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

FORM 10-Q

[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended **June 29, 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	**94-2656341**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
5990 Gleason Drive, Dublin CA 94568	**(925) 328-4650**
(Address of principal executive offices)	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

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

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 [X] 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 [X] 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. (Check one):

Large accelerated filer	[ ]	Accelerated filer	[ ]
Non-accelerated filer	[ ]	Smaller reporting company	[X]
		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 [X]

There were a total of 11,680,707 shares of the Registrant's Common Stock outstanding as of July 22, 2019.

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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

CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)

(In thousands except share data)		June 29, 2019		March 30, 2019*
Assets				
Current assets:				
Cash and cash-equivalents	$	1,010	$	878
Trade accounts receivable, net of allowance of $8 and $8, respectively		823		568
Inventories, net		2,748		2,734
Prepaid expenses and other current assets		1,302		1,354
Total current assets		5,883		5,534
Property and equipment, net		543		569
Right of use asset		1,297		—
Other long term assets		176		176
Total assets	$	7,899	$	6,279
Liabilities and shareholders' equity				
Current liabilities:				
Line of credit	$	429	$	—
Accounts payable		930		747
Loan payable, net of discounts and issuance costs		1,473		1,781
Accrued payroll and benefits		387		476
Deferred rent		—		74
Lease obligations		386		41
Deferred liability related to asset sale		40		40
Other current liabilities		715		754
Total current liabilities		4,360		3,913
Other non-current liabilities		242		172
Long term deferred rent		—		358
Long term obligations - leases		1,372		21
Total liabilities		5,974		4,464
Commitments and contingencies				
Shareholders' equity:				
Convertible preferred stock; no par value; Authorized - 1,000,000 shares Series A- designated 250,000 shares; no shares at June 29, 2019 and March 30, 2019 issued and outstanding		—		—
Series B, C, D- designated 19,500 shares; 18,533.51 shares at June 29, 2019 and March 30, 2019 issued and outstanding; (liquidation preference of $3,540 at June 29, 2019 and March 30, 2019)		2,911		2,911
Series E- designated 100,000 shares; 98,400 shares at June 29, 2019 and March 30, 2019 issued and outstanding; (liquidation preference of $3,690 at June 29, 2019 and March 30, 2019)		1,893		1,895
Common stock; no par value; Authorized - 40,000,000 shares; 11,343,011 shares at June 29, 2019 and 11,360,511 shares at March 30, 2019 issued and outstanding		25,654		25,557
Accumulated deficit		(28,533)		(28,548)
Total shareholders' equity		1,925		1,815
Total liabilities and shareholders' equity	$	7,899	$	6,279

See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements

* Derived from the audited consolidated financial statements as of and for the fiscal year ended March 30, 2019.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

	Three Months Ended	
(In thousands except per share data)	**June 29, 2019**	**June 30, 2018**
Net revenue		
Goods	$ 1,938	$ 207
Services	1,560	2,843
Total revenue	3,498	3,050
Cost of goods and services	1,968	1,744
Gross profit	1,530	1,306
Operating expenses:		
Engineering	355	375
Selling, general and administrative	1,047	1,001
Total operating expenses	1,402	1,376
Operating income (loss)	128	(70)
Interest expense:		
Interest expense, net	(94)	(127)
Interest expense from accretion of loan discount	(19)	(50)
Total interest expense, net	(113)	(177)
Income (loss) before income taxes	15	(247)
Provision for income taxes	—	40
Net income (loss)	$ 15	$ (287)
Income (loss) per common share – basic	$ 0.00	$ (0.03)
Income (loss) per common share – diluted	$ 0.00	$ (0.03)
Weighted average common shares used in per share calculation:		
Basic	10,775	10,419
Diluted	23,090	10,419

See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (UNAUDITED)

	Preferred Stock		Common Stock		Accumulated	
(In thousands except share data)	Shares	Amount	Shares	Amount	Deficit	Total
Balance at March 31, 2018	**62,334**	**$ 3,613**	**10,312,653**	**$ 25,200**	**$ (28,682)**	**$ 131**
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 $15	9,600	205	—	—	—	205
Balance at June 30, 2018	**71,934**	**$ 3,818**	**10,418,953**	**$ 25,272**	**$ (27,793)**	**$ 1,297**

	Preferred Stock		Common Stock		Accumulated	
(In thousands except share data)	Shares	Amount	Shares	Amount	Deficit	Total
Balance at March 30, 2019	**116,934**	**$ 4,806**	**11,360,511**	**$ 25,557**	**$ (28,548)**	**$ 1,815**
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 $2	—	(2)	—	2	—	—
Balance at June 29, 2019	**116,934**	**$ 4,804**	**11,343,011**	**$ 25,654**	**$ (28,533)**	**$ 1,925**

See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

	Three Months Ended	
(In thousands)	**June 29, 2019**	**June 30, 2018**
Cash flows from operating activities:		
Net income (loss)	$ 15	$ (287)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation and amortization	47	73
Share-based compensation	95	57
Accretion of discounts on debt	20	50
Accrued interest and fees on loan payable	(327)	25
Change in deferred rent	1	(14)
Changes in operating assets and liabilities:		
Trade accounts receivable	(255)	(94)
Inventories	(14)	468
Prepaid expenses and other current assets	52	(516)
Right of use asset	64	—
Accounts payable	183	(240)
Accrued payroll and benefits	(89)	70
Deferred revenue	—	(550)
Other current liabilities and non-current liabilities	27	13
Net cash used in operating activities	(181)	(945)
Cash flows from investing activities:		
Purchases of property and equipment	(22)	—
Net cash used in investing activities	(22)	—
Cash flows from financing activities:		
Principal payments on leases	(94)	(12)
Proceeds from borrowings, net of issuance costs	429	—
Proceeds from issuance of preferred stock, net of issuance costs	—	205
Exercise of warrants	—	15
Net cash provided by financing activities	335	208
Increase (decrease) in cash and cash-equivalents	132	(737)
Beginning cash and cash-equivalents	878	1,485
Ending cash and cash-equivalents	$ 1,010	$ 748
Supplementary disclosure of cash flow information:		
Cash paid for income taxes	$ 55	$ —
Cash paid for interest	$ 256	$ 61
Supplementary disclosure of noncash activities:		
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	—

See Accompanying 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 our defense contracts within the Microsource segment for its YIG 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.

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 the package of practical expedients 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 31, 2019 (in thousands):

	Balance at 3/30/2019	Adoption Adjustment	Balance at 3/31/2019
Assets:			
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)	—
Liabilities:			
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:

(In thousands)	**June 29, 2019**	**March 30, 2019**
Raw materials	$ 900	$ 759
Work-in-progress	1,409	1,523
Finished goods	77	57
Demonstration inventory	362	395
Total	$ 2,748	$ 2,734

(3) Accounts Receivable Line of Credit

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 June 29, 2019 and March 30, 2019, the Company's total outstanding borrowings under the Restated Financing Agreement were $429,000 and zero, respectively.

(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
Back-end 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 fiscal quarter ended June 29, 2019, the Company amortized discounts of approximately $20,000 to interest expense. As of June 29, 2019, the Company had issued to PFG 400,000 common shares under the loans.

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 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. The Company was in compliance with these financial covenants at June 29, 2019.

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:

	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
Total lease costs		$	137

Other information:

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%

Future lease payments as of June 29, 2019 were as follows:

		Operating leases		Finance leases		Total
Remainder current year	$	333	$	32	$	365
2021		458		22		480
2022		473		—		473
2023		487		—		487
Thereafter		209		—		209
Total future minimum lease payments		1,960		54		2,014
Less: imputed interest		(252)		(4)		(256)
Present value of lease liabilities	$	1,708	$	50	$	1,758

(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 June 29, 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 three month period ended June 29, 2019 are as follows:

(In thousands except per share data)		June 29, 2019
Net income (loss)	$	15
Weighted average basic shares outstanding		10,775
Effect of dilutive securities		12,315
Weighted-average dilutive shares		23,090
Basic earnings per share	$	0.00
Diluted earnings per share	$	0.00

Shares excluded from the diluted EPS calculation for the three month period ended June 30, 2018 because they would be anti-dilutive are as follows:

(In thousands)	June 30, 2018
Common shares issuable upon exercise of stock options	1,498
Restricted stock awards	262
Issuable shares for interest on loan	25
Common shares issuable upon conversion of convertible preferred stock	7,113
Common shares issuable upon exercise of warrants	3,960

(8) Shared-based Compensation and Employee Benefit Plans

During September 2005, the Company established its 2005 Equity Incentive Plan, which provides for the granting of stock options and restricted stock for up to 2,850,000 shares of common stock at 100% of fair market value at the date of grant, with each grant requiring approval by the Board of Directors of the Company. In 2014, the term of the 2005 Equity Incentive Plan was extended to 2025. 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 within a certain period after termination of employment (or while providing services under a 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 stock appreciation rights (SAR), which entitle them to surrender outstanding options for a cash distribution under certain changes in ownership of the Company, as defined in the stock option plan. As of June 29, 2019, no further shares of common stock are available for issuance. All outstanding options have a ten-year life from the date of grant.

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 June 29, 2019, no SARs have been granted under any option plan. As of June 29, 2019, the total number of shares of common stock available for issuance was 838,500. 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 was estimated on the date of grant using the Black-Scholes-Merton option-pricing model and the following weighted average assumptions:

	Three Months Ended	
	June 29, 2019	June 30, 2018
Dividend yield	—	—
Expected volatility	101.66%	92.55%
Risk-free interest rate	2.35%	2.82%
Expected term (years)	8.36	8.36

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 three-month period ended June 29, 2019 and the year ended March 30, 2019 is as follows:

	Shares		Weighted Average Exercise Price per share	Weighted Average Remaining Contractual Terms (Years)		Aggregate Intrinsic Value
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	847,500		0.34	9.9		
Forfeited / Expired	(32,200)		0.48			
Outstanding at June 29, 2019	3,550,000	$	0.39	8.5	$	—
Exercisable at June 29, 2019	860,992	$	0.58	5.9	$	—
At June 29, 2019 expected to vest in the future	702,491	$	0.40	9.6	$	—

As of June 29, 2019, there was $497,000 of total unrecognized compensation cost related to non-vested options. That cost is expected to be recognized over a weighted average period of 3.32 years and will be adjusted for subsequent changes in estimated forfeitures. There were 207,292 options that vested during the quarter ended June 29, 2019, and 7,200 options that vested during the quarter ended June 30, 2018. The total fair value of options vested during each of the quarters ended June 29, 2019 and June 30, 2018 was $53,032 and $9,052 respectively. There were no options exercised in the three-month periods ended June 29, 2019 and June 30, 2018. Share based compensation cost related to stock options recognized in operating results for the three months ended June 29, 2019 and June 30, 2018 totaled $51,000 and $20,000, respectively.

Restricted Stock

The Company granted no restricted awards ("RSAs") during the first quarters of fiscal 2020 and 2019. RSAs 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 June 29, 2019, there was $33,000 of total unrecognized compensation cost related to non-vested RSAs. That cost is expected to be recognized over a weighted average period of 0.68 years and will be adjusted for subsequent changes in estimated forfeitures. Compensation cost recognized for RSAs and unrestricted stock awards in operating results for the three months ended June 29, 2019 and June 30, 2018 totaled $44,000 and $37,000, respectively

A summary of the changes in non-vested RSAs outstanding for the three-month period ended June 29, 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
Vested	(144,950)		0.80
Forfeited or cancelled	(20,000)		0.80
Non-Vested at June 29, 2019	170,000	$	0.34

(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. Our 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 table below presents information for the two reportable segments:

(In thousands)	At June 29, 2019 Assets	Three Month Periods Ended June 29, 2019 Net Sales	Three Month Periods Ended June 29, 2019 Net Income (Loss)	At June 30, 2018 Assets	Three Month Periods Ended June 30, 2018 Net Sales	Three Month Periods Ended June 30, 2018 Net Income (Loss)
Giga-tronics Division	$ 5,421	$ 1,916	$ (548)	$ 4,418	$ 129	$ (1,559)
Microsource	2,478	1,582	562	1,953	2,921	1,272
Total	$ 7,899	$ 3,498	$ 14	$ 6,371	$ 3,050	$ (287)

During the first quarter of fiscal 2020, one customer accounted for 50% of the Company's consolidated revenues and was included in the Giga-tronics Division. A second customer accounted for 39% and was included in the Microsource segment. During the first quarter of fiscal 2019, one customer accounted for 64% of the Company's consolidated revenues and was included in the Microsource segment. A second customer accounted for 31% 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 no income tax expense for the three months ended June 29, 2019 and $40,000 for the three months ended June 30, 2018. The effective tax rate for the three months ended June 29, 2019 and June 30, 2018 was 0% and 16% each period, primarily due to a valuation allowance recorded against the net deferred tax asset balance.

As of June 29, 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.

(In thousands)	Three Months Ended June 29, 2019	Three Months Ended June 30, 2018
Balance at beginning of period	$ 104	$ 164
Provision, net	12	6
Warranty costs incurred	(3)	(29)
Balance at end of period	$ 113	$ 141

(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 43,800 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.

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.

During the three months ended June 29, 2019, no additional Series E Shares were issued.

The table below presents information as of June 29, 2019 and March 30, 2019:

Preferred Stock

	Shares Designated	Shares Issued	Shares Outstanding	Liquidation Preference (in thousands)
Series B	10,000.00	9,997.00	9,997.00	$ 2,309
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	98,400.00	3,690
Total at June 29, 2019 and March 30, 2019	119,500.00	118,533.51	116,933.51	$ 7,230

(13) Subsequent Events

None.

ITEM 2 - MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OFOPERATIONS

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, the prime contractor added a second aircraft, the F-15. Additionally, during our 2017 fiscal year, a second prime contractor added 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 the three fighter jets and we expect that the business will continue to be a significant source of our future revenue.

The Company believes 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.

The Company believes it can become a leading supplier of solutions for evaluating RADAR and EW systems due to the investment the Company has made since 2012 in its ASGA functional test platform. 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 the 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.

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. While the orders were received during the first quarter of fiscal 2020, the Company recognized no 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 during the next twelve months.

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 months ended June 29, 2019, there were no material changes to these policies other than as disclosed in Note 1 Organization and Significant Accounting Policies to our condensed consolidated financial statements included with this Quarterly Report on Form 10-Q.

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 by segment are as follows:

NEW ORDERS

(Dollars in thousands)	Three Month Periods Ended June 29, 2019	June 30, 2018	% change
Giga-tronics Division	$ 192	$ 52	269%
Microsource	3,764	413	811
Total	$ 3,956	$ 465	751%

New orders received in the first quarter of fiscal 2020 increased to $3,956,000 from $465,000 received in the first quarter of fiscal 2019. Both the Giga-tronics Division and Microsource segment saw increases in orders in the first quarter of fiscal 2020. The Giga-tronics Division had minimal ASG orders in the first quarter of fiscal 2020. The increase in Microsource business unit orders during the first 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)		June 29, 2019		June 30, 2018	% change
Backlog of unfilled orders at end of period:					
Giga-tronics Division	$	518	$	—	—%
Microsource		2,158		5,824	(63)%
Total	$	2,676	$	5,824	(54)%
Backlog of unfilled orders shippable within one year:					
Giga-tronics Division	$	—	$	—	—%
Microsource		4,470		3,504	28%
Total	$	4,470	$	3,504	28%

Backlog at the end of the first quarter of fiscal 2020 decreased 54% compared to the prior year date primarily due to the impact of the adoption of ASC 606 on April 1, 2018. The Giga-tronics Division backlog at June 29, 2019 was $518,000, an increase from the comparable prior year date due to a U.S. Navy order. Microsource saw a 63% decrease in backlog in the first quarter of fiscal 2020 which was primarily due the impact of the adoption of ASC 606.

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

ALLOCATION OF NET SALES

		Three Month Periods Ended			
(Dollars in thousands)		June 29, 2019		June 30, 2018	% Change
Giga-tronics Division	$	1,916	$	129	1385%
Microsource		1,582		2,921	(46)%
Total	$	3,498	$	3,050	15%

Fiscal 2020 first quarter net sales were $3.5 million, a 15% increase as compared to $3.1 million for the first quarter of fiscal 2019. The majority of the sales increase in fiscal 2020 was attributable to the Giga-tronics Division U.S. Navy order which was higher by $1.8 million partially offset by a $1.3 million decrease in Microsource sales primarily due to the impact of the adoption of ASC 606.

Gross profit was as follows for the periods shown:

GROSS PROFIT

		Three Month Periods Ended			
(Dollars in thousands)		June 29, 2019		June 30, 2018	% change
Total	$	1,530	$	1,306	17%

Gross profit increased in the first quarter of fiscal 2020 to $1,530,000 from $1,306,000 for the first quarter of fiscal 2019. The higher gross profit was mainly due to an increase in sales of 15%.

Operating expenses were as follows for the periods shown:

OPERATING EXPENSES

(Dollars in thousands)	Three Month Periods Ended June 29, 2019	June 30, 2018	% change
Engineering	$ 355	$ 375	(5)%
Selling, general and administrative	1,047	1,001	5%
Total	$ 1,402	$ 1,376	2%

Operating expenses remained relatively even in the first quarter of fiscal 2020 over fiscal 2019. Engineering expenses decreased $20,000, primarily due to a decrease in personnel related expenses due to lower headcount. Selling, general and administrative increased by $46,000 primarily due to an increase in headcount and personnel related expenses.

Interest Expense

Net interest expense in the first quarter of fiscal 2020 was $113,000, a decrease of $64,000 over the first quarter of fiscal 2019. Interest expense decreased primarily due to less accretion of discounts on the PFG loan and lower bank borrowings during the first quarter of fiscal 2020. For the first quarter of fiscal 2020, interest expense includes $19,000 of accretion of discounts on the PFG loan compared to $50,000 recorded in the first quarter of fiscal 2019.

Net Income (loss)

Net income for the first quarter of fiscal 2020 was $15,000 compared to a net loss of $287,000 recorded in the first quarter of fiscal 2019. The net income in fiscal 2020 compared to the net loss in fiscal 2019 was primarily due to the increase in net sales for the Giga-tronics Division with relatively flat operating expenses.

Financial Condition and Liquidity

	Periods Ended June 29, 2019	March 30, 2019
Cash and cash equivalents	$ 1,010	$ 878
Total current assets	5,883	5,534
Total current liabilities	4,360	3,913
Working capital	$ 1,523	$ 1,621
Current ratio	1.35	1.41

As of June 29, 2019, Giga-tronics had $1.0 million in cash and cash equivalents, compared to $878,000 as of March 30, 2019. The Company had working capital of $1.5 million at June 29, 2019 compared to $1.6 million at March 30, 2019. The current ratio (current assets divided by current liabilities) at June 29, 2019 was 1.35 compared to 1.41 at March 30, 2019. The decrease in working capital was primarily due to changes in current assets consisting of increases in accounts receivable of $255,000 and cash of $132,000, and decreases in accrued payroll of $89,000, deferred rent of $74,000 and other current liabilities of $39,000 which was offset by a decrease in prepaids and other current asset of $52,000, increases in accounts payable of $183,000, current portion of debt of $121,000 and current lease obligations of $345,000.

Cash Flows

The following summary of our cash flows for the periods indicated has been derived from our consolidated financial statements included elsewhere in this filing:

	Three Months Ended June 29, 2019	June 30, 2018
Net cash used in operating activities	$ (181)	$ (945)
Net cash used in investing activities	(22)	—
Net cash provided by financing activities	$ 335	$ 208

Cash Flows from Operating Activities

Cash used by operating activities during the three months ended June 29, 2019 of $181,000 was primarily attributable to changes in our working capital accounts, offset by our net income, other non-cash charges of $47,000 for depreciation and amortization and $95,000 for share-based compensation. Cash flow from our operating assets and liabilities decreased by $32,000 as a result of increased accounts receivable of $255,000, a $14,000 increase in inventories, a $64,000 increase in right of use assets, a $52,000 decrease in prepaid expenses and other current assets, a $183,000 increase in accounts payable, an $89,000 decrease in accrued payroll and benefits and a $27,000 increase in other current and non-current liabilities.

Cash used by operating activities during the three months ended June 30, 2018 of $945,000 was primarily attributable to our net loss, and changes in our working capital accounts, offset by other non-cash charges of $73,000 for depreciation and amortization and $57,000 for share-based compensation. Cash flow from our operating assets and liabilities decreased by $849,000 as a result of a $516,000 increase in prepaid expenses and other current assets, a $550,000 decrease in deferred revenue, a decrease in accounts payable of $240,000, and a $94,000 increase in accounts receivable offset by decreased inventories of $468,000, a $70,000 increase in accrued payroll and benefits, and a $13,000 increase in other current liabilities.

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 three-month period ended June 29, 2019 was $22,000 which was primarily attributable to the acquisition of engineering equipment.

Cash used in investing activities for the three-month period ended June 30, 2018 was zero.

Cash Flows from Financing Activities

Cash provided by financing activities for the three-month period ended June 29, 2019 was $335,000, primarily due to proceeds from the Company’s borrowings under the Western Alliance Bank arrangement.

Cash provided by financing activities for the quarter ended June 30, 2018 was $208,000, primarily due to net proceeds of $205,000 from the Company’s issuance of Series E convertible preferred stock.

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 June 29, 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 June 29, 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

10.1	Modification No. 4 to Loan and Security Agreement by and among Partners for Growth V. L.P, Giga-tronics Incorporated and Microsource, Inc. dated as of June 28, 2019.
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 Officers 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: August 8, 2019	/s/ John R. Regazzi John R. Regazzi Chief Executive Officer (Principal Executive Officer)
Date: August 8, 2019	/s/ Lutz P. Henckels Lutz P. Henckels Chief Financial Officer and Director (Principal Financial Officer)
Date: August 8, 2019	/s/ Traci K. Mitchell Traci K. Mitchell Corporate Controller (Principal Accounting Officer)

EXHIBIT 10.1

MODIFICATION NO. 4 TO
LOAN AND SECURITY AGREEMENT

This Modification No. 4 to Loan and Security Agreement (this "Fourth Modification") is entered into as of June 28, 2019 (the "Fourth Modification Effective Date"), by and between Partners for Growth V, L.P. ("PFG"), Giga-tronics Incorporated, a California corporation, and Microsource, Inc., a California corporation (individually and collectively, jointly and severally, " Borrower"). Capitalized terms used but not defined in this Fourth Modification shall have the meanings given them in the Loan Agreement.

Recitals

WHEREAS, PFG and Borrower entered into that certain Loan and Security Agreement dated as of April 27, 2017 (as amended by that certain Waiver and Modification No. 1 to Loan and Security Agreement entered into on March 26, 2018 (the "First Modification" and that certain Modification No. 2 to Loan and Security Agreement dated as of December 12, 2018 (the "Second Modification" and that certain Modification No. 3 to Loan and Security Agreement dated as of March 11, 2019 (the "Third Modification", together with the First Modification, Second Modification and Third Modification, the "Prior Modifications"), and as otherwise amended or restated, the "Loan Agreement") and certain other Security Documents (as defined below), pursuant to which PFG has made available to Borrower the principal amount of $1,350,000, all of which is outstanding on the Fourth Modification Effective Date;

WHEREAS, the parties desire to modify the Loan Agreement, subject to the satisfaction of the conditions set forth in Section 6 (including the Financing Condition, as defined below);

WHEREAS, Borrower has advised its likely inability to meet the Minimum Revenues financial covenant for the reporting period of June 30, 2019 (the "Anticipated Default");

WHEREAS PFG and Borrower mutually desire to amend the financial covenants under the Loan Agreement to address (inter alia) the Anticipated Default;

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

Agreement

1 . EFFECTIVENESS. The Loan Agreement modifications, terms and agreements made in this Fourth Modification shall become effective on the Fourth Modification Effective Date, notwithstanding that certain conditions set forth in Section 6 hereof may be conditions to be satisfied subsequent to the Fourth Modification Effective Date.

2 . DESCRIPTION OF COLLATERAL. Repayment of the Obligations is secured by the Collateral, as described in the Loan Agreement, in that certain Intellectual Property Security Agreement and related Collateral Agreements and Notices of even date with the Loan Agreement (the "IPSA") and the other Loan Documents entered into on the dates of the Loan Agreement and the Loan Agreement. The above-described security documents, together with all other documents securing and/or perfecting security interests in the repayment of the Obligations, shall be referred to herein as the "Security Documents". Hereinafter, the Security Documents, together with all other documents evidencing or securing the Obligations are referred to as the "Existing Loan Documents".

3. DESCRIPTION OF CHANGES IN TERMS. Effective automatically upon the Modification Effective Date:

(a) Definitions. The definition of "Plan" set forth in Section 7 of the Loan Agreement is amended to read as follows (with quotation marks and special formatting for convenience of reading only):

" "Plan" means Borrower's Board-approved financial plan as presented to PFG on June 24, 2019 in Excel format in the file entitled "PFG 6-24-19 forecast.xlsx" for the period April 1, 2019 through March 30, 2020."

(b) Financial Covenants. The corresponding sections in Section 5 of the Schedule (Maturity Date) are amended and restated to read in their entirety as follows (any difference in formatting for convenience of reading only, with all other provisions of Section 5 left intact):

5. FINANCIAL COVENANTS
(Section 4.1): Borrower shall comply with each of the following covenants. Compliance shall be determined as of the end of each month, except as otherwise specifically provided below:

(a) **Minimum TNW**: Effective at all times but measured on the last day of each calendar month on a consolidated basis with its Subsidiaries and reported monthly, Borrower shall maintain Tangible Net Worth of not less than $1,500,000.

(b) **Minimum Revenues**: On a consolidated basis with its Subsidiaries and measured quarterly as of the last day of each calendar quarter, Borrower shall maintain Revenues (as defined in clause (c), below, but determined under ASC-605) on a cumulative basis of not less than the minimum thresholds set forth below for the corresponding periods:

Period Ending	Threshold		Months in Period Calc
June 30, 2019	$	3,150,000	3 (4/1/19 - 6/30)
September 30, 2019	$	6,200,000	6 (4/1 - 9/30)
December 31, 2019	$	11,000,000	9 (4/1 - 12/31)
March 31, 2020	$	15,000,000	12 (4/1 – 3/31/20)

(c) Compliance Certificate. The Compliance Certificate is replaced in its entirety and superseded with the form appended hereto as Exhibit A.

4. CONTINUING VALIDITY. Borrower understands and agrees that in conditionally modifying the existing Obligations, PFG is relying upon Borrower's representations, warranties and agreements as set forth in the Existing Loan Documents. Except as expressly modified pursuant to this Fourth Modification, the terms of the Existing Loan Documents remain unchanged and in full force and effect. PFG's agreement to modify the existing Obligations in no way shall obligate PFG to give any future consents or waivers or make any future modifications to the Obligations. Nothing in this Fourth Modification shall constitute a satisfaction of the Obligations or a waiver of any Default or Event of Default under the Existing Loan Documents. It is the intention of PFG and Borrower to retain as liable parties all makers and endorsers, if any, of the Existing Loan Documents, unless the party is expressly released by PFG in writing. Unless expressly released herein, no maker, endorser, or guarantor will be released by virtue of this Fourth Modification. The terms of this paragraph apply not only to this Fourth Modification, but also to all subsequent loan modification agreements.

5. BORROWERS' REPRESENTATIONS AND WARRANTIES. Borrower represents and warrants that:

(a) immediately upon giving effect to this Fourth Modification (i) the representations and warranties contained in the Existing Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent qualified in the updated Representations deliverable to PFG on or before the Fourth Modification Effective Date), and (ii) no Event of Default has occurred and is continuing;

(b) Borrower has the corporate power and authority to execute and deliver this Fourth Modification and to perform its obligations under the Existing Loan Documents, in each case as contemplated by this Fourth Modification;

(c) the Constitutional Documents of Borrower delivered to PFG remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

(d) this Fourth Modification has been duly authorized, executed and delivered by Borrower and (i) constitutes the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights; (ii) does not conflict with any law or regulation or judgment or the Constitutional Documents of Borrower, or any agreement or document to which Borrower is a party or which is binding upon it or any of this assets; and (iii) does not require any authorization, approval, consent (including stockholder or member consent) of any Person, or any license or registration in any jurisdiction, for its lawful authorization, execution, performance, validity or enforceability, except to the extent such authorization, approval, consent (including stockholder or member consent) of any Person, license or registration is secured on or prior to the Fourth Modification Effective Date and provided to PFG;

(e) as of the date hereof, with Knowledge that PFG is relying on Borrower's representations and warranties herein (including the Representations) as a basis for entering into this Fourth Modification at Borrower's request, Borrower has no defenses against its obligation to repay the Obligations and it has no claims of any kind against PFG. Borrower acknowledges that PFG has acted in good faith and has conducted its relationship with Borrower in a commercially reasonable manner, including in connection with this Fourth Modification and in connection with the Existing Loan Documents;

(f) with respect to any Loan Documents binding upon a Person not party to this Fourth Modification, each such Person has been apprised of this Fourth Modification, has consented to Borrower's execution and delivery of this Fourth Modification and, to the extent not executed concurrently with this Fourth Modification (or as a condition subsequent hereto), has agreed if so requested by PFG to promptly execute and deliver to PFG a reaffirmation of its obligations under any Existing Loan Documents to which it is a party or is bound;

(g) the IPSA and associated Collateral Agreements and Notices disclose an accurate, complete and current listing of all Collateral that consists of Intellectual Property (as defined in said IP Security Agreement) or Borrower has included revised and updated Intellectual Property schedules as part of an update to the Representations required in Section 6(e) of this Fourth Modification and as part of the Intellectual Property and Domain Rights update and, as required, the Reaffirmation of IPSA under Section 6(f) of this Fourth Modification;

(h) Borrower hereby ratifies, confirms and reaffirms, all and singular, the terms and disclosures contained in the Representations dated as of the Fourth Modification Effective Date;

(i) as of the Fourth Modification Effective Date, Borrower has not asserted any commercial tort claims against any Person and has no Knowledge of any basis for so doing; and

(j) Except as expressly stated in this Fourth Modification, neither PFG nor any agent, employee or representative of PFG has made any statement or representation to Borrower regarding any fact relied upon by Borrower in entering into this Fourth Modification, (ii) Borrower has made such investigation of the facts pertaining to this Fourth Modification and all of the matters appertaining thereto, as it deems necessary, and (iii) the terms of this Fourth Modification are contractual and not a mere recital.

Borrower understands and acknowledges that PFG is entering into this Fourth Modification in reliance upon, and in partial consideration for, the above representations and warranties, and agrees that such reliance is reasonable and appropriate.

6. CONDITIONS. The effectiveness of this Fourth Modification is conditioned upon satisfaction of each of the following, with the consequence of a failure to meet the following conditions as set forth in the proviso at the end of this Section 6:

(a) Execution and Delivery. Borrower shall have duly executed and delivered to PFG a counterpart of this Fourth Modification and such other documents and instruments as are otherwise required in this Section 6.

(b) Constitutional and Authority Documents. Applicable only to the extent the same may have been modified or superseded or are no longer accurate since the date of the Loan Agreement, PFG shall have received copies, certified by a duly authorized officer of Borrower, to be true and complete as of the Fourth Modification Effective Date, of each of (i) the governing documents of Borrower as in effect on the date hereof, and (ii) any necessary resolutions of Borrower authorizing the execution and delivery of this Fourth Modification, the other documents executed in connection herewith and Borrower's performance of all of the transactions contemplated hereby, and (iii) an incumbency certificate giving the name and bearing a specimen signature of each individual who shall be so authorized on behalf of Borrower.

(c) Modification Fee. Borrower shall pay PFG a fee in consideration of this Fourth Modification in the amount of $6,750, fully-earned on the Fourth Modification Effective Date and due on July 1, 2019.

(d) Lender Expenses. Borrower shall have paid, upon PFG invoice, all unpaid fees and Lender Expenses incurred pursuant to or in connection with this Fourth Modification.

(e) Updates to Representations. Borrower shall have concurrently delivered an update to the Representations as last delivered to PFG, with the information and disclosures contained therein true, correct, accurate and complete as of the Fourth Modification Effective Date, appended hereto as Exhibit B.

(f) IPSA Update / Reaffirmation. To the extent that Borrower has created, acquired or amended any Intellectual Property or Domain Rights or made application with any Governmental Body in relation thereto since the date of the First Modification, Borrower shall disclose such created, acquired or amended Intellectual Property and/or Domain Rights in Exhibit C (which if left blank shall constitute that no such acquired, new or amended IP is applicable) and shall promptly execute and deliver supplemental Collateral Agreements and Notices in respect of the same in substantially the same form as those appended to the Intellectual Property Security Agreement delivered on the original Effective Date of the Loan Agreement.

A failure to timely satisfy any of the foregoing conditions shall constitute an immediate Event of Default under the Loan Agreement.

7. CONSISTENT CHANGES. The Existing Loan Documents are hereby amended wherever necessary or appropriate to reflect the modifications and other transactions contemplated by this Fourth Modification.

8. RATIFICATION OF EXISTING LOAN DOCUMENTS. Borrower hereby ratifies, confirms, and reaffirms all terms and conditions of the Existing Loan Documents and all security and other collateral granted to PFG thereunder, and confirms that the Indebtedness secured thereby includes, without limitation, the Obligations.

9. FURTHER ASSURANCES. Borrower agrees to execute such further documents and instruments and to take such further actions as PFG may request in its good faith business judgment to carry out the purposes and intent of this Fourth Modification.

10. ADVICE OF COUNSEL. PFG and Borrower have prepared this Agreement and all documents, instruments, and agreements incidental hereto with the aid and assistance of their respective counsel. Accordingly, all of them shall be deemed to have been drafted by PFG and Borrower and shall not be construed against either PFG or Borrower.

11. ILLEGALITY OR UNENFORCEABILITY. Any determination that any provision or application of this Agreement is invalid, illegal, or unenforceable in any respect, or in any instance, shall not affect the validity, legality, or enforceability of any such provision in any other instance, or the validity, legality, or enforceability of any other provision of this Agreement.

12. INTEGRATION; CONSTRUCTION; ETC. This Fourth Modification, the Prior Modifications (to the extent not inconsistent with the terms hereof), the Loan Agreement and the Existing Loan Documents (as modified) and any documents executed in connection herewith or pursuant hereto contain the entire agreement between the parties with respect to the subject matter hereof and supersede all prior agreements, understandings, offers and negotiations, oral or written, with respect thereto and no extrinsic evidence whatsoever may be introduced in any judicial or arbitration proceeding, if any, involving this Fourth Modification; provided, however, that any financing statements or other agreements or instruments filed by PFG with respect to Borrower shall remain in full force and effect. The quotation marks around modified clauses set forth herein and any differing font styles in which such clauses are presented herein are for ease of reading only and shall be ignored for purposes of construing and interpreting this Fourth Modification. This Fourth Modification is subject to the General Provisions of Section 8 of the Loan Agreement. The Existing Loan Documents are hereby amended wherever necessary to reflect the modifications set forth in this Fourth Modification. The Recitals are incorporated herein by reference.

1 3 . GOVERNING LAW; VENUE. THIS FOURTH MODIFICATION SHALL BE GOVERNED BY AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA. Borrower and PFG submit to the exclusive jurisdiction of the State and Federal courts in Santa Clara County, California, in connection with any proceeding or dispute arising in connection herewith.

[Signature Page Follows]

PFG

Partners for Growth V, L.P.

By: ________________________
Name: Phil Lawson, Manager
Title: Partners for Growth V, LLC, its General Partner

BORROWER

GIGA-TRONICS INCORPORATED

By: ______________________________

Name: ____________________________

Title: _____________________________

MICROSOURCE, INC.

By: ______________________________

Name: ____________________________

Title: _____________________________

Modification No. 4 to Loan and Security Agreement Signature Page

EXHIBIT A

COMPLIANCE CERTIFICATE

EXHIBIT B

REPRESENTATIONS

EXHIBIT C
NEW INTELLECTUAL PROPERTY / DOMAIN RIGHTS

Trademarks

Serial Number - Registration Number	Date	Mark	Owner

Patents

FULL APPLICATION TITLE	APP. NO.	FILING DATE	PATENT NO.	Owner

Copyrights

Copyright Number	Date	Title / Work	Owner

Domains

Domain Name	Domain Host	Owner	Administrative Contact of Record	Expiry Date of Domain

EXHIBIT 31.1

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: August 8, 2019

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

EXHIBIT 31.2

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: August 8, 2019

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

EXHIBIT 32.1

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 ended June 29, 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: August 8, 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 ended June 29, 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: August 8, 2019

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