GSI TECHNOLOGY INC
Form 10-K
June 01, 2018
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended March 31, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File Number 001-33387

GSI Technology, Inc.

(Exact name of registrant as specified in its charter)

Delaware	77-0398779
(State or other jurisdiction of	(IRS Employer

incorporation or organization) Identification No.)

1213 Elko Drive

Sunnyvale, California 94089

(Address of principal executive offices, zip code)

(408) 331-8800

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on which Registered
Common Stock, $0.001 par value	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

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 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the registrant's voting stock held by non-affiliates of the registrant, based upon the closing sale price of the common stock on September 30, 2017, as reported on the Nasdaq Global Market, was approximately $119.1 million. Shares of the registrant's common stock held by each officer and director and each person who owns 10% or more of the outstanding common stock of the registrant have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes. As of May 29, 2018, there were 21,686,364 shares of the registrant's common stock issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its 2018 annual meeting of stockholders are incorporated by reference into Part III hereof.

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2018 FORM 10-K ANNUAL REPORT

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Forward-looking Statements

In addition to historical information, this Annual Report on Form 10-K includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These forward-looking statements involve risks and uncertainties. Forward-looking statements are identified by words such as "anticipates," "believes," "expects," "intends," "may," "will," and other similar expressions. In addition, any statements which refer to expectations, projections, or other characterizations of future events or circumstances are forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements as a result of a number of factors, including those set forth in this report under "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors," those described elsewhere in this report, and those described in our other reports filed with the Securities and Exchange Commission ("SEC"). We caution you not to place undue reliance on these forward-looking statements, which speak only as of the date of this report, and we undertake no obligation to update these forward-looking statements after the filing of this report. You are urged to review carefully and consider our various disclosures in this report and in our other reports publicly disclosed or filed with the SEC that attempt to advise you of the risks and factors that may affect our business.

PART I

Item 1. Business

Overview

For many years we have developed and marketed high performance memory products, including "Very Fast" static random access memory, or SRAM, and low latency dynamic random access memory, or LLDRAM, that are incorporated primarily in high-performance networking and telecommunications equipment, such as routers, switches, wide area network infrastructure equipment, wireless base stations and network access equipment. We sell these products to leading original equipment manufacturer, or OEM, customers including Nokia and Cisco Systems. In addition, we serve the ongoing needs of the military, industrial, test and measurement equipment, automotive and medical markets for high-performance SRAMs. Based on the performance characteristics of our products and the breadth of our product portfolio, we consider ourselves to be a leading provider of Very Fast SRAMs. We utilize a fabless business model, which allows us both to focus our resources on research and development, product design and marketing, and to gain access to advanced process technologies with only modest capital investment and fixed costs.

On November 23, 2015, we acquired all of the outstanding capital stock of privately held MikaMonu Group Ltd. ("MikaMonu"), an Israel-based company that was engaged in the development of in-place associative computing technology. MikaMonu, located in Tel Aviv, held 12 United States patents and a number of pending patent applications. Subsequent to our acquisition of MikaMonu, our principal strategic objective has been the development of in-place associative computing solutions for applications in evolving new markets such as "big data" (including machine learning and deep convolutional neural networks ("CNNs")), natural language processing, computer vision, and cyber security.

We were incorporated in California in 1995 under the name Giga Semiconductor, Inc. We changed our name to GSI Technology in December 2003 and reincorporated in Delaware in June 2004 under the name GSI Technology, Inc. Our principal executive offices are located at 1213 Elko Drive, Sunnyvale, California, 94089, and our telephone number is (408) 331-8800.

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Industry Background

SRAM, LLDRAM and Bandwidth Engine Market Overview

Virtually all types of high-performance electronic systems incorporate some form of volatile memory. An SRAM is a memory device that retains data as long as power is supplied, without requiring any further user intervention. In contrast, dynamic random access memory, or DRAM, is a memory device that requires user intervention in the form of refresh operations to retain data while power is supplied, due to the capacitive nature of its memory cell. However, a DRAM memory cell is much smaller than an SRAM memory cell, so several times more DRAM bits than SRAM bits can be implemented in any given unit area of silicon. The fundamentally different characteristics of SRAM and DRAM memory cells have resulted in the emergence of markedly different architectures for SRAM-based and DRAM-based memory products, and the two types of memory serve different applications. Classically, SRAM-based products have served high performance requirements while DRAM-based products have been used in cost-optimized applications. Today, SRAM- and DRAM-based products serve both performance and cost-based applications. As the volatile memory market fragments into a variety of specialized products, more meaningful distinctions between volatile memory products can be made.

There is an increasingly broad variety of volatile memory products on the market, characterized by a number of attributes, such as speed, memory capacity, or density, I/O interface and power consumption. There are several different industry measures of speed:

latency, which is the delay between the request for data and the delivery of such data for use and is measured in nanoseconds, or ns, or when used to describe performance of synchronous memory products may be described in terms of numbers of clock cycles required between the load of an address and the delivery of valid data;

random access time, which is the minimum amount of time required between accesses to random locations within the memory array, typically measured in nanoseconds, or ns;

bandwidth, which is the rate at which data can be streamed to or from a device and is often measured in megabits or gigabits per second (Mb/s or Gb/s);

clock frequency, which is the cycle rate of a clock within a synchronous device and is often measured in megahertz or gigahertz (MHz or GHz); and

transaction rate, which is the rate at which new commands can be executed by the memory device, and is often measured in millions or billions of transactions per second (MT/s or BT/s).

Historically, SRAMs have been utilized wherever other lower price-per-bit memory technologies have been inadequate. SRAMs demonstrate lower latency and faster random access times relative to DRAMs and other types of memory technologies, but at a higher price-per-bit. Historically, the volatile memory market has had three price-performance points, DRAM at the low end, Fast SRAM at the high end, and slow SRAM in the middle. Gartner Dataquest divides the SRAM market into segments based on speed. The highest performance segment is comprised of SRAMs that operate at speeds of less than 10 nanoseconds, which we refer to as “Very Fast SRAMs.” Very Fast SRAMs are predominantly utilized in high-performance networking and telecommunications equipment. Over the past two decades, alternative memory technologies have been introduced to address certain applications that formerly used slow SRAMs. For example, new types of DRAM have displaced slow SRAM in applications such as cell phones. However, in the networking memory market a technology vacuum formed between Fast SRAMs on one end

and commodity DRAMs at the other, with no high bandwidth, high transaction rate, moderate capacity, moderate latency, and moderate cost volatile memory product to fill the void. In the past decade, low latency DRAMs, or LLDRAMs, have been developed to fill that void. Like the slow SRAMs that came before them, LLDRAMs have a much higher price-per-bit than commodity DRAMs (in order to deliver higher transaction rates) but demonstrate slower random access times and longer latencies than Fast SRAMs.

The need for increasingly greater capacity, data bandwidth and transaction rates from the various memory technologies continues unabated as the networking market begins to make preparations for Terabit networking in the

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latter half of the current decade. We believe that Fast SRAM and LLDRAM, optimized for networking applications, will continue to play an essential role in enabling continued improvements in network performance.

We believe the key success factors for a networking memory vendor are the ability to offer a broad catalog of high-performance, high-quality and high-reliability networking memory products, to maintain timely availability of prior generations of products for several years after their introductions, and to provide effective logistic and technical support throughout their OEM customers' product development and manufacturing life cycles.

Memory Requirements for "Big Data" Applications

With the vast amount of data currently being generated and the demand for faster processing of that data, processor speeds are continuing to increase. However, existing systems that move data back and forth between the processor and memory are inadequate to address the fast response times required by "big data" applications (including machine learning, CNNs and natural language processing). Faster response times are also needed to meet the demands of developers in such markets as cyber security and computer vision. For example, in the automotive market, advanced driver assistance systems ("ADAS") require a tremendous amount of image processing to be accomplished in real time

The GSI Solution

Continue Leadership in the High Performance Memory Market

We endeavor to address the overall needs of our OEM customers, not only satisfying their immediate requirements for our latest generation, highest performance networking memory, but also providing them with the ongoing long-term support necessary during the entire lives of the systems in which our products are utilized. Accordingly, the key elements of our solution include:

Product Performance Leadership. Through the use of advanced architectures and design methodologies, we have developed high-performance SRAM and LLDRAM products offering superior high speed performance capabilities and low power consumption, while our advanced silicon process technologies allow us to optimize yields, lower manufacturing costs and improve quality.

Product Innovation. We believe that we have established a position as a technology leader in the design and development of Very Fast SRAMs. We are believed to have the industry's highest density RadHard SRAM, the SigmaQuad II+, which is an example of our industry-leading product innovation.

Broad and Readily Available Product Portfolio. We have what we believe is the broadest catalog of Very Fast SRAM products.

Master Die Methodology. Our master die methodology enables multiple product families, and variations thereof, to be manufactured from a single mask set so that we are able to maintain a common pool of wafers that incorporate all available master die, allowing rapid fulfillment of customer orders and reducing costs.

Customer Responsiveness. We work closely with leading networking and telecommunications OEMs, as well as their chip-set suppliers, to anticipate their requirements and to rapidly develop and implement solutions that allow them to meet their specific product performance objectives.

Development of In-Place Associative Computing Products

The in-place associative computing technology that we obtained in the MikaMonu acquisition addresses the bottleneck caused by the inability of memory bus speeds to keep up with increasing processor speeds by changing the concept of computing from serial data processing – where data is moved back and forth from the processor to the memory – to parallel processing computation and search functions being conducted directly in the main processing

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array. This new computing model has the potential to greatly expedite computation and response times in "big data" applications. We believe that our state-of-the-art circuit design expertise will enable the development of high quality associative processors incorporating MikaMonu's patented, in-place associative computing technology and algorithms to create a new category of computing products with substantial target markets and a large new customer base in those markets. We anticipate the release of our initial product based on the MikaMonu IP to be released late in calendar 2018. Our associative computing products will improve system performance, reducing query response times from hours to seconds and at the same time significantly reducing power consumption and reducing system cost.

The GSI Strategy

Our objective is to profitably increase our market share in the markets that we serve, while developing transformative new products utilizing our cutting-edge in-place associative computing technology. Our strategy includes the following key elements:

Continue to Focus on the Networking and Telecommunications Markets. We intend to continue to focus on designing and developing high transaction rate, low latency, high bandwidth and feature-rich memory products targeted primarily at the networking and telecommunications markets.

Complete the Development of Our Initial In-place Associative Computing Product. Our principal strategic objective is the completion of our initial in-place associative computing product. Realization of this goal will require additional development and marketing efforts during the remainder of calendar 2018, with initial product introduction and customer evaluation expected in late fiscal 2019.

Exploit Opportunities to Expand the Market for Our Memory Products. While we develop our high-performance memory products principally for the networking and telecommunications markets, they are often applicable across a wide range of industries and applications. We have experienced growth in product sales for military, industrial, test and measurement, and medical markets and intend to continue penetrating these and other new markets with similar needs for high-performance memory technologies.

Strengthen and Expand Customer Relationships. We are focused on maintaining close relationships with industry leaders to facilitate rapid adoption of our products and to enhance our position as a leading provider of high-performance memory. We work with both our customers and with their non-memory IC suppliers that require high-performance memory support in order to anticipate their future high-performance memory needs and to identify and respond to their immediate requests for currently available products and variants on currently available products.

Continue to Invest in Research and Development to Extend Our Technology Leadership. We believe we have established a position as a technology leader in the design and development of Very Fast SRAMs. Our Very Fast SRAM products most often provide the highest speed available at a given density for a given device configuration. We intend to maintain and advance our technology leadership through continual enhancement of our existing Very Fast SRAM products, particularly our SigmaQuad/SigmaDDR family of low latency, high-bandwidth synchronous SRAMs, while we continue to broaden our product line with the introduction of other new high performance memory

technologies targeted to address the evolving needs of the high performance memory market.

Collaborate with Wafer Foundries to Leverage Leading-edge Process Technologies. We will continue to rely upon advanced complementary metal oxide semiconductor, or CMOS, technologies, the most commonly used process technologies for manufacturing semiconductor devices, from TSMC for SRAM-based products and from Powerchip for DRAM-based products.

Seek New Market Opportunities. We intend to supplement our internal development activities by seeking additional opportunities to acquire other businesses, product lines or technologies, or enter into strategic partnerships, that would complement our current product lines, expand the breadth of our markets, enhance our technical capabilities, or otherwise provide growth opportunities.

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Products

We design, develop and market a broad range of high-performance memory products primarily for the networking and telecommunications markets. We specialize in high performance memory products featuring very high transaction rates, high density, low latency, high bandwidth, fast clock access times and low power consumption. We commit to offering our products for longer periods of time than our competitors, typically seven years or more following their initial introduction. Accordingly, we continue to offer products in a variety of package types that have been discontinued by other suppliers.

We currently offer more than 30 families of SRAMs and one family of LLDRAMs. These basic product configurations are the basis for over 16,000 individual products that incorporate a variety of performance specifications and optional features. Our products can be found in a wide range of networking and telecommunications equipment, including core routers, multi-service access routers, universal gateways, enterprise edge routers, service provider edge routers, optical edge routers, fast Ethernet switches and wireless base stations. We also sell our products to OEMs that manufacture products for military and aerospace applications such as radar and guidance systems and satellites, for professional audio applications such as sound mixing systems, for test and measurement applications such as high-speed testers, for automotive applications such as smart cruise control, and for medical applications such as ultrasound and CAT scan equipment.

We have spent in excess of two years developing and marketing in-place associative computing solutions since our acquisition of MikaMonu in November 2015, leveraging the patented technology obtained in our acquisition of MikaMonu and our 20-plus years of high-performance SRAM development experience. Our new associative computing solutions will address evolving new markets, such as “big data” (including machine learning and CNNs), natural language processing, computer vision and cyber security.

Synchronous SRAM Products

Synchronous SRAMs are controlled by timing signals, referred to as clocks, which make them easier to use than older style asynchronous SRAMs with similar latency characteristics in applications requiring high bandwidth data transfers. Synchronous SRAMs that employ double data rate interface protocols can transfer data at much higher bandwidth than both single data rate and asynchronous SRAMs. We currently supply synchronous SRAMs that can cycle at operating frequencies as high as 1,333 MHz.

BurstRAM™ and NBT™ SRAMs. We currently offer BurstRAMs and No Bus Turnaround, or NBT, SRAMs that implement a single data rate bus protocol. BurstRAMs were originally developed for microprocessor cache applications and have become the most widely used synchronous SRAMs on the market. They are used in applications where large amounts of data are read or written in single sessions, or bursts. NBT SRAMs are a variation on the BurstRAM theme and were developed to address the needs of moderate performance networking applications. NBT SRAMs feature a single data rate bus protocol designed to minimize or eliminate wasted data transfer time slots on the bus when BurstRAMs switch from read to write operations. Both families of products can perform burst data transfers or single cycle transfers at the discretion of the user.

Our BurstRAMs and NBT SRAMs are offered in both pipeline and flow-through modes. Flow-through SRAMs allow the shortest latency. Pipelined SRAMs break the access into discrete clock-controlled steps, allowing new access commands to be accepted while an access is already in progress. Therefore, while flow-through SRAMs offer lower latency, pipelined SRAMs offer greater data bandwidth. Our BurstRAM and NBT SRAM products incorporate a number of features that reduce our OEM customers’ cost of ownership and increase their design flexibility, including a JTAG test port and our FLXDrive feature, which allows system designers to optimize signal integrity for a given application.

We currently offer BurstRAMs and NBT SRAMs with storage densities of up to 288 megabits with clock frequency of up to 400 MHz and clock access times as fast as 2 nanoseconds that operate at 3.3, 2.5 or 1.8 volts.

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SigmaQuad and SigmaDDR Products. High-performance double data rate and quad data rate synchronous SRAMs have become the de facto standard for the networking and telecommunications industry. We offer a full line of quad data rate separate I/O SRAMs, known as our SigmaQuad family, as well as a companion line of double data rate common I/O SRAMs, known as our SigmaDDR family. SigmaQuad SRAMs feature two uni-directional (one input and one output) double data rate data ports (two data ports times double data rate transfers equals quad data rate), controlled via a single address and control port. SigmaDDR SRAMs feature a single bi-directional double data rate data port. We currently offer our SigmaQuad and SigmaDDR devices in multiple bus protocol versions and data burst lengths, and with various power supply and interface voltages, all under the names SigmaQuad, SigmaQuad-II, SigmaQuad-IIIe and SigmaQuad-IVe, and their SigmaDDR equivalents. An additional variant in this family of SRAMs is the SigmaSIO DDR, which is designed to address some segments of the market currently served by dual-port SRAMs.

We currently offer SigmaQuad/SigmaDDR products in five storage densities, 18 megabits, 36 megabits, 72 megabits, 144 megabits and 288 megabits. These SRAMs are capable of speeds up to 1,333 MHz and operate on main power supply voltages that range from 2.5 volts to 1.2 volts and interface voltages that range from 1.8 volts to 1.2 volts.

RadHard and RadTolerant SRAM Products. We have committed to introduce and market radiation-hardened, or "RadHard", and radiation-tolerant, or "RadTolerant", SRAMs for aerospace and military applications such as networking satellites and missiles. Our initial RadHard and RadTolerant products are 288 megabit devices from our SigmaQuad-II family. The RadHard products are housed in a hermetically-sealed ceramic column grid array package, and undergo a special fabrication process that diminishes the adverse effects of high-radiation environments.

Low Latency DRAM Products

Our low latency DRAM family fills an under-served market segment between commodity DRAMs and Fast SRAMs. Offering moderate density, moderate speed and moderate cost, LLDRAM technology gives system designers a middle choice when commodity DRAM performance is insufficient but Fast SRAM performance is unnecessary. LLDRAMs offer one-third the latency of commodity DRAMs and four times the density of Fast SRAMs, giving networking equipment designers another tool for solving difficult data management problems.

Our current LLDRAM portfolio includes both 288 megabit and 576 megabit devices that are capable of speeds of up to 533 MHz, and that operate on a 1.8 volt power supply and support both 1.8 volt and 1.5 volt interfaces. They are available in five distinct configurations including common I/O and separate I/O types and data bus widths of x36, x18 and x9. These devices serve as an alternate source for users of a popular, functionally equivalent device from a competing vendor.

Customers

Historically, our primary sales and marketing strategy has been to achieve design wins with leading OEMs in the networking and telecommunications markets and the other markets we serve. With the development of our new in-place associative computing products, we are focusing sales and marketing efforts in the markets for "big data" (including CNNs), natural language processing, computer vision and cyber security.

The following is a representative list of our OEM customers that directly or indirectly purchased more than $500,000 of our products in the fiscal year ended March 31, 2018:

BAE Systems	Ciena	Cisco Systems
General Dynamics	Honeywell	Lockheed

Nokia Raytheon Rockwell

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Many of our OEM customers use contract manufacturers to assemble their equipment. Accordingly, a significant percentage of our net revenues is derived from sales to these contract manufacturers and to consignment warehouses who purchase products from us for use by contract manufacturers. In addition, we sell our products to OEM customers indirectly through domestic and international distributors.

In the case of sales of our products to distributors and consignment warehouses, the decision to purchase our products is typically made by the OEM customers. In the case of contract manufacturers, OEM customers typically provide a list of approved products to the contract manufacturer, which then has discretion whether or not to purchase our products from that list.

Direct sales to contract manufacturers and consignment warehouses accounted for 34.9%, 39.0% and 37.6% of our net revenues for fiscal 2018, 2017 and 2016, respectively. Sales to foreign and domestic distributors accounted for 62.5%, 57.5% and 50.4% of our net revenues for fiscal 2018, 2017 and 2016, respectively.

The following direct customers accounted for 10% or more of our net revenues in one or more of the following periods:

	Fiscal Year Ended March 31,		
	2018	2017	2016
Contract manufacturers and consignment warehouses:			
Flextronics Technology	14.0 %	10.4 %	13.7 %
Sanmina	16.0	20.4	16.4
Distributors:			
Avnet Logistics	35.3	25.5	28.2
Nexcomm	16.1	19.7	13.3

Nokia was our largest customer in fiscal 2018, 2017 and 2016. Nokia purchases products directly from us and through contract manufacturers and distributors. Based on information provided to us by its contract manufacturers and our distributors, purchases by Nokia represented approximately 36%, 41% and 32% of our net revenues in fiscal 2018, 2017 and 2016, respectively. To our knowledge, none of our other OEM customers accounted for more than 10% of our net revenues in any of these periods.

Sales, Marketing and Technical Support

We sell our products primarily through our worldwide network of independent sales representatives and distributors. As of March 31, 2018, we employed 16 sales and marketing personnel, and were supported by over 200 independent sales representatives, which we believe will enable us to address an expanded customer base with the introduction of our associative computing products in fiscal 2019. We believe that our relationship with our U.S. distributor, Avnet, puts us in a strong position to address the Very Fast SRAM and LLDRAM memory markets in the United States. We currently have regional sales offices located in Canada, China, Hong Kong, Israel and the United States. We believe this international coverage allows us to better serve our distributors and OEM customers by providing them with coordinated support. We believe that our customers' purchasing decisions are based primarily on product performance, availability, features, quality, reliability, price, manufacturing flexibility and service. Many of our OEM customers have had long-term relationships with us based on our success in meeting these criteria.

Our sales are generally made pursuant to purchase orders received between one and six months prior to the scheduled delivery date. Because industry practice allows customers to reschedule or cancel orders on relatively short notice, these orders are not firm and hence we believe that backlog is not a good indicator of our future sales.

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We typically provide a warranty of up to 36 months on our products. Liability for a stated warranty period is usually limited to replacement of defective products.

Our marketing efforts are, first and foremost, focused on ensuring that the products we develop meet or exceed our customers' needs. Historically, those efforts have been focused on defining our high-performance SRAM and LLDRAM product roadmaps by working closely with key customers to understand their roadmaps and to ensure that the products we develop meet their requirements (primary aspects of which include functionality, performance, electrical interfaces, power, and schedule). More recently, our marketing efforts have been expanded to include marketing the new in-place associative computing products that we are developing. Our marketing group also provides technical, strategic and tactical sales support to our direct sales personnel, sales representatives and distributors. This support includes in-depth product presentations, datasheets, application notes, simulation models, sales tools, marketing communications, marketing research, trademark administration and other support functions. We also engage in various marketing activities to increase brand awareness.

We emphasize customer service and technical support in an effort to provide our OEM customers with the knowledge and resources necessary to successfully use our products in their designs. Our customer service organization includes a technical team of applications engineers, technical marketing personnel and, when required, product design engineers. We provide customer support throughout the qualification and sales process and continue providing follow-up service after the sale of our products and on an ongoing basis. In addition, we provide our OEM customers with comprehensive datasheets, application notes and reference designs and access to our FPGA controller IP for use in their product development.

Manufacturing

We outsource our wafer fabrication, assembly and wafer sort testing, which enables us to focus on our design strengths, minimize fixed costs and capital expenditures and gain access to advanced manufacturing technologies. Our engineers work closely with our outsource partners to increase yields, reduce manufacturing costs, and help assure the quality of our products.

Currently, all of our wafers are manufactured by TSMC and Powerchip under individually negotiated purchase orders. We do not currently have a long-term supply contract with either of these foundries, and, therefore, neither of them is obligated to manufacture products for us for any specified period, in any specified quantity or at any specified price, except as may be provided in a particular purchase order. Our future success depends in part on our ability to secure sufficient capacity at TSMC, Powerchip or other independent foundries to supply us with the wafers we require.

The majority of our current SRAM products are manufactured using 0.13 micron, 90 nanometer, 65 nanometer and 40 nanometer process technologies on 300 millimeter wafers at TSMC. Our LLDRAM production at Powerchip uses 72 nanometer and 63 nanometer process technologies. We currently plan to have our new in-place associative computing products manufactured at TSMC using 28 nanometer process technology.

Our master die methodology enables multiple product families, and variations thereof, to be manufactured from a single mask set. As a result, based upon the way available die from a wafer are metalized, wire bonded, packaged and tested, we can create a number of different products. The manufacturing process consists of two phases, the first of which takes approximately eight to twelve weeks and results in wafers that have the potential to yield multiple products within a given product family. After the completion of this phase, the wafers are stored pending customer orders. Once we receive orders for a particular product, we perform the second phase, consisting of final wafer processing, assembly, burn-in and test, which takes approximately four to eight weeks to complete. This two-step manufacturing process enables us to significantly shorten our product lead times, providing flexibility for customization and to increase the availability of our products.

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All of our manufactured wafers are tested for electrical compliance and most are packaged at Advanced Semiconductor Engineering, or ASE, which is located in Taiwan. Our test procedures require that all of our products be subjected to accelerated burn-in and extensive functional electrical testing which is performed at our Taiwan and U.S. test facilities. Our radiation-hardened products will be assembled and tested at STS, located near our Sunnyvale, California headquarters facility.

Research and Development

Research and development expenses were $17.0 million in fiscal 2018, $15.8 million in fiscal 2017 and $12.1 million in fiscal 2016. During the past two fiscal years, we have devoted substantial resources to the development of a new category of in-place associative computing products based on patented technology obtained in our acquisition of MikaMonu in November 2015. Our research and development staff includes engineering professionals with extensive experience in the areas of high-speed circuit design, including SRAM design, DRAM design and systems level networking and telecommunications equipment design, and well suited for the development of our associative computing products. The design process for our products is complex. As a result, we have made substantial investments in computer-aided design and engineering resources to manage our design process.

Competition

Our existing and potential competitors include many large domestic and international companies, some of which have substantially greater resources, offer other types of memory and/or non-memory technologies and may have longer standing relationships with OEM customers than we do. Unlike us, some of our principal competitors maintain their own semiconductor fabs, which may, at times, provide them with capacity, cost and technical advantages.

Our principal competitors include Cypress Semiconductor, Integrated Silicon Solution, Micron and REC for our SRAM and LLDRAM products. NVIDIA Corporation and Intel Corporation are prospective competitors for the in-place associative computing products that we are currently developing. Other competitors are expected to enter this field as well. While some of our competitors offer a broader array of products and offer some of their products at lower prices than we do, we believe that our focus on performance leadership provides us with key competitive advantages.

We believe that our ability to compete successfully in the rapidly evolving markets for “big data” and memory products for the networking and telecommunications markets depends on a number of factors, including:

- product performance, features, quality, reliability and price;
- manufacturing flexibility, product availability and customer service throughout the lifetime of the product;
- the timing and success of new product introductions by us, our customers and our competitors; and
- our ability to anticipate and conform to new industry standards.

We believe we compete favorably with our competitors based on these factors. However, we may not be able to compete successfully in the future with respect to any of these factors. Our failure to compete successfully in these or other areas could harm our business.

The market for networking memory products is competitive and is characterized by technological change, declining average selling prices and product obsolescence. Competition could increase in the future from existing competitors and from other companies that may enter our existing or future markets with solutions that may be less

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costly or provide higher performance or more desirable features than our products. This increased competition may result in price reductions, reduced profit margins and loss of market share.

In addition, we are vulnerable to advances in technology by competitors, including new SRAM architectures as well as new forms of DRAM and other new memory technologies. Because we have limited experience developing IC products other than Very Fast SRAMs and LLDRAMs, any efforts by us to introduce new products based on new technology, including the in-place associative computing products currently under development, may not be successful and, as a result, our business may suffer.

Intellectual Property

Our ability to compete successfully depends, in part, upon our ability to protect our proprietary technology and information. We rely on a combination of patents, copyrights, trademarks, trade secret laws, non-disclosure and other contractual arrangements and technical measures to protect our intellectual property. We believe that it is important to maintain a large patent portfolio to protect our innovations. We currently hold 70 United States patents, including 53 memory patents and 17 associative computing patents, and have in excess of a dozen patent applications pending. We cannot assure you that any patents will be issued as a result of our pending applications. We believe that factors such as the technological and creative skills of our personnel and the success of our ongoing product development efforts are also important in maintaining our competitive position. We generally enter into confidentiality or license agreements with our employees, distributors, customers and potential customers and limit access to our proprietary information. Our intellectual property rights, if challenged, may not be upheld as valid, may not be adequate to prevent misappropriation of our technology or may not prevent the development of competitive products. Additionally, we may not be able to obtain patents or other intellectual property protection in the future. Furthermore, the laws of certain foreign countries in which our products are or may be developed, manufactured or sold, including various countries in Asia, may not protect our products or intellectual property rights to the same extent as do the laws of the United States and thus make the possibility of piracy of our technology and products more likely in these countries.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights, which have resulted in significant and often protracted and expensive litigation. We or our foundry from time to time are notified of claims that we may be infringing patents or other intellectual property rights owned by third parties. We have been involved in patent infringement litigation in the past. We have been subject to other intellectual property claims in the past and we may be subject to additional claims and litigation in the future. Litigation by or against us relating to allegations of patent infringement or other intellectual property matters could result in significant expense to us and divert the efforts of our technical and management personnel, whether or not such litigation results in a determination favorable to us. In the event of an adverse result in any such litigation, we could be required to pay substantial damages, cease the manufacture, use and sale of infringing products, expend significant resources to develop non-infringing technology, discontinue the use of certain processes or obtain licenses to the infringing technology. Licenses may not be offered or the terms of any offered licenses may not be acceptable to us. If we fail to obtain a license from a third party for technology used by us, we could incur substantial liabilities and be required to suspend the manufacture of products or the use by our foundry of certain processes.

Employees

As of March 31, 2018, we had 157 full-time employees, including 98 engineers, of which 68 are engaged in research and development and 51 have PhD or MS degrees, 16 employees in sales and marketing, ten employees in general and administrative capacities and 67 employees in manufacturing. Of these employees, 58 are based in our Sunnyvale facility, 60 are based in our Taiwan facility and 22 are based in our Israel facility. We believe that our future success will depend in large part on our ability to attract and retain highly-skilled, engineering, managerial, sales and

marketing personnel. Our employees are not represented by any collective bargaining unit, and we have never experienced a work stoppage. We believe that our employee relations are good.

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Financial Information about Segments and Geographic Areas

Please see Note 10 of our Notes to Consolidated Financial Statements for information regarding our foreign operations, and see Item 1A Risk Factors for further information on risks attendant to our foreign operations and dependence. We operate all of our business as a single operating segment.

Investor Information

You can access financial and other information in the Investor Relations section of our website at www.gsitechnology.com. We make available, on our website, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC.

The charters of our Audit Committee, our Compensation Committee, and our Nominating and Governance Committee, our code of conduct (including code of ethics provisions that apply to our principal executive officer, principal financial officer, controller, and senior financial officers) and our corporate governance guidelines are also available at our website under “Corporate Governance.” These items are also available to any stockholder who requests them by calling (408) 331-8800. The contents of our website are not incorporated by reference in this report.

The SEC maintains an Internet site that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC at www.sec.gov.

Executive Officers

The following table sets forth certain information concerning our executive officers as of June 1, 2018:

Name	Age	Title
Lee-Lean Shu	63	President, Chief Executive Officer and Chairman
Didier Lasserre	53	Vice President, Sales
Douglas Schirle	63	Chief Financial Officer
Bor-Tay Wu	66	Vice President, Taiwan Operations
Ping Wu	61	Vice President, U.S. Operations
Robert Yau	65	Vice President, Engineering, Secretary and Director

Lee-Lean Shu co-founded our company in March 1995 and has served as our President and Chief Executive Officer and as a member of our Board of Directors since inception. Since October 2000, Mr. Shu has also served as Chairman of our Board. From January 1995 to March 1995, Mr. Shu was Director, SRAM Design at Sony Microelectronics Corporation, a semiconductor company and a subsidiary of Sony Corporation, and from July 1990 to January 1995, he was a design manager at Sony Microelectronics Corporation.

Didier Lasserre has served as our Vice President, Sales since July 2002. From November 1997 to July 2002, Mr. Lasserre served as our Director of Sales for the Western United States and Europe. From July 1996 to October 1997, Mr. Lasserre was an account manager at Solectron Corporation, a provider of electronics manufacturing services. From June 1988 to July 1996, Mr. Lasserre was a field sales engineer at Cypress Semiconductor Corporation, a semiconductor company.

Douglas Schirle has served as our Chief Financial Officer since August 2000. From June 1999 to August 2000, Mr. Schirle served as our Corporate Controller. From March 1997 to June 1999, Mr. Schirle was the Corporate

Controller at Pericom Semiconductor Corporation, a provider of digital and mixed signal integrated

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circuits. From November 1996 to February 1997, Mr. Schirle was Vice President, Finance for Paradigm Technology, a manufacturer of SRAMs, and from December 1993 to October 1996, he was the Controller for Paradigm Technology. Mr. Schirle was formerly a certified public accountant.

Bor-Tay Wu has served as our Vice President, Taiwan Operations since January 1997. From January 1995 to December 1996, Mr. Wu was a design manager at Atalent, an IC design company in Taiwan.

Ping Wu has served as our Vice President, U.S. Operations since September 2006. He served in the same capacity from February 2004 to April 2006. From April 2006 to August 2006, Mr. Wu was Vice President of Operations at QPixel Technology, a semiconductor company. From July 1999 to January 2004, Mr. Wu served as our Director of Operations. From July 1997 to June 1999, Mr. Wu served as Vice President of Operations at Scan Vision, a semiconductor manufacturer.

Robert Yau co-founded our company in March 1995 and has served as our Vice President, Engineering and as a member of our Board of Directors since inception. From December 1993 to February 1995, Mr. Yau was design manager for specialty memory devices at Sony Microelectronics Corporation. From 1990 to 1993, Mr. Yau was design manager at MOSEL/VITELIC, a semiconductor company.

Item 1A. Risk Factors

Our future performance is subject to a variety of risks. If any of the following risks actually occur, our business, financial condition and results of operations could suffer and the trading price of our common stock could decline. Additional risks that we currently do not know about or that we currently believe to be immaterial may also impair our business operations. You should also refer to other information contained in this report, including our consolidated financial statements and related notes.

Unpredictable fluctuations in our operating results could cause our stock price to decline.

Our quarterly and annual revenues, expenses and operating results have varied significantly and are likely to vary in the future. For example, in the twelve fiscal quarters ended March 31, 2018, we recorded net revenues of as much as $14.0 million and as little as $9.6 million and quarterly operating income of as much as $389,000 and, in nine quarters, operating losses, including an operating loss of $1.8 million in the quarter ended September 30, 2017. We therefore believe that period-to-period comparisons of our operating results are not a good indication of our future performance, and you should not rely on them to predict our future performance or the future performance of our stock price. In future periods, we may not have any revenue growth, or our revenues could decline. Furthermore, if our operating expenses exceed our expectations, our financial performance could be adversely affected. Factors that may affect periodic operating results in the future include:

- changes in our customers' inventory management practices;
- unpredictability of the timing and size of customer orders, since most of our customers purchase our products on a purchase order basis rather than pursuant to a long-term contract;
- our ability to anticipate and conform to new industry standards;
- fluctuations in availability and costs associated with materials needed to satisfy customer requirements;
- manufacturing defects, which could cause us to incur significant warranty, support and repair costs, lose potential sales, harm our relationships with customers and result in write-downs;

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changes in our product pricing policies, including those made in response to new product announcements and pricing changes of our competitors; and

our ability to address technology issues as they arise, improve our products' functionality and expand our product offerings.

Our expenses are, to a large extent, fixed, and we expect that these expenses will increase in the future. We will not be able to adjust our spending quickly if our revenues fall short of our expectations. If this were to occur, our operating results would be harmed. If our operating results in future quarters fall below the expectations of market analysts and investors, the price of our common stock could fall.

Our largest OEM customer accounts for a significant percentage of our net revenues. If this customer, or any of our other major customers, reduces the amount they purchase or stop purchasing our products, our operating results will suffer.

Nokia, our largest customer, purchases our products directly from us and through contract manufacturers and distributors. Purchases by Nokia represented approximately 36%, 41% and 32% of our net revenues in fiscal 2018, 2017 and 2016, respectively. We expect that our operating results in any given period will continue to depend significantly on orders from our key OEM customers, particularly Nokia, and our future success is dependent to a large degree on the business success of this customer over which we have no control. We do not have long-term contracts with Nokia or any of our other major OEM customers, distributors or contract manufacturers that obligate them to purchase our products. We expect that future direct and indirect sales to Nokia and our other key OEM customers will continue to fluctuate significantly on a quarterly basis and that such fluctuations may substantially affect our operating results in future periods. If we fail to continue to sell to our key OEM customers, distributors or contract manufacturers in sufficient quantities, our business could be harmed.

We have incurred significant losses in prior periods and may incur losses in the future.

We have incurred significant losses in prior periods. We incurred losses of $4.5 million, $115,000 and $2.2 million during fiscal 2018, 2017 and 2016, respectively. Our operating expenses in fiscal 2016 included substantial expenses related to legal proceedings that resulted in operating losses. Although these proceedings have concluded, there can be no assurance that our Very Fast SRAMs will continue to receive broad market acceptance, that our new product development initiatives will be successful or that we will be able to achieve sustained revenue growth or profitability.

We depend upon the sale of our Very Fast SRAMs for most of our revenues, and a downturn in demand for these products could significantly reduce our revenues and harm our business.

We derive most of our revenues from the sale of Very Fast SRAMs, and we expect that sales of these products will represent the substantial majority of our revenues for the foreseeable future. Our business depends in large part upon continued demand for our products in the markets we currently serve, and adoption of our products in new markets. Market adoption will be dependent upon our ability to increase customer awareness of the benefits of our products and to prove their high-performance and cost-effectiveness. We may not be able to sustain or increase our revenues from sales of our products, particularly if the networking and telecommunications markets were to experience another significant downturn in the future. Any decrease in revenues from sales of our products could harm our business more than it would if we offered a more diversified line of products.

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If we do not successfully develop new products to respond to rapid market changes due to changing technology and evolving industry standards, particularly in the networking and telecommunications markets, our business will be harmed.

If we fail to offer technologically advanced products and respond to technological advances and emerging standards, we may not generate sufficient revenues to offset our development costs and other expenses, which will hurt our business. The development of new or enhanced products is a complex and uncertain process that requires the accurate anticipation of technological and market trends. In particular, the networking and telecommunications markets are rapidly evolving and new standards are emerging. We are vulnerable to advances in technology by competitors, including new SRAM architectures, new forms of DRAM and the emergence of new memory technologies that could enable the development of products that feature higher performance or lower cost. We may experience development, marketing and other technological difficulties that may delay or limit our ability to respond to technological changes, evolving industry standards, competitive developments or end-user requirements. For example, because we have limited experience developing integrated circuits, or IC, products other than Very Fast SRAMs and LLDRAMs, our efforts to introduce new products may not be successful and our business may suffer. Other challenges that we face include:

our products may become obsolete upon the introduction of alternative technologies;

we may incur substantial costs if we need to modify our products to respond to these alternative technologies;

we may not have sufficient resources to develop or acquire new technologies or to introduce new products capable of competing with future technologies;

new products that we develop may not successfully integrate with our end-users' products into which they are incorporated;

we may be unable to develop new products that incorporate emerging industry standards;

we may be unable to develop or acquire the rights to use the intellectual property necessary to implement new technologies; and

when introducing new or enhanced products, we may be unable to manage effectively the transition from older products.

Our future success is substantially dependent on the successful development of new in-place associative computing products which entails significant risks.

Since our acquisition of MikaMonu in November 2015, our principal strategic objective has been the development of a new category of in-place associative computing products based on patented technology that we acquired in the acquisition. We have devoted, and are continuing to devote, substantial efforts and resources to this development effort. This ongoing project involves the commercialization of new, cutting-edge technology, may require a substantial effort during fiscal 2019 and will be subject to significant risks. In addition to the typical risks associated with the development of technologically advanced products (as outlined in the previous paragraph), this project will be subject to enhanced risks of technological problems related to the development of an entirely new category of products, substantial risks of delays or unanticipated costs that may be encountered and risks associated with the establishment of entirely new markets and customer relationships. Our inability to successfully conclude this major development effort and establish a market for the products we hope to develop would have a material adverse effect on our future financial and business success, including our prospects for increased revenues.

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Additionally, if we are unable to meet the expectations of market analysts and investors with respect to this major development effort, then the price of our common stock could fall.

We are subject to the highly cyclical nature of the networking and telecommunications markets.

Our products are incorporated into routers, switches, wireless local area network infrastructure equipment, wireless base stations and network access equipment used in the highly cyclical networking and telecommunications markets. We expect that the networking and telecommunications markets will continue to be highly cyclical, characterized by periods of rapid growth and contraction. Our business and our operating results are likely to fluctuate, perhaps quite severely, as a result of this cyclicality.

The market for Very Fast SRAMs is highly competitive.

The market for Very Fast SRAMs, which are used primarily in networking and telecommunications equipment, is characterized by price erosion, rapid technological change, cyclical market patterns and intense foreign and domestic competition. Several of our competitors offer a broad array of memory products and have greater financial, technical, marketing, distribution and other resources than we have. Some of our competitors maintain their own semiconductor fabrication facilities, which may provide them with capacity, cost and technical advantages over us. We cannot assure you that we will be able to compete successfully against any of these competitors. Our ability to compete successfully in this market depends on factors both within and outside of our control, including:

- real or perceived imbalances in supply and demand of Very Fast SRAMs;
- the rate at which OEMs incorporate our products into their systems;
- the success of our customers' products;
- our ability to develop and market new products; and
- the supply and cost of wafers.

In addition, we are vulnerable to advances in technology by competitors, including new SRAM architectures and new forms of DRAM, or the emergence of new memory technologies that could enable the development of products that feature higher performance, lower cost or lower power capabilities. Additionally, the trend toward incorporating SRAM into other chips in the networking and telecommunications markets has the potential to reduce future demand for Very Fast SRAM products. There can be no assurance that we will be able to compete successfully in the future. Our failure to compete successfully in these or other areas could harm our business.

The average selling prices of our products are expected to decline, and if we are unable to offset these declines, our operating results will suffer.

Historically, the average unit selling prices of our products have declined substantially over the lives of the products, and we expect this trend to continue. A reduction in overall average selling prices of our products could result in reduced revenues and lower gross margins. Our ability to increase our net revenues and maintain our gross margins despite a decline in the average selling prices of our products will depend on a variety of factors, including our ability to introduce lower cost versions of our existing products, increase unit sales volumes of these products, and introduce new products with higher prices and greater margins. If we fail to accomplish any of these objectives, our business will suffer. To reduce our costs, we may be required to implement design changes that lower our manufacturing costs, negotiate reduced purchase prices from our independent foundries and our independent assembly and test vendors, and

successfully manage our manufacturing and subcontractor relationships. Because we

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do not operate our own wafer foundry or assembly facilities, we may not be able to reduce our costs as rapidly as companies that operate their own foundries or facilities.

Global economic and market conditions may adversely affect our business, financial condition and results of operations.

We sell our products to end customers both in the United States and internationally. We also rely heavily on our suppliers in Asia. We are therefore susceptible to adverse domestic and international economic and market conditions. In recent years, turmoil in global financial markets and economic conditions has impacted credit availability, consumer spending and capital expenditures, including expenditures for networking and telecommunications equipment. Weakness in global networking and telecommunications markets, particularly in Asia, has continued to adversely impact our revenues in recent quarters. Slowness in economic growth, domestically and in our key markets, uncertainty regarding macroeconomic trends, and volatility in financial markets may continue to adversely affect our business, financial condition and results of operations over coming quarters.

We are dependent on a number of single source suppliers, and if we fail to obtain adequate supplies, our business will be harmed and our prospects for growth will be curtailed.

We currently purchase several key components used in the manufacture of our products from single sources and are dependent upon supply from these sources to meet our needs. If any of these suppliers cannot provide components on a timely basis, at the same price or at all, our ability to manufacture our products will be constrained and our business will suffer. Most significantly, we obtain wafers for our Very Fast SRAM products from a single foundry, TSMC, and most of them are packaged at ASE. Wafers for our LLDRAM products are obtained exclusively from Powerchip. If we are unable to obtain an adequate supply of wafers from TSMC or Powerchip or find alternative sources in a timely manner, we will be unable to fulfill our customer orders and our operating results will be harmed. We do not have supply agreements with TSMC, Powerchip, ASE or any of our other independent assembly and test suppliers, and instead obtain manufacturing services and products from these suppliers on a purchase-order basis. Our suppliers, including TSMC and Powerchip, have no obligation to supply products or services to us for any specific product, in any specific quantity, at any specific price or for any specific time period. As a result, the loss or failure to perform by any of these suppliers could adversely affect our business and operating results.

Should any of our single source suppliers experience manufacturing failures or yield shortfalls, be disrupted by natural disaster or political instability, choose to prioritize capacity or inventory for other uses or reduce or eliminate deliveries to us for any other reason, we likely will not be able to enforce fulfillment of any delivery commitments and we would have to identify and qualify acceptable replacements from alternative sources of supply. In particular, if TSMC is unable to supply us with sufficient quantities of wafers to meet all of our requirements, we would have to allocate our products among our customers, which would constrain our growth and might cause some of them to seek alternative sources of supply. Since the manufacturing of wafers and other components is extremely complex, the process of qualifying new foundries and suppliers is a lengthy process and there is no assurance that we would be able to find and qualify another supplier without materially adversely affecting our business, financial condition and results of operations.

Because we outsource our wafer manufacturing and independent wafer foundry capacity is limited, we may be required to enter into costly long-term supply arrangements to secure foundry capacity.

We do not have long-term supply agreements with TSMC or Powerchip, but instead obtain our wafers on a purchase order basis. In order to secure future wafer supply from TSMC or Powerchip or from other independent foundries, we may be required to enter into various arrangements with them, which could include:

contracts that commit us to purchase specified quantities of wafers over extended periods;

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- investments in and joint ventures with the foundries; or

- non-refundable deposits with or prepayments or loans to foundries in exchange for capacity commitments.

We may not be able to make any of these arrangements in a timely fashion or at all, and these arrangements, if any, may not be on terms favorable to us. Moreover, even if we are able to secure independent foundry capacity, we may be obligated to use all of that capacity or incur penalties. These penalties may be expensive and could harm our financial results.

If we are unable to offset increased wafer fabrication costs by increasing the average selling prices of our products, our gross margins will suffer.

If there is a significant upturn in the networking and telecommunications markets that results in increased demand for our products and competing products, the available supply of wafers may be limited. As a result, we could be required to obtain additional manufacturing capacity in order to meet increased demand. Securing additional manufacturing capacity may cause our wafer fabrication costs to increase. If we are unable to offset these increased costs by increasing the average selling prices of our products, our gross margins will decline.

We rely heavily on distributors and our success depends on our ability to develop and manage our indirect distribution channels.

A significant percentage of our sales are made to distributors and to contract manufacturers who incorporate our products into end products for OEMs. For example, in fiscal 2018, 2017 and 2016, our largest distributor Avnet Logistics accounted for 35.3%, 25.5% and 28.2%, respectively, of our net revenues. Avnet Logistics and our other existing distributors may choose to devote greater resources to marketing and supporting the products of other companies. Since we sell through multiple channels and distribution networks, we may have to resolve potential conflicts between these channels. For example, these conflicts may result from the different discount levels offered by multiple channel distributors to their customers or, potentially, from our direct sales force targeting the same equipment manufacturer accounts as our indirect channel distributors. These conflicts may harm our business or reputation.

We may be unable to accurately predict future sales through our distributors, which could harm our ability to efficiently manage our resources to match market demand.

Our financial results, quarterly product sales, trends and comparisons are affected by fluctuations in the buying patterns of the OEMs that purchase our products from our distributors. While we attempt to assist our distributors in maintaining targeted stocking levels of our products, we may not consistently be accurate or successful. This process involves the exercise of judgment and use of assumptions as to future uncertainties, including end user demand. Inventory levels of our products held by our distributors may exceed or fall below the levels we consider desirable on a going-forward basis. This could result in distributors returning unsold inventory to us, or in us not having sufficient inventory to meet the demand for our products. If we are not able to accurately predict sales through our distributors or effectively manage our relationships with our distributors, our business and financial results will suffer.

A small number of customers generally account for a significant portion of our accounts receivable in any period, and if any one of them fails to pay us, our financial position and operating results will suffer.

At March 31, 2018, four customers accounted for 26%, 25%, 21% and 13% of our accounts receivable, respectively. If any of these customers do not pay us, our financial position and operating results will be harmed. Generally, we do not require collateral from our customers.

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Our acquisition of companies or technologies could prove difficult to integrate, disrupt our business, dilute stockholder value and adversely affect our operating results.

In November 2015, we acquired all of the outstanding capital stock of privately held MikaMonu Group Ltd., a development-stage, Israel-based company that specializes in in-place associative computing for markets including big data, computer vision and cyber security. We also acquired substantially all of the assets related to the SRAM memory device product line of Sony Corporation in 2009. We intend to supplement our internal development activities by seeking opportunities to make additional acquisitions or investments in companies, assets or technologies that we believe are complementary or strategic. Other than the MikaMonu and Sony acquisitions, we have not made any such acquisitions or investments, and therefore our experience as an organization in making such acquisitions and investments is limited. In connection with the MikaMonu acquisition, we are subject to risks related to potential problems, delays or unanticipated costs that may be encountered in the development of products based on the MikaMonu technology and the establishment of new markets and customer relationships for the potential new products. In addition, in connection with any future acquisitions or investments we may make, we face numerous other risks, including:

- difficulties in integrating operations, technologies, products and personnel;
- diversion of financial and managerial resources from existing operations;
- risk of overpaying for or misjudging the strategic fit of an acquired company, asset or technology;
- problems or liabilities stemming from defects of an acquired product or intellectual property litigation that may result from offering the acquired product in our markets;
- challenges in retaining key employees to maximize the value of the acquisition or investment;
- inability to generate sufficient return on investment;
- incurrence of significant one-time write-offs; and
- delays in customer purchases due to uncertainty.

If we proceed with additional acquisitions or investments, we may be required to use a considerable amount of our cash, or to finance the transaction through debt or equity securities offerings, which may decrease our financial liquidity or dilute our stockholders and affect the market price of our stock. As a result, if we fail to properly evaluate and execute acquisitions or investments, our business and prospects may be harmed.

Claims that we infringe third party intellectual property rights could seriously harm our business and require us to incur significant costs.

In recent years, there has been significant litigation in the semiconductor industry involving patents and other intellectual property rights. We have recently been involved in protracted patent infringement litigation, and we could become subject to additional claims or litigation in the future as a result of allegations that we infringe others' intellectual property rights or that our use of intellectual property otherwise violates the law. Claims that our products infringe the proprietary rights of others would force us to defend ourselves and possibly our customers, distributors or manufacturers against the alleged infringement. Any such litigation regarding intellectual property could result in substantial costs and diversion of resources and could have a material adverse effect on our business, financial condition and results of operations. Similarly, changing our products or processes to avoid infringing the

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rights of others may be costly or impractical. If any claims received in the future were to be upheld, the consequences to us could require us to:

- stop selling our products that incorporate the challenged intellectual property;
- obtain a license to sell or use the relevant technology, which license may not be available on reasonable terms or at all;
- pay damages; or
- redesign those products that use the disputed technology.

Although patent disputes in the semiconductor industry have often been settled through cross-licensing arrangements, we may not be able, in any or every instance, to settle an alleged patent infringement claim through a cross-licensing arrangement in part because we have a more limited patent portfolio than many of our competitors. If a successful claim is made against us or any of our customers and a license is not made available to us on commercially reasonable terms or we are required to pay substantial damages or awards, our business, financial condition and results of operations would be materially adversely affected.

Our business will suffer if we are unable to protect our intellectual property.

Our success and ability to compete depends in large part upon protecting our proprietary technology. We rely on a combination of patent, trade secret, copyright and trademark laws and non-disclosure and other contractual agreements to protect our proprietary rights. These agreements and measures may not be sufficient to protect our technology from third-party infringement. Monitoring unauthorized use of our intellectual property is difficult and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. Our attempts to enforce our intellectual property rights could be time consuming and costly. We were recently involved in litigation to enforce our intellectual property rights and to protect our trade secrets. Additional litigation of this type may be necessary in the future. Any such litigation could result in substantial costs and diversion of resources. If competitors are able to use our technology without our approval or compensation, our ability to compete effectively could be harmed.

System security risks, data protection, cyber-attacks and systems integration issues could disrupt our internal operations or the operations of our business partners, and any such disruption could harm our reputation or cause a reduction in our expected revenue, increase our expenses, negatively impact our results of operation or otherwise adversely affect our stock price.

Security breaches, computer malware and cyber-attacks have become more prevalent and sophisticated in recent years. Experienced computer programmers and hackers may be able to penetrate our network security or the network security of our business partners, and misappropriate or compromise our confidential and proprietary information, create system disruptions or cause shutdowns. The costs to us to eliminate or alleviate cyber or other security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in interruptions and delays that may impede our sales, manufacturing, distribution or other critical functions.

We manage and store various proprietary information and sensitive or confidential data relating to our business on the cloud. Breaches of our security measures or the accidental loss, inadvertent disclosure or unapproved dissemination of proprietary information or confidential data about us, including the potential loss or disclosure of such information or

data as a result of fraud, trickery or other forms of deception, could expose us to a risk of loss or misuse of this information, result in litigation and potential liability for us, damage our reputation or

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otherwise harm our business. In addition, the cost and operational consequences of implementing further data protection measures could be significant.

Portions of our IT infrastructure also may experience interruptions, delays or cessations of service or produce errors in connection with systems integration or migration work that takes place from time to time. We may not be successful in implementing new systems and transitioning data, which could cause business disruptions and be more expensive, time consuming, disruptive and resource-intensive than originally anticipated. Such disruptions could adversely impact our ability to fulfill orders and interrupt other processes and could adversely affect our financial results, stock price and reputation.

We may experience difficulties in transitioning to smaller geometry process technologies and other more advanced manufacturing process technologies, which may result in reduced manufacturing yields, delays in product deliveries and increased expenses.

In order to remain competitive, we expect to continue to transition the manufacture of our products to smaller geometry process technologies. This transition will require us to migrate to new manufacturing processes for our products and redesign certain products. The manufacture and design of our products is complex, and we may experience difficulty in transitioning to smaller geometry process technologies or new manufacturing processes. These difficulties could result in reduced manufacturing yields, delays in product deliveries and increased expenses. We are dependent on our relationships with TSMC and Powerchip to transition successfully to smaller geometry process technologies and to more advanced manufacturing processes. We cannot assure you that TSMC or Powerchip will be able to effectively manage the transition or that we will be able to maintain our relationship with them. If we or TSMC or Powerchip experience significant delays in this transition or fail to implement these transitions, our business, financial condition and results of operations could be materially and adversely affected.

Manufacturing process technologies are subject to rapid change and require significant expenditures for research and development.

We continuously evaluate the benefits of migrating to smaller geometry process technologies in order to improve performance and reduce costs. Historically, these migrations to new manufacturing processes have resulted in significant initial design and development costs associated with pre-production mask sets for the manufacture of new products with smaller geometry process technologies. For example, in fiscal 2014, we incurred $809,000 and $648,000, respectively, in research and development expense associated with pre-production mask sets which were not later used in production as part of the transition to our new 40 nanometer SRAM process technology and 63 nanometer DRAM process technology. We will incur similar expenses in the future as we continue to transition our products to smaller geometry processes. The costs inherent in the transition to new manufacturing process technologies will adversely affect our operating results and our gross margin.

Our products are complex to design and manufacture and could contain defects, which could reduce revenues or result in claims against us.

We develop complex products. Despite testing by us and our OEM customers, design or manufacturing errors may be found in existing or new products. These defects could result in a delay in recognition or loss of revenues, loss of market share or failure to achieve market acceptance. These defects may also cause us to incur significant warranty, support and repair costs, divert the attention of our engineering personnel from our product development efforts, result in a loss of market acceptance of our products and harm our relationships with our OEM customers. Our OEM customers could also seek and obtain damages from us for their losses. A product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly to defend.

Defects in wafers and other components used in our products and arising from the manufacturing of these products may not be fully recoverable from TSMC or our other suppliers. For example, in the quarter ended December 31, 2005, we incurred a charge of approximately $900,000 related to the write-off of inventory resulting

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from an error in the assembly process at one of our suppliers. This write-off adversely affected our operating results for fiscal 2006.

Demand for our products may decrease if our OEM customers experience difficulty manufacturing, marketing or selling their products.

Our products are used as components in our OEM customers' products, including routers, switches and other networking and telecommunications products. Accordingly, demand for our products is subject to factors affecting the ability of our OEM customers to successfully introduce and market their products, including:

- capital spending by telecommunication and network service providers and other end-users who purchase our OEM customers' products;
- the competition our OEM customers face, particularly in the networking and telecommunications industries;
- the technical, manufacturing, sales and marketing and management capabilities of our OEM customers;
- the financial and other resources of our OEM customers; and
- the inability of our OEM customers to sell their products if they infringe third-party intellectual property rights.

As a result, if OEM customers reduce their purchases of our products, our business will suffer.

Our products have lengthy sales cycles that make it difficult to plan our expenses and forecast results.

Our products are generally incorporated in our OEM customers' products at the design stage. However, their decisions to use our products often require significant expenditures by us without any assurance of success, and often precede volume sales, if any, by a year or more. If an OEM customer decides at the design stage not to incorporate our products into their products, we will not have another opportunity for a design win with respect to that customer's product for many months or years, if at all. Our sales cycle can take up to 24 months to complete, and because of this lengthy sales cycle, we may experience a delay between increasing expenses for research and development and our sales and marketing efforts and the generation of volume production revenues, if any, from these expenditures. Moreover, the value of any design win will largely depend on the commercial success of our OEM customers' products. There can be no assurance that we will continue to achieve design wins or that any design win will result in future revenues.

Any significant order cancellations or order deferrals could adversely affect our operating results.

We typically sell products pursuant to purchase orders that customers can generally cancel or defer on short notice without incurring a significant penalty. Any significant cancellations or deferrals in the future could materially and adversely affect our business, financial condition and results of operations. Cancellations or deferrals could cause us to hold excess inventory, which could reduce our profit margins, increase product obsolescence and restrict our ability to fund our operations. We generally recognize revenue upon shipment of products to a customer. If a customer refuses to accept shipped products or does not pay for these products, we could miss future revenue projections or incur significant charges against our income, which could materially and adversely affect our operating results.

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If our business grows, such growth may place a significant strain on our management and operations and, as a result, our business may suffer.

We are endeavoring to expand our business, and any growth that we are successful in achieving could place a significant strain on our management systems, infrastructure and other resources. To manage the potential growth of our operations and resulting increases in the number of our personnel, we will need to invest the necessary capital to continue to improve our operational, financial and management controls and our reporting systems and procedures. Our controls, systems and procedures may prove to be inadequate should we experience significant growth. In addition, we may not have sufficient administrative staff to support our operations. For example, we currently have only five employees in our finance department in the United States, including our Chief Financial Officer. Furthermore, our officers have limited experience in managing large or rapidly growing businesses. If our management fails to respond effectively to changes in our business, our business may suffer.

We are substantially dependent on the continued services and performance of our senior management and other key personnel.

Our future success is substantially dependent on the continued services and continuing contributions of our senior management who must work together effectively in order to design our products, expand our business, increase our revenues and improve our operating results. Members of our senior management team have long-standing and important relationships with our key customers and suppliers. The loss of services of Lee-Lean Shu, our President and Chief Executive Officer, Robert Yau, our Vice President of Engineering, Dr. Avidan Akerib, our Vice President of Associative Computing, any other executive officer or other key employee could significantly delay or prevent the achievement of our development and strategic objectives. We do not have employment contracts with, nor maintain key person insurance on, any of our executive officers or other key employees.

If we are unable to recruit or retain qualified personnel, our business and product development efforts could be harmed.

We must continue to identify, recruit, hire, train, retain and motivate highly skilled technical, managerial, sales and marketing and administrative personnel. Competition for these individuals is intense, and we may not be able to successfully recruit, assimilate or retain sufficiently qualified personnel. We may encounter difficulties in recruiting and retaining a sufficient number of qualified engineers, which could harm our ability to develop new products and adversely impact our relationships with existing and future end-users at a critical stage of development. The failure to recruit and retain necessary technical, managerial, sales, marketing and administrative personnel could harm our business and our ability to obtain new OEM customers and develop new products.

Our international business exposes us to additional risks.

Products shipped to destinations outside of the United States accounted for 51.5%, 59.1% and 60.3% of our net revenues in fiscal 2018, 2017 and 2016, respectively. Moreover, a substantial portion of our products is manufactured and tested in Taiwan, and the software development for our associative computing products occurs in Israel. We intend to continue expanding our international business in the future. Conducting business outside of the United States subjects us to additional risks and challenges, including:

- heightened price sensitivity from customers in emerging markets;

- compliance with a wide variety of foreign laws and regulations and unexpected changes in these laws and regulations;

uncertainties regarding taxes, tariffs, quotas, export controls and license requirements, trade wars, policies that favor domestic companies over nondomestic companies, including government efforts to provide for the development and growth of local competitors, and other trade barriers;

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potential political and economic instability in, or foreign conflicts that involve or affect, the countries in which we, our customers and our suppliers are located;

difficulties in collecting accounts receivable and longer accounts receivable payment cycles;

difficulties and costs of staffing and managing personnel, distributors and representatives across different geographic areas and cultures, including assuring compliance with the U. S. Foreign Corrupt Practices Act and other U. S. and foreign anti-corruption laws;

limited protection for intellectual property rights in some countries; and

fluctuations in freight rates and transportation disruptions.

Moreover, our reporting currency is the U.S. dollar. However, a portion of our cost of revenues and our operating expenses is denominated in currencies other than the U.S. dollar, primarily the New Taiwanese dollar. As a result, appreciation or depreciation of other currencies in relation to the U.S. dollar could result in transaction gains or losses that could impact our operating results. We do not currently engage in currency hedging activities to reduce the risk of financial exposure from fluctuations in foreign exchange rates.

The United States could withdraw from or materially modify certain international trade agreements, or change tax provisions related to the global manufacturing and sales of our products.

A portion of our business activities are conducted in foreign countries, including Taiwan and Israel. Our business benefits from free trade agreements, and we also rely on various U.S. corporate tax provisions related to international commerce as we develop, manufacture, market and sell our products globally. The current U.S. administration has made comments suggesting that it is not supportive of certain existing international trade agreements. At this time, it remains unclear what the current U.S. administration will do with respect to these international trade agreements and U.S. tax provisions related to international commerce. Any action to withdraw from or materially modify international trade agreements, or change corporate tax policy related to international commerce, could adversely affect our business, financial condition and results of operations.

U.S. federal income tax reform could adversely affect us.

On December 22, 2017, the “Tax Cuts and Jobs Act” (“H.R. 1”) was signed into law, significantly impacting several sections of the Internal Revenue Code. Following the enactment of the H.R. 1, the SEC staff issued SAB 118, which provides guidance on accounting for the tax effects of the Tax Act. Staff Accounting Bulletin No. 118 (“SAB 118”) provides a measurement period that should not extend beyond one year from the H.R. 1 enactment date for companies to complete the accounting under ASC 740. In accordance with SAB 118, we must reflect the income tax effects of those aspects of H.R. 1 for which the accounting under ASC 740 is complete. To the extent that our accounting for certain income tax effects of the Tax Act is incomplete but we are able to determine a reasonable estimate, we must record a provisional estimate in the financial statements. If we cannot determine a provisional estimate to be included in the financial statements, we should continue to apply ASC 740 on the basis of the provisions of the tax law that were in effect immediately before the enactment of the H.R 1.

This new law includes significant changes to the U.S. corporate income tax system, including a permanent reduction in the corporate income tax rate from 35% to 21%, limitations on the deductibility of interest expense and executive compensation and the transition of U.S. international taxation from a worldwide tax system to a territorial tax system. We are continuing to examine the impact that H.R. 1 may have on our business. We re-measured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future. The

re-measurement of our deferred tax balance of $1.1 million was offset by application of our valuation allowance. We have calculated our best estimate of the impact of H.R. 1 in the year end income tax provision, including the impact of the one-time transition tax, in accordance with our understanding of H.R. 1 and guidance available as of the date

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of this filing and have recorded a tax expense of $367,000 related to the transition tax. As we complete the analysis of H.R. 1, collect and prepare necessary data, and interpret any additional guidance, we may make adjustments to our initial assessment. Pursuant to SAB 118, adjustments to the provisional amounts recorded by us as of March 31, 2018 that are identified within a subsequent measurement period of up to one year from the enactment date will be included as an adjustment to tax expense from continuing operations in the period the amounts are determined.

In addition, we recorded a deferred tax benefit related to a valuation allowance release of $101,000 as a result of provisions in the new legislation related to indefinite lived net operating loss carryovers and the refundability of minimum tax credit carryovers. Finally, we currently estimate that we will not have a liability for taxes currently payable at March 31, 2018 that is a result of H.R. 1.

This original estimate may be materially impacted by a number of additional considerations, including but not limited to the issuance of the final regulations and our ongoing analysis of the new law.

H.R. 1 subjects a U.S. shareholder to tax on global intangible low-taxed income (GILTI) earned by certain foreign subsidiaries. The FASB Staff Q&A, Topic 740, No. 5, Accounting for Global Intangible Low-Taxed Income, states that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or provide for the tax expense related to GILTI in the year the tax is incurred. Given the complexity of the GILTI provisions, we are still evaluating the effects of the GILTI provisions and have not yet determined our accounting policy. At March 31, 2018, because we are still evaluating the GILTI provisions and our analysis of future taxable income that is subject to GILTI, we are unable to make a reasonable estimate and have not reflected any adjustments related to GILTI in our financial statements.

TSMC and Powerchip, as well as our other independent suppliers and many of our OEM customers, have operations in the Pacific Rim, an area subject to significant earthquake risk and adverse consequences related to the potential outbreak of contagious diseases such as the H1N1 Flu.

The foundries that manufacture our Fast SRAM and LLDRAM products, TSMC and Powerchip, and all of the principal independent suppliers that assemble and test our products are located in Taiwan. Many of our customers are also located in the Pacific Rim. The risk of an earthquake in these Pacific Rim locations is significant. The occurrence of an earthquake or other natural disaster near the fabrication facilities of TSMC or our other independent suppliers could result in damage, power outages and other disruptions that impair their production and assembly capacity. Any disruption resulting from such events could cause significant delays in the production or shipment of our products until we are able to shift our manufacturing, assembling, packaging or production testing from the affected contractor to another third-party vendor. In such an event, we may not be able to obtain alternate foundry capacity on favorable terms, or at all.

If there were to be another outbreak of a contagious disease, such as SARS or the H1N1 Flu, that significantly affected the Asia-Pacific region, the operations of our key suppliers could be disrupted. In addition, our business could be harmed if such an outbreak resulted in travel being restricted, or if it adversely affected the operations of our suppliers or our OEM customers or the demand for our products or our OEM customers' products.

Changes in Taiwan's political, social and economic environment may affect our business performance.

Because much of the manufacturing and testing of our products is conducted in Taiwan, our business performance may be affected by changes in Taiwan's political, social and economic environment. For example, any political instability resulting from the relationship among the United States, Taiwan and the People's Republic of China could damage our business. Moreover, the role of the Taiwanese government in the Taiwanese economy is significant. Taiwanese policies toward economic liberalization, and laws and policies affecting technology companies, foreign

investment, currency exchange rates, taxes and other matters could change, resulting in greater restrictions on our ability and our suppliers' ability to do business and operate facilities in Taiwan. If any of these changes were to occur, our business could be harmed and our stock price could decline.

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We may need to raise additional capital in the future, which may not be available on favorable terms or at all, and which may cause dilution to existing stockholders.

We may need to seek additional funding in the future. We do not know if we will be able to obtain additional financing on favorable terms, if at all. If we cannot raise funds on acceptable terms, if and when needed, we may not be able to develop or enhance our products, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements, and we may be required to reduce operating costs, which could seriously harm our business. In addition, if we issue equity securities, our stockholders may experience dilution or the new equity securities may have rights, preferences or privileges senior to those of our common stock.

Some of our products are incorporated into advanced military electronics, and changes in international geopolitical circumstances and domestic budget considerations may hurt our business.

Some of our products are incorporated into advanced military electronics such as radar and guidance systems. Military expenditures and appropriations for such purchases rose significantly in recent years. However, if current U.S. military operations around the world are scaled back, demand for our products for use in military applications may decrease, and our operating results could suffer. Domestic budget considerations may also adversely affect our operating results. For example, if governmental appropriations for military purchases of electronic devices that include our products are reduced, our revenues will likely decline.

Our operations involve the use of hazardous and toxic materials, and we must comply with environmental laws and regulations, which can be expensive, and may affect our business and operating results.

We are subject to federal, state and local regulations relating to the use, handling, storage, disposal and human exposure to hazardous and toxic materials. If we were to violate or become liable under environmental laws in the future as a result of our inability to obtain permits, human error, accident, equipment failure or other causes, we could be subject to fines, costs, or civil or criminal sanctions, face property damage or personal injury claims or be required to incur substantial investigation or remediation costs, which could be material, or experience disruptions in our operations, any of which could have a material adverse effect on our business. In addition, environmental laws could become more stringent over time imposing greater compliance costs and increasing risks and penalties associated with violations, which could harm our business.

We face increasing complexity in our product design as we adjust to new and future requirements relating to the material composition of our products, including the restrictions on lead and other hazardous substances that apply to specified electronic products put on the market in the European Union, China and California. Other countries, including at the federal and state levels in the United States, are also considering similar laws and regulations. Certain electronic products that we maintain in inventory may be rendered obsolete if they are not in compliance with such laws and regulations, which could negatively impact our ability to generate revenue from those products. Although we cannot predict the ultimate impact of any such new laws and regulations, they will likely result in additional costs, or in the worst case decreased revenue, and could even require that we redesign or change how we manufacture our products. Such redesigns result in additional costs and possible delayed or lost revenue.

The trading price of our common stock is subject to fluctuation and is likely to be volatile.

The trading price of our common stock may fluctuate significantly in response to a number of factors, some of which are beyond our control, including:

actual or anticipated declines in operating results;

changes in financial estimates or recommendations by securities analysts;

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the institution of legal proceedings against us or significant developments in such proceedings;

announcements by us or our competitors of financial results, new products, significant technological innovations, contracts, acquisitions, strategic relationships, joint ventures, capital commitments or other events;

changes in industry estimates of demand for Very Fast SRAM products;

the gain or loss of significant orders or customers;

recruitment or departure of key personnel; and

market conditions in our industry, the industries of our customers and the economy as a whole.

In recent years the stock market in general, and the market for technology stocks in particular, have experienced extreme price fluctuations, which have often been unrelated to the operating performance of affected companies. The market price of our common stock might experience significant fluctuations in the future, including fluctuations unrelated to our performance. These fluctuations could materially adversely affect our business relationships, our ability to obtain future financing on favorable terms or otherwise harm our business. In addition, in the past, securities class action litigation has often been brought against a company following periods of volatility in the market price of its securities. This risk is especially acute for us because the extreme volatility of market prices of technology companies has resulted in a larger number of securities class action claims against them. Due to the potential volatility of our stock price, we may in the future be the target of similar litigation. Securities litigation could result in substantial costs and divert management's attention and resources. This could harm our business and cause the value of our stock to decline.

Use of a portion of our cash reserves to repurchase shares of our common stock presents potential risks and disadvantages to us and our continuing stockholders.

From November 2008 through March 2018 we repurchased and retired an aggregate of 11,983,942 shares of our common stock at a total cost of $60.6 million, including 3,846,153 shares repurchased at a total cost of $25 million pursuant to a modified "Dutch auction" self-tender offer that we completed in August 2014 and additional shares repurchased in the open market pursuant to our stock repurchase program. At March 31, 2018, we had outstanding authorization from our Board of Directors to purchase up to an additional $4.4 million of our common stock from time to time under our repurchase program. Although our Board has determined that these repurchases are in the best interests of our stockholders, they expose us to certain risks including:

the risks resulting from a reduction in the size of our "public float," which is the number of shares of our common stock that are owned by non-affiliated stockholders and available for trading in the securities markets, which may reduce the volume of trading in our shares and result in reduced liquidity and, potentially, lower trading prices;

the risk that our stock price could decline and that we would be able to repurchase shares of our common stock in the future at a lower price per share than the prices we have paid in our tender offer and repurchase program; and

the risk that the use of a portion of our cash reserves for this purpose has reduced, or may reduce, the amount of cash that would otherwise be available to pursue potential cash acquisitions or other strategic business opportunities.

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Our executive officers, directors and entities affiliated with them hold a substantial percentage of our common stock.

As of May 29, 2018, our executive officers, directors and entities affiliated with them beneficially owned approximately 36% of our outstanding common stock. As a result, these stockholders will be able to exercise substantial influence over, and may be able to effectively control, matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, which could have the effect of delaying or preventing a third party from acquiring control over or merging with us.

The provisions of our charter documents might inhibit potential acquisition bids that a stockholder might believe are desirable, and the market price of our common stock could be lower as a result.

Our Board of Directors has the authority to issue up to 5,000,000 shares of preferred stock. Our Board of Directors can fix the price, rights, preferences, privileges and restrictions of the preferred stock without any further vote or action by our stockholders. The issuance of shares of preferred stock might delay or prevent a change in control transaction. As a result, the market price of our common stock and the voting and other rights of our stockholders might be adversely affected. The issuance of preferred stock might result in the loss of voting control to other stockholders. We have no current plans to issue any shares of preferred stock. Our charter documents also contain other provisions, which might discourage, delay or prevent a merger or acquisition, including:

- our stockholders have no right to remove directors without cause;
- our stockholders have no right to act by written consent;
- our stockholders have no right to call a special meeting of stockholders; and
- our stockholders must comply with advance notice requirements to nominate directors or submit proposals for consideration at stockholder meetings.

These provisions could also have the effect of discouraging others from making tender offers for our common stock. As a result, these provisions might prevent the market price of our common stock from increasing substantially in response to actual or rumored takeover attempts. These provisions might also prevent changes in our management.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our executive offices, our principal administration, marketing and sales operations and a portion of our research and development operations are located in a 44,277 square foot facility in Sunnyvale, California, which we purchased in fiscal 2010. In addition, we occupy approximately 25,250 square feet in a facility located in Hsin Chu, Taiwan under a lease expiring in August 2020. This facility supports our manufacturing activities. We believe that both our Sunnyvale and Taiwan facilities are adequate for our needs for the foreseeable future. We also lease space in the United States in the states of Georgia and Texas and in Israel. The aggregate annual gross rent for our leased facilities was approximately $527,000 in fiscal 2018.

Item 3. Legal Proceedings

None.

Item 4. Mine Safety Disclosures

Not applicable.

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PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock has traded on the Nasdaq Global Market under the symbol "GSIT" since our initial public offering on March 29, 2007. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock on such market.

Fiscal Year Ended March 31, 2017	High	Low
First quarter	$ 4.34	$ 3.50
Second quarter	5.24	4.03
Third quarter	6.34	4.71
Fourth quarter	9.68	5.58

Fiscal Year Ended March 31, 2018		
First quarter	$ 8.89	$ 7.30
Second quarter	8.27	6.05
Third quarter	8.65	6.65
Fourth quarter	8.94	7.10

Holders of Common Stock

On May 29, 2018, the closing price of our common stock on the Nasdaq Global Market was $7.52, and there were 26 holders of record of our common stock. Because many of such shares are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of beneficial holders of our common stock represented by these record holders.

Dividend Policy

We have never declared or paid cash dividends on our common stock. The payment of dividends in the future will be at the discretion of our Board of Directors. However, we currently intend to retain future earnings to finance the growth and development of our business, and we do not anticipate declaring or paying any cash dividends in the foreseeable future.

Securities Authorized for Issuance under Equity Compensation Plans

Please see Part III, Item 12 of this report for information regarding securities authorized for issuance under our equity compensation plans. Such information is incorporated by reference from our definitive proxy statement for our 2018 annual meeting of stockholders.

Issuer Purchases of Equity Securities

Our Board of Directors has authorized us to repurchase, at management's discretion, shares of our common stock. Under the repurchase program, we may repurchase shares from time to time on the open market or in private transactions. The specific timing and amount of the repurchases will be dependent on market conditions, securities law limitations and other factors. The repurchase program may be suspended or terminated at any time without prior notice. During the quarter ended March 31, 2018, we did not repurchase any of our shares under the repurchase program.

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Item 6. Selected Financial Data

You should read the following selected consolidated financial data in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes included elsewhere in this report. The selected consolidated statement of operations data set forth below for the fiscal years ended March 31, 2018, 2017 and 2016 and the selected consolidated balance sheet data as of March 31, 2018 and 2017 are derived from, and are qualified by reference to, our audited consolidated financial statements included elsewhere in this report. The selected consolidated statement of operations data set forth below for the fiscal years ended March 31, 2015 and 2014 and the selected consolidated balance sheet data as of March 31, 2016, 2015 and 2014 are derived from audited consolidated financial statements not included in this report.

	Fiscal Year Ended March 31,				
	2018	2017	2016	2015	2014
	(In thousands, except per share amounts)				
Consolidated Statement of Operations Data:					
Net revenues	$ 42,643	$ 48,180	$ 52,736	$ 53,498	$ 58,579
Cost of revenues	20,217	21,764	25,999	28,375	32,469
Gross profit	22,426	26,416	26,737	25,123	26,110
Operating expenses:					
Research and development	16,998	15,803	12,095	11,917	13,110
Selling, general and administrative	9,899	11,140	17,663	19,247	18,814
Total operating expenses	26,897	26,943	29,758	31,164	31,924
Loss from operations	(4,471)	(527)	(3,021)	(6,041)	(5,814)
Interest and other income	409	478	210	388	338
Loss before income taxes	(4,062)	(49)	(2,811)	(5,653)	(5,476)
Provision (benefit) for income taxes	453	66	(641)	(675)	713
Net loss	$ (4,515)	$ (115)	$ (2,170)	$ (4,978)	$ (6,189)
Basic and diluted net loss per share available to common stockholders:					
Basic	$ (0.21)	$ (0.01)	$ (0.10)	$ (0.20)	$ (0.23)
Diluted	$ (0.21)	$ (0.01)	$ (0.10)	$ (0.20)	$ (0.23)
Weighted average shares used in per share calculations:					
Basic	21,085	20,652	22,593	25,029	27,505
Diluted	21,085	20,652	22,593	25,029	27,505

	March 31,				
	2018	2017	2016	2015	2014
	(In thousands)				
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$ 58,365	$ 49,935	$ 55,112	$ 58,977	$ 80,932
Working capital	63,867	57,798	62,720	66,230	90,670
Total assets	99,540	102,595	106,530	108,889	141,677
Total stockholders' equity	86,815	86,444	89,869	96,396	128,378

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ substantially from those anticipated in these forward-looking statements as a result of many factors, including those set forth under "Risk Factors" and elsewhere in this report. The following discussion should be read together with our consolidated financial statements and the related notes included elsewhere in this report.

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Overview

We are a fabless semiconductor company that designs, develops and markets static random access memories, or SRAMs, that operate at speeds of less than 10 nanoseconds, which we refer to as Very Fast SRAMs, and low latency dynamic random access memories, or LLDRAMs, primarily for the networking and telecommunications markets. We are subject to the highly cyclical nature of the semiconductor industry, which has experienced significant fluctuations, often in connection with fluctuations in demand for the products in which semiconductor devices are used. Our revenues have been substantially impacted by significant fluctuations in sales to our largest customer, Nokia. We expect that future direct and indirect sales to Nokia will continue to fluctuate significantly on a quarterly basis. The networking and telecommunications market has accounted for a significant portion of our net revenues in the past and has declined during the past several years and is expected to continue to decline. However, with no debt, substantial liquidity and a history of positive cash flows from operations, we believe we are in a better financial position than many other companies of our size.

Revenues. Our revenues are derived primarily from sales of our Very Fast SRAM products. Sales to networking and telecommunications OEMs accounted for 55% to 66% of our net revenues during our last three fiscal years. We also sell our products to OEMs that manufacture products for military and aerospace applications such as radar and guidance systems, missiles and satellites, for professional audio applications such as sound mixing systems, for test and measurement applications such as high-speed testers, for automotive applications such as smart cruise control and voice recognition systems, and for medical applications such as ultrasound and CAT scan equipment.

As is typical in the semiconductor industry, the selling prices of our products generally decline over the life of the product. Our ability to increase net revenues, therefore, is dependent upon our ability to increase unit sales volumes of existing products and to introduce and sell new products with higher average selling prices in quantities sufficient to compensate for the anticipated declines in selling prices of our more mature products. Although we expect the average selling prices of individual products to decline over time, we believe that, over the next several quarters, our overall average selling prices will increase due to a continuing shift in product mix to a higher percentage of higher price, higher density products. Our ability to increase unit sales volumes is dependent primarily upon increases in customer demand but, particularly in periods of increasing demand, can also be affected by our ability to increase production through the availability of increased wafer fabrication capacity from TSMC and Powerchip, our wafer suppliers, and our ability to increase the number of good integrated circuit die produced from each wafer through die size reductions and yield enhancement activities.

We may experience fluctuations in quarterly net revenues for a number of reasons. Historically, orders on hand at the beginning of each quarter are insufficient to meet our revenue objectives for that quarter and are generally cancelable up to 30 days prior to scheduled delivery. Accordingly, we depend on obtaining and shipping orders in the same quarter to achieve our revenue objectives. In addition, the timing of product releases, purchase orders and product availability could result in significant product shipments at the end of a quarter. Failure to ship these products by the end of the quarter may adversely affect our operating results. Furthermore, our customers may delay scheduled delivery dates and/or cancel orders within specified timeframes without significant penalty.

We sell our products through our direct sales force, international and domestic sales representatives and distributors. Sales to consignment warehouses, who purchase products from us for use by contract manufacturers, are recorded upon delivery to the contract manufacturer. Sales to certain distributors were previously made under agreements allowing for returns or credits under certain circumstances. We therefore deferred recognition of revenue on sales to those distributors under these terms until products were resold by the distributor. During fiscal 2018, we revised our distribution agreements to these distributors to eliminate ship from stock and debits and price protection. Under these revised distribution agreements, selling prices are now fixed and determinable on the date of shipment and revenue is recognized upon shipment. Under these revised distribution agreements, we recognized additional

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revenue of $2.0 million in fiscal 2018 on the dates that the distribution agreements were revised for product held by our distributors as the price became fixed and determinable.

Historically, a small number of OEM customers have accounted for a substantial portion of our net revenues, and we expect that significant customer concentration will continue for the foreseeable future. Many of our OEMs use contract manufacturers to manufacture their equipment. Accordingly, a significant percentage of our net revenues is derived from sales to these contract manufacturers and to consignment warehouses. In addition, a significant portion of our sales are made to foreign and domestic distributors who resell our products to OEMs, as well as their contract manufacturers. Direct sales to contract manufacturers and consignment warehouses accounted for 34.9%, 39.0% and 37.6% of our net revenues for fiscal 2018, 2017 and 2016, respectively. Sales to foreign and domestic distributors accounted for 62.5%, 59.1% and 50.4% of our net revenues for fiscal 2018, 2017 and 2016, respectively. The following direct customers accounted for 10% or more of our net revenues in one or more of the following periods:

	Fiscal Year Ended March 31,		
	2018	2017	2016
Contract manufacturers and consignment warehouses:			
Flextronics Technology	14.0 %	10.4 %	13.7 %
Sanmina	16.0	20.4	16.4
Distributors:			
Avnet Logistics	35.3	25.5	28.2
Nexcomm	16.1	19.7	13.3

Nokia was our largest customer in fiscal 2018, 2017 and 2016. Nokia purchases products directly from us and through contract manufacturers and distributors. Based on information provided to us by its contract manufacturers and our distributors, purchases by Nokia represented approximately 36%, 41% and 32% of our net revenues in fiscal 2018, 2017 and 2016, respectively. Our revenues have been substantially impacted by significant fluctuations in sales to Nokia, and we expect that future direct and indirect sales to Nokia will continue to fluctuate substantially on a quarterly basis and that such fluctuations may significantly affect our operating results in future periods. To our knowledge, none of our other OEM customers accounted for more than 10% of our net revenues in fiscal 2018, 2017 or 2016.

Cost of Revenues. Our cost of revenues consists primarily of wafer fabrication costs, wafer sort, assembly, test and burn-in expenses, the amortized cost of production mask sets, stock-based compensation and the cost of materials and overhead from operations. All of our wafer manufacturing and assembly operations, and a significant portion of our wafer sort testing operations, are outsourced. Accordingly, most of our cost of revenues consists of payments to TSMC, Powerchip and independent assembly and test houses. Because we do not have long-term, fixed-price supply contracts, our wafer fabrication and other outsourced manufacturing costs are subject to the cyclical fluctuations in demand for semiconductors. Cost of revenues also includes expenses related to supply chain management, quality assurance, and final product testing and documentation control activities conducted at our headquarters in Sunnyvale, California and our branch operations in Taiwan.

Gross Profit. Our gross profit margins vary among our products and are generally greater on our higher density products and, within a particular density, greater on our higher speed and industrial temperature products. We expect that our overall gross margins will fluctuate from period to period as a result of shifts in product mix, changes in average selling prices and our ability to control our cost of revenues, including costs associated with outsourced wafer fabrication and product assembly and testing.

Research and Development Expenses. Research and development expenses consist primarily of salaries and related expenses for design engineers and other technical personnel, the cost of developing prototypes, stock-based

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compensation and fees paid to consultants. We charge all research and development expenses to operations as incurred. We charge mask costs used in production to cost of revenues over a 12-month period. However, we charge costs related to pre-production mask sets, which are not used in production, to research and development expenses at the time they are incurred. These charges often arise as we transition to new process technologies and, accordingly, can cause research and development expenses to fluctuate on a quarterly basis. We believe that continued investment in research and development is critical to our long-term success, and we expect to continue to devote significant resources to product development activities. In particular, we are devoting substantial resources to the development of a new category of in-place associative computing products. Accordingly, we expect that our research and development expenses will continue to be substantial in future periods and may lead to operating losses in some periods. Such expenses as a percentage of net revenues may fluctuate from period to period.

Selling, General and Administrative Expenses. Selling, general and administrative expenses consist primarily of commissions paid to independent sales representatives, salaries, stock-based compensation and related expenses for personnel engaged in sales, marketing, administrative, finance and human resources activities, professional fees, costs associated with the promotion of our products and other corporate expenses. We expect that our sales and marketing expenses will increase in absolute dollars in future periods if we are able to grow and expand our sales force but that, to the extent our revenues increase in future periods, these expenses will generally decline as a percentage of net revenues. We also expect that, in support of any future growth that we are able to achieve, general and administrative expenses will generally increase in absolute dollars.

Acquisition

On November 23, 2015, we acquired all of the outstanding capital stock of privately held MikaMonu Group Ltd. (“MikaMonu”), a development-stage, Israel-based company that specializes in in-place associative computing for markets including big data, computer vision and cyber security. MikaMonu, located in Tel Aviv, held 12 United States patents and a number of pending patent applications.

The acquisition was undertaken by the Company in order to gain access to the MikaMonu patents and the potential markets, and new customer base in those markets, that can be served by new products that we plan to develop using the patents obtained in the MikaMonu acquisition.

The acquisition has been accounted for as a purchase under authoritative guidance for business combinations. The purchase price of the acquisition was allocated to the intangible assets acquired, with the excess of the purchase price over the fair value of assets acquired recorded as goodwill. We perform a goodwill impairment test in February of each fiscal year.

The results of operations of MikaMonu and the estimated fair value of the assets acquired were included in our consolidated financial statements beginning November 23, 2015.

Under the terms of the acquisition agreement, we paid the former MikaMonu shareholders initial cash consideration of approximately $4.4 million at the closing on November 23, 2015. In addition, $484,000 was deposited in escrow to provide a fund for potential future indemnification claims by us. The majority of this escrow deposit, or $479,000, was paid to the former MikaMonu shareholders in May 2017.

We are also required to pay the former MikaMonu shareholders future contingent consideration consisting of retention payments and “earnout” payments, as described below.

We will make cash retention payments of up to an additional $2.5 million to the three former MikaMonu shareholders in installments over a four-year period, conditioned on the continued employment of Dr. Avidan Akerib, MikaMonu’s

co-founder and chief technologist. The retention amount of $2.5 million has been deposited in escrow. Of this amount, $750,000 is included in prepaid expenses and other current assets, $1,000,000 is included in

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other assets on the Consolidated Balance Sheet at March 31, 2018 and $743,000 was paid to the former MikaMonu shareholders during the quarter ended December 31, 2017.

We will also make “earnout” payments to the former MikaMonu shareholders in cash or shares of our common stock, at our discretion, during a period of up to ten years following the closing if certain product development milestones and revenue targets for products based on the MikaMonu technology are achieved. Earnout amounts of $750,000 are payable at March 31, 2018 based on the achievement of certain product development milestones and are included in accrued expenses and other liabilities on the Consolidated Balance Sheet at March 31, 2018. Additional earnout amounts of $2,750,000 and $4,000,000 will be payable if certain revenue milestones are achieved by January 1, 2021 and January 1, 2022, respectively; and additional payments, up to a maximum of $30 million, equal to 5% of net revenues from the sale of qualifying products in excess of certain thresholds, will be made quarterly through December 31, 2025.

The portion of the retention payment contingently payable to Dr. Akerib (approximately $1.2 million) will be recorded as compensation expense over the period that his services are provided to us. The portion of the retention payment contingently payable to the other former MikaMonu shareholders (approximately $1.3 million) plus the maximum amount of the potential earnout payments totals approximately $38.8 million. We determined that the fair value of this contingent consideration liability was $5.8 million at the acquisition date. The contingent consideration liability is included in other accrued expenses on the Consolidated Balance Sheet at March 31, 2017 and 2018 in the amount of $5.1 million and $4.4 million, respectively, and is included in accrued expenses and other liabilities at March 31, 2017 and 2018 in the amount of $1.1 million.

The fair value of the contingent consideration liability was determined as of the acquisition date using unobservable inputs. These inputs include the estimated amount and timing of future revenues, the probability of success (achievement of the various contingent events) and a risk-adjusted discount rate of approximately 14.8% used to adjust the probability-weighted cash flows to their present value. Subsequent to the acquisition date, at each reporting period, the contingent consideration liability will be re-measured at then current fair value with changes recorded in the Consolidated Statement of Operations. Changes in any of the inputs may result in significant adjustments to the recorded fair value. Re-measurement of the contingent consideration liability at March 31, 2018 resulted in a reduction of the contingent consideration liability of $466,000 due to increased discount rates.

Acquisition-related costs of approximately $426,000 are included in selling, general and administrative expenses in the Consolidated Statements of Operations for the fiscal year ended March 31, 2016.

The allocation of the purchase price to acquired identifiable intangible assets and goodwill was based on their estimated fair values at the date of acquisition. The fair value allocated to patents was $3.5 million and the residual value allocated to goodwill was $8.0 million.

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Results of Operations

The following table sets forth statement of operations data as a percentage of net revenues for the periods indicated:

	Year Ended March 31,		
	2018	2017	2016
Net revenues	100.0 %	100.0 %	100.0 %
Cost of revenues	47.4	45.2	49.3
Gross profit	52.6	54.8	50.7
Operating expenses:			
Research and development	39.9	32.8	22.9
Selling, general and administrative	23.2	23.1	33.5
Total operating expenses	63.1	55.9	56.4
Loss from operations	(10.5)	(1.1)	(5.7)
Interest and other income, net	1.0	1.0	0.4
Loss before income taxes	(9.5)	(0.1)	(5.3)
Provision for (benefit from) income taxes	1.1	0.1	(1.2)
Net loss	(10.6)	(0.2)	(4.1)

Fiscal Year Ended March 31, 2018 Compared to Fiscal Year Ended March 31, 2017

Net Revenues. Net revenues decreased by 11.5% from $48.2 million in fiscal 2017 to $42.6 million in fiscal 2018. The decrease in net revenues was primarily the result of a 19.9% decline in total units shipped in fiscal 2018 compared to fiscal 2017 that was partially offset by an increase of 4.4% in the overall average selling price of all units shipped in fiscal 2018 compared to fiscal 2017. The increase in the average selling price was due to a change in product mix, as we sold more higher density, higher average selling price product in fiscal 2018. The reduction in net revenues reflected the continuing weakness in the global networking and telecommunications markets and, in particular, continued weakness in Asia. The networking and telecommunications markets represented 55% of shipments in fiscal 2018 compared to 66% in fiscal 2017. The decline in networking and telecommunications shipments has been partially offset by an increase in shipments to our military market which represented 25% of shipments in fiscal 2018 compared to 17% of shipments in fiscal 2017. During fiscal 2018 we revised our distribution agreements to eliminate ship from stock and debits and price protection. Under these revised distribution agreements, we recognized additional revenue of $2.0 million in fiscal 2018 on the dates that the distribution agreements were revised for product held by our distributors as the price became fixed and determinable. Direct and indirect sales to Nokia, currently our largest customer, decreased by $4.5 million from $19.8 million in fiscal 2017 to $15.3 million fiscal 2018, reflecting inventory correction by Nokia during fiscal 2018 to reduce inventory levels to align them with production requirements. In addition, direct and indirect sales to Cisco Systems, historically our largest customer, decreased by $2.0 million from $4.3 million in fiscal 2017 to $2.3 million in fiscal 2018 due to softness in the market for its switches and routers that incorporate our products.

Cost of Revenues. Cost of revenues decreased by 7.1% from $21.8 million in fiscal 2017 to $20.2 million in fiscal 2018. Cost of revenues decreased primarily due to the decrease in net revenues discussed above, partially offset by an increase in the provision for excess and obsolete inventories which increased from $588,000 in fiscal 2017 to $1.6 million in fiscal 2018. Cost of revenues included stock-based compensation expense of $259,000 and $282,000, respectively, in fiscal 2018 and fiscal 2017.

Gross Profit. Gross profit decreased by 15.1% from $26.4 million in fiscal 2017 to $22.4 million in fiscal 2018. Gross margin decreased from 54.8% in fiscal 2017 to 52.6% in fiscal 2018. The decline in gross margin was primarily related to changes in the mix of products and customers and the increased provision for excess and obsolete inventory discussed above.

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Research and Development Expenses. Research and development expenses increased 7.6% from $15.8 million in fiscal 2017 to $17.0 million in fiscal 2018. This increase was primarily due to an increase of $1.1 million in payroll related expenses, and an increase of $331,000 in external research and development expenses primarily related to qualification of our RadHard product, partially offset by a decrease of $564,000 for purchased IP both primarily related to our in-place associative processor development activities. Research and development expenses included stock-based compensation expense of $1.1 million and $980,000, respectively, in fiscal 2018 and fiscal 2017

Selling, General and Administrative Expenses. Selling, general and administrative expenses decreased 11.1% from $11.1 million in fiscal 2017 to $9.9 million in fiscal 2018. This decrease was primarily related to a decrease in payroll related expenses of $550,000. In addition, re-measurement of the contingent consideration liability related to our acquisition of MikaMonu resulted in a reduction of the liability of $308,000 in fiscal 2018 compared to an increase in the liability of $344,000 in fiscal 2017, for a year over year reduction in expenses of $652,000. Selling, general and administrative expenses included stock-based compensation expense of $670,000 and $615,000, respectively, in fiscal 2018 and fiscal 2017.

Interest and Other Income (Expense), Net. Interest and other income (expense), net decreased 14.4% from $478,000 in fiscal 2017 to $409,000 in fiscal 2018. Interest income increased by $109,000 due to higher interest rates received on cash and short-term and long-term investments. A foreign currency exchange gain of $166,000 in fiscal 2017 compared to a foreign currency exchange loss of $12,000 in fiscal 2018. The exchange gain or loss in each period was primarily related to our Taiwan branch operations and operations in Israel.

Provision for Income Taxes. The provision for income taxes was $66,000 in fiscal 2017 compared to a $453,000 in fiscal 2018. The “Tax Cuts and Jobs Act” ("H.R. 1") resulted in an estimated tax provision of $367,000 in the year ended March 31, 2018 related to the transition tax associated with deemed repatriation of foreign earnings. Because we recorded a cumulative three-year loss on a U.S. tax basis for the year ended March 31, 2018 and the realization of our deferred tax assets is questionable, we recorded a tax provision reflecting a valuation allowance of $5.9 million in net deferred tax assets in fiscal 2018. Reductions in uncertain tax benefits due to lapses in the statute of limitations were $0 and $71,000 in the years ended March 31, 2018 and 2017, respectively.

Net Loss. Net loss increased from $115,000 in fiscal 2017 to $4.5 million in fiscal 2018. This increase was primarily due to the changes in net revenues, gross profit and operating expenses discussed above.

Fiscal Year Ended March 31, 2017 Compared to Fiscal Year Ended March 31, 2016

Net Revenues. Net revenues decreased by 8.6% from $52.7 million in fiscal 2016 to $48.2 million in fiscal 2017. The reduction reflected the continuing weakness in the global networking and telecommunications markets and, in particular, continued weakness in Asia. Direct and indirect sales to Nokia, currently our largest customer, increased by $2.7 million from $17.1 million in fiscal 2016 to $19.8 million fiscal 2017, reflecting increased demand for its systems that incorporate our products. However, direct and indirect sales to Cisco Systems, historically our largest customer, decreased by $200,000 from $4.5 million in fiscal 2016 to $4.3 million in fiscal 2017 due to softness in the market for its switches and routers that incorporate our products. We believe that our net revenues were also negatively impacted during fiscal 2016 by uncertainty regarding the outcome of our patent litigation with Cypress Semiconductor that was settled in May 2015. We believe that this market uncertainty was resolved with the settlement of the litigation. However, some design-in losses that we suffered during the pendency of the lawsuit and a related ITC proceeding will continue to adversely affect our revenues throughout the life of the related products. Shipments of our SigmaQuad product line accounted for 55.2% of total shipments in fiscal 2017 compared to 53.5% of total shipments in fiscal 2016.

Cost of Revenues. Cost of revenues decreased by 16.3% from $26.0 million in fiscal 2016 to $21.8 million in fiscal 2017. Cost of revenues decreased primarily due to improved gross margin and the decrease in net revenues

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discussed above. Cost of revenues included stock-based compensation expense of $282,000 and $320,000, respectively, in fiscal 2017 and fiscal 2016.

Gross Profit. Gross profit decreased by 1.2% from $26.7 million in fiscal 2016 to $26.4 million in fiscal 2017. Gross margin increased from 50.7% in fiscal 2016 to 54.8% in fiscal 2017. The improvement in gross margin was primarily related to favorable changes in the mix of products and customers.

Research and Development Expenses. Research and development expenses increased 30.7% from $12.1 million in fiscal 2016 to $15.8 million in fiscal 2017. This increase was primarily due to an increase of $2.7 million in payroll related expenses and $564,000 for purchased IP both primarily related to our in-place associative processor development activities. Research and development expenses included stock-based compensation expense of $980,000 and $858,000, respectively, in fiscal 2017 and fiscal 2016.

Selling, General and Administrative Expenses. Selling, general and administrative expenses decreased 36.9% from $17.7 million in fiscal 2016 to $11.1 million in fiscal 2017. This decrease was primarily related to a decrease in legal expenses of $7.0 million related to the resolution of patent infringement and antitrust litigation involving Cypress Semiconductor Corporation which was settled in May 2015, partially offset by increased expenses related to the UMI/ISSI litigation. Selling, general and administrative expenses included stock-based compensation expense of $615,000 and $672,000, respectively, in fiscal 2017 and fiscal 2016.

Interest and Other Income (Expense), Net. Interest and other income (expense), net increased 127.6% from $210,000 in fiscal 2016 to $478,000 in fiscal 2017. Interest income increased by $5,000 due to higher interest rates received on cash and short-term and long-term investments. A foreign currency exchange loss of $97,000 in fiscal 2016 compared to a foreign currency exchange gain of $166,000 in fiscal 2017. The exchange gain or loss in each period was primarily related to our Taiwan branch operations and operations in Israel.

Provision for Income Taxes. The benefit for income taxes was $641,000 in fiscal 2016 compared to a provision of $66,000 in fiscal 2017. Because we recorded a cumulative three-year loss on a U.S. tax basis for the year ended March 31, 2017 and the realization of our deferred tax assets is questionable, we recorded a tax provision reflecting a full valuation allowance of $8.9 million in net deferred tax assets in fiscal 2017. Reductions in uncertain tax benefits due to lapses in the statute of limitations were $71,000 and $563,000 in the years ended March 31, 2017 and 2016, respectively.

Net Loss. Net loss decreased from $2.2 million in fiscal 2016 to $115,000 in fiscal 2017. This decrease was primarily due to the changes in net revenues, gross profit and operating expenses discussed above.

Liquidity and Capital Resources

As of March 31, 2018, our principal sources of liquidity were cash, cash equivalents and short-term investments of $58.4 million compared to $49.9 million as of March 31, 2017. Cash, cash equivalents and short-term investments totaling $31.7 million were held in foreign locations as of March 31, 2018.

Net cash provided by operating activities was $1.1 million for fiscal 2018 compared to $2.1 million for fiscal 2017 and $460,000 for fiscal 2016. The primary sources of cash in fiscal 2018 were a reduction in inventory of $2.1 million, non-cash stock-based compensation expense of $2.1 million, a provision for excess and obsolete inventory of $1.6 million, depreciation and amortization expense of $1.3 million and a decrease in accounts receivable of $1.1 million. The primary uses of cash in fiscal 2018 were and net loss of $4.5 million, a decrease in deferred revenue of $1.7 million and a decrease in accrued expenses and other liabilities of $1.2 million. The decrease in deferred revenue is due to revisions in our distribution agreements in fiscal 2018 that resulted in the elimination of ship from stock and

debit rights and price protection rights for our distributors to eliminate any uncertainty in regards to a final selling price and to establish a selling price that is fixed and determinable at the time of shipment to the distributor and enable us to recognize revenue upon shipment to our distributors that was previously deferred. The primary

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sources of cash in fiscal 2017 were non-cash stock-based compensation expense of $1.9 million, depreciation and amortization expense of $1.5 million and a decrease in accounts receivable of $1.1 million. The primary uses of cash in fiscal 2017 were an increase in inventories of $2.6 million, a decrease in accounts payable of $887,000 and a decrease in deferred revenue of $534,000. Our inventory balance increased primarily due to assembling our LLDRAM products to support shipments in the next three to six months as we qualified a new assembly vendor. The primary sources of cash in fiscal 2016 were non-cash stock-based compensation expense of $1.9 million, depreciation and amortization expense of $1.5 million and a provision for excess and obsolete inventory of $1.2 million. The primary uses of cash in fiscal 2016 were a net loss of $2.2 million, a decrease of $2.1 million in accrued expenses and other liabilities and a decrease of $485,000 in deferred revenue.

Net cash provided by investing activities was $2.8 million in fiscal 2018 compared $4.8 million in fiscal 2017 and $935,000 in fiscal 2016. Investment activities in fiscal 2018 consisted primarily of the maturity of certificates of deposit, state and municipal obligations and corporate notes of $16.1 million and a reduction in the MikaMonu escrow deposits of $1.2 million, partially offset by the purchase of investments of $13.2 million and the purchase of property and equipment of $1.3 million. Investment activities in fiscal 2017 consisted primarily of the maturity of corporate notes, agency bonds, state and municipal obligations and certificates of deposit of $23.6 million, partially offset by the purchase of investments of $18.6 million. Investment activities in fiscal 2016 consisted primarily of the maturity of corporate notes, state and municipal obligations and certificates of deposit of $23.6 million, partially offset by the purchase of investments of $14.1 million, our acquisition of MikaMonu for $4.4 million, restricted cash of $3.0 million related to amounts held in escrow related to the acquisition and the purchase of property and equipment for $1.2 million.

Cash used in financing activities in fiscal 2017 and in fiscal 2016 included the repurchase of our common stock for a total purchase price of $7.1 million and $7.0 million, respectively. There were no repurchases of our common stock in fiscal 2018. Cash provided by financing activities in fiscal 2018, fiscal 2017 and fiscal 2016 primarily consisted of the net proceeds from the sale of common stock pursuant to our employee stock plans.

At March 31, 2018, we had total minimum lease obligations of approximately $1.0 million from April 1, 2018 through April 30, 2022, under non-cancelable operating leases.

We believe that our existing balances of cash, cash equivalents and short-term investments, and cash flow expected to be generated from our future operations, will be sufficient to meet our cash needs for working capital and capital expenditures for at least the next 12 months, although we could be required, or could elect, to seek additional funding prior to that time. Our future capital requirements will depend on many factors, including the rate of revenue growth that we experience, the extent to which we utilize subcontractors, the levels of inventory and accounts receivable that we maintain, the timing and extent of spending to support our product development efforts and the expansion of our sales and marketing efforts. Additional capital may also be required for the consummation of any acquisition of businesses, products or technologies that we may undertake. We cannot assure you that additional equity or debt financing, if required, will be available on terms that are acceptable or at all.

Contractual Obligations

The following table describes our contractual obligations as of March 31, 2018:

	Payments due by period				
	Up to 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
Facilities and equipment leases	$ 434,000	$ 521,000	$ 90,000	$ —	$ 1,045,000

Wafer and test purchase obligations	1,555,000	112,000	—	—	1,667,000
	$ 1,989,000	$ 633,000	$ 90,000	$ —	$ 2,712,000

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As of March 31, 2018, the current portion of our unrecognized tax benefits was $0, and the long-term portion was $619,000. We do not expect to make any federal income tax payments in fiscal 2019.

We expect expenditures of approximately $1.0 million to be incurred in fiscal 2019 for test equipment to be used on our associative computing products.

In connection with the acquisition of MikaMonu on November 23, 2015, we are required to make contingent consideration payments to the former MikaMonu shareholders conditioned upon the retention of MikaMonu's key employee and the achievement of certain product development milestones and revenue targets for products based on the MikaMonu technology. As of March 31, 2018, the accrual for potential payment of contingent consideration was $5.5 million.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements and related disclosures in conformity with accounting principles generally accepted in the United States ("GAAP") requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Significant estimates are inherent in the preparation of the consolidated financial statements and include estimates affecting revenue recognition, obsolete and excess inventory, the valuation allowance on deferred tax assets, stock-based compensation, contingent consideration and the valuation of goodwill. We believe that we consistently apply these judgments and estimates and that our financial statements and accompanying notes fairly represent our financial results for all periods presented. However, any errors in these judgments and estimates may have a material impact on our balance sheet and statement of operations. Critical accounting estimates, as defined by the Securities and Exchange Commission, are those that are most important to the portrayal of our financial condition and results of operations and require our most difficult and subjective judgments and estimates of matters that are inherently uncertain. Our critical accounting estimates include those regarding revenue recognition, the valuation of inventories, taxes, stock-based compensation, contingent consideration and the valuation of goodwill.

Revenue Recognition. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the price is fixed or determinable and collectability of the resulting receivable is reasonably assured. Under these criteria, revenue from the sale of our products is generally recognized upon shipment according to our shipping terms, net of accruals for estimated sales returns and allowances based on historical experience. Sales to consignment warehouses, who purchase products from us for use by contract manufacturers, are recorded upon delivery to the contract manufacturers. Sales to certain distributors were previously made under agreements allowing for returns or credits under certain circumstances. We therefore deferred recognition of revenue on sales to those distributors under these terms until products were resold by the distributor. During fiscal 2018, we revised our distribution agreements to these distributors to eliminate ship from stock and debits and price protection. Under these revised distribution agreements, selling prices are now fixed and determinable on the date of shipment and revenue is recognized upon shipment. Under these revised distribution agreements, we recognized additional revenue of $2.0 million in fiscal 2018 on the dates that the distribution agreements were revised for product held by our distributors as the price became fixed and determinable.

Valuation of Inventories. Inventories are stated at the lower of cost or market value, cost being determined on a weighted average basis. Our inventory write-down allowance is established when conditions indicate that the selling price of our products could be less than cost due to physical deterioration, obsolescence, changes in price levels, or other causes. We consider the need to establish the allowance for excess inventory generally based on inventory levels in excess of 12 months of forecasted demand for each specific product. Inventory consists of finished goods at our premises or consignment warehouses, work in progress at our premises or our contract manufacturers and finished

goods at distributors that have price protection and ship from stock and debit rights and takes into account any un-cancellable purchase commitments. Historically, it has been difficult to forecast customer demand especially at the part-number level. Many of the orders we receive from our customers and distributors

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request delivery of product on relatively short notice and with lead times less than our manufacturing cycle time. In order to provide competitive delivery times to our customers, we build and stock a certain amount of inventory in anticipation of customer demand that may not materialize. Moreover, as is common in the semiconductor industry, we may allow customers to cancel orders with minimal advance notice. Thus, even product built to satisfy specific customer orders may not ultimately be required to fulfill customer demand. Nevertheless, at any point in time, some portion of our inventory is subject to the risk of being materially in excess of our projected demand. Additionally, our average selling prices could decline due to market or other conditions, which creates a risk that costs of manufacturing our inventory may not be recovered. These factors contribute to the risk that we may be required to record additional inventory write-downs in the future, which could be material. In addition, if actual market conditions are more favorable than expected, inventory previously written down may be sold to customers resulting in lower cost of sales and higher income from operations than expected in that period.

Taxes. We account for income taxes under the liability method, whereby deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. We make certain estimates and judgments in the calculation of tax liabilities and the determination of deferred tax assets, which arise from temporary differences between tax and financial statement recognition methods. We record a valuation allowance to reduce our deferred tax assets to the amount that management estimates is more likely than not to be realized. As of March 31, 2018, our net deferred tax assets of $6.0 million are subject to a valuation allowance of $5.9 million. If, in the future we determine that we are likely to realize all or part of our net deferred tax assets, an adjustment to deferred tax assets would be added to earnings in the period such determination is made.

We re-measured all deferred tax assets and liabilities as of December 22, 2017, based on the provisions of H.R. 1. This new legislation resulted in an estimated tax provision of $367,000 in the year ended March 31, 2018 related to the transition tax associated with deemed repatriation of foreign earnings. In addition, we recorded a deferred tax benefit related to a valuation allowance release of $101,000 as a result of provisions in the new legislation related to indefinite lived net operating loss carryovers and the refundability of minimum tax credit carryovers. Finally, we currently estimate that we will not have a liability for taxes currently payable at March 31, 2018 as a result of H.R. 1. This original estimate may be materially impacted by a number of additional considerations, including but not limited to the issuance of the final regulations and the Company’s ongoing analysis of the new law.

In addition, the calculation of tax liabilities involves inherent uncertainty in the application of complex tax laws. We record tax reserves for additional taxes that we estimate we may be required to pay as a result of future potential examinations by federal and state taxing authorities. If the payment ultimately proves to be unnecessary, the reversal of these tax reserves would result in tax benefits being recognized in the period we determine such reserves are no longer necessary. If an ultimate tax assessment exceeds our estimate of tax liabilities, an additional charge to provision for income taxes will result.

Authoritative guidance prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that the company has taken or expects to take on a tax return (including a decision whether to file or not to file a return in a particular jurisdiction). Under this guidance, the financial statements will reflect expected future tax consequences of such positions presuming the taxing authorities' full knowledge of the position and all relevant facts, but without considering time values.

Stock-Based Compensation. Under authoritative guidance, stock-based compensation expense recognized in the statement of operations is based on options ultimately expected to vest, reduced by the amount of estimated forfeitures. We chose the straight-line method of allocating compensation cost over the requisite service period of the related award in accordance with the authoritative guidance. We calculated the expected term based on the historical average period of time that options were outstanding as adjusted for expected changes in future exercise patterns,

which, for options granted in fiscal 2018, 2017 and 2016, resulted in an expected term of approximately five years. We used our historical volatility to estimate expected volatility in fiscal 2018, 2017 and 2016. The risk-

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free interest rate is based on the U.S. Treasury yields in effect at the time of grant for periods corresponding to the expected life of the options. The dividend yield is 0%, based on the fact that we have never paid dividends and have no present intention to pay dividends. Determining some of these assumptions requires significant judgment and changes to these assumptions could result in a significant change to the calculation of stock-based compensation in future periods.

Cash flows, if any, resulting from the tax benefits from tax deductions in excess of the compensation cost recognized for those options (excess tax benefits) are classified as financing cash flows.

As stock-based compensation expense recognized in the Consolidated Statement of Operations is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. We estimate forfeitures at the time of grant and revise the original estimates, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

We have no stock-based compensation arrangements with non-employees except for stock options granted to our non-employee directors.

Contingent Consideration. The fair value of the contingent consideration liability potentially payable in connection with our acquisition of MikaMonu was initially determined as of the acquisition date using unobservable inputs. These inputs included the estimated amount and timing of future cash flows, the probability of success (achievement of the various contingent events) and a risk-adjusted discount rate to adjust the probability-weighted cash flows to their present value. Subsequent to the acquisition date, at each reporting period, the contingent consideration liability will be re-measured at its then current fair value with changes recorded in the Consolidated Statements of Operations. Changes in any of the inputs may result in material adjustments to the recorded fair value.

Valuation of Goodwill. Goodwill represents the difference between the purchase price and the estimated fair value of the identifiable assets acquired and liabilities assumed in a business combination. We test for goodwill impairment on an annual basis, or more frequently if events or changes in circumstances indicate that the asset is more likely than not impaired. We have one reporting unit. We assess goodwill for impairment on an annual basis on the last day of February in the fourth quarter of our fiscal year.

As of March 31, 2018, we had a goodwill balance of $8.0 million. The goodwill resulted from the acquisition of MikaMonu in fiscal 2016.

We utilized a two-step quantitative analysis to complete our annual impairment test during the fourth quarter of fiscal 2018 and concluded that there was no impairment, as the fair value of our sole reporting unit exceeded its carrying value. We determined that the second step of the impairment test was not necessary. We believe that the fair value established during the fiscal 2018 annual goodwill impairment testing was reasonable, and no triggering event has taken place subsequent to the fiscal 2018 annual assessment. However, a sustained decline in our stock price could constitute a triggering event that would require an interim assessment for potential goodwill impairment in fiscal 2019.

Off-Balance Sheet Arrangements

At March 31, 2018, we did not have any off-balance sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, established

for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. Accordingly, we are not exposed to the type of financing, liquidity, market or credit risk that could arise if we had engaged in such relationships.

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Recent Accounting Pronouncements

Please refer to Note 1 to our consolidated financial statements appearing under Part II, Item 8 for a discussion of recent accounting pronouncements that may impact the Company.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency Exchange Risk. Our revenues and expenses, except those expenses related to our operations in Israel and Taiwan, including subcontractor manufacturing expenses in Taiwan, are denominated in U.S. dollars. As a result, we have relatively little exposure for currency exchange risks, and foreign exchange losses have been minimal to date. We do not currently enter into forward exchange contracts to hedge exposure denominated in foreign currencies or any other derivative financial instruments for trading or speculative purposes. In the future, if we believe our foreign currency exposure has increased, we may consider entering into hedging transactions to help mitigate that risk.

Interest Rate Sensitivity. We had cash, cash equivalents, short term investments and long-term investments totaling $66.3 million at March 31, 2018. These amounts were invested primarily in money market funds, state and municipal obligations, corporate notes, certificates of deposit and agency bonds. The cash, cash equivalents and short-term marketable securities are held for working capital purposes. We do not enter into investments for trading or speculative purposes. Due to the short-term nature of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. We believe a hypothetical 100 basis point increase in interest rates would not materially affect the fair value of our interest-sensitive financial instruments. Declines in interest rates, however, will reduce future investment income.

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Item 8. Financial Statements and Supplementary Data

GSI TECHNOLOGY, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors

GSI Technology, Inc.

Sunnyvale, California

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of GSI Technology, Inc. (the “Company”) and subsidiaries as of March 31, 2018, the related consolidated statements of operations, comprehensive loss, stockholders’ equity, and cash flows for the year ended March 31, 2018, 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 subsidiaries at March 31, 2018, and the results of their operations and their cash flows for the year ended March 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company's internal control over financial reporting as of March 31, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) and our report dated June 1, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These 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 audit. We are a public accounting firm registered with the 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 audit 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.

Our audit 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 audit 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 audit provides a reasonable basis for our opinion.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2017.

San Jose, California

June 1, 2018

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors

GSI Technology, Inc.

Sunnyvale, California

Opinion on Internal Control over Financial Reporting

We have audited GSI Technology, Inc.'s (the "Company's") internal control over financial reporting as of March 31, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of March 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheet of the Company and subsidiaries as of March 31, 2018, the related consolidated statements of operations, comprehensive loss, stockholder's equity, and cash flows for the year ended March 31, 2018, and the related notes, and our report dated June 1, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Item 9A, Management's Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, LLP

San Jose, California

June 1, 2018

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of GSI Technology, Inc.:

In our opinion, the consolidated balance sheet as of March 31, 2017 and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the two years in the period ended March 31, 2017 present fairly, in all material respects, the financial position of GSI Technology, Inc. and its subsidiaries as of March 31, 2017, and the results of their operations and their cash flows for each of the two years in the period ended March 31, 2017, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

San Jose, California

June 5, 2017

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GSI TECHNOLOGY, INC.

CONSOLIDATED BALANCE SHEETS

	March 31, 2018	2017
	(In thousands, except share and per share amounts)	
ASSETS		
Cash and cash equivalents	$ 40,241	$ 33,736
Short-term investments	18,124	16,199
Accounts receivable, net	5,279	6,349
Inventories	5,547	9,211
Prepaid expenses and other current assets	2,080	2,777
Total current assets	71,271	68,272
Property and equipment, net	8,172	7,689
Long-term investments	7,923	12,898
Goodwill	7,978	7,978
Intangible assets, net	2,989	3,302
Other assets	1,207	2,456
Total assets	$ 99,540	$ 102,595
LIABILITIES AND STOCKHOLDERS' EQUITY		
Accounts payable	$ 1,841	$ 1,627
Accrued expenses and other liabilities	5,442	7,051
Deferred revenue	121	1,796
Total current liabilities	7,404	10,474
Income taxes payable	619	244
Deferred income taxes	—	15
Other accrued expenses	4,702	5,418
Total liabilities	12,725	16,151
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock: $0.001 par value authorized: 5,000,000 shares; issued and outstanding: none	—	—
Common Stock: $0.001 par value authorized: 150,000,000 shares; issued and outstanding: 21,407,247 and 20,612,757 shares, respectively	21	21
Additional paid-in capital	27,391	21,830
Accumulated other comprehensive loss	(142)	(62)
Retained earnings	59,545	64,655
Total stockholders' equity	86,815	86,444
Total liabilities and stockholders' equity	$ 99,540	$ 102,595

The accompanying notes are an integral part of these consolidated financial statements.

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GSI TECHNOLOGY, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended March 31,		
	2018	2017	2016
	(In thousands, except per share amounts)		
Net revenues	$ 42,643	$ 48,180	$ 52,736
Cost of revenues	20,217	21,764	25,999
Gross profit	22,426	26,416	26,737
Operating expenses:			
Research and development	16,998	15,803	12,095
Selling, general and administrative	9,899	11,140	17,663
Total operating expenses	26,897	26,943	29,758
Loss from operations	(4,471)	(527)	(3,021)
Interest income, net	421	312	307
Other income (expense), net	(12)	166	(97)
Loss before income taxes	(4,062)	(49)	(2,811)
Provision for (benefit from) income taxes	453	66	(641)
Net loss	$ (4,515)	$ (115)	$ (2,170)
Net loss per share:			
Basic	$ (0.21)	$ (0.01)	$ (0.10)
Diluted	$ (0.21)	$ (0.01)	$ (0.10)
Weighted average shares used in per share calculations:			
Basic	21,085	20,652	22,593
Diluted	21,085	20,652	22,593

The accompanying notes are an integral part of these consolidated financial statements.

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GSI TECHNOLOGY, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Year Ended March 31,		
	2018	2017	2016
	(In thousands)		
Net loss	$ (4,515)	$ (115)	$ (2,170)
Net unrealized gain (loss) on available-for-sale investments	(80)	(89)	1
Total comprehensive loss	$ (4,595)	$ (204)	$ (2,169)

The accompanying notes are an integral part of these consolidated financial statements.

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GSI TECHNOLOGY, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income	Retained Earnings	Total Stockholders' Equity
	(In thousands, except share amounts)					
Balance, March 31, 2015	23,128,372	$ 23	$ 29,407	$ 26	$ 66,940	$ 96,396
Issuance of common stock under employee stock option plans	199,961	—	818	—	—	818
Repurchase and retirement of common stock	(1,611,969)	(1)	(7,025)	—	—	(7,026)
Stock-based compensation expense	—	—	1,850	—	—	1,850
Net loss	—	—	—	—	(2,170)	(2,170)
Net unrealized gain on available-for-sale investments	—	—	—	1	—	1
Balance, March 31, 2016	21,716,364	22	25,050	27	64,770	89,869
Issuance of common stock under employee stock option plans	539,834	1	2,013	—	—	2,014
Repurchase and retirement of common stock	(1,643,441)	(2)	(7,110)	—	—	(7,112)
Stock-based compensation expense	—	—	1,877	—	—	1,877
Net loss	—	—	—	—	(115)	(115)
Net unrealized loss on available-for-sale investments	—	—	—	(89)	—	(89)
Balance, March 31, 2017	20,612,757	21	21,830	(62)		