

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

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 28, 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 No. 001-14605

**GIGA-TRONICS INCORPORATED**

(Exact name of registrant as specified in its charter)

California

(State or other jurisdiction of incorporation or organization)

94-2656341

(I.R.S. Employer Identification No.)

5990 Gleason Drive, Dublin CA 94568

(Address of principal executive offices)

(925) 328-4650

Registrant's telephone number, including area code

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, No par value	GIGA	OTCQB Market

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 (§232.405 of this chapter) 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

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2).

Yes  No

There were a total of 38,624,750 shares of the Registrant's Common Stock outstanding as of November 8, 2019.

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32.1 Certification of CEO pursuant to Section 906 of Sarbanes-Oxley Act.
32.1 Certification of CFO pursuant to Section 302 of Sarbanes-Oxley Act.

## FORWARD-LOOKING STATEMENTS

This report on Form 10-Q contains forward-looking statements about Giga-tronics Incorporated (the "Company") for which it claims the protection of the safe harbor provisions contained in the Private Securities Litigation Reform Act of 1995. Examples of forward-looking statements include, but are not limited to: (i) projections of revenues, expenses, income or loss, earnings or loss per share, capital structure and other financial items; (ii) statements of plans, objectives and expectations of the Company or its management or board of directors, including those relating to products, revenue or cost savings; (iii) statements of future economic performance; and (iv) statements of assumptions underlying such statements. Words such as "believes", "anticipates", "expects", "intends", "targeted", "projected", "continue", "remain", "will", "should", "may" and other similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements.

These forward-looking statements are based on Management's current knowledge and belief and include information concerning the Company's possible or assumed future financial condition and results of operations. A number of factors, some of which are beyond the Company's ability to predict or control, could cause future results to differ materially from those contemplated. These factors include but are not limited to risks related to (1) the Company's ability to obtain necessary capital to finance its operations; (2) the Company's ability to develop competitive products in a market with rapidly changing technology and standards; (3) the results of pending or threatened litigation; (4) risks related to customers' credit worthiness/profiles; (5) changes in the Company's credit profile and its ability to borrow; (6) a potential decline in demand for certain of the Company's products; (7) potential product liability claims; (8) the potential loss of key personnel; and (9) U.S. and international economic conditions. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. The reader is directed to the Company's annual report on Form 10-K for the year ended March 30, 2019 for further discussion of factors that could affect the Company's business and cause actual results to differ materially from those expressed in any forward-looking statement made in this report. The Company undertakes no obligation to update any forward-looking statements in this report.

**PART I – FINANCIAL INFORMATION**

**ITEM 1 - FINANCIAL STATEMENTS**

**GIGA-TRONICS INCORPORATED  
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)**

<b>(In thousands except share data)</b>	<b>September 28, 2019</b>	<b>March 30, 2019</b>
<b>Assets</b>		
Current assets:		
Cash and cash-equivalents	\$ 704	\$ 878
Trade accounts receivable, net of allowance of \$8 and \$8, respectively	994	568
Inventories, net	3,217	2,734
Prepaid expenses and other current assets	1,864	1,354
<b>Total current assets</b>	<b>6,779</b>	<b>5,534</b>
Property and equipment, net	567	569
Right of use asset	1,231	—
Other long term assets	176	176
<b>Total assets</b>	<b>\$ 8,753</b>	<b>\$ 6,279</b>
<b>Liabilities and shareholders' equity</b>		
Current liabilities:		
Accounts payable	\$ 1,512	\$ 747
Loans payable, net of discounts and issuance costs	2,073	1,781
Accrued payroll and benefits	280	476
Deferred rent	2	74
Lease obligations	396	41
Deferred liability related to asset sale	29	40
Other current liabilities	591	754
<b>Total current liabilities</b>	<b>4,883</b>	<b>3,913</b>
Other non-current liabilities	192	172
Long term deferred rent	2	358
Long term obligations - leases	1,268	21
<b>Total liabilities</b>	<b>6,345</b>	<b>4,464</b>
Commitments and contingencies		
Shareholders' equity:		
Preferred stock; no par value; Authorized - 1,000,000 shares Series A convertible- designated 250,000 shares; no shares at September 28, 2019 and March 30, 2019 issued and outstanding	—	—
Series B, C, D convertible - designated 19,500 shares; 17,781.64 shares at September 28, 2019 and 18,533.51 at March 30, 2019 outstanding; (liquidation preference of \$3,367 at September 28, 2019 and \$3,540 at March 30, 2019)	2,745	2,911
Series E convertible- designated 100,000 shares; 97,800 shares at September 28, 2019 and 98,400 shares at March 30, 2019 outstanding; (liquidation preference of \$3,668 at September 28, 2019 and \$3,690 at March 30, 2019)	1,878	1,895
Common stock; no par value; Authorized - 40,000,000 shares; 13,215,188 shares at September 28, 2019 and 11,360,511 shares at March 30, 2019 issued and outstanding	26,279	25,557
Accumulated deficit	(28,494)	(28,548)
<b>Total shareholders' equity</b>	<b>2,408</b>	<b>1,815</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 8,753</b>	<b>\$ 6,279</b>

*See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements*

**GIGA-TRONICS INCORPORATED**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)**

(In thousands except per share data)	Three Months Ended		Six Months Ended	
	September 28, 2019	September 29, 2018	September 28, 2019	September 29, 2018
<b>Net revenue</b>				
Goods	\$ 373	\$ 109	\$ 2,311	\$ 316
Services	2,662	2,571	4,222	5,414
Total revenue	3,035	2,680	6,533	5,730
Cost of goods and services	1,787	1,554	3,754	3,298
<b>Gross profit</b>	1,248	1,126	2,779	2,432
Operating expenses:				
Engineering	349	343	704	718
Selling, general and administrative	751	900	1,798	1,901
Total operating expenses	1,100	1,243	2,502	2,619
<b>Operating income (loss)</b>	148	(117)	277	(187)
Interest expense:				
Interest expense, net	(66)	(87)	(124)	(173)
Interest expense from accretion of loan discount	—	(54)	(19)	(105)
Total interest expense, net	(66)	(141)	(143)	(278)
<b>Income (loss) before income taxes</b>	82	(258)	134	(465)
Provision for income taxes	2	2	2	42
<b>Net income (loss)</b>	\$ 80	\$ (260)	\$ 132	\$ (507)
Deemed dividend on Series E shares	\$ (36)	\$ (22)	\$ (73)	\$ (62)
<b>Net income (loss) attributable to common shareholders</b>	\$ 44	\$ (282)	\$ 59	\$ (569)
<b>Income (loss) per common share - basic</b>	\$ 0.00	\$ (0.03)	\$ 0.01	\$ (0.06)
<b>Income (loss) per common share - diluted</b>	\$ 0.00	\$ (0.03)	\$ 0.00	\$ (0.06)
<b>Weighted average shares used in per share calculation:</b>				
Basic	11,693	10,546	11,693	10,254
Diluted	23,699	10,546	23,699	10,254

*See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements*

## GIGA-TRONICS INCORPORATED

## CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (UNAUDITED)

(In thousands except share data)	Preferred Stock		Common Stock		Accumulated Deficit	Total
	Shares	Amount	Shares	Amount		
<b>Balance at March 31, 2018</b>	<b>62,334</b>	<b>\$ 3,613</b>	<b>10,312,653</b>	<b>\$ 25,200</b>	<b>\$ (28,682)</b>	<b>\$ 131</b>
Cumulative effect of ASC 606 adoption	—	—	—	—	1,176	1,176
Net loss	—	—	—	—	(287)	(287)
Share based compensation	—	—	—	57	—	57
Warrant exercises, net of issuance costs	—	—	60,300	15	—	15
Equity issuance for PFG Loan	—	—	7,500	—	—	—
Restricted stock granted	—	—	38,500	—	—	—
Series E preferred stock issuance, net of offering costs of \$15	8,800	205	—	—	—	205
<b>Balance at June 30, 2018</b>	<b>71,134</b>	<b>\$ 3,818</b>	<b>10,418,953</b>	<b>\$ 25,272</b>	<b>\$ (27,793)</b>	<b>\$ 1,297</b>
Net loss	—	—	—	—	(282)	(282)
Share based compensation	—	—	—	46	—	46
Warrant exercises, net of issuance costs	—	—	512,558	97	—	97
Equity issuance for PFG Loan	—	—	7,500	—	—	—
Series E preferred stock issuance, net of offering costs of \$15	17,400	371	—	—	—	371
<b>Balance at September 29, 2018</b>	<b>88,534</b>	<b>\$ 4,189</b>	<b>10,939,011</b>	<b>\$ 25,415</b>	<b>\$ (28,075)</b>	<b>\$ 1,529</b>

(In thousands except share data)	Preferred Stock		Common Stock		Accumulated Deficit	Total
	Shares	Amount	Shares	Amount		
<b>Balance at March 30, 2019</b>	<b>116,934</b>	<b>\$ 4,806</b>	<b>11,360,511</b>	<b>\$ 25,557</b>	<b>\$ (28,548)</b>	<b>\$ 1,815</b>
Net income	—	—	—	—	15	15
Share based compensation	—	—	—	95	—	95
Equity issuance for PFG Loan	—	—	2,500	—	—	—
Restricted stock forfeited	—	—	(20,000)	—	—	—
Series E preferred stock issuance, reclass of offering costs of \$2	—	(2)	—	2	—	—
<b>Balance at June 29, 2019</b>	<b>116,934</b>	<b>\$ 4,804</b>	<b>11,343,011</b>	<b>\$ 25,654</b>	<b>\$ (28,533)</b>	<b>\$ 1,925</b>
Net income	—	—	—	—	44	44
Share based compensation	—	—	—	67	—	67
Warrant exercises	—	—	1,227,120	230	—	230
Series E dividends	—	—	509,870	142	—	142
Series E converted to common stock	(600)	(15)	60,000	20	(5)	—
Series B converted to common stock	(752)	(166)	75,187	166	—	—
<b>Balance at September 28, 2019</b>	<b>115,582</b>	<b>\$ 4,623</b>	<b>13,215,188</b>	<b>\$ 26,279</b>	<b>\$ (28,494)</b>	<b>\$ 2,408</b>

**GIGA-TRONICS INCORPORATED**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)**

(In thousands)	Six Months Ended	
	September 28, 2019	September 29, 2018
<b>Cash flows from operating activities:</b>		
Net income (loss)	\$ 59	\$ (569)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation and amortization	95	142
Share based compensation	162	103
Accretion of discounts and issuance costs on debt	20	105
Accrued interest and fees on loan payable	(192)	56
Change in deferred rent	1	(29)
Changes in operating assets and liabilities		
Trade accounts receivable	(426)	(383)
Inventories	(483)	695
Prepaid expenses and other assets	(510)	(792)
Right of use asset	130	—
Accounts payable	765	(155)
Accrued payroll and benefits	(196)	24
Deferred revenue	—	(807)
Other current and non-current liabilities	(12)	(24)
<b>Net cash used in operating activities</b>	<b>(587)</b>	<b>(1,634)</b>
<b>Cash flows from investing activities:</b>		
Purchases of property and equipment	(94)	—
<b>Net cash used in investing activities</b>	<b>(94)</b>	<b>—</b>
<b>Cash flows from financing activities:</b>		
Principal payments on leases	(188)	(27)
Proceeds from issuance of preferred stock, net of issuance costs	—	576
Proceeds from exercise of warrants	230	112
Proceeds from borrowings, net of issuance costs	889	—
Repayments of borrowings	(424)	—
<b>Net cash provided by financing activities</b>	<b>507</b>	<b>661</b>
<b>Decrease in cash and cash-equivalents</b>	<b>(174)</b>	<b>(973)</b>
<b>Beginning cash and cash-equivalents</b>	<b>878</b>	<b>1,485</b>
<b>Ending cash and cash-equivalents</b>	<b>\$ 704</b>	<b>\$ 512</b>
<b>Supplementary disclosure of cash flow information:</b>		
Cash paid for income taxes	\$ 2	\$ 2
Cash paid for interest	\$ 66	\$ 114
<b>Supplementary disclosure of noncash financing activities:</b>		
Cumulative effect of adoption of ASC 606 on inventory	\$ —	\$ (1,581)
Cumulative effect of adoption of ASC 606 on prepaid expenses and other current assets	\$ —	\$ 189
Cumulative effect of adoption of ASC 606 on deferred revenue	\$ —	\$ 2,567
Cumulative effect of adoption of ASC 842 on right of use assets	\$ 1,361	\$ —
Cumulative effect of adoption of ASC 842 on deferred rent	\$ 429	\$ —
Cumulative effect of adoption of ASC 842 on lease liability	\$ 1,790	\$ —
Issuance of dividends in kind	\$ 142	\$ —

*See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements*

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

### **(1) Organization and Significant Accounting Policies**

The condensed consolidated financial statements included herein have been prepared by Giga-tronics Incorporated (“Giga-tronics,” “Company” or “we”), pursuant to the rules and regulations of the Securities and Exchange Commission. The consolidated results of operations for the interim periods shown in this report are not necessarily indicative of results to be expected for the fiscal year. In the opinion of management, the information contained herein reflects all adjustments (consisting of normal recurring entries) necessary to make the consolidated results of operations for the interim periods a fair statement of such operations. For further information, refer to the consolidated financial statements and footnotes thereto, included in the Annual Report on Form 10-K, filed with the Securities and Exchange Commission for the year ended March 30, 2019.

*Principles of Consolidation* The consolidated financial statements include the accounts of Giga-tronics and its wholly-owned subsidiary, Microsource, Inc. (“Microsource”). All significant intercompany balances and transactions have been eliminated in consolidation.

*Use of Estimates* The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### *Leases*

In February 2016, the Financial Accounting Standards Board (“FASB”) issued ASU 2016-02 - *Leases* (ASC 842), which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e. lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification determines whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less are accounted for similar to guidance for operating leases existing prior to ASC 842. ASC 842 supersedes the previous leases standard, ASC 840 Leases. The Company adopted ASC 842 as of March 31, 2019. The new standard requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. In July 2018, the FASB issued ASU No. 2018-11, *Leases (Topic 842): Targeted Improvements*, which amends ASC Topic 842 to provide another transition method, allowing a cumulative effect adjustment to the opening balance of retained earnings during the period of adoption. The Company has one long term office lease. The adoption of ASU 2016-02 on March 31, 2019 resulted in the recognition of right-of-use assets of approximately \$1.4 million, lease liabilities for operating leases of approximately \$1.8 million and no material impact to the Consolidated Statements of Operations or Cash Flows. See below for further information regarding the impact of the adoption of ASU 2016-02 on the Company's financial statements.

*Revenue Recognition and Deferred Revenue* Beginning April 1, 2018, the Company follows the provisions of ASU 2014-09 as subsequently amended by the FASB between 2015 and 2017 and collectively known as ASC Topic 606, *Revenue from Contracts with Customers* (“ASC 606”). Amounts for prior periods are not adjusted and continue to be reported in accordance with the Company's historic accounting practices. The guidance provides a unified model to determine how revenue is recognized. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under its agreements, the Company performs the following steps: (i) identifies the promised goods or services in the contract; (ii) determines whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measures the transaction price, including the constraint on variable consideration; (iv) allocates the transaction price to the performance obligations based on estimated selling prices; and (v) recognizes revenue when (or as) the Company satisfies each performance obligation.

The Company generates revenue through the design, manufacture, and sale of products used in the defense industry to major prime defense contractors, the armed services (primarily in the U.S.) and research institutes. There is generally one performance obligation in the Company's contracts with its customers. For highly engineered products, the customer typically controls the work in process as evidenced either by contractual termination clauses or by the Company's right to payment for costs incurred to date plus a reasonable profit for products or services that do not have an alternative use. In these circumstances, the performance obligation is the design and manufacturing service. As control transfers continuously over time on these contracts, revenue is recognized based on the extent of progress towards completion of the performance obligation using a cost-to-cost method. Engineering services are also satisfied over time and recognized on the cost-to-cost method. These types of revenue arrangements are typical for the Company's defense contracts within the Microsource segment for its RADAR filter products used in fighter jet aircrafts.



For the sale of standard or minimally customized products, the performance obligation is the series of finished products which are recognized at the points in time the units are transferred to the control of the customer, typically upon shipment. This type of revenue arrangement is typical for our commercial contracts within the Giga-tronics segment for its Advanced Signal Generation and Analysis system products used for testing RADAR and Electronic Warfare (“EW”) equipment.

#### *Performance Obligations*

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in ASC Topic 606. The Company’s performance obligations include:

- Design and manufacturing services
- Product supply – Distinct goods or services that are substantially the same
- Engineering services

The majority of the Company’s contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and, therefore, not distinct.

#### *Transaction Price*

The Company has both fixed and variable consideration. Under the Company’s highly engineered design and manufacturing arrangements, advance payments and unit prices are considered fixed, as product is not returnable and the Company has an enforceable right to reimbursement in the event of a cancellation. For standard and minimally customized products, payments can include variable consideration, such as product returns and sales allowances. The transaction price in engineering services arrangements may include estimated amounts of variable consideration, including award fees, incentive fees, or other provisions that can either increase or decrease the transaction price. Milestone payments are identified as variable consideration when determining the transaction price. At the inception of each arrangement that includes milestone payments, the Company evaluates whether the milestones are considered probable of being achieved and estimates the amount to be included in the transaction price using the most likely amount method. The Company estimates variable consideration at the amount to which they expect to be entitled, and determines whether to include estimated amounts as a reduction in the transaction price based largely on an assessment of the conditions that might trigger an adjustment to the transaction price and all information (historical, current and forecasted) that is reasonably available to the Company. The Company includes estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the estimation uncertainty is resolved.

#### *Allocation of Consideration*

As part of the accounting for arrangements that contain multiple performance obligations, the Company must develop assumptions that require judgment to determine the stand-alone selling price of each performance obligation identified in the contract. When a contract contains more than one performance obligation, the Company uses key assumptions to determine the stand-alone selling price of each performance obligation. Because of the customized nature of products and services, estimated stand-alone selling prices for most performance obligations are estimated using a cost-plus margin approach. For non-customized products, list prices generally represent the standalone selling price. The Company allocates the total transaction price to each performance obligation based on the estimated relative stand-alone selling prices of the promised goods or service underlying each performance obligation.

#### *Timing of Recognition*

Significant management judgment is required to determine the level of effort required under an arrangement and the period over which the Company expects to complete its performance obligations under the arrangement. The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. The Company generally uses the cost-to-cost measure of progress as this measure best depicts the transfer of control to the customer which occurs as we incur costs on our contracts. Under the cost-to-cost method, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenue is recognized for design and manufacturing services and for engineering services over time proportionate to the costs that the Company has incurred to perform the services using the cost-to-cost input method and for products at a point in time.

#### *Changes in Estimates*

The effect of a contract modification on the transaction price and the measure of progress for the performance obligation to which it relates, is recognized as an adjustment to revenue (either as an increase in or a reduction of revenue) on a cumulative catch-up basis.

For contracts using the cost-to-cost method, management reviews the progress and execution of the performance obligations. This process requires management judgment relative to estimating contract revenue and cost, and making assumptions for delivery schedule. This process requires management's judgment to make reasonably dependable cost estimates. Since certain contracts extend over a longer period of time, the impact of revisions in cost and revenue estimates during the progress of work may adjust the current period earnings through a cumulative catch-up basis. This method recognizes, in the current period, the cumulative effect of the changes on current and prior quarters. Contract cost and revenue estimates for significant contracts are generally reviewed and reassessed quarterly.

#### *Balance Sheet Presentation*

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and deferred revenue (contract liabilities) on the Condensed Consolidated Balance Sheet. Under the typical payment terms of over time contracts, the customer pays either performance-based payments or progress payments. Amounts billed and due from customers are classified as receivables on the Condensed Consolidated Balance Sheet. Interim payments may be made as work progresses, and for some contracts, an advance payment may be made. A liability is recognized for these interim and advance payments in excess of revenue recognized and is presented as a contract liability which is included within accrued liabilities and other long-term liabilities on the Condensed Consolidated Balance Sheet. Contract liabilities typically are not considered a significant financing component because these cash advances are used to meet working capital demands that can be higher in the early stages of a contract. When revenue recognized exceeds the amount billed to the customer, an unbilled receivable (contract asset) is recorded for the amount the Company is entitled to receive based on its enforceable right to payment and is included in Prepaid Expenses and Other Current Assets on the Condensed Consolidated Balance Sheet.

Remaining performance obligations represent the transaction price of firm orders for which work has not been performed as of the period end date and excludes unexercised contract options and potential orders under ordering-type contracts (e.g., indefinite-delivery, indefinite-quantity).

#### *Recognition Prior to April 1, 2018*

Prior to April 1, 2018 under the legacy GAAP, the Company recorded revenue when there was persuasive evidence of an arrangement, delivery had occurred, the price was fixed and determinable, and collectability was reasonably assured. This occurred when products were shipped or the customer accepted title transfer. If the arrangement involved acceptance terms, the Company deferred revenue until product acceptance was received. On certain large development contracts, revenue was recognized upon achievement of substantive milestones. Advanced payments were recorded as deferred revenue until the revenue recognition criteria described above had been met. Amounts for periods ending prior to April 1, 2018 have not been adjusted for ASC 606 and continue to be reported in accordance with the Company's previous accounting practices.

#### *New Accounting Standards*

In June 2018, the FASB issued ASU 2018-07, "Improvements to Nonemployee Share-Based Payment Accounting," to simplify the accounting for share based transactions with nonemployees in which the grantor acquires goods or services to be used or consumed. Under the new standard, most of the guidance on recording share-based compensation granted to nonemployees will be aligned with the requirements for share-based compensation granted to employees. This standard will be effective in the first quarter of fiscal 2020, and early adoption is permitted. We do not expect the adoption of this standard to have a material impact on our consolidated financial statements.

In February 2016, the FASB issued authoritative guidance under ASU 2016-02, Leases (Topic 842). ASU 2016-02 requires lessees to recognize right-of-use assets and lease liabilities for most leases on the balance sheet and to provide expanded disclosures about leasing arrangements. The Company adopted the standard effective March 31, 2019 using the optional transition method and did not restate comparative periods. There was no effect on accumulated deficit at adoption.

#### *Practical expedients elected*

The Company has elected to apply the package of practical expedients under ASU 2016-02 to (a) not reassess whether expired or existing contracts are or contain leases, (b) not reassess the lease classification for any expired or existing leases and (c) not reassess the accounting for initial direct costs. As a result, leases classified as operating leases prior to adoption of the new lease standard remain as operating leases and leases classified as capital leases prior to adoption of the new lease standard are now finance leases.

The adoption of the new leases standard resulted in the following adjustments to the consolidated balance sheet as of March 30, 2019 (in thousands):

	Balance at 3/30/2019	Adoption Adjustment	Balance at 3/31/2019
<b>Assets:</b>			
Right of use assets- Operating lease	\$ —	\$ 1,361	\$ 1,361
Right of use assets- Finance lease		49	49
Property and equipment, net (a)	49	(49)	—
<b>Liabilities:</b>			
Deferred rent (b)	\$ 71	\$ (71)	\$ —
Operating lease liability, current portion	—	337	337
Finance lease obligation, current portion	—	41	41
Capital lease obligation, current portion (c)	41	(41)	—
Long term deferred rent (d)	358	(358)	—
Long term obligations – capital lease (e)	19	(19)	—
Operating lease liability, non-current portion	—	1,453	1,453
Finance lease obligation, long-term portion	—	19	19

- (a) Represents net book value of capital lease assets reclassified to Finance right of use assets.
- (b) Represents current portion of deferred rent reclassified to Operating lease obligation, current portion.
- (c) Represents current portion of capital lease liability reclassified to Finance lease obligation - current portion.
- (d) Represents noncurrent portion of deferred rent reclassified to Operating lease liability - non-current portion.
- (e) Represents noncurrent portion of capital lease obligation reclassified to Finance lease obligation - non-current portion.

Adoption of the standards related to leases had no impact to cash from or used in operating, financing, or investing activities on our consolidated cash flows statements.

## **(2) Inventories**

Inventories consisted of the following:

<b>(In thousands)</b>	<b>September 28, 2019</b>	<b>March 30, 2019</b>
Raw materials	\$ 1,040	\$ 759
Work-in-progress	1,770	1,523
Finished goods	77	57
Demonstration inventory	330	395
<b>Total</b>	<b>\$ 3,217</b>	<b>\$ 2,734</b>

## **(3) Financed Receivables**

On March 11, 2019, the Company entered into an Amended and Restated Business Financing Agreement (the “Restated Financing Agreement”) with Western Alliance Bank, as successor to Bridge Bank. The Restated Financing Agreement amends, restates and replaces a credit agreement with Bridge Bank dated May 6, 2015 (as previously amended, the “Previous Financing Agreement”) in its entirety.

Under the Restated Financing Agreement, Western Alliance Bank may advance up to 85% of the amounts of invoices issued by the Company, up to a maximum of \$2.5 million in aggregate advances outstanding at any time. The Restated Financing Agreement eliminates a \$500,000 non-formula borrowing base and an asset coverage ratio financial covenant included in the Previous Financing Agreement.

Under the Restated Financing Agreement, interest accrues on outstanding amounts at an annual rate equal to the greater of prime or 4.5% plus, in either case, one percent. The Company is required to pay certain fees, including an annual facility fee of \$14,700, to be paid in two equal semiannual installments. The Company's obligations under the Restated Financing Agreement are secured by a security interest in substantially all of the assets of the Company and any domestic subsidiaries, subject to certain customary exceptions. The Restated Financing Agreement has no specified term and may be terminated by either the Company or Western Alliance Bank at any time.

The Restated Financing Agreement contains customary events of default, including, among others: non-payment of principal, interest or other amounts when due; providing false or misleading representations and information; Western Alliance Bank failing to have an enforceable first lien on the collateral; cross-defaults with certain other indebtedness; certain undischarged judgments; bankruptcy, insolvency or inability to pay debts; and a change of control of the Company. Upon the occurrence and during the continuance of an event of default, the interest rate on the outstanding borrowings increases by 500 basis points and Western Alliance Bank may declare the loans and all other obligations under the Restated Financing Agreement immediately due and payable.

As of September 28, 2019 and March 30, 2019, the Company's total outstanding borrowings under the Restated Financing Agreement were \$839,290 and zero, respectively, and are included in Loans payable, net of discounts and issuance costs on the Condensed Consolidated Balance Sheet.

#### **(4) Term Loan and Warrants**

On April 27, 2017, the Company entered into a \$1,500,000 loan agreement with Partners For Growth V, L.P. ("PFG"), which was funded by PFG on April 28, 2017 (the "2017 Loan"). The 2017 Loan, which was scheduled to mature on April 27, 2019, provides for interest only payments during the term of the loan with principal and any accrued interest and fees due upon maturity. The 2017 Loan bears interest at a fixed aggregate per annum rate equal to 16% per annum, of which 9.5% per annum rate is payable monthly in cash and 6.5% per annum rate is accrued monthly and due upon maturity. In addition, the Company agreed to pay PFG a cash fee of up to \$100,000 payable upon maturity (the "back-end fee"), \$76,000 of which was earned on April 27, 2017, and \$24,000 of which is earned at the rate of \$1,000 per month on the first day of each month if the loan principal (or any amount thereof) is outstanding during any day of the prior month.

Additionally, the 2017 Loan provides for the Company's issuance of up to 250,000 common shares to PFG, of which 190,000 was earned by PFG upon signing (April 27, 2017) and 60,000 of which is earned at the rate of 2,500 per month on the first day of each month if the loan principal (or any amount thereof) is outstanding during any day of the prior month. The 2017 Loan provided for certain financial covenants related to the revenue achievement and maintenance of tangible net worth. PFG can accelerate the maturity of the loan in case of a default and the Company can prepay the loan before maturity without interest prepayments or penalty. The Company has pledged all of its assets as collateral for the 2017 Loan, including all its accounts, inventory, equipment, deposit accounts, intellectual property and all other personal property; however, the 2017 Loan is subordinate to the Bridge Bank line of credit (see Note 3, Accounts Receivable Line of Credit).

The requirement to issue 60,000 shares of the Company's common stock over the term of the loan is an embedded derivative (an embedded equity forward). The Company evaluated the embedded derivative in accordance with ASC 815-15-25. The embedded derivative is not clearly and closely related to the debt host instrument and therefore is being separately measured at fair value, with subsequent changes in fair value being recognized in the consolidated statements of operations.

The proceeds received upon issuing the loan were allocated to: i) common stock, for the fair value of the 190,000 shares of common stock initially issued to the lender; ii) the fair value of the embedded derivative; and iii) the loan host instrument. Upon issuance of the loan, the Company recognized \$1,576,000 of principal payable to PFG, representing the stated principal balance of \$1,500,000 plus the initial back-end fee of \$76,000. The initial carrying value of the loan was recognized net of debt discount aggregating approximately \$326,000, which is comprised of the following:

Fees paid to the lender and third parties	\$	44,000
Backend fee		76,000
Estimated fair value of embedded equity forward		49,000
Fair value of 190,000 shares of common stock issued to lender		157,000
Aggregate discount amount	\$	326,000

The bifurcated embedded derivative and the debt discount are presented net with the related loan balance in the consolidated balance sheets. The debt discount is being amortized to interest expense over the loan's term using the effective interest method. During the six months ended September 28, 2019, the Company amortized discounts of approximately \$20,000 to interest expense.

PFG's ability to call the debt on default (contingent put) and its ability to assess interest rate at a default rate (contingent interest) are embedded derivatives, which the Company evaluated. The fair value of these embedded features was determined to be immaterial and was not bifurcated from the debt host for accounting purposes.

Between June 24, 2017 and March 25, 2018, the Company was not in compliance with the 2017 Loan's revenue and tangible net worth financial covenants and was subject to a default interest rate of 22% per annum which it accrued and paid when due during this period.

On March 26, 2018, concurrent with the execution of the Securities Purchase Agreement for the Series E Shares (see Note 12 – Preferred Stock and Warrants - Series E Senior Convertible Voting Perpetual Preferred Stock), the Company and PFG entered into a modification agreement providing for the restructuring of certain terms associated with approximately \$1.7 million in indebtedness under the 2017 Loan. Subject to the sale of at least \$1.0 million in Series E Shares, PFG agreed to waive all current defaults and cease applying the applicable default interest rate, returning to the stated non-default rate of 16%, and to lower the revenue and tangible net worth covenants for the remaining term of the loan. As consideration for the modifications, the Company reduced the exercise price of outstanding warrants previously granted to PFG (pursuant to its 2014 Loan Agreement and Credit Line with PFG) to purchase 260,000 shares of the Company's common stock from \$1.42 to \$0.25 per share and extended the exercisability of the warrants by one year to March 13, 2020. The Company and PFG also agreed to eliminate PFG's cash put provision associated with these warrants in exchange for the issuance of 150,000 shares of the Company's common stock. As of September 28, 2019, the Company had issued to PFG 400,000 common shares under the loans.

The amendments to the 2017 Loan Agreement were recognized as a loan modification. The change in fair value of the warrants of \$43,700, resulting from the reduced strike price and extension of term, was recognized as a discount to the 2017 Loan and is being amortized to interest expense over the remaining term of the 2017 Loan Agreement.

In December 2018, the Company and PFG agreed to modify the 2017 Loan Agreement to extend the maturity date from April 27, 2019 to November 1, 2019, to require the Company to pay all accrued interest on May 1, 2019 and to require the Company to make monthly prepayments of principal of \$75,000 and accrued interest from May 1, 2019 until maturity. The effectiveness of the modification was conditioned on the Company raising \$500,000 in additional equity capital. As of March 30, 2019, the Company had satisfied this condition.

On March 11, 2019, the Company and PFG agreed to further modify the 2017 Loan Agreement to extend the maturity date to March 1, 2020 and to add financial covenants requiring the Company to maintain a minimum tangible net worth and minimum revenues.

On June 28, 2019, the Company and PFG agreed to further modify the 2017 Loan Agreement to adjust the financial covenants requiring the Company to maintain a minimum tangible net worth and minimum revenues. At September 28, 2019, the Company was in compliance with these financial covenants under ASC 606.

As of September 28, 2019 and March 30, 2019, the Company's total outstanding loan balances were \$1.2 million and \$1.8 million, respectively, and are included in Loans payable, net of discounts and issuance costs on the Condensed Consolidated Balance Sheet.

The Company anticipates it will need to achieve significant product shipments and resulting cash inflows and or seek additional funds through the issuance of new debt or equity securities to repay the 2017 Loan (including accrued interest and back end fees) in full upon maturity or otherwise enter into a refinancing agreement with PFG.

## **(5) Leases**

### *Operating leases*

*Building* - The Company has a non-cancelable operating lease for office, research and development, engineering, laboratory, storage and/or warehouse uses in Dublin, California for 77 months from April 1, 2017 through August 31, 2023. The Company agreed to pay an aggregate base rent of \$2,384,913 for the period of 77 months, with an annual increase of \$0.05 per rentable square foot for each subsequent year. The agreement provided for rent abatement of \$173,079 during the initial five months of the lease, subject to the Company performing the terms and conditions required under the lease, and certain tenant improvements completed at the landlord's expense of \$358,095.

Per the terms of the Company's lease agreements, the Company does not have any residual value guarantees. In calculating the present value of the lease payments, the Company has elected to utilize its incremental borrowing rate. The Company has elected for facility operating leases to not separate each lease component from its associated non-lease components. The building lease includes variable payments (i.e. common area maintenance) which are charged and paid separately from rent based on actual costs incurred and therefore are not included in the right-of-use asset and liability but reflected in operating expense in the period incurred.

Lease costs

For the three months ended (in thousands):

	Classification	June 29, 2019
Operating lease costs	Operating expenses	\$ 125
Finance lease:		
Amortization of lease asset	Depreciation and amortization	10
Interest on lease liability	Interest expense	2
<b>Total lease costs</b>		<b>\$ 137</b>

For the six months ended (in thousands):

	Classification	September 28, 2019
Operating lease costs	Operating expenses	\$ 125
Finance lease:		
Amortization of lease asset	Depreciation and amortization	18
Interest on lease liability	Interest expense	3
<b>Total lease costs</b>		<b>\$ 146</b>

Other information (in thousands except weighted average amounts):

For the three months ended: June 29, 2019	Operating leases	Finance leases
Operating cash used for leases	\$ 143	—
Financing cash used for leases	—	\$ 13
Weighted average remaining lease term	4.17	1.21
Weighted-average discount rate	6.50%	12.00%

For the six months ended: September 28, 2019	Operating leases	Finance leases
Operating cash used for leases	\$ 143	—
Financing cash used for leases	—	\$ 24
Weighted average remaining lease term	3.85	0.96
Weighted average discount rate	6.60%	12.00%

Future lease payments as of September 28, 2019 were as follows (in thousands):

	Operating leases	Finance leases	Total
Remainder current year	\$ 222	\$ 22	\$ 244
2021	458	20	478
2022	473	—	473
2023	487	—	487
Thereafter	209	—	209
Total future minimum lease payments	1,849	42	1,891
Less: imputed interest	(225)	(2)	(227)
Present value of lease liabilities	\$ 1,624	\$ 40	\$ 1,664

## **(6) Fair Value**

Pursuant to the accounting guidance for fair value measurement and its subsequent updates, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the “exit price”) in an orderly transaction between market participants at the measurement date. The accounting guidance establishes a hierarchy for inputs used in measuring fair value that minimizes the use of unobservable inputs by requiring the use of observable market data when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on active market data. Unobservable inputs are inputs that reflect the assumptions market participants would use in pricing the asset or liability based on the best information available in the circumstances.

The fair value hierarchy is broken down into the three input levels summarized below:

- *Level 1* —Valuations are based on quoted prices in active markets for identical assets or liabilities and readily accessible by us at the reporting date. Examples of assets and liabilities utilizing Level 1 inputs are certain money market funds, U.S. Treasuries and trading securities with quoted prices on active markets.
- *Level 2* —Valuations based on inputs other than the quoted prices in active markets that are observable either directly or indirectly in active markets. Examples of assets and liabilities utilizing Level 2 inputs are U.S. government agency bonds, corporate bonds, commercial paper, certificates of deposit and over-the-counter derivatives.
- *Level 3* —Valuations based on unobservable inputs in which there are little or no market data, which require us to develop our own assumptions.

The carrying amounts of the Company’s cash and cash-equivalents and line of credit approximate their fair values at each balance sheet date due to the short-term maturity of these financial instruments, and generally result in inputs categorized as Level 1 within the fair value hierarchy. The carrying value of the outstanding PFG loan approximates the estimated aggregate fair value and classified with the loan host. The fair value estimate of the embedded equity forward is based on the closing price of the Company’s common stock on the measurement date, the risk-free rate, the date of expiration, and any expected cash distributions of the underlying asset before expiration. The estimated fair value of the embedded equity forward represents a Level 2 measurement.

On March 26, 2018, the Company and PFG agreed to eliminate the cash put provision contained in warrants in exchange for the Company issuing 150,000 shares of the Company’s common stock. Upon removal of the put, the warrants were re-valued using the Black-Scholes option-pricing model with the following assumptions: (i) remaining term of 0.96 years, (ii) expected volatility of 85%, (iii) risk-free interest rate of 2.12%, and (iv) no expected dividends. The resulting change in fair value of the warrants, along with the fair value of the common stock issued to PFG, was recognized as an adjustment of warrant liability in the consolidated statements of operations.

There were no assets measured at fair value on a recurring basis and there were no assets or liabilities measured on a non-recurring basis at September 28, 2019 and March 30, 2019.

## **(7) Income (loss) Per Share**

Basic income (loss) per share is calculated by dividing net income or loss by the weighted average common shares outstanding during the period. Diluted earnings per share (EPS) reflects the net incremental shares that would be issued if unvested restricted shares became vested and dilutive outstanding stock options were exercised, using the treasury stock method. In the case of a net loss, it is assumed that no incremental shares would be issued because they would be antidilutive. In addition, certain options are considered antidilutive because assumed proceeds from exercise price, related tax benefits and average future compensation was greater than the weighted average number of options outstanding multiplied by the average market price during the period.

Shares included in the diluted EPS calculation for the six month period ended September 28, 2019 are as follows:

<b>(In thousands except per share data)</b>	<b>September 28, 2019</b>	
Net income (loss)	\$	59
Weighted average basic shares outstanding		11,694
Effect of dilutive securities		12,005
<b>Weighted-average dilutive shares</b>		<b>23,699</b>
Basic earnings per share	\$	0.01
Diluted earnings per share	\$	0.00

Shares excluded from the diluted EPS calculation for the six month period ended September 29, 2018 because they would be anti-dilutive are as follows:

<b>(In thousands)</b>	<b>September 29, 2018</b>
Common shares issuable upon exercise of stock options	2,238
Restricted stock awards	250
Issuable shares for interest on loan	18
Common shares issuable upon conversion of convertible preferred stock	8,853
Common shares issuable upon exercise of warrants	3,452

The stock options, restricted stock, convertible preferred stocks and warrants not included in the computation of diluted earnings per share (EPS) for the six month period ended September 29, 2018 is a result of the Company's net loss and, therefore, the effect of these instruments would be anti-dilutive.

#### **(8) Share-based Compensation and Employee Benefits Plans**

On September 20, 2018, shareholders approved the Company's 2018 Equity Incentive Plan under which the Company may issue up to 2,500,000 shares of common stock upon the exercise of options, stock awards and grants. With the adoption of the 2018 Equity Incentive Plan, no further awards will be issued under the 2005 Equity Incentive Plan, though all awards under the 2005 Equity Incentive Plan that are outstanding will continue to be governed by the terms, conditions and procedures set forth in the plan and any applicable award agreement. Option grants under the Company's previous 2000 Stock Option Plan are no longer available.

Options granted generally vest in one or more installments in a four or five-year period and must be exercised while the grantee is employed by the Company (or while providing services under a service arrangement in the case of non-employees) or within a certain period after termination of employment or service arrangement in the case of non-employees. Options granted to employees shall not have terms in excess of 10 years from the grant date. Holders of options may be granted SARs, which entitle them to surrender outstanding awards for a cash distribution under certain changes in ownership of the Company, as defined in the stock option plan. As of September 28, 2019, no SARs have been granted under any option plan. As of September 28, 2019, the total number of shares of common stock available for issuance was 638,500. All outstanding options have a ten-year life from the date of grant. The Company records compensation cost associated with share-based compensation equivalent to the estimated fair value of the awards over the requisite service period.

#### **Stock Options**

In calculating compensation related to stock option grants, the fair value of each stock option is estimated on the date of grant using the Black-Scholes-Merton option-pricing model and the following weighted average assumptions:

	<b>Three Month Periods Ended</b>		<b>Six Month Periods Ended</b>	
	<b>September 28, 2019</b>	<b>September 29, 2018</b>	<b>September 28, 2019</b>	<b>September 29, 2018</b>
Dividend yield	—	—	—	—
Expected volatility	103.26%	92.94%	101.97%	92.89%
Risk-free interest rate	1.83%	2.82%	2.25%	2.82%
Expected term (years)	8.36	8.35	8.36	8.35

The computation of expected volatility used in the Black-Scholes-Merton option-pricing model is based on the historical volatility of the Company's share price. The expected term is estimated based on a review of historical employee exercise behavior with respect to option grants. The risk-free interest rate is based on the U.S. Treasury rates with maturity similar to the expected term of the option on the date of grant.



A summary of the changes in stock options outstanding for the six-month period ended September 28, 2019 and the fiscal year ended March 30, 2019 is as follows:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding at March 31, 2018	1,478,700	\$ 0.56	8.0	\$ —
Granted	1,504,000	0.31	9.6	
Forfeited / Expired	(248,000)	0.69		
Outstanding at March 30, 2019	2,734,700	\$ 0.41	8.4	\$ —
Granted	1,047,500	0.34	9.7	
Forfeited / Expired	(32,200)	0.48		
Outstanding at September 28, 2019	3,750,000	\$ 0.39	8.4	\$ —
Exercisable at September 28, 2019	1,005,664	\$ 0.55	6.0	\$ —
At September 28, 2019, expected to vest in the future	2,964,782	\$ 0.40	8.1	\$ —

As of September 28, 2019, there was \$491,000 of total unrecognized compensation cost related to non-vested options. That cost is expected to be recognized over a weighted average period of 3.14 years. There were 144,672 options and 15,550 options that vested during the quarter ended September 28, 2019 and September 29, 2018, respectively. The total grant date fair value of options vested during the quarters ended September 28, 2019 and September 29, 2018 was \$47,000 and \$20,000, respectively. There were 351,964 and 22,750 options that vested during the six-month period ended September 28, 2019 and September 29, 2018, respectively. The total grant date fair value of options vested during the six-month period ended September 28, 2019 and September 29, 2018 was \$100,000 and \$29,000, respectively. No shares were exercised during the three and six-month period ended September 28, 2019 and September 29, 2018. Share based compensation cost recognized in operating results for the three-month periods ended September 28, 2019 and September 29, 2018 totaled \$52,000 and \$24,000, respectively. Share based compensation cost recognized in operating results for the six-month periods ended September 28, 2019 and September 29, 2018 totaled \$103,000 and \$44,000, respectively.

#### Restricted Stock

The Company granted no awards during the second quarter and first half of fiscal 2020 and 2019. The restricted stock awards are considered fixed awards as the number of shares and fair value at the grant date is amortized over the requisite service period net of estimated forfeitures. As of September 28, 2019, there was \$19,000 of total unrecognized compensation cost related to non-vested awards. That cost is expected to be recognized over a weighted average period of 0.50 years and will be adjusted for subsequent changes in estimated forfeitures. Compensation cost recognized for the restricted and unrestricted stock awards during the second quarter and first half of fiscal 2020 was \$15,000 and \$60,000, respectively. Compensation cost recognized for the restricted and unrestricted stock awards during the second quarter and first half of fiscal 2019 was \$23,000 and \$59,000, respectively.

A summary of the changes in non-vested restricted stock awards outstanding for the six-month period ended September 28, 2019 and the fiscal year ended March 30, 2019 is as follows:

	Shares	Weighted Average Fair Value Per Share
Non-Vested at March 31, 2018	299,950	\$ 0.65
Granted	310,000	0.31
Vested	(250,000)	0.32
Forfeited or cancelled	(25,000)	0.79
Non-Vested at March 30, 2019	334,950	\$ 0.56
Granted	—	—
Vested	(164,950)	0.76
Forfeited or cancelled	(20,000)	0.74
Non-Vested at September 28, 2019	150,000	\$ 0.32

**(9) Significant Customer and Industry Segment Information**

The Company has two reportable segments: Microsource and the Giga-tronics Division. Microsource's primary business is the design of custom Microwave Integrated Components ("MIC") as well as the production of MIC components using chip and wire assembly methods. The Company's Microsource Division offers a line of tunable, synthesized Band Reject Filters (BRF) for solving interference problems in RADAR/EW applications. Self-protection systems onboard high performance military aircraft often require RADAR filters to block electromagnetic interference generated by other onboard electronic systems, particularly the aircraft's main RADAR. These high-speed, tunable notch filters are designed to block interference from both continuous wave and wide bandwidth emissions using proprietary driver and phase lock technology. The Company designs these filters specifically for each application. Microsource's two largest customers are prime contractors for which it develops and manufactures RADAR filters used in fighter jet aircraft.

The Giga-tronics Division designs, manufactures and markets a family of functional test products for the RADAR and Electronic Warfare (RADAR/EW) segment of the defense electronics market. The Company's RADAR/EW test products are used to evaluate and improve the performance of RADAR/EW systems.

The tables below presents information for the two reportable segments:

(In thousands)	Three Month Period Ended			Three Month Period Ended		
	At Sep. 28, 2019	Sep. 28, 2019		At Sep. 29, 2018	Sep. 29, 2018	
	Assets	Net Sales	Net Income (Loss)	Assets	Net Sales	Net Income (Loss)
Giga-tronics Division	\$ 5,639	\$ 373	\$ (979)	\$ 4,235	\$ 50	\$ (1,337)
Microsource	3,114	2,662	1,023	2,170	2,630	1,055
Total	\$ 8,753	\$ 3,035	\$ 44	\$ 6,405	\$ 2,680	\$ (282)

(In thousands)	Six Month Period Ended			Six Month Period Ended		
	At Sep. 28, 2019	Sep. 28, 2019		At Sep. 29, 2018	Sep. 29, 2018	
	Assets	Net Sales	Net Income (Loss)	Assets	Net Sales	Net Income (Loss)
Giga-tronics Division	\$ 5,639	\$ 2,289	\$ (1,526)	\$ 4,235	\$ 179	\$ (2,896)
Microsource	3,114	4,244	1,585	2,170	5,551	2,327
Total	\$ 8,753	\$ 6,533	\$ 59	\$ 6,405	\$ 5,730	\$ (569)

During the second quarter of fiscal 2020, one customer accounted for approximately 57% of the Company's consolidated revenues and was included in the Microsource segment. A second customer accounted for 31% of the Company's consolidated revenue and was also included in the Microsource segment. During the second quarter of fiscal 2019, one customer accounted for approximately 60% of the Company's consolidated revenues and was included in the Microsource segment. A second customer accounted for 25% of the Company's consolidated revenue and was also included in the Microsource segment.

During the first half of fiscal 2020, one customer accounted for 47% of the Company's consolidated revenues and was primarily included in the Microsource segment. A second customer accounted for 30% of the Company's consolidated revenue and was included in the Giga-tronics division. During the first half of fiscal 2019, one customer accounted for 62% of the Company's consolidated revenues and was primarily included in the Microsource segment. A second customer accounted for 28% of the Company's consolidated revenue and was also included in the Microsource segment.

## **(10) Income Taxes**

The Company accounts for income taxes using the asset and liability method as codified in Topic 740. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry-forwards.

The Company recorded \$2,000 and \$42,000 income tax expense for the six months ended September 28, 2019 and September 29, 2018, respectively. The effective tax rate for the six months ended September 30, 2019 and September 30, 2018 was 0% each year, primarily due to a valuation allowance recorded against the net deferred tax asset balance.

As of September 30, 2019, the Company had recorded \$123,000 for unrecognized tax benefits related to uncertain tax positions. The unrecognized tax benefit is netted against the non-current deferred tax asset on the Consolidated Balance Sheet. The Company does not expect the liability for unrecognized tax benefits to change materially within the next 12 months.

## **(11) Warranty Obligations**

The Company records a liability in cost of goods and services for estimated warranty obligations at the date products are sold. Adjustments are made as new information becomes available. The following provides a reconciliation of changes in the Company's warranty reserve. The Company provides no other guarantees.

<b>(In thousands)</b>	<b>Three Month Periods Ended</b>		<b>Six Month Periods Ended</b>	
	<b>September 28, 2019</b>	<b>September 29, 2018</b>	<b>September 28, 2019</b>	<b>September 29, 2018</b>
Balance at beginning of period	\$ 113	\$ 141	\$ 104	\$ 164
Provision, net	(17)	(36)	(5)	(25)
Warranty costs incurred	(4)	(20)	(7)	(54)
Balance at end of period	\$ 92	\$ 85	\$ 92	\$ 85

## **(12) Preferred Stock and Warrants**

### **Series E Senior Convertible Voting Perpetual Preferred Stock**

On March 26, 2018, the Company entered into a Securities Purchase Agreement for the sale of 42,800 shares of a newly designated series of 6.0% Series E Senior Convertible Voting Perpetual Preferred Stock ("Series E Shares") to approximately 15 private investors. The sale was completed and the Series E Shares were issued on March 28, 2018.

Holders of Series E Shares are entitled to receive, when, as and if declared by the Company's Board of Directors, cumulative preferential dividends, payable semiannual in cash at a rate per annum equal to 6.0% of the initial purchase price of \$25.00 per share or in-kind (at the Company's election) through the issuance of shares of the Company's common stock, based on the 10 day volume weighted average price of the common stock. The deemed dividend is reflected on the face of the income statement as an increase in net loss or a decrease in net income to arrive a net income (loss) attributable to common shareholders.

The purchase price for each Series E Share was \$25.00. Gross proceeds received by the Company were approximately \$1.095 million (the "Placement"). Net proceeds to the Company after fees and expenses of the Placement were approximately \$1.0 million. Placement agent fees incurred in connection with the transaction were 5% of gross proceeds or approximately \$57,000 in cash, plus warrants to purchase 5% of the number of common shares into which the Series E shares can be converted (223,000 shares) at an exercise price of \$0.25 per share.

During the 2019 fiscal year, the Company issued and sold an additional 57,200 Series E Shares for the price of \$25.00 per share, resulting in gross proceeds of \$1,405,000. Net proceeds from sales of Series E Shares during the 2019 fiscal year were approximately \$1.2 million after fees and expenses of approximately \$212,000. Placement agent fees incurred in connection with the transaction were 5% of gross proceeds or approximately \$56,875 in cash, plus warrants to purchase 5% of the number of common shares into which the Series E shares can be converted (100 shares) at an exercise price of \$0.25 per share.

For the six months ended September 28, 2019, no additional Series E shares were issued.

The table below presents information as of September 28, 2019:

**Preferred Stock**

	Shares Designated	Shares Issued	Shares Outstanding	Liquidation Preference (in thousands)
Series B	10,000.00	9,997.00	9,245.13	\$ 2,136
Series C	3,500.00	3,424.65	3,424.65	500
Series D	6,000.00	5,111.86	5,111.86	731
Series E	100,000.00	100,000.00	97,800.00	3,668
Total at September 28, 2019	119,500.00	118,533.51	115,581.64	\$ 7,035

**(13) Subsequent Events**

**Sale of Common Stock**

On November 8, 2019, the Company completed an underwritten public offering of 11,960,000 shares of its common stock at \$0.25 per share. The net proceeds from the offering after deducting underwriting discounts and commissions and estimated offering expenses were approximately \$2.1 million. The Company intends to use the net proceeds of this offering for general corporate purposes, which may include the repayment of debt. In connection with the offering, the Company granted the underwriter a warrant to purchase 358,800 shares of common stock at the price of \$0.30 per share. The warrant is immediately exercisable and has a five year term.

**Series E Exchange**

Beginning on September 30, 2019, the Company offered holders of its 6.0% Series E Shares the opportunity to exchange all or some of their shares of Series E Shares for shares of the Company's common stock in a private exchange offer at the rate of 150 shares of common stock for each Series E Share, plus an additional number of shares of common stock having a market value equal to the accrued but unpaid dividends thereon. The private exchange offer was conditioned and became effective upon the Company selling at least \$2.0 million of common stock in a public offering. The Company completed the private exchange offer on November 8, 2019, issuing an aggregate of 13,449,562 shares of common stock in exchange for 88,600 shares of Series E Preferred Stock and dividends accrued thereon. The shares of common stock to be issued in the exchange were issued in reliance on the exemptions from registration set forth in Sections 3(a)(9) and 4(a)(2) of the Securities Act of 1933 (the "Securities Act"), though other exemptions may be available.

**Reverse Stock Split Announced**

At the Annual Meeting of Shareholders on September 19, 2019, the Company's shareholders approved a reverse stock split of the Company's common stock and authorized the Board of Directors to determine the exact ratio of the reverse split within the range of 1-for-10 to 1-for-20. On November 6, 2019, the Company announced that the Board of Directors approved a reverse split of the common stock at a ratio of 1-for-15.

The shares amounts and related financial information in this Form 10-Q do not reflect the reverse split, which is expected to be effective on November 29, 2019. At the effective time of the reverse stock split, every 15 shares of issued and outstanding common stock will be converted into one share of issued and outstanding common stock, and the authorized shares of common stock will be reduced from 200,000,000 to 13,333,333 shares, without par value. The reverse stock split will not modify the rights of the common stock. Proportional adjustments will be made to the conversion and exercise prices of the Company's convertible preferred stock, common stock warrants and stock options.

## **ITEM 2 - MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The forward-looking statements included in this report including, without limitation, statements containing the words "believes", "anticipates", "estimates", "expects", "intends" and words of similar import, which reflect management's best judgment based on factors currently known, involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of a number of factors, including but not limited to those listed in Giga-tronics' Annual Report on Form 10-K for the fiscal year ended March 30, 2019 Part I, under the heading "Risk Factors", and Part II, under the heading "Management's Discussion and Analysis of Financial Conditions and Results of Operations".

### **Overview and Refocusing of Giga-tronics**

We manufacture specialized electronics equipment for use in both military test and airborne operational applications. Our operations consist of two business segments, those of our wholly-owned subsidiary, Microsource, and those of our Giga-tronics Division.

- Microsource's primary business is the design of custom Microwave Integrated Components ("MIC") as well as the production of MIC components using chip and wire assembly methods. Our Microsource Division offers a line of tunable, synthesized Band Reject Filters (BRF) for solving interference problems in RADAR and Electronic Warfare (RADAR/EW) applications. Self-protection systems onboard high performance military aircraft often require RADAR filters to block electromagnetic interference generated by other onboard electronic systems, particularly the aircraft's main RADAR. Microsource's high-speed, tunable notch filters are designed to block interference from both continuous wave and wide bandwidth emissions using proprietary driver and phase lock technology. We design these filters specifically for each application. Microsource customers are primarily prime contractors for whom we develop and manufacture aftermarket RADAR filters used in military fighter jet aircraft.
- The Giga-tronics Division designs, manufactures and markets a family of functional test products for the RADAR/EW segment of the defense electronics market. Our RADAR/EW test products are used to evaluate and improve the performance of RADAR/EW systems. Giga-tronics Division customers include major prime defense contractors, the armed services (primarily in the U.S.) and research institutes. The Company believes its newer RADAR/EW test products represent a greater long-term opportunity for sales growth and improved gross margins compared to its legacy test and measurement equipment product lines, the majority of which have been divested in recent years.

Microsource's revenues have increased in recent years as prime contractors began upgrading additional aircraft. Initially, Microsource supplied filters for one fighter jet, the F/A-18E. During our 2014 fiscal year, we began to supply the prime contractor with filters for a second aircraft, the F-15. Additionally, during our 2017 fiscal year, we began to supply a second prime contractor with filters for a third aircraft, the F-16. As a result, Microsource's revenue increased to over \$9.0 million during our 2019 fiscal year, which ended March 30, 2019. Microsource is a sole-source supplier of filters for these three fighter jets and we expect that the sales of filters for these aircraft will continue to be a significant source of our future revenue.

In 2012, we began development of a test platform for evaluating RADAR/EW systems using its technical resources and industry expertise related to microwave products. We believe that, as a small company, the RADAR/EW test and evaluation market offers greater long-term opportunities for revenue growth and improved gross margins compared to its original general-purpose commodity test equipment products. As a result, we chose to focus on the development of our RADAR/EW testing platform and divested our general-purpose test product lines between calendar years 2015 and 2017.

The same digital technology that has revolutionized commercial communications and automotive electronics is now being applied to advanced RADAR and EW systems. This shift in technology limits the effectiveness of traditional analog test solutions due to the inability of these solutions to properly stimulate and actively interact with the RADAR and EW systems being tested. We believe that our digital Giga-tronics Advanced Signal Generator & Analyzer hardware ("ASGA") platform offers greater control and real-time behavior compared to traditional analog test solutions. This digital architecture enables us to offer RADAR/EW test solutions with real time responses and closed loop behavior that we believe is not available from any competitor.

We believe that customer spending for EW systems, including test and emulation, will grow in future years due to more complex RADAR signals and foreign investment in new technology, which will require customers to have greater access to more sophisticated test and emulation equipment. We believe we can become a leading supplier of solutions for evaluating RADAR and EW systems due to the investment we have made since 2012 in our ASGA functional test platform.

## Significant Orders

Both Microsource and the Giga-tronics Division have historically received a limited number of large customer orders periodically. The timing of orders is sporadic and difficult to predict, and any achievement of associated milestones, can cause significant differences in orders received, backlog, sales, deferred revenue, inventory and cash flow when comparing one fiscal period to another. Below is a review of recently received significant orders:

### *Microsource*

In fiscal 2015, Microsource received a \$6.5 million order for non-recurring engineering (“NRE”) services and for delivery of a limited number of flight-qualified prototype hardware from a prime defense contractor to develop a variant of our high performance, fast tuning YIG RADAR filters for a fighter jet aircraft platform. In fiscal 2016 our Microsource business unit finalized an associated multiyear \$10.0 million YIG production order (“YIG Production Order”). The Company started shipping the YIG Production Order in the second quarter of fiscal 2017 and anticipates shipping the remainder through fiscal 2020.

In July 2016, Microsource received a \$1.9 million non-recurring engineering services order associated with redesigning a component of its high performance YIG filter used on a fighter jet aircraft platform. Of this NRE service order, we delivered services of approximately \$884,000 and \$816,000 in fiscal years 2017 and 2018, respectively, and completed delivery of the remaining services during fiscal 2019.

In September 2017, Microsource received a \$4.8 million order for continuing the YIG RADAR filter for a fighter jet platform. The Company began initial shipments of these filters in the fourth quarter of fiscal 2018 and recognized revenue on the majority of the order in fiscal 2019.

In February 2018, Microsource received a \$1.6 million YIG RADAR filter order from one of our customers. The Company recognized \$1.1 million of revenue in fiscal 2019 and expects to recognize the remainder of revenue in fiscal 2020.

In November 2018, Microsource received a \$4.5 million YIG RADAR filter order from one of our customers. The Company recognized \$1.1 million of revenue in fiscal 2019 and expects to recognize the majority of the remaining revenue in fiscal year 2020.

In June 2019, Microsource received two orders totaling \$3.7 million from Lockheed Martin and Raytheon. The Company began to recognize revenue during the second quarter of fiscal 2020 with respect to these orders and expects to recognize the remainder of the revenue through fiscal 2024.

In September 2020, Microsource received two orders totaling \$2.9 million from Boeing Company. While the orders were received during the second quarter of fiscal 2020, the Company recognized minimal revenue during the quarter with respect to these orders.

### *Giga-tronics Division*

In February 2019, the Giga-tronics Division received a \$4.0 million order from the United States Navy for our Real-Time Threat Emulation System (TEmS) which is a combination of the ASGA hardware platform, along with software developed and licensed to the Company from a major aerospace and defense company. The order is comprised of two TEmS units of equal value along with approximately \$671,000 of engineering services to support and upgrade currently installed systems. The Company fulfilled the first TEmS unit order in the March 2019 quarter, the Company’s fourth quarter of fiscal 2019. The second TEmS unit order was fulfilled during the June 2019 quarter, the Company’s first quarter of fiscal 2020. The engineering services are expected to occur over approximately a twelve month period.

## Critical Accounting Policies

Please refer to the section of the Company’s Annual Report on Form 10-K for the year ended March 30, 2019 entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations —Critical Accounting Policies” for a discussion of our critical accounting policies. During the three and six months ended September 28, 2019, there were no material changes to these policies other than as disclosed in Note 1 Organization and Significant Accounting Policies.

In preparing the consolidated financial statements, management is required to make estimates based on the information available that affect the reported amounts of assets and liabilities as of the balance sheet dates and revenues and expenses for the reporting periods. While we believe that these accounting policies and estimates are based on sound measurement criteria, actual future events can and often do result in outcomes that can be materially different from these estimates and forecasts.

## Results of Operations

New orders received for the three and six-month periods ended September 28, 2019 and September 29, 2018 by segment are as follows:

### NEW ORDERS

(Dollars in thousands)	Three Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Giga-tronics Division	\$ 119	\$ 50	138%
Microsource	2,971	105	2730%
Total	\$ 3,090	\$ 155	1894%

(Dollars in thousands)	Six Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Giga-tronics Division	\$ 311	\$ 102	205%
Microsource	6,735	518	1200%
Total	\$ 7,046	\$ 620	1036%

New orders received in the second quarter of fiscal 2020 increased to \$3,090,000 from \$155,000 received in the second quarter of fiscal 2019. Both the Giga-tronics Division and Microsource segment saw increases in orders in the second quarter of fiscal 2020 compared to the second quarter of fiscal 2019, though the Giga-tronics Division had minimal ASG orders in the second quarter of fiscal 2020. The increase in Microsource business unit orders during the second quarter of fiscal 2020 was attributable to RADAR filters orders. The timing of receipt of expected large RADAR filter contracts varies from period to period.

The following table shows order backlog and related information at the end of the respective periods:

### BACKLOG

(Dollars in thousands)	September 28, 2019	September 29, 2018	% change
Backlog of unfilled orders at end of period:			
Giga-tronics Division	\$ 264	\$ -	-
Microsource	6,937	3,299	110%
Total	\$ 7,201	\$ 3,299	118%
Backlog of unfilled orders shippable within one year:			
Giga-tronics Division	\$ -	\$ -	-
Microsource	5,633	3,299	71%
Total	\$ 5,633	\$ 3,299	71%

Backlog at the end of the second quarter of fiscal 2020 versus the comparable prior year date increased by 118% primarily due to RADAR filter orders. The Giga-tronics Division backlog at September 28, 2019 was \$264,000, an increase from the comparable prior year date due to a U.S. Navy order. Microsource saw a 110% increase in backlog in the second quarter of fiscal 2020 which was attributable to RADAR filter orders.

The allocation of net sales was as follows for the periods shown:

### ALLOCATION OF NET SALES

(Dollars in thousands)	Three Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Giga-tronics Division	\$ 373	\$ 50	646%
Microsource	2,662	2,630	1%
Total	\$ 3,035	\$ 2,680	13%

(Dollars in thousands)	Six Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Giga-tronics Division	\$ 2,289	\$ 179	1179%
Microsource	4,244	5,551	(24%)
Total	\$ 6,533	\$ 5,730	14%

Both the Giga-tronics Division and Microsource segment saw minimal increases in net sales in the second quarter of fiscal 2020 versus the comparable prior year date. The Giga-tronics Division net sales at September 28, 2019 was \$373,000, an increase from the comparable prior year quarter due to a U.S. Navy order. Microsource segment saw a minimal increase in the second quarter of fiscal 2020 versus the comparable prior year quarter.

Net sales of the Giga-tronics Division for the first six months of fiscal 2020 were \$2.3 million, a \$2.1 million increase as compared to the first six months of fiscal 2019 which was attributable to a U.S. Navy order. Net sales for the Microsource segment during the first half of fiscal 2020 decreased 24% over the comparable prior year period due to the Company's required adoption of ASC 606.

Gross profit was as follows for the periods shown:

#### GROSS PROFIT

(Dollars in thousands)	Three Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Total	\$ 1,248	\$ 1,126	11%

(Dollars in thousands)	Six Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Total	\$ 2,779	\$ 2,432	14%

Gross profit increased in the second quarter and first half of fiscal 2020 over the comparable periods of fiscal 2019 primarily due to an increase in sales of 13% in the second quarter of fiscal 2020 and 14% in the first half of fiscal 2020.

Operating expenses were as follows for the periods shown:

#### OPERATING EXPENSES

(Dollars in thousands)	Three Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Engineering	\$ 349	\$ 343	2%
Selling, general and administrative	751	900	(17%)
Total	\$ 1,100	\$ 1,243	(12%)

(Dollars in thousands)	Six Month Periods Ended		% change
	September 28, 2019	September 29, 2018	
Engineering	\$ 704	\$ 718	(2%)
Selling, general and administrative	1,798	1,901	(5%)
Total	\$ 2,502	\$ 2,619	(4%)

Operating expenses decreased 12% or \$143,000 in the second quarter of fiscal 2020 over fiscal 2019. Engineering expenses remained relatively flat. Selling, general and administrative decreased by \$149,000 primarily due to a decrease in headcount and personnel related expenses.

Operating expenses remained relatively flat in the first six months of fiscal 2020 over fiscal 2019. Engineering expenses decreased \$14,000 and selling, general and administrative decreased by \$103,000 primarily due to a decrease in headcount and personnel related expenses.

#### Interest Expense

Net interest expense in the second quarter of fiscal 2020 was \$66,000, a decrease of \$55,000 over the second quarter of fiscal 2019. Interest expense decreased primarily due to less accretion of loan discount and less interest on the PFG loan as the Company began making monthly principal payments of \$75,000 on May 1, 2019.

Net interest expense in the first half of fiscal 2020 was \$143,000, a decrease of \$135,000 over the first half of fiscal 2019. Interest expense decreased primarily due to less accretion of loan discount and less interest on the PFG loan as the Company began making monthly principal payments of \$75,000 on May 1, 2019.



## Net Income (loss)

Net income for the second quarter of fiscal 2020 was \$44,000, compared to a net loss of \$282,000 recorded in the second quarter of fiscal 2019. The decrease in net loss was primarily due to the higher net sales along with decreases in operating expenses in the second quarter of fiscal 2020 over 2019. Net income for the first half of fiscal 2020 was \$59,000, compared to a net loss of \$569,000 recorded in the first half of fiscal 2019. The decrease in net loss was primarily due to the increase in net sales for the Giga-tronics Division along with decreases in operating expenses.

## Financial Condition and Liquidity

	Periods Ended	
	September 28, 2019	March 30, 2019
Cash and cash equivalents	\$ 704	\$ 878
Total current assets	\$ 6,779	\$ 5,534
Total current liabilities	\$ 4,883	\$ 3,913
Working capital	\$ 1,896	\$ 1,621
Current ratio	1.39	1.41

As of September 28, 2019, Giga-tronics had \$704,000 in cash and cash equivalents, compared to \$878,000 as of March 30, 2019. The Company had working capital of \$1.9 million at September 28, 2019 compared to \$1.6 million at March 30, 2019. The current ratio (current assets divided by current liabilities) at September 28, 2019 was 1.39 compared to 1.41 at March 30, 2019. The increase in working capital was primarily due to an increase in accounts receivables of \$426,000, an increase in prepaids and other current assets of \$510,000 and an increase in inventories of \$483,000 all of which resulted from the adoption of ASC 606 during the first six months of fiscal 2020.

## Cash Flows

A summary of our net cash provided by (used in) operating activities, investing activities, and financing activities from our condensed consolidated statements of cash flows is as follows:

	Six Months Ended	
	September 28, 2019	September 29, 2018
Net cash (used in) provided by operating activities	\$ (587)	\$ (1,634)
Net cash (used in) provided by investing activities	(94)	-
Net cash provided by (used in) financing activities	507	661

## Cash Flows from Operating Activities

Cash used by operating activities during the six months ended September 28, 2019 was \$587,000. Net cash used in operating activities during this period was primarily attributable to changes in our working capital accounts, partially offset by other non-cash charges of \$95,000 for depreciation and amortization and \$162,000 for share-based compensation.

During the six months ended September 29, 2018, our operating activities used cash of \$1.6 million, primarily resulting from our net losses and changes in our working capital accounts, adjusted for non-cash items including stock-based compensation and depreciation and amortization.

We expect that cash flows from operating activities will fluctuate in future periods due to a number of factors including our operating results, amounts of non-cash charges, and the timing of our billings, collections and disbursements.

## Cash Flows from Investing Activities

Cash used in investing activities for the six-month period ended September 28, 2019 was \$94,000, primarily due to purchases of equipment for manufacturing and engineering.

Cash used in investing activities for the six-month period ended September 29, 2018 was zero.

## Cash Flows from Financing Activities

Cash provided by financing activities for the six-month period ended September 28, 2019 was \$507,000, primarily due to proceeds from the exercise of warrants of \$230,000 and proceeds from financed receivables of \$889,000, partially offset by repayments of financed receivables of \$49,000 and \$375,000 loan repayments on borrowings and \$188,000 of capital lease payments.

Cash provided by financing activities for the six-month period ended September 29, 2018 was \$661,000, primarily due to net proceeds of \$576,000 from the Company's sale of Series E convertible preferred stock as well as proceeds from the exercise of warrants of \$112,000.

### **ITEM 3 – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Pursuant to Item 305 of Regulation S-K, the Company, as a smaller reporting company, is not required to provide the information required by this item.

### **ITEM 4 - CONTROLS AND PROCEDURES**

The Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of September 28, 2019, which is the end of the fiscal quarter covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective to provide reasonable assurances that (i) the information the Company is required to disclose in the reports it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time period required by the Commission's rules and forms, and (ii) such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures.

There were no significant changes in the Company's internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect our internal control over financial reporting.

## **II - OTHER INFORMATION**

### **ITEM 1 - LEGAL PROCEEDINGS**

As of September 28, 2019, the Company has no material pending legal proceedings. From time to time, the Company is involved in various disputes and litigation matters that arise in the ordinary course of business.

### **ITEM 1A - RISK FACTORS**

There has been no material change in the risk factors disclosed in the registrant's Annual Report on Form 10-K for the fiscal year ended March 30, 2019.

### **ITEM 2 - UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS**

None.

### **ITEM 3 - DEFAULTS UPON SENIOR SECURITIES**

None.

### **ITEM 4 - MINE SAFETY DISCLOSURES**

Not applicable.

### **ITEM 5 - OTHER INFORMATION**

None.

### **ITEM 6 - EXHIBITS**

- 31.1 [Certification of Chief Executive Officer pursuant to Section 302 of Sarbanes-Oxley Act.](#)
- 31.2 [Certification of Chief Financial Officer pursuant to Section 302 of Sarbanes-Oxley Act.](#)
- 32.1 [Certification of Chief Executive Officer pursuant to Section 906 of Sarbanes-Oxley Act.](#)
- 32.1 [Certification of Chief Financial Officer pursuant to Section 906 of Sarbanes-Oxley Act.](#)
- 101.INS\*\* XBRL Instance
- 101.SCH\*\* XBRL Taxonomy Extension Schema
- 101.CAL\*\* XBRL Taxonomy Extension Calculation
- 101.DEF\*\* XBRL Taxonomy Extension Definition
- 101.LAB\*\* XBRL Taxonomy Extension Labels
- 101.PRE\*\* XBRL Taxonomy Extension Presentation

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

GIGA-TRONICS INCORPORATED

(Registrant)

By:

Date: November 12, 2019

/s/ John R. Regazzi

John R. Regazzi  
Chief Executive Officer  
(Principal Executive Officer)

Date: November 12, 2019

/s/ Lutz P. Henckels

Lutz P. Henckels  
Chief Financial Officer and Director  
(Principal Financial Officer)

Date: November 12, 2019

/s/ Traci K. Mitchell

Traci K. Mitchell  
Corporate Controller  
(Principal Accounting Officer)

**CERTIFICATIONS UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, John R. Regazzi, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Giga-tronics Incorporated;
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(s) 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(s) 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.

Date: November 12, 2019

/s/ John R. Regazzi  
John R. Regazzi  
Chief Executive Officer  
(Principal Executive Officer)

**CERTIFICATIONS UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Lutz P. Henckels, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Giga-tronics Incorporated;
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(s) 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(s) 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.

Date: November 12, 2019

/s/ Lutz P. Henckels  
Lutz P. Henckels  
Chief Financial Officer  
(Principal Financial Officer)

**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 Giga-tronics Incorporated (the "Company") on Form 10-Q for the period ending September 28, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John R. Regazzi, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 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; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 12, 2019

/s/ John R. Regazzi  
John R. Regazzi  
Chief Executive Officer  
(Principal Executive Officer)

In connection with the quarterly report of Giga-tronics Incorporated (the "Company") on Form 10-Q for the period ending September 28, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lutz P. Henckels, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 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; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 12, 2019

/s/ Lutz P. Henckels  
Lutz P. Henckels  
Chief Financial Officer  
(Principal Financial Officer)