

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

**FORM 10-Q**

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the quarterly period ended September 24, 2016

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. 0-12719

**GIGA-TRONICS INCORPORATED**  
(Exact name of registrant as specified in its charter)

California

(State or other jurisdiction of incorporation or organization)

94-2656341

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

4650 Norris Canyon Road, San Ramon, CA 94583

(Address of principal executive offices)

(925) 328-4650

Registrant's telephone number, including area code

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days:

Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes  No

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

Large accelerated filer  Accelerated filer   
Non-accelerated filer  Smaller reporting company   
(Do not check if a smaller reporting company)

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

Yes  No

There were a total of 9,549,703 shares of the Registrant's Common Stock outstanding as of October 27, 2016.

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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 potential inability 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 26, 2016 or 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.

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**PART I – FINANCIAL INFORMATION**

**ITEM 1 - FINANCIAL STATEMENTS**

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

<b>(In thousands except share data)</b>	<b>September 24, 2016</b>	<b>March 26, 2016</b>
<b>Assets</b>		
Current assets:		
Cash and cash-equivalents	\$ 2,328	\$ 1,331
Trade accounts receivable, net of allowance of \$45, respectively	1,750	2,129
Inventories, net	5,459	5,694
Prepaid expenses and other current assets	347	318
<b>Total current assets</b>	<b>9,884</b>	<b>9,472</b>
Property and equipment, net	685	837
Other long term assets	8	8
Capitalized software development costs	1,210	876
<b>Total assets</b>	<b>\$ 11,787</b>	<b>\$ 11,193</b>
<b>Liabilities and shareholders' equity</b>		
Current liabilities:		
Line of credit	\$ 800	\$ 800
Current portion of long term debt, net of discount	137	370
Accounts payable	1,074	1,924
Accrued payroll and benefits	580	647
Deferred revenue	5,359	2,804
Deferred rent	39	110
Capital lease obligations	47	44
Deferred liability related to asset sale	375	375
Other current liabilities	323	621
<b>Total current liabilities</b>	<b>8,734</b>	<b>7,695</b>
Warrant liability, at estimated fair value	279	353
Long term obligations - capital lease	141	165
<b>Total liabilities</b>	<b>9,154</b>	<b>8,213</b>
Commitments and contingencies		
Shareholders' equity:		
Convertible preferred stock of no par value Authorized - 1,000,000 shares; Series A - designated 250,000 shares; no shares at September 24, 2016 and March 26, 2016 issued and outstanding	—	—
Series B, C, D- designated 19,500 shares; 18,533.51 shares at September 24, 2016 and March 26, 2016 issued and outstanding; (liquidation value of \$3,540 at September 24, 2016 and March 26, 2016)	2,911	2,911
Common stock of no par value; Authorized - 40,000,000 shares; 9,549,703 shares at September 24, 2016 and March 26, 2016 issued and outstanding	24,255	24,104
Accumulated deficit	(24,533)	(24,035)
<b>Total shareholders' equity</b>	<b>2,633</b>	<b>2,980</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 11,787</b>	<b>\$ 11,193</b>

*See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements*

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

(In thousands except per share data)	Three Month Periods Ended		Six Month Periods Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
<b>Net sales</b>	\$ 4,393	\$ 3,063	\$ 7,835	\$ 7,438
Cost of sales	3,163	2,186	5,680	4,833
<b>Gross margin</b>	1,230	877	2,155	2,605
<b>Operating expenses:</b>				
Engineering	567	819	1,097	1,565
Selling, general and administrative	1,047	1,349	2,352	2,804
Total operating expenses	1,614	2,168	3,449	4,369
<b>Operating loss</b>	(384)	(1,291)	(1,294)	(1,764)
Gain on sale of product line	—	—	802	—
Gain on adjustment of warrant liability to fair value	28	110	74	47
<b>Interest expense:</b>				
Interest expense, net	(31)	(60)	(60)	(111)
Interest expense from accretion of loan discount	(7)	(63)	(18)	(105)
Total interest expense, net	(38)	(123)	(78)	(216)
<b>Loss before income taxes</b>	(394)	(1,304)	(496)	(1,933)
Provision for income taxes	2	2	2	2
<b>Net loss</b>	\$ (396)	\$ (1,306)	\$ (498)	\$ (1,935)
<b>Loss per common share - basic</b>	\$ (0.04)	\$ (0.20)	\$ (0.05)	\$ (0.30)
<b>Loss per common share - diluted</b>	\$ (0.04)	\$ (0.20)	\$ (0.05)	\$ (0.30)
<b>Weighted average shares used in per share calculation:</b>				
Basic	9,550	6,472	9,550	6,361
Diluted	9,550	6,472	9,550	6,361

*See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements*

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

(In thousands)	Six Month Periods Ended	
	September 24, 2016	September 26, 2015
<b>Cash flows from operating activities:</b>		
Net loss	\$ (498)	\$ (1,935)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	182	145
Share based compensation	151	533
Adjustment of warrant liability to fair value	(74)	(47)
Capitalized software development costs	(334)	—
Accretion of discounts and issuance costs on debt	27	105
Change in deferred rent	(71)	(61)
Gain on sale of product line	(802)	
Changes in operating assets and liabilities		
Trade accounts receivable	379	319
Inventories	235	(1,002)
Prepaid expenses and other assets	(29)	70
Accounts payable	(850)	904
Accrued payroll and benefits	(67)	60
Deferred revenue	2,555	247
Other current liabilities	(346)	(109)
<b>Net cash provided by (used in) operating activities</b>	<b>458</b>	<b>(771)</b>
<b>Cash flows from investing activities:</b>		
Cash received from sale of product lines	1,225	—
Cash returned related to sale of product line	(375)	—
Purchases of property and equipment	(30)	(89)
<b>Net cash provided by (used in) investing activities</b>	<b>820</b>	<b>(89)</b>
<b>Cash flows from financing activities:</b>		
Proceeds from line of credit	—	950
Repayments of debt	(260)	(490)
Payments on capital leases	(21)	(44)
Proceeds from exercise of stock options	—	22
<b>Net cash (used in) provided by financing activities</b>	<b>(281)</b>	<b>438</b>
<b>Increase/(Decrease) in cash and cash-equivalents</b>	<b>997</b>	<b>(422)</b>
<b>Beginning cash and cash-equivalents</b>	<b>1,331</b>	<b>1,170</b>
<b>Ending cash and cash-equivalents</b>	<b>\$ 2,328</b>	<b>\$ 748</b>
<b>Supplementary disclosure of cash flow information:</b>		
Cash paid for income taxes	\$ 2	\$ 2
Cash paid for interest	\$ 46	\$ 81
<b>Supplementary disclosure of noncash financing activities:</b>		
Equipment disposal	\$ 174	\$ —
Equipment acquired under capital lease	\$ —	\$ 78

*See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements*

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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

The condensed consolidated financial statements included herein have been prepared by Giga-tronics Incorporated (the “Company”), 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 26, 2016.

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

*Derivatives* The Company accounts for certain of its warrants as derivatives. Changes in fair values are reported in earnings as gain or loss on adjustment of warrant liability to fair value.

*Software Development Costs* Development costs included in the research and development of new software products and enhancements to existing software products are expensed as incurred, until technological feasibility in the form of a working model has been established. Capitalized development costs are amortized over the expected life of the product and evaluated each reporting period for impairment.

*Discontinued Operations* The Company reviews its reporting and presentation requirements for discontinued operations in accordance with the guidance provided by ASC 205-20 as it moves to newer technology within the test and measurement market from legacy products to the newly developed Advanced Signal Generator. The disposal of these product line sales represent an evolution of the Company’s Giga-tronics Division to a more sophisticated product offered to the same customer base. The Company has evaluated the sales of product lines (see Note 9, Sale of Product Lines) concluding that each product line does not meet the definition of a “component of an entity” as defined by ASC 205-20. The Company is able to distinguish revenue and gross margin information as disclosed in Note 9, Sale of Product Lines to the accompanying financial statements; however, operations and cash flow information is not clearly distinguishable and the company is unable to present meaningful information about results of operations and cash flows from those product lines.

*New Accounting Standards* In April 2016, the FASB issued ASU 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*. The amendments in ASU 2016-10 affect the guidance in ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which is not yet effective. The effective date and transition requirements in ASU 2016-10 are the same as the effective date and transition requirements of ASU 2014-09. ASU 2015-14, *Revenue from Contracts with Customers (Topic 606)*. The amendments in this ASU is effective for public business entities with annual reporting periods beginning after 15 December 2017, including interim reporting periods within that reporting period. The Company is currently evaluating the impact this accounting standard update may have on its financial statements.

### **2) Going Concern and Management’s Plan**

The Company incurred net losses of \$396,000 for the second quarter of fiscal 2017 and \$498,000 for the first half of fiscal 2017, respectively. These losses have contributed to an accumulated deficit of \$24.5 million as of September 24, 2016.

The Company has experienced delays in the development of features, orders, and shipments for the new Advanced Signal Generator (“ASG”). These delays have contributed, in part, to a decrease in working capital from \$1.8 million at March 26, 2016, to \$1.2 million at September 24, 2016. The new ASG product has shipped to several customers, but potential delays in the development of features, longer than anticipated sales cycles, or the ability to efficiently manufacture the ASG, could significantly contribute to additional future losses and decreases in working capital.

To help fund operations, the Company relies on advances under the line of credit with Bridge Bank. The line of credit expires on May 7, 2017. The agreement includes a subjective acceleration clause, which allows for amounts due under the facility to become immediately due in the event of a material adverse change in the Company’s business condition (financial or otherwise), operations, properties or prospects, or ability to repay the credit based on the lender’s judgment. As of September 24, 2016, the line of credit had an outstanding balance of \$800,000, and additional borrowing capacity of \$848,000.

These matters raise substantial doubt as to the Company’s ability to continue as a going concern.

To address these matters, the Company's management has taken several actions to provide additional liquidity and reduce costs and expenses going forward. These actions are described in the following paragraphs.

- On June 20, 2016, the Company entered into an Asset Purchase Agreement with Astronics Test Systems Inc. (Astronics), (see Note 9, Sale of Product Lines). Upon signing, Astronics paid \$850,000 for the intellectual property of the product line. Astronics also purchased approximately \$960,000 of related raw materials and work-in-progress inventory from the Company during the second quarter ended September 24, 2016. Proceeds from the asset sale will be used for working capital and general corporate purposes.
- In July 2016, Microsource received a \$1.9 million non-recurring engineering order associated with redesigning a component of its high performance YIG filter used on an aircraft platform. The Company started delivering the NRE services during the three months ended September 24, 2016 and expects to continue such services over the next nine to twelve months.
- In June 2016, the Giga-tronics Division received a \$3.3 million order from the United States Navy for the Company's Real-Time Threat Emulation Systems ("TEMs") (which combines the Company's ASG hardware platform along with software developed and licensed to the Company from a major aerospace and defense company) which the Company expects to ship in the second half of fiscal 2017. In July 2016, the Giga-tronics Division also received an order for \$542,000 from the United States Navy for the ASG hardware only platform. The Company fulfilled the ASG hardware only order in the current quarter ended September 24, 2016.
- In April 2016, Microsource received a \$4.5 million order for YIG RADAR filters for a fighter jet platform, representing a 50% increase compared to the customer's previous jet platform order in fiscal 2016. We shipped approximately \$1.1 million of the fiscal 2017 order during the three months ended September 24, 2016 and we expect to ship the remainder throughout fiscal 2017.
- With the elimination of Giga-tronics Switch, Power Meter, Amplifier, and Signal Generator legacy product lines resulting from the Asset Purchase Agreements with Spanawave and Astronics, (see Note 9, Sale of Product Lines), we have been able to reduce the number of employees by approximately 20%, from 71 in November 2015 to 56 on October 31, 2016, while providing additional cash for operations from the proceeds of the sales.
- Giga-tronics plans to work with Bridge Bank to renew the line of credit prior to its May 7, 2017 expiration.
- In the first quarter of fiscal 2016, the Company's Microsource business unit finalized a 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. We shipped approximately \$467,000 during the three months ended September 24, 2016 and we expect to ship the remainder through 2020.
- To assist with the upfront purchases of inventory required for future product deliveries, the Company entered into advance payment arrangements with certain customers, whereby the customers reimburse the Company for raw material purchases prior to the shipment of the finished products. In the second quarter of fiscal 2017, the Company entered into advance payment arrangements totaling \$621,000. The Company will continue to seek similar terms in future agreements with these customers and other customers.

Management will continue to review all aspects of the business in an effort to improve cash flow and reduce costs and expenses while continuing to invest, to the extent possible, in new product development for future revenue streams.

Management will also continue to seek additional working capital through debt or equity financing, however, there are no assurances that such financings will be available at all, or on terms acceptable to the Company.

Cumulative losses have had a significant negative impact on the financial condition of the Company and raise substantial doubt about the Company's ability to continue as a going concern. The Consolidated Financial Statements have been prepared assuming the Company will continue as a going concern and do not include any adjustments that might result if the Company were unable to do so.

### **(3) Revenue Recognition**

The Company records revenue when there is persuasive evidence of an arrangement, delivery has occurred, the price is fixed and determinable, and collectability is reasonably assured. This occurs when products are shipped or the customer accepts title transfer. If the arrangement involves acceptance terms, the Company defers revenue until product acceptance is received. The Company limits the amount of revenue recognition for delivered elements to the amount that is not contingent on the future delivery of products or services, future performance obligations, or subject to customer-specified return or refund privileges. The Company evaluates each deliverable in an arrangement to determine whether they represent separate units of accounting. On certain large development contracts, revenue is recognized upon achievement of substantive milestones. Determining whether a milestone is substantive is a matter of judgment and that assessment is performed only at the inception of the arrangement. The consideration earned from the achievement of a milestone must meet all of the following for the milestone to be considered substantive:

- a. It is commensurate with either of the following:
  1. The Company's performance to achieve the milestone.





2. The enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the Company's performance to achieve the milestone.
  - b. It relates solely to past performance.
  - c. It is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

Milestones for revenue recognition are agreed upon with the customer prior to the start of the contract and some milestones will be tied to product shipping while others will be tied to design review. In fiscal 2015 the Company's Microsource business unit received a \$6.5 million order from a major aerospace company for non-recurring engineering services to develop a variant of its high performance fast tuning YIG filters for an aircraft platform and to deliver a limited number of flight-qualified prototype hardware units (the "NRE Order") which is being accounted for on a milestone basis. The Company considered factors such as estimated completion dates and product acceptance of the order prior to accounting for the NRE Order as milestone revenue. During the three and six month periods ended September 24, 2016, revenue recognized on a milestone basis were \$333,000 and \$478,000, respectively. During the three and six month periods ended September 26, 2015, revenue recognized on a milestone basis were \$18,000 and \$710,000, respectively.

On certain contracts with several of the Company's significant customers the Company receives payments in advance of manufacturing. Advanced payments are recorded as deferred revenue until the revenue recognition criteria described above have been met.

Accounts receivable are stated at their net realizable value. The Company has estimated an allowance for uncollectable accounts based on analysis of specifically identified accounts, outstanding receivables, consideration of the age of those receivables, the Company's historical collection experience, and adjustments for other factors management believes are necessary based on perceived credit risk.

The Company provides for estimated costs that may be incurred for product warranties at the time of shipment. The Company's warranty policy generally provides twelve to eighteen months depending on the customer. The estimated cost of warranty coverage is based on the Company's actual historical experience with its current products or similar products. For new products, the required reserve is based on historical experience of similar products until such time as sufficient historical data has been collected on the new product. Adjustments are made as new information becomes available.

#### **(4) Inventories**

Inventories consisted of the following:

<b>(In thousands)</b>	<b>September 24,</b>	
	<b>2016</b>	<b>March 26, 2016</b>
Raw materials	\$ 2,648	\$ 3,489
Work-in-progress	2,666	2,156
Finished goods	42	2
Demonstration inventory	103	47
<b>Total</b>	<b>\$ 5,459</b>	<b>\$ 5,694</b>

#### **(5) Software Development Costs**

On September 3, 2015, the Company entered into a software development agreement with a major aerospace and defense company whereby the aerospace company would develop and license its simulation software to the Company. The simulation software (also called Open Loop Simulator or OLS technology) is currently the aerospace company's intellectual property. The OLS technology generates threat simulations and enables various hardware to generate signals for performing threat analysis on systems under test. The Company intends to license the OLS software as a bundled or integrated solution with its Advanced Signal Generator system. The Company is obligated to pay the aerospace company software development costs and fees for OLS of \$919,000 in the aggregate, which is payable in monthly installments as the work is performed by the aerospace company. The OLS technology is a perpetual license agreement that may be terminated by the Company at any time as long as the Company provides a notice to the aerospace company and pays for the development costs incurred through the notice termination date. The Company signed an amendment to the software development agreement in July of 2016 for additional features and functionality at an estimated cost of \$265,000 that would be payable in monthly installments as the work is performed by the aerospace company through early 2017. The Company is also obligated to pay royalties to the aerospace company on net sales of its Advanced Signal Generator product sold with the OLS software equal to a percentage of net sales price of each ASG system sold and subject to certain minimums. The Company expenses research and development costs as they are incurred. Development costs of computer software to be sold, leased, or otherwise marketed are subject to capitalization beginning when a product's technological feasibility has been established and ending when a product is available for general release to customers. As of September 24, 2016, capitalized software costs were \$1.2 million. There was no additional cost capitalized in the three months ended September 24, 2016 as the development was substantially complete. The Company intends to begin amortizing the costs of capitalized software to cost of sales in the second half of fiscal 2017, upon the release of the product to its customers.

## **(6) Accounts Receivable Line of Credit**

On June 1, 2015 the Company entered into a \$2.5 million Revolving Accounts Receivable Line of Credit agreement with Bridge Bank. The agreement provides for a maximum borrowing capacity of \$2.5 million of which \$2.0 million is subject to a borrowing base calculation and \$500,000 is non-formula based.

The loan is secured by all assets of the Company including intellectual property and general intangibles and provides for a borrowing capacity equal to 80% of eligible accounts receivable. The loan matures on May 7, 2017 and bears an interest rate equal to 1.5% over the bank's prime rate of interest (which was 3.5% at September 24, 2016 resulting in an interest rate of 5.0%). Interest is payable monthly with principal due upon maturity. In connection with the agreement, the Company paid a commitment fee of \$12,500, and an additional \$12,500 was due in May 2016. The loan agreement also contains financial and non-financial covenants that are customary for this type of lending and includes a covenant to maintain an asset coverage ratio of at least 135% (defined as unrestricted cash and cash equivalents maintained with Bridge Bank, plus eligible accounts receivable aged less than 90 days from the invoice date, divided by the total amount of outstanding principal of all obligations under the loan agreement). As of September 24, 2016, the Company was in compliance with all the financial covenants under the agreement. The line of credit requires a lockbox arrangement, which provides for receipts to be swept daily to reduce borrowings outstanding at the discretion of Bridge Bank. This arrangement, combined with the existence of the subjective acceleration clause in the line of credit agreement, necessitates the line of credit be classified as a current liability on the balance sheet. The acceleration clause allows for amounts due under the facility to become immediately due in the event of a material adverse change in the Company's business condition (financial or otherwise), operations, properties or prospects, or ability to repay the credit based on the lender's judgment. As of September 24, 2016, the Company's total outstanding borrowings and remaining borrowing capacity under the Bridge Bank line of credit were \$800,000 and \$848,000, respectively.

## **(7) Term Loan, Revolving Line of Credit and Warrants**

On March 13, 2014 the Company entered into a three year, \$2.0 million term loan agreement with PFG (Partners For Growth IV, L.P.) under which the Company received \$1.0 million on March 14, 2014 ("Initial Borrowing"). Interest on the \$1.0 million term loan borrowing was fixed at 9.75% and required monthly interest only payments during the first six months of the agreement followed by monthly principal and interest payments over the remaining thirty months. The Company could prepay the loan at any time prior to maturity by paying all future scheduled principal and interest payments. As of September 24, 2016, the Company's total outstanding debt associated with the initial PFG loan was \$140,000.

On June 16, 2014, the Company amended its loan agreement with PFG (the "Amendment"). Under the terms of the Amendment, PFG made a revolving credit line available to Giga-tronics in the amount of \$500,000, for which the Company borrowed the entire amount on June 17, 2014. The revolving credit line had a thirty-three month term. The interest on the PFG revolving credit line was fixed, calculated on a daily basis at a rate of 12.50% per annum. The Company was allowed to prepay the credit line borrowings at any time prior to its March 13, 2017 maturity date without a penalty.

On June 3, 2015, the Company further amended its loan agreement with PFG (the "Second Amendment"). The Second Amendment cancelled the Company's \$500,000 of remaining term loan borrowing availability under the June 2014 Amendment and required the Company to pay PFG \$150,000 towards its existing \$500,000 outstanding balance under the revolving line of credit, which the Company paid in July 2015. The Company also agreed to pay PFG an additional \$10,000 per month towards its remaining credit line balance until repaid, followed by like payments towards its term loan balance until repaid. The revolving credit line balance was fully repaid in March 2016.

The PFG loan is secured by all of the Company's assets under a lien that is junior to the Bridge Bank debt described in Note 6, and limits borrowing under the Bridge Bank credit line to \$2.5 million.

The PFG loan agreement contains financial covenants associated with the Company achieving minimum quarterly net sales and maintaining a minimum monthly shareholders' equity. In the event of default by the Company, all or any part of the Company's obligation to PFG could become immediately due. As of September 24, 2016, the Company was in compliance with all the financial covenants under the agreement.

The PFG loan agreement also initially provided for the issuance of warrants convertible into 300,000 shares of the Company's common stock, of which 180,000 were exercisable upon receipt of the \$1.0 million term loan borrowing from the Initial Borrowing, 80,000 became exercisable with the first Amendment and 40,000 were cancelled with the Second Amendment. Each warrant issued under the loan agreement has a term of five years and an exercise price of \$1.42 which was equal to the average NASDAQ closing price of the Company's common stock for the ten trading days prior to the Initial Borrowing.

If the warrants are not exercised before expiration on March 13, 2019, the Company would be required to pay PFG \$150,000 and \$67,000 as settlement for warrants associated with the Initial Borrowing and the Amendment, respectively. The warrants could be settled for cash at an earlier date in the event of any acquisition or other change in control of the Company, future public issuance of Company securities, or liquidation (or substantially similar event) of the Company. The Company currently has no definitive plans for any of the aforementioned events, and as a result, the cash payment date is estimated to be the expiration date unless warrants are exercised before then. The warrants have the characteristics of both debt and equity and are accounted for as a derivative liability measured at fair value each reporting period with the change in fair value recorded in earnings. The initial fair value of the warrants associated with the Initial Borrowing and Amendment were \$173,000 and \$168,000, respectively.



As of September 24, 2016, the estimated fair values of the derivative liabilities associated with the warrants issued in connection with the Initial Borrowing and Amendment were \$167,000 and \$112,000, respectively, for a combined value of \$279,000. As of March 26, 2016, the estimated fair value of the derivative liability associated with the warrant issued in connection with the Initial Borrowing and Amendment was \$212,000 and \$141,000, respectively for a combined value of \$353,000.

During the three and six month periods ended September 24, 2016, the change in the fair value of the warrant liability totaled \$28,000 and \$74,000 respectively. During the three and six month periods ended September 26, 2015, the change in the fair value of the warrant liability totaled \$110,000 and \$47,000, respectively. These changes are reported in the accompanying statement of operations as a gain on adjustment of derivative liability to fair value.

The initial \$1.0 million in proceeds under the term loan agreement were allocated between the PFG loan and the warrants based on their relative fair values on the date of issuance which resulted in initial carrying values of \$822,000 and \$178,000, respectively. The resulting discount of \$178,000 on the PFG loan is being accreted to interest expense under the effective interest method over the term of the PFG loan. During the three and six month periods ended September 24, 2016, the Company recorded accretion of discount expense associated with the warrants issued with the PFG loan of \$7,000 and \$18,000 respectively. During the three and six month periods ended September 26, 2015, the Company recorded accretion of discount expense associated with the warrants issued with the PFG loan of and \$63,000 and \$105,000, respectively.

## **(8) 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 fair values of term debt are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company and generally result in inputs categorized as Level 3 within the fair value hierarchy. At September 24, 2016 and March 26, 2016, the carrying amounts of the Company’s term debt totaled \$137,000 and \$370,000, respectively and the estimated fair value totaled \$137,000 and \$384,000, respectively. The fair value was calculated using a discounted cash flow model and utilized a 20% discount rate. The rates are commensurate with market rates given the remaining term, principal repayment schedule, the Company’s creditworthiness and outstanding loan balance.

The Company’s derivative warrant liability is measured at fair value on a recurring basis and is categorized as Level 3 in the fair value hierarchy. The derivative warrant liability is valued using a Monte Carlo simulation model, which used the following assumptions as of September 24, 2016: (i) the remaining expected life of 2.5 years, (ii) the Company’s historical volatility rate of 116.4%, (iii) risk-free interest rate of 0.84%, and (iv) a discount rate of 20%.

The aforementioned derivative warrant liability is the Company’s only asset and liability recognized and measured at fair value on a recurring or non-recurring basis. The following table presents the fair value measurements for warrant liability:

### **Fair Value Measurements as of September 24, 2016 (In Thousands) :**

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Warrant Liability	\$ —	—	\$ 279
Total	\$ —	—	\$ 279



**Fair Value Measurements as of March 26, 2016**  
**( In Thousands):**

	Level 1	Level 2	Level 3
Warrant Liability	\$ —	\$ —	\$ 353
Total	\$ —	\$ —	\$ 353

There were no transfers between Level 1, Level 2, or Level 3 for the three and six month periods ended September 24, 2016 and March 26, 2016.

The table below summarizes changes in gains and losses recorded in earnings for Level 3 assets and liabilities that are still held at September 24, 2016:

(In thousands)	Three Month Periods Ended		Six Month Periods Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Warrant liability at beginning of period	\$ 307	\$ 404	\$ 353	\$ 341
Gains (recorded in other income/expense)	(28)	(110)	(74)	(47)
Losses (recorded in other income/expense)	—	—	—	—
Warrant liability at end of period	\$ 279	\$ 294	\$ 279	\$ 294

There were no assets measured at fair value on a recurring basis and there were no assets or liabilities measured on a non-recurring basis at September 24, 2016 or March 26, 2016.

The following table presents quantitative information about recurring Level 3 fair value measurements at September 24, 2016 and March 26, 2016:

September 24, 2016	Valuation Technique(s)	Unobservable Input	
Warrant liability	Monte Carlo	Discount rate	20%

  

March 26, 2016	Valuation Techniques(s)	Unobservable Input	
Warrant liability	Monte Carlo	Discount rate	20%

The discount rate of twenty percent is management's estimate of the current cost of capital given the Company's credit worthiness. A significant increase in the discount rate would significantly decrease the fair value, but the magnitude of this decrease would be less significant in a scenario where the Company's stock price is significantly higher than the exercise price since the holder's option to take a cash payment at maturity represents a smaller component of the total fair value when the Company's stock price is higher. The Monte Carlo simulation model simulated the Company's stock price through the maturity date of March 31, 2019. At the end of the simulated period, the value of the warrant was determined based on the greater of (1) the net share settlement value, (2) the net exercise value, or (3) the fixed cash put value.

**(9) Sale of Product Lines**

On June 20, 2016, the Company entered into an Asset Purchase Agreement for the sale of its Switch product line to Astronics Test Systems Inc. (Astronics). Upon signing the agreement, Astronics paid \$850,000 for the intellectual property of the product line. The Company recognized a net gain of \$802,000 in the first quarter ending June 25, 2016 after related expenses were subtracted from the sales price. The following table presents the breakdown of the gain recognized related to the asset sale:

(In thousands)	
Cash received from Astronics	\$ 850
Cash paid to buy out future commission obligation	(170)
Employee severance	(97)
Legal fees	(13)
Commissions	(46)
Warranty Liability released	278
Net gain recognized	\$ 802

In calculating the gain included in the accompanying consolidated financial statements, the Company released \$278,000 of deferred warranty obligations related to the Switch asset. Pursuant to the terms of the agreement, Astronics assumed all the warranty obligations for the Switch product line, including the products sold prior to the asset being transferred to Astronics. The deferred warranty obligation was previously included in other current liabilities in the consolidated financial statements. The Company also had an existing agreement with a consultant supporting the Switch product line which included a three percent commission on the sales of the Switch product line for a period of 4 years ending in January 2020. The agreement allowed for a buyout of future commissions associated with the Switch product which the Company exercised in connection with the Astronics transaction in June 2016 resulting in a payment by the Company during June of \$170,000.

During the three and six months period ended September 24, 2016, the Switch product line accounted for approximately \$960,000 and \$2.1 million in product revenue, respectively. There was no margin associated with the sales during the three month periods ended September 24, 2016, as the revenues were primarily attributable to inventory transferred at book value to Astronics, in accordance with the Asset Purchase Agreement. Gross margins of the Switch product line for the six month period ended September 24, 2016 was \$437,000. During the three and six months period ended September 26, 2015, the Switch product line accounted for approximately \$631,000 and \$1.2 million in product revenue, respectively, and related margins were \$171,000 and \$388,000 respectively. While the Company is able to distinguish revenue and gross margin information related to the sale of the Switch product line to Astronics, the Company is unable to present meaningful information about results of operation and cash flows from the Switch product line.

On December 15, 2015, the Company entered into an Asset Purchase Agreement with Spanawave Corporation, whereby Spanawave agreed to purchase the Giga-tronics' Division product lines for its Power Meters, Amplifiers, and Legacy Signal Generators for \$1.5 million. The agreement provided for the transfer of these product lines to Spanawave sequentially in six phases beginning with certain sensor and amplifier products. During the second quarter ended September 24, 2016, the Company and Spanawave became engaged in a dispute, including litigation initiated by Spanawave and an arbitration proceeding initiated by Spanawave's affiliate Liberty Test Equipment, Inc., as to whether the Company has fulfilled all the requirements to close phases one through five and become entitled to the \$375,000 received during the first quarter of fiscal 2017.

The complaint seeks specific performance of the agreement and damages. Spanawave's affiliate Liberty Test Equipment also filed an arbitration claim for \$440,000 under a distribution agreement between the Company and Liberty. The Company has filed cross-complaints in both the litigation and arbitration asserting breach of the respective agreements by Spanawave and Liberty. The Company had previously asserted that the distribution agreement does not extend to the products with respect to which the claim has been made. Certain customers of the lines of business sold to Spanawave are also customers of the Company's ongoing Advance Signal Generator business. Continued disruption of the phase 6 signal generator business could have an adverse effect on the ASG business. The parties have negotiated in an effort to settle the dispute notwithstanding the filings. The expenses and potential liability of negotiation, any settlement or continued litigation or arbitration could have a material adverse effect on the Company.

During the six months ended September 24, 2016, the Company had received \$750,000 from Spanawave under the agreement. Of this amount, the Company returned the \$375,000 to Spanawave on July 28, 2016 resulting from the dispute regarding the status of phases one through five. The remaining \$375,000 is included in deferred liability related to asset sales in the consolidated balance sheet. In addition, the Company received approximately \$275,000 in exchange for raw materials as of September 24, 2016. The purchase price of the raw materials approximated its carrying value, therefore no gain or loss was recognized. The parties are currently attempting to resolve this dispute. No gain has been recognized in connection with this product line sale because of the aforementioned dispute. These product lines accounted for approximately \$75,000 and \$350,000 in revenue during the three and six month periods ended September 24, 2016. These product lines also accounted for \$528,000 and \$1.5 million respectively during the three and six month periods ended September 26, 2015. There was no margin associated with the revenue for the first half of fiscal 2017 as the revenues were primarily related to inventory transfer at book value. For the three and six month periods ended September 26, 2015, gross margins on these revenues were \$116,000 and \$356,000 respectively. While the Company is able to distinguish revenue and gross margin information related to the sale of these product lines, the Company is unable to present meaningful information about results of operation and cash flows from these product lines.

#### **(10) Loss Per Share**

Basic loss per share (EPS) is calculated by dividing net income or loss by the weighted average common shares outstanding during the period. Diluted 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. The shares used in per share computations are as follows:

	Three Month Periods		Six Month Periods Ended	
	Ended September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
<b>(In thousands except per share data)</b>				
<b>Net loss</b>	\$ (396)	\$ (1,306)	\$ (498)	\$ (1,935)



Weighted average:				
Common shares outstanding	9,550	6,472	9,550	6,361
Potential common shares	—	—	—	—
Common shares assuming dilution	9,550	6,472	9,550	6,361
Net earnings/ loss per share - basic	\$ (0.04)	\$ (0.20)	\$ (0.05)	\$ (0.30)
Net earnings/ loss per share - diluted	\$ (0.04)	\$ (0.20)	\$ (0.05)	\$ (0.30)
Stock options not included in computation that could potentially dilute EPS in the future	1,335	1,636	1,335	1,636
Restricted stock awards not included in computation that could potentially dilute EPS in the future	—	245	—	245
Convertible preferred stock not included in computation that could potentially dilute EPS in the future	1,853	1,853	1,853	1,853
Warrants not included in computation that could potentially dilute EPS in the future	3,737	1,353	3,737	1,353

The exclusion of stock options, restricted stock, convertible preferred stocks and warrants from the computation of diluted earnings per share (EPS) for the three and six month periods ended September 24, 2016 and September 26, 2015 is a result of the Company's net loss and, therefore, the effect of these instruments would be anti-dilutive.

### **(11) Share Based Compensation**

The Company has established the 2005 Equity Incentive Plan, which provides for the granting of 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. The 2005 Plan has been extended to be effective until 2025. Option grants under the 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 within a certain period after termination of employment. 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 (SARs), which entitle them to surrender outstanding awards for a cash distribution under certain changes in ownership of the Company, as defined in the stock option plan. As of September 24, 2016, no SAR's have been granted under the option plan. As of September 24, 2016, the total number of shares of common stock available for issuance was 1,172,627. All outstanding options have a ten year life from the date of grant. The Company records compensation cost associated with share-based compensation equivalent to the estimated fair value of the awards over the requisite service period.

#### **Stock Options**

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

	Three Month Periods Ended		Six Month Periods Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Dividend yield	None	None	—	None
Expected volatility	None	None	98.95%	None
Risk-free interest rate	None	None	1.38%	None
Expected term (years)	None	None	8.36	None

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

A summary of the changes in stock options outstanding for the six month period ended September 24, 2016 and the fiscal year ended March 26, 2016 is as follows:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding at March 28, 2015	1,726,975	\$ 1.57		
Granted	35,000	1.22		
Exercised	48,550	1.59		
Forfeited / Expired	121,225	2.15		
Outstanding at March 26, 2016	1,592,200	\$ 1.52	6.8	\$ 69
Granted	50,000	1.26		
Exercised	—	—		
Forfeited / Expired	307,200	1.61		
Outstanding at September 24, 2016	1,335,000	\$ 1.48	6.4	\$ —
Exercisable at September 24, 2016	941,300	\$ 1.47	6.0	\$ —
At September 24, 2016, expected to vest in the future	266,847	\$ 1.51	7.1	\$ —

As of September 24, 2016, there was \$233,000 of total unrecognized compensation cost related to non-vested options. That cost is expected to be recognized over a weighted average period of 2.5 years. There were 102,650 options and 252,650 options that vested during the quarter ended September 24, 2016 and September 26, 2015, respectively. The total grant date fair value of options vested during the quarters ended September 24, 2016 and September 26, 2015 was \$126,000 and \$243,000, respectively. There were 237,700 and 291,150 options that vested during the six month period ended September 24, 2016 and September 26, 2015, respectively. The total grant date fair value of options vested during the six month periods ended September 24, 2016 and September 26, 2015 was \$1,000 and \$285,000, respectively. No shares were exercised in the three month and six month period ended September 24, 2016. No shares were exercised in the three month period ended September 26, 2015 and options of 12,000 shares were exercised in the six month period ended September 26, 2015. Share based compensation cost recognized in operating results for the three month periods ended September 24, 2016 and September 26, 2015 totaled \$79,000 and \$109,000, respectively. Share based compensation cost recognized in operating results for the six month periods ended September 24, 2016 and September 26, 2015 totaled \$151,000 and \$223,000, respectively.

#### Restricted Stock

No restricted awards were granted during the second quarter or first half of fiscal 2017 and fiscal 2016. No restricted awards vested during the second quarter or first half of fiscal 2017. The Company granted 50,000 shares of restricted stock outside the 2005 Plan in fiscal 2013 that vested in the first quarter of fiscal 2016. The restricted stock awards are considered fixed awards as the number of shares and fair value at the grant date is amortized over the requisite service period net of estimated forfeitures. There was no compensation cost recognized for restricted and unrestricted stock awards during the second quarter or first half of fiscal 2017. Compensation cost recognized for the restricted and unrestricted stock awards for the three and six month periods ended September 26, 2015 was \$89,000 and \$309,000, respectively.

#### (12) Significant Customer and Industry Segment Information

The Company has two reportable segments: Giga-tronics Division and Microsource.

- The Giga-tronics Division historically produces a broad line of test and measurement equipment used primarily for the design, production, repair and maintenance of products in aerospace, telecommunications, RADAR, and electronic warfare.
- Microsource primarily develops and manufactures YIG RADAR filters used in fighter jet aircraft for two prime contractors.

The tables below present information for the three and six month periods ended September 24, 2016 and September 26, 2015.

(In thousands)	Three Month Periods Ended			Three Month Periods Ended		
	Sep. 24, 2016	Sep. 24, 2016	Sep. 26, 2015	Sep. 26, 2015	Sep. 26, 2015	Sep. 26, 2015
	Assets	Net Sales	Net Income (Loss)	Assets	Net Sales	Net Income (Loss)
Giga-tronics Division	\$ 8,423	\$ 1,697	\$ (1,410)	\$ 5,966	\$ 2,099	\$ (1,609)
Microsource	3,364	2,696	1,014	2,297	964	303
Total	\$ 11,787	\$ 4,393	\$ (396)	\$ 8,263	\$ 3,063	\$ (1,306)

(In thousands)	Six Month Periods Ended			Six Month Periods Ended		
	Sep. 24, 2016	Sep. 24, 2016	Sep. 26, 2015	Sep. 26, 2015	Sep. 26, 2015	Sep. 26, 2015
	Assets	Net Sales	Net Income (Loss)	Assets	Net Sales	Net Income (Loss)
Giga-tronics Division	\$ 8,423	\$ 3,822	\$ (1,964)	\$ 5,966	\$ 4,216	\$ (3,254)
Microsource	3,364	4,013	1,466	2,297	3,222	1,319
Total	\$ 11,787	\$ 7,835	\$ (498)	\$ 8,263	\$ 7,438	\$ (1,935)

During the second quarter of fiscal 2017, two customers accounted for 60% of the Company's consolidated revenues. One of the customers accounted for 35% of the Company's consolidated revenue and was included in the Microsource segment. A second customer accounted for 25% of the Company's consolidated revenue and was also included in the Microsource segment. A third customer accounted for 22% of the Company's consolidated revenue and was primarily included in the Giga-tronics Division. During the second quarter of fiscal 2016, two customers accounted for 62% of the Company's consolidated revenues. One of the customers accounted for 31% of the Company's consolidated revenue and was included in the Giga-tronics Division. A second customer accounted for another 31% of the Company's consolidated revenue for the three months ended September 26, 2015 and was primarily included in the Microsource segment. A third customer accounted for 12% of the Company's consolidated revenue for the three months ended September 26, 2015 and was primarily included in the Giga-tronics Division.

During the first half of fiscal 2017, one customer accounted for 33% of the Company's consolidated revenues and was primarily included in the Microsource segment. A second customer accounted for 16% of the Company's consolidated revenue and was also included in the Microsource segment. A third customer accounted for 12% of the Company's consolidated revenue and was primarily included in the Gigatronics Division. During the first half of fiscal 2016, one customer accounted for 31% of the Company's consolidated revenues and was primarily included in the Microsource segment. A second customer accounted for 20% of the Company's consolidated revenue and was included in the Giga-tronics Division. A third customer accounted for 10% of the Company's consolidated revenue and was primarily included in the Microsource segment.

### **(13) Income Taxes**

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

The Company recorded \$2,000 tax expense for the three and six month periods ended September 24, 2016 and September 26, 2015. The effective tax rate for the three and six month periods ended September 24, 2016 and September 26, 2015 was 0%, primarily due to a valuation allowance recorded against the net deferred tax asset balance.

As of September 24, 2016, the Company had recorded \$106,000 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. The Company does have a California Franchise Tax Board audit that is currently in process. The Company is working with the California Franchise Tax Board to resolve all audit issues and does not believe any material taxes, penalties or fees are due. However, as a result of the on-going examination, the Company recorded an estimated associated tax liability of \$45,000 in the first quarter of fiscal 2015.

### **(14) Warranty Obligations**

The Company records a provision in cost of sales 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.

	Three Month Periods Ended		Six Month Periods Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
<b>(In thousands)</b>				
Balance at beginning of period	\$ 60	\$ 75	\$ 60	\$ 76
Provision, net	3	9	115	26
Warranty costs incurred	(2)	(17)	(114)	(35)
Balance at end of period	\$ 61	\$ 67	\$ 61	\$ 67

### **(15) Series B, C, D Convertible Voting Perpetual Preferred Stock and Warrants**

On November 10, 2011, the Company received \$2,199,000 in cash proceeds from Alara Capital AVI II, LLC, a Delaware limited liability company (the "Investor"), an investment vehicle sponsored by Active Value Investors, LLC, under a Securities Purchase Agreement entered into on October 31, 2011. Under the terms of the Securities Purchase Agreement, the Company issued 9,997 shares of its Series B Convertible Voting Perpetual Preferred Stock ("Series B Preferred Stock") to the Investor at a price of \$220 per share. The Company has recorded \$2.0 million as Series B Preferred Stock on the consolidated balance sheet which is net of stock offering costs of approximately \$202,000 and represents the value attributable to both the convertible preferred stock and warrants issued to the Investor. After considering the value of the warrants, the effective conversion price of the preferred stock was greater than the common stock price on date of issue and therefore no beneficial conversion feature was present.

On February 19, 2013, the Company entered into a Securities Purchase Agreement pursuant to which it agreed to sell 3,424.65 shares of its Series C Convertible Voting Perpetual Preferred Stock ("Series C Preferred Stock") to the Investor, for aggregate consideration of \$500,000 which is approximately \$146.00 per share. The Company has recorded \$457,000 as Series C Preferred Stock on the consolidated balance sheet which is net of stock offering costs of approximately \$43,000. After considering the reduction in the value of the warrant,

the effective conversion price of the preferred stock was greater than the common stock price on the date of issue and therefore no beneficial conversion feature was present.

On July 8, 2013 the Company received \$817,000 in net cash proceeds from the Investor under a Securities Purchase Agreement. The Company sold to the Investor 5,111.86 shares of its Series D Convertible Voting Perpetual Preferred Stock (Series D Preferred Stock) and a warrant to purchase up to 511,186 additional shares of common stock at the price of \$1.43 per share. The allocation of the \$858,000 in gross proceeds from issuance of Series D Preferred Stock based on the relative fair values resulted in an allocation of \$498,000 (which was recorded net of \$41,000 of issuance costs) to Series D Preferred Stock and \$360,000 to Common Stock. In addition, because the effective conversion rate based on the \$498,000 allocated to Series D Preferred Stock was \$0.97 per common share which was less than the Company's stock price on the date of issuance, a beneficial conversion feature was present at the issuance date. The beneficial conversion feature totaled \$238,000 and was recorded as an increase of common stock and an increase to accumulated deficit.

Each share of Series B, Series C, and Series D Preferred Stock is convertible into one hundred shares of the Company's common stock. The investor also held warrants to purchase 1,017,405 shares at an exercise price of \$1.43 per share which were exercised in February and May 2015 as discussed in Note 17, Exercise of Series C and Series D Warrants.

The table below presents information as of September 24, 2016 and March 26, 2016.

**Preferred Stock as of September 24, 2016 and March 26, 2016**

	Designated Shares	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
Total	19,500.00	18,533.51	18,533.51	\$ 3,540

**(16) Private Placement Offering**

On January 19, 2016, the Company entered into a Securities Purchase Agreement for the sale of 2,787,872 Units, each consisting of one share of common stock and a warrant to purchase 0.75 shares of common stock, to approximately 20 private investors. The purchase price for each Unit was \$1.24375. Gross proceeds were approximately \$3.5 million. Net proceeds to the Company after fees was approximately \$3.1 million. The portion of the purchase price attributable to the common shares included in each Unit was \$1.15, which was the consolidated closing bid price for the Company's common stock on January 15, 2016. The warrant price was \$.09375 per Unit (equivalent to \$0.125 per whole warrant share), with an exercise price of \$1.15 per share. The warrants expire on January 29, 2021. Emerging Growth Equities, Ltd also received warrants to purchase 292,727 shares of common stock at an exercise price of \$1.15 per share as part of its consideration for serving as placement agent in connection with the private placement.

**(17) Exercise of Series C and Series D Warrants**

On February 16, 2015, the Company entered into a Securities Purchase Agreement and Warrant Agreement with Alara Capital AVI II, LLC in which the Company received total gross cash proceeds of approximately \$1.5 million. Funds were received from Alara in separate closings dated February 16, 2015 and February 23, 2015 in which Alara exercised a total of 1,002,818 of its existing Series C and Series D warrants to purchase common shares, all of which had an exercise price of \$1.43 per share for total cash proceeds of \$1,434,000, which was recorded net of \$42,000 of stock issuance costs. As part of the consideration for this exercise, the Company sold to Alara two new warrants ("new Warrants") to purchase an additional 898,634 and 194,437 common shares at an exercise price of \$1.78 and \$1.76 per share, respectively, for a total purchase price of \$137,000 or \$0.125 per share. The new warrants have a term of five years and may be paid in cash or through a cashless net share settlement. The Company and Alara amended the remaining 14,587 warrants as part of the February closings. On May 14, 2015, Alara exercised the remaining 14,587 warrants by acquiring 7,216 of shares of the Company's common stock through a cashless net share settlement. The Company recorded the issuance of the new Warrants using their estimated fair value on the date of issuance. The Company estimated the fair value of the new Warrants using the Black-Scholes option valuation model with the following assumptions: expected term of 5 years, a risk-free interest rate of 1.54%, expected volatility of 90% and 0% expected dividend yield. The resulting \$1.2 million from the issuance of the new Warrants was recorded as a charge to other expense in the fourth quarter of fiscal 2015.

**(18) Commitments and Contingencies**

The Company's current lease agreement for its 47,300 square foot facility located in San Ramon, California expires on December 31, 2016. The Company is currently seeking to lease a smaller facility in or around the San Ramon area to better fit its current and future operating needs. The Company currently expects to enter into a definitive agreement for a smaller facility before December 31, 2016, however, no assurances can be made that such lease agreement will be finalized by such date or on terms satisfactory to the Company. Additionally, the Company does not expect to occupy a new facility until at least March 31, 2017 since certain leasehold modifications will more than likely be required prior to occupancy of such premises. The total amount of such leasehold expenditures is expected to be significant and the sharing of such expenditures between a prospective landlord and the Company are unknown at this time. The Company plans to continue occupying its current facility until a new facility becomes available. The Company expects any lease payments to its current landlord beyond December 31, 2016 will be at the rate of approximately \$87,000 per month which is equal to 150% of its current base rent.

The Company also entered into an agreement with Spanawave Corporation for the sale of certain legacy lines of business. However, the transaction and related matters been the subject of an ongoing dispute and litigation. See “Legal Proceedings” below

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

The forward-looking statements included in this report including, without limitation, statements containing the words "believes", "anticipates", "estimates", "expects", "intends" and words of similar import, which reflect management's best judgment based on factors currently known, involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of a number of factors, including but not limited to those listed in Giga-tronics' Annual Report on Form 10-K for the fiscal year ended March 26, 2016 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".

### **Company Overview**

We produce an Advanced Signal Generator (ASG) for the electronic warfare market and YIG (Yttrium, Iron, Garnet) RADAR filters used in fighter jet aircraft. We have two reporting segments: Giga-tronics Division and Microsource.

- The Giga-tronics Division over the past thirty five years has produced a broad line of test and measurement equipment used primarily for the design, production, repair and maintenance of products in aerospace, telecommunications, RADAR, and electronic warfare. Giga-tronics has recently completed a move within the test and measurement market from legacy products to the newly developed ASG. As part of this evolution certain legacy product lines were sold to raise additional capital. In December of 2015 Giga-tronics sold its Power Meters, Amplifiers, and Legacy Signal Generators to Spanawave (see Note 9, Sale of Product Lines). In June of 2016 Giga-tronics sold its Switch product line to Astronics (see Note 9, Sale of Product Lines). With the sales of these legacy product lines, as of July 31, 2016 the Giga-tronics Division is solely focused on the ASG product in the test and measurement equipment market.
- Microsource primarily develops and manufactures YIG RADAR filters used in fighter jet aircraft for two prime contractors. The Microsource YIG RADAR filters provide us with long term production and development contracts with strong gross margins. In recent years we have produced these RADAR filters for two fighter jet platforms, and started production for a third platform in the second quarter of the current fiscal year.

The ASG has the potential to significantly grow our sales and achieve strong gross margins. However, we have experienced significant delays developing, manufacturing, and receiving ASG customer orders. The ASG is the most technically complex and advanced product Giga-tronics has developed and manufactured, and we have experienced delays in bringing the product to market and efficiently manufacturing it. It is also priced significantly higher than any other Giga-tronics product, and we have experienced longer than anticipated procurement cycles in the electronic warfare market it services. The delays in the development and manufacturing of the ASG, along with the longer than anticipated procurement cycles, have contributed to the increased operating losses in fiscal 2017 and prior years. Giga-tronics could continue to experience similar losses in the current fiscal year if there are further delays in ASG features currently being developed, manufacturing efficiencies are not achieved, and customer orders are delayed. To bring the ASG to its full potential, Giga-tronics may be required to seek additional working capital; however, there are no assurances that such working capital will be available, or on terms acceptable to the Company.

### **Significant Orders**

Both the Giga-tronics Division and Microsource receive large customer orders each year. The timing of orders, and any associated milestone achievement, causes 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:

In June 2016, the Giga-tronics Division received a \$3.3 million order from the United States Navy for our Real-Time TEmS which is a combination of the ASG hardware platform, along with software developed and licensed to the Company from a major Aerospace and Defense Company. The complete order includes two ASG chassis and seven ASG blades, along with engineering services to integrate the Real-Time TEmS product with additional third party hardware and software for the customer. We expect to fulfill the order during the second half of the current fiscal year. An additional order for \$542,000 was received in July 2016 from the United States Navy for our ASG hardware only platform. We fulfilled this order in the quarter ended September 24, 2016.

In July 2016, Microsource received a \$1.9 million non-recurring engineering order associated with redesigning a component of its high performance YIG filter used on an aircraft platform. We have delivered NRE services for approximately \$407,000 in the quarter ended September 24, 2016 and we expect to continue such services over the next nine to twelve months.

In October 2015, the Giga-tronics Division received a \$1.4 million order from a major prime contractor for our ASG. In January 2016, a \$433,000 ASG follow-on order was received from the major prime contractor. The combined order was for four chassis and thirteen ASG blades. We started delivering these chassis and blades in December 2015. As of September 24, 2016, one blade had yet to be delivered and we expect it to be delivered in the second half of this fiscal year.

Since the introduction of the ASG, the Company has received \$7.2 million in associated ASG orders of which \$3.5 million has been shipped through September 24, 2016.





Our Giga-tronics Division received a \$1.5 million order in the first quarter of fiscal 2016 from the United States Navy for our legacy Model 8003 Precision Scalar Analyzers and associated accessories. We shipped all of the \$1.5 million order in the first and second quarters of fiscal 2016. The Model 8003 was designed about 25 years ago, and Giga-tronics is no longer able to purchase key components and materials used to manufacture the Model 8003. The Navy orders marked the end of life of the Model 8003 and its associated accessories.

In the first quarter of fiscal 2016, the Microsource business unit received a \$3.0 million YIG RADAR filter order (Ongoing Production Order) associated with a fighter jet platform for which we have been manufacturing since fiscal 2014. We shipped all of the \$3.0 million order in fiscal 2016. In the first quarter of fiscal 2017, the Microsource business unit received a \$4.5 million YIG RADAR filter order for the same fighter jet platform, representing a 50% year increase in the order size compared to the fiscal 2016 order. We expect to ship this order throughout fiscal 2017.

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

The majority of the deliverables under the Microsource NRE Order occurred in fiscal 2015 and early fiscal 2016. We started delivering flight-qualified prototype hardware in the second quarter of fiscal 2017.

### Critical Accounting Policies

Please refer to the section of the Company’s Annual Report on Form 10-K for the year ended March 26, 2016 entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations —Critical Accounting Policies” for a discussion of our critical accounting policies. During the three and six month periods ended September 24, 2016, there were no material changes to these policies other than as disclosed in Note 1 Organization and Significant Accounting Policies.

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

### Results of Operations

New orders received by segment are as follows:

#### NEW ORDERS

(Dollars in thousands)	Three Month Periods Ended				
	September 24,		September 26,		
	2016		2015	% change	
Giga-tronics Division	\$	1,412	\$	781	81%
Microsource		2,566		61	4107%
Total	\$	3,978	\$	842	372%

(Dollars in thousands)	Six Month Periods Ended				
	September 24,		September 26,		
	2016		2015	% change	
Giga-tronics Division	\$	6,141	\$	4,289	43%
Microsource		7,109		13,173	(46)%
Total	\$	13,250	\$	17,462	(24)%

New orders received in the second quarter of fiscal 2017 increased by 372% to \$4.0 million from the \$842,000 received in the second quarter of fiscal 2016. The Giga-tronics Division saw a \$631,000 or 81% increase in orders due to a \$546,000 order from the US Navy associated with the Company’s ASG product. The \$781,000 of new orders in the first quarter of fiscal 2016 were all related to legacy products the Company no longer manufactures. The Microsource business unit saw a \$2.5 million increase primarily due to a \$1.9 million non-recurring engineering order associated with redesigning a component of its high performance YIG filter received in July 2016. The \$61,000 of new orders received in the first quarter of fiscal 2016 were all related to radar filter components, but orders were lower primarily due to the timing of the receipt of the orders from two aerospace companies.

New orders received in the first half of fiscal 2017 decreased by 24% to \$13.3 million from the \$17.5 million received in the first half of fiscal 2016. The Giga-tronics Division saw a \$1.9 million or 43% increase in orders primarily due to a \$3.8 million order from the US Navy associated with the Company's ASG product. The Microsource business unit saw a 46% decrease in the first half of fiscal 2017 due to the receipt of a \$4.5 million order for YIG RADAR filters and the receipt of a \$1.9 million non-recurring engineering order in comparison to the larger \$10.0 million YIG Production Order and the \$3.0 million Ongoing Production Order received in the first half of fiscal 2016.

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

#### BACKLOG

<b>(Dollars in thousands)</b>	<b>September 24,</b>		<b>September 26,</b>		
	<b>2016</b>		<b>2015</b>		<b>% change</b>
<b>Backlog of unfilled orders at end of period:</b>					
Giga-tronics Division	\$	3,576	\$	2,344	53%
Microsource		14,376		13,409	7%
<b>Total</b>	<b>\$</b>	<b>17,952</b>	<b>\$</b>	<b>15,753</b>	<b>14%</b>
<b>Backlog of unfilled orders shippable within one year:</b>					
Giga-tronics Division	\$	3,576	\$	2,344	53%
Microsource		6548		4,171	57%
<b>Total</b>	<b>\$</b>	<b>10,124</b>	<b>\$</b>	<b>6,515</b>	<b>55%</b>

Backlog at the end of the second quarter of fiscal 2017 increased 14% compared to the same period end in the prior year. The Giga-tronics division saw a 53% increase in backlog primarily due to the ASG orders discussed above. Microsource saw a 7% increase in backlog in the second quarter of fiscal 2017. The increase is primarily due to the receipt of a \$4.5 million YIG production Order and the receipt of a \$1.9 million non-recurring engineering order in the current period. The \$3.0 million Production Order included in the backlog at September 2015 was fulfilled in fiscal 2016, the Company started the fulfillment of the \$10 million YIG Production order in during the second quarter of fiscal 2017.

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

#### ALLOCATION OF NET SALES

<b>(Dollars in thousands)</b>	<b>Three Month Periods Ended</b>				
	<b>September 24,</b>		<b>September 26,</b>		
	<b>2016</b>		<b>2015</b>		<b>% change</b>
Giga-tronics Division	\$	1,697	\$	2,099	(19)%
Microsource		2,696		964	180%
<b>Total</b>	<b>\$</b>	<b>4,393</b>	<b>\$</b>	<b>3,063</b>	<b>43%</b>
<b>(Dollars in thousands)</b>	<b>Six Month Periods Ended</b>				
	<b>September 24,</b>		<b>September 26,</b>		
	<b>2016</b>		<b>2015</b>		<b>% change</b>
Giga-tronics Division	\$	3,822	\$	4,216	(9)%
Microsource		4,013		3,222	25%
<b>Total</b>	<b>\$</b>	<b>7,835</b>	<b>\$</b>	<b>7,438</b>	<b>5%</b>

Net sales in the second quarter of fiscal 2017 were \$4.4 million, a 43% increase from the \$3.1 million in fiscal 2016. Net sales for the Giga-tronics Division decreased by \$402,000 or 19% primarily due to lower sales associated with the legacy products sold to Spanawave and Astronics, and a \$940,000 decrease associated with the Navy 8003 orders, from \$1.5 million in fiscal 2016 to none in fiscal 2017 due the end of life status of the 8003 product (see Significant Orders above). The decrease in the sales for the Giga-tronics Division were partially offset by a \$604,000 increase associated with the Company's new ASG product. Net sales for Microsource increased by \$1.7 million or 180% primarily due to the YIG RADAR filter order received in April 2016.

Net sales in the first half of fiscal 2017 increased 5% to \$7.8 million from the \$7.4 million in the first half of fiscal 2016. Net sales for the Giga-tronics Division decreased by \$394,000 or 9% primarily due to the decrease in sales associated the legacy products sold to Spanawave and Astronics, and the decrease in sales associated with the size of the Navy 8003 orders discussed above. The decrease in Giga-tronics net sales were partially offset by a \$1.3 million increase associated with the Company's new ASG product. Net sales for Microsource increased by \$791,000 or 36% primarily due to the YIG RADAR filter which moved into production, as well as milestone revenues associated with the winding down of the NRE Order with a large aerospace company as the filter moved into production in fiscal 2017.

Gross margin was as follows for the periods shown:

#### GROSS MARGIN

(Dollars in thousands)	Three Month Periods Ended		% change
	September 24, 2016	September 26, 2015	
Gross Margin	\$ 1,230	\$ 877	40%

(Dollars in thousands)	Six Month Periods Ended		% change
	September 24, 2016	September 26, 2015	
Gross Margin	\$ 2,155	\$ 2,605	(17)%

Gross margin increased in the second quarter of fiscal 2017 to \$1.2 million from \$877,000 for the second quarter of fiscal 2016. The increase was due to the increase in net sales. For the first six months of fiscal 2017, gross margin decreased to \$2.2 million from \$2.6 million for the second quarter of fiscal 2016. The decrease was primarily due to inventory parts which was transferred to Astronics and Spanaweave at cost and unabsorbed factory overhead variances.

Operating expenses were as follows for the periods shown:

#### OPERATING EXPENSES

(Dollars in thousands)	Three Month Periods Ended		% change
	September 24, 2016	September 26, 2015	
Engineering	\$ 567	\$ 819	(31)%
Selling, general and administrative	1,047	1,349	(22)%
Total	\$ 1,614	\$ 2,168	(26)%

(Dollars in thousands)	Six Month Periods Ended		% change
	September 24, 2016	September 26, 2015	
Engineering	\$ 1,097	\$ 1,565	(30)%
Selling, general and administrative	2,352	2,804	(16)%
Total	\$ 3,449	\$ 4,369	(21)%

Total operating expenses decreased 26% or \$554,000 in the second quarter of fiscal 2017 over fiscal 2016. Engineering expenses decreased \$252,000 or 31% during the second quarter of fiscal 2017 compared to the same prior year period primarily due to fewer development hours associated with ASG (as the ASG product moved into production in the second half of fiscal 2016); a decrease in personnel related expenses due to the sale of the Switch product line to Astronics in June 2017; and due to a greater portion of our engineers being assigned to the Microsource non-recurring engineering order which is recorded as cost of sales. Selling, general and administrative expenses decreased \$302,000 or 22% primarily due to a decrease of \$114,000 associated with the non-cash stock based compensation (primarily due to delaying the approval of fiscal 2017 director compensation due to changes in director composition that were effected during October 2016); a \$91,000 decrease in personnel related expenses as a result of the departure of one of our officers; and a \$36,000 decrease in outside services related to management consulting. The aforementioned delay in approving fiscal 2017 director compensation is expected to result in a higher non-cash quarterly charge during the second half of fiscal of 2017 as a portion of such charge will relate to services rendered during the first half of fiscal 2017.

Total operating expenses decreased 21% or \$920,000 in the first half of fiscal 2017 over fiscal 2016. Engineering expenses decreased \$468,000 or 30% primarily due to a \$174,000 decrease in development hours associated with ASG as described above and a \$105,000 decrease in personnel related expenses, due to the sale of the Switch and Legacy product lines. Engineering expenses were also lower due to a portion of our engineers being assigned to the Microsource non-recurring engineering order which is recorded as cost of sales. Selling, general and administrative decreased by \$452,000 or 16% primarily due to a decrease of \$378,000 associated with the non-cash stock based compensation as described above and a \$31,000 decrease in outside services related to management consulting.

#### Gain on Sale of Product Line

On June 20, 2016, the Company entered into an Asset Purchase agreement for the sale of its Switch product line to Astronics. Upon signing the agreement, Astronics paid \$850,000 to the Company for the intellectual property of the product line. The Company recognized a net gain of \$802,000 in the first quarter ending June 25, 2016 after related expenses were subtracted from the sales price. The gain is included in the accompanying consolidated financial statements. During the three and six month periods ended September 24, 2016, net Switch sales were \$982,000 and \$2.1 million, respectively. During the three and six month periods ended September 26, 2015, net Switch sales were \$632,000 and \$1.2 million, respectively (see Note 9, Sale of Product Lines).



## **Derivative Liability**

The Company recorded a gain of \$28,000 and \$74,000 in the three and six month periods ended September 24, 2016, related to revaluation of the derivative liability associated with warrants issued with the PFG loan (see Note 7, Term Loan, Revolving Line of Credit and Warrants). The Company recorded a gain of \$110,000 and \$47,000 in the three and six month periods ended September 26, 2015, related to revaluation of the derivative liability associated with warrants issued with the PFG loan.

## **Interest Expense**

Net interest expense in the second quarter of fiscal 2017 was \$38,000, a decrease of \$85,000 over the second quarter of fiscal 2016. Interest expense decreased primarily due to the lower principal balance on the PFG loan. For the second quarter of fiscal 2017, interest expense includes \$7,000 of accretion of discounts on the PFG loan and warrant debt compared to \$63,000 recorded in the second quarter of fiscal 2016. Net interest expense in the first half of fiscal 2017 was \$78,000, a decrease of \$138,000 over the first half of fiscal 2016. For the first half of fiscal 2017, interest expense includes \$18,000 of accretion of discounts on the PFG loan and warrant debt compared to \$105,000 recorded in the first half of fiscal 2016.

## **Net Loss**

Net loss for the second quarter of fiscal 2017 was \$396,000, compared to a net loss of \$1.3 million recorded in the second quarter of fiscal 2016. The decrease in net loss was primarily due to the higher net sales and lower operating expenses in the current period in comparison to the same prior year period as discussed above. Net loss for the first half of fiscal 2017 was \$498,000, compared to a net loss of \$1.9 million recorded in the first half of fiscal 2016. The decrease in net loss was primarily due to the \$802,000 gain recorded associated with the sale of the Switch product line in the first quarter of fiscal 2017 as well as lower operating expenses as discussed above.

## **Financial Condition and Liquidity**

As of September 24, 2016, Giga-tronics had \$2.3 million in cash and cash equivalents, compared to \$1.3 million as of March 26, 2016. Working capital was \$1.2 million at September 24, 2016 compared to \$1.8 million at March 26, 2016. The current ratio (current assets divided by current liabilities) at September 24, 2016 was 1.13 compared to 1.23 at March 26, 2016. The decrease in working capital is primarily attributable to our net loss.

Cash provided by operating activities was \$458,000 for the six month period ended September 24, 2016. Cash provided by operating activities in the first half of fiscal 2017 resulted from changes in our working capital accounts, primarily an increase of \$2.6 million in deferred revenue due to advance payment arrangements for raw materials for our customers, which was partially offset by our net loss.

Cash used in operating activities was \$771,000 for the six month period ended September 26, 2015. Cash used in operating activities in the first half of 2016 was primarily attributable to an operating loss of \$1.9 million and a \$1.0 million increase in inventory that was partially offset by a \$904,000 increase in accounts payable, \$533,000 of non-cash share based compensation expense, a \$319,000 decrease in accounts receivable, and a \$241,000 increase in deferred revenue. Inventories increased due to a delay of shipments in the quarter ended September 26, 2015, caused by the late arrival of certain components needed to complete work-in-process inventories and technical issues encountered prior to shipment of our new Advanced Signal Generator. The increase in inventory was also due to a buildup of raw materials needed for the production ramp of the new Advanced Signal Generator. Accounts payables increased as payments to vendors were deferred due to working capital constraints. The decrease in accounts receivable, and the increase in deferred revenue, were due to the delay of shipments in the quarter ended September 26, 2015.

Cash provided by investing activities was \$820,000 for the six month period ended September 24, 2016. Cash provided by investing activities in the first half of fiscal 2017 resulted primarily from a cash payment from Astronics of \$850,000 pertaining to the sale of our Switch product line, as well as a cash payment from Spanawave of \$750,000 pertaining to the sale of our legacy product lines. During the three month period ended September 24, 2016, the Company and Spanawave have been engaged in a dispute as to whether the Company has fulfilled all the requirements to close phases one through five and become entitled to the \$375,000 which was received during the first quarter of fiscal 2017. The parties are attempting to resolve this dispute, and the Company returned the \$375,000 to Spanawave on July 28, 2016. The cash payments were offset by additions to property and equipment of \$30,000 in the first half of fiscal 2017 compared to \$89,000 in the first quarter of fiscal 2016. The additions in both first half of fiscal 2017 and fiscal 2016 were associated with equipment required to manufacture the ASG.

Cash used in financing activities for the six month period ended September 24, 2016 was \$281,000, primarily due to the repayment of the Company's term loan with PFG.

Cash provided by financing activities for the first six months ended September 26, 2015 was \$438,000, primarily due to \$950,000 in proceeds from the accounts receivable line of credit with Bridge Bank (see Note 6, Accounts Receivable Line of Credit) which was partially offset by a \$490,000 repayment of the Company's term loan with PFG.

The Company incurred net losses of \$396,000 for the second quarter of fiscal 2017 and \$498,000 for the first half of fiscal 2017, which contributed to an increase in our accumulated deficit of \$24.5 million as of September 24, 2016.

The Company has experienced delays in the development of features, orders, and shipments for the new ASG. These delays have contributed, in part, to a decrease in working capital from \$1.8 million at March 26, 2016, to \$1.2 million at September 24, 2016. The new ASG product has shipped to several customers, but potential delays in the development of features, longer than anticipated sales cycles, or the ability to efficiently manufacture the ASG, could significantly contribute to additional future losses and decreases in working capital.

To help fund operations, the Company relies on advances under the line of credit with Bridge Bank. The line of credit expires on May 7, 2017. The agreement includes a subjective acceleration clause, which allows for amounts due under the facility to become immediately due in the event of a material adverse change in the Company's business condition (financial or otherwise), operations, properties or prospects, or ability to repay the credit based on the lender's judgement. As of September 24, 2016, the line of credit had an outstanding balance of \$800,000, and additional borrowing capacity of \$848,000.

These matters raise substantial doubt as to our ability to continue as a going concern.

To address these matters, our management team has taken several actions to provide additional liquidity and reduce costs and expenses going forward. These actions are described in the following paragraphs.

- On June 20, 2016, we entered into an Asset Purchase Agreement with Astronics Test Systems Inc. (Astronics), (see Note 9, Sale of Product Lines). Upon signing, Astronics paid \$850,000 for the intellectual property of the product line. Astronics also purchased approximately \$960,000 of related raw materials and work-in-progress inventory from the Company during of the second quarter ended September 24, 2016. Proceeds from the asset sale will be used for working capital and general corporate purposes.
- In July 2016, Microsource received a \$1.9 million non-recurring engineering order associated with redesigning a component of its high performance YIG filter used on an aircraft platform. The Company started delivering the NRE services during the three months ended September 24, 2016 and expects to continue such services over the next nine to twelve months.
- In June 2016, the Giga-tronics Division received a \$3.3 million order from the United States Navy for the Company's Real-Time Threat Emulation Systems ("TEMS") (which combines the Company's ASG hardware platform along with software developed and licensed to the Company from a major aerospace and defense company) which the Company expects to ship in the second half of fiscal 2017. In July 2016, the Giga-tronics Division also received an order for \$542,000 from the United States Navy for the ASG hardware only platform. The Company fulfilled the ASG hardware only order in the current quarter ended September 24, 2016.
- In April 2016, Microsource received a \$4.5 million YIG RADAR filter order for a fighter jet platform, representing a 50% increase compared to the customer's previous jet platform order in fiscal 2016. We shipped approximately \$1.1 million of fiscal 2017 order during the three months ended September 24, 2016 and we expect to ship the remainder throughout fiscal 2017.
- With the elimination of Giga-tronics Switch, Power Meter, Amplifier, and Signal Generator legacy product lines resulting from the Asset Purchase Agreements with Spanawave and Astronics, (see Note 9, Sale of Product Lines), we have been able to reduce the number of employees by approximately 20%, from 71 in November 2015 to 56 on October 31, 2016, while providing additional cash for operations from the proceeds of the sales.
- Giga-tronics plans to work with Bridge Bank to renew the line of credit prior to its May 7, 2017 expiration.
- In the first quarter of fiscal 2016, the Company's Microsource business unit also finalized a multiyear \$10.0 million YIG production order ("YIG Production Order"). We started shipping the YIG Production Order in the second quarter of fiscal 2017. We shipped approximately \$467,000 during the three months ended September 24, 2016 and we expect to ship the remainder through 2020.
- To assist with the upfront purchases of inventory required for future product deliveries, we entered into advance payment arrangements with certain customers, whereby the customers reimburse the Company for raw material purchases prior to the shipment of the finished products. In the second quarter of fiscal 2017, we entered into advance payment arrangements totaling \$621,000. We will continue to seek similar terms in future agreements with these customers and other customers.

Management will continue to review all aspects of the business in an effort to improve cash flow and reduce costs and expenses, while continuing to invest, to the extent possible, in new product development for future revenue streams.

Management will also continue to seek additional working capital through debt and equity financing, however there are no assurances that such financings will be available at all, or on terms acceptable to the Company.

Cumulative losses have had a significant negative impact on the financial condition of the Company and raise substantial doubt about the Company's ability to continue as a going concern. The Consolidated Financial Statements have been prepared assuming the Company will continue as a going concern and do not include any adjustments that might result if the Company were unable to do so.

### **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 Acting Chief Executive Officer and Principal Financial & Accounting Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based upon that evaluation, the Acting Chief Executive Officer and Principal Financial & Accounting 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 Acting Chief Executive Officer and Principal Financial & Accounting 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.

Based on the above described procedures and actions taken, the Company's management, including its Acting Chief Executive Officer and its Principal Financial & Accounting Officer have concluded that as of September 24, 2016, the Company's internal control over financial reporting was effective based on the criteria described in the "COSO Internal Control – Integrated Framework."

## **II - OTHER INFORMATION**

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

From time to time, the Company is involved in various disputes and litigation matters that arise in the ordinary course of business.

The Company is party to an Asset Purchase Agreement dated November 25, 2015 with Spanawave Corporation under which Spanawave agreed to purchase certain product lines and associated business and assets from the Company. The Company and Spanawave have been engaged in a dispute over their respective rights and obligations under the agreement and have negotiated in an effort to resolve the dispute. The agreement calls for an aggregate purchase of \$1,500,000 plus the value of inventory. The Company has received \$375,000, against a contract price of \$750,000, plus certain inventory payment for phases 1 through 5 of the subject businesses. Because of the dispute, phase 6 (legacy signal generators), which has a contract price of another \$750,000 plus the value of inventory, has not commenced. On August 19, 2016, Spanawave filed an action against the Company in Contra Costa Superior Court for alleged breach of contract and alleged breach of the implied covenant of good faith and fair dealing. The complaint seeks specific performance of the agreement and damages. Spanawave's affiliate Liberty Test Equipment also filed an arbitration claim for \$440,000 under a distribution agreement between the Company and Liberty. The Company has filed cross-complaints in both the litigation and arbitration asserting breach of the respective agreements by Spanawave and Liberty. The Company had previously asserted that the distribution agreement does not extend to the products with respect to which the claim has been made. Certain customers of the lines of business sold to Spanawave are also customers of the Company's ongoing ASG business. Continued disruption of the phase 6 signal generator business could have an adverse effect on the ASG business. The parties have negotiated in an effort to settle the dispute notwithstanding the filings. The expenses and potential liability of negotiation, any settlement or continued litigation or arbitration could have a material adverse effect on the Company.

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

***Our ASG product is complex and could have unknown defects or errors, which may increase our costs, harm our reputation with customers, give rise to costly litigation, or divert our resources from other purposes.***

Our new advanced signal generator product is extremely complex. Despite testing, our product has contained defects and errors and may in the future contain defects, errors, or performance problems when first introduced, when new versions or enhancements are released, or even after these products have been used by our customers for a period of time. These problems could result in expensive and time-consuming design modifications or warranty charges, delays in the introduction of new products or enhancements, significant increases in our service and maintenance costs, diversion of our personnel's attention from our product development efforts, exposure to liability for damages, damaged customer relationships, and harm to our reputation, any of which could materially harm our results of operations. In addition, increased development and warranty costs could be substantial and could reduce our operating margins.





There has been no other material change in the risk factors disclosed in the registrant's Annual Report on Form 10-K for the fiscal year ended March 26, 2016.

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

None other than as previously reported.

**ITEM 3 - DEFAULTS UPON SENIOR SECURITIES**

None.

**ITEM 4 - MINE SAFETY DISCLOSURES**

Not applicable.

**ITEM 5 - OTHER INFORMATION**

None.

**ITEM 6 - EXHIBITS**

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

## SIGNATURES

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

GIGA-TRONICS INCORPORATED

(Registrant)

By:

Date: November 8, 2016

/s/ William J. Thompson

William J. Thompson

Acting Chief Executive Officer

(Principal Executive Officer)

Date: November 8, 2016

/s/ Temi Oduozor

Temi Oduozor

Corporate Controller

(Principal Accounting & Financial Officer)

**EXHIBIT 31.1**

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

I, William J. Thompson, certify that:

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

Date: November 8, 2016

/s/ William J. Thompson  
William J. Thompson  
Acting Chief Executive Officer  
(Principal Executive Officer)

**EXHIBIT 31.2**

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

I, Temi Oduozor, certify that:

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

Date: November 8, 2016

/s/ Temi Oduozor  
Temi Oduozor  
Corporate Controller  
(Principal Accounting & 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 ending September 24, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, William J. Thompson, Acting Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Date: November 8, 2016

/s/ William J. Thompson  
William J. Thompson  
Acting Chief Executive Officer  
(Principal Executive Officer)

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

In connection with the quarterly report of Giga-tronics Incorporated (the "Company") on Form 10-Q for the period ending September 24, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Temi Oduozor, Principal Financial & Accounting Officer, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Date: November 8, 2016

/s/ Temi Oduozor  
Temi Oduozor  
Corporate Controller  
(Principal Accounting & Financial Officer)