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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 10-Q**

**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2019

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

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**GSI Technology, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**77-0398779**

(IRS Employer 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:

<u>Title of Each Class</u>	<u>Trading Symbol(s)</u>	<u>Name of Each Exchange on which Registered</u>
Common Stock, \$0.001 par value	GSIT	The Nasdaq Stock Market LLC

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 every Interactive Data File required to be submitted 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 such files). Yes  No

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

Large accelerated filer

Non-accelerated filer

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 number of shares of the registrant's common stock outstanding as of October 31, 2019: 23,061,248.

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**GSI TECHNOLOGY, INC.**

**FORM 10-Q FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2019**

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**PART I — FINANCIAL INFORMATION****Item 1. Financial Statements****GSI TECHNOLOGY, INC.****CONDENSED CONSOLIDATED BALANCE SHEETS****(Unaudited)**

	September 30, 2019	March 31, 2019
	(In thousands, except share and per share amounts)	
<b>ASSETS</b>		
Cash and cash equivalents	\$ 45,724	\$ 42,495
Short-term investments	22,352	19,346
Accounts receivable, net	7,488	7,339
Inventories	5,045	5,685
Prepaid expenses and other current assets	3,235	2,500
Total current assets	<u>83,844</u>	<u>77,365</u>
Property and equipment, net	8,478	9,001
Operating lease right-of-use assets	913	—
Long-term investments	4,788	8,997
Goodwill	7,978	7,978
Intangible assets, net	2,606	2,722
Other assets	160	160
Total assets	<u>\$ 108,767</u>	<u>\$ 106,223</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Accounts payable	\$ 1,924	\$ 1,864
Lease liabilities, current	620	—
Accrued expenses and other liabilities	5,733	6,869
Total current liabilities	<u>8,277</u>	<u>8,733</u>
Income taxes payable	626	622
Lease liabilities, non-current	329	—
Contingent consideration, non-current	3,766	3,713
Total liabilities	<u>12,998</u>	<u>13,068</u>
Commitments and contingencies (Note 9)		
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: 23,052,473 and 22,320,156 shares, respectively	23	22
Additional paid-in capital	37,903	33,462
Accumulated other comprehensive income (loss)	28	(37)
Retained earnings	57,815	59,708
Total stockholders' equity	<u>95,769</u>	<u>93,155</u>
Total liabilities and stockholders' equity	<u>\$ 108,767</u>	<u>\$ 106,223</u>

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

## GSI TECHNOLOGY, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(Unaudited)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands, except per share amounts)			
Net revenues	\$ 11,740	\$ 12,832	\$ 24,759	\$ 24,098
Cost of revenues	5,172	4,801	9,948	10,279
Gross profit	6,568	8,031	14,811	13,819
Operating expenses:				
Research and development	5,833	5,752	11,428	10,602
Selling, general and administrative	2,658	2,673	5,535	5,270
Total operating expenses	8,491	8,425	16,963	15,872
Loss from operations	(1,923)	(394)	(2,152)	(2,053)
Interest income, net	215	154	420	292
Other expense, net	(5)	(9)	(63)	(124)
Loss before income taxes	(1,713)	(249)	(1,795)	(1,885)
Provision for income taxes	55	102	98	112
Net loss	\$ (1,768)	\$ (351)	\$ (1,893)	\$ (1,997)
Net loss per share:				
Basic	\$ (0.08)	\$ (0.02)	\$ (0.08)	\$ (0.09)
Diluted	\$ (0.08)	\$ (0.02)	\$ (0.08)	\$ (0.09)
Weighted average shares used in per share calculations:				
Basic	22,975	21,844	22,791	21,707
Diluted	22,975	21,844	22,791	21,707

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

**GSI TECHNOLOGY, INC.****CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS****(Unaudited)**

	<u>Three Months Ended September 30,</u>		<u>Six Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
	(In thousands)			
Net loss	\$ (1,768)	\$ (351)	\$ (1,893)	\$ (1,997)
Net unrealized gain on available-for-sale investments	14	26	65	16
Total comprehensive loss	<u>\$ (1,754)</u>	<u>\$ (325)</u>	<u>\$ (1,828)</u>	<u>\$ (1,981)</u>

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

**GSI TECHNOLOGY, INC.**

**CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount				
<b>Three months ended September 30, 2019</b>						
(In thousands, except share amounts)						
Balance, June 30, 2019	22,898,188	\$ 23	\$ 36,462	\$ 14	\$ 59,583	\$ 96,082
Issuance of common stock under employee stock option plans	154,285	—	799	—	—	799
Stock-based compensation expense	—	—	642	—	—	642
Net loss	—	—	—	—	(1,768)	(1,768)
Net unrealized gain on available-for-sale investments	—	—	—	14	—	14
Balance, September 30, 2019	<u>23,052,473</u>	<u>\$ 23</u>	<u>\$ 37,903</u>	<u>\$ 28</u>	<u>\$ 57,815</u>	<u>\$ 95,769</u>
<b>Three months ended September 30, 2018</b>						
Balance, June 30, 2018	21,760,094	\$ 21	\$ 29,435	\$ (152)	\$ 57,899	\$ 87,203
Issuance of common stock under employee stock option plans	187,530	1	690	—	—	691
Stock-based compensation expense	—	—	552	—	—	552
Net loss	—	—	—	—	(351)	(351)
Net unrealized gain on available-for-sale investments	—	—	—	26	—	26
Balance, September 30, 2018	<u>21,947,624</u>	<u>\$ 22</u>	<u>\$ 30,677</u>	<u>\$ (126)</u>	<u>\$ 57,548</u>	<u>\$ 88,121</u>

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

## GSI TECHNOLOGY, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount				
<b>Six months ended September 30, 2019</b>						
Balance, March 31, 2019	22,320,156	\$ 22	\$ 33,462	\$ (37)	\$ 59,708	\$ 93,155
Issuance of common stock under employee stock option plans	732,317	1	3,148	—	—	3,149
Stock-based compensation expense	—	—	1,293	—	—	1,293
Net loss	—	—	—	—	(1,893)	(1,893)
Net unrealized gain on available-for-sale investments	—	—	—	65	—	65
Balance, September 30, 2019	<u>23,052,473</u>	<u>\$ 23</u>	<u>\$ 37,903</u>	<u>\$ 28</u>	<u>\$ 57,815</u>	<u>\$ 95,769</u>
<b>Six months ended September 30, 2018</b>						
Balance, March 31, 2018	21,407,247	\$ 21	\$ 27,391	\$ (142)	\$ 59,545	\$ 86,815
Issuance of common stock under employee stock option plans	540,377	1	2,192	—	—	2,193
Stock-based compensation expense	—	—	1,094	—	—	1,094
Net loss	—	—	—	—	(1,997)	(1,997)
Net unrealized gain on available-for-sale investments	—	—	—	16	—	16
Balance, September 30, 2018	<u>21,947,624</u>	<u>\$ 22</u>	<u>\$ 30,677</u>	<u>\$ (126)</u>	<u>\$ 57,548</u>	<u>\$ 88,121</u>

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

## GSI TECHNOLOGY, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)

	<u>Six Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>
(In thousands)		
Cash flows from operating activities:		
Net loss	\$ (1,893)	\$ (1,997)
Adjustments to reconcile net loss to net cash used in operating activities:		
Allowance for doubtful accounts and other	(7)	44
Provision for excess and obsolete inventories	136	794
Non-cash lease expense	315	—
Depreciation and amortization	727	698
Stock-based compensation	1,293	1,094
Amortization of premium on investments	(14)	(11)
Changes in assets and liabilities:		
Accounts receivable	(142)	(2,604)
Inventory	504	(459)
Prepaid expenses and other assets	(753)	(367)
Accounts payable	60	613
Accrued expenses and other liabilities	(1,352)	1,575
Net cash used in operating activities	<u>(1,126)</u>	<u>(620)</u>
Cash flows from investing activities:		
Purchase of investments	(8,810)	(9,598)
Maturities of short-term investments	10,110	8,050
Purchases of property and equipment	(94)	(1,656)
Net cash provided by (used in) investing activities	<u>1,206</u>	<u>(3,204)</u>
Cash flows from financing activities:		
Payment of contingent consideration	—	(720)
Proceeds from issuance of common stock under employee stock plans	3,149	2,193
Net cash provided by financing activities	<u>3,149</u>	<u>1,473</u>
Net increase (decrease) in cash and cash equivalents	3,229	(2,351)
Cash and cash equivalents at beginning of the period	42,495	40,241
Cash and cash equivalents at end of the period	<u>\$ 45,724</u>	<u>\$ 37,890</u>
Non-cash financing activities:		
Purchases of property and equipment through accounts payable and accruals	25	137
Supplemental cash flow information:		
Net cash paid (received) for income taxes	<u>\$ 218</u>	<u>\$ (7)</u>

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

**GSI TECHNOLOGY, INC.**

**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**

**(Unaudited)**

**NOTE 1—THE COMPANY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

***Basis of presentation***

The accompanying unaudited condensed consolidated financial statements of GSI Technology, Inc. and its subsidiaries (“GSI” or the “Company”) have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the instructions to Form 10-Q and Article 10 of Regulation S-X of the Securities and Exchange Commission. Accordingly, the interim financial statements do not include all of the information and footnotes required by GAAP for annual financial statements. These interim financial statements contain all adjustments (which consist of only normal, recurring adjustments) that are, in the opinion of management, necessary to state fairly the interim financial information included therein. The Company believes that the disclosures are adequate to make the information not misleading. However, these financial statements should be read in conjunction with the audited consolidated financial statements and related notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended March 31, 2019.

The consolidated results of operations for the six months ended September 30, 2019 are not necessarily indicative of the results to be expected for the entire fiscal year.

***Significant accounting policies***

Except for the accounting policy for leases, which was updated as a result of adopting a new accounting standard related to leases, there have been no material changes to our significant accounting policies that were disclosed in the Company’s Annual Report on Form 10-K for the fiscal year ended March 31, 2019.

See “Recent accounting pronouncements” below for additional information on the impact of the adoption of the new accounting standard for leases on the Company’s consolidated financial statements.

***Recent accounting pronouncements***

In August 2018, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2018-13, “*Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement.*” The standard amends the disclosure requirements for recurring and nonrecurring fair value measurements by removing, modifying, and adding certain disclosures. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. The Company does not anticipate the adoption of this guidance to have a material impact on its consolidated financial statements and related disclosures.

In August 2018, the SEC adopted the final rule under SEC Release No. 33-10532, “*Disclosure Update and Simplification,*” amending certain disclosure requirements that were redundant, duplicative, overlapping, outdated or superseded. In addition, the amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of comprehensive income is required to be filed. The Company’s first presentation of changes in stockholders' equity was included in the Form 10-Q for the quarter ended June 30, 2019.

In January 2017, the FASB issued ASU No. 2017-04, “*Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment.*” The standard eliminates the second step in the goodwill impairment test which requires an entity to determine the implied fair value of the reporting unit’s goodwill. Instead, an entity

should recognize an impairment loss if the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, with the impairment loss not to exceed the amount of goodwill allocated to the reporting unit. The standard is effective for annual and interim goodwill impairment tests conducted in fiscal years beginning after December 15, 2019, with early adoption permitted. The Company does not anticipate the adoption of this guidance to have a material impact on its consolidated financial statements and related disclosures.

In June 2016, the FASB issued ASU 2016-13, "*Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*," ASU 2016-13 replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. For trade and other receivables, loans, and other financial instruments, the Company will be required to use a forward-looking expected loss model rather than the incurred loss model for recognizing credit losses which reflects losses that are probable. Credit losses relating to available-for-sale debt securities will also be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, with early adoption permitted beginning April 1, 2019. Application of the amendments is through a cumulative-effect adjustment to retained earnings as of the effective date. The Company is currently evaluating the impact of this standard on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, "*Leases (Topic 842)*." The core principle of Topic 842 is that a lessee should recognize the assets and liabilities that arise from leases. All leases create an asset and a liability for the lessee in accordance with FASB Concepts Statement No. 6, "*Elements of Financial Statements*," and, therefore, recognition of those lease assets and lease liabilities represents a change of previous GAAP, which did not require lease assets and lease liabilities to be recognized for most leases. In July 2018, the FASB issued ASU 2018-11, "*Leases (Topic 842): Targeted Improvements*," which provides clarifications and improvements to ASU 2016-02 including allowing entities to elect an additional transition method, a modified retrospective approach, that permits changes to be applied by means of a cumulative-effect adjustment recorded in retained earnings as of the beginning of the fiscal year of adoption. Consequently, an entity's reporting for the comparative periods presented in the year of adoption would continue to be in accordance with Leases (Topic 840) ("ASC 840"), including the disclosure requirements of ASC 840. The Company adopted Topic 842 as of April 1, 2019 and applied the modified retrospective approach to all leases existing at, or entered into on or after, the date of adoption of April 1, 2019.

The Company did not restate comparative periods, as permitted by ASU 2018-11, and elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allows the Company to carry forward the historical lease classification. Further, the Company made an accounting policy election to keep leases with an initial term of 12 months or less off of the balance sheet. The Company will recognize those lease payments in the Consolidated Statements of Operations on a straight-line basis over the lease term.

As a result of adoption of this standard and election of the transition practical expedients, the Company recognized right-of-use ("ROU") assets and lease liabilities for those leases classified as operating leases under ASC Topic 840 that continued to be classified as operating leases under ASC Topic 842 at the date of initial application. The Company does not have any leases classified as a capital lease under ASC 840 and therefore has no leases classified as a "finance lease" under the new standard.

In applying the alternative modified retrospective transition method, the Company measured lease liabilities at the present value of the sum of remaining minimum rental payments (as defined under ASC Topic 840). The present value of lease liabilities has been measured using the Company's incremental borrowing rates as of April 1, 2019 (the date of initial application). Additionally, ROU assets for these operating leases have been measured as the initial measurement of applicable lease liabilities adjusted for any prepaid or accrued rent.

Upon adoption of Topic 842, the Company recognized ROU assets of approximately \$1.1 million and lease liabilities of approximately \$1.1 million on the Company's Condensed Consolidated Balance Sheets as of April 1, 2019, with no material impact to its Condensed Consolidated Statements of Operations.

## NOTE 2—REVENUE RECOGNITION

The Company determines revenue recognition through the following steps: (1) identification of the contract with a customer; (2) identification of the performance obligations in the contract; (3) determination of the transaction price; (4) allocation of the transaction price to the performance obligations in the contract; and (5) recognition of revenue when, or as, we satisfy a performance obligation.

The majority of the Company's customer contracts, which may be in the form of purchase orders, contracts or purchase agreements, contain performance obligations for delivery of agreed upon products. Delivery of all performance obligations contained within a contract with a customer typically occurs at the same time (or within the same accounting period). Transfer of control typically occurs at the time of shipment or at the time the product is pulled from consignment as that is the point at which delivery has occurred, title and the risks and rewards of ownership have passed to the customer, and the Company has a right to payment. Thus, the Company will generally recognize revenue upon shipment of the product.

Because all of the Company's performance obligations relate to contracts with a duration of less than one year, the Company has elected to apply the optional exemption practical expedient provided in ASC 606 and, therefore, is not required to disclose the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period.

The Company adjusts the transaction price for variable consideration. Variable consideration is not typically significant and primarily results from stock rotation rights and quick pay discounts provided to certain distributors. As a practical expedient, the Company is recognizing the incremental costs of obtaining a contract, specifically commission expenses that have a period of benefit of less than twelve months, as an expense when incurred. Additionally, the Company has adopted an accounting policy to recognize shipping costs that occur after control transfers to the customer as a fulfillment activity.

The Company's contracts with customers do not typically include extended payment terms. Payment terms vary by contract type and type of customer and generally range from 30 to 60 days from shipment. Additionally, the Company has right to payment upon shipment.

The Company records revenue net of sales tax, value added tax, excise tax and other taxes collected concurrent with product sales. The impact of such taxes on products sales is immaterial. The Company has also elected to recognize the cost for freight and shipping when control over the products sold passes to customers and revenue is recognized.

The Company warrants its products to be free of defects generally for a period of three years. The Company estimates its warranty costs based on historical warranty claim experience and includes such costs in cost of revenues. Warranty costs and the accrued warranty liability were not material as of September 30, 2019.

The majority of the Company's revenue is derived from sales of SRAM products which represent approximately 99% of total revenues in the six months ended September 30, 2019.

Nokia, the Company's largest customer, purchases products directly from the Company and through contract manufacturers and distributors. Based on information provided to the Company by its contract manufacturers and distributors, purchases by Nokia represented approximately 46% of the Company's net revenues in the six months ended September 30, 2019.

See "Note 12- Segment and Geographic Information" for revenue by shipment destination.

The following table presents the Company's revenue disaggregated by customer type.

	<u>Three Months Ended September 30,</u>		<u>Six Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
	(In thousands)			
Contract manufacturers	\$ 5,245	\$ 4,496	\$ 8,723	\$ 9,423
Distribution	5,487	8,117	14,743	14,218
OEMs	1,008	219	1,293	457
	<u>\$ 11,740</u>	<u>\$ 12,832</u>	<u>\$ 24,759</u>	<u>\$ 24,098</u>

**NOTE 3—NET LOSS PER COMMON SHARE**

The Company uses the treasury stock method to calculate the weighted average shares used in computing diluted net loss per share. The following table sets forth the computation of basic and diluted net loss per share:

	<u>Three Months Ended September 30,</u>		<u>Six Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
	(In thousands, except per share amounts)			
Net loss	\$ (1,768)	\$ (351)	\$ (1,893)	\$ (1,997)
Denominators:				
Weighted average shares—Basic	22,975	21,844	22,791	21,707
Dilutive effect of employee stock options	—	—	—	—
Dilutive effect of employee stock purchase plan options	—	—	—	—
Weighted average shares—Dilutive	<u>22,975</u>	<u>21,844</u>	<u>22,791</u>	<u>21,707</u>
Net loss per common share—Basic	\$ (0.08)	\$ (0.02)	\$ (0.08)	\$ (0.09)
Net loss per common share—Diluted	<u>\$ (0.08)</u>	<u>\$ (0.02)</u>	<u>\$ (0.08)</u>	<u>\$ (0.09)</u>

The following shares of common stock underlying outstanding stock options, determined on a weighted average basis, were excluded from the computation of diluted net loss per share as they had an anti-dilutive effect:

	<u>Three Months Ended September 30,</u>		<u>Six Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
	(In thousands)			
Shares underlying options and ESPP shares	<u>3,312</u>	<u>3,438</u>	<u>3,534</u>	<u>3,228</u>

**NOTE 4—BALANCE SHEET DETAIL**

	<u>September 30, 2019</u>	<u>March 31, 2019</u>
	(In thousands)	
Inventories:		
Work-in-progress	\$ 2,059	\$ 1,983
Finished goods	2,986	3,690
Inventory at distributors	—	12
	<u>\$ 5,045</u>	<u>\$ 5,685</u>

	<u>September 30, 2019</u>	<u>March 31, 2019</u>
	(In thousands)	
Accounts receivable, net:		
Accounts receivable	\$ 7,583	\$ 7,441
Less: Allowances for doubtful accounts and other	(95)	(102)
	<u>\$ 7,488</u>	<u>\$ 7,339</u>

	<u>September 30, 2019</u>	<u>March 31, 2019</u>
	(In thousands)	
Prepaid expenses and other current assets:		
Prepaid tooling and masks	\$ 802	\$ 535
Prepaid income taxes	54	39
Escrow deposit	1,000	1,000
Other receivables	379	321
Other prepaid expenses and other current assets	1,000	605
	<u>\$ 3,235</u>	<u>\$ 2,500</u>

	<u>September 30, 2019</u>	<u>March 31, 2019</u>
	(In thousands)	
Property and equipment, net:		
Computer and other equipment	\$ 19,153	\$ 19,086
Software	4,058	4,058
Land	3,900	3,900
Building and building improvements	3,718	3,718
Furniture and fixtures	102	102
Leasehold improvements	862	848
	<u>31,793</u>	<u>31,712</u>
Less: Accumulated depreciation	<u>(23,315)</u>	<u>(22,711)</u>
	<u>\$ 8,478</u>	<u>\$ 9,001</u>

Depreciation expense was \$305,000 and \$297,000 for the three months ended September 30, 2019 and 2018, respectively, and \$611,000 and \$548,000 for the six months ended September 30, 2019 and 2018, respectively.

	September 30, 2019	March 31, 2019
	(In thousands)	
Other assets:		
Non-current deferred income taxes	34	35
Deposits	126	125
	<u>\$ 160</u>	<u>\$ 160</u>

The following tables summarize the components of intangible assets and related accumulated amortization balances at September 30, 2019 and March 31, 2019 (in thousands):

	As of September 30, 2019		
	Gross Carrying Amount	Accumulated amortization	Net Carrying Amount
Intangible assets:			
Product designs	\$ 590	\$ (590)	\$ —
Patents	4,220	(1,614)	2,606
Software	80	(80)	—
Total	<u>\$ 4,890</u>	<u>\$ (2,284)</u>	<u>\$ 2,606</u>

	As of March 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Intangible assets:			
Product designs	\$ 590	\$ (590)	\$ —
Patents	4,220	(1,498)	2,722
Software	80	(80)	—
Total	<u>\$ 4,890</u>	<u>\$ (2,168)</u>	<u>\$ 2,722</u>

Amortization of intangible assets included in cost of revenues was \$58,000 and \$72,000 for the three months ended September 30, 2019 and 2018, respectively, and \$116,000 and \$150,000 for the six months ended September 30, 2019 and 2018, respectively.

As of September 30, 2019, the estimated future amortization expense of intangible assets in the table above is as follows (in thousands):

Fiscal year ending March 31,	
2020 (6 months remaining)	\$ 117
2021	233
2022	233
2023	233
2024	233
Thereafter	1,557
Total	<u>\$ 2,606</u>

	<u>September 30, 2019</u>	<u>March 31, 2019</u>
	(In thousands)	
Accrued expenses and other liabilities:		
Accrued compensation	\$ 3,494	\$ 4,659
Accrued professional fees	57	60
Accrued commissions	309	304
Contingent consideration	498	492
Accrued retention payment	477	415
Miscellaneous accrued expenses	898	939
	<u>\$ 5,733</u>	<u>\$ 6,869</u>

#### NOTE 5—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. The Company tests 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. The Company has one reporting unit. The Company assesses goodwill for impairment on an annual basis on the last day of February in the fourth quarter of its fiscal year.

The Company had a goodwill balance of \$8.0 million as of both March 31, 2019 and September 30, 2019. The goodwill resulted from the acquisition of MikaMonu Group Ltd. in fiscal 2016.

The Company utilized a two-step quantitative analysis to complete its annual impairment test during the fourth quarter of fiscal 2019 and concluded that there was no impairment, as the fair value of its sole reporting unit exceeded its carrying value. The Company determined that the second step of the impairment test was not necessary. No triggering event took place subsequent to the fiscal 2019 annual assessment that necessitated a quantitative impairment analysis for the Company's one reporting unit.

#### NOTE 6—INCOME TAXES

The current portion of the Company's unrecognized tax benefits was \$0 at both September 30, 2019 and March 31, 2019. The long-term portion at September 30, 2019 and March 31, 2019 was \$626,000 and \$622,000, respectively, of which the timing of the resolution is uncertain. As of September 30, 2019, \$2.6 million of unrecognized tax benefits had been recorded as a reduction to net deferred tax assets. As of September 30, 2019, the Company's net deferred tax assets of \$8.1 million were subject to a valuation allowance of \$8.1 million. As of March 31, 2019, the Company's net deferred tax assets of \$6.7 million were subject to a valuation allowance of \$6.7 million.

Management believes that within the next twelve months the Company will not have a significant reduction in uncertain tax benefits, including interest and penalties, related to positions taken with respect to credits and loss carryforwards on previously filed tax returns.

The Company's policy is to include interest and penalties related to unrecognized tax benefits within the provision for income taxes in the Condensed Consolidated Statements of Operations.

The Company is subject to taxation in the United States and various state and foreign jurisdictions. Fiscal years 2013 through 2019 remain open to examination by federal tax authorities, and fiscal years 2012 through 2019 remain open to examination by California tax authorities.

The Company's estimated annual effective income tax rate, including discrete items, was approximately (2.3%) and (5.1%) as of September 30, 2019 and 2018, respectively. The annual effective tax rates as of September 30, 2019 and 2018 vary from the United States statutory income tax rate primarily due to valuation allowances in the

United States, whereby pre-tax losses do not result in the recognition of corresponding income tax benefits and expenses and the foreign tax differential.

## NOTE 7—FINANCIAL INSTRUMENTS

### *Fair value measurements*

Authoritative accounting guidance for fair value measurements provides a framework for measuring fair value and related disclosures. The guidance applies to all financial assets and financial liabilities that are measured on a recurring basis. The guidance requires fair value measurement to be classified and disclosed in one of the following three categories:

Level 1: Valuations based on quoted prices in active markets for identical assets and liabilities. The fair value of available-for-sale securities included in the Level 1 category is based on quoted prices that are readily and regularly available in an active market. As of September 30, 2019, the Level 1 category included money market funds of \$5.7 million, which were included in cash and cash equivalents on the Condensed Consolidated Balance Sheets.

Level 2: Valuations based on observable inputs (other than Level 1 prices), such as quoted prices for similar assets at the measurement date; quoted prices in markets that are not active; or other inputs that are observable, either directly or indirectly. The fair value of available-for-sale securities included in the Level 2 category is based on the market values obtained from an independent pricing service that were evaluated using pricing models that vary by asset class and may incorporate available trade, bid and other market information and price quotes from well-established independent pricing vendors and broker-dealers. As of September 30, 2019, the Level 2 category included short-term investments \$22.3 million and long-term investments of \$4.8 million, which were comprised of certificates of deposit, government and agency securities.

Level 3: Valuations based on inputs that are unobservable and involve management judgment and the reporting entity's own assumptions about market participants and pricing. As of September 30, 2019, the Company's Level 3 financial instruments measured at fair value on the Condensed Consolidated Balance Sheets consisted of the contingent consideration liability related to the acquisition of MikaMonu. The fair value of the contingent consideration liability 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 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 is re-measured to fair value with changes recorded in selling, general and administrative expenses in the Condensed Consolidated Statements of Operations. The contingent consideration liability is included in contingent consideration, non-current on the Consolidated Balance Sheet at September 30, 2019 and March 31, 2019 in the amount of \$3.8 million and \$3.7 million, respectively, and is included in accrued expenses and other liabilities at September 30, 2019 and March 31, 2019 in the amount of \$498,000 and \$492,000, respectively.

The fair value of financial assets measured on a recurring basis is as follows (in thousands):

	September 30, 2019	Fair Value Measurements at Reporting Date Using		
		Quoted Prices in Active Markets for Identical Assets and Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
Money market funds	\$ 5,708	\$ 5,708	\$ —	\$ —
Marketable securities	27,140	—	27,140	—
<b>Total</b>	<b>\$ 32,848</b>	<b>\$ 5,708</b>	<b>\$ 27,140</b>	<b>\$ —</b>
<b>Liabilities:</b>				
Contingent consideration	\$ 3,766	\$ —	\$ —	\$ 3,766

	March 31, 2019	Fair Value Measurements at Reporting Date Using		
		Quoted Prices in Active Markets for Identical Assets and Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
Money market funds	\$ 4,090	\$ 4,090	\$ —	\$ —
Marketable securities	28,343	—	28,343	—
<b>Total</b>	<b>\$ 32,433</b>	<b>\$ 4,090</b>	<b>\$ 28,343</b>	<b>\$ —</b>
<b>Liabilities:</b>				
Contingent consideration	\$ 4,206	\$ —	\$ —	\$ 4,206

The following table sets forth the changes in fair value of contingent consideration for the six months ended September 30, 2019 or September 30, 2018:

	Six Months Ended September 30,	
	2019	2018
	(In thousands)	
Contingent consideration, beginning of period	\$ 4,206	\$ 5,514
Change due to accretion	58	74
Payment of contingent consideration	—	(750)
Contingent consideration, end of period	<b>\$ 4,264</b>	<b>\$ 4,838</b>

***Short-term and long-term investments***

All of the Company's short-term and long-term investments are classified as available-for-sale. Available-for-sale debt securities with maturities greater than twelve months are classified as long-term investments when they are not intended for use in current operations. Investments in available-for-sale securities are reported at fair value with unrecognized gains (losses), net of tax, as a component of accumulated other comprehensive income (loss) in the Condensed Consolidated Balance Sheets. The Company had money market funds of \$5.7 million and \$4.1 million at September 30, 2019 and March 31, 2019, respectively, included in cash and cash equivalents on the Condensed Consolidated Balance Sheets. The Company monitors its investments for impairment periodically and records appropriate reductions in carrying values when declines are determined to be other-than-temporary.

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The following table summarizes the Company's available-for-sale investments:

	September 30, 2019			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
(In thousands)				
Short-term investments:				
Certificates of deposit	\$ 11,250	\$ 26	—	\$ 11,276
Agency bonds	6,798	20	(2)	6,816
Supranational obligations	4,261	—	(1)	4,260
Total short-term investments	<u>\$ 22,309</u>	<u>\$ 46</u>	<u>\$ (3)</u>	<u>\$ 22,352</u>
Long-term investments:				
Certificates of deposit	\$ 4,740	\$ 48	\$ —	\$ 4,788
Total long-term investments	<u>\$ 4,740</u>	<u>\$ 48</u>	<u>\$ —</u>	<u>\$ 4,788</u>

	March 31, 2019			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
(In thousands)				
Short-term investments:				
Certificates of deposit	\$ 16,500	\$ 4	\$ (24)	\$ 16,480
Supranational obligations	2,867	—	(1)	2,866
Total short-term investments	<u>\$ 19,367</u>	<u>\$ 4</u>	<u>\$ (25)</u>	<u>\$ 19,346</u>
Long-term investments:				
Certificates of deposit	\$ 6,000	\$ 23	\$ (4)	\$ 6,019
Agency bonds	2,968	11	(1)	2,978
Total long-term investments	<u>\$ 8,968</u>	<u>\$ 34</u>	<u>\$ (5)</u>	<u>\$ 8,997</u>

The following table shows the gross unrealized losses and fair value of the Company's investments with unrealized losses aggregated by investment category and length of time that individual securities have been in a continuous loss position as of September 30, 2019 and March 31, 2019, respectively.

	September 30, 2019					
	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
(In thousands)						
Certificates of deposit	\$ —	\$ —	\$ 500	\$ —	\$ 500	\$ —
Supranational obligations	2,998	(1)	—	—	2,998	(1)
Agency bonds	3,817	(2)	—	—	3,817	(2)
	<u>\$ 6,815</u>	<u>\$ (3)</u>	<u>\$ 500</u>	<u>\$ —</u>	<u>\$ 7,315</u>	<u>\$ (3)</u>

	March 31, 2019					
	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
(In thousands)						
Certificates of deposit	\$ 2,998	\$ (2)	\$ 7,974	\$ (26)	\$ 10,972	\$ (28)
Supranational obligations	2,866	(1)	—	—	2,866	(1)
Agency bonds	1,501	(1)	—	—	1,501	(1)
	<u>\$ 7,365</u>	<u>\$ (4)</u>	<u>\$ 7,974</u>	<u>\$ (26)</u>	<u>\$ 15,339</u>	<u>\$ (30)</u>

The Company’s investment portfolio consists of both corporate and governmental securities that have a maximum maturity of three years. All unrealized gains and losses are due to changes in interest rates and bond yields. Subject to normal credit risks, the Company has the ability to realize the full value of all these investments upon maturity.

The deferred tax liability related to unrecognized gains and losses on short-term and long-term investments was \$(20,000) and \$(2,000) at September 30, 2019 and March 31, 2019, respectively.

As of September 30, 2019, contractual maturities of the Company’s available-for-sale investments were as follows:

	Cost	Fair Value
	(In thousands)	
Maturing within one year	\$ 22,309	\$ 22,352
Maturing in one to three years	4,740	4,788
	<u>\$ 27,049</u>	<u>\$ 27,140</u>

The Company classifies its short-term investments as “available-for-sale” as they are intended to be available for use in current operations.

**NOTE 8—LEASES**

The Company has operating leases for corporate offices, research and development facilities, certain equipment and software. The Company’s leases have remaining lease terms of 11 months to 31 months, some of which include options to extend for up to 5 years.

Supplemental balance sheet information related to leases was as follows:

	As of September 30, 2019
	(in thousands)
<b>Operating Leases</b>	
Operating lease right-of-use assets	\$ 913
Lease liabilities-current	\$ 620
Lease liabilities-non-current	329
Total operating lease liabilities	<u>\$ 949</u>

The following table provides the details of lease costs:

	Three months ended September 30, 2019	Six months ended September 30, 2019
	(in thousands)	
Amortization of right-of-use assets	\$ 135	\$ 279
Operating lease cost	158	319
Short-term lease cost	7	14
	<u>\$ 300</u>	<u>\$ 612</u>

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The following table provides other information related to leases:

	<u>Six months ended</u> <u>September 30, 2019</u>
	(amounts in thousands)
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from operating leases	\$ 321
Right-of-use assets obtained in exchange for lease obligations	
Operating leases	\$ 1,228
Weighted-average remaining lease term (years):	
Operating leases	1.72
Weighted-average discount rate:	
Operating leases	6.46%

The following table provides the maturities of the Company's operating lease liabilities as of September 30, 2019:

Fiscal Year	<u>Operating Lease</u> <u>Liabilities</u>
	(in thousands)
2020 (Remaining six months)	\$ 325
2021	521
2022	149
2023	7
Total undiscounted future cash flows	1,002
Less: Imputed interest	(53)
Present value of undiscounted future cash flows	\$ 949
Presentation on statement of financial position	
Current	\$ 620
Non-current	\$ 329

The following table provides the future minimum lease payments as of September 30, 2019 in accordance with ASC 840:

Fiscal Year Ending March 31,	<u>Operating</u> <u>Leases</u>
	(In thousands)
2020 (Remaining six months)	\$ 325
2021	521
2022	149
2023	7
Total	\$ 1,002

## NOTE 9—COMMITMENTS AND CONTINGENCIES

### *Indemnification obligations*

The Company is a party to a variety of agreements pursuant to which it may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in the context of contracts entered into

by the Company, under which the Company agrees to hold the other party harmless against losses arising from a breach of representations and covenants related to such matters as title to assets sold and certain intellectual property rights. In each of these circumstances, payment by the Company is conditioned on the other party making a claim pursuant to the procedures specified in the particular contract, which procedures typically allow the Company to challenge the other party's claims. Further, the Company's obligations under these agreements may be limited in terms of time and/or amount, and in some instances, the Company may have recourse against third parties for certain payments made by it under these agreements.

It is not possible to predict the maximum potential amount of future payments that may be required under these or similar agreements due to the conditional nature of the Company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the Company under these agreements have not had a material effect on its business, financial condition, cash flows or results of operations.

#### *Product warranties*

The Company warrants its products to be free of defects generally for a period of three years. The Company estimates its warranty costs based on historical warranty claim experience and includes such costs in cost of revenues. Warranty costs and the accrued warranty liability were not material as of September 30, 2019 and March 31, 2019 and for the three and six months ended September 30, 2019 or 2018.

#### **NOTE 10—STOCK-BASED COMPENSATION**

As of September 30, 2019, 2,772,945 shares of common stock were available for grant under the Company's 2016 Equity Incentive Plan.

The following table summarizes the Company's stock option activities for the six months ended September 30, 2019:

	Shares Available for Grant	Number of Shares Underlying Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Intrinsic Value
Balance at March 31, 2019	3,426,548	8,017,029		\$ 5.77	
Granted	(689,503)	689,503		\$ 8.21	
Exercised	—	(655,886)		\$ 4.23	\$ 2,321,341
Forfeited	35,900	(36,200)		\$ 7.84	
Balance at September 30, 2019	<u>2,772,945</u>	<u>8,014,446</u>	5.82	\$ 6.10	
Options vested and exercisable		<u>5,026,193</u>	4.28	\$ 5.67	<u>\$ 15,603,850</u>
Options vested and expected to vest		<u>7,940,283</u>	5.79	\$ 6.08	<u>\$ 21,289,175</u>

The weighted average fair value per underlying share of options granted during the three months ended September 30, 2019 and 2018 was \$2.90 and \$2.42, respectively, and \$2.88 and \$2.45 for the six months ended September 30, 2019 and 2018, respectively.

Options outstanding by exercise price at September 30, 2019 were as follows:

Exercise Price	Number of Shares Underlying Options Outstanding	Options Outstanding		Options Exercisable		
		Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Number Vested and Exercisable	Weighted Average Exercise Price	
\$ 3.40	- 4.81	957,756	\$ 4.07	4.45	865,049	\$ 4.14
\$ 4.90	- 4.99	1,340,596	\$ 4.97	5.64	898,747	\$ 4.96
\$ 5.13	- 5.59	962,051	\$ 5.32	5.01	919,326	\$ 5.32
\$ 5.69	- 6.16	871,552	\$ 5.93	5.14	626,335	\$ 5.89
\$ 6.24	- 6.70	1,409,493	\$ 6.58	5.61	792,073	\$ 6.49
\$ 6.82	- 7.26	1,316,585	\$ 7.05	5.79	739,038	\$ 6.93
\$ 7.40	- 7.88	331,830	\$ 7.65	8.83	55,518	\$ 7.50
\$ 8.09		98,110	\$ 8.09	8.33	21,527	\$ 8.09
\$ 8.30		617,893	\$ 8.30	9.83	-	\$ -
\$ 9.20		108,580	\$ 9.20	1.34	108,580	\$ 9.20
		<u>8,014,446</u>	\$		<u>5,026,193</u>	\$

The following table summarizes stock-based compensation expense by line item in the Condensed Consolidated Statements of Operations, all relating to employee stock plans:

	Three Months Ended September 30,		Six Months Ended September 30,	
	2019	2018	2019	2018
	(In Thousands)			
Cost of revenues	\$ 52	\$ 61	\$ 107	\$ 114
Research and development	397	321	796	644
Selling, general and administrative	193	170	390	336
Total	\$ 642	\$ 552	\$ 1,293	\$ 1,094

As stock-based compensation expense recognized in the Condensed Consolidated Statement of Operations is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures in accordance with authoritative guidance. The Company estimates forfeitures at the time of grant and revises the original estimates, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

No tax benefit related to stock-based compensation was recognized in the six months ended September 30, 2019 due to a full valuation allowance. There were no windfall tax benefits realized from exercised stock options in either of these periods. Compensation cost capitalized within inventory at September 30, 2019 was immaterial. As of September 30, 2019, the Company's total unrecognized compensation cost was \$5.3 million, which will be recognized over a weighted average period of 2.18 years. The Company calculated the fair value of stock-based awards in the periods presented using the Black-Scholes option pricing model and the following weighted average assumptions:

	Three Months Ended September 30,		Six Months Ended September 30,	
	2019	2018	2019	2018
<b>Stock Option Plans:</b>				
Risk-free interest rate	1.84 %	2.85 %	1.84 - 2.30 %	2.78 - 2.85 %
Expected life (in years)	5.00	5.00	5.00	5.00
Volatility	36.7 %	35.9 %	36.7 - 37.3 %	35.6 - 35.9 %
Dividend yield	— %	— %	— %	— %
<b>Employee Stock Purchase Plan:</b>				
Risk-free interest rate	— %	— %	2.43 %	2.09 %
Expected life (in years)	—	—	0.50	0.50
Volatility	— %	— %	43.1 %	37.7 %
Dividend yield	— %	— %	— %	— %

**NOTE 11—RELATED PARTY TRANSACTION**

The Company incurred non-recurring engineering service expense of approximately \$230,000 in connection with the design and development of a 167mm single-APU PCIe board to be used in the Company’s in-place associative computing product, Gemini I™, during the three month period ending September 30, 2019 from Wistron Neweb Corp (“WNC”). Haydn Hsieh, a member of the Company’s board of directors, is the Chairman and Chief Strategy Officer of WNC.

**NOTE 12—SEGMENT AND GEOGRAPHIC INFORMATION**

Based on its operating management and financial reporting structure, the Company has determined that it has one reportable business segment: the design, development and sale of integrated circuits.

The following is a summary of net revenues by geographic area based on the location to which product is shipped:

	Three Months Ended September 30,		Six Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)			
United States	\$ 3,780	\$ 4,329	\$ 8,387	\$ 8,819
China	2,137	1,008	3,369	2,016
Singapore	1,230	3,017	4,771	5,021
Netherlands	3,358	2,143	4,751	4,542
Germany	1,016	1,992	2,913	2,945
Rest of the world	219	343	568	755
	<u>\$ 11,740</u>	<u>\$ 12,832</u>	<u>\$ 24,759</u>	<u>\$ 24,098</u>

All sales are denominated in United States dollars.

**Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations**

*This Quarterly Report on Form 10-Q, and in particular the following Management’s Discussion and Analysis of Financial Condition and Results of Operations, 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 “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.*

**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, 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 Taiwan Semiconductor Manufacturing Company, or 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. The majority of our customer contracts, which may be in the form of purchase orders, contracts or purchase agreements, contain performance obligations for delivery of agreed upon products. Delivery of all performance obligations contained within a contract with a customer typically occurs at the same time (or within the same accounting period). Transfer of control typically occurs at the time of shipment or at the time the product is pulled from consignment as that is the point at which delivery has occurred, title and the risks and rewards of ownership have passed to the customer, and we have a right to payment. Thus, we will generally recognize revenue upon shipment of the product. Sales to consignment warehouses, who purchase products from us for use by contract manufacturers, are recorded upon delivery to the contract manufacturer.

Nokia was our largest customer in fiscal 2019, 2018 and 2017. 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 46%, 45%, 36% and 41% of our net revenues in the six months ended September 30, 2019 and in fiscal 2019, 2018 and 2017, 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 the six months ended September 30, 2019 and in fiscal 2019, 2018 or 2017.

*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 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.

**Results of Operations**

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

	<u>Three Months Ended September 30,</u>		<u>Six Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Net revenues	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenues	44.1	37.4	40.2	42.6
Gross profit	55.9	62.6	59.8	57.4
Operating expenses:				
Research and development	49.7	44.9	46.1	44.0
Selling, general and administrative	22.6	20.8	22.4	21.9
Total operating expenses	72.3	65.7	68.5	65.9
Loss from operations	(16.4)	(3.1)	(8.7)	(8.5)
Interest and other income, net	1.8	1.2	1.4	0.7
Loss before income taxes	(14.6)	(1.9)	(7.3)	(7.8)
Provision for income taxes	0.5	0.8	0.4	0.5
Net loss	(15.1)	(2.7)	(7.7)	(8.3)

*Net Revenues.* Net revenues decreased by 8.5% from \$12.8 million in the three months ended September 30, 2018 to \$11.7 million in the three months ended September 30, 2019 and increased by 2.7% from \$24.1 million in the six months ended September 30, 2018 to \$24.8 million in the six months ended September 30, 2019. The overall average selling price of all units shipped in the quarter ended September 30, 2019 increased by 1.0% compared to the quarter ended September 30, 2018 and increased by 16.6% in the six months ended September 30, 2019 compared to the six months ended September 30, 2018. The changes in the average selling price in each fiscal 2020 period were due to changes in product mix, as we sold more or less higher density, higher average selling price products in the fiscal 2020 periods compared to the prior fiscal year periods. Direct and indirect sales to Nokia, currently our largest customer, decreased from \$6.0 million in the three months ended September 30, 2018 to \$5.3 million in the three months ended September 30, 2019 and increased from \$11.2 million in the six months ended September 30, 2018 to \$11.3 million in the six months ended September 30, 2019. Shipments of our SigmaQuad product line accounted for 63.5% of total shipments in the three months ended September 30, 2019 compared to 66.4% of total shipments in the three months ended September 30, 2018 and 65.9% of total shipments in the six months ended September 30, 2019 compared to 63.2% of total shipments in the six months ended September 30, 2018. The changes in SigmaQuad shipments were primarily due to the changes in sales to Nokia discussed above.

*Cost of Revenues.* Cost of revenues increased by 7.7% from \$4.8 million in the three months ended September 30, 2018 to \$5.2 million in the three months ended September 30, 2019 and decreased by 3.2% from \$10.3 million in the six months ended September 30, 2018 to \$9.9 million in the six months ended September 30, 2019. Cost of revenues included a provision for excess and obsolete inventories of \$136,000 in the six months ended September 30, 2019 compared to \$794,000 in the six months ended September 30, 2018. Cost of revenues included stock-based compensation expense of \$52,000 and \$61,000 for the three months ended September 30, 2019 and 2018, respectively, and \$107,000 and \$114,000 for the six months ended September 30, 2019 and 2018, respectively.

*Gross Profit.* Gross profit decreased by 18.2% from \$8.0 million in the three months ended September 30, 2018 to \$6.6 million in the three months ended September 30, 2019 and increased by 7.2% from \$13.8 million in the six months ended September 30, 2018 to \$14.8 million in the six months ended September 30, 2019.

Gross margin decreased from 62.6% in the three months ended September 30, 2018 to 55.9% in the three months ended September 30, 2019 and increased from 57.4% in the six months ended September 30, 2018 to 59.8% in the six months ended September 30, 2019. The change in gross profit in each period is primarily related to the changes in net revenues discussed above. The changes in gross margin are primarily related to changes in the mix of products and customers and changes in the level of charges for inventory reserves booked in each period.

*Research and Development Expenses.* Research and development expenses were unchanged at \$5.8 million in the three months ended September 30, 2018 and in the three months ended September 30, 2019. A decrease of \$986,000 in non-production mask sets was primarily offset by an increases of \$440,000 in consulting and prototype development fees, \$401,000 in payroll related expenses and a lesser decrease in stock-based compensation expense. Research and development expenses included stock-based compensation expense of \$397,000 and \$321,000 for the three months ended September 30, 2019 and 2018, respectively. Research and development expenses increased 7.8% from \$10.6 million in the six months ended September 30, 2018 to \$11.4 million in the six months ended September 30, 2019. The increase was primarily due to increases of \$720,000 in consulting and prototype development fees, \$650,000 in payroll related expenses \$151,000 in stock-based compensation expense that were primarily offset by a decrease of \$986,000 in non-production mask sets. Research and development expenses included stock-based compensation expense of \$796,000 and \$644,000 for the six months ended September 30, 2019 and 2018, respectively.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses were unchanged at \$2.7 million in the three months ended September 30, 2018 and in the three months ended September 30, 2019. A decrease of \$108,000 for independent sales representatives commissions was primarily offset by an increase of \$48,000 for payroll related expenses. Selling, general and administrative expenses included stock-based compensation expense of \$193,000 and \$170,000 for the three months ended September 30, 2019 and 2018, respectively. Selling, general and administrative expenses increased by 5.0% from \$5.3 million in the six months ended September 30, 2018 to \$5.5 million in the six months ended September 30, 2019. Increases in professional fees of \$137,000 and \$97,000 in payroll related expenses were primarily offset by a decrease of \$64,000 in independent sales representative commissions. Selling, general and administrative expenses included stock-based compensation expense of \$390,000 and \$336,000 for the six months ended September 30, 2019 and 2018, respectively.

*Interest Income, Net.* Interest and other income, net increased 44.8% from income of \$145,000 in the three months ended September 30, 2018 to \$210,000 in the three months ended September 30, 2019. Interest income increased by \$61,000 due to higher interest rates received on our cash and short-term and long-term investments. Foreign exchange losses were \$9,000 for the three months ended September 30, 2018 compared to \$5,000 for the three months ended September 30, 2019. The exchange losses in each period were related to our Taiwan branch operations and our operations in Israel. Interest and other income, net increased 112.5% from income of \$168,000 in the six months ended September 30, 2018 to \$357,000 in the six months ended September 30, 2019. Interest income increased by \$128,000 due to higher interest rates received on our cash and short-term and long-term investments. We had a foreign exchange loss of \$124,000 for the six months ended September 30, 2018 compared to \$63,000 for the six months ended September 30, 2019. The exchange losses in each period were related to our Taiwan branch operations and our operations in Israel.

*Provision for Income Taxes.* The provision for income taxes decreased 46.1% from \$102,000 in the three months ended September 30, 2018 to \$55,000 in the three months ended September 30, 2019 and 12.5% from \$112,000 in the six months ended September 30, 2018 to \$98,000 in the six months ended September 30, 2019. These changes were primarily due to fluctuations in the relative mix of income among our operating jurisdictions.

*Net Loss.* Net loss was \$351,000 in the three months ended September 30, 2018 compared \$1.8 million in the three months ended September 30, 2019 and was \$2.0 million in the six months ended September 30, 2018 compared to \$1.9 million in the six months ended September 30, 2019. These fluctuations were primarily due to the changes in net revenues, gross profit and operating expenses discussed above.

## **Liquidity and Capital Resources**

As of September 30, 2019, our principal sources of liquidity were cash, cash equivalents and short-term investments of \$68.1 million compared to \$61.8 million as of March 31, 2019.

Net cash used in operating activities was \$1.1 million for the six months ended September 30, 2019 compared to \$620,000 for the six months ended September 30, 2018. The primary uses of cash in the six months ended September 30, 2019 was the net loss of \$1.9 million, a reduction in accrued expenses and other liabilities of \$1.4 million and a lesser amount related to an increase in prepaid expenses and other assets. The reduction in

accrued expenses and other liabilities was primarily related to the payment of fiscal 2019 year-end compensation related accruals. Primary sources of cash in the six months ended September 30, 2019 were non-cash items including stock-based compensation of \$1.3 million and depreciation and amortization expenses of \$727,000.

The primary uses of cash in the six month period ended September 30, 2018 were a net loss of \$2.0 million and an increase in accounts receivable of \$2.6 million. Accounts receivable increased primarily due to the timing of payments received from customers and the increased level of shipments compared to the prior year, primarily related to shipments to Nokia, our largest customer. Primary sources of cash in the six months ended September 30, 2018 were an increase in accrued expenses and other liabilities of \$1.6 million and non-cash items including stock-based compensation of \$1.1 million, a provision for excess and obsolete inventories of \$794,000, and depreciation and amortization expenses of \$698,000. The increase in accrued expenses and other liabilities included an accrual for approximately \$1.0 million related to a non-production mask set for our initial APU product.

Net cash provided by investing activities was \$1.2 million in the six months ended September 30, 2019 compared to net cash used by investing activities of \$3.2 million in the six months ended September 30, 2018.

Investment activities in the six months ended September 30, 2019 primarily consisted of the maturity of certificates of deposit of \$10.1 million, partially offset by the purchase of certificates of deposit and agency bonds of \$8.8 million. Investment activities in the six months ended September 30, 2018 primarily consisted of the purchase of agency bonds and certificates of deposit of \$9.6 million and the purchase of property and equipment of \$1.7 million, partially offset by the maturity of agency bonds and certificates of deposit of \$8.1 million.

Net cash provided by financing activities in the six months ended September 30, 2019 consisted of the net proceeds from the sale of common stock pursuant to our employee stock plans of \$3.1 million. Net cash provided by financing activities in the six months ended September 30, 2018 consisted of the net proceeds from the sale of common stock pursuant to our employee stock plans of \$2.2 million partially offset by a payment of contingent consideration related to our acquisition of MikaMonu in November 2015 in the amount of \$720,000.

Our estimated annual effective income tax rate was approximately (2.3%) as of September 30, 2019.

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 revenue growth, if any, 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. Additional capital may also be required for the consummation of any acquisition of businesses, products or technologies that we may undertake. We cannot assure 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 September 30, 2019:

	Payments due by period				Total
	Up to 1 year	1 - 3 years	3 - 5 years	More than 5 years	
Facilities and software leases	\$ 325,000	\$ 670,000	\$ 7,000	\$ —	\$ 1,002,000
Wafer, software and test purchase obligations	1,365,000	687,000	—	—	2,052,000
	<u>\$ 1,690,000</u>	<u>\$ 1,357,000</u>	<u>\$ 7,000</u>	<u>\$ —</u>	<u>\$ 3,054,000</u>

As of September 30, 2019, the current portion of our unrecognized tax benefits was \$0, and the long-term portion was \$626,000.

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 revenue targets for products based on the MikaMonu technology. As of September

30, 2019, the accrual for potential contingent consideration was \$4.3 million and is payable at various dates through December 31, 2025.

### **Critical Accounting Policies and Estimates**

Our critical accounting policies and estimates are disclosed in our Annual Report on Form 10-K for the fiscal year ended March 31, 2019.

### **Off-Balance Sheet Arrangements**

At September 30, 2019, 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.

### **Recent Accounting Pronouncements**

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

### **Item 3. *Quantitative and Qualitative Disclosure About Market Risk***

*Foreign Currency Exchange Risk.* Our revenues and expenses, except those expenses related to our operations in Taiwan and in Israel, including subcontractor manufacturing expenses, are denominated in U.S. dollars. As a result, we have relatively little exposure for currency exchange risks, and foreign exchange gains and 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 feel 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 \$72.9 million at September 30, 2019. These amounts were invested primarily in money market funds, certificates of deposit, government agency bonds and foreign government obligations. 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 or decrease 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.

### **Item 4. *Controls and Procedures***

#### ***Management's Evaluation of Disclosure Controls and Procedures***

Based on their evaluation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of September 30, 2019, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report for the purpose of ensuring that the information required to be disclosed by us in this report is made known to them by others on a timely basis, and that the information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, in order to allow timely decisions regarding required disclosure, and that such information is recorded, processed, summarized, and reported by us within the time periods specified in the SEC's rules and instructions for Form 10-Q.

***Changes in Internal Control over Financial Reporting***

There were no changes in our internal control over financial reporting that occurred during the quarter ended September 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**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 condensed consolidated financial statements and related notes. The risk factors described below do not contain any material changes from those previously disclosed in Item 1A of our Annual Report on Form 10-K for the fiscal year ended March 31, 2019.*

***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 ten fiscal quarters ended September 30, 2019, we recorded net revenues of as much as \$14.7 million and as little as \$9.6 million and quarterly operating income of as much as \$2.2 million 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;
- 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 46%, 45%, 36% and 41% of our net revenues in the six months ended September 30, 2019 and in fiscal 2019, 2018 and 2017, 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 net losses of \$4.5 million and \$115,000 during fiscal 2018 and 2017, respectively. 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.

***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 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, will require a substantial effort during fiscal 2020 and beyond 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. 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 cyclical nature.

***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.

***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 and APU 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.

***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 the six months ended September 30, 2019 and in fiscal 2019, 2018 and 2017, our largest distributor Avnet Logistics accounted for 29.7%, 31.3%, 35.3% and 25.5%, 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.

***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 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 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 September 30, 2019, three customers accounted for 47%, 16% and 11% 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.

***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;
- 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.

***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 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.

***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

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 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.

***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.

***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.

***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.

***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 the second quarter of fiscal 2019, we incurred approximately \$1.0 million in research and development expense associated with a pre-production mask set that will not be used in production as part of the transition to our new 28 nanometer SRAM process technology for our APU product. 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 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.

***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.

***Our international business exposes us to additional risks.***

Products shipped to destinations outside of the United States accounted for 66.1%, 62.5%, 51.5% and 59.1% of our net revenues in the six months ended September 30, 2019 and in fiscal 2019, 2018 and 2017, 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;
- 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. 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.

***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.

***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.

***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;
- 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 June 2019 we repurchased and retired an aggregate of 12,004,779 shares of our common stock at a total cost of \$60.7 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, 2019, we had outstanding authorization from our Board of Directors to purchase up to an additional \$4.3 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.

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

As of October 31, 2019, our executive officers, directors and entities affiliated with them beneficially owned approximately 35% 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 2.                    *Unregistered Sales of Equity Securities and Use of Proceeds***

**Stock Repurchase Program**

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 September 30, 2019, we did not repurchase any of our shares under the repurchase program.

**Item 6. Exhibits**

Exhibit Number	Name of Document
31.1	<a href="#">Certification of Lee-Lean Shu, President, Chief Executive Officer and Chairman, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
31.2	<a href="#">Certification of Douglas M. Schirle, Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
32.1	<a href="#">Certification of Lee-Lean Shu, President, Chief Executive Officer and Chairman, and Douglas M. Schirle, Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</a>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document



**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT  
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Lee-Lean Shu, certify that:

1. I have reviewed this quarterly report on Form 10-Q of GSI Technology, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting, which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

November 5, 2019

/s/ LEE-LEAN SHU

Lee-Lean Shu

*President, Chief Executive Officer and Chairman*

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**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT  
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Douglas M. Schirle, certify that:

1. I have reviewed this quarterly report on Form 10-Q of GSI Technology, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting, which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

November 5, 2019

/s/ DOUGLAS M. SCHIRLE

Douglas M. Schirle

*Chief Financial Officer*

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**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of GSI Technology, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officers of the Company, each certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

November 5, 2019

/s/ LEE-LEAN SHU

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Lee-Lean Shu

*President, Chief Executive Officer and Chairman*

/s/ DOUGLAS M. SCHIRLE

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Douglas M. Schirle

*Chief Financial Officer*

*A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Registrant and will be retained by the Registrant and furnished to the Securities and Exchange Commission or its staff upon request.*

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