us, or if we encounter any problems with our manufacturing supply chain, our ability to ship our solutions to our customers on time and in the quantity required would be adversely affected, which in turn could cause an unanticipated decline in our sales and loss of customers.

If the foundries with which we contract do not achieve satisfactory yields or quality, our reputation and customer relationships could be harmed.

We depend on satisfactory wafer foundry manufacturing capacity, wafer prices, and production yields, as well as timely wafer delivery to meet customer demand and enable us to maintain gross margins. The fabrication of our products is a complex and technically demanding process. Minor deviations in the manufacturing process can cause substantial decreases in yields and, in some cases, cause production to be suspended. Our foundry vendors may experience manufacturing defects and reduced manufacturing yields from time to time. Further, any new foundry vendors we employ may present additional and unexpected manufacturing challenges that could require significant management time and focus. Changes in manufacturing processes or the inadvertent use of defective or contaminated materials by the foundries that we employ could result in lower than anticipated production yields or unacceptable performance of our devices. Many of these problems are difficult to detect at an early stage of the manufacturing process and may be time-consuming and expensive to correct. Poor production yields from the foundries that we employ, or defects, integration issues, or other performance problems in our solutions could significantly harm our customer relationships and financial results, and give rise to financial or other damages to our customers. Any product liability claim brought against us, even if unsuccessful, would likely be time-consuming and costly to defend.

Manufacturing yields for new products initially tend to be lower as we complete product development and commence volume manufacturing, and typically increase as we bring the product to full production. Our business model includes this assumption of improving manufacturing yields and, as a result, material variances between projected and actual manufacturing yields will have a direct effect on our gross margin and profitability. The difficulty of accurately forecasting manufacturing yields and maintaining cost competitiveness through improving manufacturing yields will continue to be magnified by the increasing process complexity of manufacturing semiconductor products.

Raw material price fluctuations can increase the cost of our products, impact our ability to meet customer commitments, and may adversely affect our results of operations.

The cost of raw materials is a key element in the cost of our products. Our inability to offset material price inflation through increased prices to customers, suppliers, productivity actions, or through commodity hedges could adversely affect our results of operations. Many major components, product equipment items, and raw materials, are procured or subcontracted on a single or sole-source basis. Although we maintain a qualification and performance surveillance process and we believe that sources of supply for raw materials and components are generally adequate, it is difficult to predict what effects shortages or price increases may have in the future. Our inability to fill our supply needs would jeopardize our ability to fulfill obligations under our contracts, which could, in turn, result in reduced sales and profits, contract penalties or terminations, and damage to our customer relationships.

Furthermore, increases in the price of silicon wafers, testing costs, and commodities, which may result in increased production costs, mainly assembly and packaging costs, may result in a decrease in our gross margins. Moreover, our suppliers may pass the increase in raw materials and commodity costs onto us which would further reduce the gross margin of our products. In addition, as we are a fabless company, global market trends such as a shortage of capacity to fulfill our fabrication needs also may increase our raw material costs and thus decrease our gross margin.

We rely on our relationships with industry and technology leaders to enhance our product offerings and our inability to continue to develop or maintain such relationships in the future would harm our ability to remain competitive.

We develop many of our silicon timing systems products for applications in systems that are driven by industry and technology leaders in the communications and computing markets. We work with distributors, resellers, OEMs, and system manufacturers to define industry conventions and standards within our target markets. We believe that these relationships enhance our ability to achieve market acceptance and widespread adoption of our products. If we are unable to continue to develop or maintain these relationships, our silicon timing systems solutions could become less desirable to our customers, our sales could suffer and our competitive position could be harmed.

We are subject to the cyclical nature of the semiconductor industry.

The semiconductor industry is highly cyclical and is characterized by constant and rapid technological change, rapid product obsolescence, price erosion, evolving standards, short product life cycles, and wide fluctuations in product supply and demand. The industry experienced a significant downturn during the most recent global recession and has been experiencing a downturn in 2019. These downturns have been characterized by diminished product demand, production overcapacity, high inventory levels, and accelerated erosion of average selling prices. The current downturn in the semiconductor industry has been attributed to a variety of factors, including the ongoing U.S.-China trade dispute, weakness in demand and pricing for semiconductors across applications, and excess inventory. While this downturn has not directly impacted our business to date, any prolonged or significant downturn in the semiconductor industry could adversely affect our business and reduce demand for our products. Any future downturns in the semiconductor industry could also harm our business, financial condition, and results of operations. Furthermore, any significant upturn in the semiconductor industry could result in increased competition for access to third-party foundry and assembly capacity. We are dependent on the availability of this capacity to manufacture and assemble our products and we can provide no assurance that adequate capacity will be available to us in the future.

Our ability to receive timely payments from, or the deterioration of the financial conditions of, our distributors or our end customers could adversely affect our operating results.

Our ability to receive timely payments from, or the deterioration of the financial condition of, our distributors or our end customers could adversely impact our collection of accounts receivable, and, as a result, our revenue. We regularly review the collectability and creditworthiness of our customers to determine an appropriate allowance for doubtful accounts. Based on our review of our customers, substantially all of which are large distributors, resellers, OEMs, and system manufacturers, we had a $0.2 million and a $0.1 million reserve for doubtful accounts as of December 31, 2018 and September 30, 2019, respectively. If our doubtful accounts, however, were to exceed our current or future allowance for doubtful accounts, our business, financial condition, and results of operations would be adversely affected.

In preparing our consolidated financial statements, we make good faith estimates and judgments that may change or turn out to be erroneous, which could adversely affect our operating results for the periods in which we revise our estimates or judgments.

In preparing our consolidated financial statements in conformity with GAAP, we must make estimates and judgments in applying our most critical accounting policies. Those estimates and judgments have a significant impact on the results we report in our consolidated financial statements. The most difficult estimates and subjective judgments that we make relate to revenue recognition, inventories, internally developed software capitalization, stock-based compensation, and income taxes. We base our estimates on historical experience, input from outside experts and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We also have other key accounting policies that are not as subjective, and therefore, their application would not require us to make estimates or judgments that are as difficult, but which nevertheless could significantly affect our financial reporting. Actual results may differ materially from these estimates. If these estimates, judgments, or their related assumptions change, our operating results for the periods in which we revise our estimates, judgments, or assumptions could be adversely and perhaps materially affected.

Changes to financial accounting standards may affect our results of operations and could cause us to change our business practices.

We prepare our consolidated financial statements in accordance with GAAP. These accounting principles are subject to interpretation by the Financial Accounting Standards Board, the Securities and Exchange Commission, or the SEC, and various bodies formed to interpret and create accounting rules and regulations. Changes in accounting rules can have a

significant effect on our reported financial results and may affect our reporting of transactions completed before a change is announced. Changes to those rules or the questioning of current practices may adversely affect our financial results or the way we conduct our business.

Our loan agreements contain certain restrictive covenants that may limit our operating flexibility.

Our loan agreements contain certain restrictive covenants that either limit our ability to, or require a mandatory prepayment in the event that we, incur additional indebtedness, merge with other companies or enter into or consummate certain change of control transactions, acquire other companies, make certain investments, transfer or dispose of assets, amend certain material agreements, or enter into certain other transactions. We may not be able to generate sufficient cash flow or sales to pay the principal and interest under our outstanding debt obligations. Furthermore, our future working capital, borrowings, or equity financing could be unavailable to repay or refinance the amounts outstanding under our current debt obligations. In the event of a liquidation, our existing and any future lenders would be repaid all outstanding principal and interest prior to distribution of assets to unsecured creditors, and the holders of our common stock would receive a portion of any liquidation proceeds only if all of our creditors, including our existing and any future lenders, were first repaid in full.

We may not be able to accurately predict our future capital needs, and we may not be able to obtain additional financing to fund our operations.

We may need to raise additional funds in the future. Any required additional financing may not be available on terms acceptable to us, or at all. If we raise additional funds by issuing equity securities or convertible debt, investors may experience significant dilution of their ownership interest, and the newly-issued securities may have rights senior to those of the holders of our common stock. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operational flexibility and would also require us to incur additional interest expense. If additional financing is not available when required or is not available on acceptable terms, we may have to scale back our operations or limit our production activities, and we may not be able to expand our business, develop or enhance our solutions, take advantage of business opportunities, or respond to competitive pressures, which could negatively impact our revenue and the competitiveness of our products.

We may make acquisitions in the future that could disrupt our business, cause dilution to our stockholders, reduce our financial resources, and harm our business.

In the future, we may acquire other businesses, products, or technologies. Our ability to make acquisitions and successfully integrate personnel, technologies, or operations of any acquired business is unproven. If we complete acquisitions, we may not achieve the combined revenue, cost synergies, or other benefits from the acquisition that we anticipate, strengthen our competitive position, or achieve our other goals in a timely manner, or at all, and these acquisitions may be viewed negatively by our customers, financial markets, or investors. In addition, any acquisitions we make may create difficulties in integrating personnel, technologies, and operations from the acquired businesses and in retaining and motivating key personnel. Acquisitions may disrupt our ongoing operations, divert management from their primary responsibilities, subject us to additional liabilities, increase our expenses, and adversely impact our business, financial condition, and results of operations. Acquisitions may also reduce our cash available for operations and other uses, and could result in an increase in amortization expense related to identifiable assets acquired, potentially dilutive issuances of equity securities, or the incurrence of debt, any of which could harm our business, financial condition, and results of operations.

A portion of our operations is located outside of the United States, which subjects us to additional risks, including increased complexity and costs of managing international operations and geopolitical instability.

We outsource the fabrication and assembly of all of our products to third parties that are primarily located in Germany and Asia. In addition, we conduct research and development activities in the United States, the Netherlands, Taiwan, and Ukraine and work with third-party contractors in Japan and Russia. We also conduct marketing and administrative functions in the United States, China, Taiwan, and Ukraine. In addition, members of our sales force are located in the United States, China, India, Italy, Taiwan, the United Kingdom, and Ukraine. In addition, approximately 96% and 93% of our revenue for the years ended December 31, 2017 and 2018, respectively, was from distributors with ship-to locations outside the United States, although we believe the majority of our end customers are based in the U.S., based on sell-through information provided by these distributors. As a result of our international focus, we face numerous challenges and risks, including:

- complexity and costs of managing international operations, including manufacturing, assembly, and testing of our products and associated costs;
- geopolitical and economic instability and military conflicts;
- limited protection for, and vulnerability to theft of, our intellectual property rights, including our trade secrets;
- compliance with local laws and regulations and unanticipated changes in local laws and regulations, including tax laws and regulations, including uncertainty surrounding the United Kingdom's decision to exit the European Union;
- trade and foreign exchange restrictions and higher tariffs, including the recent trade tensions between the U.S. and China that has resulted in higher tariffs on certain semiconductor products;
- timing and availability of import and export licenses and other governmental approvals, permits, and licenses, including export classification requirements;
- foreign currency fluctuations and exchange losses relating to our international operating activities;
- restrictions imposed by the U.S. government or foreign governments on our ability to do business with certain companies or in certain countries as a result of international political conflicts and the complexity of complying with those restrictions;
- transportation delays and other consequences of limited local infrastructure, and disruptions, such as large scale outages or interruptions of service from utilities or telecommunications providers;
- difficulties in staffing international operations;
- changes in immigration policies which may impact our ability to hire personnel;
- local business and cultural factors that differ from our normal standards and practices;
- differing employment practices and labor relations;
- requirements in foreign countries which may impact availability of personnel, such as mandatory military service in countries such as Ukraine;
- heightened risk of terrorist acts;
- regional health issues, travel restrictions, power outages, and natural disasters; and
- work stoppages.

These risks could harm our international operations, delay new product releases, increase our operating costs, and hinder our ability to grow our operations and business and, consequently, our business, financial condition, and results of operations could suffer. For example, we rely on TSMC in Taiwan for the fabrication of our analog circuits and have sales force personnel in Taiwan. If political tensions between China and Taiwan were to increase, it could disrupt our business. In addition, if the political and military situation in Russia and Ukraine, or the relationship between Russia and the United States, significantly worsens, or if either Russia or the United States imposes significant new economic sanctions or restrictions on doing business, and we are restricted or precluded from continuing our operations in Russia or Ukraine, our costs could increase, and our product development efforts, business, financial condition, and results of operations could be significantly harmed.

If significant tariffs or other restrictions are placed on Chinese imports or any related counter-measures are taken by China, our revenue and results of operations may be materially harmed.

If significant tariffs or other restrictions are placed on Chinese imports or any related counter-measures are taken by China, our revenue and results of operations may be materially and adversely affected. Between July and May 2019, the U.S. Trade Representative imposed tariffs between 10% and 25% on a variety of goods imported from China. If the existing tariffs are expanded or interpreted by a court or governmental agency to apply to any of our products, we may be required to raise our prices on those products, which may further result in a loss of customers and harm our operating performance. The current U.S. administration has indicated that it may further alter trade agreements and terms between China and the United States, including limiting trade with China, and may impose additional tariffs on imports from China. For example, on September 1, 2019, the United States imposed a 15% tariff on approximately $110 billion of Chinese imports. If our products become subject to tariffs or other retaliatory trade measures, it could materially and adversely affect our business and operating results. In the event that these or future tariffs are imposed on imports of our products, or that China or other countries take retaliatory trade measures in response to existing or future tariffs, our business may be impacted and we may be required to raise prices or make changes to our operations, any of which could materially harm our revenue or operating results.

Fluctuations in exchange rates between and among the currencies of the countries in which we do business could adversely affect our results of operations.

Our sales have been historically denominated in U.S. dollars. An increase in the value of the U.S. dollar relative to the currencies of the countries in which our customers operate could impair the ability of our customers to cost-effectively purchase or integrate our solutions into their product offerings, which may materially affect the demand for our solutions and cause these customers to reduce their orders, which in turn would adversely affect our revenue and business. If we increase operations in other currencies in the future, we may experience foreign exchange gains or losses due to the volatility of other currencies compared to the U.S. dollar. Certain of our employees are located in Malaysia, the Netherlands, Taiwan, and Ukraine, and we have engineering consultants in Japan and Russia. Accordingly, a portion of our payroll as well as certain other operating expenses are paid in currencies other than the U.S. dollar. Our results of operations are denominated in U.S. dollars, and the difference in exchange rates in one period compared to another may directly impact period-to-period comparisons of our results of operations. Furthermore, currency exchange rates have been especially volatile in the recent past, and these currency fluctuations may make it difficult for us to predict our results of operations.

Failure to comply with the laws associated with our activities outside of the United States could subject us to penalties and other adverse consequences.

We face significant risks if we fail to comply with anti-corruption laws and anti-bribery laws, including, without limitation, the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. Travel Act, and the UK Bribery Act 2010, that prohibit improper payments or offers of payment to foreign governments and political parties by us for the purpose of obtaining or retaining business. In many foreign countries, particularly in countries with developing economies, it may be a local custom that businesses operating in such countries engage in business practices that are prohibited by the FCPA or other applicable laws and regulations. We are in the early stages of implementing our FCPA compliance program and cannot assure you that all of our employees and agents, as well as those companies to which we outsource certain of our business operations, will not take actions in violation of our policies and applicable law, for which we may be ultimately held responsible. Any violation of these laws could result in severe criminal or civil sanctions and, in the case of the FCPA, suspension or debarment from U.S. government contracting, which could have an adverse effect on our reputation, business, financial condition, and results of operations.

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

Our products and technology are subject to U.S. export controls, including the U.S. Department of Commerce's Export Administration Regulations and economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls. These regulations may limit the export of our products and technology, and provision of our services outside of the United States, or may require export authorizations, including by license, a license exception or other appropriate government authorizations, including annual or semi-annual reporting and the filing of an encryption

registration. Export control and economic sanctions laws may also include prohibitions on the sale or supply of certain of our products to embargoed or sanctioned countries, regions, governments, persons, and entities. For example, in May 2019, the U.S. Department of Commerce added Huawei Technologies Co., Ltd. and its affiliates to the entity list, banning all exports to Huawei and its affiliates of items subject to control under the Export Administration Regulations, or EAR. Certain exports to Huawei have been permitted under a temporary general license issued by the U.S. Commerce Department, which on August 19, 2019 was extended through November 18, 2019. Although we have not had any direct sales with Huawei, we believe, based on sell-through information provided by our distributors, that we have had a small amount of revenue attributable to Huawei. However, to the extent this occurred during or after May 2019, we understand the products were not subject to the EAR. In addition, 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, and importation of our products and technology and the provision of services, including by our partners, must comply with these laws or else we may be adversely affected, through reputational harm, government investigations, penalties, and a denial or curtailment of our ability to export our products and technology. Complying with export control and sanctions laws may be time-consuming and may result in the delay or loss of sales opportunities. Although we take precautions to prevent our products and technology from being provided in violation of such laws, our products and technology may have previously been, and could in the future be, provided inadvertently in violation of such laws, despite the precautions we take. If we are found to be in violation of U.S. sanctions or export control laws, it could result in substantial fines and penalties for us and for the individuals working for us. Changes in export or import laws or corresponding sanctions, may adversely impact our operations, delay the introduction and sale of our products in international markets, or, in some cases, prevent the export or import of our products and technology to certain countries, regions, governments, persons, or entities altogether, which could adversely affect our business, financial condition, and results of operations.

Changes in environmental laws or regulations, including conflict minerals rules, could impair our ability to compete in international markets.

Our product or manufacturing standards could be impacted by new or revised environmental rules and regulations or other social initiatives. For example, the SEC adopted disclosure requirements in 2012 relating to the sourcing of certain minerals from the Democratic Republic of Congo and certain other adjoining countries. These rules, which required reporting starting in 2014, could adversely affect our costs, the availability of minerals used in our products, and our relationships with customers and suppliers. Also, since our supply chain is complex, we may face reputational challenges with our customers, stockholders, and other stakeholders if we are unable to sufficiently verify the origins for any conflict minerals used in the products that we sell.

New or future changes to U.S. and non-U.S. tax laws could materially adversely affect us.

New or future changes in tax laws, regulations, and treaties, or the interpretation thereof, in addition to tax regulations enacted but not in effect, tax policy initiatives and reforms under consideration in the United States or related to the Organisation for Economic Co-operation and Development's, or OECD, Base Erosion and Profit Shifting, or BEPS, Project, the European Commission's state aid investigations, and other initiatives could have an adverse effect on the taxation of international businesses. Furthermore, countries where we are subject to taxes, including the United States, are independently evaluating their tax policy and we may see significant changes in legislation and regulations concerning taxation. Certain countries have already enacted legislation, including those related to BEPS Project, which could affect international businesses, and other countries have become more aggressive in their approach to audits and enforcement of their applicable tax laws. On December 22, 2017, the U.S. federal government enacted the Tax Cuts and Jobs Act, or the Tax Act, which made substantial changes to U.S. tax laws, the consequences of which have not yet been fully determined and may be adverse to our business. In addition, we are unable to predict what future tax reform may be proposed or enacted or what effect such changes would have on our business, but any changes, to the extent they are brought into tax legislation, regulations, policies, or practices, could increase our effective tax rates in the countries where we have operations and have an adverse effect on our overall tax rate, along with increasing the complexity, burden and cost of tax compliance, all of which could impact our business, financial condition, and results of operations.

Tax regulatory authorities may disagree with our positions and conclusions regarding certain tax positions resulting in unanticipated costs or non-realization of expected benefits.

A tax authority may disagree with tax positions that we have taken. For example, the Internal Revenue Service, or IRS, or another tax authority could challenge our allocation of income by tax jurisdiction and the amounts paid between our affiliated companies pursuant to our intercompany arrangements and transfer pricing policies, including amounts paid with respect to our intellectual property in connection with our intercompany research and development cost sharing arrangement and legal structure. A tax authority may take the position that material income tax liabilities, interest, and penalties are payable by us, in which case, we expect that we might contest such assessment. Contesting such an assessment may be lengthy and costly and if we were unsuccessful in disputing the assessment, the implications could be materially adverse to us and affect our anticipated effective tax rate or operating income, and we could be required to pay substantial penalties and interest where applicable.

Catastrophic events may disrupt our business.

Our corporate headquarters and some of our suppliers and foundry vendors are located in areas that are in active earthquake zones or are subject to power outages, natural disasters, political, social, or economic unrest, and other potentially catastrophic events. In the event of a major earthquake, hurricane, flooding, or other catastrophic event such as fire, power loss, telecommunications failure, cyber-attack, war, terrorist attack, political, social, or economic unrest, or disease outbreak, we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our product development, breaches of data security, or loss of critical data, any of which could have an adverse effect on our future results of operations.

State, federal, and foreign laws and regulations related to privacy, data use, and security could adversely affect us.

We are subject to state and federal laws and regulations related to privacy, data use, and security. In addition, in recent years, there has been a heightened legislative and regulatory focus on data security, including requiring consumer notification in the event of a data breach. Legislation has been introduced in Congress and there have been several Congressional hearings addressing these issues. From time to time, Congress has considered, and may do so again, legislation establishing requirements for data security and response to data breaches that, if implemented, could affect us by increasing our costs of doing business. In addition, several states have enacted privacy or security breach legislation requiring varying levels of consumer notification in the event of a security breach. For example, in 2018, California passed the California Consumer Privacy Act, or CCPA, which will go into effect in January 2020, to enhance consumer protection and privacy rights by granting consumers resident in California new rights with respect to the collection of their personal data and imposing new operational requirements on businesses. The CCPA includes a statutory damages framework and private rights of action against businesses that fail to comply with certain CCPA terms or implement reasonable security procedures and practices to prevent data breaches. Several other states are considering similar legislation.

Foreign governments are raising similar privacy and data security concerns. In particular, the European Union has enacted a General Data Protection Regulation, or GDPR, which became effective in May 2018. It is unclear how compliance with GDPR will affect our business. China, Russia, Japan, and other countries in Latin America and Asia are also strengthening their privacy laws and the enforcement of privacy and data security requirements. Complying with such laws and regulations may be time-consuming and require additional resources, and could therefore adversely affect our business, financial condition, and results of operations.

Breaches or other disruptions of our security systems may damage our reputation and adversely affect our business.

Our security systems are designed to protect our customers', suppliers', and employees' confidential information, as well as maintain the physical security of our facilities. We also rely on a number of third-party cloud-based service providers of corporate infrastructure services relating to, among other things, human resources, electronic communication services, and some finance functions, and we are, of necessity, dependent on the security systems of these providers. These technologies are subject to failure, including as a result of an inability to have such technologies properly supported, updated, expanded, or integrated into other technologies. These technologies may also contain open source and third-party software which may unbeknownst to us contain defects or viruses.

Any security breaches or other unauthorized access by third parties to the systems of our cloud-based service providers or the existence of computer viruses in their data or software could expose us to a risk of information loss and misappropriation of confidential information. Accidental or willful security breaches or other unauthorized access by third parties to our

information systems or facilities, or the existence of computer viruses in our data or software could expose us to a risk of information loss, misappropriation of proprietary and confidential information, as well as work stoppages or disruptions. Any theft or misuse of this information could result in, among other things, unfavorable publicity, damage to our reputation, difficulty in marketing our products, allegations by our customers that we have not performed our contractual obligations, regulatory fines or penalties, litigation by affected parties and possible financial obligations for liabilities and damages related to the theft or misuse of this information, any of which could have an adverse effect on our business, financial condition, results of operations, reputation, and relationships with our customers and suppliers. Cybersecurity threats, which include computer viruses, spyware and malware, attempts to access information, denial of service attacks, and other electronic security breaches, are persistent and evolve quickly. Such threats have increased in frequency, scope, and potential impact in recent years. Since the techniques used to obtain unauthorized access or to sabotage systems change frequently and are often not recognized until after they are launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures.

Risks Related to Intellectual Property

Our failure to adequately protect our intellectual property rights could impair our ability to compete effectively or defend ourselves from litigation, which could harm our business, financial condition, and results of operations.

Our success depends, in part, on our ability to protect our intellectual property. We rely primarily on patent, copyright, trademark, and trade secret laws, as well as confidentiality and non-disclosure agreements, and other contractual protections, to protect our technologies and proprietary know-how, all of which offer only limited protection. The steps we have taken to protect our intellectual property rights may not be adequate to prevent the misappropriation, infringement, or other violation of our proprietary information or infringement of our intellectual property rights, and our ability to prevent such misappropriation, infringement, or other violation is uncertain, particularly in countries outside of the United States. As of September 30, 2019, we had 55 issued U.S. patents, expiring generally between 2026 and 2036, and 30 pending U.S. patent applications (including five provisional applications). Our issued patents and pending patent applications generally relate to our MEMS fabrication process, MEMS resonators, circuits, packaging, and oscillator systems. We cannot assure you that any patents from any pending patent applications (or from any future patent applications) will be issued, and even if the pending patent applications are granted, the scope of the rights granted to us may not be meaningful or provide us with any commercial advantage. For example, these patents could be opposed, contested, circumvented, designed around by our competitors, be narrowed or declared invalid or unenforceable in judicial or administrative proceedings including re-examination, inter partes review, post-grant review, interference and derivation proceedings and equivalent proceedings in foreign jurisdictions, or be subject to ownership claims by third parties. The failure of our patents to adequately protect our technology might make it easier for our competitors to offer similar products or technologies. Our foreign patent protection is less comprehensive than our U.S. patent protection and may not protect our intellectual property rights in some countries where our products are sold or may be sold in the future. Many U.S.-based companies have encountered substantial third-party intellectual property infringement in foreign countries, including countries where we sell products. Even if foreign patents are granted, effective enforcement in foreign countries may not be available. If such an impermissible use of our intellectual property or trade secrets were to occur, our ability to sell our solutions at competitive prices may be adversely affected and our business, financial condition, and results of operations could be adversely affected.

The legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights are uncertain and evolving. We cannot assure you that others will not develop or patent similar or superior technologies or solutions, or that our patents, trademarks, and other intellectual property will not be challenged, invalidated, or circumvented by others.

We also have a license to certain patents from Bosch relating to the design and manufacture of MEMS-based timing applications. The patent rights obtained under the license agreement expire between 2021 and 2029, and the license agreement expires upon expiration of the last patent licensed under the agreement. If we were to lose the benefit of these patents or other licensed technology used in our business, it could harm our business and our ability to compete.

We believe that the success of our business depends more on proprietary technology, information and processes, and know-how than on our patents or trademarks. Much of our proprietary information and technology related to manufacturing processes is not patented and may not be patentable.

Unauthorized copying or other misappropriation of our proprietary technologies could enable third parties to benefit from our technologies without paying us for doing so, which could harm our business. Monitoring unauthorized use of our intellectual property is difficult and costly. It is possible that unauthorized use of our intellectual property may have occurred or may occur without our knowledge. We cannot assure you that the steps we have taken will prevent unauthorized use of our intellectual property, or that others will not develop technologies similar or superior to our technology or design around our intellectual property. Our failure to effectively protect our intellectual property could reduce the value of our technology in licensing arrangements or in cross-licensing negotiations.

In addition, we also rely on contractual protections with our customers, suppliers, distributors, employees, and consultants, and we implement security measures designed to protect our trade secrets and know-how. However, we cannot assure you that we have entered into such agreements with every such party, that these contractual protections and security measures will not be breached, that we will have adequate remedies for any such breach, or that our customers, suppliers, distributors, employees, or consultants will not assert rights to intellectual property or damages arising out of such contracts.

We may in the future need to initiate infringement claims or litigation in order to try to protect or enforce our intellectual property rights. Litigation, whether we are a plaintiff or a defendant, can be expensive and time-consuming and may divert the efforts of our management and other personnel, which could harm our business, whether or not such litigation results in a determination favorable to us. Litigation also puts our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing. Additionally, any enforcement of our patents or other intellectual property may provoke third parties to assert counterclaims against us. If we are unable to meaningfully protect our proprietary rights or if third parties independently develop or gain access to our or similar technologies, our business, financial condition, results of operations, reputation, and competitive position could be harmed.

We may face intellectual property infringement, misappropriation, or other claims, which could be time-consuming and costly to defend or settle and which could result in the loss of significant rights and harm our relationships with our customers and distributors.

The semiconductor industry in which we operate is characterized by companies that hold patents and other intellectual property rights and vigorously pursue, protect, and enforce intellectual property rights. From time to time, third parties may assert against us and our customers and distributors their patent and other intellectual property rights to technologies that are important to our business. For example, in March 2019, VTT Technical Research Centre of Finland, Ltd. filed suit in the United States District Court for the Northern District of California alleging infringement by us of a patent. We have not accrued for a loss contingency relating to this matter. For more information regarding this matter, see “Business—Legal Proceedings.”

In addition, our commercial success depends upon our ability to manufacture and sell our products without infringing, misappropriating, or otherwise violating the intellectual property rights of others. Claims that our products, processes, or technology infringe, misappropriate, or otherwise violate third-party intellectual property rights, regardless of their merit or resolution, could be costly to defend or settle and could divert the efforts and attention of our management and other personnel. We may in the future, particularly as a public company with an increased profile and visibility, receive communications from others alleging our infringement, misappropriation, or other violation of patents, trade secrets, or other intellectual property rights. We cannot assure you that, if made, these claims will not be successful, and lawsuits resulting from such allegations, even if we believe they are invalid, could subject us to significant liability for damages, invalidate our proprietary rights, and prevent us from selling specific products. Moreover, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

Intellectual property claims could also harm our relationships with our customers or distributors and might deter future customers from doing business with us. We do not know whether we will prevail in any such proceedings given the complex technical issues and inherent uncertainties in intellectual property litigation. If any future proceedings result in an adverse outcome, we could be required to:

- cease the manufacture, use or sale of the applicable products, processes, or technology;

- pay substantial damages for infringement by us or our customers;
- expend significant resources to develop non-infringing products, processes, or technology, which may not be successful;
- license technology from the third party claiming infringement, which license may not be available on commercially reasonable terms, or at all;
- cross-license our technology to a competitor to resolve an infringement claim, which could weaken our ability to compete with that competitor;
- lose the opportunity to license our technology to others or to collect royalty payments based upon successful protection and assertion of our intellectual property rights against others; or
- pay substantial damages to our customers or end users to discontinue their use of or to replace infringing technology sold to them with non-infringing technology, if available.

Any of the foregoing results could adversely affect our business, financial condition, and results of operations.

Any potential dispute involving patents or other intellectual property could affect our customers, which could trigger our indemnification obligations to them and result in substantial expense to us.

In any potential dispute involving patents or other intellectual property, our customers could also become the target of litigation. Our agreements with customers and other third parties generally include indemnification or other provisions under which we agree to indemnify or otherwise be liable to them for losses suffered or incurred as a result of claims of intellectual property infringement, damages caused by us to property or persons, or other liabilities relating to or arising from our solutions included in their products. Large indemnity payments or damage claims from contractual breach could harm our business, financial condition, and results of operations. From time to time, customers require us to indemnify or otherwise be liable to them for breach of confidentiality or failure to implement adequate security measures with respect to their intellectual property and trade secrets. Although we normally contractually limit our liability with respect to such obligations, we may still incur substantial liability related to them. Any litigation against our customers could trigger technical support and indemnification obligations under some of our agreements, which could result in substantial expense to us.

In addition, other customers or end customers with whom we do not have formal agreements requiring us to indemnify them may ask us to indemnify them if a claim is made as a condition to awarding future design wins to us. Because some of our customers are larger than we are and have greater resources than we do, they may be more likely to be the target of an infringement claim by third parties than we would be, which could increase our chances of becoming involved in a future lawsuit. If any such claims were to succeed, we might be forced to pay damages on behalf of our customers that could increase our expenses, disrupt our ability to sell our solutions and reduce our revenue. Any dispute with a customer with respect to such obligations could have adverse effects on our relationship with that customer and other current and prospective customers and reduce demand for our solutions. In addition to the time and expense required for us to supply support or indemnification to our customers, any such litigation could severely disrupt or shut down the business of our customers, which in turn could hurt our relations with our customers and cause the sale of our products to decrease. Any of the foregoing could harm our business, financial condition, and results of operations.

Risks Related to Our Relationship with MegaChips Corporation

As long as MegaChips controls us, your ability to influence matters requiring stockholder approval will be limited.

After this offering, MegaChips will own shares of our common stock, representing approximately % of our total outstanding shares of common stock, assuming the underwriters do not exercise their over-allotment option, and approximately % if the underwriters exercise their over-allotment option in full. Effective November 1, 2019 and after this offering, for so long as MegaChips continues to hold at least 50% of our outstanding common stock, MegaChips is expected to continue to hold at

least one out of seven seats on our board of directors. For so long as MegaChips, its successors in interest, and its subsidiaries hold at least a majority of our outstanding common stock, MegaChips will be able to elect the members of our board of directors and could at any time replace our entire board of directors.

In addition, until such time as MegaChips, its successors in interest, and its subsidiaries collectively own less than a majority of the shares of all of our common stock then outstanding, MegaChips will have the ability to take stockholder action without the vote of any other stockholder, and investors in this offering will not be able to affect the outcome of any stockholder vote during this period. As a result, MegaChips will have the ability to control all matters affecting us, including:

- through our board of directors, any determination with respect to our business plans and policies, including the appointment and removal of our officers;
- any determinations with respect to mergers and other business combinations;
- our acquisition or disposition of assets;
- our financing activities;
- the allocation of business opportunities that may be suitable for us and MegaChips;
- the payment of dividends on our common stock; and
- the number of shares available for issuance under our stock plans.

MegaChips' voting control may discourage transactions involving a change of control of us, including transactions in which you as a holder of our common stock might otherwise receive a premium for your shares over the then current market price.

MegaChips is not prohibited from selling a controlling interest in us to a third party and may do so without your approval and without providing for a purchase of your shares of common stock. Accordingly, your shares of common stock may be worth less than they would be if MegaChips did not maintain voting control over us.

We may be impacted by risks associated with MegaChips and third parties may seek to hold us responsible for liabilities of MegaChips.

We may be negatively impacted by events affecting MegaChips. For example, if MegaChips were subject to shareholder or other litigation or takeover activity, it could disrupt our business and operations. In addition, third parties may seek to hold us responsible for MegaChips' liabilities, particularly as a public company in the U.S. with an increased profile and visibility. However, if those liabilities are significant and we are ultimately held liable for them, we cannot assure you that we will be able to recover the full amount of our losses from MegaChips. This in turn may adversely affect our business, financial condition, and results of operations. Further, we may also be subject to risks associated with changes in Japanese laws and regulations, which may impact us as a subsidiary of a Japanese company.

Our inability to resolve any disputes that arise between us and MegaChips with respect to our past and ongoing relationships may adversely affect our operating results.

Disputes may arise between MegaChips and us in a number of areas relating to our past and ongoing relationships, including:

- labor, tax, employee benefit, indemnification, and other matters arising from our separation from MegaChips;
- employee retention and recruiting;
- business combinations involving us;
- sales or distributions by MegaChips of all or any portion of its ownership interest in us;

- the nature, quality, and pricing of services MegaChips has agreed to provide us; and
- business opportunities that may be attractive to both MegaChips and us.

We may not be able to resolve any potential conflicts, and even if we do, the resolution may be less favorable than if we were dealing with an unaffiliated party.

We currently have a loan agreement with MegaChips. As of September 30, 2019, the outstanding balance under this loan, or the Parent Loan, was $3.0 million. The Parent Loan bears interest at a rate equal to the interest rate at which MegaChips procured the funds from Sumitomo Mitsui Banking Corporation, or SMBC, plus 0.09%. MegaChips has discretion whether to accept our request for a loan. We have also entered into a distribution agreement with MegaChips under which MegaChips has the exclusive right to promote, market, and sell our products in Japan as the exclusive distributor. The agreements we entered into with MegaChips may be amended upon agreement between the parties. Because we are controlled by MegaChips, we may not have the leverage to negotiate amendments to these agreements on terms as favorable to us compared to those we would negotiate with an unaffiliated third party.

In addition, MegaChips guarantees our obligations under our revolving line of credit with The Bank of Tokyo-Mitsubishi UFJ, Ltd., or MUFG, which has an aggregate principal amount of up to $50.0 million, and our revolving line of credit with SMBC which has an aggregate principal amount of up to $20.0 million. We may not have the leverage to negotiate terms favorable to us under these agreements upon completion of the offering, as we will no longer be a wholly owned subsidiary of MegaChips. See "Certain Relationships and Related Party Transactions—Agreements with MegaChips."

There could be potential conflicts of interest between us and affiliates of MegaChips, which could impact our business and operating results.

Some of our directors and executive officers own MegaChips' common stock and restricted stock units. For information regarding the ownership of MegaChips' common stock and options to purchase MegaChips' common stock, see "Executive Compensation—Equity-Based Incentive Awards—MegaChips Equity Awards" and "Executive Compensation—Agreements with Our Named Executive Officers and Potential Payments upon Termination or Change of Control." In addition, some of our directors are executive officers and/or directors of MegaChips. Ownership of MegaChips securities by our directors and officers after this offering and the presence of executive officers or directors of MegaChips on our board of directors could create, or appear to create, conflicts of interest with respect to matters involving both us and MegaChips. For example, corporate opportunities may arise that concern both of our businesses, such as the potential acquisition of a particular business or technology that is complementary to both of our businesses. In addition, we have not established at this time any procedural mechanisms to address actual or perceived conflicts of interest of such directors and officers and expect that our board of directors, in the exercise of its fiduciary duties, will determine how to address any actual or perceived conflicts of interest on a case-by-case basis. If any corporate opportunity arises and if our directors and officers do not pursue it on our behalf pursuant to the provisions in our amended and restated certificate of incorporation, we may not become aware of, and may potentially lose, a significant business opportunity.

In addition, MegaChips is listed on the Tokyo Stock Exchange and is therefore subject to disclosure and reporting obligations in Japan that may vary from the disclosure and reporting obligations to which we are subject, as well as the timing of such disclosure and reporting obligations. For example, MegaChips may be required to include financial information regarding us in its consolidated financial statements prior to the time we may otherwise be required to file a periodic report relating to our financial information for a given fiscal period. This in turn may cause confusion for investors in our common stock.

MegaChips may at any time replace our entire board of directors. As a result, unless and until MegaChips, its successors in interest, and its subsidiaries collectively own less than a majority of our common stock then outstanding, MegaChips could effectively control and direct our board of directors, which in turn may create issues if and to the extent our interests and those of MegaChips diverge. Under these circumstances, persons who might otherwise accept our invitation to join our board of directors may decline.

Upon completion of this offering, we will be a "controlled company" within the meaning of the Nasdaq listing rules and as such are exempt from certain corporate governance requirements.

As a result of MegaChips' holding more than 50% of the voting power for our board of directors described above, we are a "controlled company" within the meaning of the listing rules of The Nasdaq Stock Market LLC, or the Nasdaq listing rules. Therefore, we are not required to comply with certain corporate governance rules that would otherwise apply to us as a listed company on The Nasdaq Stock Market LLC, or Nasdaq, including the requirement that compensation committee and nominating and corporate governance committee be composed entirely of "independent" directors (as defined by the Nasdaq listing rules). As a "controlled company" our board of directors is not required to include a majority of "independent" directors. Should the interests of MegaChips differ from those of other stockholders, it is possible that the other stockholders might not be afforded such protections as might exist if our board of directors, or such committees, were required to have a majority, or be composed exclusively, of directors who were independent of MegaChips or our management.

Risks Related to Our Common Stock and this Offering

An active trading market for our common stock may not develop or be sustained and you may not be able to sell your shares at or above the initial public offering price, or at all.

There has been no public market for our common stock prior to this offering. The initial public offering price for our common stock will be determined through negotiations between the underwriters and us and may vary from the market price of our common stock following this offering. If you purchase our common stock in this offering, you may not be able to resell those shares at or above the initial public offering price, or at all. An active market in our common stock may not develop upon completion of this offering or, if it does develop, it may not be sustainable or liquid enough for you to sell your shares. We have applied to list our common stock on The Nasdaq Global Select Market but we cannot assure you that an active trading market will develop.

Our stock price may be volatile and may decline, resulting in a loss of some or all of your investment.

The trading price and volume of our common stock is likely to be volatile and could fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated fluctuations in our results of operations due to, among other things, changes in customer demand, product life cycles, pricing, ordering patterns, and unforeseen operating costs;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- failure of securities analysts to initiate or maintain coverage of us, changes in financial estimates or ratings by any securities analysts who follow us, or our failure to meet these estimates or the expectations of investors;
- announcements by our significant customers of changes to their product offerings, business plans, or strategies;
- announcements by us or our competitors of significant technical innovations, acquisitions, strategic partnerships, joint ventures, or capital commitments;
- changes in operating performance and stock market valuations of other technology companies generally, or those in the semiconductor industry;
- timing and seasonality of the end-market demand;
- cyclical fluctuations in the semiconductor market;
- price and volume fluctuations in the overall stock market from time to time, including as a result of trends in the economy as a whole;
- actual or anticipated developments in our business or our competitors' businesses or the competitive landscape generally;

- new laws or regulations or new interpretations of existing laws, or regulations applicable to our business;
- any major change in our management;
- lawsuits threatened or filed against us; and
- other events or factors, including those resulting from war, incidents of terrorism, or responses to these events.

In addition, the market for technology stocks and the stock markets in general have experienced extreme price and volume fluctuations. Stock prices of many technology companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business and adversely affect our business, financial condition, and results of operations.

Substantial future sales of our common stock could cause the market price of our common stock to decline.

The market price of our common stock could decline as a result of substantial sales of our common stock, particularly sales by our directors, executive officers, and significant stockholders, including MegaChips, currently our sole stockholder, a large number of shares of our common stock becoming available for sale or the perception in the market that holders of a large number of shares intend to sell their shares. Upon completion of this offering, we will have approximately shares of common stock outstanding, assuming no exercise of the underwriters' over-allotment option. All of the shares of common stock sold in this offering will be freely transferable without restriction or additional registration under the Securities Act of 1933, as amended, or the Securities Act. Subject to the restrictions under Rule 144 under the Securities Act, shares of common stock outstanding after this offering will be eligible for resale 180 days after the date of this prospectus upon the expiration of lock-up agreements or other contractual restrictions. In addition, Barclays Capital Inc., on behalf of the underwriters, may in its sole discretion release some or all of the shares subject to the lock-up agreements prior to the expiration of this 180-day lock-up period, subject to applicable notice requirements and in some cases without public notice. See "Shares Eligible for Future Sale" for additional information. As these resale restrictions end, the market price of our common stock could decline if the holders of those shares, including MegaChips, sell them or are perceived by the market as intending to sell them. After these contractual resale restrictions lapse, MegaChips will be able to sell some or all of its shares of our common stock, subject only to the applicable restrictions under of federal and state securities laws.

After this offering, subject to the lock-up agreements described above, MegaChips will hold 15,000,000 shares of our common stock. We also intend to register shares of common stock that we may issue under our employee equity incentive plans. Once we register these shares, they will be able to be sold freely in the public market upon issuance, subject to existing market stand-off or lock-up agreements with the underwriters.

If securities analysts or industry analysts downgrade our common stock, publish negative research or reports, or fail to publish reports about our business, our stock price and trading volume could decline.

The market price and trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us, our business and our market. If one or more analysts adversely change their recommendation regarding our stock or change their recommendation about our competitors' stock, our stock price would likely decline. If one or more analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets which in turn could cause our stock price or trading volume to decline. In addition, if our operating results fail to meet the expectations created by securities analysts' reports, our stock price could decline.

We may invest or spend the proceeds of this offering in ways with which you may not agree or in ways which may not yield a return.

Our management will have considerable discretion in the application of the net proceeds of this offering, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase the value of our business, which could cause our stock price to decline.

We do not intend to pay dividends on our common stock so any returns will be limited to changes in the value of our common stock.

We have never declared or paid any cash dividends on our common stock. We currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Although our existing loan agreements do not contain restrictions on our ability to pay dividends or make distributions, we may in the future amend our existing loan agreements or enter into agreements that contain such restrictions. Any return to stockholders will therefore be limited to the increase, if any, in our stock price, which may never occur.

We might not be able to utilize a significant portion of our net operating loss carryforwards and research and development tax credit carryforwards.

As of December 31, 2018, we had U.S. federal and state net operating loss, or NOL, carryforwards of approximately $160.7 million and $63.9 million, respectively, and U.S. federal and state research and development tax credit carryforwards of approximately $4.6 million and $5.2 million, respectively. The U.S. federal NOL carryforwards begin to expire in 2025 and the state NOL carryforwards begin to expire in 2028. The U.S. federal research and development tax credit carryforwards begin to expire in 2025 and the state research and development tax credit carryforwards carry forward indefinitely. These net operating loss and U.S. federal tax credit carryforwards could expire unused and be unavailable to offset future income tax liabilities. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, and corresponding provisions of California state law, if a corporation undergoes an "ownership change," which is generally defined as a greater than 50% change, by value, in its equity ownership over a three-year period, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change income may be limited. We completed a Section 382 analysis and determined an ownership change occurred in 2014 and concluded that it had no impact on U.S. federal and California net operating losses or on U.S. federal research and development credits. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership, including this offering, some of which may be outside of our control. If we determine that an ownership change has occurred and our ability to use our historical net operating loss and tax credit carryforwards is materially limited, it would harm our future business, financial condition, and results of operations by effectively increasing our future tax obligations. In addition, under the Tax Act, federal NOLs incurred in 2018 and in future years may be carried forward indefinitely but generally may not be carried back and the deductibility of such NOLs is limited to 80% of taxable income.

As a new investor, you will experience immediate and substantial dilution in the book value of the shares that you purchase in this offering.

The initial public offering price is substantially higher than the pro forma net tangible book value per share of our common stock immediately following this offering based on the total value of our tangible assets less our total liabilities. Therefore, if you purchased our common stock in this offering, at the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), you would experience an immediate dilution of $ per share, the difference between the price per share you pay for our common stock and our pro forma net tangible book value per share as of September 30, 2019, after giving effect to the issuance by us of shares of our common stock in this offering. See "Dilution."

Our actual operating results may not meet our guidance and investor expectations, which would likely cause our stock price to decline.

From time to time, we may release guidance in our earnings releases, earnings conference calls, or otherwise, regarding our future performance that represent our management's estimates as of the date of release. If given, this guidance, which will include forward-looking statements, will be based on projections prepared by our management. Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic, and competitive uncertainties and contingencies, many of which are beyond our control. The principal reason that we expect to release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. With or without our guidance, analysts, and other investors may publish expectations regarding our business, financial condition, and results of operations. We do not accept any responsibility for any projections or reports published by any such third parties. Guidance is necessarily speculative in nature, and it can be expected that some or all of

the assumptions of the guidance furnished by us will not materialize or will vary significantly from actual results. If our actual performance does not meet or exceed our guidance or investor expectations, the trading price of our common stock is likely to decline.

We have not operated as a public company and may not be able to effectively or efficiently manage our transition to a public company.

We have never operated as a public company and will incur significant legal, accounting, and other expenses that we did not incur as a private company. Our management team and other personnel will need to devote a substantial amount of time to, and we may not effectively or efficiently manage, our transition into a public company.

We intend to hire additional accounting and finance personnel with system implementation experience and expertise regarding compliance with the Sarbanes-Oxley Act. We may be unable to locate and hire qualified professionals with requisite technical and public company experience when and as needed. In addition, new employees will require time and training to learn our business and operating processes and procedures. If we are unable to recruit and retain additional finance personnel or if our finance and accounting team is unable for any reason to respond adequately to the increased demands that will result from being a public company, the quality and timeliness of our financial reporting may suffer, which could result in the identification of material weaknesses in our internal controls. Any consequences resulting from inaccuracies or delays in our reported financial statements could cause our stock price to decline and could harm our business, financial condition, and results of operations.

If we fail to strengthen our financial reporting systems, infrastructure, and internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act, we may be unable to report our financial results timely and accurately or prevent fraud. We expect to incur significant expense and devote substantial management effort toward ensuring compliance with Section 404 of the Sarbanes-Oxley Act, or Section 404.

As a result of becoming a public company, we will become subject to additional regulatory compliance requirements, including Section 404, and if we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud.

Rules and regulations such as the Sarbanes-Oxley Act have increased our legal and finance compliance costs and made some activities more time-consuming and costly. For example, Section 404 requires that our management report on, and our independent auditors attest to, the effectiveness of our internal control structure and procedures for financial reporting. However, our auditors will not be required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 until we are no longer an "emerging growth company," as defined in the JOBS Act. Effective internal controls are necessary for us to provide reliable financial reports and effectively prevent fraud. Section 404 compliance may divert internal resources and will take a significant amount of time and effort to complete. We may not be able to successfully complete the procedures and certification and attestation requirements of Section 404 by the time we will be required to do so. Implementing these changes may take a significant amount of time and may require specific compliance training of our personnel. In the future, we may discover areas of our internal controls that need improvement. If our auditors or we discover a material weakness or significant deficiency, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in our consolidated financial statements and harm our stock price. Any inability to provide reliable financial reports or prevent fraud would harm our business. We may not be able to effectively and timely implement necessary control changes and employee training to ensure continued compliance with the Sarbanes-Oxley Act and other regulatory and reporting requirements. If we fail to successfully complete the procedures and certification and attestation requirements of Section 404, or if in the future our Chief Executive Officer, Chief Financial Officer or independent registered public accounting firm determines that our internal controls over financial reporting are not effective as defined under Section 404, we could be subject to investigations or sanctions by Nasdaq, the SEC or other regulatory authorities. Furthermore, investor perceptions of the company may suffer, and this could cause a decline in the market price of our shares of common stock. We cannot assure you that we will be able to fully comply with the requirements of the Sarbanes-Oxley Act or that management

or, when applicable, our auditors will conclude that our internal controls are effective in future periods. Irrespective of compliance with Section 404, any failure of our internal controls could have a material adverse effect on our stated results of operations and harm our reputation.

We are an emerging growth company, and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act. We intend to take advantage of certain exemptions under the JOBS Act from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b) of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. We may take advantage of these exemptions for up to five years or until we are no longer an "emerging growth company," whichever is earlier.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. An emerging growth company can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. However, we are choosing to "opt out" of such extended transition period, and, as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

We cannot predict if investors will find our common stock less attractive if we choose to rely on any of the exemptions afforded to emerging growth companies. If some investors find our common stock less attractive because we rely on any of these exemptions, there may be a less active trading market for our common stock and the market price of our common stock may be more volatile.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us more difficult, limit attempts by our stockholders to replace or remove our current management, and limit the market price of our common stock.

Provisions in our certificate of incorporation and bylaws, as amended and restated in connection with this offering, may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and bylaws include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, shares of undesignated preferred stock with terms, rights, and preferences determined by our board of directors that may be senior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the Chairman of our board of directors, or our Chief Executive Officer;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors;
- establish that our board of directors is divided into three classes, with each class serving three-year staggered terms;
- prohibit cumulative voting in the election of directors;
- provide that our directors may be removed only for cause;
- provide that vacancies on our board of directors may be filled by a majority of directors then in office, even if less than a quorum; and

- require the approval of our board of directors or the holders of at least 66 2/3% of our outstanding shares of capital stock to amend our bylaws and certain provisions of our certificate of incorporation.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any interested stockholder for a period of three years following the date on which the stockholder became an interested stockholder. See "Description of Capital Stock—Anti-Takeover Effects of Provisions of Our Certificate of Incorporation, Our Bylaws and Delaware Law" for additional information. Any delay or prevention of a change of control transaction or changes in our management could cause our stock price to decline.

Our bylaws designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain what they believe to be a favorable judicial forum for disputes with us or our directors, officers, or other employees.

Our bylaws, as amended and restated in connection with this offering, provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on our behalf, (b) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or other employees to us or our stockholders, (c) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws, or (d) any action asserting a claim against us governed by the internal affairs doctrine. Nothing in our amended and restated bylaws precludes stockholders that assert claims under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act, from bringing such claims in state or federal court, subject to applicable law.

Any person or entity purchasing or otherwise acquiring any interest in our capital stock shall be deemed to have notice of and consented to the provisions of our bylaws described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage such lawsuits against us and our directors, officers, or other employees. Alternatively, if a court were to find these provisions of our bylaws inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition, and results of operations and result in a diversion of the time and resources of our management and board of directors.

Special Note Regarding Forward-Looking Statements

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS This prospectus, including "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Business," contains forward-looking statements. We may, in some cases, use words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would," or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes to identify these forward-looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- our customer relationships and our ability to retain and expand our customer relationships and to achieve design wins;
- the success, cost, and timing of new products;
- our ability to address market and customer demands and to timely develop new or enhanced solutions to meet those demands;

- anticipated trends, challenges and growth in our business and the markets in which we operate, including pricing expectations;
- our expectations regarding our revenue, gross margin, and expenses;
- the size and growth potential of the markets for our solutions, and our ability to serve those markets;
- our expectations regarding competition in our existing and new markets;
- regulatory developments in the United States and foreign countries;
- the performance of our third-party suppliers and manufacturers;
- our and our customers' ability to respond successfully to technological or industry developments;
- our ability to attract and retain key management personnel;
- intellectual property and related litigation;
- the accuracy of our estimates regarding capital requirements and needs for additional financing;
- our relationship with, and ownership percentage of, our parent company, MegaChips;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act;
- our expectations regarding our ability to obtain, maintain, protect, and enforce intellectual property protection for our technology; and
- our use of the net proceeds from this offering.

These forward-looking statements reflect our management's beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus and are subject to risks and uncertainties. We discuss many of these risks in greater detail under "Risk Factors." Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

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 the forward-looking statements in this prospectus by these cautionary statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance, or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations, except as required by law.

Industry and Market Data

INDUSTRY AND MARKET DATA This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys, and studies conducted by third parties, as well as estimates by our management based on such data. All of the market data and estimates used in this prospectus involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such data and estimates. We believe that the information from these industry publications, surveys, and studies is reliable; however, our business is subject to a high degree of risk. See "Risk Factors" for additional information regarding risks that could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

Certain information in this prospectus is contained in independent industry publications. The source of these independent industry publications is provided below:

1. Dedalus Consulting, Frequency Control Components, Global Markets, End-Users, Applications & Competitors: Analysis & Forecasts, Publication Date: May 2019.
2. Gartner, Starting Now, Supply Chain Leaders Should Assess the Potential for 5G Mobile Communications Networks, Publication Date: May 2019.
3. IDC, Worldwide 5G Network Infrastructure Forecast, 2018-2022, Publication Date: November 2018.
4. IHS Markit, 8 in 2018: The Top Transformative Technologies to Watch This Year, Publication Date: January 2018.
5. Toyota Motor Corporation, Industry Leaders to Form Consortium for Network and Computing Infrastructure of Automotive Big Data, Publication Date: August 2017.
6. Yole Développement, Status of the MEMS Industry 2019, Publication Date: June 2019.

Use of Proceeds

USE OF PROCEEDS We estimate that we will receive net proceeds of approximately $ million (or approximately $ million if the underwriters' over-allotment option is exercised in full) from the sale of the shares of common stock offered by us in this offering, based on an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the net proceeds to us from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, a 1.0 million share increase (decrease) in the number of shares offered, as set forth on the cover of this prospectus, would increase (decrease) the net proceeds to us by $ million, assuming no change in the assumed initial public offering price per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to increase our capitalization and financial flexibility, establish a public market for our common stock, and facilitate future access to the public equity markets by us, our employees and our current sole stockholder, obtain additional capital to support our operations, and increase our visibility in the marketplace.

Our expected use of the net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon completion of this offering, or the amounts that we will actually spend on the uses set forth above. However, we currently intend to use the net proceeds to us from this offering primarily for general corporate purposes,

including working capital, sales and marketing activities, product development, general and administrative matters, and capital expenditures, although we do not currently have any specific or preliminary plans with respect to the use of proceeds for such purposes.

We also may use a portion of the net proceeds to acquire complementary businesses, products, services, or technologies, or to pay down a portion of our outstanding indebtedness. However, we do not have agreements, commitments, or plans for any specific acquisitions or debt repayments at this time.

Pending the uses described above, we intend to invest the net proceeds from this offering in short term, interest-bearing securities such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to gain access to additional financing and the relative success and cost of our research and development programs. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering. In addition, we might decide to postpone or not pursue certain development activities if the net proceeds from this offering and any other sources of cash are less than expected.

Dividend Policy

DIVIDEND POLICY We have never declared or paid cash dividends on our capital stock. We do not anticipate declaring or paying, in the foreseeable future, any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects, and other factors our board of directors may deem relevant. Although our existing loan agreements do not contain restrictions on our ability to pay dividends or make distributions, we may in the future amend our existing loan agreements or enter into new credit facilities that contain such restrictions.

Capitalization

CAPITALIZATION The following table sets forth our cash and cash equivalents, and our capitalization as of September 30, 2019:

- on an actual basis, giving effect to our amended and restated certificate of incorporation filed on October 18, 2019;
- on a pro forma basis, giving effect to the effectiveness of our amended and restated certificate of incorporation upon completion of this offering; and
- on a pro forma as adjusted basis, giving effect to the pro forma adjustment discussed above, and giving further effect to the sale of shares of our common stock by us in this offering at an assumed initial public offering price of $ per share (the midpoint of the range set forth on the cover of this prospectus), after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma adjusted information below is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	As of September 30, 2019		
	Actual	Pro Forma	Pro Forma AsAdjusted[1]

	(unaudited)		
	(in thousands, except share and per share data)		
Cash and cash equivalents	$9,232	$9,232	$
Loan obligations	$46,000	46,000	
Stockholders' equity:			
Preferred stock, $0.0001 par value: no shares authorized, issued or outstanding, actual; and 10,000,000 shares authorized and no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	
Common stock, $0.0001 par value: 200,000,000 shares authorized, actual, pro forma, and pro forma as adjusted; 15,000,000 shares issued and outstanding, actual and pro forma; and shares issued and outstanding, pro forma as adjusted	2	2	
Additional paid-in capital	58,430	58,430	
Accumulated deficit	(54,657)	(54,657)	
Total stockholders' equity	3,775	3,775	
Total capitalization	$49,775	$49,775	

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) each of the amount of cash and cash equivalents, additional paid-in capital and total capitalization by approximately $ million, assuming the number of shares offered, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering costs payable by us. Each 1.0 million increase (decrease) in the number of shares offered as set forth on the cover page of this prospectus, would increase (decrease) each of our cash and cash equivalents, working capital (deficit), total assets, additional paid-in capital, and total stockholders' equity by approximately $ million, assuming no change in the assumed initial public offering price per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Unless otherwise indicated, the number of shares of our common stock to be outstanding after this offering is based on 15,000,000 shares of common stock outstanding as of September 30, 2019 (after giving effect to a 1-for-30,000 stock split), and excludes 4,700,000 shares of our common stock reserved for future issuance under the 2019 Plan, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2019 Plan.

Dilution

DILUTION

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

Our historical net tangible book value (deficit) as of September 30, 2019, was approximately $(1.4) million, or $(0.10) per share of our common stock. Our historical net tangible book value (deficit) is the amount of our total tangible assets less our total liabilities. Historical net tangible book value (deficit) per share is our historical net tangible book value (deficit) divided by the number of shares of common stock outstanding as of September 30, 2019.

Our pro forma net tangible book value as of September 30, 2019, was $(1.4) million, or $(0.10) per share of common stock. Our historical net tangible book value (deficit) and pro forma net tangible book value gives effect to a 1-for-30,000 stock split of our common stock which became effective on October 18, 2019.

Pro forma as adjusted net tangible book value is our pro forma net tangible book value (deficit), plus the effect of the sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share (the midpoint of the range set forth on the cover of this prospectus), after deducting underwriting discounts and commissions and estimated

offering expenses payable by us. This amount represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to our existing stockholder, and an immediate dilution of $ per share to new investors participating in this offering.

The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share	$
Historical net tangible book value (deficit) per share as of September 30, 2019	$(0.10)
Pro forma increase in net tangible book value (deficit) per share as of September 30, 2019 before giving effect to this offering	
Pro forma net tangible book value per share as of September 30, 2019	
Increase in pro forma net tangible book value per share attributable to investors participating in this offering	
Pro forma as adjusted net tangible book value per share after giving effect to this offering	
Pro forma as adjusted dilution per share to investors participating in this offering	$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by approximately $ per share and the dilution in pro forma per share to investors participating in this offering by approximately $ per share, assuming that the number of shares offered, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, a 1.0 million share increase (decrease) in the number of shares offered, as set forth on the cover of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by approximately $ and decrease (increase) the dilution in pro forma per share to investors participating in this offering by approximately $, assuming the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover of this prospectus) remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their over-allotment option in full, the pro forma as adjusted net tangible book value will increase to $ per share, representing an immediate increase in pro forma as adjusted net tangible book value to our existing stockholders of $ per share and an immediate decrease of dilution of $ per share to new investors participating in this offering.

The following table summarizes, on a pro forma as adjusted basis as of September 30, 2019, the number of shares purchased or to be purchased from us, the total consideration paid or to be paid to us, and the average price per share paid to us by our existing stockholder and paid us to by investors participating in this offering at an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover of this prospectus), before deducting underwriting discounts and commissions and estimated offering expenses payable by us. As the table below shows, investors participating in this offering will pay an average price per share substantially higher than our existing stockholder paid.

	Shares Purchased		Total Consideration		Average PricePer Share
	Number	Percent	Amount	Percent	
Existing stockholder		%		$%	$
Investors participating in this offering					
Total		100%		$100%	

The table above assumes no exercise of the underwriters' over-allotment option to purchase up to an additional shares in this offering. If the underwriters' over-allotment option is exercised in full, the number of shares of our common stock held by the existing stockholder would be reduced to % of the total number of shares of our common stock outstanding after this offering,

and the number of shares of common stock held by new investors participating in the offering would be increased to % of the total number of shares outstanding after this offering.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) the total consideration paid by investors participating in this offering, total consideration paid by all stockholders and the average price per share paid by all stockholders by approximately $ million, $ million and $, respectively, assuming that the number of shares offered, as set forth on the cover page of this prospectus, remains the same and before deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, a 1.0 million share increase (decrease) in the number of shares offered, as set forth on the cover of this prospectus, would increase (decrease) the total consideration paid by investors participating in this offering, total consideration paid by all stockholders and the average price per share paid by all stockholders by approximately $ million, $ million and $, respectively, assuming the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover of this prospectus) remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The foregoing discussion and table are based on 15,000,000 shares of common stock outstanding as of September 30, 2019 (after giving effect to a 1-for-30,000 stock split), and excludes 4,700,000 shares of our common stock reserved for future issuance under the 2019 Plan, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2019 Plan.

The foregoing discussion and table assumes or gives effect to:

- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws upon completion of this offering;
- a 1-for-30,000 split of our common stock which became effective on October 18, 2019; and
- no exercise by the underwriters of their option to purchase up to additional shares of our common stock from us to cover over-allotments, if any, except as expressly discussed above.

We may choose to raise additional capital through the sale of equity or convertible debt securities due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent we issue additional shares of common stock or other equity or convertible debt securities in the future, there will be further dilution to investors participating in this offering.

Selected Consolidated Financial Data

SELECTED CONSOLIDATED FINANCIAL DATA The selected consolidated statements of operations data for the years ended December 31, 2017 and 2018, and the consolidated balance sheet data as of December 31, 2017 and 2018 are derived from our audited consolidated financial statements included elsewhere in this prospectus. The selected statement of operations data for the nine months ended September 30, 2018 and 2019 and the balance sheet data as of September 30, 2019 have been derived from our unaudited interim consolidated financial statements included elsewhere in this prospectus. The unaudited interim consolidated financial statements have been prepared on the same basis as our audited consolidated financial statements and reflect, in the opinion of management, all adjustments, consisting only of normal, recurring adjustments, that are necessary for the fair presentation of the unaudited interim consolidated financial information. Our historical results are not necessarily indicative of the results that may be expected in the future and the results for the nine months ended September 30, 2019 are not necessarily indicative of results to be expected for the full year ending December 31, 2019 or any other period. The selected consolidated financial data below 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 elsewhere in this prospectus. The selected consolidated financial data in this section are

not intended to replace our consolidated financial statements and the related notes, and are qualified in their entirety by the consolidated financial statements and related notes included elsewhere in this prospectus.

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands, except share and per share amounts)			
Consolidated Statements of Operations Data:				
Revenue	$101,065	$85,214	$62,363	$55,985
Cost of revenue[1]	53,147	49,009	39,909	29,875
Gross profit	47,918	36,205	22,454	26,110
Operating expenses:				
Research and development[1]	20,988	22,775	16,544	17,846
Sales and marketing[1]	13,383	14,607	11,288	8,710
General and administrative[1]	7,957	6,613	4,501	5,457
Total operating expenses	42,328	43,995	32,333	32,013
Income (loss) from operations[1]	5,590	(7,790)	(9,879)	(5,903)
Interest expense	(870)	(1,512)	(1,069)	(1,320)
Other expense, net	(29)	(66)	(41)	(16)
Income (loss) before income taxes	4,691	(9,368)	(10,989)	(7,239)
Income tax benefit (expense)	32	26	(1)	(1)
Net income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)
Net income (loss) attributable to common stockholder and comprehensive income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)
Net income (loss) per share attributable to common stockholder, basic and diluted[2]	$0.31	$(0.62)	$(0.73)	$(0.48)
Weighted-average shares used to compute basic and diluted net income (loss) per share[2]	15,000,000	15,000,000	15,000,000	15,000,000

(1) Stock-based compensation included in the consolidated statements of operations data above was as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands)			
Cost of revenue	$131	$58	$58	$—
Research and development	2,774	1,588	1,588	—
Sales and marketing	1,569	736	736	—
General and administrative	1,192	149	149	—
Total	$5,666	$2,531	$2,531	$ —

(2) See Note 3 to our audited financial statements included elsewhere in this prospectus for an explanation of the calculations of our basic and diluted net income (loss) per share.

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$9,097	$7,889	$9,232
Working capital (deficit)[(1)]	(693)	(5,576)	(15,009)
Total assets	74,728	72,689	71,193
Total debt	43,000	46,000	46,000
Total liabilities	57,052	61,674	67,418
Total stockholders' equity	17,676	11,015	3,775

(1) Working capital (deficit) is defined as total current assets less total current liabilities. See our audited consolidated financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities as of December 31, 2017 and 2018. See our unaudited condensed consolidated interim financial statements and the related notes thereto included elsewhere in this prospectus for further details regarding our current assets and current liabilities as of September 30, 2019.

Management's Discussion and Analysis of Financial Condition and Results of Operations

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

You should read the following discussion and analysis of our financial condition and results of operations together with the consolidated financial statements and related notes that are included elsewhere in this prospectus. This discussion contains forward-looking statements based upon current plans, expectations and beliefs that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors" and in other parts of this prospectus.

Overview

We are a leading provider of silicon timing systems solutions. Our timing solutions are the heartbeat of our customers' electronic systems, solving complex timing problems and enabling industry-leading products. We provide solutions that are differentiated by high performance and reliability, programmability, small size, and low power consumption. Our products have been designed into over 200 applications across our target markets, including enterprise and telecommunications infrastructure, automotive, industrial, IoT and mobile, and aerospace and defense. As of September 30, 2019, we have shipped over 1.5 billion units to over 10,000 end customers. Our top end customers by revenue for the six months ended June 30, 2019 include Apple, Fitbit, GARMIN, HiKVision, Samsung, Google, Microsoft, Dell, and Huami.

We commenced commercial shipments of our first oscillator products in 2006. Substantially all of our revenue for the years ended December 31, 2017 and 2018 and for the nine months ended September 30, 2018 and 2019 was derived from sales in the IoT and mobile, industrial, and consumer markets. In 2017, we began introducing products for the automotive market.

Substantially all of our revenue to date has been derived from sales of oscillator systems across our target end markets. We intend to introduce products into the clock IC market, which we began sampling in the second quarter of 2019, and to focus on clock IC and timing sync solutions in the future. We generated modest revenue from sales of our resonators in 2018 and began sampling our first clock IC to customers in 2019. We seek to aggressively expand our presence in these two markets.

We sell our products primarily through distributors and resellers, who in turn sell to our end customers. For the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, our top three distributors by revenue together accounted for approximately 79%, 65%, 64%, and 60% of our revenue, respectively. Sales through our distributors and resellers accounted for approximately 99%, 98%, 99%, and 98% and sales through our direct sales force

accounted for approximately 1%, 2%, 1%, and 2% of our revenue for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively. Based on our shipment information, we believe that revenue attributable to our top ten end customers accounted for 74%, 60%, 58%, and 57% of our revenue for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively. Sales attributable to our largest end customer accounted for approximately 61%, 40%, 33%, and 35% of our revenue for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively. In addition, approximately 96%, 93%, 92%, and 93% of our revenue for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively, was from distributors with ship-to locations outside the United States. Based on sell-through information provided by these distributors, we believe the majority of our end customers are based in the U.S.

We operate a fabless business model, allowing us to focus on the design, sales, and marketing of our products, quickly scale production, and significantly reduce our capital expenditures. We leverage our global network of distributors and resellers to address the broad set of end markets we serve. For our largest accounts, dedicated sales personnel work with the end customer to ensure that our solutions fully address the end customer's timing needs. Our smaller customers work directly with our distributors to select the optimum timing solution for their needs.

We were acquired by MegaChips in 2014 and are currently a wholly owned subsidiary of MegaChips, a fabless semiconductor company based in Japan and traded on the Tokyo Stock Exchange. Upon completion of this offering, MegaChips will continue to hold a majority controlling interest in our common stock. We currently anticipate that MegaChips will remain a long-term strategic stakeholder in us.

Key Factors Affecting Our Performance

Customer Orders and Forecasts

Because our sales are made pursuant to standard purchase orders, orders may be cancelled, reduced, or rescheduled with little or no notice and without penalty. Cancellations of orders could result in the loss of anticipated sales without allowing us sufficient time to reduce our inventory and operating expenses. In addition, changes in forecasts or the timing of orders from customers exposes us to the risks of inventory shortages or excess inventory. We may not be able to fulfill increased demand, at least in the short term, as we do not intend to acquire excess inventory to pre-build custom products.

Design Wins with New and Existing Customers

Our solutions enable our customers to differentiate their product offerings and position themselves to gain market share. We work closely with our customers to understand their product roadmaps and strategies. Our end customers continuously develop new products in existing and new application areas. We also consider design wins critical to our future success and anticipate being increasingly dependent on revenue from new design wins for our new higher-end products with higher average selling prices, or ASPs. The selection process is typically lengthy and may require us to incur significant design and development expenditures in pursuit of a design win with no assurance that our solutions will be selected. As a result, the loss of any key design win or any significant delay in the ramp of volume production of the customer's products into which our product is designed could adversely affect our business.

Customer Demand and Product Life Cycles

Once customers design our silicon timing systems solutions into their products, we closely monitor all aspects of their demand cycle, including the initial design phase, prototype production, volume production, and inventories, as well as end-market demand, including seasonality, cyclicality, and the competitive landscape. Given our customer relationships and the long-term aspects of our solutions, we benefit from visibility into customer demand. This in turn provides an opportunity for us to monitor and refine our business fundamentals.

Product Adoption within New Markets and Applications

As we evaluate new market opportunities and bring new products to market, we pay particular attention to forecasts by industry analysts and the adoption curve of technology. We also analyze in detail potential competing forces that could hinder such adoption. If we fail to anticipate or respond to technological shifts or market demands, or to timely develop new or

enhanced products or technologies in response to the same, it could result in decreased revenue and the loss of our design wins to our competitors.

Pricing, Product Cost, and Product Mix

The ASPs of our products vary significantly. While the ASP of any individual product generally decreases over time, our average ASPs have generally increased as we continue to introduce new higher-end products with higher ASPs. Our pricing and margins depend on the volumes and the features of the timing devices we provide to our customers. We continually monitor and work to reduce the cost of our products and improve the potential value our solutions provide to our customers as we target new design win opportunities and manage the product life cycles of our existing customer designs. Since we rely on third-party wafer foundries and assembly and test contractors to manufacture, assemble, and test our products, we maintain a close relationship with our suppliers to improve quality, increase yields, and lower manufacturing costs.

Gross margin, or gross profit as a percentage of revenue, has been, and will continue to be, affected by a variety of factors, including ASPs, and product mix in a given period, material costs, yields, and manufacturing operations costs. We believe the primary driver of gross margin is the ASPs negotiated between us and our customers relative to material costs and yield improvement. As our products mature and unit volumes increase, we expect their ASPs to decline. These declines often coincide with improvements in manufacturing yields and lower wafer, assembly, and testing costs, which offset some or all of the margin reduction that results from lower ASPs. However, we expect our gross margin to fluctuate on a quarterly basis as a result of changes in ASPs due to new product introductions, existing product transitions into high-volume manufacturing, manufacturing costs, and our product mix.

Cyclical Nature of the Semiconductor Industry

The semiconductor industry is highly cyclical and is characterized by constant and rapid technological change, rapid product obsolescence, price erosion, evolving standards, short product life cycles, and wide fluctuations in product supply and demand. Downturns in the semiconductor industry, including the current downturn, have been characterized by diminished product demand, production overcapacity, high inventory levels, and accelerated erosion of average selling prices. The current downturn in the semiconductor industry has been attributed to a variety of factors, including the ongoing U.S.-China trade dispute, weakness in demand and pricing for semiconductors across applications, and excess inventory. While this downturn has not directly impacted our business to date, any prolonged or significant downturn in the semiconductor industry generally could adversely affect our business and reduce demand for our products and otherwise harm our financial condition and results of operations.

Components of Results of Operations

Revenue

We derive revenue primarily from sales of silicon timing systems products to distributors and resellers who in turn sell to our end customers. We also sell products directly to end customers who integrate our products into their applications. Our sales are made pursuant to standard purchase orders which may be cancelled, reduced or rescheduled, with little or no notice. We recognize product revenue upon shipment when we satisfy our performance obligations as evidenced by the transfer of control of our products to customers. We measure revenue based on the amount of consideration we expect to be entitled to in exchange for products.

Cost of Revenue

Cost of revenue consists of wafers acquired from third-party foundries, assembly, packaging, and test cost of our products paid to third-party contract manufacturers, and personnel and other costs associated with our manufacturing operations. Cost of revenue also includes depreciation of production equipment, inventory write-downs, amortization of internally developed software, shipping and handling costs, and allocation of overhead and facility costs. We also include credits for rebates received from foundries to cost of revenue.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expenses. Personnel costs are the most significant component of our operating expenses and consist of salaries, benefits, bonuses, stock-based compensation, and commissions. Our operating expenses also include consulting costs, allocated costs of facilities, information technology, and depreciation. We expect our operating expenses to fluctuate in absolute dollars and as a percentage of revenue over time.

Research and Development

Our research and development efforts are focused on the design and development of next-generation silicon timing systems solutions. Our research and development expense consists primarily of personnel costs, which include stock-based compensation, pre-production engineering mask costs, software license and intellectual property expenses, design tools and prototype-related expenses, facility costs, supplies, professional and consulting fees, and allocated overhead costs. We expense research and development costs as incurred. We believe that continued investment in our products and services is important for our future growth and acquisition of new customers and, as a result, we expect our research and development expenses to continue to increase in absolute dollars. However, we expect our research and development expense to fluctuate as a percentage of revenue from period to period depending on the timing of these expenses.

Sales and Marketing

Sales and marketing expense consists of personnel costs, including stock-based compensation, field application engineering support, travel costs, professional and consulting fees, advertising expenses, and allocated overhead costs. We expect sales and marketing expense to continue to increase in absolute dollars as we increase our sales and marketing personnel and grow our international operations, although it may fluctuate as a percentage of revenue from period to period depending on the timing of these expenses.

General and Administrative

General and administrative expense consists of personnel costs, including stock-based compensation, professional and consulting fees, accounting audit fees, legal costs, and allocated overhead costs. We expect general and administrative expense to increase in absolute dollars as we expand our finance and administrative personnel, grow our operations, and incur additional expense associated with operating as a public company, including director and officer liability insurance and legal and compliance costs, although it may fluctuate as a percentage of revenue from period to period depending on the timing of these expenses.

Other Income (Expense)

Other income (expense) consists primarily of interest expense on our outstanding debt, foreign exchange gains and losses, and asset dispositions. See Note 7 to our consolidated financial statements for more information about our debt.

Income Tax Expense

Income tax expense consists primarily of state income taxes and income taxes in certain foreign jurisdictions in which we conduct business. We have a full valuation allowance for deferred tax assets as the realization of the full amount of our deferred tax asset is uncertain, including net operating loss, or NOL, carryforwards, and tax credits related primarily to research and development. We expect to maintain this full valuation allowance until realization of the deferred tax assets becomes more likely than not. At December 31, 2018, we had NOL carryforwards of approximately $160.7 million and $63.9 million for U.S. federal and state income tax purposes, respectively, and had research and development tax credit carryforwards of approximately $4.6 million and $5.2 million for U.S. federal and state income tax purposes, respectively. Of the federal NOL carryforwards, approximately $148.3 million will expire in various years through 2036, if not utilized, and approximately $12.4 million will carry forward indefinitely. NOL carryforwards for state income tax purposes, if not utilized, will expire in various years through 2038. The research and development credit carryforwards for federal tax purposes will expire in various years through 2038, and state tax credits carry forward indefinitely.

Results of Operations

The following table summarizes our results of operations for the periods presented. The period-to-period comparison of results is not necessarily indicative of results to be expected for future periods.

	Year Ended December 31,		Change		Nine Months Ended September 30,		Change	
	2017	2018	$	%	2018	2019	$	%
					(unaudited)			
	(in thousands, except percentages)							
Revenue	$101,065	$85,214	$(15,851)	(16)%	$ 62,363	$55,985	$(6,378)	(10)%
Cost of revenue	53,147	49,009	(4,138)	(8)	39,909	29,875	(10,034)	(25)
Gross profit	47,918	36,205	(11,713)	(24)	22,454	26,110	3,656	16
Operating expenses:								
Research and development	20,988	22,775	1,787	9	16,544	17,846	1,302	8
Sales and marketing	13,383	14,607	1,224	9	11,288	8,710	(2,578)	(23)
General and administrative	7,957	6,613	(1,344)	(17)	4,501	5,457	956	21
Total operating expenses	42,328	43,995	1,667	4	32,333	32,013	(320)	(1)
Income (loss) from operations	5,590	(7,790)	(13,380)	(239)	(9,879)	(5,903)	3,976	(40)
Interest expense	(870)	(1,512)	(642)	74	(1,069)	(1,320)	(251)	23
Other expense, net	(29)	(66)	(37)	128	(41)	(16)	25	(61)
Income (loss) before income taxes	4,691	(9,368)	(14,059)	(300)	(10,989)	(7,239)	3,750	(34)
Income tax benefit (expense)	32	26	(6)	(19)	(1)	(1)	—	0
Net income (loss) attributable to common stockholder and comprehensive income (loss)	$4,723	$(9,342)	$(14,065)	(298)%	$(10,990)	$(7,240)	$ 3,750	(34)%

The following table summarizes our results of operations as a percentage of revenue for each of the periods indicated:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(as a percentage of revenue)			
Revenue	100%	100%	100%	100%
Cost of revenue	53	58	64	53

Gross profit	47	42	36	47
Operating expenses:				
Research and development	20	26	27	32
Sales and marketing	13	17	18	16
General and administrative	8	8	7	10
Total operating expenses	41	51	52	58
Income (loss) from operations	6	(9)	(16)	(11)
Interest expense	(1)	(2)	(2)	(2)
Other expense, net	0	0	0	0
Income (loss) before income taxes	5	(11)	(18)	(13)
Income tax benefit (expense)	0	0	0	0
Net income (loss) attributable to common stockholder and comprehensive income (loss)	5%	(11)%	(18)%	(13)%

Comparison of the Years Ended December 31, 2017 and 2018 and Nine Months Ended September 30, 2018 and 2019

Revenue

	Year Ended December 31,		Change	
	2017	2018	$	%
	(in thousands, except percentage)			
Revenue	$101,065	$85,214	$(15,851)	(16)%

Revenue decreased by $15.9 million, or 16%, for 2018 compared to 2017. This decrease was primarily due to a $26.9 million decrease in revenue from our largest end customer, primarily as a result of a design win for a specific product in 2017 which did not recur in 2018 due to the customer's selection of another supplier's design for the next generation of that product. This decrease was partially offset by higher revenue of $11.0 million, primarily from a higher volume of products shipped to other customers.

	Nine Months Ended September 30,		Change	
	2018	2019	$	%
	(unaudited) (in thousands except percentage)			
Revenue	$62,363	$55,985	$(6,378)	(10)%

Revenue for the nine months ended September 30, 2019 decreased by $6.4 million, or 10%, compared to the same period in 2018. This decrease was primarily due to a decrease of $5.5 million in revenue from customers primarily in Asia as a result of lower sales volume as our average selling prices remained flat. Specifically, the lower sales volume was due to a decrease in orders for our timing products from certain end customers due to decreased demand for the customers' products into which our products were incorporated, which in turn was due to lower demand in the customers' end markets. In addition, revenue attributable to our largest end customer decreased by $0.9 million for the nine months ended September 30, 2019 compared to the same period in 2018 as a result of the loss of a design win for the 2018 design of one of its products.

Cost of Revenue, Gross Profit, and Gross Margin

	Year Ended December 31,		Change	
	2017	2018	$	%
	(in thousands, except percentages)			

Cost of revenue	$53,147	$49,009	$(4,138)	(8)%
Gross profit	47,918	36,205	(11,713)	(24)
Gross margin	47%	42%		

Gross profit decreased by $11.7 million, or 24%, in 2018 compared to 2017 primarily due to a decrease in revenue of $15.9 million, which in turn led to decreased product costs of $13.3 million, a net write-down of inventory of $5.5 million primarily due to an anticipated order from our largest end customer that did not materialize, and an increase in depreciation and amortization expense of $3.7 million. Gross margin was lower by 5% for 2018 compared to 2017 due to a higher inventory write-down of approximately 7% and higher depreciation and amortization expense of approximately 5%, partially offset by a favorable change in product mix.

	Nine Months Ended September 30,		Change	
	2018	2019		$%
	(unaudited) (in thousands except percentage)			
Cost of revenue	$39,909	$29,875	$(10,034)	(25)%
Gross profit	22,454	26,110	3,656	16
Gross margin	36%	47%		

Gross profit increased by $3.7 million in the nine months ended September 30, 2019 compared to the same period in 2018. The nine months ended September 30, 2018 was negatively impacted by a net write-down of inventory of $8.0 million for that period. This written down inventory in 2018 was subsequently partially sold in the nine-month period ended September 30, 2019, which led to an increase in gross profit of $2.4 million for that period. This cumulative positive change in gross profit of $10.4 million period over period was partially offset by lower gross profit of $4.0 million resulting from lower sales volume and $2.7 million was a result of other overhead expense increases for the nine months ended September 30, 2019 compared to the same period in 2018. The inventory write-down in 2018 was related to inventory buildup of an anticipated order from our largest end customer that did not materialize.

Gross margin was higher by 11% in the nine months ended September 30, 2019 compared to the same period in 2018 largely due to the inventory write-down recorded in the nine months ended September 30, 2018, which negatively impacted margin by 13%, partially offset by the subsequent sale of a portion of the previously written off inventory in the nine-month period ended September 30, 2019 which generated additional benefit to gross margin of 4% for a cumulative benefit of 17%. This benefit of 17% was partially offset by 6% lower gross margin generated from lower sales volume spread over fixed costs and other overhead expense increases for the nine months ended September 30, 2019 compared to the same period in 2018.

Operating Expenses

	Year Ended December 31,		Change	
	2017	2018		$ %
	(in thousands, except percentages)			
Operating Expenses:				
Research and development	$20,988	$22,775	$1,787	9%
Sales and marketing	13,383	14,607	1,224	9
General and administrative	7,957	6,613	(1,344)	(17)
Total operating expenses	$42,328	$43,995	$1,667	4%

Research and development expense increased by $1.8 million, or 9%, for 2018 compared to 2017, primarily due to an increase in personnel costs of $2.2 million as we increased our research and development headcount to support continued investment in our future product offerings. We also hired additional consultants to facilitate our engineering work that resulted in increased expense of $0.7 million. Additionally, engineering tape-outs, supplies, and other expenses increased by $0.5 million. The increases in research and development expense were partially offset by lower compensation expense of $2.5 million. In addition, we received a U.S. government grant of $1.0 million in 2017 for the completion of certain engineering milestones based on a technology investment agreement with a U.S. government entity that was recorded as an offset to research and development expense.

Sales and marketing expense increased by $1.2 million, or 9%, for 2018 compared to 2017, primarily due to an increase in personnel costs of $0.8 million as we increased our headcount to support customer growth both domestically and internationally. Additionally, we hired new sales consultants and implemented new programs with outside sales representatives to promote growth of our business, which resulted in increased sales consulting and sales representative commission costs of $1.3 million. Advertising and other marketing costs also increased by $0.7 million. These increases were partially offset by lower personnel compensation cost of $1.5 million due to lower variable compensation.

General and administrative expense decreased by $1.3 million, or 17%, for 2018 compared to 2017, primarily due to lower personnel costs of $2.3 million due to lower compensation as a result of lower revenue and lower stock-based compensation expense for the year as all outstanding employee equity awards were fully vested as of June 15, 2018. The decrease was partially offset by higher consulting and audit expense of $0.9 million.

	Nine Months Ended September 30,		Change	
	2018	2019	$	%
	(unaudited)			
	(in thousands except percentage)			
Operating Expenses:				
Research and development	$16,544	$17,846	$1,302	8%
Sales and marketing	11,288	8,710	(2,578)	(23)
General and administrative	4,501	5,457	956	21
Total operating expenses	$32,333	$32,013	$(320)	(1)%

Research and development expense increased by $1.3 million, or 8%, for the nine months ended September 30, 2019 compared to the same period in 2018, primarily due to an increase in engineering tape-outs, supplies, and other expenses of $1.8 million. Additionally, capitalized labor costs for development of internal use software was lower by $1.1 million as we had fewer internal use software projects in the first nine months of 2019. The increase in research and development expense was partially offset by lower stock-based compensation expense of $1.6 million as all outstanding employee equity awards were fully vested as of June 15, 2018.

Sales and marketing expense decreased by $2.6 million, or 23%, for the nine months ended September 30, 2019 compared to the same period in 2018, primarily due to lower personnel costs of $1.4 million largely related to lower variable compensation tied to revenue. Sales consulting and sales representative commission costs also decreased by $0.5 million due to lower revenue. Additionally, stock-based compensation expenses decreased by $0.7 million as all outstanding employee equity awards were fully vested as of June 15, 2018.

General and administrative expense increased by $1.0 million, or 21%, for the nine months ended September 30, 2019 compared to the same period in 2018, primarily due to higher personnel cost of $0.4 million as we added more headcount to support anticipated growth. Additionally, we incurred higher legal expenses of $0.7 million for the nine months ended September 30, 2019 compared to the same period in 2018 in connection with our patent litigation matter. The increase in general and administrative expense was partially offset by a decrease in stock-based compensation of $0.1 million as all outstanding employee equity awards were fully vested as of June 15, 2018.

Other Income (Expense)

	Year Ended December 31,		Change	
	2017	2018		$ %
	(in thousands, except percentages)			
Interest expense	$(870)	$(1,512)	$(642)	74%
Other expense, net	(29)	(66)	(37)	128
Total other income (expense)	$(899)	$(1,578)	$(679)	76%

Other expense increased $0.7 million for 2018 compared to 2017, primarily as a result of higher interest, as well as higher outstanding balances related to our outstanding revolving short-term debt of $46.0 million.

	Nine Months Ended September 30,		Change	
	2018	2019		$ %
	(unaudited) (in thousands except percentage)			
Interest Expense	$(1,069)	$(1,320)	$(251)	23%
Other expense, net	(41)	(16)	25	(61)
Total other income (expense)	$(1,110)	$(1,336)	$(226)	20%

Other expense increased $0.2 million for the nine months ended September 30, 2019 compared to the same period in 2018, primarily as a result of higher interest rates, as well as higher outstanding balances related to our outstanding revolving short-term debt of $46.0 million during the nine-month period ended September 30, 2019 as compared to September 30, 2018.

Income Tax Benefit

	Year Ended December 31,		Change	
	2017	2018		$ %
	(in thousands, except percentage)			
Income tax benefit	$32	$26	$(6)	(19)%

	Nine Months Ended September 30,		Change	
	2018	2019		$ %
	(unaudited) (in thousands except percentage)			
Income tax (expense)	$(1)	$(1)	$ —	0%

Quarterly Results of Operations

The following table sets forth selected unaudited quarterly consolidated statements of operations data for each of the seven quarters ended September 30, 2019. The information for each of these quarters has been prepared on the same basis as our audited consolidated financial statements and reflect, in the opinion of management, all adjustments, consisting only of normal, recurring adjustments that are necessary for a fair presentation of this information. These quarterly operating results are not necessarily indicative of the results that may be expected for a full year or any other fiscal period. This information should be read in conjunction with our audited consolidated financial statements and related notes included elsewhere in the prospectus.

	Three Months Ended

	Mar. 31, 2018	June 30, 2018	Sept. 30, 2018	Dec. 31, 2018	Mar. 31, 2019	June 30, 2019	Sept. 30, 2019
	(unaudited)						
	(in thousands)						
Revenue	$25,758	$14,911	$21,694	$22,851	$14,817	$15,843	$25,325
Cost of revenue	20,961	7,916	11,032	9,100	7,228	9,469	13,178
Gross profit	4,797	6,995	10,662	13,751	7,589	6,374	12,147
Operating expenses:							
Research and development	5,740	5,529	5,277	6,229	5,820	6,249	5,777
Sales and marketing	4,079	3,847	3,361	3,320	2,600	2,827	3,283
General and administrative	1,626	1,598	1,277	2,112	1,591	2,279	1,587
Total operating expenses	11,445	10,974	9,915	11,661	10,011	11,355	10,647
Income (loss) from operations	(6,648)	(3,979)	747	2,090	(2,422)	(4,981)	1,500
Interest expense	(320)	(328)	(421)	(443)	(438)	(456)	(426)
Other expense, net	—	(12)	(30)	(24)	(10)	(11)	5
Income (loss) before income taxes	(6,968)	(4,319)	296	1,623	(2,870)	(5,448)	1,079
Income tax benefit (expense)	(1)	—	—	27	—	(1)	—
Net income (loss)	$(6,969)	$(4,319)	$ 296	$ 1,650	$(2,870)	$(5,449)	$1,079

The following table summarizes our quarterly results of operations as a percentage of revenue for each of the periods indicated:

	Three Months Ended						
	Mar. 31, 2018	June 30, 2018	Sept. 30, 2018	Dec. 31, 2018	Mar. 31, 2019	June 30, 2019	September 30, 2019
	(unaudited)						
	(as a percentage of revenue)						
Revenue	100%	100%	100%	100%	100%	100%	100%
Cost of revenue	81	53	51	40	49	60	52
Gross profit	19	47	49	60	51	40	48
Operating expenses:							
Research and development	22	37	24	27	39	39	23
Sales and marketing	16	26	16	15	18	18	13
General and administrative	6	11	6	9	11	14	6
Total operating expenses	44	74	46	51	68	71	42
Income (loss) from operations	(26)	(27)	3	9	(16)	(31)	6
Interest expense	(1)	(2)	(2)	(2)	(3)	(3)	(2)
Other expense, net	0	0	0	0	0	0	0
Income (loss) before income taxes	(27)	(29)	1	7	(19)	(34)	4

Income tax benefit (expense)	0	0	0	0	0	0	0
Net income (loss)	(27)%	(29)%	1%	7%	(19)%	(34)%	4%

Quarterly Revenue Trends

Revenue for the first quarter of 2018 was higher than revenue for each of the subsequent quarters through the quarter ended September 30, 2019, primarily due to higher revenue from our largest end customer, which comprised $11.5 million, or 45%, of revenue for the quarter. Revenue from this customer decreased to $2.2 million, or 15% of revenue for the second quarter of 2018, primarily due to lower sales generally to this customer and the loss of a design win. Revenue also was lower in the first and second quarters of 2019 due to weaker demand in the Asia market. Revenue increased in the third quarter of 2019 mainly due to increased demand from our largest end customer for shipments related to a new design win and increase in volume of shipments for some new design wins with our existing and new customers primarily in the Asia market.

Quarterly Gross Profit and Gross Margin Trends

Gross profit and gross margin generally fluctuated on a quarterly basis, largely due to changes in shipment volumes, product mix, and inventory reserves. Gross margin was lowest in the three months ended March 31, 2018 compared to all quarters presented largely due to a write-down of inventory of $7.8 million due to build-up of inventory for an anticipated order from our largest end customer that did not materialize due to the customer's selection of another supplier's design for the next generation of that product. We were subsequently able to sell a portion of the written down inventory in the fourth quarter of 2018 and in the first, second, and third quarters of 2019 for $3.0 million, $1.3 million, $0.4 million, and $0.7 million, respectively, which in turn positively impacted our gross margin for these four quarters.

Quarterly Operating Expense Trends

Research and development expense fluctuated during the quarterly periods presented, primarily due to changes in timing and amounts of engineering consulting and tape-out costs for products in development stage.

Sales and marketing expenses generally fluctuated for the quarters presented. The decreases in the second quarter of 2018, the third quarter of 2018, the fourth quarter of 2018, and the first quarter of 2019, as compared to the immediately preceding quarter, respectively, were primarily due to lower variable compensation, including sales commissions and lower stock-based compensation, and headcount changes. The increase in sales and marketing expense in the second quarter of 2019 and third quarter of 2019 compared to the immediately preceding quarter, respectively, was due to increased marketing expenditures and higher sales commissions as a result of higher revenue.

General and administrative expense fluctuated during the quarterly periods presented, primarily due to amounts and timing of compensation costs and legal and accounting fees. The increase in the fourth quarter of 2018 of $0.8 million compared to the third quarter of 2018 was primary related to increases in compensation. The increase in the second quarter of 2019 compared to the first quarter of 2019 was primarily related to higher professional fees for legal and accounting services in connection with the preparation for our initial public offering.

Liquidity and Capital Resources

Since our acquisition by MegaChips in 2014, we have financed our operations primarily through cash generated from product sales and proceeds from our credit facilities, including proceeds from our loan agreement with MegaChips. As of December 31, 2018 and September 30, 2019, we had cash and cash equivalents of $7.9 million and $9.2 million, respectively. Our principal use of cash is to fund our operations to support growth. We believe that our existing cash and cash equivalents and funds available for borrowing under our credit facilities of an aggregate of approximately $54.0 million as of September 30, 2019, together with the proceeds from this offering, will be sufficient to meet our cash needs for at least the next 12 months. Without giving effect to the anticipated net proceeds from this offering, we expect that our existing cash and cash equivalents will not be sufficient to pay our debt and fund our operating expenses through at least twelve months after the date that the financial statements were available to be issued. If the lenders under our credit facilities cancel or terminate our arrangement under the respective credit facilities, we may not have sufficient cash to finance our operations. Our ability to continue as a going concern is dependent upon us becoming profitable in the future or to obtain the necessary capital to meet our

obligations and repay our liabilities when they become due. Over the longer term, our future capital requirements will depend on many factors, including our growth rate, the timing and extent of our sales and marketing and research and development expenditures, and the continuing market acceptance of our solutions. In the event that we need to borrow funds or issue additional equity, we cannot assure you that any such additional financing will be available on terms acceptable to us, if at all. If we are unable to raise additional capital when we need it, it would harm our business, results of operations and financial condition.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
				(unaudited)
	(in thousands)			
Net cash provided by (used in) operating activities	$2,820	$(1,046)	$(3,629)	$4,882
Net cash used in investing activities	(8,018)	(5,012)	(4,535)	(2,210)
Net cash provided by financing activities	8,672	4,850	4,850	(1,329)
Net increase (decrease) in cash and cash equivalents	$3,474	$(1,208)	$(3,314)	$1,343

Operating Activities

Net cash provided by operating activities for 2017 was $2.8 million compared to net cash used by operating activities in 2018 of $1.0 million.

In 2017, cash provided by operating activities of approximately $2.8 million was primarily due to a net profit of $4.7 million and non-cash expenses of $6.2 million primarily related to depreciation and amortization expense of $3.5 million and stock-based compensation expense of $2.0 million. This was partially offset by $8.1 million in net change in operating assets and liabilities largely from higher accounts receivable of $5.0 million due to higher revenue in the fourth quarter of 2017, and higher prepaid expenses and other current assets of $2.0 million related to advance payments to suppliers for inventory.

In 2018, cash used in operating activities was approximately $1.0 million. The cash used in operating activities was primarily the result of a net loss of $9.3 million due to lower revenue and increased inventories of $14.0 million to support our future product sales and lower accounts payable of $0.6 million. The decrease in cash used in operating activities was partially offset by lower accounts receivable of $1.7 million, decreased prepaid expenses and other current assets of $2.6 million due to utilization of prepaid assets, an increase of $1.1 million in accrued expenses and other liabilities, and non-cash items totaling $17.4 million. Non-cash items included depreciation and amortization of $7.4 million, $0.8 million of stock-based compensation expense, and $9.2 million in inventory writedown.

For the nine months ended September 30, 2018, cash used in operating activities of $3.6 million was primarily due to a net loss of $11.0 million due to lower revenue, offset by non-cash expenses of $14.9 million primarily related to depreciation and amortization of $5.3 million, stock-based compensation expense of $0.8 million, and $8.8 million in inventory write-down charges related to inventory build-up of an anticipated order from our largest end customer that did not materialize due to the customer's selection of another supplier's design. In addition, operating assets and liabilities decreased by $7.6 million, primarily related to higher inventories of $12.8 million to support our anticipated product sales, lower accounts payable of $3.8 million due to timing of payments, offset by decreased prepaid expenses and other current assets of $2.7 million due to utilization of prepaid assets, an increase of $1.2 million in accrued expenses and other liabilities, lower accounts receivable of $4.6 million due to lower revenue, and by lower related party accounts receivable of $0.8 million.

For the nine months ended September 30, 2019, cash provided by operating activities of $4.9 million was primarily due to a net loss of $7.2 million mainly due to lower revenue, offset by non-cash expenses of $7.6 million primarily related to depreciation and amortization of $6.2 million, non-cash operating lease costs of $1.0 million, and $0.5 million in inventory write-down charges. In addition, operating assets and liabilities increased by $4.5 million, primarily related to lower accounts receivable of $1.9 million due to lower revenue, lower related party receivable of $0.6 million, a decrease in inventories of

$6.9 million due to lower purchases primarily to manage our inventory levels, partially offset by higher prepaid expenses and other current assets of $1.4 million related to advance payments to suppliers for inventory, lower accounts payable of $0.6 million due to timing of payments, lower accrued expenses and other liabilities of $1.5 million, and lower lease liabilities of $0.9 million.

Investing Activities

Our investing activities consist primarily of capital expenditures for property and equipment purchases. Our capital expenditures for property and equipment have primarily been for general business purposes, including machinery and equipment, leasehold improvements, acquired software, internally developed software used in production and support of our products, computer equipment used internally, and production masks to manufacture our products.

In 2017, cash used in investing activities was approximately $8.0 million and consisted primarily of the purchase of production masks, internally developed software, and other property and equipment for general business purposes.

In 2018, cash used in investing activities was approximately $5.0 million and consisted primarily of the purchase of production masks, internally developed software, and other property and equipment for general business purposes.

For the nine months ended September 30, 2018, cash used in investing activities was $4.5 million and consisted primarily of the purchase of production masks, internally developed software, and other property and equipment for general business purposes.

For the nine months ended September 30, 2019, cash used in investing activities was $2.2 million and consisted primarily of the purchase of production masks, internally developed software, and other property and equipment for general business purposes.

Financing Activities

Cash provided by financing activities includes proceeds from borrowings under our credit facilities.

In 2017, cash provided by financing activities was $8.7 million, consisting of borrowings of $20.0 million under our short-term revolving line of credit, borrowings from our parent company and its affiliate of $19.0 million, and investment received from our parent company of $3.7 million. These were partially offset by repayment of loans to our parent company and its affiliate of $34.0 million in the aggregate. During the year ended December 31, 2017, our outstanding balance on our short-term revolving lines of credit ranged from $20.0 million to $40.0 million and our borrowings from parent ranged from $3.0 million to $18.0 million.

In 2018, cash provided by financing activities was $4.9 million, consisting of borrowings of $21.0 million under our short-term revolving line of credit and investment received from our parent company of $1.9 million, partially offset by repayments of $18.0 million under our short-term revolving line of credit. During the year ended December 31, 2018, our outstanding balance on our short-term revolving lines of credit ranged from $40.0 million to $43.0 million and our borrowings from parent were $3.0 million during the year.

For the nine months ended September 30, 2018, cash provided by financing activities was $4.9 million. We borrowed a net additional amount of $3.0 million from financial institutions to support our operations as well as $1.9 million from our parent company to fund the cash that was paid to employees for employee payroll taxes due upon vesting of shares of common stock of MegaChips in lieu of restricted shares that had a one-year restriction.

For the nine months ended September 30, 2019, we paid $1.3 million for costs related to our initial public offering process.

Debt Obligations

The following summarizes principal loan balances for the years ended December 31, 2017 and 2018 and September 30, 2019:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)

	(in thousands)		
Revolving line of credit:			
MUFG	$20,000	$41,000	$ 41,000
SMBC	20,000	2,000	2,000
Parent loan:			
MegaChips	3,000	3,000	3,000
Balance	43,000	46,000	46,000
Less: current portion of long-term debt	(43,000)	(46,000)	(46,000)
Long-term debt less current portion	$—	$—	$ —

The Bank of Tokyo Mitsubishi Credit Facility On August 31, 2015, we entered into a bank transaction agreement with MUFG. The agreement provided for a revolving line of credit with a maximum available borrowing of $20.0 million. The original term of the revolving line of credit was June 30, 2017, which was renewed for an additional one year term. On June 29, 2018, we renewed our agreement with MUFG with a new term of June 30, 2019 and also increased the revolving line of credit to $50.0 million. On June 28, 2019, we renewed our agreement with MUFG with a new term of June 30, 2020. In addition, on June 27, 2019, the maturity date of our $20.0 million loan under the line of credit with MUFG was extended through December 19, 2019. Interest under the revolving line of credit is calculated at MUFG's prevailing prime rate plus a margin of 2 percentage points which would be agreed by us at the time each loan was made. The interest rates on these loans vary depending on the date and term of each loan. Interest is due for payment on the maturity date of each loan. We did not incur any costs upon renewal of the revolving line of credit or at the time of increase in the revolving line of credit.

The agreement contains usual and customary events of default upon the occurrence of certain events, such as nonpayment of amounts due under the revolving line of credit, violation of contractual provisions, or a material adverse change in our business. The agreement also includes customary administrative covenants, including a limitation on entering any transactions of merger or consolidation, reorganize, spin-off, liquidate, dissolve, or wind up, or convey, sell, lease, license, or otherwise dispose of all or substantially all of our property, assets, or business. As of December 31, 2017 and 2018 and September 30, 2019, we were in compliance with all covenants under the agreement. The agreement also provides that we will provide collateral if MUFG determines in consultation with us that additional collateral or guarantee would be necessary. The MUFG revolving line of credit is guaranteed by MegaChips.

As of December 31, 2018 and September 30, 2019, the aggregate principal amount outstanding under the revolving credit line with MUFG was $41.0 million, and the remaining available credit line was $9.0 million.

Sumitomo Mitsui Banking Corporation Credit Facility On September 22, 2017, we entered into an uncommitted and revolving credit line agreement with SMBC. The revolving credit line has a maximum available borrowing availability of up to $20.0 million. We could draw loans under the revolving credit line from time to time through September 21, 2018, as long as the principal amount at any time did not exceed $20.0 million in the aggregate. Such term was extended for an additional year through September 20, 2019 and further extended for an additional year through September 21, 2020. Loans under the revolving credit line may have a maturity from one day to 12 months from the date of borrowing. The loans borrowed under the revolving line of credit bear a variable rate of interest based upon SMBC's prevailing prime rate plus a margin of 1 percentage point which would be agreed by us at the time each loan is made. Interest is due for payment on the maturity date of each loan. SMBC has the right to terminate the revolving credit line in whole or part in its sole discretion. We did not incur any costs at the initiation of the revolving line of credit or upon renewal of the revolving credit line.

The agreement contains usual and customary events of default upon the occurrence of certain events, such as nonpayment of amounts due under the revolving line of credit, violation of contractual provisions, or a material adverse change in our business. In addition, the agreement includes a financial covenant for a minimum net worth, defined as total assets less total liabilities, of $0. The agreement also includes customary administrative covenants, including a limitation on entering any transactions of merger or consolidation, reorganize, spin-off, liquidate, dissolve, or wind up, or convey, sell, lease, license, or

otherwise dispose of all or substantially all of our property, assets, or business. As of December 31, 2017 and 2018 and September 30, 2019, we were in compliance with all covenants under the agreement. Use of proceeds from the loan is restricted for certain specified purposes. The SMBC revolving line of credit is also guaranteed by MegaChips.

As of December 31, 2018 and September 30, 2019, the aggregate principal amount outstanding under the revolving credit line with SMBC was $2.0 million, and the remaining available credit was $18.0 million.

Loan Agreement with MegaChips On September 13, 2016, we entered into a loan agreement with MegaChips for a revolving credit limit of up to $30.0 million, or the Parent Loan Agreement. Loans under the Parent Loan Agreement bear interest at a rate equal to the interest rate at which MegaChips procured the funds from SMBC, plus 0.09%. Interest for each loan is due on the maturity date of each loan. Each loan drawn from MegaChips has a three-month term, which term is automatically renewed if not paid on maturity. On June 28, 2019, the maturity date of our loan from MegaChips was extended through September 30, 2019. On September 30, 2019, such maturity date was further extended to December 31, 2019. MegaChips has discretion whether to accept our request for a loan under the Parent Loan Agreement. The initial term of the Parent Loan Agreement is one year from the date of the agreement, which term is automatically renewed and extended every year unless either party provides written notice to the other party. We did not incur any costs at the time of initiation of such credit facility or at the time of extension of the term of the credit facility.

As of December 31, 2018 and September 30, 2019, the aggregate principal amount outstanding under the credit facility with MegaChips was $3.0 million and remaining available credit was $27.0 million.

The following summarizes our total debt obligations as of December 31, 2017 and 2018 and September 30, 2019 with further details on the term of the loans and interest payable on maturity:

	As of December 31, 2017				
	(dollars in thousands)				
Lender	**Loan Start Date**[1]	**Maturity Date**	**Principal obligations**	**Interest obligations**	**Total debt obligations**
MUFG	6/30/2017	6/29/2018	$20,000	$445	$20,445
SMBC	9/25/2017	9/25/2018	8,000	296	8,296
SMBC	12/19/2017	12/19/2018	12,000	474	12,474
MegaChips	12/29/2017	3/31/2018	3,000	21	3,021
			$43,000	$1,236	$44,236

	As of December 31, 2018				
	(dollars in thousands)				
Lender	**Loan Start Date**[1]	**Maturity Date**	**Principal obligations**	**Interest obligations**	**Total debt obligations**
MUFG	6/29/2018	6/28/2019	$20,000	$742	$20,742
MUFG	8/23/2018	8/23/2019	3,000	115	3,115
MUFG	9/24/2018	9/24/2019	8,000	314	8,314
MegaChips	10/01/2018	12/31/2018	3,000	24	3,024
MUFG	12/19/2018	12/19/2019	10,000	413	10,413
SMBC	12/19/2018	12/19/2019	2,000	101	2,101
			$46,000	$1,709	$47,709

	As of September 30, 2019				
	(unaudited)				
	(dollars in thousands)				

Lender	Loan Start Date[1]	Maturity Date	Principal obligations	Interest obligations	Total debt obligations
MegaChips	6/28/2019	9/30/2019	$3,000	$—	$3,000
MUFG	6/28/2019	12/19/2019	20,000	317	20,317
MUFG	9/24/2019	12/19/2019	8,000	60	8,060
MUFG	12/19/2018	12/19/2019	10,000	413	10,413
SMBC	12/19/2018	12/19/2019	2,000	101	2,101
MUFG	8/23/2019	2/19/2020	3,000	46	3,046
			$46,000	$937	$46,937

(1) Loan start date refers to the most recent renewal date.

On January 1, 2019, our loan with MegaChips with a maturity date of December 31, 2018 was extended for a three-month term through March 31, 2019, then extended through June 28, 2019, and then extended through September 30, 2019, and then further extended with a new maturity date of December 31, 2019. Total interest expense for the years ended December 31, 2017 and 2018 was $0.9 million and $1.5 million of which $0.4 million and $0.1 million was related to our loan from our parent company, MegaChips.

On June 27, 2019, the maturity date of our $20.0 million loan under the MUFG line of credit was extended through December 19, 2019.

Contractual Obligations and Commitments

Set forth below is information concerning our contractual commitments and obligations as of December 31, 2018:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
	(in thousands)				
Debt obligations	$46,000	$46,000	$—	$—	$—
Operating leases	12,345	1,514	2,936	3,018	4,877
Purchase obligations	5,884	5,326	558	—	—
Total	$64,229	$52,840	$3,494	$3,018	$4,877

Obligations under contracts that we can cancel without a significant penalty are not included in the table above. The aggregate amount of our obligations under these contracts is approximately $4.1 million as of December 31, 2018.

We signed an operating lease agreement in 2016 for our corporate headquarters in Santa Clara, California that commenced on October 20, 2016 and will expire on December 31, 2026. The agreement provides for an option to renew for an additional five years and for rent payments through the term of the lease payment. We also lease office space in Michigan, Malaysia, the Netherlands, and Ukraine, and under all operating leases with various expiration dates through May 2021.

We purchase components and wafers from a variety of suppliers and use several contract manufacturers to provide manufacturing services for its products. A significant portion of our reported purchase commitments arising from these agreements consists of firm, non-cancellable, and unconditional purchase commitments once the production has started. In certain instances, these agreements allow us the option to cancel, reschedule, and adjust our requirements based on its business needs prior to firm orders being placed.

Off-Balance Sheet Arrangements

During the periods presented, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Actual results may differ from these estimates. To the extent that there are material differences between these estimates and our actual results, our future financial statements will be affected.

The critical accounting policies requiring estimates, assumptions, and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

We derive our revenue from product sales to distributors and resellers, who in turn sell to original equipment manufacturers or other end customers. We recognize product revenue, at a point in time, upon shipment when we satisfy our performance obligations as evidenced by the transfer of control of our products to customers. We measure revenue based on the amount of consideration we expect to be entitled to in exchange for products. Variable consideration is estimated and reflected as an adjustment to the transaction price. We determine variable consideration, which consists primarily of price adjustments and product returns by estimating the amount of consideration we expect to receive from our customers based on historical experience of price adjustments and product returns. Initial estimates of price adjustments and product returns are updated at the end of each reporting period if additional information becomes available. Changes to our estimated variable consideration were not material for the periods presented. Since our performance obligations relate to contracts with a duration of less than one year, we do not disclose the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period.

As a practical expedient, we record the incremental costs of obtaining a contract, consisting primarily of sales commissions, when incurred because the amortization period is one year or less. The costs are recorded within sales and marketing expenses.

Our payment terms vary by contract type and type of customer and generally range from 30 to 60 days from shipment. We have also elected to recognize the cost for freight and shipping when control over the products sold passes to customers and revenue is recognized.

We entered into a distribution agreement with our parent company, MegaChips, whereby we appointed MegaChips as the exclusive distributor of our products in Japan. We recognize revenue derived from sales of products through MegaChips in the amount of expected payments from parties which purchased the products, as adjusted for estimated price concessions and product returns. In 2017 and 2018, we sold approximately $6.5 million and $5.8 million, respectively, in products under this distribution agreement and paid MegaChips $0.4 million and $0.4 million in commissions, respectively. In the nine months ended September 30, 2018 and 2019, we sold approximately $4.0 million and $3.2 million, respectively, in products under the distribution agreement, and paid MegaChips $0.3 million and $0.1 million in commissions, respectively.

Inventory

Inventories consist of raw and processed wafers, work-in-process, and finished goods and are stated at the lower of standard cost or net realizable value. Standard costs approximate actual costs and are based on a first-in, first-out basis. We perform detailed reviews of the net realizable value of inventories, both on hand as well as for inventories that we are committed to purchase and write-down the inventory value for estimated deterioration, excess and obsolete and other factors based on

management's assessment of future demand and market conditions, and may require estimates that may include uncertain elements. Actual demand may differ from forecasted demand and such differences may have a material effect on recorded value of inventory. Once written-down, inventory write-downs are not reversed until the inventory is sold or scrapped.

Stock-Based Compensation

We have not issued stock-based awards since our acquisition by MegaChips in 2014, and do not have any outstanding equity awards. However, MegaChips, in consultation with our management, has granted restricted stock units, or RSUs, to certain of our employees. See "Executive Compensation—Equity-Based Incentive Awards—MegaChips Equity Awards." Compensation expense related to stock-based awards is measured and recognized in the financial statements at fair value. Stock-based compensation expense is measured at the grant date based on the fair value of the equity award and is recognized as expense over the requisite service period, which is generally the vesting period. We estimated the fair value of each equity award on the date of grant using the trading price of the MegaChips stock in Japan and recognized the related stock-based compensation expense on a straight-line method.

The shares granted to the employees had a one-year holding period from the date of vesting. Due to the exercise restriction of one-year at the time of vesting, we have committed to advance cash to employees to pay for payroll taxes that were due on vesting instead of issuing the employees restricted shares. The liability associated with the cash expense paid to the employee in lieu of restricted shares was treated as liability based awards and was valued based on the estimate of the market price of the shares at the reporting date and the liability was adjusted accordingly.

The following table summarizes the effects of stock-based compensation on our consolidated statements of operations and comprehensive income (loss) for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019.

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands)			
Cost of revenue	$131	$58	$ 58	$ —
Research and development	2,774	1,588	1,588	—
Sales and marketing	1,569	736	736	—
General and administrative	1,192	149	149	—
Total	$5,666	$2,531	$2,531	$—

As of December 31, 2018 and September 30, 2019, we did not have any unrecognized compensation expense.

Income Taxes

Deferred tax liabilities and assets are recognized for the expected future tax consequences of temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities and net operating loss and tax credit carryforwards. Valuation allowances are established when necessary to reduce deferred tax assets to a level which, more likely than not, will be realized.

A tax position can be recognized only if it is more likely than not to be sustained based solely on its technical merits as of the reporting date and then only in an amount more likely than not to be sustained upon review by the tax authorities. We consider many factors when evaluating and estimating its tax positions and tax benefits, which may require periodic adjustments and which may not accurately anticipate actual outcomes.

Segment Reporting

We operate as one reportable segment related to the design, development, and sale of silicon timing systems solutions. Our chief operating decision maker, or CODM, is our Chief Executive Officer. Our Chief Executive Officer reviews operating results on an aggregate basis and manages our operations as a whole for the purpose of evaluating financial performance and

allocating resources. Accordingly, we have determined that we have a single reportable and operating segment structure. Substantially all of our long-lived assets were attributable to operations in the United States as of December 31, 2018 and September 30, 2019.

JOBS Act Transition Period

The JOBS Act was enacted in April 2012. Section 107(b) of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Quantitative and Qualitative Disclosures about Market Risk

Concentration of Credit Risk

We are exposed to the credit risk of our customers. We sell our products primarily through distributors and resellers, who in turn sell to our end customers. We had three distributors who each directly accounted for more than 10% of our revenue for the year ended December 31, 2018. Our concentration of accounts receivable and revenue for the year ended December 31, 2018 and the nine months ended September 30, 2018 and 2019 were as follows:

	Year Ended December 31,			
	2017	2018	2017	2018
	(in thousands, except percentages)			
Revenue Concentration:				
Pernas	$ 57,136	$ 23,093	57%	27%
Arrow	12,471	15,347	12	18
Quantek	10,040	17,370	10	20
	Nine Months Ended September 30,			
	2018	2019	2018	2019
	(unaudited)			
	(in thousands, except percentages)			
Revenue Concentration:				
Pernas	$ 16,535	$10,822	27%	19%
Arrow	10,372	10,169	17	18
Quantek	12,380	12,931	20	23

	As of December 31,			
	2017	2018	2017	2018
	(in thousands, except percentages)			
Accounts Receivable Concentration:				
Pernas	$ 11,728	$ 4,791	52%	23%
Arrow	2,132	4,818	9	23
Quantek	3,621	6,927	16	34

	As of September 30,
	2019
	(unaudited)
	(in thousands, except percentages)

Accounts Receivable Concentration:		
Pernas	$ 3,412	19%
Arrow	2,850	16
Quantek	7,171	40

We market and sell our products worldwide and attribute revenue to the geography where product is shipped. The geographical distribution of our revenue for the periods indicated was as follows:

	Year Ended December 31,		Change	
	2017	2018		$%
	(in thousands, except percentages)			
Taiwan	$70,778	$45,107	$(25,671)	(36)%
Hong Kong	9,214	16,204	6,990	76
United States	4,557	6,061	1,504	33
Other	16,516	17,842	1,326	8
Total revenue	$101,065	$85,214	$(15,851)	(16)%

	Nine Months Ended September 30,		Change	
	2018	2019		$%
	(unaudited)			
	(in thousands, except percentages)			
Taiwan	$31,122	$26,830	$(4,292)	(14)%
Hong Kong	13,440	11,047	(2,393)	(18)
United States	4,741	3,880	(861)	(18)
Other	13,060	14,228	1,168	9
Total revenue	$62,363	$55,985	$(6,378)	(10)%

Foreign Currency Risk

Substantially all of our revenue is denominated in U.S. dollars. Our expenses are generally denominated in the currencies in which our operations are located, which is primarily in the United States and, to a lesser extent, in Malaysia, the Netherlands, Taiwan, and Ukraine. Our results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. The effect of a hypothetical 10% change in foreign currency exchanges rates applicable to our business would not have a material impact on our historical consolidated financial statements. We do not currently have a hedging policy with respect to foreign currency exchange risk.

Interest Rate Risk

We had cash and cash equivalents of $9.1 million, $7.9 million, and $9.2 million as of December 31, 2017 and 2018 and September 30, 2019, respectively, consisting of bank deposits. Such interest-earning instruments carry a degree of interest rate risk. To date, fluctuations in interest income have not been significant. We also had total outstanding debt of $46.0 million as of December 31, 2018 and September 30, 2019, of which all are due within 12 months, and we plan to renew some of those loans for another term to be determined by us.

We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. Our exposure to interest rates relates to the change in the amounts of interest we must pay on our short-term revolving line of credit which changes at time of renewals. The effect of a hypothetical 10%

change in interest rates applicable to our business would not have a material impact on our historical consolidated financial statements.

Recent Accounting Pronouncements

See Note 2 to our consolidated financial statements for information regarding recently issued accounting pronouncements.

Business

BUSINESS

Our Mission

Our mission is to be the preeminent timing systems solutions provider for today's electronics and tomorrow's technological advances by providing the highest performance timing solutions.

Company Overview

We are a leading provider of silicon timing systems solutions. Our timing solutions are the heartbeat of our customers' electronic systems, solving complex timing problems and enabling industry-leading products. We are disrupting a timing market generally addressed by 70-year old technology. According to Dedalus Consulting and our estimates, the global timing market is over $7.7 billion as of 2018 and is expected to grow to $10.1 billion by 2024. To date, we have generated over 99% of our revenue from sales of oscillator systems, which represent approximately $3.8 billion of this $7.7 billion market. Our current products also include resonators and clock ICs, which represent approximately $2.9 billion and $1.0 billion of this market, respectively. We have generated less than 1% of our revenue to date from sales of resonators and de minimis revenue from sales of clock ICs, which we began sampling in the second quarter of 2019. We believe we are disrupting this market from a technological perspective since we are focused on designing system-level timing solutions based entirely on silicon, in contrast to legacy quartz-based timing solutions, and we believe we are the only company focused on designing and producing all components of a timing solution, in contrast to other companies who typically design only one or two components. We believe we are also disrupting this market because we offer products differentiated by high performance and reliability, programmability, small size, low power consumption, temperature stability, and resilience to mechanical shock and vibration, at an optimum price. We believe we are the only semiconductor company focused entirely on all aspects of timing technology. In addition, we are the only silicon timing systems solutions provider that designs sophisticated system-level timing solutions based entirely on silicon technology. We believe we are also the only such provider that operates a fabless business model, which allows us to quickly scale production and reduce our capital expenditures. We believe we are also the only silicon timing systems solutions provider that offers a lifetime warranty on its products. At the forefront of a revolution in timing, our all-silicon solutions enjoy significant competitive advantages and are based on three fundamental areas of expertise: MEMS, analog mixed-signal design capabilities, and advanced system-level integration expertise. Our solutions have been designed into over 200 applications across our target markets, including enterprise and telecommunications infrastructure, automotive, industrial, IoT and mobile, and aerospace and defense. As of September 30, 2019, we have shipped over 1.5 billion units to over 10,000 end customers, which we believe is a substantially greater number of units shipped than any other MEMS timing company. Our top end customers by revenue for the six months ended June 30, 2019 include Apple, Fitbit, GARMIN, HiKVision, Samsung, Google, Microsoft, Dell, and Huami.

Timing solutions constitute a vital component of every electronic system. They ensure that the systems run reliably by providing a precise timing signal tailored to specific application requirements. We believe legacy timing products, which are almost exclusively based on quartz technology, have many inherent limitations and have failed to keep pace with the rate of innovation in the electronics industry. To solve our customers' timing challenges, we focus on designing sophisticated system-level timing solutions based entirely on silicon technology. Our customers turn to us for our system-level expertise that allows us to integrate numerous timing building blocks into a single system, which in turn enables us to optimize performance with minimal lead times.

We view timing solutions through a historical lens. For over 250 years, timing solutions have focused on providing increased accuracy under harsh environmental conditions, while also accommodating the increasing need for smaller sizes, greater portability, and lower cost. As electronics continue to evolve at a rapid pace, suppliers require increasingly advanced timing solutions to solve performance, reliability, power, and size challenges in applications ranging from large high-power equipment to small low-power battery-operated devices. For example, as communication networks move to next-generation 5G speeds, network operators are creating even denser networks that operate with higher frequencies, tighter channels, and shorter range radios, requiring up to ten times more resistance to shock and vibration. Our silicon-based timing solutions are designed to be resilient to extreme environmental interference. For IoT products, we believe our silicon-based timing solutions have the advantage of offering high performance at optimal power consumption and size as our customers fit more functionality into smaller devices. For the automotive market, our solutions can be utilized in advanced driver assistance systems for self-driving cars, which require increased timing accuracy.

Substantially all of our revenue to date has been derived from sales of oscillator systems across our target end markets. We generated modest revenue from sales of our resonators in 2018 and began sampling our first clock IC to customers in 2019. We seek to aggressively expand our presence in these two markets. The market for standalone resonators and clock ICs represents approximately 51% of our $7.7 billion total addressable market, based on estimates by Dedalus Consulting and our internal estimates.

We operate a fabless business model, allowing us to focus on the design, sales, and marketing of our products, quickly scale production, and significantly reduce our capital expenditures. We leverage our internal direct sales force as well as our global network of distributors and resellers to address the broad set of end markets we serve. For our largest accounts, dedicated sales personnel work with the end customer to ensure that our solutions address the end customer's timing needs. Our smaller customers work directly with our distributors to select the optimum timing solution for their needs. For the years ended December 31, 2017 and 2018, our revenue was $101.1 million and $85.2 million, respectively. For the nine months ended September 30, 2019, we generated revenue of $56.0 million and incurred a net loss of $7.2 million. We had net income of $4.7 million in 2017 and a net loss of $9.3 million in 2018. We are currently a wholly owned subsidiary of MegaChips, a fabless semiconductor company based in Japan and traded on the Tokyo Stock Exchange. Upon completion of this offering, MegaChips will continue to hold a majority controlling interest in our common stock. We currently anticipate that MegaChips will remain a strategic stakeholder for the foreseeable future.

Industry Background

Timing Solutions Enable Innovation and are Rapidly Evolving

The ability to accurately measure and reference time has been essential to humankind's greatest inventions and technological progress. For example, the invention of the marine chronometer in the 18th century, which accurately measured time and geographic longitude for seafaring vessels, ushered in an era of unprecedented exploration and innovation that continues to this day. The first chronometer was accurate, portable, and included early temperature and motion compensation techniques, paving the way for precise timing solutions used in rugged conditions. Timing technology has continued to evolve over centuries, forming a critical aspect of broader technological advancement. Timing is the heartbeat of every electronic system, ensuring that the system runs smoothly and reliably by providing and distributing clock signals to various critical components such as CPUs, communication and interface chips, and radio frequency components. As electronics are expected to operate at higher performance levels in increasingly challenging environments, while also being more complex and footprint-constrained, we believe they will require more sophisticated timing solutions. For example, as 5G communications networks mature, we expect that they will require higher precision from a greater number of oscillators and timing systems.

Key Building Blocks of Timing Solutions

Timing solutions are comprised of three key building blocks: resonators, oscillators, and clock ICs. While simpler systems generally require only an external resonator coupled with a basic embedded oscillator circuit, more complex systems require advanced timing solutions that may integrate a variety of resonators, oscillators, and clock ICs in a single chip package. The complexity of these timing solutions increases significantly when the performance requirements of the systems that use them increase, such as electronic systems required to support the 5G communication network infrastructure.

Key building blocks of timing systems are:

- Resonators – mechanical silicon structures that vibrate at a precise frequency and provide the core accuracy and stability in oscillator systems;
- Oscillators – active systems that combine resonators with analog mixed-signal ICs that cause the resonators to vibrate, generating accurate clock signals; and
- Clock ICs – integrated analog mixed-signal circuits such as PLLs, clock dividers, and drivers. Clock ICs require resonators and oscillators for timing references and may integrate these components into complex systems.

These three building blocks may be used individually or in combination, depending on the end product's performance, price, and size requirements.

Limitations of Legacy Quartz-based Solutions

For the past 70 years, quartz crystal has been the predominant technology of choice for resonators and will continue to play a role in the timing market. In a quartz timing device, a quartz crystal resonator is paired with a silicon-based clock IC in a ceramic package. However, quartz timing devices, largely unchanged in decades, have many inherent limitations, including limited frequency ranges, sensitivity to vibration and mechanical shock, susceptibility to frequency jumps at particular temperatures, and limited programmability. In addition, quartz devices must be housed in ceramic packaging, and thus are difficult to integrate into standard semiconductor packages and require dedicated quartz manufacturing facilities. Quartz products also require relatively long lead times due to the need to specify various characteristics well in advance of production, without the ability to reconfigure them during the design cycle. In addition, as electronic systems become more complex, feature-rich, and robust, they require more sophisticated timing systems that can seamlessly integrate a variety of resonators, oscillators, and clock ICs in various system-level combinations. This seamless integration is more difficult with legacy quartz systems.

Silicon Timing Solutions Poised to Disrupt the Market

In recent years, advances in silicon-based manufacturing and packaging techniques have allowed the development of alternatives to quartz crystal technology. We believe that MEMS is an ideal process technology for resonator design. Specifically, its ability to integrate with other circuits in standard semiconductor packages has made scalable standard silicon manufacturing possible for resonator and broader timing technology. MEMS and silicon-based technologies are able to operate in a wide range of frequencies, are resistant to vibration and mechanical shock, and are less susceptible to frequency jumps. These technologies are also inherently well-suited to produce timing solutions that are small in size, and offer high performance, robustness, and programmability. Timing solutions based on these technologies can be manufactured using mainstream fabless semiconductor processes and capacity, allowing for cost-effective high-volume manufacturing.

Significant Market Opportunity for Timing Solutions

The overall timing market represents over a $7.7 billion opportunity as of 2018. Dedalus Consulting estimates that oscillators and standalone resonators represent approximately $3.8 billion and $2.9 billion total addressable markets, respectively. Based on our internal estimates, we believe clock ICs represent an approximate $1.0 billion total addressable market. The overall timing market is expected to grow to approximately $10.1 billion by 2024, representing a CAGR of 4%. As a subset of the broader timing market, the market for MEMS oscillators is projected to grow from $0.1 billion in 2018 to $0.6 billion by 2024, representing a CAGR of 35.2%, according to Yole Développement.

The Opportunity for Advanced Solutions

From high-power network infrastructure equipment to low-power battery-operated devices, precise timing solutions enable virtually all electronics. The complexity of such timing solutions increases significantly with the performance requirements of the systems in which they are used. Below are some examples of end markets where we believe our silicon-based timing is enabling greater functionality than legacy solutions:

Telecommunications, Enterprise, and Cloud Infrastructure

Communications infrastructure equipment used in wireless base stations, wired infrastructure equipment, enterprise networks, and cloud data centers must provide high performance and stability in demanding environments, which may include temperature fluctuations, mechanical shocks, and vibration. If the timing solution within the equipment fails, networks can shut down, leading to service disruptions and higher operating costs. IDC estimates that the worldwide 5G network infrastructure market is expected to be $26 billion by 2022[(1)]. According to Gartner, "Recent reports on 5G pilots and testing have identified a wide range of projected data throughput speeds ranging from 10 times up to 1,000 times faster than 4G. Other reports estimate ranges of one to 10 gigabytes per second."[(2)] Existing quartz-based timing technology requires expensive technology and significantly higher power requirements. With higher frequencies, tighter channels, and shorter range radios in wireless base stations, we believe there will be a greater demand for high-quality silicon-based timing solutions that perform well in demanding and harsh environments with lower power consumption. We believe silicon-based timing solutions also perform well in wired telecom, enterprise, and data center networks, ensuring synchronized performance levels at higher transmission speeds.

Industrial

Industrial equipment, ranging from factory machinery to medical devices, is often exposed to environments characterized by temperature fluctuation, mechanical shocks, and vibration. If the timing solution fails, many mission-critical processes can be disrupted, such as manufacturing processes or automated medical procedures. Increasing automation and proliferation of robotics will only amplify the need for stable timing in mission-critical applications. We believe silicon-based timing solutions can perform better than legacy quartz-based solutions in demanding industrial environments at comparable cost and with lower power consumption.

Automotive

For automotive applications, timing technology must perform well and be reliable over the life of an automobile in an environment characterized by vibration, mechanical shocks, electromagnetic interference, wide temperature ranges, and rapid temperature change. The growing electrification and advancement of self-driving technologies will continue to increase the requirements for timing devices. Toyota estimates that the "data volume between vehicles and the cloud will reach 10 exabytes per month around 2025, approximately 10,000 times larger than the present volume." These communication systems will require precise timing. We believe silicon-based timing can address many of the challenges associated with this demanding automotive ecosystem due to increased resilience to shock and vibration and the ability to operate in extreme temperatures.

IoT and Mobile

The IoT revolution will enable the proliferation of billions of internet-connected devices in industrial and consumer applications. According to IHS Markit, the global installed base of IoT devices will increase from 27 billion in 2017 to 73 billion in 2025. These devices can range from personal wearable devices to electronics embedded in appliances and industrial machinery. Many of these devices need to package a significant amount of

(1) IDC Worldwide 5G network Infrastructure Forecast, 2018-2022, November 2018, Doc #US44392218.

(2) Gartner, Starting Now, Supply Chain Leaders Should Assess the Potential for 5G Mobile Communications Networks, May 2019. The Gartner Report described herein, represents research opinion or viewpoints published, as part of a syndicated subscription service, by Gartner, Inc. ("Gartner"), and are not representations of fact. Each Gartner Report speaks as of its original publication date (and not as of the date of this prospectus) and the opinions expressed in the Gartner Report is subject to change without notice.

electronics in a limited battery-powered and size-constrained envelope, while still requiring high performance and high accuracy. Due to the ability to integrate with ICs, we believe silicon-based timing solutions are well-suited to optimize footprint, reliability, and power consumption of the overall system within IoT and mobile devices.

Aerospace and Defense

Timing devices used in aerospace and defense applications such as rockets and satellites need to withstand extreme vibration forces and temperature gradients and during operation. Quartz-based solutions can be impacted by extreme vibrating forces acting on the whole system. MEMS timing devices are well-suited for these applications, as they provide up to 40 times better stability under vibration than comparable quartz-based solutions.

Our Solution and Technology

To solve our customers' timing challenges, we focus on designing sophisticated system-level timing solutions based entirely on silicon technology. Our customers turn to us for our system-level expertise that allows us to integrate numerous timing building blocks into a single system, thereby optimizing performance, cost, and board space. As the performance requirements of electronic systems become more demanding and the design more complex, we believe we provide an important value proposition to our customers by helping them solve their most difficult system-level timing challenges.

Our silicon timing solutions are comprised of:

- **MEMS resonators**: We pioneered the MEMS-based timing industry with the MEMS First™, EpiSeal™, and TempFlat™ processes. These manufacturing and packaging processes have allowed the hermetically-sealed resonator die to be assembled in industry-standard, low-cost plastic packages. These processes improve resonator stability, decrease aging effects, and enhance stability over temperature and time. We believe our MEMS resonators are easy to integrate into silicon-based oscillators and clock ICs, and allow us to develop tightly-integrated high performance timing solutions.

- **Clock ICs**: We have a dedicated analog and mixed-signal engineering team focused on the most complex challenges related to oscillators and clock ICs. Our analog mixed-signal technologies include several innovative low noise oscillators, high-performance PLLs, low noise data converters, stable low phase noise oscillators, and precision low aging reference circuits. Many of our oscillators use temperature sensing to maximize frequency stability. Our low-power nano-ampere and high-resolution DualMEMS™ micro-kelvin-resolution sensing technologies stabilize our timing solutions despite rapid temperature changes. We also offer what we consider premier Allan deviation, power supply noise rejection, temperature-sensing resolution, and integrated phase jitter.

- **Advanced system-level integration**: We have extensive know-how in integrating various timing components into elegant system-level solutions. Our ability to integrate MEMS-based devices with analog mixed-signal products allows us to develop oscillators and clock ICs in diverse permutations, which helps us solve difficult timing challenges. Using advanced packaging designs, we believe we can design our products to fit in the smallest footprints in the industry.

We design each key building block of the timing system, from MEMS resonators to oscillators to clock ICs, unlike our competitors who typically design only one or two components of the overall timing solution. Quartz resonators require dedicated fabrication facilities, and quartz suppliers typically do not participate in the clock IC market, which is addressed instead by analog mixed-signal semiconductor companies. Our ability to combine our MEMS resonators with analog-mixed signal components in a fabless manufacturing process allows us to build full timing solutions from the ground up, enabling our customers to focus on their core expertise.

Our solutions are programmable across multiple characteristics including frequencies, stability metrics, voltage parameters, and temperature ranges, among others. With this design flexibility, we can typically deliver solutions within weeks after initial configuration, as opposed to the months-long delivery timelines of legacy solutions. The inherent efficiency of our programmable platform allows us to replace legacy products with solutions that we believe are superior in performance at comparable cost, and to deliver differentiated timing solutions for our customers' next-generation products.

Our solutions offer the following benefits:

- **High performance**: Our portfolio of silicon-based MEMS resonators allows us to provide our customers with high performance solutions across a wide range of attributes including temperature, vibration, phase jitter, and other metrics.

- **Small footprint**: Our solutions have a small footprint and package size, optimizing the end customer's board area.

- **Low power**: Our solutions operate at ultra-low power levels and are well-suited for portable battery-operated applications.

- **Programmability:** Our devices are configurable across a wide range of parameters, including frequencies, stability metrics, voltage parameters, and temperature ranges, among others, resulting in design flexibility for the customer, and enabling us to produce a vast number of custom timing products on demand with short lead times.

- **High quality and reliability:** The combination of our design and manufacturing processes enables us to produce high quality products with long-term reliability. Our solutions offer low sensitivity to electromagnetic energy, mechanical shock, vibration, airflow, and temperature gradient.

- **Flexible integration:** Our MEMS resonators and clock ICs allow a wide range of packaging and integration methodologies to support various levels of size, cost and electrical, thermal, and mechanical performance.

- **Leveraged product development:** Our solutions employ different combinations of MEMS and circuit components, enabling us to generate a vast number of custom part numbers, including over 30,000 uniquely programmable part numbers shipped to date.

- **Rapid time to market:** Our solutions can typically be delivered within weeks of initial configuration, enabling us to reduce our end customers' time to market.

Our Competitive Strengths

Our approach to timing allows us to provide an extensive portfolio of solutions tailored to the specific needs of our customers, rather than requiring our customers to design their systems to accommodate a limited number of standardized timing configurations. Our leadership in silicon timing systems solutions results from the following core strengths:

- **Exclusive focus on timing.** Our research and development, engineering, manufacturing, sales, and marketing activities are focused solely on timing solutions, which we believe provides us with competitive advantage. Unlike companies who allocate their resources to a diverse set of competencies, timing is our top priority and our engineers are able to focus on the most granular components of the timing market. Due to this focus, we believe we have developed significant expertise in timing, which allows us to solve complex timing problems for our customers, enabling higher value and better end products. This in turn enables our customers to develop innovative products using our timing solutions.

- **Leading differentiated MEMS technology.** We believe we are at the forefront of the MEMS timing market, which is expected to grow at a 35.2% CAGR from $0.1 billion in 2018 to $0.6 billion by 2024 according to Yole Développement. Our portfolio of silicon-based MEMS resonators enables our entire portfolio of timing solutions and allows us to provide our customers with high performance solutions across a range of attributes including temperature, vibration, phase jitter, and other metrics. Our

MEMS-based and analog mixed-signal components are integrated into industry-standard, cost-effective plastic packages. We created electronic design automation, or EDA, tools for MEMS resonators, because off-the-shelf software did not provide the necessary features. We developed a proprietary design automation software platform to maximize MEMS resonator performance and manufacturability.

- **Broad customer base and end-market diversification.** Our end customer base has grown from approximately 1,700 end customers as of December 31, 2013 to over 10,000 individual end customers, serving numerous markets including enterprise and telecommunications infrastructure, automotive, industrial, IoT and mobile, and aerospace and defense. We believe the increasing breadth of our customer base provides us with opportunities to diversify our revenue streams and expand our know-how as we develop solutions for a variety of use cases.

- **Collaboration with industry leaders.** Many of our customers are industry leaders, and we often collaborate with these leaders at the front end of their design cycles, helping them to develop next-generation products. The collaborative nature of these relationships provides us with enhanced visibility into the future requirements of our industry-leading customers.

- **Flexible outsourced manufacturing.** We leverage world class semiconductor foundry partners such as Bosch and TSMC for our MEMS and analog fabrication needs, respectively. We also work closely with top tier back-end partners such as ASE, UTAC, and Carsem for the test and assembly of our solutions. By working with world-class foundries and top tier test and assembly and supply chain partners, we are able to quickly scale production using mainstream semiconductor manufacturing and wafer scale integration and reduce our capital expenditures without compromising the quality of our end product. In addition, the inherently small size of our MEMS die allows system designs to be flexible with broad layouts and achieve smaller form factors.

- **Experienced management team leading engineering customer solution focused organization**. We were built as a customer-first organization, focused on solving our customers' most complex timing challenges. In addition, approximately 80% of our engineers hold advanced science or engineering degrees. Our highly technical and experienced management team has created an engineering focused culture that has enabled us to hire and retain some of the best timing engineering talent, with engineers comprising approximately 45% of our workforce.

Our Strategy

Our objective is to be the leading timing solution provider for advanced and challenging applications. Our solutions not only displace existing products by providing improved performance across a range of operational attributes, but also enable next-generation devices by providing high performance timing solutions at affordable price points. Key elements of our strategy include:

- **Extend our silicon-based timing leadership**. We intend to continue driving innovation in the timing market and working with our ecosystem partners to help set the timing standards of the future. We plan to improve the performance of our current solution suite across a variety of key metrics, including size, power, frequency stability, phase noise, and signal quality, while adding new functionality.

- **Advocate benefits of silicon technology**. We intend to continue to educate current and prospective customers about the benefits of our silicon timing systems solutions relative to their existing and future products.

- **Identify and promote new and emerging applications for our technologies**. We intend to continue to collaborate with our end customers to identify timing challenges related to their product roadmaps and to develop innovative solutions to help them realize these products.

- **Enable future technology innovation**. We plan to continue to partner with leading technology companies to develop innovative products.

- **Broaden our product portfolio**. We intend to continue to broaden our product portfolio by offering additional varieties of oscillators, expanding our business in standalone resonators, and entering the clock IC market.

- **Continue to attract and acquire new customers**. We intend to expand our end customer base by focusing on direct dialogue with large strategic accounts as well as partnerships with large distributors and resellers. We believe this multi-track strategy will allow us to provide differentiated solutions to a broad array of customers.

- **Drive margin expansion of our products**. We intend to use our technological expertise to deliver higher value and higher margin products. In addition, we intend to continue to reduce our costs through operational improvements and supply-chain management initiatives.

- **Offer value on business metrics**. In addition to differentiating our solutions based on technical features and value, we also intend to provide value to our customers on business metrics by leveraging our fabless semiconductor infrastructure. These benefits may include shorter lead times, higher quality and reliability, and therefore lower cost of ownership for the end user.

Our Products

Our silicon timing systems products are designed to address a wide range of applications across a broad array of end markets. Our product portfolio encompasses oscillators and standalone resonators. We also began sampling clock ICs in the second quarter of 2019. As of September 30, 2019, we have shipped over 1.5 billion units to over 10,000 end customers, and our products have been designed into over 200 applications. The programmability of our product platforms enables us to generate solutions quickly to customer specifications, as evidenced by over 30,000 of our part numbers shipped to date derived from 65 product platforms, including 9 in MEMS, 16 in complementary metal-oxide semiconductors, and 20 packaging options.

Today, we primarily supply oscillator products that are comprised of a MEMS resonator and a clock IC that are integrated into a package. We have generated modest revenue to date from sales of standalone resonators. In the future, we intend to supply separate MEMS resonators and clock ICs, in addition to complex timing systems that may also include firmware or software. Some of our products are pin-to-pin compatible with legacy quartz crystal products. The following table illustrates our current product portfolio by target end market:

MEMS Oscillator Product Portfolio

Our silicon timing systems solutions have been incorporated into the products of our end customers within our target markets.

Our Customers

We primarily sell our timing products to distributors and resellers, who in turn sell our products to our end customers. We work closely with our end customers throughout their design cycles and are able to develop long-term relationships as our technology becomes embedded in their products. As a result, we believe we are well-positioned to be designed into their current systems and to develop next generation solutions for their future products. To date, we have shipped products to over 10,000 end customers. Our top end customers by revenue for the six months ended June 30, 2019 include Apple, Fitbit, GARMIN, HiKVision, Samsung, Google, Microsoft, Dell, and Huami.

Pernas directly accounted for 57% and 27% of our revenue for the years ended December 31, 2017 and 2018, respectively, Arrow directly accounted for 12% and 18% of our revenue for the years ended December 31, 2017 and 2018, respectively, and Quantek directly accounted for 10% and 20% of our revenue for the years ended December 31, 2017 and 2018, respectively. Other than Pernas, Arrow, and Quantek, no other single customer accounted for more than 10% of our revenue in the years ended December 31, 2017 or December 31, 2018. Pernas, Arrow, and Quantek directly accounted for 19%, 18%, and 23% of our revenue for the nine months ended September 30, 2019, respectively.

We primarily sell to distributors and resellers who identify the end customers that are purchasing our products. Based on the sell-through information provided to us, we believe that the majority of our products sold to Pernas and Quantek are in turn incorporated into products of Apple, our largest end customer. As a result, we believe revenue attributable to our largest end customer accounted for approximately 61% and 40% of our revenue for the years ended December 31, 2017 and 2018, respectively.

Although we sell our products to our largest end customer through distributors, we have a development and supply agreement which provides a general framework for our transactions with this end customer. This agreement continues until either party terminates for material breach. Under this agreement, we have agreed to develop and deliver new products to this end customer at its request, provided it also meets our business purposes, and have agreed to indemnify it for intellectual property infringement or any injury or damages caused by our products. This end customer does not have any minimum or binding purchase obligations under this agreement. If our end customers were to choose to work with other manufacturers or our relationships with our customers is disrupted for any reason, it could have a significant negative impact on our business. Any reduction in sales attributable to our larger customers, including our largest end customer, would have a significant and disproportionate impact on our business, financial condition, and results of operations.

Because our sales are made pursuant to standard purchase orders, orders may be cancelled, reduced, or rescheduled with little or no notice and without penalty. Cancellations of orders could result in the loss of anticipated sales without allowing us sufficient time to reduce our inventory and operating expenses. In addition, changes in forecasts or the timing of orders from our customers, including our larger end customers, expose us to the risks of inventory shortages or excess inventory. This in turn could cause our operating results to fluctuate. For example, in 2018 we incurred approximately $8.0 million in cost of inventory in anticipation of an order that did not materialize. This resulted in an inventory write-down of approximately $8.0 million for 2018. We were able to sell approximately $3.0 million of such inventory in the fourth quarter of 2018 and an additional $2.4 million of such inventory during the nine months ended September 30, 2019.

Sales and Marketing

Our design cycle from initial engagement to volume shipment typically ranges from six months to three years, with product life cycles of ten years or more. For many of our products, early engagement with our customers' technical staff is critical for success. To ensure an adequate level of early engagement, our sales, marketing, and customer and development engineers work closely with our customers and channel partners to understand, identify, and propose solutions to their systems' challenges. We work closely with our customers, including technology leaders such as Nokia for the communications markets, to anticipate end customer market needs. In some cases, we work with our end customers to better understand the end

customers' market trends and new requirements that are being placed on our customers. For example, in the communications market, we work with carriers to better understand market requirements, which enables us to better serve our direct customers, which are the carriers' suppliers.

We sell our products worldwide through multiple channels, including our direct sales force and a network of distributors, contract manufacturers, resellers, and independent design houses. Our global sales strategy includes direct sales and distributors covering over 10,000 end customer accounts as of September 30, 2019.

We recently commenced a strategic accounts strategy with dedicated account owners and our direct sales force focused on key decision-makers to provide high-value solutions for unique customer requirements. We intend to continue to expand our sales and market efforts through increased collaboration with our distributors, resellers, and contracted sales representatives. In addition, we intend to introduce a self-service web portal, which will support 24/7 availability and leverage an inside sales team that enables a "self-service model" for customers.

We promote our products and brand through press releases, banner advertising, direct e-mail campaigns, speaking opportunities, contributed articles, and industry analyst relations.

Manufacturing

We operate a fabless business model and use third-party foundries and assembly and test manufacturing contractors to manufacture, assemble and test our semiconductor products. This outsourced manufacturing approach allows us to focus our resources on the design, sale, and marketing of our products. In addition, we believe that outsourcing many of our manufacturing and assembly activities provides us with the flexibility needed to respond to new market opportunities, customer demand, simplifies our operations, and significantly reduces our capital commitments.

We subject our third-party manufacturing contractors to rigorous qualification requirements to meet the high quality and reliability standards required of our products. We carefully qualify each of our partners and their processes before applying the technology to our products. Our engineers work closely with our foundries and other contractors to increase yield, lower manufacturing costs, and improve product quality.

- **Fabrication**. We currently utilize a wide range of semiconductor process generations to develop and manufacture our products. We rely on Bosch in Germany and TSMC in Taiwan as our primary foundries and suppliers for our MEMS timing devices and analog circuits, respectively.
- **Package, Assembly and Testing**. Upon the completion of processing at the foundry, we use third-party contractors for packaging, assembly and testing, including ASE, Carsem, and UTAC in Taiwan, Malaysia, and Thailand, as well as Daishinku and UTAC for ceramic packaging for some of our products.
- **Warehousing**. Our products are warehoused at our Outsourced Semiconductor Assembly and Test, or OSAT, facilities located in Malaysia, Taiwan, and Thailand.

On February 23, 2017, we entered into an amended and restated manufacturing agreement with Robert Bosch LLC, or Bosch, which was amended on August 1, 2018, or the Supply Agreement. Under the Supply Agreement, Bosch has agreed to fabricate our MEMS wafers on the basis of purchase orders placed by us from time to time. Bosch has discretion whether to accept our purchase orders, and we can terminate purchase orders for convenience by giving written notice prior to shipment. The initial term of the Supply Agreement is for ten years through February 2027 and automatically renews unless terminated by either party with three years' advance notice beginning in February 2024. Other than Bosch, we do not have long-term supply agreements with most of our third-party manufacturing contractors, and we purchase products on a purchase order basis. If our current third-party manufacturing contractors cannot perform as agreed, we may be required to replace those manufacturers. We may be unable to establish any agreements with third-party manufacturing contractors or to do so on acceptable terms, in particular with respect to the fabrication and supply of our MEMS wafers. Although we believe that there are potential alternative suppliers, we may incur added costs and delays in identifying and qualifying any such replacement. For example, our license agreement with Bosch requires us to pay a royalty fee to Bosch if we engage third parties to manufacture, or if we decide to manufacture ourselves, certain generations of our MEMS wafers through March 31, 2024.

In addition, we depend on satisfactory wafer foundry manufacturing capacity, wafer prices, and production yields, as well as timely wafer delivery from our foundries. If the cost of raw materials increases, or our foundries experience decreases in yields or manufacturing defects, our customer relationships could be harmed and may result in our gross margin to decrease.

Research and Development

We believe that our future success depends on our ability to introduce enhancements on our existing products and to develop new products for both existing and new markets. As a result, a significant majority of our operating expenses has been allocated towards this effort. Our research and development efforts are focused primarily on MEMS and advanced clock IC design and advanced system-level integration.

We have assembled a core team of experienced engineers and systems designers who conduct research and development activities in the United States, the Netherlands, and Ukraine. As of September 30, 2019, we had 60 engineers worldwide (representing approximately 44% of our total employee base). Approximately 75% of our engineers have advanced degrees in science or engineering.

Intellectual Property

We rely primarily on patent, copyright, trademark, and trade secret laws, as well as confidentiality and non-disclosure agreements, and other contractual protections, to protect our technologies and proprietary know-how. As of September 30, 2019, we had 55 issued U.S. patents, expiring generally between 2026 and 2036, and 30 pending U.S. patent applications (including five provisional applications). Our issued patents and pending patent applications generally relate to our MEMS fabrication process, MEMS resonators, circuits, packaging, and oscillator systems.

In addition to our own intellectual property, we also use third-party licenses for certain technologies embedded in our MEMS solutions. For example, we have a license to certain patents from Bosch relating to the design and manufacture of MEMS-based timing applications. The patent rights obtained under the license agreement expire between 2021 and 2029, and the license agreement expires upon expiration of the last patent licensed under the agreement. If we were to lose the benefit of these patents or other licensed technology used in our business, it could harm our business and our ability to compete.

We may not receive any meaningful competitive advantages from any rights granted under our patents, and our patent applications may not result in the issuance of any patents. In addition, any future patents may be opposed, contested, circumvented, designed around by a third party, be narrowed or declared invalid or unenforceable in judicial or administrative proceedings, including re-examination, inter partes review, post-grant review, interference and derivation proceedings and equivalent proceedings in foreign jurisdictions, or be subject to ownership claims by third parties. Others may develop technologies that are similar or superior to our proprietary technologies, duplicate our proprietary technologies, or design around patents owned or licensed by us.

We generally control access to and use of our confidential information and trade secrets through the use of internal and external controls, including contractual protections with employees, contractors, and customers. We rely in part on the laws of the United States and international laws to protect our work. 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. However, we cannot guarantee that we have entered into such agreements with every such party and we may not have adequate remedies in case of a breach of any such agreements. Our trade secrets could be disclosed to our competitors or others may independently develop substantially equivalent technologies or otherwise gain access to our trade secrets. Trade secrets can be difficult to protect and some courts inside and outside of the United States are less willing or unwilling to protect trade secrets.

Despite our efforts to protect our intellectual property, unauthorized parties may still copy, misappropriate, or otherwise obtain and use our software, technology, or other information that we regard as our proprietary intellectual property. In addition, we intend to expand our international operations, and effective patent, copyright, trademark, and trade secret, and other intellectual property protection may not be available or may be limited in some foreign countries.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights and positions, which has resulted in protracted and expensive litigation for many companies. We have in the past received, and we may in the future receive, communications alleging liability for damages or challenging the validity of our intellectual property or proprietary rights. For example, in March 2019, VTT Technical Research Centre of Finland, Ltd. filed suit in the United States District Court for the Northern District of California alleging infringement by us of a U.S. patent. For more information regarding this matter, see "—Legal Proceedings." Any litigation, regardless of success or merit, could cause us to incur substantial expenses, reduce our sales, and divert the efforts of our management and other personnel. In the event we receive an adverse result in any litigation, we could be required to pay substantial damages, seek licenses from third parties, which may not be available on reasonable terms or at all, cease sale of products, expend significant resources to develop alternative technology, or discontinue the use of processes requiring the relevant technology.

Competition

The global semiconductor market in general, and the timing market in particular, is highly competitive. We compete in different target markets on the basis of a number of competitive factors. We expect competition to increase and intensify as additional companies enter our markets and as internal resources of large OEMs grow. Increased competition could result in price pressure, reduced gross margins, and loss of market share, any of which could harm our business, financial condition, and results of operations.

Our competitors range from large, international companies offering a wide range of timing products to smaller companies specializing in narrow market verticals. In the MEMS-based oscillator market, we primarily compete against MCHP. In the analog mixed-signal IC and clocking market, we primarily compete against Renesas Electronics Corporation (through their acquisition of Integrated Device Technology, Inc.), Silicon Laboratories Inc., Texas Instruments Incorporated, Microsemi Corporation (which is owned by MCHP), and Analog Devices, Inc. In the oscillator market, we primarily compete against quartz crystal suppliers such as Rakon Limited, Daishinku, Nihon Dempa Kogyo Co., Ltd., TXC Corporation, Seiko Epson Corporation, and Vectron International (which is owned by MCHP). These suppliers typically own their own quartz manufacturing facilities.

Our ability to compete successfully depends on elements both within and outside of our control, including industry and general economic trends. During past periods of downturns in our industry, competition in the markets in which we operate intensified as our customers reduced their purchase orders. Many of our competitors are substantially larger, have greater financial, technical, marketing, distribution, customer support, and other resources, are more established than we are and have significantly better brand recognition and broader product offerings which may enable them to better withstand similar adverse economic or market conditions in the future. Any such development may materially and adversely affect our current and future target markets and our ability to compete successfully in those markets.

We compete or plan to compete in different target markets to various degrees on the basis of a number of principal competitive factors, including:

- product performance;
- features, functionality, and ease of integration;
- research and development and ability to innovate;
- reliability and durability;
- customer relationships;
- size;
- product roadmap;

- reputation;
- ability to scale and meet volume and timing requirements;
- shorter delivery times;
- customer support;
- power consumption;
- price; and
- performance in dynamic, harsh conditions such as in the presence of vibration, shock, high temperature, and rapid temperature changes in the system.

We believe we compete favorably with respect to each of these factors. We maintain our competitive position through our ability to successfully design, develop, and market complex timing solutions for the customers we serve.

Employees

As of September 30, 2019, we had 135 full-time equivalent employees located in the United States, Malaysia, the Netherlands, Taiwan, and Ukraine, including 60 in research and development, 38 in sales and marketing, 19 in general and administrative, and 18 in operations. We consider relations with our employees to be good and have never experienced a work stoppage. None of our employees are either represented by a labor union or subject to a collective bargaining agreement.

Facilities

Our principal executive offices are located in a leased facility in Santa Clara, California, consisting of approximately 50,400 square feet of office space under lease that expires in December 2026. This facility accommodates our principal engineering, sales, marketing, operations, finance, and administrative activities. We also lease offices in Michigan, Japan, Malaysia, the Netherlands, and Ukraine. We do not own any real property. We believe that our leased facilities are adequate to meet our current needs and that additional facilities will be available on commercially reasonable terms for lease to meet future needs.

Legal Proceedings

In March 2019, VTT Technical Research Centre of Finland, Ltd. filed suit in the United States District Court for the Northern District of California alleging infringement by us of a patent relating to a specific combination of features set forth in the asserted patent. The complaint seeks unspecified monetary damages and injunctive relief. While we intend to defend the lawsuit vigorously, litigation, whether or not determined in our favor or settled, could be costly and time-consuming and could divert our attention and resources, which could adversely affect our business. As we are in the initial stages of evaluating this matter, we are currently unable to assess the possible outcome or impact on our business of this matter. However, because of the nature and inherent uncertainties of litigation, should the outcome of these actions be unfavorable, our business, financial condition, or results of operations could be materially and adversely affected.

From time to time, we may become involved in additional legal proceedings arising in the ordinary course of our business. We are not currently a party to any legal proceedings the outcome of which, if determined adversely to us, would individually or in the aggregate have a material adverse effect on our business, financial condition, and results of operations.

Management

MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors as of September 30, 2019, as well as information regarding our director nominees:

Name	Age	Position
Executive Officers		
Rajesh Vashist	62	Chief Executive Officer and Director
Arthur D. Chadwick	62	Executive Vice President, Chief Financial Officer
Lionel Bonnot	52	Executive Vice President, Worldwide Sales and Business Development
Piyush B. Sevalia	51	Executive Vice President, Marketing
Non-Employee Directors		
Akira Takata	61	Director
Koichi Akeyama	52	Director
Director Nominees[(1)]		
Raman K. Chitkara[(2)(3)]	61	Director Nominee
Edward H. Frank[(2)(4)]	62	Director Nominee
Torsten G. Kreindl[(2)(3)]	56	Director Nominee
Katherine E. Schuelke[(3)(4)]		Director Nominee
Tom D. Yiu	67	Director Nominee

(1) The director nominees are currently expected to be appointed to our board of directors effective November 1, 2019. In connection therewith, Mr. Akeyama will be stepping off our board of directors, also effective November 1, 2019.

(2) Member of the audit committee effective November 1, 2019.

(3) Member of the compensation committee effective November 1, 2019.

(4) Member of the nominating and corporate governance committee effective November 1, 2019.

Executive Officers

Rajesh Vashist has served as our Chief Executive Officer and as a member of our board of directors since September 2007. Effective November 1, 2019, Mr. Vashist will also serve as Chairman of our board of directors. Prior to joining SiTime, Mr. Vashist served as chief executive officer and chairman of the board of directors of Ikanos Communications, Inc., a semiconductor and software development company, from July 1999 to October 2006. Mr. Vashist holds a B.S. in engineering from NIT Rourkela in India and a MBA from Marquette University. We believe that Mr. Vashist's current role as our Chief Executive Officer and his extensive executive leadership and management experience at semiconductor companies qualify him to serve on our board of directors.

Arthur D. Chadwick has served as our Executive Vice President, Chief Financial Officer since September 2019. Prior to joining SiTime, from December 2004 to July 2018, Mr. Chadwick served as vice president of finance and administration, and chief financial officer of Cavium, Inc., a fabless semiconductor company that was listed on Nasdaq and subsequently acquired by Marvell Technology Group Ltd. in July 2018. From January 1989 to October 2004, Mr. Chadwick served as senior vice president of finance and administration, and chief financial officer of Pinnacle Systems Inc., a digital video editing company that was listed on Nasdaq and acquired by Avid Technology, Inc. in August 2005. Prior to 1989, Mr. Chadwick has held positions at Gould Semiconductor, AMS Semiconductor, and American Microsystems. Mr. Chadwick holds a B.S. in Mathematics and Physics and a MBA in finance, both from the University of Michigan.

Lionel Bonnot has served as our Executive Vice President of Worldwide Sales and Business Development since July 2019. Mr. Bonnot previously served as our Executive Vice President of Business Development from February 2018 to July 2019. Prior to joining SiTime, Mr. Bonnot was at Quantenna Communications (Nasdaq: QTNA), a wireless communication solution company that designs and develops radio frequency and digital Wi-Fi chips, from December 2007 to December 2017. During

his 10-year tenure at Quantenna, Mr. Bonnot served as vice president of worldwide sales, senior vice president of business development, and most recently as senior vice president of marketing and business development. Mr. Bonnot also held various positions at Ikanos Communications, Inc., a semiconductor and software development company, from December 2001 to December 2007, including vice president of Europe, vice president of sales for North America and EMEA, and senior director of worldwide sales. Mr. Bonnot holds a M.S. in Computer Science from Ecole Nationale Supérieure d'Informatique in Paris, France.

Piyush B. Sevalia has served as our Executive Vice President of Marketing since April 2012. Mr. Sevalia previously served as our Vice President of Marketing from March 2008 to April 2012. Prior to joining SiTime, Mr. Sevalia held various marketing positions at Ikanos Communications, a semiconductor and software development company, including vice president of access infrastructure products from October 2006 to March 2008, marketing head of access products from April 2006 to September 2006, and director of product marketing from September 2000 to March 2006. From July 1991 to September 2000, Mr. Sevalia held various positions at Cypress Semiconductor, a semiconductor company, including senior marketing manager, strategic marketing manager, senior / staff applications engineer, and applications engineer. Mr. Sevalia holds a bachelor's degree in electrical engineering from the University of Mumbai, a master's degree in electrical engineering from the University of Michigan, and a master's degree in business administration from the University of California, Berkeley.

Non-Employee Directors

Akira Takata has served as a member of our board of directors since November 2014. Since June 2019, Mr. Takata has been the managing director of our parent company, MegaChips, the second largest fabless semiconductor company based in Japan. Prior to his role as managing director, he served in various roles at MegaChips, including as president and chief executive officer from June 2011 to June 2019, manager of business strategy office, manager of alliance strategy office in main administration unit, director of product business, executive officer, director of production management, general manager of LSI business unit, and as a director. Since June 2014, Mr. Takata has been serving on the board of directors of Global Semiconductor Alliance, a leading industry organization. Mr. Takata received a bachelor's degree in electronics engineering from Osaka University in Japan. We believe that Mr. Takata is qualified to serve on our board of directors due to his management and leadership experience in the semiconductor industry.

Koichi Akeyama has served as a member of our board of directors since November 2014, and since April 2013 has been the president and chief executive officer of MegaChips America, a wholly owned subsidiary of MegaChips. Mr. Akeyama currently serves on the board of directors of MegaChips. Prior to joining MegaChips America, Mr. Akeyama served as president of Kawasaki Microelectronics America, a networking and storage solutions company. Akeyama received a bachelor of science degree and master of science degree in chemistry both from the University of Tokyo. We believe that Mr. Akeyama is qualified to serve on our board of directors due to his experience in the semiconductor industry, his knowledge of microelectronic design, and management experience.

Raman K. Chitkara is expected to join our board of directors in November 2019. Since August 2018, Mr. Chitkara has served as a board member and chair of the audit committee of Xilinx, Inc. (Nasdaq: XLNX), a technology and programmable logic device company. From September 1984 to June 2018, Mr. Chitkara worked at PricewaterhouseCoopers LLP, or PwC, a public accounting firm, where he served in various capacities including as partner, global technology industry leader and global semiconductor industry leader. During his tenure at PwC, Mr. Chitkara held numerous leadership positions, including membership of the audit quality board and leader of the global assurance technology, information, communication, entertainment, and media practice. Mr. Chitkara received a bachelor of commerce in accounting and business management from Shri Ram College of Commerce. We believe Mr. Chitkara is qualified to serve on our board of directors due to his extensive knowledge and experience with public company financial accounting matters for complex global organizations.

Dr. Edward H. Frank is expected to join our board of directors in November 2019 and has served as chief executive officer of Brilliant Lime, Inc., a silicon, systems, and software technology development startup, since October 2017. Dr. Frank serves as a director of Analog Devices, Inc. (Nasdaq: ADI), a semiconductor company, Marvell Technology Group Ltd., a fabless semiconductor company, and Amesite Inc., an online education development company. Dr. Frank co-founded Cloud Parity, Inc., a voice-of-the-customer company, in December 2013 and served as its chief executive officer until September 2016. From May 2009 to October 2013, Dr. Frank served as vice president of Macintosh hardware systems engineering at Apple

Inc. (Nasdaq: AAPL), a multinational technology company. From May 1999 to March 2008, Dr. Frank served as corporate vice president of research and development at Broadcom Corporation, a fabless semiconductor company, which was traded on Nasdaq and acquired by Avago Technologies Limited in May 2014. Prior to joining Broadcom Corporation, Dr. Frank was co-founder and served as executive vice president of Epigram, Inc., an integrated circuit and software development company, which Broadcom acquired in May 1999. Dr. Frank's prior experience includes serving as a director of Fusion-io, Inc., a computer hardware and software systems company, which was listed on the The New York Stock Exchange and subsequently acquired by SanDisk Corporation in July 2014, from October 2013 until July 2014; as a director of Quantenna Communications, Inc. a fabless semiconductor company, which was listed on Nasdaq and subsequently acquired by On Semiconductor Corporation, from July 2016 to August 2018; and as a director of Cavium, Inc., a fabless semiconductor company, which was listed on Nasdaq and subsequently acquired by Marvell Technology Group Ltd. in July 2018, from July 2016 to July 2018. Dr. Frank was elected to the National Academy of Engineering for his contributions to the development and commercialization of WiFi and is a National Association of Corporate Directors, Board Leadership Fellow. Dr. Frank is a National Association of Corporate Directors (NACD) Board Governance Fellow. Dr. Frank holds BS and MS degrees in Electrical Engineering from Stanford University and a Ph.D. in Computer Science from Carnegie Mellon University, where he also serves as Vice-Chair of its Board of Trustees. We believe Dr. Frank's substantial experience in the design, manufacture, sale and marketing of semiconductors and his extensive executive leadership experience in the semiconductor industry and experience serving on boards of public companies qualifies him to serve on our board of directors.

Dr. Torsten G. Kreindl is expected to join our board of directors in November 2019, and since May 2016 has served as managing partner of Deutsche Invest Venture Capital, an investment company. Dr. Kreindl has served as a director of Crate.io Inc., a data management company, since June 2018, as a director of ProGlove GmbH, an industrial wearables company, since January 2019, as a director of Plume Design, Inc., a WiFi network extender development company, since September 2017, and as a director of Hays PLC, a recruitment and human resources services company, since July 2013. From April 2003 to April 2016, Dr. Kreindl served as a director, as chairman of the finance committee, and as a member of the remuneration and nomination committee of Swisscom AG (Nasdaq: SWZCF), a telecommunications company. Dr. Kreindl served as general partner of venture capital firms Grazia Equity and Copan, from October 2005 to April 2016 and September 1999 to September 2005, respectively. From January 1995 to August 1999, Dr. Kreindl served as chief executive officer of Deutsche Telekom AG (Nasdaq: DTEGF), a broadband cable company, and as a member of Booz Allen & Hamilton Inc., a management and information technology consulting firm, from February 1993 to May 1996. Dr. Kreindl received a master's and doctorate in industrial engineering from Johannes Kepler University Linz. We believe Dr. Kreindl is qualified to serve on our board of directors due to his extensive management experience.

Katherine E. Schuelke is expected to join of our board of directors in November 2019, and since June 2017 has served as senior vice president, chief legal officer, and corporate secretary of Seagate Technology PLC (Nasdaq: STX), a data storage company, where she is responsible for Seagate's legal, government affairs, and security functions. From March 1996 to January 2016, Ms. Schuelke was employed by Altera Corporation, where she served as senior vice president, general counsel, and secretary from 2011 to 2016, vice president, general counsel and secretary from 2001 to 2011, and other positions of increasing responsibility from 1996 to 2011.

Altera was a semiconductor company which was listed on Nasdaq and subsequently acquired by Intel Corporation in December 2015. Ms. Schuelke served as an associate at the international law firm of Morrison & Foerster LLP from October 1989 to March 1996, where she specialized in intellectual property, securities, and general business litigation. Ms. Schuelke received a bachelor's in economics from the University at Buffalo and a juris doctor from New York University School of Law. We believe Ms. Schuelke is qualified to serve on our board of directors due to her extensive legal and business experience at public companies and in the semiconductor industry as well as her knowledge of intellectual property, security, international business, and corporate transactions.

Tom D. Yiu is expected to join our board of directors in November 2019, and since January 2007 has served as senior vice president and chief marketing officer of Macronix International Co., Ltd. (Nasdaq: MXIC), or Macronix, an integrated device manufacturing company. Mr. Yiu has been with Macronix since April 1990. During his 29-year tenure at Macronix, Mr. Yiu also served as a director, since June 1995, as senior vice president and head of integrated solution group, from January 2004 to December 2006, senior vice president and chief operating officer, from January 1998 to December 2003 and senior vice

president, product development, from April 1990 to December 1997. Prior to joining Macronix, Mr. Yiu served as memory design manager of Austek Microsystem, Inc., a semiconductor company, from February 1985 to November 1987, and as founding member and memory design manager of Modular Semiconductor, Inc., a semiconductor company, from February 1984 to February 1985. From February 1982 to April 1984, Mr. Yiu served as staff design engineer and design section manager of VLSI Technology, Inc., an integrated circuit company. Mr. Yiu founded Dynasty Technology, Inc., an engineering company, in November 1987 and served as its president until April 1990. Mr. Yiu served as a director of MegaChips Corporation, our parent company, from June 2013 to June 2019, and as a director of Infomax System Solutions and Services Co. Ltd., a financial software systems services company, from January 2016 to March 2017. Mr. Yiu received a bachelor of science in electrical engineering from National Taiwan University and a master of science in electrical engineering from the University of California, Berkeley. We believe that Mr. Yiu is qualified to serve on our board of directors due to his rich experience in memory integrated circuit design, marketing, and operating fields.

Board Composition

Our business and affairs are organized under the direction of our board of directors, which currently consists of three members. Our board of directors approved an increase in the number of authorized directors to seven members effective as of November 1, 2019. Rajesh Vashist, our Chief Executive Officer, will serve as Chairman of our board of directors effective November 1, 2019. MegaChips is expected to hold approximately % of our outstanding common stock immediately upon completion of this offering. For so long as MegaChips continues to hold at least 50% of our outstanding common stock, it is expected to hold at least one of the seven seats on our board of directors. Although we do not have any agreement with MegaChips that provides MegaChips the right to such board seats, we expect that for as long as it holds 50% or more of our outstanding common stock, it will have the ability to elect all of the members of our board of directors. The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling, and direction to our management. Our board of directors meets on a regular basis and additionally as required.

Our board of directors has determined that five of the seven directors who will be on our board of directors prior to the completion of the offering will qualify as independent directors, as defined under the Nasdaq listing rules.

In accordance with the terms of our amended and restated bylaws, which will be effective immediately prior to the completion of this offering, our board of directors will be divided into three classes, Class I, Class II, and Class III, with members of each class serving staggered three-year terms.

Effective upon completion of this offering, our board of directors will be comprised of seven directors divided into the following classes:

- Class I, which will consist of Torsten G. Kreindl and Akira Takata, whose terms will expire at our first annual meeting of stockholders to be held after the completion of this offering;
- Class II, which will consist of Edward H. Frank and Tom D. Yiu, whose terms will expire at our second annual meeting of stockholders to be held after the completion of this offering; and
- Class III, which will consist of Raman K. Chitkara, Katherine E. Schuelke, and Rajesh Vashist, whose terms will expire at our third annual meeting of stockholders to be held after the completion of this offering.

At each annual meeting of stockholders to be held after the initial classification, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following their election and until their successors are duly elected and qualified. The authorized size of our board of directors is currently four members and may be changed only by resolution by a majority of our board of directors. Our board of directors approved an increase in the number of authorized directors to seven members effective as of November 1, 2019. This classification of our board of directors may have the effect of delaying or preventing changes in our control or management. Our directors may be removed for cause by the affirmative vote of the holders of at least two-thirds (2/3) of our voting stock.

Director Independence

Immediately upon completion of this offering, we will be a "controlled company" under the . As a result, we qualify for exemptions from certain corporate governance requirements under the rules, including the requirements that within one year of the completion of this offering, we have a board that is composed of a majority of "independent directors," as defined under the rules, and a compensation committee and a nominating and corporate governance committee that is each composed entirely of independent directors. Even though we will be a controlled company, we intend to comply with the rules of the SEC and Nasdaq relating to such independence requirements with respect to the composition of our board of directors, compensation committee, and nominating and corporate governance committee as applicable to companies which are not "controlled companies." In addition, we will be subject to the rules of the SEC and Nasdaq relating to the membership, qualifications, and operations of the audit committee, as discussed below.

The rules of Nasdaq define a "controlled company" as a company of which more than 50% of the voting power for the election of directors is held by an individual, a group or another company. Upon completion of this offering, MegaChips will own approximately % of our outstanding common stock (approximately % if the underwriters exercise their over-allotment option in full), representing % of the voting power of the outstanding common stock (approximately % if the underwriters exercise their over-allotment option in full). Effective November 1, 2019 and after this offering, for so long as it continues to hold at least 50% of our outstanding common stock, MegaChips is expected to hold at least one out of seven seats on our board of directors. Although we intend to comply with the rules of the SEC and Nasdaq relating to director independence requirements, as applicable to companies which are not "controlled companies," through its control of shares of common stock representing a majority of the votes entitled to be cast in the election of our board of directors, MegaChips has the ability to control the vote to elect all of our directors. Regardless, if we cease to be a controlled company and we continue to be listed on Nasdaq, we will be required to comply with the director independence requirements of Nasdaq relating to the board of directors, compensation committee, and nominating and corporate governance committee by the date our status as a controlled company changes or within specified transition periods applicable to certain provisions, as the case may be.

Role of our Board of Directors in Risk Oversight/Risk Committee

One of the key functions of our board of directors is informed oversight of our risk management process. Our board of directors does not have a standing risk management committee, but rather administers this oversight function directly through our board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure and our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The audit committee also monitors compliance with legal and regulatory requirements. Our compensation committee also assesses and monitors whether our compensation plans, policies, and programs comply with applicable legal and regulatory requirements.

Board Committees

Our board of directors has established an audit committee, a compensation committee, and a nominating and corporate governance committee. Our board of directors has adopted a charter for each of these committees, which complies with the applicable requirements of current Nasdaq rules. We intend to comply with future requirements to the extent they are applicable to us. Following the completion of this offering, copies of the charters for each committee will be available on the investor relations portion of our website.

Audit Committee

Upon completion of this offering, our audit committee will consist of Raman K. Chitkara, Edward H. Frank, and Torsten G. Kreindl. Our board of directors has determined that each of the members of our audit committee satisfies the independence requirements of Nasdaq and Rule 10A-3 under the Exchange Act. Each member of our audit committee can read and understand fundamental financial statements in accordance with Nasdaq audit committee requirements. In arriving at this determination, our board of directors has examined each audit committee member's scope of experience and the nature of their prior and/or current employment.

Mr. Chitkara will serve as the chair of our audit committee. Our board of directors has determined that Mr. Chitkara qualifies as an audit committee financial expert within the meaning of SEC regulations and meets the financial sophistication requirements of the Nasdaq listing rules. In making this determination, our board has considered Mr. Chitkara's formal education and previous experience in financial roles. Both our independent registered public accounting firm and management periodically meet privately with our audit committee.

The functions of this committee include, among other things:

- evaluating the performance, independence, and qualifications of our independent auditors and determining whether to retain our existing independent auditors or engage new independent auditors;
- reviewing our financial reporting processes and disclosure controls;
- reviewing and approving the engagement of our independent auditors to perform audit services and any permissible non-audit services;
- reviewing the adequacy and effectiveness of our internal control policies and procedures, including the responsibilities, budget, staffing, and effectiveness of our internal audit function;
- reviewing with the independent auditors the annual audit plan, including the scope of audit activities and all critical accounting policies and practices to be used by us;
- obtaining and reviewing at least annually a report by our independent auditors describing the independent auditors' internal quality control procedures and any material issues raised by the most recent internal quality-control review;
- monitoring the rotation of partners of our independent auditors on our engagement team as required by law;
- prior to engagement of any independent auditor, and at least annually thereafter, reviewing relationships that may reasonably be thought to bear on their independence, and assessing and otherwise taking the appropriate action to oversee the independence of our independent auditor;
- reviewing our annual and quarterly financial statements and reports, including the disclosures contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations," and discussing the statements and reports with our independent auditors and management;
- reviewing with our independent auditors and management significant issues that arise regarding accounting principles and financial statement presentation and matters concerning the scope, adequacy, and effectiveness of our financial controls and critical accounting policies;
- reviewing with management and our auditors any earnings announcements and other public announcements regarding material developments;
- establishing procedures for the receipt, retention, and treatment of complaints received by us regarding financial controls, accounting, auditing, or other matters;
- preparing the report that the SEC requires in our annual proxy statement;
- reviewing and providing oversight of any related person transactions in accordance with our related person transaction policy and reviewing and monitoring compliance with legal and regulatory responsibilities, including our code of ethics;
- reviewing our major financial risk exposures, including the guidelines and policies to govern the process by which risk assessment and risk management is implemented; and
- reviewing and evaluating on an annual basis the performance of the audit committee and the audit committee charter.

We believe that the composition and functioning of our audit committee complies with all applicable requirements of the Sarbanes-Oxley Act and all applicable SEC rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee

Upon completion of this offering, our compensation committee will consist of Raman K. Chitkara, Torsten G. Kreindl, and Katherine E. Schuelke. Dr. Kreindl will serve as the chair of our compensation committee. Our board of directors has determined that each of the members of our compensation committee is a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange Act, and satisfies the independence requirements of Nasdaq. The functions of this committee include, among other things:

- reviewing and approving the corporate objectives that pertain to the determination of executive compensation;
- reviewing and approving the compensation and other terms of employment of our executive officers;
- reviewing and approving performance goals and objectives relevant to the compensation of our executive officers and assessing their performance against these goals and objectives;
- making recommendations to our board of directors regarding the adoption or amendment of equity and cash incentive plans and approving amendments to such plans to the extent authorized by our board of directors;
- reviewing and making recommendations to our board of directors regarding the type and amount of compensation to be paid or awarded to our non-employee board members;
- reviewing and assessing the independence of compensation consultants, legal counsel, and other advisors as required by Section 10C of the Exchange Act;
- administering our equity incentive plans, to the extent such authority is delegated by our board of directors;
- reviewing and approving the terms of any employment agreements, severance arrangements, change in control protections, indemnification agreements, and any other material arrangements for our executive officers;
- reviewing with management our disclosures under the caption "Compensation Discussion and Analysis" in our periodic reports or proxy statements to be filed with the SEC, to the extent such caption is included in any such report or proxy statement;
- preparing an annual report on executive compensation that the SEC requires in our annual proxy statement; and
- reviewing and evaluating on an annual basis the performance of the compensation committee and recommending such changes as deemed necessary with our board of directors.

We believe that the composition and functioning of our compensation committee complies with all applicable requirements of the Sarbanes-Oxley Act and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Nominating and Corporate Governance Committee

Upon completion of this offering, our nominating and corporate governance committee will consist of Edward H. Frank and Katherine E. Schuelke. Our board of directors has determined that each of the members of our nominating and corporate governance committee satisfies the independence requirements of Nasdaq. Ms. Schuelke will serve as the chair of our nominating and corporate governance committee. The functions of this committee include, among other things:

- identifying, reviewing, and making recommendations of candidates to serve on our board of directors;

- evaluating the performance of our board of directors, committees of our board of directors, and individual directors and determining whether continued service on our board is appropriate;
- evaluating nominations by stockholders of candidates for election to our board of directors;
- evaluating the current size, composition, and organization of our board of directors and its committees and making recommendations to our board of directors for approvals;
- developing a set of corporate governance policies and principles and recommending to our board of directors any changes to such policies and principles;
- reviewing issues and developments related to corporate governance and identifying and bringing to the attention of our board of directors current and emerging corporate governance trends; and
- reviewing periodically the nominating and corporate governance committee charter, structure, and membership requirements and recommending any proposed changes to our board of directors, including undertaking an annual review of its own performance.

We believe that the composition and functioning of our nominating and corporate governance committee complies with all applicable requirements of the Sarbanes-Oxley Act and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has ever been an executive officer or employee of ours. None of our executive officers currently serve, or has served during the last completed fiscal year, on the compensation committee or board of directors of any other entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Limitation on Liability and Indemnification of Directors and Officers

Our amended and restated certificate of incorporation, which will be effective upon completion of this offering, limits our directors' liability to the fullest extent permitted under Delaware General Corporation Law, or the DGCL. The DGCL provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability:

- for any transaction from which the director derives an improper personal benefit;
- for any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for any unlawful payment of dividends or redemption of shares; or
- for any breach of a director's duty of loyalty to the corporation or its stockholders.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Delaware law and our amended and restated bylaws provide that we will, in certain situations, indemnify our directors and officers and may indemnify other employees and other agents, to the fullest extent permitted by law. Any indemnified person is also entitled, subject to certain limitations, to advancement, direct payment, or reimbursement of reasonable expenses (including attorneys' fees and disbursements) in advance of the final disposition of the proceeding.

In addition, we have entered, and intend to continue to enter, into separate indemnification agreements with our directors and officers. These agreements, among other things, require us to indemnify our directors and officers for certain expenses, including attorneys' fees, judgments, fines, and settlement amounts incurred by a director or officer in any action or

proceeding arising out of their services as one of our directors or officers or any other company or enterprise to which the person provides services at our request.

We maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and these indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

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

Code of Business Conduct and Ethics for Employees, Executive Officers, and Directors

We intend to adopt a Code of Business Conduct and Ethics, or the Code of Conduct, applicable to all of our employees, executive officers, and directors. The Code of Conduct will be available on our website at *www.sitime.com*. The nominating and corporate governance committee of our board of directors is responsible for overseeing the Code of Conduct and must approve any waivers of the Code of Conduct for employees, executive officers, and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website.

Non-Employee Director Compensation

We have not historically paid cash retainers or other compensation with respect to service on our board of directors. We have reimbursed and will continue to reimburse all of our non-employee directors for their reasonable expenses incurred in attending meetings of our board of directors and committees of our board of directors.

Our board of directors reviewed the following proposed cash compensation for the new directors, which is based on a review of director compensation at comparable companies in our industry. We anticipate that our board of directors or the compensation committee will approve cash compensation for non-employee directors consisting of a $40,000 annual retainer, an additional $20,000 annual retainer for the lead independent director, if any, and the following for committee services, contingent upon the closing of the offering:

Committee	Chair	Member
Compensation Committee	$10,000	$5,000
Nominating and Corporate Governance Committee	10,000	5,000
Audit Committee	20,000	8,000

The foregoing cash compensation, combined with equity compensation of non-employee directors, cannot not exceed in the aggregate amount of $500,000 per year (or $750,000 per year for the first fiscal year following the offering).

For information regarding equity compensation for non-employee director compensation, see "Executive Compensation—Equity-Based Incentive Awards—SiTime Equity Awards."

Executive Compensation

EXECUTIVE COMPENSATION Our named executive officers, who consist of our principal executive officer and our two other most highly compensated executive officers, for the year ended December 31, 2018 were:

- Rajesh Vashist, our Chief Executive Officer;
- Lionel Bonnot, our Executive Vice President of Business Development; and

- Piyush B. Sevalia, our Executive Vice President of Marketing.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)	All Other Compensation($)[1]	Total ($)
Rajesh Vashist	2018	488,750	520,000 [3]	9,922	1,018,672
Chief Executive Officer					
Lionel Bonnot	2018	236,500 [2]	66,667	8,162	311,329
Executive Vice President, Business Development					
Piyush B. Sevalia	2018	300,000	75,000	9,830	384,830
Executive Vice President, Marketing					

(1) The amounts in this column include life insurance premiums paid by us for the benefit of the named executive officer and 401(k) matching contributions.

(2) Mr. Bonnot joined us in February 2018. This amount represents a prorated portion of his annual base salary for 2018, which base salary was $260,000. Effective July 2019, Mr. Bonnot was appointed our Executive Vice President of Worldwide Sales and Business Development.

(3) This amount includes a $250,000 bonus earned in 2017 and paid in 2018.

Narrative to Summary Compensation Table

In setting executive base salaries and bonuses, we consider compensation for comparable positions in the market, the historical compensation levels of our executives, individual performance as compared to our expectations and objectives, our desire to motivate our employees to achieve short- and long-term results that are in the best interests of our stockholders, and a long-term commitment to us. We do not target a specific competitive position or a specific mix of compensation among base salary or bonus.

All of our employees, including our named executive officers, participate in our Exemplary Performance Bonus Plan, or MBO Plan, which is designed to motivate and reward our employees for achievements relative to our goals and expectations. The MBO Plan is available to all of our full-time employees located in the U.S., and provides for the same method of allocation of benefits for both management and non-management participants. Under the MBO Plan, Messrs. Vashist, Bonnot, and Sevalia were eligible to receive a bonus of up to $360,000, $91,667, and $100,000 in 2018, respectively, to be paid out on a quarterly basis during the month following the end of each quarter, subject to meeting pre-determined management objectives and goals for the applicable quarter and being an employee in good standing as of the applicable payment date.

Equity-Based Incentive Awards

SiTime Equity Awards

We have not granted any equity incentive awards since our acquisition by MegaChips in 2014 and currently have no outstanding equity awards.

Effective November 1, 2019, our board of directors will consist of Messrs. Takata and Vashist, each of whom is a current director, as well as the following individuals, each of whom will be an independent and non-employee director. Our board of directors reviewed the following proposed equity compensation for our non- employee directors, which is based on a review of director compensation at comparable companies in our industry. We anticipate that our board of directors or the

compensation committee will approve and implement Mr. Takata's grant and the initial RSU grants to the non-employee directors contingent upon the closing of the offering and, if approved, that such grants would be effective immediately after the effectiveness of a registration statement on Form S-8 relating to the 2019 Plan.

Name	Annual RSU Awards ($)[1]	Other RSU Awards ($)[2]
Raman K. Chitkara	175,000	250,000
Edward H. Frank	175,000	250,000
Torsten G. Kreindl	175,000	250,000
Katherine E. Schuelke	175,000	250,000
Akira Takata	175,000	550,000
Tom D. Yiu	175,000	250,000

(1) Includes anticipated RSUs with a grant date value of $175,000 vesting after one year for directors who served at least 6 months prior to the grant date (in each case to be granted after April 2020).

(2) Includes initial grants of RSUs to non-employee directors with a grant date value of $250,000 vesting annually over 3 years and a $300,000 fully vested RSU grant to Mr. Takata in recognition of his past service. Upon grant, each recipient would be entitled to receive a number of shares equal to the values set forth with respect to each recipient in the table above divided by the initial public offering price per share, subject to a vesting schedule and continued service.

We have reserved 4,700,000 shares for future issuance under the 2019 Plan as of October 3, 2019. We have not granted any equity awards since our acquisition by MegaChips and to date, we have not granted any equity awards under the 2019 Plan. We currently anticipate granting substantially all of the shares reserved for issuance under the 2019 Plan, or the Employee Pool, to management (including officers and directors) and employees in the form of RSUs, subject to a vesting schedule and continued service. In addition, we anticipate that 4.5% of the Employee Pool may be allocated to RSUs to be awarded to our Chief Executive Officer, subject to the form of RSU agreement and vesting schedule recently approved by our board of directors. Any such grants would be subject to approval by the compensation committee (for Section 16 officers and directors) or the compensation administration committee (for all employees prior to this offering and for all employees other than Section 16 officers after this offering), as applicable. We currently anticipate that such grants may be approved immediately prior to this offering. If and when approved, such grants would be contingent upon the closing of the offering and effective immediately after the effectiveness of a registration statement on Form S-8 relating to the 2019 Plan. Upon grant, each recipient would be entitled to receive a number of shares equal to the values set forth with respect to each recipient divided by the initial public offering price per share, subject to a vesting schedule and continued service. We have not made any final determinations as to any future awards or the timing thereof, and there can be no assurance that we will grant any awards in that timeframe, if at all, or as to the number of shares which may be subject to any future equity awards.

After the completion of this offering, we expect to provide for equity-based incentive awards designed to align the interests of our stockholders with those of our employees, including our named executive officers.

Following the effective date of this offering, our compensation committee will be responsible for approving equity grants to our Section 16 executive officers. The compensation administration committee will make grants to all other employees and our board of directors will approve grants to any outside directors.

Vesting of equity awards will generally be tied to continuous service with us to serve as an additional retention measure. We expect our executive officers generally will be awarded an initial new hire grant upon commencement of employment. Additional grants may occur periodically in order to specifically incentivize executives with respect to achieving certain corporate goals, to encourage retention, or to reward executives for exceptional performance.

We intend to grant options with an exercise price equal to no less than the fair market value of a share of our common stock on the date of the grant of such award. Our stock option awards will generally vest over a four-year period subject to the holder's continuous service to us. We also intend to grant restricted stock units subject to vesting based upon continuous

service and may also condition vesting on achievement of performance objectives.

MegaChips Equity Awards

Certain of our employees have been granted RSUs with respect to shares of common stock of MegaChips under the MegaChips Corporation Restricted Stock Unit Plan, by MegaChips, in consultation with our management. Mr. Vashist was granted 48,222 RSUs in July 2016, which vested over a period of one-year and fully vested and settled in June 2017. Mr. Sevalia was granted 62,000 RSUs in July 2016, which vested over a period of two years and fully vested and settled in June 2018. A portion of the RSUs were settled in cash. There were no RSUs granted to our executive officers in 2017 and 2018 and no outstanding RSUs as of June 30, 2019.

None of our named executive officers received any RSUs or other equity awards from MegaChips in 2018.

Agreements with Our Named Executive Officers and Potential Payments Upon Termination or Change of Control

Below are descriptions of our employment agreements and offer letter agreements with our named executive officers. The agreements generally provide for at-will employment and set forth the named executive officer's initial base salary and eligibility for employee benefits. Furthermore, each of our named executive officers has executed a form of our standard proprietary information and inventions assignment agreement.

Agreement with Rajesh Vashist

On October 21, 2014, we entered into an employment agreement with Rajesh Vashist, our Chief Executive Officer, which superseded and replaced Mr. Vashist's previous employment agreement. Under Mr. Vashist's agreement, we agreed to pay Mr. Vashist an annual base salary of $425,000, and based on the assessment by our board of directors of Mr. Vashist's performance and the attainment of annual company goals established by our board of directors in its sole discretion, and subject to Mr. Vashist's employment through the payment date, an annual performance bonus of up to $300,000. In addition, under the employment agreement, as amended on June 14, 2016, Mr. Vashist agreed to provide advisory services of not more than 10 hours each month to MegaChips through June 30, 2020, regardless of his employment status with us. Mr. Vashist's current annual base salary is $488,750 and he is eligible to earn an annual performance bonus of up to $360,000.

Agreement with Lionel Bonnot

On January 27, 2018, we entered into an offer letter with Lionel Bonnot, our Executive Vice President of Worldwide Sales and Business Development, setting forth the initial terms of his employment. Pursuant to the agreement, Mr. Bonnot was entitled to an initial annual base salary of $260,000, and based on the assessment by our board of directors of Mr. Bonnot's performance and the attainment of annual company goals established by our board of directors in its sole discretion, and subject to Mr. Bonnot's employment through the payment date, an annual performance bonus of up to $100,000. Mr. Bonnot's current annual base salary is $287,500.

Agreement with Arthur D. Chadwick

On September 26, 2019, we entered into an offer letter with Arthur D. Chadwick, our Executive Vice President, Chief Financial Officer, setting forth the initial terms of his employment. Pursuant to the agreement, Mr. Chadwick was entitled to an initial annual base salary of $300,000, and based on the assessment by our board of directors of Mr. Chadwick's performance and the attainment of annual company goals established by our board of directors in its sole discretion, and subject to Mr. Chadwick's employment through the payment date, an annual performance bonus of up to $100,000.

Agreement with Piyush B. Sevalia

On October 20, 2014, we entered into an offer letter with Piyush B. Sevalia, our Executive Vice President of Marketing, setting forth the initial terms of his employment. Pursuant to the agreement, Mr. Sevalia was entitled to an initial annual base salary of $300,000, and based on the assessment by our board of directors of Mr. Sevalia's performance and the attainment of annual company goals established by our board of directors in its sole discretion, and subject to Mr. Sevalia's employment through the payment date, an annual performance bonus of up to $100,000. The agreement also provided for profit sharing bonuses for 2017 and 2018, with Mr. Sevalia's expected profit sharing interest at 5% and subject to change at our discretion. Mr. Sevalia did not receive a profit sharing bonus in 2018.

Potential Payments upon Termination or Change of Control

We believe that reasonable severance benefits for our named executive officers are important because it may be difficult for them to find comparable employment within a short period of time. We also believe that it is important to protect our named executive officers in the event of a change of control transaction involving us, as a result of which such officers might have their employment terminated. In addition, we believe that the interests of management should be aligned with those of our stockholders as much as possible, and we believe that providing protection upon a change of control is an appropriate counter to any disincentive such officers might otherwise perceive in regard to transactions that may be in the best interest of our stockholders.

Accordingly, on October 3, 2019, our board of directors and our sole stockholder approved forms of change of control and severance agreements, which will become effective prior to the closing of the offering, for our Chief Executive Officer and for our executive officers. These agreements generally provide for severance benefits upon a qualifying termination of employment and in connection with a change of control, as described below. Once effective, these agreements will supersede all prior change of control and severance agreements between us and the executive officers.

Under Mr. Vashist's form of change of control and severance agreement, in the event Mr. Vashist undergoes an Involuntary Termination (as defined in that agreement), he will be entitled to receive: (1) a lump sum equal to his annual base salary, plus his target bonus under the MBO Plan as in effect on the date of his termination, (2) reimbursement of COBRA premiums for up to one year following termination, and (3) acceleration of all his unvested equity awards. If Mr. Vashist remains employed with us through the close of a change control, Mr. Vashist will be entitled to receive acceleration of all his unvested equity awards. If he undergoes an Involuntary Termination in connection with a change of control, he will become entitled to receive: (1) a lump sum equal to two times the sum of his annual base salary and target bonus under the MBO Plan as in effect on the date of termination, (2) reimbursement of COBRA premiums for up to 18 months following termination, and (3) acceleration of all his unvested equity awards, provided that these change of control severance benefits will be offset by any non-change of control severance benefits already paid. Mr. Vashist's severance benefits are conditioned on his timely execution of an effective release of claims.

Under the form of change of control and severance agreement applicable to all other executive officers, in the event such an officer undergoes an Involuntary Termination (as defined in that agreement), that officer will be entitled to receive: (1) a lump sum equal to 6 months of that officer's annual base salary, plus half of their target bonus under the MBO Plan as in effect on the date of termination and (2) reimbursement of COBRA premiums for up to 6 months following termination. If the executive officer undergoes an Involuntary Termination in connection with a change of control, that officer will become entitled to receive: (1) a lump sum equal to that officer's annual base salary, plus their target bonus under the MBO Plan as in effect on the date of termination, (2) reimbursement of COBRA premiums for up to one year following termination, and (3) acceleration of all unvested equity awards, provided these change of control severance benefits will be offset by any non-change of control severance benefits already paid. All severance benefits are conditioned on the officer's timely execution of an effective release of claims.

Option Repricings

Neither we, nor our parent company, has engaged in any repricings of our named executive officers' outstanding equity awards since our acquisition by MegaChips in 2014.

Health, Welfare and Retirement Benefits

All of our current named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, and vision insurance plans and 401(k) plan (as described below), in each case on the same basis as all of our other employees. We currently do not contribute to a retirement plan on behalf of employees other than our 401(k) plan.

Nonqualified Deferred Compensation

None of our named executive officers participates in or has account balances in nonqualified defined contribution plans or other nonqualified deferred compensation plans maintained by us. Our board of directors may elect to provide our officers and other employees with nonqualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

401(k) Plan

We sponsor a qualified retirement plan that is intended to qualify for favorable tax treatment under Section 401(a) of the Code, and contains a cash or deferred feature that is intended to meet the requirements of Section 401(k) of the Code. Participants may make pre-tax and certain after-tax (Roth) salary deferral contributions to the plan from their eligible earnings up to the statutorily prescribed annual limit under the Code. Participants who are 50 years of age or older may contribute additional amounts based on the statutory limits for catch-up contributions. Participant contributions are held in trust as required by law. No minimum benefit is provided under the plan. An employee's interest in his or her salary deferral contributions is 100% vested when contributed. We have the ability to make discretionary matching contributions under the plan of 50% of each contribution up to $375 per paycheck, or $9,000 annually, per employee.

Equity Incentive Plans

2019 Stock Incentive Plan

Our board of directors adopted our 2019 Stock Incentive Plan, or the 2019 Plan, on October 3, 2019, which will become effective prior to the completion of this offering.

Stock Awards. The 2019 Plan provides for the grant of incentive stock options, or ISOs, nonstatutory stock options, or NSOs, restricted stock awards, stock unit awards, stock appreciation rights, cash-based awards, and performance-based stock awards, or collectively, stock awards. ISOs may be granted only to our employees, including officers, and the employees of our parent or subsidiaries. All other stock awards may be granted to our employees, officers, our non-employee directors, and consultants and the employees and consultants of our parent, subsidiaries, and affiliates.

Share Reserve. Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2019 Plan will not exceed the sum of (x) 4,700,000 shares, plus (y) an annual increase on the first day of each fiscal year, for a period of not more than 10 years, beginning on January 1, 2020, and ending on (and including) January 1, 2029, in an amount equal to the lesser of (1) three (3%) of the outstanding shares on the last day of the immediately preceding fiscal year, or (2) if our board of directors acts prior to the first day of the fiscal year, such lesser amount (including zero) that our board of directors determines for purposes of the annual increase for that fiscal year.

If a stock award granted under the 2019 Plan expires or otherwise terminates without being exercised in full, or is settled in cash, the shares of our common stock not acquired pursuant to the stock award again will become available for subsequent issuance under the 2019 Plan. In addition, the following types of shares of our common stock under the 2019 Plan may become available for the grant of new stock awards under the 2019 Plan: (1) shares that are forfeited prior to becoming fully vested, (2) shares withheld to satisfy income or employment withholding taxes, or (3) shares used to pay the exercise or purchase price of a stock award. However, shares that have actually been issued shall not again become available unless forfeited. Shares issued under the 2019 Plan shall be authorized but unissued shares or treasury shares. As of the date hereof, no awards have been granted and no shares of our common stock have been issued under the 2019 Plan.

Incentive Stock Option Limit. The maximum number of shares of our common stock that may be issued upon the exercise of ISOs under the 2019 Plan is 4,700,000 shares.

Administration. The compensation committee of our board of directors has the authority to administer the 2019 Plan. Our board of directors has delegated to the compensation administration committee the authority to (1) designate employees (other than other executive officers) to be recipients of certain stock awards, and (2) determine the number of shares of common stock to be subject to such stock awards. Subject to the terms of the 2019 Plan, the authorized committee, referred to herein as the 2019 Plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted, and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the 2019 Plan administrator will also determine the exercise price, strike price, or purchase price of awards granted and the types of consideration to be paid for the award.

Repricing; Cancellation and Re-Grant of Stock Awards. The 2019 Plan administrator has the authority to modify outstanding awards under the 2019 Plan. Subject to the terms of the 2019 Plan, the 2019 Plan administrator has the authority to reduce the exercise price of any outstanding stock award, cancel any outstanding stock award in exchange for new stock awards, cash,

or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, without stockholder approval but with the consent of any adversely affected participant.

Stock Options. A stock option is the right to purchase a certain number of shares of stock, at a certain exercise price, in the future. Under the 2019 Plan, ISOs and NSOs are granted pursuant to stock option agreements adopted by the 2019 Plan administrator. The 2019 Plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2019 Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2019 Plan vest at the rate specified by the 2019 Plan administrator.

The 2019 Plan administrator determines the term of stock options granted under the 2019 Plan, up to a maximum of ten years. If an optionholder's service relationship with us or any of our affiliates ceases due to disability or death the optionholder or a beneficiary may generally exercise any vested options for a period of 12 months in the event of death or disability. In no event may an option be exercised beyond the expiration of its term.

Payment of the exercise price may be made in cash or, if provided for in the stock option agreement evidencing the award, (1) by surrendering, or attesting to the ownership of, shares which have already been owned by the optionee, (2) future services or services rendered to us or our affiliates prior to the award, (3) by delivery of an irrevocable direction to a securities broker to sell shares and to deliver all or part of the sale proceeds to us in payment of the aggregate exercise price, (4) by delivery of an irrevocable direction to a securities broker or lender to pledge shares and to deliver all or part of the loan proceeds to us in payment of the aggregate exercise price, (5) by a "net exercise" arrangement, (6) by delivering a full-recourse promissory note, or (7) by any other form that is consistent with applicable laws, regulations, and rules.

Tax Limitations on Incentive Stock Options. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of our stock plans may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Awards. Restricted stock is a stock award that may be subject to vesting conditioned upon continued service, the achievement of performance objectives or the satisfaction of any other condition as specified in a restricted stock agreement. Subject to the terms of the 2019 Plan, the 2019 Plan administrator will determine the terms and conditions of any restricted stock award, including any vesting arrangement, which will be set forth in a restricted stock agreement to be entered into between us and each recipient. Restricted stock awards may be granted in consideration for (1) cash, (2) future services or services rendered to us or our affiliates prior to the award, (3) full recourse promissory notes, or (4) any other form of legal consideration, as determined by the 2019 Plan administrator. Common stock acquired under a restricted stock award may, but need not, be subject to a share repurchase option in our favor in accordance with a vesting schedule to be determined by the 2019 Plan administrator. A restricted stock award may be transferred only upon such terms and conditions as set by the 2019 Plan administrator.

Stock Unit Awards. Stock unit awards give recipients the right to acquire a specified number of shares of stock (or cash amount) at a future date upon the satisfaction of certain conditions, including any vesting arrangement, established by the 2019 Plan administrator and as set forth in a stock unit award agreement. A stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the 2019 Plan administrator. Recipients of stock unit awards generally will have no voting or dividend rights prior to the time the vesting conditions are satisfied and the award is settled. At the 2019 Plan administrator's discretion and as set forth in the stock unit award agreement, stock units may provide for the right to dividend equivalents.

Stock Appreciation Rights. Stock appreciation rights generally provide for payments to the recipient based upon increases in the price of our common stock over the exercise price of the stock appreciation right. The 2019 Plan administrator determines the exercise price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of our common stock on the date of grant. A stock appreciation right granted under the 2019 Plan vests at the rate specified

in the stock appreciation right agreement as determined by the 2019 Plan administrator. The 2019 Plan administrator determines the term of stock appreciation rights granted under the 2019 Plan, up to a maximum of ten years. Upon the exercise of a stock appreciation right, we will pay the participant an amount in stock, cash, or a combination of stock and cash as determined by the 2019 Plan administrator, equal to the product of (1) the excess of the per share fair market value of our common stock on the date of exercise over the exercise price, multiplied by (2) the number of shares of common stock with respect to which the stock appreciation right is exercised.

Other Stock Awards. The 2019 Plan administrator may grant other awards based in whole or in part by reference to our common stock. The 2019 Plan administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Cash-Based Awards. A cash-based award is denominated in cash. The 2019 Plan administrator may grant cash-based awards in such number and upon such terms as it shall determine. Payment, if any, will be made in accordance with the terms of the award, and may be made in cash or in shares of common stock, as determined by the 2019 Plan administrator.

Performance-Based Awards. The number of shares or other benefits granted, issued, retainable and/or vested under a stock or stock unit award may be made subject to the attainment of performance goals. The 2019 Plan administrator may utilize any performance criteria selected by it in its sole discretion to establish performance goals.

Changes to Capital Structure. In the event of a recapitalization, stock split, or similar capital transaction, the 2019 Plan administrator will make appropriate and equitable adjustments to the number of shares reserved for issuance under the 2019 Plan, the number of shares subject to formula grants to non-employee directors, the number of shares that can be issued as incentive stock options, the number of shares subject to outstanding awards and the exercise price under each outstanding option or stock appreciation right.

Transactions. If we are involved in a merger or other reorganization, outstanding awards will be subject to the agreement or merger or reorganization. Subject to compliance with applicable tax laws, such agreement will provide for (1) the continuation of the outstanding awards by us, if we are a surviving corporation, (2) the assumption or substitution of the outstanding awards by the surviving corporation or its parent or subsidiary, (3) immediate vesting, exercisability, and settlement of the outstanding awards followed by their cancellation, or (4) settlement of the intrinsic value of the outstanding awards (whether or not vested or exercisable) in cash, cash equivalents, or equity (including cash or equity subject to deferred vesting and delivery consistent with the vesting restrictions applicable to such award or the underlying shares) followed by cancellation of such awards.

Change of Control. The 2019 Plan administrator may provide, in an individual award agreement or in any other written agreement between a participant and us, that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a change of control.

Transferability. Unless the 2019 Plan administrator provides otherwise, no award granted under the 2019 Plan may be transferred in any manner (prior to the vesting and lapse of any and all restrictions applicable to shares issued under such award), except by will, the laws of descent and distribution, or pursuant to a domestic relations order. A participant may designate a beneficiary, however, who may exercise the option following the participant's death.

Amendment and Termination. Our board of directors has the authority to amend, suspend, or terminate the 2019 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No ISOs may be granted after the tenth anniversary of the date our board of directors adopted the 2019 Plan, or October 3, 2029.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell our common shares on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of

material nonpublic information subject to compliance with the terms of our insider trading policy. Prior to 180 days after the date of this offering, subject to early termination, the sale of any shares under such plan would be prohibited by the lock-up agreement that the director or officer has entered into with the underwriters.

Certain Relationships and Related Party Transactions

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS The following includes a summary of transactions since January 1, 2016 to which we have been a party, in which the amount involved in the transaction exceeded the lesser of $120,000 or one percent of the average of our total assets at year end for the last two completed fiscal years, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change of control, and other arrangements, which are described under “Executive Compensation.”

Agreements with MegaChips

In November 2014, we were acquired by MegaChips, and as a result of the acquisition, became a wholly owned subsidiary of MegaChips.

Loan Agreements

On September 13, 2016, we entered into the Parent Loan Agreement, which provided for a credit limit of up to $30.0 million. Loans under the Parent Loan Agreement bear interest at a rate equal to the interest rate at which MegaChips procured the funds from SMBC, plus 0.09%. Interest for each loan is due on the maturity date of each loan. Each loan drawn from MegaChips had an initial three-month term, which term was renewed on maturity. MegaChips has discretion whether to accept our request for a loan under the Parent Loan Agreement. The largest aggregate amount of principal outstanding under the Parent Loan Agreement from January 1, 2016 through September 30, 2019 was $18.0 million. As of September 30, 2019, the aggregate principal amount outstanding under the Parent Loan Agreement was $3.0 million. From January 1, 2016 through September 30, 2019, we repaid $15.0 million of principal and $0.5 million of interest under the Parent Loan Agreement. The initial term of the Parent Loan Agreement is one year from the date of the agreement, which term is automatically renewed and extended every year unless either party provides written notice to the other party.

On June 15, 2017, MegaChips America, a wholly owned subsidiary of MegaChips, extended a loan of $5.0 million to us under a loan agreement dated December 1, 2014. From January 1, 2016 through September 30, 2019, the largest aggregate amount of principal outstanding under the loan agreement with MegaChips America was $14.0 million, and during that time period, we repaid $19.0 million in principal and less than $0.1 million in interest. All obligations under such loan agreement were paid off as of September 27, 2017. The loan agreement with MegaChips America has been terminated effective as of September 30, 2017.

Our revolving lines of credit with MUFG and SMBC are each guaranteed by MegaChips.

On August 31, 2015, we entered into a bank transaction agreement with MUFG with an aggregate principal amount of up to $20.0 million, which was subsequently increased to $50.0 million, of which $41.0 million was outstanding as of September 30, 2019. From January 1, 2016 through September 30, 2019, the largest aggregate amount of principal outstanding under the MUFG Revolving Line of Credit was $41.0 million, and during that time period, we repaid $0 in principal and $2.1 million in interest.

On September 22, 2017, we entered into an uncommitted and revolving credit line agreement with SMBC with an aggregate principal amount of up to $20.0 million, of which $2.0 million was outstanding as of September 30, 2019. From January 1, 2016 through September 30, 2019, the largest aggregate amount of principal outstanding under the SMBC Revolving Credit Line was $20.0 million, and during that time period, we repaid $18.0 million in principal and $0.8 million in interest.

Commercial Agreements

On April 1, 2015, we entered into a distribution agreement with MegaChips, or the Distribution Agreement, whereby we appointed MegaChips as the exclusive distributor of our products in Japan. Under the Distribution Agreement, MegaChips serves as a sales representative and has the exclusive right to promote, market, and sell our products in Japan for a commission rate of 6%, and is to provide sales facilities and sales personnel in Japan for our products. In January 2019, the commission rate under this agreement was reduced from 6% to 4%. We have agreed to indemnify MegaChips for any infringement of intellectual property, and MegaChips has agreed to indemnify us in connection with any breach of this agreement, negligence, and representations or statements not specifically authorized by us. The Distribution Agreement is for a term of one year, with automatic renewals of one-year periods unless terminated by either party with 90 days' written notice. In 2017 and 2018, we sold approximately $6.5 million and $5.8 million, respectively, in products, and paid MegaChips sales commissions of $0.4 million and $0.4 million, respectively, under this agreement. We believe the commission percentages paid to MegaChips are generally comparable to those paid to our other sales representatives and are generally no less favorable to us than those that could be obtained in similar transactions with unaffiliated third parties.

On March 15, 2019, we entered into an integration and purchase agreement with MegaChips, or the Integration and Purchase Agreement, whereby we agreed to supply MegaChips with certain resonators for use in certain of MegaChips' products, along with a license to use certain circuits with these resonators. Under the Integration and Purchase Agreement, we have agreed to indemnify MegaChips for any infringement of intellectual property, and MegaChips has agreed to indemnify us for any infringement of intellectual property based on MegaChips' manufacturing process, product design, specification and/or instruction, or use of our resonators or circuits in combination with other products. Pricing under this agreement varies depending on the specification and minimum order quantity as set forth in any given purchase order. In addition, pricing may be adjusted depending on whether certain volume thresholds are exceeded. Minimum annual purchase requirements under this agreement may be triggered starting in 2021 in the event we determine we are likely to win a business transaction based on a third-party supplier's product. From March 15, 2019 (the date of execution of the agreement) through September 30, 2019, we sold approximately $86,000 in products to MegaChips under this agreement. We believe that the general commercial terms of this agreement, including with respect to pricing and purchase commitments, are generally consistent with comparable terms under our purchase orders or similar arrangements with other customers, and are generally no less favorable to us than those that could be obtained in similar types of transactions with unrelated third parties. The term of the Integration and Purchase Agreement continues until March 15, 2025, and automatically renews unless terminated by either party with 90 days' written notice.

Employment Agreements

We have entered into employment agreements and offer letter agreements with certain of our executive officers. See "Management—Agreements with our Named Executive Officers and Potential Payments Upon Termination or Change of Control."

Indemnification Agreements

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines, and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers or as a director or executive officer of any other company or enterprise to which the person provides services at our request. For more information regarding these indemnification arrangements, see "Management—Limitation on Liability and Indemnification of Directors and Officers." We believe that these charter provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an

action, if successful, might benefit us and our stockholders. A stockholder's investment may decline in value to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Policies and Procedures for Transactions with Related Persons

We have adopted a written Related Person Transactions Policy that sets forth our policies and procedures regarding the identification, review, consideration, and oversight of "related person transactions." For purposes of our policy only, a "related person transaction" is a transaction, arrangement, or relationship (or any series of similar transactions, arrangements or relationships) in which we or any of our subsidiaries are participants involving an amount that exceeds $120,000, in which any "related person" has a material interest.

Transactions involving compensation for services provided to us as an employee, consultant, or director are not considered related person transactions under this policy. A related person is any executive officer, director, nominee to become a director or a holder of more than 5% of any class of our voting securities (including our common stock), including any of their immediate family members and affiliates, including entities owned or controlled by such persons.

Under the policy, the related person in question or, in the case of transactions with a holder of more than 5% of any class of our voting securities, an officer with knowledge of the proposed transaction, must present information regarding the proposed related person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our board of directors) for review. To identify related person transactions in advance, we rely on information supplied by our executive officers, directors, and certain significant stockholders. In considering related person transactions, our audit committee takes into account the relevant available facts and circumstances, which may include, but not limited to:

- the risks, costs, and benefits to us;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties.

Our audit committee will approve only those transactions that it determines are fair to us and in our best interests. All of the transactions described above were entered into prior to the adoption of such policy.

Principal Stockholder

PRINCIPAL STOCKHOLDER The following table sets forth information regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock, which consists solely of MegaChips;
- each of our directors and director nominees;
- each of our named executive officers; and
- all of our current executive officers and directors and director nominees as a group.

The percentage ownership information under the column "Percentage of shares beneficially owned prior to this offering" is based on 15,000,000 shares of common stock outstanding as of September 30, 2019, after giving effect to a 1-for-30,000 stock split which became effective on October 18, 2019. The percentage ownership information under the column "Percentage of shares beneficially owned after offering" is based on the sale of shares of common stock in this offering by us, based on an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus). The table below gives effect to a 1-for-30,000 stock split which became effective on October 18, 2019.

Information with respect to beneficial ownership has been furnished by each director, officer, or beneficial owner of more than 5% of our common stock. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of our common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable within 60 days of September 30, 2019. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o SiTime Corporation, 5451 Patrick Henry Drive, Santa Clara, California 95054.

		Percentage of shares beneficially owned	
	Number of shares beneficiallyowned	Prior to this offering	After this offering
Greater than 5% Stockholder			
MegaChips Corporation	15,000,000	100%	%
Named Executive Officers and Directors:			
Rajesh Vashist	—	—	
Arthur D. Chadwick			
Lionel Bonnot	—	—	
Piyush B. Sevalia	—	—	
Akira Takata	—	—	
Koichi Akeyama	—	—	
Director Nominees			
Raman K. Chitkara	—	—	
Edward H. Frank	—	—	
Torsten G. Kreindl	—	—	
Katherine E. Schuelke	—	—	
Tom D. Yiu	—	—	
All current executive officers, directors, and director nominees as a group (11 persons)	—		

* Represents beneficial ownership of less than one percent (1%) of the outstanding shares of our common stock.

Description of Capital Stock

DESCRIPTION OF CAPITAL STOCK The following is a summary of the rights of our common and preferred stock and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective upon completion of this offering, and of the DGCL. This summary is not complete. For more detailed information, please see our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the DGCL.

General

Upon completion of this offering and upon the filing of our amended and restated certificate of incorporation, our authorized capital stock will consist of 200,000,000 shares of common stock, $0.0001 par value per share and 10,000,000 shares of preferred stock, $0.0001 par value per share. All of our authorized preferred stock upon completion of this offering will be undesignated. The information below gives effect to a 1-for-30,000 stock split which became effective on October 18, 2019.

Common Stock

Outstanding Shares

As of September 30, 2019, there were 15,000,000 shares of common stock outstanding, all of which were held of record by MegaChips, our sole stockholder. Upon completion of this offering and assuming no exercise by the underwriters of their option to purchase additional shares, shares of common stock will be outstanding.

Voting

Our common stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution, or winding up, holders of our 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.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences, and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our 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 common stock to be issued in this offering will be, fully paid and nonassessable.

Preferred Stock

We do not have any shares of preferred stock outstanding. Under our amended and restated certificate of incorporation, our board of directors will have the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences, and privileges of the shares of each wholly unissued series and any qualifications, limitations, or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring, or preventing a change in our control that may otherwise benefit holders of our common stock and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

Stock Options

We do not have any shares of capital stock subject to outstanding options, warrants, or other convertible securities. As of October 3, 2019, there were 4,700,000 shares of common stock reserved for future issuance under the 2019 Plan, which shall be subject to an annual increase. For additional information regarding terms of the 2019 Plan, see "Executive Compensation—Equity Incentive Plans."

Anti-Takeover Effects of Provisions of Our Certificate of Incorporation, Our Bylaws and Delaware Law

Delaware Anti-Takeover Law

We are subject to Section 203 of the DGCL, or Section 203. Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder 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 for purposes of determining the number of shares outstanding (but not the outstanding voting stock owned by the interested stockholder) shares owned (a) by persons who are directors and also officers, and (b) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- upon or subsequent to the consummation of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation owned by the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; and

- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the voting power of our shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon completion of this offering will provide that all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent. A special meeting of stockholders may be called by the majority of our board of directors, Chairman of our board of directors, our President, or our Chief Executive Officer.

As described above in "Management—Board Composition," in accordance with our amended and restated certificate of incorporation effective upon completion of this offering, our board of directors will be divided into three classes with staggered three-year terms.

In addition, our amended and restated certificate of incorporation and amended and restated bylaws will provide that the number of directors constituting our board of directors will be permitted to be set only by a resolution adopted by a majority vote of the members of our board of directors then in office, and that our directors may be removed only for cause. Our amended and restated certificate of incorporation and amended and restated bylaws will also provide that vacancies occurring on our board of directors and newly created directorships resulting from an increase in the authorized number of directors may be filled only by vote of a majority of the remaining members of our board of directors, even though less than a quorum. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that our board of directors is expressly authorized to adopt, amend, or repeal our bylaws, and require a 66 2/3% stockholder vote to amend our bylaws and certain provisions of our certificate of incorporation.

Our amended and restated bylaws will 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 our annual meeting of stockholders. Our amended and restated bylaws will also specify certain requirements regarding the form and content of a stockholder notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

The foregoing provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are also designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of deterring hostile takeovers or delaying changes in our control or management. As a consequence, these provisions also may inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

Choice of Forum

Our amended and restated bylaws will provide 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 DGCL, our amended and restated certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Nothing in our amended and restated bylaws precludes stockholders that assert claims to enforce a liability or duty created under the Securities Act or Exchange Act from bringing such claims in state or federal court, subject to applicable law. Any person or entity purchasing or otherwise acquiring any interest in our capital stock shall be deemed to have notice of and consented to the provisions of our certificate of incorporation described above.

Listing

We have applied to list our common stock on The Nasdaq Global Select Market under the symbol "SITM".

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent and registrar's address is 150 Royall St, Canton, MA 02021 and the telephone number is (800) 736-3001.

Shares Eligible for Future Sale

SHARES ELIGIBLE FOR FUTURE SALE Immediately prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of common stock in the public market could adversely affect prevailing market prices. Furthermore, since only a limited number of shares will be available for sale shortly after this offering because of contractual and legal restrictions on resale described below, sales of substantial amounts of common stock in the public market after the restrictions lapse could adversely affect the prevailing market price for our common stock as well as our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of September 30, 2019, upon completion of this offering, shares of common stock will be outstanding (after giving effect to a 1-for-30,000 stock split which became effective on October 18, 2019), assuming no exercise of the underwriters' option to purchase additional shares to cover any over-allotments. All of the shares sold in this offering will be freely tradable unless purchased by our "affiliates" as that term is defined in Rule 144 under the Securities Act, including MegaChips. The remaining 15,000,000 shares of common stock outstanding after this offering will be restricted as a result of securities laws or lock-up agreements. These remaining shares will generally become available for sale in the public market as follows:

- no restricted shares will be eligible for immediate sale upon completion of this offering; and
- the remaining 15,000,000 restricted shares will be eligible for sale under Rule 144, subject to the volume limitations, manner-of-sale, and notice provisions described below under "Rule 144," upon expiration of lock-up agreements at least six months after the date of this offering.

Rule 144

In general, under Rule 144 as currently in effect, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, any person who is not an affiliate of ours and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, provided current public information about us is available. In addition, under Rule 144, any person who is not an affiliate of ours and has held 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 an unlimited number of shares immediately upon completion of this offering without regard to whether current public information about us is available.

Beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of restricted shares within any three-month period

that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume of our common stock on during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales of restricted shares under Rule 144 held by our affiliates are also subject to requirements regarding the manner-of-sale, notice, and the availability of current public information about us. Rule 144 also provides that affiliates relying on Rule 144 to sell shares of our common stock that are not restricted shares must nonetheless comply with the same restrictions applicable to restricted shares, other than the holding period requirement.

Notwithstanding the availability of Rule 144, our sole stockholder, MegaChips, as well as our directors and executive officers, have entered into lock-up agreements as described below and any restricted shares held by them will become eligible for sale at the expiration of the restrictions set forth in those agreements. After these contractual resale restrictions lapse, MegaChips will be able to sell some or all of its shares of our common stock, subject only to applicable restrictions under federal and state securities laws.

Rule 701

Under Rule 701, shares of common stock acquired upon the exercise of outstanding options or pursuant to other rights granted under compensatory stock plans may be resold by:

- persons other than affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject only to the manner-of-sale provisions of Rule 144; and
- our affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject to the manner-of-sale and volume limitations, current public information, and filing requirements of Rule 144, in each case, without compliance with the six-month holding period requirement of Rule 144.

As we have not granted any options since our acquisition by MegaChips and do not have any shares subject to outstanding options, there will be no shares eligible for resale under Rule 701 after this offering.

Lock-Up Agreements

We, along with our directors, executive officers, and MegaChips, have agreed with the underwriters that for a period of 180 days (the restricted period) after the date of this prospectus, subject to specified exceptions, we or they will not, without the prior written consent of Barclays Capital Inc., offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right, or warrant 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 shares of common stock, or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock. In addition, Barclays Capital Inc., on behalf of the underwriters, may in its sole discretion release some or all of the shares subject to the lock-up agreements prior to the expiration of this 180-day lock-up period at any time, subject applicable notice requirements and in some cases, without public notice. If such a release is granted for one of our officers or directors, (1) Barclays Capital Inc., on behalf of the underwriters, will, at least three business days before the effective date of such release, notify us of the impending release, and (2) we will announce the impending release by press release through a major news service at least two business days before the effective date of the release.

After this offering, certain of our employees, including our executive officers and/or directors, may enter into written trading plans that are intended to comply with Rule 10b5-1 under the Exchange Act. Sales under these trading plans would not be permitted until the expiration of the lock-up agreements relating to the offering described above.

Form S-8 Registration Statements

As soon as practicable after the completion of this offering, we intend to file with the SEC one or more registration statements on Form S-8 under the Securities Act to register the offer and sale of shares of our common stock that are issuable pursuant to the 2019 Plan. These registrations statements will become effective immediately upon filing. Shares covered by these registration statements will then be eligible for sale in the public markets, subject to vesting restrictions, any applicable lock-up agreements described above and Rule 144 limitations applicable to affiliates.

Material U.S. Federal Income Tax Consequences to Non-U.S. Holders of Our Common Stock

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

To Non-u.s. Holders of Our Common Stock

The following is a summary of the material U.S. federal income tax considerations relating to the acquisition, ownership, and disposition of common stock acquired pursuant to this offering by non-U.S. holders (as defined below). This summary deals only with common stock held as a capital asset (within the meaning of Section 1221 of the Code) and does not discuss the U.S. federal income tax considerations applicable to a non-U.S. holder that is subject to special treatment under U.S. federal income tax laws, including, but not limited to: a dealer in securities or currencies; a broker-dealer; a financial institution; a qualified retirement plan, individual retirement plan, or other tax-deferred account; a regulated investment company; a real estate investment trust; a tax-exempt organization; an insurance company; a person holding common stock as part of a hedging, integrated, conversion, or straddle transaction or a person deemed to sell common stock under the constructive sale provisions of the Code; a trader in securities that has elected the mark-to-market method of tax accounting; an entity that is treated as a partnership for U.S. federal income tax purposes; a person that received such common stock in connection with services provided; a corporation that accumulates earnings to avoid U.S. federal income tax; a corporation organized outside the United States, any state thereof or the District of Columbia that is nonetheless treated as a U.S. taxpayer for U.S. federal income tax purposes; a person that is not a non-U.S. holder; a "controlled foreign corporation;" a "passive foreign investment company;" or a U.S. expatriate.

This summary is based upon provisions of the Code, its legislative history, applicable U.S. Treasury regulations promulgated thereunder, published rulings, and judicial decisions, all as in effect as of the date hereof. We have not sought, and will not seek, any ruling from the Internal Revenue Service, or IRS, with respect to the tax consequences discussed herein, and there can be no assurance that the IRS will not take a position contrary to the tax consequences discussed below or that any position taken by the IRS would not be sustained. Those authorities may be repealed, revoked, or modified, perhaps retroactively, or may be subject to differing interpretations, which could result in U.S. federal income tax consequences different from those discussed below. This summary does not address all aspects of U.S. federal income tax, does not deal with all tax considerations that may be relevant to stockholders in light of their personal circumstances, and does not address the Medicare tax imposed on certain investment income or any state, local, foreign, gift, estate (except to the limited extent set forth herein), or alternative minimum tax considerations.

For purposes of this discussion, a "U.S. holder" is a beneficial holder of common stock that is for U.S. federal income tax purposes: an individual citizen or resident of the United States; a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia; an estate the income of which is subject to U.S. federal income taxation regardless of its source; or a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (2) was in existence on August 20, 1996 and has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

For purposes of this discussion, a "non-U.S. holder" is a beneficial owner of common stock that is neither a U.S. holder nor a partnership (or any other entity or arrangement that is treated as a partnership) for U.S. federal income tax purposes regardless of its place of organization or formation. If a partnership (or an entity or arrangement that is treated as a

partnership for U.S. federal income tax purposes) holds common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. A partner of a partnership holding common stock is urged to consult its own tax advisors.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS CONCERNING THE U.S. FEDERAL INCOME, ESTATE, AND OTHER TAX CONSEQUENCES OF ACQUIRING, OWNING, AND DISPOSING OF OUR COMMON STOCK IN LIGHT OF THEIR SPECIFIC SITUATIONS, AS WELL AS THE TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, OR NON-U.S. TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS (INCLUDING THE U.S. FEDERAL ESTATE AND GIFT TAX LAWS).

Distributions on Our Common Stock

Distributions with respect to common stock, if any, generally will constitute dividends for U.S. federal income tax purposes to the extent paid out of current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Any portion of a distribution in excess of current or accumulated earnings and profits will be treated as a return of capital and will first be applied to reduce the holder's tax basis in its common stock, but not below zero. Any remaining amount will then be treated as gain from the sale or exchange of the common stock and will be treated as described under "—Disposition of Our Common Stock" below.

Distributions treated as dividends that are paid to a non-U.S. holder, if any, with respect to shares of our common stock will be subject to U.S. federal withholding tax at a rate of 30% (or such lower rate as may be specified in an applicable income tax treaty) of the gross amount of the dividends unless the dividends are effectively connected with the non-U.S. holder's conduct of a trade or business in the United States subject to the discussion below regarding foreign accounts. If a non-U.S. holder is engaged in a trade or business in the United States and dividends with respect to the common stock are effectively connected with the conduct of that trade or business and, if required by an applicable income tax treaty, are attributable to a U.S. permanent establishment, then although the non-U.S. holder will generally be exempt from the 30% U.S. federal withholding tax, provided certain certification requirements are satisfied, the non-U.S. holder will be subject to U.S. federal income tax on those dividends on a net income basis at regular graduated U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. Any such effectively connected income received by a foreign corporation may, under certain circumstances, be subject to an additional branch profits tax equal to 30% (or lower applicable income tax treaty rate) of its effectively connected earnings and profits for the taxable year, as adjusted under the Code. To claim the exemption from withholding with respect to any such effectively connected income, the non-U.S. holder must generally furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form). In the case of a non-U.S. holder that is an entity, Treasury Regulations and the relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of a tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a non-U.S. holder holds stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to such agent. Such holder's agent will then be required to provide certification to us or our paying agent.

A non-U.S. holder of shares of common stock who wishes to claim the benefit of a reduced rate of withholding tax under an applicable treaty must furnish to us or our paying agent a valid IRS Form W-8BEN or IRS Form W-8BEN-E (or applicable successor form) certifying such holder's qualification for the exemption or reduced rate. If a non-U.S. holder is eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty and does not timely file the required certification, it may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain from a sale, exchange or other disposition of our stock unless: (a) that gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment maintained by the non-U.S. holder); (b) the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met; or (c) we are or have been a "United States real property holding corporation" within the

meaning of Code Section 897(c)(2) for U.S. federal income tax purposes at any time during the shorter of the five-year period preceding the date of disposition or the holder's holding period for our common stock, and certain other requirements are met. Although there can be no assurance, we believe that we are not, and we do not anticipate becoming, a United States real property holding corporation for U.S. federal income tax purposes. Even if we are treated as a United States real property holding corporation, gain realized by a non-U.S. holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the non-U.S. holder owned, directly, indirectly and constructively, no more than five percent of our common stock at all times within the shorter of (x) the five-year period preceding the disposition, or (y) the holder's holding period, and (2) our common stock is regularly traded on an established securities market. There can be no assurance that our common stock will continue to qualify as regularly traded on an established securities market. If any gain on your disposition is taxable because we are a United States real property holding corporation and your ownership of our common stock exceeds five percent, you will be taxed on such disposition generally in the manner applicable to U.S. persons and in addition, a purchaser of your common stock may be required to withhold tax with respect to that obligation.

If a non-U.S. holder is described in clause (a) of the preceding paragraph, the non-U.S. holder will generally be subject to tax on the net gain derived from the disposition at the regular graduated U.S. federal income tax rates in the same manner as if such non-U.S. holder were a U.S. person, unless an applicable income tax treaty provides otherwise. In addition, a non-U.S. holder that is a corporation may be subject to the branch profits tax at a rate equal to 30% (or lower applicable income tax treaty rate) of its effectively connected earnings and profits. If the non-U.S. holder is an individual described in clause (b) of the preceding paragraph, the non-U.S. holder will generally be subject to a flat 30% tax on the gain derived from the disposition, which may be offset by U.S. source capital losses even though the non-U.S. holder is not considered a resident of the United States, provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

U.S. Federal Estate Tax

The estate of a nonresident alien individual is generally subject to U.S. federal estate tax on property it is treated as the owner of, or has made certain life transfers of, having a U.S. situs. Because we are a U.S. corporation, our common stock will be U.S. situs property and therefore will be included in the taxable estate of a nonresident alien decedent for U.S. federal estate tax purposes, unless an applicable estate tax treaty between the United States and the decedent's country of residence provides otherwise.

Information Reporting and Backup Withholding Tax

We report to our non-U.S. holders and the IRS certain information with respect to any dividends we pay on our common stock, including the amount of dividends paid during each fiscal year, the name and address of the recipient, and the amount, if any, of tax withheld. All distributions to holders of common stock are subject to any applicable withholding. Information reporting requirements apply even if no withholding was required because the distributions were effectively connected with the non-U.S. holder's conduct of a U.S. trade or business or withholding was reduced by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Under U.S. federal income tax law, interest, dividends, and other reportable payments may, under certain circumstances, be subject to "backup withholding" at the then applicable rate (currently, 24%). Backup withholding, however, generally will not apply to distributions on our common stock to a non-U.S. holder, provided the non-U.S. holder furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient. Backup withholding is not an additional tax but merely an advance payment, which may be credited against the tax liability of persons subject to backup withholding or refunded to the extent it results in an overpayment of tax and the appropriate information is timely supplied to the IRS.

Foreign Accounts

Certain withholding taxes may apply to certain types of payments made to "foreign financial institutions" (as specially defined under these rules) and certain other non-U.S. entities if certification, information reporting and other specified requirements are not met. A 30% withholding tax may apply to "withholdable payments" if they are paid to a foreign financial institution or

to a non-financial foreign entity, unless (a) the foreign financial institution undertakes certain diligence and reporting obligations and other specified requirements are satisfied, or (b) the non-financial foreign entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner and other specified requirements are satisfied. "Withholdable payment" generally means any payment of interest, dividends, rents, and certain other types of generally passive income if such payment is from sources within the United States. Treasury regulations proposed in December 2018 (and upon which taxpayers and withholding agents are entitled to rely) eliminate possible withholding under these rules on the gross proceeds from any sale or other disposition of our common stock, previously scheduled to apply beginning January 1, 2019. If the payee is a foreign financial institution, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, annually report certain information about such accounts and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements, or comply with comparable requirements under an applicable inter-governmental agreement between the United States and the foreign financial institution's home jurisdiction. If an investor does not provide us with the information necessary to comply with these rules, it is possible that distributions to such investor that are attributable to withholdable payments, such as dividends, will be subject to the 30% withholding tax. Holders should consult their own tax advisers regarding the implications of these rules for their investment in our common stock.

Underwriting

UNDERWRITING Subject to the terms and conditions of the underwriting agreement, the underwriters named below, through their representatives Barclays Capital Inc. and Stifel, Nicolaus & Company, Incorporated, have severally agreed to purchase from us the following respective number of shares of common stock at a public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus:

Underwriters	Number of Shares
Barclays Capital Inc.	
Stifel, Nicolaus & Company, Incorporated	
Needham & Company, LLC	
Raymond James and Associates, Inc.	
Roth Capital Partners, LLC	
Total	

The underwriting agreement provides that the obligations of the several underwriters to purchase the shares of common stock offered hereby are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to purchase all of the shares of common stock offered by this prospectus, other than those covered by the option to purchase additional shares described below, if any of these shares are purchased. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or this offering may be terminated.

We have agreed to indemnify the underwriters against some specified types of liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect of any of these liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The representatives of the underwriters have advised us that the underwriters do not intend to confirm sales of more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

Commissions and Discounts

We have been advised by the representatives of the underwriters that the underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus and to dealers at a price that represents a concession not in excess of $ per share under the public offering price. After the initial public offering, representatives of the underwriters may change the offering price and other selling terms. This offering of the shares of common stock by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The underwriting discounts and commissions per share are equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting discounts and commissions are % of the initial public offering price. We have agreed to pay the underwriters the following discounts and commissions, assuming either no exercise or full exercise by the underwriters of the underwriters' option to purchase additional shares:

	Total Fees		
	Per Share	Without Exercise of Option to Purchase Additional Shares	With Full Exercise of Option to Purchase Additional Shares
Discounts and commissions		$	$

In addition, we estimate that our share of the total expenses of this offering, excluding underwriting discounts and commissions, will be approximately $. We have agreed with the underwriters to pay all fees and expenses related to the review and qualification of this offering by the Financial Industry Regulatory Authority, Inc., or FINRA, which we estimate to be $, and "blue sky" expenses.

Over-allotment Option

We have granted the underwriters an option, exercisable not later than 30 days after the date of this prospectus, to purchase up to additional shares of common stock at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, solely to cover allotments, if any. To the extent that the underwriters exercise this option, each of the underwriters will become obligated, subject to conditions, to purchase approximately the same percentage of these additional shares of common stock as the number of shares of common stock to be purchased by it in the above table bears to the total number of shares of common stock offered by this prospectus. We will be obligated, pursuant to the over-allotment option, to sell these additional shares of common stock to the underwriters to the extent the option is exercised. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the initial shares referred to in the above table are being offered.

Each of our officers and directors and MegaChips, have agreed not to offer, sell, contract to sell or otherwise dispose of, or enter into any transaction that is designed to, or could be expected to, result in the disposition of any shares of our common stock or other securities convertible into or exchangeable or exercisable for shares of our common stock or derivatives of our common stock owned by these persons prior to this offering or common stock issuable upon exercise of options held by these persons for a period of 180 days after the effective date of the registration statement of which this prospectus is a part without the prior written consent of Barclays Capital Inc. We have entered into a similar agreement with the underwriters in the underwriting agreement. There are no agreements between the representatives and any of our stockholders (including MegaChips) or affiliates releasing them from these lock-up agreements prior to the expiration of the 180-day period. However, Barclays Capital Inc. may waive these restrictions in whole or in part at any time.

The restrictions described in the immediately preceding paragraph do not apply to a number of transactions in our securities, including, but not limited to:

- the sale of shares by us to the underwriters;
- the issuance by us of shares of common stock upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing;
- sales by holders other than our officers and directors or MegaChips of shares acquired in open market transactions after the completion of this offering of the shares;

- the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock; provided that such plan does not provide for the transfer of common stock during the restricted period; or

- the exercise of options to purchase shares of common stock granted under our share-based compensation plan; provided that the underlying shares of common stock will remain subject to the restrictions contained in the applicable lock-up agreement.

Price Stabilization, Short Positions and Penalty Bids

In connection with this offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of common stock from us in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered 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 they may purchase additional shares of common stock pursuant to the option granted to them. "Naked" short sales are any sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if underwriters are concerned that there may be downward pressure on the price of the shares in the open market prior to the completion of this offering. Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriters in the open market prior to the completion of this offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the other underwriters a portion of the underwriting discount received by it because the representatives of the underwriters have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions may have the effect of preventing or slowing a decline in the market price of our common stock. Additionally, these purchases, along with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on Nasdaq, in the over-the-counter market or otherwise.

Nasdaq Listing

We have applied to list our common stock on Nasdaq, subject to notice of issuance, under the symbol "SITM." In order to meet the requirements for listing on that exchange, the underwriters have undertaken to sell a minimum number of shares to a minimum number of beneficial owners as required by that exchange.

Pricing of this Offering

Prior to this offering, there has been no public market for our common stock. Consequently, the initial public offering price of our common stock will be determined by negotiation between us and the representatives of the underwriters. Among the primary factors that will be considered in determining the public offering price are:

- prevailing market conditions;

- our results of operations in recent periods;

- the present stage of our development;

- the market capitalizations and stages of development of other companies that we and the representatives of the underwriters believe to be comparable to our business; and

- estimates of our business potential.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

Electronic Offer, Sale and Distribution of Shares

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, the underwriters may facilitate Internet distribution for this offering to certain of its Internet subscription customers. The underwriters may allocate a limited number of shares for sale to its online brokerage customers. A prospectus in electronic format is being made available on Internet web sites maintained by one or more of the lead underwriters of this offering and may be made available on web sites maintained by other underwriters. Other than the prospectus in electronic format, the information on any underwriter's web site and any information contained in any other web site maintained by an underwriter is not part of the prospectus or the registration statement of which the prospectus forms a part.

Other Relationships

In the ordinary course of the underwriters' business activities, the underwriters and/or their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments. They may receive customary fees and commissions for these transactions.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area (each a "Member State"), no shares have been offered or will be offered to the public in that Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, all in accordance with the Prospectus Regulation), except that offers of shares may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

(a)	to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
(b)	to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
(c)	in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

United Kingdom

Each underwriter has represented and agreed that:

(a)	it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of FSMA) in connection with the issue or sale of the shares in circumstances in which Section 21(1) of FSMA does not apply to the issuer; and

it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

(b)

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to the offering, the issuer, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, or the FINMA, and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or the CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or the DFSA. This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for this prospectus. The shares to which this prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

Notice to Prospective Investors in Canada

The shares of our common stock offered hereby may be sold only to purchasers purchasing, or deemed to be purchasing, as principals that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to Section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to Prospective Investors in Hong Kong

The shares may not be offered or sold by means of any document other than (a) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), (b) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (c) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or

elsewhere), 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 laws of Hong Kong) other than with respect to shares 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 (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Notice to Prospective Investors in Japan

No registration pursuant to Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended), or the FIEL, has been made or will be made with respect to the solicitation of the application for the acquisition of the shares of our common stock offered hereby.

Accordingly, the shares have not been, directly or indirectly, offered or sold and will not be, directly or indirectly, offered or sold in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or re-sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements, and otherwise in compliance with, the FIEL and the other applicable laws and regulations of Japan.

For Qualified Institutional Investors ("QII") Please note that the solicitation for newly-issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the shares of our common stock constitutes either a "QII only private placement" or a "QII only secondary distribution" (each as described in Paragraph 1, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the shares of our common stock offered hereby. The shares may only be transferred to Qualified Institutional Investors, or QIIs.

For Non-QII Investors Please note that the solicitation for newly-issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the shares of our common stock constitutes either a "small number private placement" or a "small number private secondary distribution" (each as is described in Paragraph 4, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the shares of our common stock offered hereby. The shares may only be transferred en bloc without subdivision to a single investor.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (a) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (b) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA, or (c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Solely for the purposes of its obligations pursuant to Section 309B of the SFA, we have determined, and hereby notify all relevant persons (as defined in the CMP Regulations 2018), that the shares are prescribed capital markets products (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice of Recommendations of Investment Products).

Legal Matters

LEGAL MATTERS The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP, Palo Alto, California. Davis Polk & Wardwell LLP, Menlo Park, California, is acting as counsel to the underwriters in connection with certain legal matters relating to the shares of common stock offered by the prospectus.

Experts

EXPERTS

The consolidated financial statements as of December 31, 2018 and 2017 and for the years then ended included in this prospectus and the registration statement, have been so included in reliance on the report of BDO USA, LLP, an independent registered public accounting firm (the report on the consolidated financial statements contains explanatory paragraphs regarding the company's ability to continue as a going concern and change in accounting principle related to revenue recognition), appearing elsewhere herein and in the registration statement, given on the authority of said firm as experts in auditing and accounting.

Change in Registrant's Certifying Accountant

CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT On March 1, 2019, we dismissed PricewaterhouseCoopers LLP ("PwC"), as our independent registered public accounting firm. The decision to change independent auditors was approved by our board of directors.

The report of PwC on the financial statements for the year ended December 31, 2017 contained no adverse opinion or disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope, or accounting principles, except that PwC's report on the December 31, 2017 financial statements included an explanatory paragraph indicating that there was substantial doubt about the company's ability to continue as a going concern.

During the year ended December 31, 2017 and the subsequent interim period through March 1, 2019, there were no disagreements with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures, which disagreements if not resolved to the satisfaction of PwC would have caused them to make reference thereto in their reports on the financial statements for such years.

During the year ended December 31, 2017 and the subsequent interim period through March 1, 2019, there have been no reportable events within the meaning of Item 304(a)(1)(v) of Regulation S-K.

We provided PwC with a copy of this disclosure and requested PwC furnish us with a letter addressed to the SEC stating whether or not it agrees with the above statements. Upon receipt of the requested letter from PwC, a copy will be included as an exhibit to the registration statement that includes this prospectus.

On March 13, 2019 , we engaged BDO USA, LLP as our independent registered public accounting firm.

BDO USA, LLP has reported on the financial statements for the two years ended December 31, 2017 and 2018 included in this prospectus. Prior to our engagement on March 13, 2019, we had not consulted with BDO USA, LLP regarding the application of accounting principles to a specified transaction, either completed or proposed, the type of audit opinion that might be rendered on the registrant's financial statements, or any matter that was either the subject of a disagreement on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures or regarding a "reportable event" within the meaning of Item 304(a)(1)(v) of Regulation S-K.

Where You Can Find Additional Information

WHERE YOU CAN FIND ADDITIONAL INFORMATION We have filed with the SEC a registration statement on Form S-1, including exhibits and schedules, under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov. You may also request a copy of these filings, at no cost, by writing us at 5451 Patrick Henry Drive, Santa Clara, California 95054.

Upon completion of this offering, we will be subject to the information reporting requirements of the Exchange Act and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available at the web site of the SEC referred to above. We also maintain a website at *www.sitime.com*, at which, following the completion of this offering, 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 or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

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Report of Independent Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm Board of Directors and Stockholder SiTime Corporation Santa Clara, California

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of SiTime Corporation (the "Company") and subsidiaries as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income (loss), stockholders' equity, and cash flows for each of the years then ended and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and its subsidiaries at December 31, 2018 and 2017, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Going Concern Uncertainty

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the company has negative working capital and expects uncertainty in generating sufficient cash to meet its significant loan obligations due in 2019 and sustain its operations. These factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its accounting method for recognizing revenue in 2018 due to the adoption of Accounting Standards Codification 606, *Revenue from Contracts with Customers.* The Company adopted the new revenue standard using the full retrospective approach.

Basis for Opinion

The consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting 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.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2019.

San Jose, California May 31, 2019, except for the effects of the reclassifications discussed in Note 1, as to which the date is July 16, 2019 and except for the effect of the stock split described in Note 1, as to which the date is October 23, 2019.

Consolidated Balance Sheets

SiTime Corporation

Consolidated Balance Sheets

	As of December 31,		September 30,
	2017	2018	2019
			(unaudited)
	(in thousands, except share and per share data)		
Assets:			

Current assets:			
Cash and cash equivalents	$9,097	$7,889	$ 9,232
Accounts receivable, net	20,868	19,180	17,272
Related party accounts receivable	1,762	1,436	863
Inventories	15,375	20,543	13,010
Prepaid expenses and other current assets	6,628	4,056	3,820
Total current assets	53,730	53,104	44,197
Property and equipment, net	12,744	11,281	9,729
Intangible assets, net	8,110	8,142	5,224
Right-of-use assets, net	—	—	10,092
Other assets	144	162	1,951
Total assets	$74,728	$72,689	$ 71,193
Liabilities and Stockholders' Equity:			
Current liabilities:			
Accounts payable	$5,800	$5,025	$ 4,440
Accrued expenses and other current liabilities	5,623	7,655	8,766
Related party loan obligations	3,000	3,000	3,000
Loan obligations	40,000	43,000	43,000
Total current liabilities	54,423	58,680	59,206
Deferred rent	2,629	2,436	—
Lease liabilities	—	—	8,212
Other long-term liabilities	—	558	—
Total liabilities	57,052	61,674	67,418
Commitments and contingencies (Note 6)			
Stockholders' equity:			
Common stock, $0.0001 par value - 200,000,000 shares authorized; 15,000,000 shares issued and outstanding at December 31, 2017, December 31, 2018, and September 30, 2019 (unaudited)	2	2	2
Additional paid-in capital	55,749	58,430	58,430
Accumulated deficit	(38,075)	(47,417)	(54,657)
Total stockholders' equity	17,676	11,015	3,775
Total liabilities and stockholders' equity	$74,728	$72,689	$ 71,193

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Operations and Comprehensive Income (Loss)

SiTime Corporation

Consolidated Statements of Operations and Comprehensive Income (Loss)

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands, except share and per share data)			
Revenue	$101,065	$85,214	$62,363	$55,985
Cost of revenue	53,147	49,009	39,909	29,875
Gross profit	47,918	36,205	22,454	26,110
Operating expenses:				
Research and development	20,988	22,775	16,544	17,846
Sales and marketing	13,383	14,607	11,288	8,710
General and administrative	7,957	6,613	4,501	5,457
Total operating expenses	42,328	43,995	32,333	32,013
Income (loss) from operations	5,590	(7,790)	(9,879)	(5,903)
Interest expense	(870)	(1,512)	(1,069)	(1,320)
Other expense, net	(29)	(66)	(41)	(16)
Net income (loss) before income taxes	4,691	(9,368)	(10,989)	(7,239)
Income tax benefit (expense)	32	26	(1)	(1)
Net income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)
Net income (loss) attributable to common stockholder and comprehensive income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)
Net income (loss) per share attributable to common stockholder, basic and diluted	$0.31	$(0.62)	$(0.73)	$(0.48)
Weighted-average shares used to compute basic and diluted net income (loss) per share	15,000,000	15,000,000	15,000,000	15,000,000

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Stockholders' Equity

SiTime Corporation

Consolidated Statements of Stockholders' Equity

	Common Stock		Additional Paid inCapital	Accumulated Deficit	Total Stockholders'Equity
	Shares	Amount			
	(in thousands, except share data)				
Balances at December 31, 2016	15,000,000	$2	$50,097	$(42,798)	$7,301
Investment from parent	—	—	3,672	—	3,672
Stock-based compensation expense	—	—	1,980	—	1,980
Net income	—	—	—	4,723	4,723

Balances at December 31, 2017	15,000,000	$2	$55,749	$(38,075)	$17,676
Investment from parent	—	—	1,850	—	1,850
Stock-based compensation expense	—	—	831	—	831
Net loss	—	—	—	(9,342)	(9,342)
Balances at December 31, 2018	15,000,000	$2	$58,430	$(47,417)	$11,015

	Common Stock		Additional Paid inCapital	Accumulated Deficit	Total Stockholders'Equity
	Shares	Amount			
Nine months ended September 30, 2018	(in thousands, except share data)				
Balances at December 31, 2017	15,000,000	$2	$55,749	$(38,075)	$17,676
Investment from Parent (unaudited)	—	—	1,850	—	1,850
Stock-based compensation expense (unaudited)	—	—	831	—	831
Net loss (unaudited)	—	—	—	(10,990)	(10,990)
Balances at September 30, 2018 (unaudited)	15,000,000	$2	$58,430	$(49,065)	$9,367

	Common Stock		Additional Paid inCapital	Accumulated Deficit	Total Stockholders'Equity
	Shares	Amount			
Nine months ended September 30, 2019	(in thousands, except share data)				
Balances at December 31, 2018	15,000,000	$2	$58,430	$(47,417)	$11,015
Net loss (unaudited)	—	—	—	(7,240)	(7,240)
Balances at September 30, 2019 (unaudited)	15,000,000	$2	$58,430	$(54,657)	$3,775

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Cash Flows

SiTime Corporation

Consolidated Statements of Cash Flows

	Year End December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands)			
Cash flows from operating activities:				
Net income (loss)	$4,723	$(9,342)	$(10,990)	$(7,240)

Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:				
Depreciation and amortization expense	3,547	7,413	5,271	6,159
Stock-based compensation expense	1,980	831	831	—
Non-cash operating lease costs	—	—	—	968
Inventory writedown	632	9,165	8,809	513
Changes in assets and liabilities:				
Accounts receivable, net	(5,047)	1,688	4,560	1,908
Related party accounts receivable	(162)	326	774	573
Inventories	(1,135)	(13,982)	(12,763)	6,854
Prepaid expenses and other current assets	(2,042)	2,572	2,651	(1,364)
Accounts payable	(121)	(648)	(3,812)	(621)
Accrued expenses and other liabilities	395	1,122	1,191	(1,489)
Lease liabilities	—	—	—	(918)
Other assets and liabilities	50	(191)	(151)	(461)
Net cash provided by (used in) operating activities	2,820	(1,046)	(3,629)	4,882
Cash flows from investing activities:				
Purchase of property and equipment	(4,743)	(2,314)	(2,161)	(832)
Cash paid for intangibles	(3,275)	(2,698)	(2,374)	(1,378)
Net cash used in investing activities	(8,018)	(5,012)	(4,535)	(2,210)
Cash flows from financing activities:				
Proceeds from loans from affiliate	5,000	—	—	—
Proceeds from loans from financial institutions	20,000	21,000	11,000	—
Proceeds from loans from parent	14,000	—	—	—
Proceeds from investment from parent	3,672	1,850	1,850	—
Payments of deferred offering costs	—	—	—	(1,329)
Principal payments on loan to parent	(15,000)	—	—	—
Principal payments on loan to affiliate	(19,000)	—	—	—
Principal payments on loan to financial institutions	—	(18,000)	(8,000)	—
Net cash provided by (used in) financing activities	8,672	4,850	4,850	(1,329)
Net (decrease) increase in cash and cash equivalents	3,474	(1,208)	(3,314)	1,343
Cash and cash equivalents:				
Beginning of period	5,623	9,097	9,097	7,889
End of period	9,097	7,889	$5,783	$9,232
Supplemental disclosure of cash flow information:				
Interest paid during the period	749	1,310	789	1,258
Income taxes paid	158	1	1	1
Supplemental disclosure of noncash flow information:				

Unpaid property and equipment	188	61	28	120
Unpaid intangibles	—	1,116	1,116	558
Unpaid deferred offering costs	—	—	—	461

The accompanying notes are an integral part of the consolidated financial statements.

Notes to Consolidated Financial Statements

SiTime Corporation

Notes to Consolidated Financial Statements

1. The Company and Summary of Significant Accounting Policies

SiTime Corporation, or the Company, was incorporated in the State of Delaware in December 2003. The Company is a provider of silicon timing systems. The Company primarily supplies oscillator products that are comprised of a MEMS resonator and clock IC that is integrated into a package, as well as standalone resonators. The Company has also started to sample clock ICs. The Company's products are designed to address a wide range of applications across a broad array of end markets. The Company operates a fabless business model and leverages its global network of distributors and resellers to address the broad set of end markets that it serves. The Company is currently a wholly owned subsidiary of MegaChips Corporation, or MegaChips, a fabless semiconductor company based in Japan and traded on the Tokyo Stock Exchange.

Reporting Calendar

The Company's fiscal year begins on January 1 of the year stated and ends on December 31 of the same year. The Company reports its results on a calendar year basis.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Stock Split

On October 16, 2019, a pricing committee of the Company's board of directors approved an amendment and restatement of the Company's certificate of incorporation to (i) increase the total number of authorized shares of its common stock to 200,000,000 shares, (ii) change the par value of its common stock to $0.0001 per share, and (iii) effect a 1-for-30,000 stock split, which was within the range previously approved by its sole stockholder. These changes became effective upon filing of the Company's amended and restated certificate of incorporation on October 18, 2019. The share and per share amounts in these consolidated financial statements and accompanying notes have been adjusted to reflect such stock split.

Unaudited Condensed Consolidated Interim Financial Statements

The accompanying consolidated balance sheet as of September 30, 2019, the consolidated statements of operations and comprehensive income (loss) for each of the nine months ended September 30, 2018 and 2019, the consolidated statements of stockholders' equity for the nine months ended September 30, 2018 and 2019, the consolidated statements of cash flows for each of the nine months ended September 30, 2018 and 2019, and the related footnote disclosures are unaudited. The unaudited condensed consolidated interim financial statements are presented in accordance with the rules and regulations of the Securities and Exchange Commission and do not include all disclosures normally required in annual consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP. In the Company's opinion, these unaudited condensed consolidated interim financial statements have been prepared on the same basis as the annual consolidated financial statements and reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company's financial position as of September 30, 2019 and

results of operations, comprehensive income (loss), and cash flows for each of the nine months ended September 30, 2018 and 2019. The results for the nine months ended September 30, 2019 are not necessarily indicative of the results to be expected for the year ending December 31, 2019 or for any other periods.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP, requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. The more significant areas requiring the use of management estimates and assumptions include revenue recognition, estimate of reserve for excess and obsolete inventories, sales and warranty reserves, estimate of reserves for accounts receivable, internally developed software capitalization, valuation allowances for deferred tax assets, and valuation and recognition of stock-based compensation. Actual results may differ materially from such estimates. Management believes that the estimates, and judgments upon which they rely, are reasonable based upon information available to them at the time that these estimates and judgments are made. To the extent that there are material differences between these estimates and actual results, the Company's financial statements will be affected.

Liquidity and Capital Resources

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business.

Since the acquisition by MegaChips in 2014, the Company has financed its operations primarily through debt financing. The Company had an accumulated deficit of $47.4 million and $54.7 million (unaudited) as of December 31, 2018 and September 30, 2019, respectively. In addition, as of December 31, 2018 and September 30, 2019, the Company had a working capital deficiency and loan obligations of $46.0 million (unaudited) for both periods that are due within one year. Although the Company expects to use any cash proceeds generated from operations in 2019 to help fund the Company's operations and capital needs, the Company will need additional funding in 2019 to repay its loan obligations and fund other capital needs.

The Company's prospects are subject to risks, expenses, and uncertainties frequently encountered by companies in this industry. These risks include, but are not limited to, the uncertainty of availability of additional financing and the uncertainty of achieving or maintaining future profitability. Management believes that the Company will be successful in raising additional financing from its parent company, MegaChips, or from other sources of capital funding. However, there can be no assurance that such financing will be available on terms which are favorable, or at all. Failure to generate sufficient cash flows from operations, raise additional capital, or reduce certain discretionary spending could have a material adverse effect on the Company's ability to achieve its intended business objectives. These factors raise substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Foreign Currency Remeasurement

The Company and its wholly owned subsidiaries use the U.S. dollar as the functional currency. Foreign currency assets and liabilities are remeasured into U.S. dollars at the end-of-period exchange rates except for non-monetary assets and liabilities, which are measured at historical exchange rates. Revenue and expenses are remeasured using an average exchange rate in effect for the period, except for items related to non-monetary assets and liabilities, which are measured at historical exchange rates. Gains or losses from foreign currency remeasurement and transactions are included in other expense, net. For the years ended December 31, 2017 and 2018 and for the nine months ended September 30, 2018 and 2019, foreign currency remeasurement and transactions gains and losses were less than $0.1 million.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash balances in the Company's bank checking and savings accounts and liquid short-term investments with original or remaining maturities of three months or less at the date of purchase, readily convertible to known amounts of cash.

Fair Value Measurements

The carrying amounts of the Company's financial instruments, which include cash equivalents, accounts receivable, accounts payable, accrued liabilities, short-term debt obligations, and other current liabilities, approximate their fair values due to their short maturities. The Company determines fair value measurements used in its consolidated financial statements based upon 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. The fair value hierarchy distinguishes between (i) market participant assumptions developed based on market data obtained from independent sources (observable inputs), and (ii) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs).

The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

Level 1: Valuations based on quoted prices in active markets for identical assets or liabilities that the entity has the ability to access.

Level 2: Valuations based on quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable data for substantially the full term of the assets or liabilities.

Level 3: Valuations based on inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

At December 31, 2017 and 2018 and September 30, 2019, cash balances in bank checking and savings accounts of $9.1 million, $7.9 million, and $9.2 million (unaudited), respectively, were valued using Level 1 of the fair value hierarchy.

There were no transfers between Level 1 and Level 2 categories during any of the periods presented.

Accounts Receivable and Allowances for Doubtful Accounts

Accounts receivable are stated at amounts estimated by management to be net realizable value. An allowance for doubtful accounts is recorded when it is probable that amounts will not be collected based on historical collection trends, age of outstanding receivables, specific customer circumstances, and existing economic conditions. Accounts receivable are written-off when it becomes apparent that such amounts will not be collected. As of December 31, 2017 and 2018 and September 30, 2019, the allowances for doubtful accounts were $0.1 million, $0.2 million, and $0.1 million (unaudited), respectively.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable. The Company's cash and cash equivalents amount is subject to concentration of credit risk. The Company maintains some cash and cash equivalents balances that are in excess of Federal Deposit Insurance Corporation insurance limits with financial institutions.

The Company extends credit based on an evaluation of the customer's financial condition and collateral is not typically required. The Company primarily sells its products through third-party distributors and resellers. For the years ended December 31, 2017 and 2018, and the nine months ended September 30, 2018 and 2019, three distributors directly accounted for 10% or more of the Company's revenue.

The following table discloses these customers' percentage of revenue for the respective periods:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
Customer				
Pernas Electronics Co. Ltd.	57%	27%	27%	19%
Arrow Electronics, Inc.	12	18	17	18
Quantek Technology Corporation	10	20	20	23

At December 31, 2017 and 2018 and September 30, 2019, three customers accounted for 10% or more of accounts receivable, as disclosed below:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
Customer			
Pernas Electronics Co. Ltd.	52%	23%	19%
Arrow Electronics, Inc.	9	23	16
Quantek Technology Corporation	16	34	40

Inventory

Inventory is stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or net realizable value. The Company, at least quarterly, assesses the recoverability of all inventories to determine whether adjustments are required to record inventory at the lower of cost or net realizable value. The Company reduces the value of inventory by establishing excess and obsolete inventories reserves based on management's assessment of future demand and market conditions, and may require estimates that may include uncertain elements. Actual demand may differ from forecasted demand and such differences may have a material effect on recorded value of inventory. Inventory write-downs, once established, are not released until the related inventory has been sold or scrapped. Rebates from the Company's foundries are recorded as a reduction of inventory cost and are recognized in cost of revenue over the inventory turnover days of the Company. Most of the Company's inventory is warehoused at its contract manufacturers.

Property and Equipment

Property and equipment are recorded at cost, less accumulated depreciation. Depreciation of property and equipment is recognized on a straight-line basis over the estimated useful lives of the respective assets as follows:

Lab equipment	3 to 5 years
Computer equipment	3 years
Furniture and fixtures	5 years
Leasehold improvements	Shorter of remaining lease term or estimated useful lives of the assets

The Company capitalizes the costs of purchased mask sets that are utilized during the photolithography phase of manufacturing our products, when technological feasibility and marketability have been established. The capitalization occurs upon the completion of a detailed design, the absence of significant development uncertainties and the determination of market acceptance. Such amounts are included in property and equipment in the consolidated balance sheets and are amortized to cost of revenue over their estimated useful lives. However, if significant uncertainties exist regarding the future utility of a particular mask set, then its related costs are expensed to research and development at the time the significant uncertainties are identified.

Maintenance and repair costs are charged to expense as incurred, and expenditures that extend the useful lives of assets are capitalized. Upon retirement or sale of the property and equipment, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is recorded in other expense, net.

Intangible Assets

Intangible assets include the costs related to acquired software as well as costs related to software internally developed, or modified solely to meet the Company's internal requirements, with no substantive plans to market such software at the time of development. The Company develops proprietary design automation software for its MEMS-based resonators. Costs incurred during the preliminary planning and evaluation stage of the project and during post implementation operational stage are expensed as incurred. Costs incurred during the application development stage of the software are capitalized. The Company defines the configuration and coding process as the application development stage. Capitalized internal use software costs are amortized, on a straight-line basis under cost of revenue over the estimated useful life of approximately 2 to 3 years. Purchased intangibles with finite lives are amortized using the straight-line method over the estimated economic lives of the assets of 3 years.

Leases

The Company applies the guidance in Accounting Standards Codification, or ASC, Topic 842 to individual leases of assets. The Company recognizes a transaction as a lease when it receives substantially all of the economic benefits from and directs the use of specified property, plant and equipment.

Operating leases are included in right-of-use, or ROU, assets, accrued expenses and other current liabilities, and lease liabilities in the Company's consolidated balance sheets. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the present value of the Company's obligation to make lease payments arising from the lease. The Company currently does not have any finance leases.

The Company has elected the practical expedient within ASC Topic 842 to not separate lease and non-lease components within lease transactions for all classes of assets. Additionally, the Company has elected the short-term lease exception for all classes of assets and does not apply the recognition requirements for leases of 12 months or less, and recognizes lease payments for short-term leases as expense either straight-line over the lease term or as incurred depending on whether the lease payments are fixed or variable. These elections are applied consistently for all leases.

When discount rates implicit in leases cannot be readily determined, the Company uses the applicable incremental borrowing rate at lease commencement to perform lease classification tests on lease components and to measure ROU assets and lease liabilities. The incremental borrowing rate used by the Company was based on the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term, an amount equal to the lease payments in a similar economic environment.

Impairment of Long-Lived Assets

The Company evaluates its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the estimated fair value of the assets.

The Company determined that no events or changes in circumstances indicate that impairment of its long-lived assets has occurred.

Warranty

The Company provides limited lifetime warranty coverage on all of its products by guaranteeing that all timing components from the Company will be free from defects in workmanship and materials and will conform to specifications for the life of the system. This assurance-type warranty is not considered a separate performance obligation, and thus no transaction price is allocated to it. The Company records the warranty costs in cost of revenue in the consolidated statements of operations and comprehensive income (loss). The warranty reserve is calculated using historical claim information to project future warranty claims activity and is recorded within accrued expenses and other current liabilities and other long-term liabilities on the consolidated balance sheets based on the expected timing of the related payments. To date, the Company has had negligible returns of any defective products, and hence the warranty reserve balances as of December 31, 2017 and 2018 and September 30, 2019 were $0.1 million, less than $0.1 million, and less than $0.1 million (unaudited), respectively.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the carrying amounts in the consolidated financial statements of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards, using enacted tax rates in effect for the year in which the 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 earnings in the period that includes the enactment date. A valuation allowance is provided in order to reduce the deferred tax assets to a level which, more likely than not, will be realized.

The Tax Cuts and Jobs Act of 2017, or the Tax Act, makes broad and complex changes to the U.S. tax code. These computations require significant judgments and estimates to be made regarding the interpretation of the provisions within the Tax Act along with the preparation and analysis of information not previously required. In conjunction with the Tax Act, the Securities and Exchange Commission staff issued Staff Accounting Bulletin No. 118, *Income Tax Accounting Implications of the Tax Act*, which provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under ASC 740, *Income Taxes*.

While the Company believes it has adequately reserved for its uncertain tax positions, no assurance can be given that the final tax outcome of these matters will not be different. The Company adjusts these reserves in light of changing facts and circumstances, such as the closing of a tax audit. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will impact the provision for income taxes and the effective tax rate in the period in which such determination is made.

The Company recognizes tax positions in the consolidated financial statements only when it is more likely than not that the position will be sustained upon examination by the relevant taxing authority. Liabilities are established for differences between positions taken in a tax return and amounts recognized in the consolidated financial statements. The Company reports interest and penalties related to uncertain tax positions, if any, in the provision for income taxes in the consolidated

statements of operations and comprehensive income (loss). To the extent that accrued interest and penalties do not ultimately become payable, amounts accrued will be reduced and reflected as a reduction of the overall provision for income taxes in the period that such determination is made.

Revenue Recognition

The Company derives revenue from its product sales to distributors and resellers, who in turn sell to original equipment manufacturers or other end customers. The Company recognizes product revenue, at a point in time, upon shipment when it satisfies its performance obligations as evidenced by the transfer of control of its products to customers. The Company measures revenue based on the amount of consideration it expects to be entitled to in exchange for products. Variable consideration is estimated and reflected as an adjustment to the transaction price. The Company determines variable consideration, which consists primarily of price adjustments and product returns by estimating the amount of consideration the Company expects to receive from its customers based on historical experience of price adjustments and product returns. Initial estimates of price adjustments and product returns are updated at the end of each reporting period if additional information becomes available. Changes to the Company's estimated variable consideration were not material for the periods presented. Since the Company's performance obligations relate to contracts with a duration of less than one year, it does not disclose the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period.

The Company's payment terms vary by contract type and type of customer and generally range from 30 to 60 days from shipment. The Company has also elected to recognize the cost for freight and shipping when control over the products sold passes to customers and revenue is recognized.

As a practical expedient, the Company records the incremental costs of obtaining a contract, consisting primarily of sales commissions, when incurred because the amortization period is one year or less. These costs are recorded within sales and marketing expenses. The Company entered into a distribution agreement with MegaChips, whereby the Company appointed MegaChips as the exclusive distributor of its products in Japan. The Company recognizes revenue upon shipment derived from sales of products through MegaChips in the amount of expected payments from parties which purchased the products as adjusted for estimated price concessions and product returns.

Cost of Revenue

Cost of revenue consists of wafers acquired from third-party foundries, assembly, packaging, and test cost of the Company's products paid to third-party contract manufacturers, and personnel and other costs associated with the manufacturing operations of the Company. Cost of revenue also includes depreciation of production equipment, inventory write-downs, amortization of internally developed software, shipping and handling costs, and allocation of overhead and facility costs. The Company also includes credits for rebates received from foundries to cost of revenue.

Research and Development Expenses

Research and development costs consist primarily of personnel cost, material cost, and facilities related expenses, incurred in the course of planned research and development of new products. Research and development costs are expensed as incurred.

Sales and Marketing

Sales and marketing expenses primarily consist of personnel costs, field application engineering support, travel costs, professional and consulting fees, advertising expenses, and allocated overhead costs. Sales and marketing costs are expensed as incurred. Advertising expenses were insignificant and $0.2 million, for the years ended December 31, 2017 and 2018. For the nine months ended September 30, 2018 and 2019, advertising expenses were less than $0.1 million (unaudited) and $0.2 million (unaudited).

General and Administrative

General and administrative expenses primarily consist of personnel costs, professional and consulting fees, accounting audit fees, legal, and allocated overhead costs. General and administrative expenses are expensed as incurred.

Stock-Based Compensation

The Company measures and recognizes compensation expense for all stock-based awards made to employees, based on estimated fair values using the straight-line method over the requisite service period. The Company recognizes forfeitures as they occur.

On July 20, 2016, certain employees of the Company were granted restricted stock units, or RSUs, of MegaChips, the Company's parent. These units were valued at the fair market price of MegaChips' common stock on the date of the grant, which was equal to the price of MegaChips' common stock on the Tokyo Stock Exchange on the grant date. The associated grants were all vested and settled as of June 15, 2018 and no further grants were made by MegaChips.

As part of the share based compensation agreement and due to the exercise restriction of 1 year at the time of vesting, the Company promised to advance cash to employees equal to the amount of payroll taxes that were due on vesting instead of issuing the employees restricted shares. The liability associated with the cash expense paid to the employee in lieu of restricted shares was treated as a liability-based award and was valued based on the estimate of the market price of the shares at each reporting date. Adjustments to the fair value of the liability are reported as compensation expense in the consolidated statements of operations and comprehensive income (loss).

Net Income (Loss) Per Share Attributable to Common Stockholder

Basic net income (loss) per share attributable to common stockholder is calculated by dividing the net income (loss) attributable to common stockholder by the weighted-average number of shares of common stock outstanding during the period, without consideration for potentially dilutive securities. Diluted net income (loss) per share is computed by dividing the net income (loss) attributable to common stockholder by the weighted-average number of shares of common stock and potentially dilutive securities outstanding for the period. For purposes of the diluted net income (loss) per share calculation, the Company does not have any stock issuances that are considered to be potentially dilutive securities. As such, the net income (loss) was attributed entirely to common stockholder. Because the Company has no potentially dilutive securities for the years ended December 31, 2017 and 2018 and for the nine months ended September 30, 2018 and 2019, diluted net income (loss) per share attributable to common stockholder is the same as basic net income (loss) per share attributable to common stockholder for all periods presented.

Comprehensive Income (Loss)

The Company has no components of other comprehensive income (loss). Therefore, net income (loss) equals comprehensive income (loss) for all periods presented.

Deferred Offering Costs

Deferred offering costs, consisting of legal, accounting, and other fees and costs relating to the Company's planned initial public offering are capitalized within other assets on the consolidated balance sheets. The deferred offering costs will be offset against the proceeds received by the Company upon the closing of the planned initial public offering. In the event the planned initial public offering is terminated, all of the deferred offering costs will be expensed within loss from operations. As of September 30, 2019, $1.8 million (unaudited) of deferred offering-related costs were recorded as other assets on the condensed consolidated interim balance sheet. There were no deferred offering costs incurred for the previous periods presented.

Reclassifications to Previously Issued Financial Statements

In evaluating the consolidated financial statements as of and for the years ended December 31, 2018 and 2017, the Company subsequently identified reclassification adjustments within the Company's consolidated balance sheets as of December 31, 2018 and 2017 and consolidated statements of cash flows for the years ended December 31, 2018 and 2017, and reissued the previously issued financial statements to reflect these reclassifications. The Company reclassified the accounts receivable from its parent of $1.4 million and $1.8 million as of December 31, 2018 and 2017, respectively, from "Accounts receivable, net" to "Related party accounts receivable" on the relevant consolidated balance sheets. The Company also reclassified $9.2 million and $0.6 million for the years ended December 31, 2018 and 2017, respectively from changes in inventories to "Inventory writedown" within cash flows from operating activities on the relevant consolidated statements of cash flows. The adjustments did not have an impact on current assets and total assets as of December 31, 2018 and 2017, the cash flows from operating activities or the Company's results of operations for the years ended December 31, 2018 and 2017.

2. Recent Accounting Pronouncements

Recently Adopted Accounting Guidance

In March 2016, the Financial Accounting Standard Board, or FASB, issued Accounting Standards Update, or ASU, 2016-09 guidance that involves several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The accounting guidance is effective from annual periods beginning after December 15, 2017. ASU 2016-09 was adopted by the Company during first quarter of fiscal year 2018. Upon adoption on January 1, 2018, the Company elected to account for forfeitures as they occur, rather than estimating expected forfeitures, which had no impact on the Company's financials as of January 1, 2018. The adoption of this standard did not have an impact on the related financial statement disclosure.

In August 2016, the FASB issued ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments*, for targeted changes with respect to how cash receipts and cash payments are classified in the statements of cash flows, with the objective of reducing diversity in practice. The Company adopted this new standard as of January 1, 2018 and applied the changes retrospectively. The adoption of the new standard 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 ASU No. 2015-11 require an entity to measure in scope inventory 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. The amendments 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. The amendments are effective for fiscal years beginning after December 15, 2016, and interim periods within fiscal years beginning after December 15, 2017. A reporting entity should apply the amendments prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. ASU 2015-11 was adopted by the Company during fiscal year 2017. The adoption of this standard did not have an impact on the Company's consolidated financial statements and related disclosures.

In November 2015, the FASB issued ASU No. 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*. Topic 740 requires an entity to separate deferred income tax liabilities and assets into current and noncurrent amounts in a classified statement of financial position. Currently, 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 this update require that deferred income tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The

amendments will not affect the current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount. For public business entities, the amendments are effective for financial statements issued for annual periods beginning after December 15, 2016, and interim periods within those annual periods. The adoption of this standard, on January 1, 2017, did not have a material impact on the Company's consolidated financial statements and related disclosures.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers*, creating ASC 606. Upon adoption, this topic supersedes the existing guidance under ASC Topic 605—Revenue Recognition and aims to simplify the number of requirements to follow for revenue recognition and make revenue recognition more comparable across various entities, industries, jurisdictions and capital markets. Revenue is recognized under a five-step process: (1) identify the contract(s) with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to performance obligations in the contract; and (5) recognize revenue when (or as) the entity satisfies a performance obligation. Additional considerations under this update include accounting for costs to obtain or fulfill a contract with a customer and additional quantitative and qualitative disclosures. ASU 2014-09 became effective for periods beginning after December 15, 2017 (including interim reporting periods within those periods), or the first quarter of 2018, and allows for retrospective or modified retrospective application. The Company adopted this guidance to all contracts in the first quarter of fiscal 2018 under the full retrospective approach. The Company believes the new guidance is materially consistent with its historical revenue recognition policy. In addition, ASU 2014-09 requires the presentation of sales returns reserve as a current liability and the cost of inventory associated with estimated returns as a current asset. The Company's sales return reserve was $1.6 million as of December 31, 2018 and $0.9 million as of December 31, 2017 and is presented within accrued expenses and other current liabilities, whereas it was previously recorded within accounts receivable. The cost of inventory associated with estimated returns was $0.7 million as of December 31, 2018 and $0.3 million as of December 31, 2017 and is presented within prepaid expenses and other current assets, whereas it was previously recorded within inventory. The adoption had no impact on the consolidated statements of operations and comprehensive income (loss) for the years ended December 31, 2017 and 2018 and also had no impact to net cash from or used in operating, investing, or financing activities in the Company's consolidated statements of cash flows.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. ASU 2016-02 requires lessees to recognize all leases with a lease term in excess of one year on their balance sheet as a right of use asset and a

liability at the commencement date. The Company adopted the new standard on January 1, 2019 using the optional adoption method and did not adjust comparative financial statements. The Company elected to use the short-term lease exemption whereby the right of use assets and lease liabilities do not need to be recognized for leases with a term of 12 months or less. The Company elected the package of transition provisions available for expired or existing contracts, which allowed the Company to carryforward the historical assessments of (1) whether contracts are or contain leases, (2) lease classification, and (3) initial direct costs. There was no impact on the Company's accumulated deficit as of January 1, 2019 as a result of the adoption of this standard. The consolidated financial statements for the nine months ended September 30, 2019 are presented under the new standard, while the comparative period presented and prior annual periods are not adjusted and continues to be reported in accordance with the Company's historical accounting policy. The adoption of the new lease standard resulted in the recognition of operating lease right-of-use assets of $7.6 million and lease liabilities, including current obligations, of $10.2 million as of January 1, 2019. In connection with the adoption of this standard, deferred rent of $2.6 million, which was previously recorded in accrued and other current liabilities and in other long-term liabilities on the consolidated balance sheet as of December 31, 2018, was derecognized. See Note 5, "Leases," for more information.

New Accounting Pronouncements Not Yet Adopted

In August 2018, the FASB issued ASU 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*, which aligns the requirements for capitalizing implementation costs incurred in a cloud computing arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use-software. The

standard is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. The Company is currently evaluating the impact of this accounting standard update on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*, which modifies the disclosure requirements in Topic 820. The new standard is effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. An entity is permitted to early adopt any removed or modified disclosures upon issuance of this ASU and delay adoption of the additional disclosures until their effective date. The Company is currently evaluating the impact of this accounting standard update on its consolidated financial statements.

3. Net Income (Loss) Per Share

The following table summarizes the computation of basic and diluted net income (loss) per share attributable to common stockholder of the Company:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands, except share and per share data)			
Net income (loss) attributable to common stockholder	$4,723	$(9,342)	$(10,990)	$(7,240)
Weighted-average shares outstanding	15,000,000	15,000,000	15,000,000	15,000,000
Weighted-average shares used to compute basic and diluted net income (loss) per share	15,000,000	15,000,000	15,000,000	15,000,000
Net income (loss) attributable to common stockholder per share, basic and diluted	$0.31	$(0.62)	$(0.73)	$(0.48)

4. Balance Sheets Components

Inventory

Inventory consisted of the following:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Raw materials	$444	$2,723	$576
Work in progress	10,455	14,582	8,733
Finished goods	4,476	3,238	3,701
Total inventories	$15,375	$20,543	$13,010

The Company acquired approximately $8.0 million in inventory in anticipation of a product order from an end customer that did not materialize. As a result, the Company recorded an inventory write-down related to this inventory of $7.8 million in the first quarter of 2018 and $0.2 million in the second quarter of 2018 as there was no other active customer for the

inventory at the time. The Company was subsequently able to sell approximately $3.0 million of such inventory in the fourth quarter of 2018 and $2.4 million (unaudited) in the nine-month period ended September 30, 2019 to the same customer.

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Advance to suppliers	$3,553	$539	$2,679
Prepaid expenses	676	668	456
Other current assets	2,399	2,849	685
Total prepaid and other current assets	$6,628	$4,056	$3,820

Property and Equipment, Net

Property and equipment, net consisted of the following:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Lab equipment	$14,707	$16,297	$16,987
Computer equipment	540	636	729
Furniture and fixtures	241	241	241
Construction in progress	219	221	221
Leasehold improvements	3,943	4,013	4,072
	19,650	21,408	22,250
Accumulated depreciation	(6,906)	(10,127)	(12,521)
Total property and equipment, net	$12,744	$11,281	$9,729

Depreciation expense related to property and equipment was $2.7 million, $3.5 million, $2.7 million (unaudited), and $2.4 million (unaudited) for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively.

Intangible Assets, Net

Intangible assets, net consisted of the following:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Internal use software	$8,861	$9,181	$9,668
Purchased intangibles	915	4,355	4,695
	9,776	13,536	14,363

Accumulated amortization	(1,666)	(5,394)	(9,139)
Intangible assets, net	$8,110	$8,142	$5,224

Amortization expense for intangible assets was $0.8 million, $3.9 million, $2.4 million (unaudited), and $3.7 million (unaudited) for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019, respectively.

As of December 31, 2017 and 2018 and September 30, 2019, the Company had $6.8 million, $1.2 million, and $1.7 million (unaudited), respectively, of intangibles that were still in development stage and were not being amortized. The estimated aggregate future amortization expense for intangible assets in development stage and subject to amortization as of December 31, 2018 is summarized as below:

	(in thousands)
2019	$ 4,700
2020	2,107
2021	377
2022 and beyond	958
Total	$8,142

The estimated aggregate future amortization expense for intangible assets in development stage and subject to amortization as of September 30, 2019 is summarized as below:

	(in thousands)
	(unaudited)
2019 (remaining)	$ 1,164
2020	2,282
2021	885
2022 and beyond	893
Total	$5,224

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Accrued payroll and related benefits	$2,408	$2,243	$2,285
Accrued customer rebates	315	216	161
Accrued interest	318	520	588
Price adjustment and other revenue reserves	902	1,580	1,007
Other accrued expenses	1,680	3,096	4,725

Total accrued expenses and other current liabilities	$5,623	$7,655	$8,766

5. Leases

The Company leases real estate property under operating leases. The Company was also a lessee and a sublessor from an accounting perspective for its Santa Clara lease through March 31, 2019.

The Company signed a non-cancellable operating lease agreement for its corporate headquarters in Santa Clara, California, that commenced on October 20, 2016 and will expire on December 31, 2026. The agreement provides for an option to renew for an additional 5 years and for monthly rent payments through the term of the lease.

The Company also leases office space in Michigan, Malaysia, the Netherlands, and Ukraine all under non-cancellable operating leases with various expiration dates through May 2021. These leases are classified as operating leases. The remaining lease terms vary from few months to 7 years. For its leases the Company has options to extend the lease term for periods varying from one to five years. These renewal options are not considered in the remaining lease term unless it is reasonably certain that the Company will exercise such options. The Company also has variable lease payments that are primarily comprised of common area maintenance and utility charges.

In the nine months ended September 30, 2019, the Company signed an agreement to lease equipment of $3.2 million for research and development and to help with the production of certain of its products, of which $1.6 million was prepaid before the leased equipment was put in service. The lease term for such equipment is approximately 10 years. As of September 30, 2019, only $1.6 million payments remain to be made for such equipment of which $0.8 million is recorded in accounts payable and the remaining is recorded as short-term lease liability as of September 30, 2019.

The table below presents the lease-related assets and liabilities recorded on the consolidated balance sheet as of September 30, 2019:

	(dollars in thousands) (unaudited)
Right-of-use assets	$ 10,092
Lease liabilities included in accrued expenses and other current liabilities	1,872
Lease liabilities	8,212
Total operating lease liabilities	$ 10,084
Weighted-average remaining lease term (years)	7.3
Weighted-average discount rate[(1)]	4.1%

(1) Upon adoption of the new lease standard, discount rates used for existing leases were established at January 1, 2019.

The table below presents certain information related to the lease costs for operating leases for the nine months ended September 30, 2019:

	(in thousands) (unaudited)
Operating lease cost	$ 1,006
Short-term lease cost	221
Variable lease cost	390
Total lease cost	$1,617

Rent expense for nine months ended September 30, 2018 was $0.8 million (unaudited).

Cash paid for operating lease liabilities was $2.7 million (unaudited) for the nine months ended September 30, 2019, which includes $1.6 million of prepaid lease payments. The Company sub-leased a portion of its Santa Clara facility through March 31, 2019 and received $0.3 million in sub-lease income for the year ended December 31, 2018 and $0.1 million (unaudited) for the nine months ended September 30, 2019, which was included in the short-term lease cost above.

Undiscounted Cash Flows

The table below reconciles the undiscounted cash flows for each of the first five years and total of the remaining years to the operating lease liabilities recorded on the consolidated balance sheet as of September 30, 2019:

	(in thousands) (unaudited)
2019 (remainder)	$260
2020	2,220
2021	1,409
2022	1,441
2023	1,489
2024 and beyond	4,735
Total minimum lease payments	11,554
Less: amount of lease payments representing interest	(1,470)
Present value of future minimum lease payments	10,084
Less: current obligations under leases	(1,872)
Long-term lease liabilities	$8,212

As of September 30, 2019, the Company did not have any leases that had not yet commenced.

As of December 31, 2018, the future minimum lease payments required under non-cancelable operating leases as defined under the previous accounting guidance of ASC Topic 840 were as follows:

	(in thousands)
2019	$ 1,514
2020	1,485

2021	1,451
2022	1,485
2023	1,533
2024 and beyond	4,877
Total minimum lease payments	$12,345

6. Commitments and Contingencies

Purchase Commitments

The Company purchases components from a variety of suppliers and uses several contract manufacturers to provide manufacturing services for its products. During the normal course of business, in order to manage manufacturing lead times and to help ensure adequate component supply, the Company enters into agreements with the Company's contract manufacturers and suppliers that allow them to procure inventory based upon criteria as defined by the Company. A significant portion of the Company's reported purchase commitments arising from these agreements consists of firm, non-cancelable purchase commitments. In certain instances, these agreements allow the Company the option to cancel, reschedule, and adjust the Company's requirements based on its business needs prior to when production starts. However, in situations where the Company is unable to cancel, reschedule, or adjust the purchase commitment due to changing customer demand, excess inventories could result in material inventory provisions.

Commitments for MEMS Wafer Supplier Agreement

The Company purchases MEMS wafers required for its silicon timing systems products under a multi-year manufacturing agreement with a third-party supplier. Under this agreement, the Company has agreed to minimum quantity purchase commitments and is responsible for research and development, tooling, and samples cost, in addition to wafer costs. The Company has historically met the supplier's minimum wafer quantity requirements. The remaining tooling cost commitment under the agreement as of December 31, 2018 was $3.2 million and due for payment in 2019, of which $1.6 million has already been recorded as accounts payable in the consolidated financial statements as of December 31, 2018 and paid as of September 30, 2019.

Indemnification

The Company is a party to a variety of agreements pursuant to which it may be obligated to indemnify other parties to such agreements with respect to certain matters. Typically, these obligations arise in the context of contracts that the Company has entered into, under which the Company customarily agrees to hold the other party harmless against losses arising from a breach of representations and covenants or terms and conditions related to such matters as the sale and/or delivery of its products, title to assets sold, certain intellectual property claims, defective products, specified environmental matters, and certain income taxes. Further, the Company's obligations under these agreements may be limited in terms of time, amount, or the scope of its responsibility and in some instances, the Company may have recourse against third parties for certain payments made under these agreements. It is not possible to predict the maximum potential amount of future payments under these agreements due to the conditional nature of the Company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, the Company has had no indemnification claims under these agreements.

Legal Matters

From time to time, the Company may be a party to various litigation claims in the normal course of business. Legal fees and other costs associated with such actions are expensed as incurred. The Company assesses, in conjunction with legal counsel, the need to record a liability for litigation and contingencies. Accrual estimates are recorded when and if it is determined that

such a liability for litigation and contingencies are both probable and reasonably estimable. As of the date of issuance of the financial statements, the Company was not subject to any litigation. No accruals for loss contingencies or recognition of actual losses have been recorded in any of the periods presented.

In March 2019, VTT Technical Research Centre of Finland, Ltd. filed suit in the United States District Court for the Northern District of California alleging infringement by the Company of a patent relating to a specific combination of features set forth in the asserted patent. The complaint seeks unspecified monetary damages and injunctive relief. As the Company is in the initial stages of evaluating this matter, the Company is currently unable to assess the possible outcome of this matter and cannot currently estimate the possible loss or range of loss. The Company has not accrued for a loss contingency relating to such matter.

7. Debt Obligations

The Company has borrowed against the short-term revolving lines of credit that it has arranged with financial institutions like The Bank of Tokyo-Mitsubishi UFJ, Ltd., or MUFG, and Sumitomo Mitsui Banking Corporation, or SMBC, and MegaChips to fund its operations. The weighted-average interest rate on short-term borrowings outstanding as of December 31, 2017 and 2018 and September 30, 2019 was 2.84%, 3.69%, and 2.06% (unaudited), respectively.

Debt obligations as of December 31, 2017 and 2018 and September 30, 2019 consisted of the following:

	As of December 31,		As of September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Revolving line of credit:			
MUFG	$20,000	$41,000	$41,000
SMBC	20,000	2,000	2,000
Parent loan:			
MegaChips	3,000	3,000	3,000
Balance	43,000	46,000	46,000
Less: Current portion of long-term debt	(43,000)	(46,000)	(46,000)
Long-term debt	$—	$—	$—

Revolving Line of Credit

The Bank of Tokyo-Mitsubishi Credit Facility

On August 31, 2015, the Company entered into a bank transaction agreement with MUFG. The agreement provided for a revolving line of credit with a maximum available borrowing of $20.0 million. The original maturity date of the revolving line of credit was June 30, 2017, which was renewed for an additional one year term. On June 29, 2018, the Company renewed its agreement with MUFG with a new maturity date of June 28, 2019 and also increased the revolving line of credit to $50.0 million. On June 28, 2019, the Company renewed its agreement with MUFG with a new term of June 30, 2020. In addition, on June 27, 2019, the maturity date of the Company's $20.0 million loan under the line of credit with MUFG was extended through December 19, 2019. On August 23, 2019, the Company's $3.0 million loan under the credit line with MUFG was extended through February 19, 2020 and on September 24, 2019, the Company's $8.0 million loan under the credit line with MUFG was extended through December 19, 2019. Interest under the revolving line of credit is calculated at MUFG's prevailing prime rate plus a margin of 2 percentage points which would be agreed by the Company at the time each loan was

made. The interest rates on these loans vary depending on the date and term of each loan. Interest is due for payment on the maturity date of each loan. The Company did not incur any costs upon renewal of the revolving credit line or at the time of increase in the revolving line of credit.

The agreement contains customary representations and warranties, affirmative covenants, and events of default upon the occurrence of certain events, such as nonpayment of amounts due under the revolving line of credit, violation of contractual provisions, or a material adverse change in the Company's business. The agreement also includes customary administrative covenants, including a limitation on entering any transactions involving a merger or consolidation, reorganization, spin-off, liquidation, dissolution, winding up, or conveying, selling, leasing, licensing, or otherwise disposing of all or substantially all of the Company's property, assets, or business. As of December 31, 2017 and 2018 and September 30, 2019, the Company was in compliance with all covenants. The agreement provides that the Company will provide collateral if MUFG determines in consultation with the Company that additional collateral or guarantee would be necessary. The MUFG revolving line of credit is guaranteed by MegaChips.

As of December 31, 2017 and 2018 and September 30, 2019, the aggregate principal amount outstanding under the revolving credit line with MUFG was $20.0 million, $41.0 million, and $41.0 million (unaudited), respectively, and remaining available credit line was $0, $9.0 million, and $9.0 million (unaudited), respectively.

Sumitomo Mitsui Banking Corporation Credit Facility

On September 22, 2017, the Company entered into an uncommitted and revolving credit line agreement with SMBC. The revolving credit line has a maximum available borrowing availability of up to $20.0 million. The Company could draw loans under the revolving credit line from time to time through September 21, 2018, as long as the principal amount at any time did not exceed $20.0 million in the aggregate. Such term was extended for an additional year through September 20, 2019 and further extended for an additional year through September 21, 2020. Loans under the revolving credit line may have a maturity from one day to 12 months from the date of borrowing. The loans borrowed under the revolving line of credit bear a variable rate of interest based upon SMBC's prevailing prime rate plus a margin of 1 percentage point which would be agreed by the Company at the time each loan is made. Interest is due for payment on the maturity date of each loan. SMBC has the right to terminate the revolving credit line in whole or part in its sole discretion. The Company did not incur any costs at the initiation of the revolving line of credit or upon renewal of the revolving credit line.

The agreement contains customary representations and warranties, affirmative covenants, negative covenants, and events of default upon the occurrence of certain events, such as nonpayment of amounts due under the revolving line of credit, violation of contractual provisions, or a material adverse change in the Company's business. In addition, the agreement includes a financial covenant for a minimum net worth, defined as total assets less total liabilities, of $0. The agreement also includes customary administrative covenants, including a limitation on entering any transactions involving a merger or consolidation, reorganization, spin-off, liquidation, dissolution, winding up, or conveying, selling, leasing, licensing, or otherwise disposing of all or substantially all of the Company's property, assets, or business. As of December 31, 2017 and 2018 and September 30, 2019, the Company was in compliance with all covenants. The agreement provides that the Company will provide collateral if SMBC determines in consultation with the Company that additional collateral or guarantee would be necessary. Use of proceeds from the loan is restricted for certain specified purposes. The SMBC revolving line of credit is also guaranteed by MegaChips.

As of December 31, 2017 and 2018 and September 30, 2019, the aggregate principal amount outstanding under the revolving credit line with SMBC was $20.0 million, $2.0 million, and $2.0 million (unaudited), respectively, and remaining available credit was $0, $18.0 million, and $18.0 million (unaudited), respectively.

Loan Agreement with MegaChips

On September 13, 2016, the Company entered into a loan agreement with MegaChips for a revolving credit limit of up to $30.0 million, or the Parent Loan Agreement. Loans under the Parent Loan Agreement bear interest at a rate equal to the interest rate at which MegaChips procured the funds from SMBC, plus 0.09%. Interest for each loan is due on the maturity date of each loan. Each loan drawn from MegaChips has a three-month term, which term was renewed on maturity. MegaChips has discretion whether to accept the Company's request for a loan under the Parent Loan Agreement. The initial term of the Parent Loan Agreement is one year from the date of the agreement, which term is automatically renewed and extended every year unless either party provides written notice to the other party. The Company did not incur any costs at the time of initiation of such credit facility or at the time of extension of the term of the credit facility.

The agreement contains usual and customary events of default upon the occurrence of certain events, such as nonpayment of amounts due under the revolving line of credit, violation of contractual provisions, a material adverse impact on the Company's business, or its ability to perform under the agreement. The agreement includes customary administrative covenants but does not contain any negative covenants or conditions to borrowing. As of December 31, 2017 and 2018 and September 30, 2019, the Company was in compliance with all covenants.

As of December 31, 2017 and 2018 and September 30, 2019, the aggregate principal amount outstanding under the credit facility with MegaChips was $3.0 million, and remaining available credit was $27.0 million.

As of December 31, 2017, debt obligations were as follows (dollars in thousands):

Lender	Loan Start Date	Loan Amount	Annual Interest Rate	Maturity Date
MUFG	6/30/2017	$20,000	2.20000%	6/29/2018
SMBC	9/25/2017	8,000	3.66000	9/25/2018
SMBC	12/19/2017	12,000	3.89500	12/19/2018
MegaChips	12/29/2017	3,000	2.69428	3/31/2018
		$43,000		

As of December 31, 2018, debt obligations were as follows (dollars in thousands):

Lender	Loan Start Date	Loan Amount	Annual Interest Rate	Maturity Date
MUFG	6/29/2018	$20,000	3.72000%	6/28/2019
MUFG	8/23/2018	3,000	3.77000	8/23/2019
MUFG	9/24/2018	8,000	3.87000	9/24/2019
MegaChips	10/01/2018	3,000	3.20838	12/31/2018
MUFG	12/19/2018	10,000	4.07000	12/19/2019
SMBC	12/19/2018	2,000	4.96500	12/19/2019
		$46,000		

As of September 30, 2019, debt obligations were as follows (dollars in thousands):

Lender	Loan Start Date	Loan Amount	Annual Interest Rate	Maturity Date
		(unaudited)		

MegaChips	6/28/2019	$3,000	3.12888%	9/30/2019
MUFG	6/28/2019	20,000	3.28000%	12/19/2019
MUFG	9/24/2019	8,000	3.15000%	12/19/2019
MUFG	12/19/2018	10,000	4.07000%	12/19/2019
SMBC	12/19/2018	2,000	4.96500%	12/19/2019
MUFG	8/23/2019	3,000	3.10000%	2/19/2020
		$46,000		

On January 1, 2019, the Company's loan with MegaChips with a maturity date of December 31, 2018 was extended for a three month term through March 31, 2019 with an interest rate of 3.62%, then further extended with a new maturity date of June 28, 2019 and an interest rate of 3.40%, then further extended with a new maturity date of September 30, 2019 with an interest rate of 3.13% and further extended with a new maturity date of December 31, 2019 with an interest rate of 2.90%.

8. Stockholders' Equity

The Company's certificate of incorporation, as amended and currently in effect, authorizes the Company to issue 200,000,000 shares of common stock, par value $0.0001 per share. Each share of common stock is entitled

to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when and if declared by the board of directors, subject to the prior rights of holders of all classes of preferred stock outstanding. The Company has never declared any dividends.

9. Stock-based Compensation

The Company's parent, MegaChips, established a one-time Restricted Stock Unit Plan, or the Plan, which was adopted by MegaChips' board of directors in May 2016. Under the Plan, certain employees of the Company were granted RSUs of MegaChips. MegaChips' common stock is traded on the Tokyo Stock Exchange. The total number of shares authorized for grant under the Plan was 339,911. All units authorized to be granted under the Plan were granted to employees on July 20, 2016, the grant date. The units granted had a quarterly vesting schedule of two years. These units were valued at the fair market price of MegaChips' common stock on the grant date, which was equivalent to approximately $11.89, based on the price of MegaChips' common stock on the Tokyo Stock Exchange.

Total stock-based compensation expense for employees recognized in the consolidated statements of operations and comprehensive income (loss) was as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands)			
Equity awards				
Cost of revenue	$47	$19	$ 19	$ —
Research and development	979	526	526	—
Sales and marketing	553	241	241	—

General and administrative	401	45	45	—
	$1,980	$831	$ 831	$—
Liability based awards				
Cost of revenue	$84	$39	$ 39	$—
Research and development	1,795	1,062	1,062	—
Sales and marketing	1,016	495	495	—
General and administrative	791	104	104	—
	$3,686	$1,700	1,700	—
Total stock-based compensation expense	$5,666	$2,531	$2,531	$—

The Company records a liability associated with the cash expense paid to the employee in lieu of restricted shares granted as part of the Plan and due to the exercise restriction of 1 year at the time of vesting. These cash advances were paid by the parent company and accordingly, are shown as investment from parent in the statement of stockholders' equity. A liability of $0.1 million and $0 as of December 31, 2017 and 2018, respectively, was recorded in relation to these shares and valued based on the estimate of the market price of the shares at each reporting date. Adjustments to the fair value of the liability are reported as compensation expense in the consolidated statements of operations and comprehensive income (loss). Adjustments to the fair value of the liability are reported as compensation expense in the consolidated statements of operations and comprehensive income (loss).

No new grants were awarded in the nine months ended September 30, 2019. At December 31, 2018 and the nine months ended September 30, 2019, there was no unamortized compensation expense related to unvested stock awards. Activity of RSUs granted under the Plan is set forth below:

	Number of SharesOutstanding	Weighted-Average GrantDate Fair ValuePer Share
Balance at January 1, 2017	247,669	$11.89
Granted	—	—
Vested	(167,595)	11.89
Forfeited	(2,455)	11.89
Balance at December 31, 2017	77,619	11.89
Granted	—	—
Vested	(76,296)	11.89
Forfeited	(1,323)	11.89
Balance at December 31, 2018	—	$—

10. Income Taxes

The components of income (loss) before income taxes were as follows:

	Years Ended December 31,	
	2017	2018
	(in thousands)	
United States	$4,721	$(9,205)
Foreign	(30)	(163)
	$4,691	$(9,368)

The components of income tax benefit were as follows:

	Years Ended December 31,	
	2017	2018
	(in thousands)	
United States	$32	$26
Foreign	—	—
	$32	$26

The material components of the deferred tax assets and liabilities consisted of net operating loss carry-forwards and tax credit carry-forwards.

	As of December 31,	
	2017	2018
	(in thousands)	
Deferred tax assets:		
Accrual, write-down, and other	$1,729	$2,931
Depreciation and amortization	(686)	(2,245)
Net operating loss and credits carry forwards	41,265	44,810
Total gross deferred tax assets	42,308	45,496
Valuation allowance	(42,308)	(45,496)
Total net deferred tax assets	$—	$—

The net valuation allowance decreased by $19.8 million and increased by $3.2 million for the years ended December 31, 2017 and 2018, respectively.

A reconciliation of the Company's effective tax rate to the statutory U.S. federal rate is as follows:

	Year Ended December 31,	
	2017	2018
U.S. federal rate	34.0%	21.0%
R&D credits	(17.0)	9.4
Expiration of net operating loss carryforwards	17.3	—
Revaluation of deferred taxes under the Tax Cuts and Jobs Act	383.5	—
Permanent differences and others	(10.8)	4.2
Change in valuation allowance	(405.3)	(34.3)
	1.7%	0.3%

The reported amount of income tax expense differs from an expected amount based on statutory rates primarily due to the Company's valuation allowance.

As of December 31, 2017 and 2018, based on the available objective evidence, management believes it is more likely than not that the net deferred tax assets will not be realized. Accordingly, management has applied a full valuation allowance against its net deferred tax assets at December 31, 2017 and 2018.

At December 31, 2017 and 2018, the Company has federal net operating loss carry-forwards of approximately $148.4 million and $160.7 million, respectively, and state net operating loss carry-forwards of approximately $63.7 million and $63.9 million, respectively. These federal and state net operating loss carry-forwards will expire beginning in 2025 and 2028, respectively. At December 31, 2017 and 2018, the Company also has federal research and development tax credit carry-forwards of approximately $3.9 million and $4.6 million, respectively, and state research and development tax credit carry-forwards of approximately $4.6 million and $5.2 million, respectively. The federal tax credits begin to expire in 2025, and the California tax credits carry forward indefinitely.

Utilization of the net operating loss carry-forwards and credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended,

or the Code, and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization.

As of December 31, 2017 and 2018, the Company had $1.9 million and $2.2 million of total unrecognized tax benefits. The Company currently has a full valuation allowance against its net deferred tax assets which would impact the timing of the effective tax rate benefit should any of these uncertain tax positions be favorably settled in the future. If the Company is able to eventually recognize these uncertain tax positions, none of the unrecognized benefit would reduce the Company's effective tax rate due to full valuation allowance of the Company's deferred tax assets. The Company's policy is to record interest and penalties related to unrecognized tax benefits as income tax expense. During the years ended December 31, 2017 and 2018, the Company had immaterial amounts related to the accrual of interest and penalties.

A reconciliation of the beginning and ending unrecognized tax benefit amount is as follows:

	December 31,	
	2017	2018
	(in thousands)	
Beginning balance	$1,474	$1,901
Current year addition	427	297
Ending balance	$1,901	$2,198

The Company does not have any tax positions for which it is reasonably possible the total amount of gross unrecognized tax benefits will increase or decrease within 12 months of the years ended December 31, 2017 and 2018.

The Company files tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by federal, state, local, and foreign jurisdictions, where applicable. Due to the Company's net losses, its federal, state and local, and foreign tax returns since inception are subject to audit.

As of December 31, 2018, the tax years that remain subject to examination by the major tax jurisdictions under the statute of limitations are as follows:

Jurisdiction	Earliest Tax Year Subject to Examination
U.S. federal	2005

California State	2008

On December 22, 2017, the Tax Act was signed into law making significant changes to the Code effective for tax years beginning after December 31, 2017. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21%, the repeal of corporate alternative minimum tax, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017.

On December 22, 2017, Staff Accounting Bulletin No. 118, or SAB 118, was issued to provide a measurement period of up to one year from the enactment date of the Tax Act for companies to complete the accounting for the Tax Act and its related impacts. In 2017, the Company completed its accounting for the Tax Act. The income tax effects of the Tax Act include the remeasurement of gross deferred tax assets and liabilities,

prior to existing valuation allowance, to reflect the 21% corporate tax rate. The effect from the change in tax rate resulted in a reduction in net deferred tax assets before valuation allowance of approximately $18.7 million as of December 31, 2017. In addition, no transition tax was expected to be due upon the newly enacted legislation. Accordingly, no provisional amounts were recorded in accordance with SAB 118.

11. 401(k) Plan

The Company has a 401(k) retirement plan that qualifies as a defined contribution plan. All employees are eligible to participate on the first day of the month following their hire date with the Company. Under the defined contribution plan, employees may contribute the lesser of 90% of their pre-tax salaries per year or the maximum contribution allowed under the Code. The Company may make discretionary matching contributions, if deferral contributions are made by the employees. The Company's matching contributions for the years ended December 31, 2017 and 2018 and the nine months ended September 30, 2018 and 2019 resulted in expense of $0.5 million, $0.6 million, $0.5 million (unaudited), and $0.5 million (unaudited), respectively.

12. Segment Information and Operations by Geographic Area

The Company operates in one reportable segment related to the design, development, and sale of silicon timing systems solutions. The chief operating decision maker, or CODM, for the Company is the Chief Executive Officer. The Company's Chief Executive Officer reviews operating results on an aggregate basis and manages the Company's operations as a whole for the purpose of evaluating financial performance and allocating resources. Accordingly, the Company has determined that it has a single reportable and operating segment structure.

The following table sets forth revenue by country, based on ship-to destinations, for countries with 10% or more of the Company's revenue during any of the periods presented:

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands)			
Taiwan	$70,778	$45,107	$31,122	$26,830
Hong Kong	9,214	16,204	13,440	11,047
United States	4,557	6,061	4,741	3,880
Other	16,516	17,842	13,060	14,228

Total revenue	$101,065	$85,214	$62,363	$55,985

The Company's long-lived assets in the U.S. attributable to operations as of December 31, 2017 and 2018 and September 30, 2019 were 97% of total property and equipment and intangible assets.

13. Related Party Transactions

The Company entered into a distribution agreement with its parent company, MegaChips, whereby the Company appointed MegaChips as the exclusive distributor of its products in Japan. The Company sells products through its parent to distributors, resellers, or direct customers in Japan. The Company pays the parent a fixed percentage of the revenue as sales commission, which is recorded as commission expense and included in sales and marketing in the consolidated statements of operations and comprehensive income (loss).

See Note 7 regarding the Company's loan agreement with MegaChips.

On June 15, 2017, MegaChips Technology America Corporation, or MegaChips America, a wholly owned subsidiary of MegaChips, extended a loan of $5.0 million to the Company under a loan agreement dated December 1, 2014. All obligations under such loan agreement were paid off as of September 27, 2017. The loan agreement with MegaChips America has been terminated effective as of September 30, 2017.

The following is a summary of significant balances, transactions and payments with the related parties.

	December 31,		September 30,
	2017	2018	2019
			(unaudited)
	(in thousands)		
Parent			
Accounts receivable	$1,762	$1,436	$863
Prepaid expenses and other current assets	—	—	23
Loan from parent	3,000	3,000	3,000

	Year Ended December 31,		Nine Months Ended	
	2017	2018	September 30, 2018	September 30, 2019
			(unaudited)	
	(in thousands)			
Parent				
Sales through distribution agreement and revenue from integration and purchase agreement	$6,490	$5,810	$4,033	$3,232
License expense	—	—	—	68
Commission expense	412	368	255	127
Interest expense	379	95	71	77

Affiliate				
Interest expense	$8	$–	$–	$–

	Year Ended December 31,		Nine Months Ended September 30,	
	2017	2018	2018	2019
			(unaudited)	
	(in thousands)			
Parent				
Cash paid for principal	$15,000	$–	$ –	$ –
Cash received for principal	(14,000)	–	–	–
Cash paid for interest	379	95	71	77
Cash paid for commissions	412	368	255	127
Cash paid for licenses	–	–	–	91
Affiliate				
Cash paid for principal	$19,000	$–	$ –	$–
Cash received for principal	(5,000)	–	–	–
Cash paid for interest	22	–	–	–

14. Subsequent Events

On March 15, 2019, the Company entered into an integration and purchase agreement with MegaChips, whereby the Company agreed to supply MegaChips with certain resonators for use in certain of MegaChips' products, along with a license to use certain circuits with these resonators. Under this agreement, MegaChips has minimum quantity purchase commitments.

On March 31, 2019, the Company's outstanding loan with MegaChips matured and the loan was renewed for an additional three-month period with an interest rate of 3.40% and a maturity date of June 28, 2019.

The Company submitted its draft registration statement on Form S-1 with the Securities and Exchange Commission on May 31, 2019.

The Company evaluated subsequent events through May 31, 2019, the date the consolidated financial statements were available to be issued except for the effects of the reclassifications discussed in Note 1, as to which the date is July 16, 2019. There were no other significant subsequent events that had occurred that would require recognition in these consolidated financial statements.

15. Subsequent Events (unaudited)

The Company has reviewed and evaluated subsequent events that occurred through October 23, 2019, the date that the unaudited condensed consolidated interim financial statements were available to be issued, and determined that no additional subsequent events had occurred that would require recognition in these unaudited condensed consolidated interim financial

statements.

On October 16, 2019, a pricing committee of the Company's board of directors approved an amendment and restatement of the Company's certificate of incorporation to (i) increase the total number of authorized shares of its common stock to 200,000,000 shares, (ii) change the par value of its common stock to $0.0001 per share, and (iii) effect a 1-for-30,000 stock split, which was within the range previously approved by its sole stockholder. These changes became effective upon filing of the Company's amended and restated certificate of incorporation on October 18, 2019. The Company adjusted share and per share amounts in these consolidated financial statements and accompanying notes to reflect such stock split.

On October 3, 2019, the Company's board of directors authorized, subject to stockholder approval, 4,700,000 shares of its common stock to be reserved for future issuance under its 2019 Stock Incentive Plan, which also contains provisions to automatically increase the number of shares reserved on an annual basis.

Part Ii

Information Not Required in Prospectus

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, payable by SiTime Corporation, or the Registrant, in connection with the sale of the common stock being registered. All amounts shown are estimates except for the Securities and Exchange Commission, or the SEC, registration fee, the FINRA filing fee and the Nasdaq listing fee.

	Amount
SEC registration fee	$12,980
FINRA filing fee	15,000
Nasdaq listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous fees and expenses	*
Total	$*

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law, or the DGCL, provides that a Delaware corporation may indemnify any persons who were, are, or are threatened to be made, parties to any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee, or agent of such corporation, or is or was serving at the request of such corporation as an officer, director, employee, or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit, or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no

reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who were, are, or are threatened to be made, a party to any threatened, pending, or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee, or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee, or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses (including attorneys' fees) actually and reasonably incurred.

The Registrant's amended and restated certificate of incorporation provides for the indemnification of its directors to the fullest extent permitted under the DGCL. The Registrant's amended and restated bylaws provide for the indemnification of its directors and officers to the fullest extent permitted under the DGCL. Each of the Registrant's amended and restated certificate of incorporation and amended and restated bylaws will become effective upon completion of this offering.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

The Registrant's amended and restated certificate of incorporation includes such a provision. Under the Registrant's amended and restated bylaws, expenses incurred by any director or officers in defending any such action, suit, or proceeding in advance of its final disposition shall be paid by the Registrant upon delivery to it of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Registrant, as long as such undertaking remains required by the DGCL.

Section 174 of the DGCL provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption, may be held liable for such actions. A director who was either absent when the unlawful actions were approved or dissented at the time may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

As permitted by the DGCL, the Registrant has entered into indemnity agreements with each of its directors and officers that require the Registrant, among other things, to indemnify its directors and officers against certain liabilities which may arise by reason of their status or service as directors or officers to the fullest extent not prohibited by law. These indemnification agreements may be sufficiently broad to permit indemnification of the Registrant's officers and directors for liabilities, including reimbursement of expenses incurred, arising under the Securities Act. Under these agreements, the Registrant is not required to provide indemnification for certain matters. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

There is at present no pending litigation or proceeding involving any of the Registrant's directors or executive officers as to which indemnification is required or permitted, and the Registrant is not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

The Registrant intends to enter into an insurance policy that covers its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

The Registrant plans to enter into an underwriting agreement which provides that the underwriters are obligated, under some circumstances, to indemnify the Registrant's directors, officers, and controlling persons against specified liabilities, including liabilities under the Securities Act.

Item 15. Recent Sales of Unregistered Securities.

The Registrant has not issued and sold any unregistered securities within the past three years.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

The list of exhibits is set forth under "Exhibit Index" at the end of this registration statement and is incorporated herein by reference.

(b) Financial Statement Schedules.

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act 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 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 of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(a) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(b) For the purpose of determining any liability under the Securities Act, 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.

Exhibit Index

Exhibit No.	Description
1.1	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation, as amended and as currently in effect.
3.2	Form of Amended and Restated Certificate of Incorporation, to be effective upon completion of this offering.
3.3	Bylaws, as amended and as currently in effect.
3.4	Form of Amended and Restated Bylaws, to be effective upon completion of this offering.
4.1	Form of Common Stock Certificate of the Registrant.
5.1†	Opinion of Pillsbury Winthrop Shaw Pittman LLP.
10.1+	Form of Indemnification Agreement between the Registrant and its directors and officers.

10.2+	2019 Stock Incentive Plan and Forms of Stock Option Agreement, Notice of Exercise, Stock Option Grant Notice, Restricted Stock Unit Agreement, and Restricted Stock Agreement thereunder.
10.3+	New Terms of Employment, dated October 21, 2014, between Rajesh Vashist and the Registrant.
10.4+	Amendment to Terms of Employment Letter, dated June 14, 2016, between Rajesh Vashist and the Registrant.
10.5+	Offer of Employment, dated September 24, 2019, between Arthur D. Chadwick and the Registrant.
10.6+	Offer of Employment, dated January 27, 2018, between Lionel Bonnot and the Registrant.
10.7+	New Terms of Employment, dated October 20, 2014, between Piyush B. Sevalia and the Registrant.
10.8+	Change of Control and Severance Agreement, between the Registrant and Rajesh Vashist.
10.9+	Form of Change of Control and Severance Agreement, between the Registrant and its Executives.
10.10+	MegaChips Corporation Restricted Stock Unit Plan, effective May 13, 2016.
10.11+	Form of Restricted Stock Unit Agreement, among MegaChips Corporation, the Registrant and the participant.
10.12	Bank Transaction Agreement, dated August 31, 2015, between the Registrant and The Bank of Tokyo-Mitsubishi UFJ, Ltd.
10.13	Uncommitted and Revolving Credit Line Agreement, dated September 21, 2018, between the Registrant and Sumitomo Mitsui Banking Corporation.
10.14	Loan Agreement, dated September 13, 2016, between the Registrant and MegaChips Corporation.
10.15	Distribution Agreement, dated April 1, 2015, between the Registrant and MegaChips Corporation, and related Memorandums of Understanding dated April 1, 2015 and January 1, 2019.
10.16	Integration and Purchase Agreement, dated March 15, 2019, between the Registrant and MegaChips Corporation.
10.17	Lease, dated April 15, 2016, between the Registrant and Batton Associates, LLC.
10.18*	License Agreement, dated August 1, 2018, between the Registrant and Robert Bosch LLC.
10.19*	Amended and Restated Manufacturing Agreement, dated February 23, 2017, between the Registrant and Robert Bosch LLC.
10.20*	Amendment No. 1 to Amended and Restated Manufacturing Agreement, dated August 1, 2018, between the Registrant and Robert Bosch LLC.

Exhibit No.	Description
10.21	Guaranty, dated June 29, 2018, by the Registrant and MegaChips Corporation.
10.22	Guaranty, dated June 28, 2019, by MegaChips Corporation.
16.1	Letter from PricewaterhouseCoopers LLP to the Securities and Exchange Commission.
21.1	Subsidiaries of the Registrant.
23.1	Consent of BDO USA, LLP, an Independent Registered Public Accounting Firm.
23.2†	Consent of Pillsbury Winthrop Shaw Pittman LLP (included in Exhibit 5.1).
24.1	Power of Attorney (see signature page hereto).
99.1	Consent to Reference in Registration Statement of Raman K. Chitkara.
99.2	Consent to Reference in Registration Statement of Edward H. Frank.
99.3	Consent to Reference in Registration Statement of Torsten G. Kreindl.
99.4	Consent to Reference in Registration Statement of Katherine E. Schuelke.
99.5	Consent to Reference in Registration Statement of Tom D. Yiu.

† To be filed by amendment.

+ Indicates management contract or compensatory plan.

* Portions of this exhibit have been omitted in accordance with Item 601 of Regulation S-K.

Power of Attorney (see signature page hereto).

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 Santa Clara, State of California, on October 23, 2019.

SITIME CORPORATION

/s/ Rajesh Vashist

Rajesh Vashist Chief Executive Officer

Power of Attorney

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Rajesh Vashist and Arthur D. Chadwick, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place, or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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 and on the dates indicated.

Signature	Title	Date
/s/ Rajesh Vashist Rajesh Vashist	Chief Executive Officer and Director *(Principal Executive Officer)*	October 23, 2019
/s/ Arthur D. Chadwick Arthur D. Chadwick	Executive Vice President, Chief Financial Officer *(Principal Financial and Accounting Officer)*	October 23, 2019
/s/ Akira Takata Akira Takata	Director	October 23, 2019
/s/ Koichi Akeyama Koichi Akeyama	Director	October 23, 2019