GIGA TRONICS INC
Form 10-K
June 19, 2018

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended March 31, 2018

Or

[ ] **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from___to___.

Commission File No. 001-14605

GIGA-TRONICS INCORPORATED

(Exact name of registrant as specified in its charter)

California	94-2656341
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
5990 Gleason Drive, Dublin, CA	94568
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (925) 328-4650

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

Title of each class	Name of each exchange on which registered
Common Stock, No par value	OTCQB Market

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, 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 [X] No [ ]

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

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," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	[ ]	Accelerated filer	[ ]
Non-accelerated filer	[ ]	Smaller reporting company	[X]
(Do not check if a smaller reporting company)		Emerging growth company	[ ]

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

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

The aggregate market value of voting and non-voting common equity held by non-affiliates of the Registrant computed by reference to the price at which the common equity was sold or the average bid and asked prices as of September 30, 2017 was $6,885,959.

There were a total of 10,312,653 shares of the Registrant's Common Stock outstanding as of June 7, 2018.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following documents have been incorporated by reference into the parts indicated:

PART OF FORM 10-K	DOCUMENT
PART III	Registrant's PROXY STATEMENT for its 2018 Annual Meeting of Shareholders to be filed no later than 120 days after the close of the fiscal year ended March 31, 2018.

TABLE OF CONTENTS

Unless the context otherwise requires, we use the terms "Giga-tronics Incorporated," "Giga-tronics," "we," "us," "the Company" and "our" in this Annual Report on Form 10-K to refer to Giga-tronics Incorporated and its wholly owned subsidiary.

FORWARD-LOOKING INFORMATION

This Annual Report on Form 10-K includes "forward-looking statements" within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including but not limited to certain disclosures contained in Item 1A, "Risk Factors" and Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations". These forward-looking statements include, but are not limited to, statements about our plans, objectives, representations and contentions, and are not historical facts and typically are identified by the use of terms such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential," "continue" and similar words, although some forward-looking statements are expressed differently. You should be aware that the forward-looking statements included herein represent management's current judgment and expectations, but our actual results, events and performance could differ materially from those expressed or implied by forward-looking statements. We do not intend to update any of these forward-looking statements or publicly announce the results of any revisions to these forward-looking statements, other than as is required under the federal securities laws.

PART 1

ITEM 1. BUSINESS

General

Giga-tronics Incorporated ("Giga-tronics", or the "Company") includes the operations of Microsource Inc. ("Microsource"), a wholly owned subsidiary, and the Giga-tronics Division.

Microsource primarily develops YIG (Yttrium, Iron, Garnet) tuned oscillators, filters, and microwave synthesizers for use in military defense applications. Microsource's two largest customers are prime contractors for which it develops and manufactures YIG RADAR filters used in fighter jet aircrafts. Revenues from Microsource comprised a majority of the Company's revenues for the fiscal years ended March 31, 2018 and March 25, 2017 (see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Results of Operations).

The Giga-tronics Division designs, manufactures and markets a family of modular test products for use primarily in the electronic warfare (EW) segment of the defense electronics market. These modular test products represent critical building blocks in the construction of test and simulation systems used to validate the performance of RADAR & EW equipment. Giga-tronics Division customers include major prime defense contractors, the armed services (primarily in the U.S.) and research institutes. This product platform for RADAR & EW test & simulation applications (formerly referred to as "Hydra") has been the Company's principal new product development initiative since 2011 within the test & measurement equipment marketplace, replacing its broad product line of general purpose benchtop test & measurement products used for the design, production, repair and maintenance of products in the aerospace and telecommunications equipment marketplace. The substantial majority of these legacy product lines which the Company produced over the previous 35 years were sold by the Company between 2013 and 2016 because of lack of growth potential and poor gross margins. For example, we sold our SCPM product line to Teradyne in 2013; in December 2015, we sold our Power Meters and Amplifiers to Spanawave Corporation; and in June 2016, we sold our Switch product line to Astronics (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines). The Company believes the EW test & simulation product market possesses greater long-term opportunities for revenue growth and improved gross margins compared to the general purpose test & measurement equipment marketplace.

Giga-tronics was incorporated on March 5, 1980, and Microsource was acquired by Giga-tronics on May 18, 1998.

The combined Company's principal executive offices are located at 5990 Gleason Drive, Dublin, California, and our telephone number at that location is (925) 328-4650.

Operating Segments

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

For more information regarding the Company's two reporting segments, see "Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 12, -Significant Customers and Industry Segment Information."

Products and Markets

Microsource

Microsource develops and manufactures a line of YIG tuned oscillators, filters, and microwave synthesizers. Microsource's two largest customers are prime contractors for which it develops and manufactures YIG RADAR filters used in prior generation fighter jets that receive upgraded RADAR systems as part of the U.S. government's RADAR Modernization Program (RMP). The upgrades are designed to extend the service life of these older aircraft. Microsource's RADAR filter solves an interference problem created when the jet's original RADAR system is replaced with newer technology while the jet's legacy onboard electronics remain untouched. Microsource supplies a uniquely designed filter for each aircraft type that receives a new RADAR and currently participates in the F/A-18E, F-15D and F-16 programs. Microsource is currently the sole source supplier to the prime contractors and has no competition for these products.

Giga-tronics Division

The Giga-tronics division designs, manufactures and markets a family of modular microwave test products aimed primarily for testing RADAR and Electronic Warfare ("EW") equipment. These modular products form a platform called the Advanced Signal Generation and Analysis ("ASGA") system and represents critical building blocks in the construction of test systems used to validate the performance of RADAR/EW equipment. The building blocks include individual calibrated transmit channels called the Advanced Signal Generator ("ASG") and individual calibrated receive channels called the Advanced Signal Analyzer ("ASA"). A System Reference Module (SRM100A) shared between the ASG and ASA modules completes the platform.

The platform's architecture uniquely addresses the new adaptive RADAR and EW test requirements with a closed loop solution. There are three key innovations in this platform which include: (1) replacing the synthesizer with a microwave up-converter, (2) separating the reference module, which is normally part of the synthesizer, into a separate building block, and (3) designing a mirrored down-converters that uses the same microwave components and layout as the up-converter. For example, by replacing the synthesizer with an up-converter and the I/Q modulation system with a digital front-end, the test system is architected similar to a RADAR system, allowing the user to think digitally at a low baseband frequency, greatly simplifying the programming of the test system. In addition, it facilitates building test systems with reduced size, weight and cost as compared with present synthesizer-based solutions, especially when the test system is required to have multiple transmitters and receivers to perform a validation test. As part of the development of our ASGA system solution, we relied on key technology developed by our Microsource subsidiary to design Microwave Integrated Circuits (MIC) which we customized for our ASGA system.

The end-user markets for these products are divided into three segments: RADAR, electronic countermeasures (ECM) and direction finding (DF). Performance validation of RADAR, ECM and DF systems all commonly require test systems with multiple transmit and receive channels, making the Giga-tronics Advanced Signal Generator and Analysis system an optimized component for these applications.

Sources and Availability of Raw Materials and Components

Substantially all the components required by Giga-tronics to make its assemblies are available from more than one source. We occasionally use sole source arrangements to obtain leading-edge technology or favorable pricing or supply terms, but not in any material volume. In our opinion, the loss of any sole source arrangement we have would not be material to our operations. Some suppliers are also competitors of Giga-tronics. In the event a competitor-supplier chooses not to sell its products to us, production delays could occur as we seek new suppliers or re-design components to our products.

Although extended delays in receipt of components from our suppliers could result in longer product delivery schedules for us, we believe that our protection against this possibility stems from our practices of dealing with well-established suppliers and maintaining good relationships with such suppliers.

Patents and Licenses

Our competitive position is largely dependent upon our ability to provide performance specifications for our instruments and systems that (a) are easy to use and effectively and reliably meet customers' needs and (b) selectively surpass competitors' specifications in competing products. Patents may occasionally provide some short-term protection of proprietary designs. However, because of the rapid progress of technological development in our industry, such protection is most often, although not always, short-lived. Therefore, although we occasionally pursue patent coverage, we place major emphasis on the development of new products with superior performance specifications and the upgrading of existing products toward this same end.

Our products are based on our own designs, which are derived from our own engineering abilities. If our new product engineering efforts fall behind, our competitive position weakens. Conversely, effective product development greatly enhances our competitive status.

As of March 31, 2018, the Company maintains four non-provisional patents related to the Company's 2500B benchtop signal generator product line, which was not included in the legacy products sold to Spanawave (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines). These patents describe advanced synthesis techniques and potentially can be extended for use with the Giga-tronics Advanced Signal Generation and Analysis system and to a number of Microsource synthesizer components. Additionally, the Company filed a provisional U.S. patent relating to the Advanced Signal Generation and Analysis system in June of 2016 and subsequently filed a non-provisional application in June of 2017. The patent application describes the unique internal design of the ASG and ASA along with the architecture of how all the components work together to facilitate building multi-channel test systems with reduced size, weight and cost as compared to present solutions. The application for the non-provisional patent is currently pending before the U.S. patent office.

We are not dependent on trademarks, licenses or franchises. We utilize certain software licenses in certain functional aspects for some of our products. Such licenses are readily available, non-exclusive and are obtained at either no cost or for a relatively small fee.

In September 2015, we 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 us. The simulation software (also called Open Loop Simulator or OLS technology) is currently the aerospace company's intellectual property. The OLS technology coordinates the behavior of the Company's ASGA system with various third-party hardware elements to generate the signals for validating ECM equipment. We license the OLS software as a bundled or integrated solution with our TEmS product.

5

Seasonal Nature of Business

Our business is not seasonal.

Working Capital Practices

We generally strive to maintain adequate levels of inventory and we generally sell to customers on 30-day payment terms in the U.S. and generally allow more time for overseas payments. Typically, we receive payment terms of 30 days from our suppliers. We believe that these practices are consistent with typical industry practices.

Importance of Limited Number of Customers

We are a supplier of RADAR filters for fighter jet aircraft and products for EW test and emulation to various United States (U.S.) government defense agencies, as well as to their prime contractors. Management anticipates sales to U.S. government agencies and their prime contractors will remain significant in fiscal 2019. U.S. and international defense-related agencies accounted for 93% of net sales in fiscal 2018 and 78% of net sales in fiscal 2017. Commercial business accounted for the remaining 7% of net sales in fiscal 2018 and 22% of net sales in fiscal 2017.

At the Giga-tronics Division, U.S. defense agencies and their prime contractors accounted for 76% and 24% of net sales in fiscal 2018 and 58% and 42% of net sales in fiscal 2017, respectively. Microsource reported 99% and 97% of net sales to prime contractors of U.S. defense agencies in fiscal 2018 and fiscal 2017, respectively.

During fiscal 2018, the Boeing Company accounted for 29% of our consolidated revenues and was included in the Microsource reporting segment. A second customer, CSRA LLC (CSRA acted as prime contractor for the United States Navy) accounted for 17% of our consolidated revenues during fiscal 2018 and was included in the Giga-tronics Division reporting segment.

During fiscal 2017, the Boeing Company accounted for 33% of our consolidated revenues and was included in the Microsource reporting segment. A second customer, CSRA LLC (CSRA acted as Prime Contractor for the United States Navy) accounted for 20% of our consolidated revenues during fiscal 2017 and was included in the Giga-tronics Division reporting segment.

We could experience a material adverse effect on our financial stability if there was a significant loss of either our defense or commercial customers.

Both Microsource and our Giga-tronics Division products are largely dependent on U.S. defense spending and budgets and are subject to expansion and contraction between fiscal year periods. Revenues from Microsource products and services often times span several years with deliveries varying between both interim and annual fiscal year periods. Additionally, the Giga-tronics Division's Advanced Signal Generation and Analysis system is a relatively new product platform with fewer targeted customers and significantly longer sales cycles and greater average selling prices when compared to its prior general-purpose test & measurement equipment product lines. We therefore expect that a major customer in one year may not be a major customer in the following year. Accordingly, our net sales and earnings will decline if we are unable to find new customers or increase our business with other existing customers to replace declining net sales from the previous year's major customers.

Backlog of Orders

On March 31, 2018, our backlog of unfilled orders was approximately $11.2 million compared to approximately $11.4 million at March 25, 2017. As of March 31, 2018, there were approximately $3.8 million of orders scheduled for shipment beyond one year, compared to $5.7 million at March 25, 2017. Orders for our products include program orders from prime contractors with extended delivery dates. Accordingly, the backlog of orders may vary substantially from year to year and the backlog entering any single fiscal quarter may not be indicative of sales for any period.

Backlog includes only those customer orders for which binding agreement exists, a delivery schedule has been agreed upon between us and our customer and, in the case of U.S. government orders, for which funding has been appropriated.

Competition

The Company serves two different markets.

Microsource is a sole source supplier serving the aftermarket for operational hardware associated with the US Government's RADAR Modernization Program (RMP) for prior generation fighter jet aircraft (i.e., the F/A-18E, F-15D and F-16 jets) to extend their useful lives. The Microsource business unit supplies YIG filters specifically designed for military aircraft to solve interference problems caused by newer, more powerful RADARs. The prime contractors responsible for integrating the new RADARs have over several years flight qualified our filters at considerable expense. Only a few other companies possess the technical know-how to design and manufacture filters of this nature, such as Teledyne and Micro-Lambda Wireless, but we believe the expense of requalifying a new component is prohibitive to the point where the prime contractor would only undertake such an effort if significant issues, such as significant technical deficiencies, were to arise. Microsource is the sole-source supplier of these filters and presently does not have any competition for this business. Microsource routinely maintains a "gold supplier" rating from its customers and received the Supplier of the Year award from one of the prime contractors in 2011. Microsource must maintain the Aerospace Industry's AS9100C certification for its Quality Management System which it currently maintains.

The Giga-tronics Division serves the electronic test equipment market with a microwave platform used in the evaluation of military RADAR and electronic warfare (EW) systems. These applications represent niche segments within the broader test equipment market. While the niche market segments of RADAR and EW are large enough to be meaningful to Giga-tronics, we believe they are too small to attract larger competitors, such as Agilent/Keysight, Rohde & Schwarz and National Instruments who, to our knowledge, do not approach these markets with new dedicated, focused solutions.

Giga-tronics chose a unique architecture to address the new RADAR and EW test requirements that are adaptive/cognitive. To exercise these new RADARs and jamming (i.e. interference) signals necessitates a real time, closed loop, dynamic simulation system. We believe our microwave product presents a paradigm shift providing a closed loop test capability that is not available from any other competitor. To maintain our position against competitors that have greater resources in research, development and manufacturing with substantially broader product lines and channels, we (a) place strong emphasis on maintaining a high degree of technical competence as it relates to the development of new microwave products, (b) are highly selective in establishing technological objectives and (c) focus sales and marketing activities in the selected niche areas that are weakly served or underserved by our competitors. Competitors that make alternative equipment to the Giga-tronics Advanced Signal

Generation and Analysis system include ELCOM (a division of Frequency Electronics Inc.), COMSTRON (a division of Cobham Plc) and EWST (a division of Ultra Electronics Plc). Compared to Giga-tronics, these competitors are of comparable size or have small product divisions with more limited product lines. Two much larger companies, Northrop Grumman/Amherst and Textron/AAI sell open loop equipment that competes with the Giga-tronics TEmS and Multi-Aircraft signal generator solutions, albeit at a much higher selling price. These test systems from Northrup Grumman and Textron have long delivery schedules, represent expensive capital investments to the customers that buy them and typically are shared among a large number of users generally limiting access to their testing capabilities. Giga-tronics can complement these larger test systems by uniquely addressing the new closed loop test requirements for the next generation RADAR/EW devices and by offering smaller, lower cost and more flexible testing solutions that can be delivered more quickly, which greatly increases a user’s access to systems test capability and reduces the risk of program failure.

Sales and Marketing

Microsource and the Giga-tronics Division sell their products primarily direct to U.S. defense agencies and their prime defense contractors.

Product Development

Products of the type manufactured by Giga-tronics historically have had relatively long product life cycles. However, the electronics industry is subject to rapid technological changes at the component level. Our future success is dependent on our ability to steadily incorporate advancements in component technologies into our new products. In fiscal 2018 and fiscal 2017, product development expenses totaled approximately $1.8 million and $2.3 million, respectively.

The development of our Advanced Signal Generation and Analysis system product platform for EW test & emulation applications (formerly described as “Hydra”) has been the Company’s primary new product development initiative since 2011. Through March 31, 2018, the Company has spent over $13 million towards the development of the ASGA system product platform. The Company also anticipates increasing the product development efforts related to its Microsource business unit’s RADAR filter technology in future periods. Our product development activities are funded internally, through product line sales, or through outside equity investment and debt financing. Product development activities are expensed as incurred, except software development costs associated with our Advanced Signal Generation and Analysis system, which were fully amortized as of March 31, 2018.

We expect to continue to make significant investments in research and development. There can be no assurance that future technologies, processes or product developments will not render our current product offerings obsolete or that we will be able to develop and introduce new products or enhancements to existing products that satisfy customer needs in a timely manner or achieve market acceptance. Failure to do so could adversely affect our business.

7

Manufacturing

The assembly and testing of Microsource and Giga-tronics Division products are done at our Dublin facility.

Environment

To the best of our knowledge, we are in compliance with all Federal, state and local laws and regulations involving the protection of the environment.

Employees

As of March 31, 2018, and March 25, 2017, we employed 43 and 57 individuals on a full-time basis, respectively. We believe that our future success depends on our ability to attract and retain skilled personnel. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Information about Foreign Operations

We sell to our international customers through a network of foreign technical sales representative organizations. All transactions between us and our international customers are in U.S. dollars.

Geographic Distribution of Net Sales

(Dollars in thousands)	**Fiscal 2018**	**Fiscal 2017**	**Fiscal 2018**	**Fiscal 2017**
Domestic	$9,058	$15,938	92 %	98 %
International	742	329	8 %	2 %
Total	$9,800	$16,267	100 %	100 %

See Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 12, Significant Customers and Industry Segment Information for further breakdown of international sales for the last two fiscal years.

ITEM 1A. RISK FACTORS

Our recent losses, limited liquidity and limited capital resources raise substantial doubt about our ability to continue as a going concern

We incurred net losses of $3.1 million in fiscal 2018, and $1.5 million in fiscal 2017. These losses have contributed to an accumulated deficit of $28.7 million as of March 31, 2018.

Beginning in fiscal 2012, we invested primarily in the development of our Advanced Signal Generation and Analysis system product platform for EW test & emulation applications (formerly referred to as “Hydra”) which the Company believes possesses greater long-term opportunities for revenue growth and improved gross margins compared to our previous general-purpose test & measurement product lines, the substantial majority of which have been sold as of March 31, 2018. Through March 31, 2018, the Company has spent over $13 million towards the development of the ASGA system product platform. Although we anticipate long-term revenue growth and improved gross margins from the new ASGA product platform, delays in completing it have also contributed to our losses. We have also experienced delays in the development of features, receipt of orders, and shipments for the new ASGA system products. These delays have significantly contributed to a decrease in working capital from $620,000 at March 25, 2017 to ($386,000) at March 31, 2018. Although ASGA system products have now shipped to several customers, potential delays in the refinement of further features, longer than anticipated sales cycles, or the ability to generate shipments in significant quantities, could significantly contribute to additional future losses.

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

To address these matters, our management has taken several actions to provide additional liquidity and reduce costs and expenses going forward. These actions are described in Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 2, Going Concern and Management’s Plan.

We face risks related to production delays, delays of customer orders and higher selling price of a new product platform

We invested heavily in the development of our new ASGA product platform, however, delays in completing its development, together with early design and manufacturing issues and longer than anticipated sales cycles have contributed to our losses and increased accumulated deficit as of March 31, 2018. Additionally, the average selling price of our new ASGA products is considerably higher that our prior general-purpose test & measurement products, which in turn, requires additional internal approvals on the part of the purchaser and generally leads to longer sales cycles. Our financial condition may also cause potential customers to delay, postpone or decide against placing orders for our products. Continued longer than anticipated sales cycles in future fiscal years, or delays in production and shipping volume quantities, could significantly contribute to additional losses.

Trading of our common stock has moved from the NASDAQ Capital Market to the OTCQB Market

On May 4, 2017, we received a notification letter from The NASDAQ Stock Market (“NASDAQ”) advising the Company that it has initiated proceedings to delist the Company from NASDAQ for the Company’s failure to comply with NASDAQ’s bid price rule. As previously reported on November 1, 2016, NASDAQ notified the Company that the bid price of its listed security had closed at less than $1 per share over the previous 30 consecutive business days, and, thus, did not comply with Listing Rule 5550(a)(2) (the “Rule”).

On October 30, 2017, the Company’s common stock began trading on the OTCQB Market. The Company’s ticker symbol (GIGA) remained the same. As a result of this change, there may be reduced liquidity for our common stock and it could be more difficult for investors to purchase or sell shares of our common stock.

Giga-tronics Inc. remains a public company following the delisting and our shares will continues to trade publicly. We will continue to make SEC filings on Forms 10-K, 10-Q and 8-K, and we will remain subject to the SEC rules and regulations applicable to reporting companies under the Exchange Act. We will maintain an independent Board of Directors with an independent Audit Committee and provide annual financial statements audited by an independent auditor and unaudited interim financial reports reviewed by our independent auditors, prepared in accordance with U.S. generally accepted accounting principles.

Our sales are substantially dependent on the defense industry and a limited number of customers

All of our current product and service offerings are directed towards the defense marketplace which has a limited number of customers. If the defense market demand decreases, actual shipments could be less than projected shipments with a resulting decline in sales. Additionally, the loss of any one customer may have a material adverse effect on future operating results and financial condition. Our product backlog also has a number of risks and uncertainties such as the cancellation or deferral of orders, dispute over performance of our products and our ability to collect amounts due under these orders. If any of these events occur, actual shipments could be lower than projected shipments and revenues could decline which would have an adverse effect on our operating results and liquidity.

Our markets involve rapidly changing technology and standards

The market for electronics equipment is characterized by rapidly changing technology and evolving industry standards. We believe that our future success will depend in part upon our ability to develop and commercialize our existing products, and in part, on our ability to develop, manufacture and successfully introduce new products and product lines with improved capabilities, and to continue to enhance existing products. There can be no assurance that we will successfully complete the development of current or future products, or that such products will achieve market acceptance. The inability to develop new products in a timely manner could have a material adverse impact on our operating performance and liquidity.

Our operating results may fluctuate from quarter to quarter, making it difficult to predict future performance

Our revenue, expenses and operating results have fluctuated, and may in the future continue to fluctuate significantly from quarter to quarter due to a number of factors. Factors that may contribute to these fluctuations include our dependence on the defense industry and a limited number of customers, the nature and length of our sales cycles for our products and services, the duration and delivery schedules within our customer contracts, our ability to timely develop and produce our products, as well as other factors described elsewhere in this Form 10-K.

Our common stock price is volatile

The market price of our common stock could be subject to significant fluctuations in response to variations in quarterly operating results, receipt or cancellation of significant orders, reduction in revenues or lower earnings or increased losses and reduced levels of liquidity when compared to previous quarterly periods, and other factors such as announcements of technological innovations or new products by us or by our competitors, government regulations or developments in patent or other proprietary rights. In addition, the OTCQB Market and other stock markets have experienced significant price fluctuations in recent years. Some of these fluctuations often have been unrelated to the reported operating performance of the specific companies whose stocks are traded. Broad market fluctuations, as well as general foreign and domestic economic conditions, may adversely affect the market price of our common stock.

Our stock at any time has historically traded on low volume on the NASDAQ Capital Market and OTCQB Market. Sales of a significant volume of stock could result in a decline of our share price.

Performance problems in our products or problems arising from the use of our products together with other vendors' products may harm our business and reputation

Products as complex as those we produce may contain unknown and undetected defects or performance problems. For example, it is possible that a product might not comply with stipulated specifications under all circumstances. In addition, our customers generally use our products together with their own products and products from other vendors. As a result, when problems occur in a combined equipment environment, it may be difficult to identify the source of the problem. A defect or performance problem could result in lost revenues, increased warranty costs, diversion of engineering and management time and effort, impaired customer relationships and injury to our reputation generally. To date, performance problems in our products or in other products used together with our products have not had a material adverse effect on our business. However, management cannot be certain that a material adverse impact will not occur in the future.

Our competition has greater resources

Several of our competitors including, among others, Agilent/Keysight, Rohde & Schwarz and National Instruments have substantially greater research and development, manufacturing, marketing, financial, and technological personnel and managerial resources than us. These resources also make these competitors better able to withstand difficult market conditions than us. There can be no assurance that any products developed by the competitors will not gain greater market acceptance than any developed by us.

We may incur substantial costs enforcing our intellectual property rights or defending against third-party claims as a result of litigation or other proceedings

In connection with the potential enforcement of our own intellectual property rights or disputes related to the validity or alleged infringement of third-party intellectual property rights, including patent rights, we may in the future be subject to claims, negotiations or complex, protracted litigation. Intellectual property disputes and litigation may be costly and can be disruptive to our business operations by diverting attention and energies of management and key technical personnel, and by increasing our costs of doing business. Additionally, we may not prevail in any future litigation and disputes, which could adversely affect our results of operations and financial condition.

If we do not generate net cash flow from our operations and if we are unable to raise additional capital, our financial condition would be adversely affected and we may not to be able to execute our growth strategy and we could become insolvent

We cannot assure that we will generate cash from operations or other potential sources to fund our future working capital needs. The lack of additional working capital from any inability to generate cash flow from operations or to raise equity or debt financing could force us to discontinue or suspend unprofitable product lines, business segments or otherwise substantially curtail or cease operations and would, therefore, have an adverse effect on our business and financial condition. Furthermore, we cannot assure that any necessary funds, if available, would be available on attractive terms or that they would not have a significantly dilutive effect on our existing stockholders. If our financial condition were to worsen and we become unable to attract additional equity or debt financing or enter into other strategic transactions, we could become insolvent or be forced to declare bankruptcy, and we would not be able to execute our growth strategy.

Our Advanced Signal Generation and Analysis system product platform 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 ASGA system products are extremely complex. Despite testing, our initial products contained defects and errors and may in the future contain defects, errors, or performance problems following its sale or 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 have a material adverse impact on our results of operations. In addition, increased development and warranty costs could be substantial and could reduce our operating margins.

We are dependent on our management team and development and operations personnel, and the loss of one or more key employees or groups could harm our business and prevent us from implementing our business plan in a timely manner.

Our success depends substantially upon the continued services of our executive officers and other key members of management. From time to time, there may be changes in our executive management team resulting from the hiring or departure of executives. Such changes in our executive management team may be disruptive to our business. We are also substantially dependent on the continued service of our existing development and operations personnel because of the complexity of our service and technologies. Staffing due to the loss of one or more of our key employees or groups can be expensive, divert our attention from executing our business plan and could seriously harm our business. Furthermore, possible shortages of key personnel, including engineers, in the area surrounding our facility could require us to pay more to hire and retain key personnel, thereby increasing our costs.

Business interruptions could delay or prevent our business activities, which could have a material adverse effect on our business, financial condition and results of operations.

Our facility is located in the San Francisco Bay Area near known earthquake fault zones and is vulnerable to significant damage from earthquakes. We are also vulnerable other natural disasters and other events that could disrupt our operations, such as cybersecurity breaches, that may be beyond our control. We do not carry insurance for earthquakes and we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our operating results, cash flows, and success as an overall business.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Our principal executive offices along with our marketing, sales, and engineering offices and manufacturing facilities are located in a 23,873 square foot facility in Dublin, California, which we leased on January 5, 2017 and began occupying in April 2017 under a lease agreement which expires in March 2023. We previously occupied a 47,300 square foot facility in nearby San Ramon, California under a lease agreement which expired on April 30, 2017. We believe that our Dublin facility is adequate for our business activities.

ITEM 3. LEGAL PROCEEDINGS

As of March 31, 2018, the Company has no material pending legal proceedings. From time to time, the Company is involved in various disputes and litigation matters that arise in the ordinary course of business. On August 16, 2016, Spanawave filed a lawsuit against us in California Superior Court (Contra Costa County) relating to the sale of certain of our business lines in 2016. On August 25, 2016, Spanawave's affiliate, Liberty Test Equipment, commenced an arbitration proceeding alleging breach of a distribution agreement. On October 16, 2017, the Company reached a settlement agreement with Spanawave and Liberty Test whereby all parties exchanged mutual releases and agreed that phases one through five of the Asset Purchase Agreement dated December 15, 2015 were concluded and the sale of the remaining phase (Phase 6) to Spanawave (which was in dispute) was abandoned. The abandoned Phase 6 Legacy Signal Generators product line (and related inventory) remains an asset of the Company. As part of the settlement, the Company, Spanawave and Liberty Test agreed to dismiss and or withdraw all related complaints, cross-complaints and arbitration claims.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable

PART II

ITEM 5. MARKET FOR COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES

Common Stock Market Prices

Our common stock is traded on the OTCQB market using the symbol ‘GIGA’. The number of record holders of our common stock as of March 31, 2018 was approximately 106. A significantly larger number of stockholders may be "street name" or beneficial holders, whose shares of record are held by banks, brokers and other financial institutions. The table below shows the high and low closing bid quotations for the common stock during the indicated fiscal periods. These quotations reflect inter-dealer prices without mark-ups, mark-downs, or commission and may not reflect actual transactions.

	Fiscal Quarter 2018	**High**	**Low**	**Fiscal Quarter 2017**	**High**	**Low**
First Quarter	(3/26 - 6/24)	$0.90	$0.73	(3/27 - 6/25)	$1.47	$1.06
Second Quarter	(6/25 - 9/30)	0.89	0.58	(6/26 - 9/24)	1.15	0.93
Third Quarter	(10/01 - 12/30)	0.85	0.37	(9/25 - 12/24)	0.95	0.63
Fourth Quarter	(12/31 - 3/31)	0.42	0.26	(12/25 - 3/25)	1.07	0.65

We have not paid cash dividends on our common stock in the past and have no current plans to do so in the future, believing our available capital is best used to fund our operations, including product development and enhancements. In addition, in the absence of positive retained earnings, California law permits payment of cash dividends on our common stock only to the extent total assets exceed the sum of total liabilities and the liquidation preference amounts of preferred securities. At March 31, 2018, the Company’s assets were less than this sum by $5.1 million. Our shares of Series E preferred stock provide for semi-annual 6% cash dividends based on the original purchase price of $25.00 per share, however we expect that we will exercise our right to pay any such dividends in shares of our common stock instead of cash for the foreseeable future.

Penny Stock

Our common stock is subject to the provisions of Section 15(g) of the Exchange Act and Rule 15g-9 thereunder, commonly referred to as the “penny stock rule”. Section 15(g) sets forth certain requirements for transactions in penny stock, and Rule 15g-9(d) incorporates the definition of “penny stock” that is found in Rule 3a51-1 of the Exchange Act. The SEC generally defines a penny stock to be any equity security that has a market price less than US$5.00 per share, subject to certain exceptions. We are subject to the SEC’s penny stock rules. Since our common stock is deemed to be penny stock, trading in the shares of our common stock is subject to additional sales practice requirements on broker dealers who sell penny stock to persons other than established customers and accredited investors. “Accredited investors” are generally persons with assets in excess of US$1,000,000 or annual income exceeding US$200,000 or US$300,000 together with their spouse. For transactions covered by these rules, broker dealers must make a special suitability determination for the purchase of securities and must have the purchaser’s written consent to the transaction prior to the purchase. Additionally, for any transaction involving a penny stock, unless exempt, the rules require the delivery, prior to the first transaction, of a risk disclosure document prepared by the SEC relating to the penny stock market. A broker dealer also must disclose the commissions payable to both the broker-dealer and the registered representative and current quotations for the securities. Finally, monthly statements must be sent disclosing recent price information for penny stocks held in an account and information to the limited market in penny stocks. Consequently, these rules may restrict the ability of broker-dealers to trade and/or maintain a market in our common stock and may affect the ability of our stockholders to sell their shares.

Equity Compensation Plan Information

The following table provides information on options and other equity rights outstanding and available at March 31, 2018.

Equity Compensation Plan Information

Plan Category	No. of securities to be issued upon exercise of outstanding options (a)	Weighted average exercise price of outstanding options (b)	No. of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders (1)	1,478,700	$ 0.56	456,677
Equity compensation plans not approved by security holders (2)	400,000	0.33	—
Total	1,878,700	$ 0.51	456,677

(1) Excludes warrants issued to purchasers of units consisting of stock and warrants in private placements, to a placement agent for services in connection with a private placement and to lenders in connection with debt financing. Includes nonqualified options for 299,750 shares repriced from $1.64, $1.42 and $1.65 per share to $0.33 per share, the closing market price on the effective date.

(2) Relates to a special grant of nonqualified options for 400,000 shares of common stock in consideration of employment of an employee and officer. The exercise price is $0.33 per share and the vesting schedule is also 25% after one year and 1/48th of the original grant each month thereafter.

Issuer Repurchases

We did not repurchase any of our equity securities during the fiscal year ended March 31, 2018.

Recent Sales of Unregistered Securities

On March 26, 2018, we sold 43,800 shares of a new series of preferred stock, in reliance on the exemption from registering provided by Section 4(2) of the Securities Act of 1933, as amended (the “Securities Act”), 6.0% Series E Senior Convertible Voting Perpetual Preferred Stock, and entered into a related Investor Rights Agreement with the purchases. For description of the terms of the Series E Shares and of the Investor Rights Agreement, see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 19, Preferred Stock and Warrants.

On March 26, 2018, we issued 150,000 shares of our common stock to Partners for Growth V, L.P. (“PFG”) in exchange for PFG’s agreement to eliminate the “put” feature of certain warrants that we had previously issued. We relied on the exemption afforded by Section 4(2) of the Securities Act for this issuance. For a description of this transaction, see Item 8, Financial Statements and Supplementary Date, Note 8, Term Loans, Revolving Loan and Warrants.

On March 20, 2018, in consideration of his agreement to join us an executive officer and employee, we granted Lutz P. Henckels, a director and our acting chief financial officer, an option to purchase 400,000 shares of common stock at the price of $0.33 per share based on reliance on the exemption afforded by Section 4(2) of the Securities Act. One fourth of the option vests on the first anniversary of the grant date and 1/48 of the option vests on each of the 36 months thereafter.

ITEM 6. SELECTED FINANCIAL DATA

Pursuant to Item 301(c) of Regulation S-K, the Company, as a smaller reporting company, is not required to provide the information required by this item.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITIONS AND RESULTS OF OPERATIONS

Overview and Refocusing of Giga-tronics

We produce YIG (Yttrium, Iron, Garnet) tuned oscillators, RADAR filters, and microwave synthesizers for use in military defense applications. We also produce sophisticated test and measurement equipment primarily used in electronic warfare test & emulation applications. We have two reporting segments: Microsource and the Giga-tronics Division.

Microsource primarily develops and manufactures YIG RADAR filters used in fighter jet aircraft for two prime contractors. These YIG RADAR filters are typically delivered pursuant to contracts covering multiple interim and or fiscal year periods and often include non-recurring engineering services for the design or redesign of such products prior to quantity production orders and deliveries thereof.

The Giga-tronics Division designs, manufactures and markets a family of modular test products for use primarily in the electronic warfare (EW) segment of the defense electronics market. These modular test products represent critical building blocks in the construction of test and simulation systems used to validate the performance of RADAR & EW equipment. Giga-tronics Division customers include major prime defense contractors, the armed services (primarily in the U.S) and research institutes. This product platform for RADAR & EW test & simulation applications (formerly referred to as "Hydra") has been the Company's principal new product development initiative since 2011 within the test & measurement equipment marketplace, replacing its broad product line of general purpose benchtop test & measurement products used for the design, production, repair and maintenance of products in the aerospace and telecommunications equipment marketplace. The substantial majority of these legacy product lines which the Company produced over the previous 35 years were sold by the Company between 2013 and 2016 because of lack of growth and poor growth margins. For example, we sold our SCPM product line to Teradyne in 2013; in December 2015, we sold our Power Meters and Amplifiers to Spanawave Corporation; and in June 2016, we sold our Switch product line to Astronics (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines). The Company believes the EW test and simulation product market possesses greater long-term opportunities for revenue growth and improved gross margins compared to the general purpose test & measurement equipment marketplace.

The recent sales of our legacy general-purpose test & measurement product lines and focus on our Microsource products and our EW test & emulation product platform has allowed us to significantly reduce our headcount and operating expenses during fiscal years 2018 and 2017. For example, our operating expenses for fiscal 2018 were 15% lower as compared to fiscal year 2017 and 30% lower as compared to fiscal year 2016.

The Company believes that customer spending for EW systems, including test and emulation, will grow in future years due to more complex RADAR signals and foreign investment in new technology which will require customers to have greater access to more sophisticated test and emulation equipment

Although the Company believes its RADAR & EW test products have the potential to significantly grow our sales, we have experienced significant delays in developing, manufacturing, and receiving orders for these products. These EW platform products are the most technically complex and advanced products 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 our previous general-purpose test & measurement products, and we have experienced longer than anticipated procurement cycles in the electronic warfare market it services. The delays in the development, refinement and manufacturing of the EW platform products, along with the longer than anticipated procurement cycles, have contributed to the significant operating losses in fiscal years 2018 and 2017. Through March 31, 2018, the Company has delivered its new Radar & EW test products to multiple customers resulting in approximately $10 million in cumulative revenue. Additionally, the Company has recently restructured and refocused its sales force towards selling complete test solutions to defense agencies and prime contractors as opposed to component selling. To bring the EW product platform 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. The Company may also be required to further reduce expenses if EW product platform sales goals are not achieved and thereby restructure its operations to rely solely on its more profitable Microsource MIC component business segment to generate profits and cash from operating activities. As part of such a restructuring, management believes the MIC components which the Company developed for the RADAR & EW test products could be a source of growth for the Microsource business segment.

The Company also anticipates growth in its Microsource RADAR filter business because of its strong order backlog as of March 31, 2018 and the potential for significant additional future orders for such products and related services.

Significant Orders

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

Microsource

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

In the first quarter of fiscal 2017, Microsource received a $4.5 million order for a YIG RADAR filter which we have been manufacturing for a fighter jet platform since fiscal 2014. We shipped approximately $4.1 million of this order in fiscal 2017 and shipped the remainder in the first quarter of fiscal 2018.

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

In September 2017, Microsource received a $4.8 million order for continuing the YIG RADAR filter for a fighter jet platform. The Company began initial shipments of these filters in the fourth quarter of fiscal 2018 and expects to ship the bulk of the order over the succeeding 9 to 12 month period.

In February 2018, Microsource received a $1.6 million YIG RADAR filter order from one of our customers. We expect to start shipping this order in the second quarter of fiscal 2019.

Giga-tronics Division

In June 2016, the Giga-tronics Division received a $3.3 million order from the United States Navy for our Real-Time Threat Emulation System (TEmS) which is a combination of the ASGA hardware platform, along with software developed and licensed to the Company from a major aerospace and defense company. The complete order included ASGA blades, along with engineering services to integrate the Real-Time TEmS product with additional third-party hardware and software for the customer. We fulfilled the order during the fourth quarter of the fiscal 2017. 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 second quarter of fiscal 2017.

In July 2017, the Giga-tronics Division received a follow on $1.7 million order from the United States Navy for our TEmS product. We fulfilled this order during the third quarter of fiscal 2018.

Results of Operations

New orders by reporting segment are as follows for the fiscal years ended:

New Orders				% change	
				2018	**2017**
(Dollars in thousands)	**2018**	**2017**	**2016**	**vs.**	**vs.**
				2017	**2016**
ASGA ("Hydra")	$1,813	$4,803	$2,506	(62)%	92 %
Legacy Product	238	2,724	7,182	(91)%	(62)%
Giga-tronics Division	$2,051	$7,527	$9,688	(73)%	(22)%
Microsource	7,550	7,567	13,739	(0.2)%	(45)%
Total	$9,601	$15,094	$23,427	(36)%	(36)%

Total new orders received in fiscal 2018 were $9.6 million which was $5.5 million or 36% lower than the $15.1 million received in fiscal 2017. The decrease was primarily the result of lower Giga-tronics Division product orders ($5.5 million or 73%) due mainly to the Company's recent divestures of legacy test & measurement product lines (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines) and a decrease in ASGA product orders of $3.0 million due to a longer than anticipated sales cycle.

New orders received in fiscal 2017 decreased by $8.3 million or 36% from fiscal 2016. The Giga-tronics Division orders decreased by $2.2 million or 22% primarily due to the decreased orders for the legacy and switch products which the Company no longer manufactures. The Microsource business unit saw a $6.2 million or 45% decrease in fiscal 2017 primarily due to the impact of a large, multi-year $10.0 million YIG initial production order (in which scheduled product deliveries are through 2020) and a $3.0 million ongoing production order, both received in fiscal 2016, compared to a smaller $4.5 million order for YIG RADAR filters (in which scheduled deliveries covered a shorter period) and a related $1.9 million order for non-recurring engineering services received in fiscal 2017.

The following table shows order backlog and related information at fiscal year-end:

Backlog	% change	
	2018	**2017**
	vs.	**vs.**

(Dollars in thousands)	**2018**	**2017**	**2016**	**2017**	**2016**
ASGA (“Hydra”)	$20	$562	$1,003	(96)%	(44)%
Legacy Products	57	201	2,277	(72)%	(91)%
Giga-tronics Division	77	763	3,280	(90)%	(77)%
Microsource	11,088	10,601	11,280	4.6 %	(6)%
Backlog of unfilled orders	$11,165	$11,364	$14,560	(1.8)%	(22)%
ASGA (“Hydra”)	20	562	1,003	(96)%	(44)%
Legacy Products	57	201	2,277	(72)%	(91)%
Giga-tronics Division	77	763	3,280	(90)%	(77)%
Microsource	7,342	4,917	2,704	49 %	82 %
Backlog of unfilled orders shippable within one year	$7,419	$5,680	$5,984	31 %	(5)%
ASGA (“Hydra”)	—	—	—	—	—
Legacy Products	—	—	—	—	—
Giga-tronics Division	—	—	—		
Microsource	3,746	5,684	8,576	(34)%	(34)%
Backlog of unfilled orders shippable after one year	$3,746	$5,684	$8,576	(34)%	(34)%

Backlog at the end of fiscal 2018 decreased by $199,000 or 1.8% compared to the end of fiscal 2017. The decrease in backlog was primarily due to a longer than anticipated sales cycle for ASGA products for the Giga-tronics division offset by an increase in YIG RADAR filter products for Microsource.

Backlog at the end of fiscal 2017 decreased $3.2 million or 22% compared to the end of fiscal 2016. The decrease in backlog was primarily due to the completion of the NRE order for the Microsource reporting segment as well as the fulfillment of ASGA orders for the Giga-tronics division. Backlog also decreased due to the fulfillment of the legacy and switch product lines as the Company sold these products lines in fiscal 2017.

The allocation of net sales by reporting segment was as follows for the fiscal years shown:

Allocation of Net Sales				% change	
				2018 vs. 2017	**2017 vs. 2016**
(Dollars in thousands)	**2018**	**2017**	**2016**		
ASGA ("Hydra") Sales	$2,205	$5,286	$1,783	(58)%	197 %
Legacy Product Sale	532	2,735	6,896	(81)%	(60)%
Giga-tronics Division	$2,737	$8,021	$8,679	(66)%	(8)%
Microsource	7,063	8,246	5,917	(14)%	39 %
Total	$9,800	$16,267	$14,596	(40)%	11 %

Net sales for the fiscal year ended March 31, 2018 were $9.8 million, a decrease of 40%, compared to $16.3 million for the fiscal year ended March 26, 2017. The majority of the sales decrease in fiscal 2018 was attributable to the Giga-tronics Division which was lower by $5.3 million or 66% primarily due to a $3.1 million or 58% decrease in ASGA product sales due to longer than anticipated sales cycles and in part, by the Company's reduced focus on selling complete EW test solutions in fiscal 2018, and a $2.2 million or 81% decrease in legacy product sales due to the Company's recent legacy product line divestitures (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines). Microsource sales decreased in fiscal 2018 by $1.2 million or 14% compared to fiscal 2017 due to lower scheduled YIG RADAR filter shipments in fiscal 2018 and the completion of certain related nonrecurring engineering (NRE) services in fiscal 2017.

Net sales for fiscal 2017 were $16.3 million, an increase of $1.7 million or 11% compared to $14.6 million in fiscal 2016. The majority of the sales increase in fiscal 2017 was attributable to Microsource due to an increase in scheduled YIG RADAR filter shipments in fiscal 2017 and the completion of certain related NRE services in fiscal 2017. Giga-tronics Division sales decreased $658,000 or 8% in fiscal 2017 compared to fiscal 2016 which was comprised of a $4.2 million or 60% decrease in legacy product sales due to recent product line divestitures (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines) which was substantially offset by a $3.5 million increase in ASGA system shipments due mainly to the orders from the United States Navy in fiscal 2017.

The allocation of gross profit by reporting segment was as follows for the fiscal years shown:

Gross Profit				% change	
				2018 vs. 2017	**2017 vs. 2016**
(Dollars in thousands)	**2018**	**2017**	**2016**		

Giga-tronics Division	$(12)	$1,512	$2,360	(101)%	(36)%
Microsource	2,748	3,039	2,261	(10)%	34 %
Total	$2,736	$4,551	$4,621	(40)%	(2)%

Overall gross profit decreased in fiscal 2018 to $2.7 million from $4.6 million for fiscal 2017. Gross profit in fiscal 2018 was negatively impacted by the higher cost of ASGA product line sales in fiscal 2018 compared to fiscal 2017 due to the costs related to rework, and refinement of features, the adverse impact of fixed manufacturing overhead upon lower production volume in fiscal 2018 and the increase in non-cash charges associated with the impact of a change in estimate of capitalized software development costs and amortizing the remaining cost thereof during fiscal 2018.

Overall gross profit for fiscal 2017 remained relatively flat with fiscal 2016. The Giga-tronics Division gross profit was negatively impacted by inventory parts which were transferred to Astronics and Spanawave at cost, non-cash charges totaling approximately $477,000 associated with the amortization of capitalized software costs as the Company started shipping its ASG TEmS units in fiscal 2017 and unabsorbed factory overhead variances. The increase in Microsource gross profit was primarily due to the increased deliveries of YIG RADAR filters during fiscal 2017 compared fiscal 2016.

Operating expenses were as follows for the fiscal years shown:

Operating Expenses				% change	
				2018	**2017**
(Dollars in thousands)	**2018**	**2017**	**2016**	**vs.**	**vs.**
				2017	**2016**
Engineering	$1,794	$2,254	$2,806	(20)%	(20)%
Selling, general and administrative	4,076	4,641	5,522	(12)%	(16)%
Total	$5,870	$6,895	$8,328	(15)%	(17)%

Operating expenses decreased 15% or $1.0 million in fiscal 2018 compared to fiscal 2017. Engineering expenses decreased $460,000 during fiscal 2018 when compared to fiscal 2017 primarily due to a decrease in personnel related expenses due to lower headcount. Engineering expenses were also lower in fiscal 2018 due to certain engineers having been assigned to a Microsource nonrecurring engineering project that is recorded as cost of sales. Selling, general and administrative expenses decreased 12% or $565,000 primarily due to a decrease in headcount and personnel related expenses, a decrease in outside services related to management consulting, a decrease in bonuses and commissions as a result of the sale of the legacy products to Astronics and Spanawave, and lower lease and facilities costs as a result of the Company’s relocation to a smaller facility in Dublin, California during May 2017.

Operating expenses decreased 17%, or $1.4 million in fiscal 2017 compared to fiscal 2016. Engineering expenses decreased $552,000 primarily due to lower personnel related expenses as a result of the sale of the Switch and Legacy product lines as well as assigning certain engineers to a Microsource nonrecurring engineering project that is recorded as cost of sales. Selling, general and administrative expenses decreased $881,000 primarily due to a decrease associated with non-cash stock based compensation (primarily in connection with director compensation), a decrease in outside services related to management consulting, and a decrease in bonuses and commissions as a result of the sale of the legacy products to Astronics and Spanawave.

Derivative Liability

On March 26, 2018, the Company and Partners For Growth (“PFG”) entered into a modification agreement providing for the restructuring of certain terms associated with a term loan of $1.5 million made on April 28, 2017 which also included modifying certain terms of outstanding warrants issued in connection with a previous loan made by PFG in 2014. As part of this loan modification, the parties agreed to eliminate a $217,000 cash “put” provision in the warrants in exchange for issuing 150,000 shares of the Company’s common stock. Prior to the amendment to remove the put provision, the warrants were liability classified, and with market-to-market adjustments through earnings for each reporting period. The Company estimated the warrants’ fair value at $155,000, prior to the loan modification. The modification of the warrants, to eliminate the put provision, resulted in a reclassification of the warrant from liability to equity. The warrants' value using the Black-Scholes option-pricing model resulted in a revaluation of the warrants of zero value on March 26, 2018. The change in fair value of $155,000 was recorded as a gain related to revaluation of the derivative liability (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 8, Term Loans, Revolving Line of Credit and Warrants).

In fiscal 2017, we recorded a gain of $131,000 related to revaluation of the derivative liability associated with the PFG warrants issued in 2014.

Gain on Sale of Product Lines

In October 2017, the Company recognized a gain of $324,000 net of $51,000 of associated expenses related to the sale of its legacy products to Spanawave. The Company received $375,000 from Spanawave during the first quarter of fiscal 2017 but could not recognize the gain on the sale of the legacy asset as a result of a dispute with Spanawave (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines). On October 16, 2017, the Company reached a settlement agreement with Spanawave and the net gain from the asset sale is now included in the accompanying consolidated financial statements for 2018.

In fiscal 2017, the Company recognized a net gain of $802,000 associated with the sale of its Switch product line to Astronics (see Part II-Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements, Note 10, Sale of Product Lines).

Net Interest Expense

Net interest expense in fiscal 2018 was $461,000 an increase of $328,000 over fiscal 2017. The increased net interest expense in fiscal 2018 was primarily due to the additional interest as a result of non-compliance with certain covenants on the PFG loan (see Note 8, Term Loans, Revolving Line of Credit and Warrants) and higher loan balances in fiscal 2018.

Net interest expense in fiscal 2017 was $133,000 a decrease of $250,000 over fiscal 2016. The decreased net interest expense in fiscal 2017 was primarily due to the lower principal balances on the PFG loan during fiscal 2017.

Net Loss

Net loss was $3.1 million in fiscal 2018, compared to a net loss of $1.5 million in fiscal 2017. The higher net loss recorded in fiscal 2018 was primarily due to decreased revenues as well as increases in cost of sales due to the impact of the change in estimate related to capitalized software development costs and interest expense discussed above. Net loss was also higher due to an $802,000 gain associated with the sale of the Switch product line in the first quarter of fiscal 2017.

Net loss was $1.5 million in fiscal 2017, compared to a net loss of $4.1 million in fiscal 2016. The lower net loss recorded in fiscal 2017 was primarily due to increased revenues as well as lower operating expenses discussed above. Net loss was also lower due to the $802,000 gain associated with the sale of the Switch product line in the first quarter of fiscal 2017.

Net Inventories

Inventories consisted of the following:

Net Inventories	% change