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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 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 Number: 0-12853

ELECTRO SCIENTIFIC INDUSTRIES, INC.

Oregon	**93-0370304**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
13900 N.W. Science Park Drive, Portland, Oregon	**97229**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: 503-641-4141

Registrant's web address: www.esi.com

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, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☒	Non-accelerated filer	☐
Smaller reporting company	☐	Emerging growth company	☐		

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

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

The number of shares outstanding of the Registrant's Common Stock as of August 3, 2018 was 34,137,898 shares.

ELECTRO SCIENTIFIC INDUSTRIES, INC. AND SUBSIDIARIES
2019 FORM 10-Q QUARTERLY REPORT
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ELECTRO SCIENTIFIC INDUSTRIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

(In thousands)	Jun 30, 2018	Mar 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 74,854	$ 76,792
Short-term investments	55,026	47,121
Trade receivables, net of allowances of $190 and $832	80,525	63,044
Inventories, net	94,265	87,686
Shipped systems pending acceptance	1,937	4,734
Other current assets	5,041	5,493
Total current assets	311,648	284,870
Non-current assets:		
Property, plant and equipment (PP&E), net of accumulated depreciation of $84,421 and $83,159	22,870	22,025
Deferred income taxes, net	43,637	43,518
Goodwill	2,626	2,626
Acquired intangible assets, net of accumulated amortization of $23,123 and $22,766	4,812	5,169
Other assets	11,110	14,780
Total assets	$ 396,703	$ 372,988
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 32,616	$ 37,354
Accrued liabilities	32,193	34,533
Deferred revenue	9,026	9,818
Total current liabilities	73,835	81,705
Non-current liabilities:		
Long-term debt	12,659	12,766
Income taxes payable	2,345	1,901
Other liabilities	10,614	10,258
Total liabilities	99,453	106,630
Commitments and contingencies (See Note 11: Commitments and Contingencies)		
Shareholders' equity:		
Preferred stock, without par value; 1,000 shares authorized; no shares issued	—	—
Common stock, without par value; 100,000 shares authorized; 34,525 and 34,387 issued and outstanding	211,766	210,995
Retained earnings	86,000	54,816
Accumulated other comprehensive (loss) income	(516)	547
Total shareholders' equity	297,250	266,358
Total liabilities and shareholders' equity	$ 396,703	$ 372,988

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

ELECTRO SCIENTIFIC INDUSTRIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	Fiscal quarter ended	
(In thousands, except per share amounts)	Jun 30, 2018	Jul 1, 2017
Net sales:		
Systems	$ 96,857	$ 62,093
Services	13,767	10,591
Total net sales	110,624	72,684
Cost of sales:		
Systems	50,094	41,426
Services	7,332	4,838
Total cost of sales	57,426	46,264
Gross profit	53,198	26,420
Operating expenses:		
Selling, general and administrative	10,130	12,808
Research, development and engineering	10,059	8,934
Restructuring costs	—	1,211
Total operating expenses	20,189	22,953
Operating income	33,009	3,467
Non-operating income (expense):		
Interest and other income (expense), net	452	(184)
Total non-operating income (expense)	452	(184)
Income before income taxes	33,461	3,283
Provision for income taxes	2,318	381
Net income	$ 31,143	$ 2,902
Net income per share - basic	$ 0.90	$ 0.09
Net income per share - diluted	$ 0.87	$ 0.08
Weighted average number of shares - basic	34,459	33,432
Weighted average number of shares - diluted	35,924	34,321

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

ELECTRO SCIENTIFIC INDUSTRIES, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

	Fiscal quarter ended	
(In thousands)	**Jun 30, 2018**	**Jul 1, 2017**
Net income	$ 31,143	$ 2,902
Other comprehensive (loss) income:		
Foreign currency translation adjustment, net of taxes of $144 and $0	(1,084)	208
Other comprehensive income related to benefit plan obligation, net of taxes of $(2) and $(2)	4	4
Net unrealized loss on available-for-sale securities, net of taxes of $(5) and $0	17	(1)
Other comprehensive (loss) income:	(1,063)	211
Comprehensive income	$ 30,080	$ 3,113

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

ELECTRO SCIENTIFIC INDUSTRIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

(In thousands)	Fiscal quarter ended Jun 30, 2018	Jul 1, 2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Net income	$ 31,143	$ 2,902
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization, including acquired intangible amortization	1,885	2,145
Share-based compensation expense	1,499	1,463
(Recovery of) provision for doubtful accounts	(219)	297
Decrease in deferred income taxes	(41)	(73)
Impairment of inventory	—	6,354
Other adjustments	501	—
Changes in operating accounts, net of acquisitions:		
Increase in trade receivables, net	(18,181)	(8,582)
Increase in inventories	(6,479)	(3,564)
(Decrease) increase in accounts payable and accrued liabilities	(3,659)	6,448
(Decrease) increase in deferred revenue	(739)	122
Decrease (increase) in shipped systems pending acceptance	2,797	(944)
Decrease in other current assets	1,262	863
Net cash provided by operating activities	9,769	7,431
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of investments	(30,260)	(9,239)
Proceeds from sales and maturities of investments	22,090	4,949
Purchase of property, plant and equipment	(2,694)	(448)
Proceeds from sale of property, plant and equipment	4	33
Decrease (increase) in other assets	944	(84)
Net cash used in investing activities	(9,916)	(4,789)
CASH FLOWS FROM FINANCING ACTIVITIES		
Repayment of debt	(110)	(105)
Payment of withholding taxes on stock-based compensation	(788)	(739)
Proceeds from issuance of common stock	58	338
Net cash used in financing activities	(840)	(506)
Effect of exchange rate changes on cash	(947)	135
NET CHANGE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	(1,934)	2,271
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT BEGINNING OF PERIOD	77,885	57,732
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH AT END OF PERIOD	$ 75,951	$ 60,003
SUPPLEMENTAL CASH FLOW INFORMATION		
Cash paid for interest	$ (161)	$ (166)
Cash paid for income taxes	(617)	(349)
Income tax refunds received	—	38
Net (decrease) increase in PP&E and other assets related to transfers from inventory	(673)	(1,301)
Non-cash additions to PP&E	1,223	61

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

ELECTRO SCIENTIFIC INDUSTRIES, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

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1. Basis of Presentation

These unaudited interim condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with United States generally accepted accounting principles (U.S. GAAP) have been condensed or omitted in these interim statements. Accordingly, these condensed consolidated financial statements should be read in conjunction with the financial statements and notes included in the Annual Report of Electro Scientific Industries, Inc. (the Company) on Form 10-K for its fiscal year ended March 31, 2018. These interim statements include all adjustments (consisting of only normal recurring adjustments and accruals) necessary for a fair presentation of results for the interim periods presented. The results for interim periods are not necessarily indicative of the results of operations for the entire year.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of commitments and contingencies at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results may differ from those estimates.

Management believes that the estimates used are reasonable. Estimates made by management include: revenue recognition; inventory valuation; valuation of investments; accrued restructuring costs; share-based compensation; income taxes, including the valuation of deferred tax assets; valuation of long-lived assets, including intangibles; valuation of goodwill and acquisition accounting.

All references to years or quarters relate to fiscal years or fiscal quarters unless otherwise noted. The fiscal quarters ended June 30, 2018 and July 1, 2017 each consisted of 13-week periods.

Restricted Cash

Cash and cash equivalents that are restricted as to withdrawal or use under the terms of certain contractual agreements are recorded in Other current assets on our balance sheet. The following table provides a summary of the Company's cash, cash equivalents, and restricted cash position:

(In thousands)	Jun 30, 2018	Mar 31, 2018	Jul 1, 2017
Cash and cash equivalents	$ 74,854	$ 76,792	$ 58,909
Restricted cash included in other current assets	1,097	—	—
Restricted cash included in other long-term assets	—	1,093	1,094
Total cash, cash equivalents and restricted cash	$ 75,951	$ 77,885	$ 60,003

Changes to Significant Accounting Policies

The only significant changes to the Company's significant accounting policies from those presented in Note 2: Summary of Significant Accounting Policies to the consolidated financial statements included in the Company's Annual Report on Form 10-K for its fiscal year ended March 31, 2018 were due to the adoption of Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 606, "*Revenue from Contracts with Customers*". Changes to associated accounting policies are summarized below.

Accounts Receivable and Allowance for Doubtful Accounts

Trade receivables are stated at the amount the Company has an unconditional right to bill and generally do not bear interest, net of any estimated allowance for doubtful accounts. The Company establishes and monitors the collectability of amounts due from customers and sets appropriate credit limits based on an evaluation of the financial condition of customers and other relevant factors, including but not limited to obtaining credit ratings and customers' financial statements. With certain customers, letters of credit are obtained to mitigate credit risk. Subsequent to entering into a contract, if it is determined or expected that a customer will be unable to fully meet its financial obligation, such as in the case of a bankruptcy filing or other material events impacting its business, a specific allowance for bad debt is recorded to reduce the related receivable to the amount expected to be recovered. Bad debts are historically insignificant for the Company, and allowances for doubtful accounts are established based on actual experience.

Unbilled receivables arise when the Company has performed services and earned amounts related to a customer contract, but has not yet billed those amounts. Unbilled receivables were $1.2 million at Jun 30, 2018 and are included as a component of Trade receivables, net of allowances balance on the Condensed Consolidated Balance Sheets.

Shipped Systems Pending Acceptance

Shipped systems pending acceptance represent deferred costs of sales related to systems shipped to the customer, but where revenue has been deferred pending the customer's final acceptance. These contracts also generally result in a deferred revenue contract liability. Once the criteria for revenue recognition have been met for these contracts, the deferred costs are recognized as a cost of sales together with the associated revenue.

Contract Assets and Liabilities Arising from Contracts with Customers

Customer deposits (see Note 6: Accrued Liabilities) are a contract liability representing amounts collected from customers prior to any performance of the contract on the part of the Company. Customer deposits are included as a component of Accrued liabilities on our balance sheet.

Deferred revenues (see Note 8: Deferred Revenue) are a contract liability representing the amount of billings for contracts where the Company has an unconditional right to consideration, in excess of revenues recognized and amounts received. The value of customer deposits and deferred revenues will increase or decrease based on the timing of invoices and recognition of revenue.

Revenue Recognition

The Company recognizes revenue according to the five steps required by ASC 606; (1) identifying the contract with a customer, (2) identifying the performance obligations in the contract, (3) determining the transaction price, (4) allocating the transaction price to performance obligations in the contract, and (5) recognizing revenue when (or as) the Company satisfies a performance obligation.

The Company's revenue streams primarily come from two sources, systems sales and service sales.

Systems Revenues: The Company sells high-value capital equipment to customers and these system sales generally include the base system, supporting components (such as input devices and related tooling), and a standard warranty. The performance obligations related to system sales are generally satisfied at a point-in-time upon transfer of control. Transfer of control is determined with consideration of commercial and billing terms, physical movement, transfer of the risks and rewards of ownership, transfer of title, and customer acceptance or a track record of acceptance and any other relevant factors. If the Company has a demonstrable track record of acceptance for a system sold, the Company deems transfer of control to have occurred in accordance with commercial terms, even if customer acceptance has not been received, as the acceptance is a formality and is not considered substantive. Payment on system sales is generally due within 90 days of shipment or less. Standard warranties on systems are assurance-type warranties and are recorded as a liability at the time of shipment (see Note 7: Product Warranty).

Service Revenues: The Company offers additional services directly associated with the capital equipment it sells. These are generally in two major categories: (1) service contracts, which are generally recognized over time, and (2) point-in-time services. Service contracts recognized over time include extended service contracts (labor and materials), consumables and materials contracts, and labor-only contracts. Most service contracts recognized over time have a stated contract period and revenue is recognized over that period. Certain contracts may be consumption-based, in which case the revenue is recognized ratably in relation to the associated consumption. Service contracts are generally billed and are due in advance of the service period. Point-in-time services include spare parts sales, labor, trouble-shooting services, and similar items, and these are recognized at a point in time upon shipment or transfer of control, and are generally billed concurrent with recognition. Standard warranties on parts are assurance-type warranties and are recorded as a liability at the time of shipment (see Note 7: Product Warranty).

The Company must make various judgments and estimates that vary in level of significance and subjectivity when recognizing revenue. The primary judgments include an evaluation of any credit risk, as described in our policy on accounts receivable, the identification of variable consideration in the contract, the determination of performance obligations in a contract, the determination of standalone selling prices for performance obligations, and the determination of when performance obligations are fulfilled.

Generally, our revenue streams are subject to little variable consideration as we have minimal historical or expected future returns or other adjustments to selling price. Accordingly, standalone selling price is used to determine how to allocate the overall transaction price for a contract. Standalone selling price is based on historical transactions where available and relevant, and when not available, on a method that maximizes the use of observable inputs, which is generally a cost plus reasonable margin approach. Performance obligations are typically documented and evident from our contracts with customers and the associated triggers for transfer of control are generally objective as they are based on attributes such as shipment, customer acceptance, and other similar criteria. From time to time, however, the Company must exercise judgment to determine if transfer of control has occurred based on criteria such as whether a track record of acceptance has been established and acceptance terms are substantive, whether the risks and rewards of ownership have been transferred, or whether there are other facts and circumstances that could impact the timing and amount of revenue recognized. These judgmental determinations are made based on a weighting of all available evidence.

Revenues associated with sales to customers under local contracts in Japan are typically recognized upon title transfer, which generally occurs upon customer acceptance.

Revenues are recorded net of taxes collected from customers, which are subsequently submitted to governmental authorities.

Practical Expedients Related to Revenue Recognition

For contracts with customers which have a duration of less than 12 months, the Company has elected the practical expedient to recognize commission costs when incurred, as the amortization period would generally be one year or less. Commissions associated with contracts with a duration over 12 months are immaterial. Commission costs are recorded as a component of Selling, general and administrative expenses.

As the Company's contracts with customers generally have a duration of less than 12 months, and for certain contracts with a duration over 12 months, a right to payment exists as services are performed, the Company has elected to not disclose the remaining performance obligations for those contracts. For contracts where the Company has a right to consideration from a customer in an amount that corresponds directly to the services delivered to-date and for which the Company has a right to invoice, the Company recognizes revenue for the services rendered.

The Company's contracts are generally not paid more than 12 months in advance or more than 12 months after delivery and therefore do not typically have a significant financing element. Accordingly, the Company has elected to not assess whether a contract has a significant financing component in performing the revenue assessment.

For contracts where control transfers prior to delivery, the Company accounts for shipping and handling costs as a fulfillment cost and not as a performance obligation for revenue recognition purposes.

2. Recent Accounting Pronouncements

Adopted accounting pronouncements:

In February 2018, the FASB issued ASU 2018-02, *Income Statement—Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, in response the enactment of the Tax Cuts and Jobs Act and the subsequent questions and concerns of stakeholders regarding how to apply the changes to the income tax effects of deferred tax assets and liabilities sitting in accumulated other comprehensive income. The guidance eliminates the resulting stranded tax effects and improves the usefulness of the information reported to users of the financial statements. ASU 2018-02 was effective for the Company as of April 1, 2018, the beginning of fiscal 2019. Adopting ASU 2018-02 has not had a material effect on the Company's inventory valuation.

In May 2017, the FASB issued ASU 2017-09, *Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting*, which amends the scope of modification accounting surrounding share-based payment arrangements as issued in ASU 2016-09 by providing guidance on the various types of changes which would trigger modification accounting for share-based payment awards, specifically an entity would not apply modification accounting under ASC 718 if the fair value, vesting conditions, and classification of the awards are the same immediately before and after the modification. ASU 2017-09 was effective for the Company as of April 1, 2018, the beginning of fiscal 2019. The adoption of ASU 2017-09 has not had a material effect on the Company's financial position, results of operations or cash flows, nor does the Company expect the ASU to have a material effect in the future.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*, to improve and simplify the accounting for the income tax consequences of intra-entity transfers of assets other than inventory, requiring companies to recognize income tax consequences upon the transfer of the asset to a third party. ASU 2017-09 was effective for the Company as of April 1, 2018, the beginning of fiscal 2019. The adoption of ASU 2016-16 has not had a material effect on the Company's financial position, results of operations or cash flows.

In March 2017, the FASB issued ASU 2017-07, *Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, which requires companies to disaggregate the current-service-cost component from other components of net benefit cost and provides specific guidance for presentation in the income statement. ASU 2017-07 was effective for the Company as of April 1, 2018, the beginning of fiscal 2019. The adoption of ASU 2017-07 has not had a material effect on the Company's financial position, results of operations or cash flows.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers: Topic 606 (ASU 2014-09)*, to supersede nearly all existing revenue recognition guidance under GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that the Company expects to be entitled to for those goods or services. The FASB has continued to issue ASU topics to further clarify ASU 2014-09. These have included ASU 2016-08, ASU 2016-10, ASU 2016-12, and ASU 2016-20. The new standards were effective for the Company as of April 1, 2018, the beginning of fiscal 2019.

The Company elected the modified retrospective approach as its transition method. The new standard resulted in an immaterial change to revenue recognition related to system sales and service contracts, the Company's major revenue streams. The cumulative effect of the changes made to our consolidated balance sheet as of April 1, 2018 related to the adoption of ASC 606 for contracts not completed at the date of adoption were as follows:

(In thousands)	Mar 31, 2018	Adjustments	Apr 1, 2018
ASSETS			
Non-current assets:			
Deferred income taxes, net	$ 43,518	$ (12)	$ 43,506
Total assets	$ 372,988	$ (12)	$ 372,976
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities:			
Deferred revenue	$ 9,818	$ (52)	$ 9,766
Total current liabilities	81,705	(52)	81,653
Total liabilities	106,630	(52)	106,578
Shareholders’ equity:			
Retained earnings	54,816	40	54,856
Total shareholders’ equity	266,358	40	266,398
Total liabilities and shareholders’ equity	$ 372,988	$ (12)	$ 372,976

The adoption of ASC 606 did not have a material impact on the Company's financial position, results of operations or cash flows for the first quarter of 2019. Additionally, we do not expect the adoption of the standard to have a material impact to our financial position on an ongoing basis.

Recently issued accounting pronouncements not yet adopted

In February 2018, the FASB issued ASU 2018-03, *Technical Corrections and Improvements to Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*, which made six targeted amendments to ASU 2016-01, *Financial Instruments - Overall (Subtopic 825-10) Recognition and Measurement of Financial Assets and Financial Liabilities*. These amendments mostly affect the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. ASU 2018-03 would be applicable for the Company's second quarter of fiscal 2019 ending September 29, 2018. The Company does not expect the adoption of ASU 2018-03 to have a material effect on its financial position, results of operations or cash flows.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*, in order to (i) improve disclosures related to an entity's risk management activities through better transparency and understandability and (ii) simplify and reduce the complexity of hedge accounting by preparers. ASU 2017-12 is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods, which would be the Company's fiscal year ending March 28, 2020. Early adoption is permitted, including adoption in any interim period, for public business entities for reporting periods for which financial statements have not yet been issued. While the Company does not expect the adoption of ASU 2017-12 to have a material effect on its business, the Company is still evaluating any potential impact that adoption of ASU 2017-12 may have on its financial position, results of operations or cash flows.

In February 2016, the FASB issued ASU 2016-02, *Leases*. ASU 2016-02 increases transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and requires disclosing key information about leasing arrangements. The FASB has issued ASU 2018-11 to clarify ASU 2016-02 comparative reporting requirements for initial adoption. ASU 2016-02 is effective for annual periods beginning after December 15, 2018 and interim periods within those annual periods, which would be the Company's fiscal year ending March 28, 2020. The Company is still evaluating any potential impact that adoption of ASU 2016-02 may have on its financial position, results of operations or cash flows. The Company is in the preliminary scoping phase of implementation and is currently identifying the impacted leases and preparing to perform initial quantification of the potential impacts. The Company has charted a plan to develop and implement any associated business processes, as well as perform applicable accounting and reporting evaluations in advance of the effective date of the standard.

3. Fair Value Measurements

Financial Assets and Liabilities Measured at Fair Value

ASC Topic 820 establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers include the following:

- *Level 1*, defined as observable inputs such as quoted prices in active markets for identical assets or liabilities;

- *Level 2*, defined as inputs that are observable either directly or indirectly such as quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active and other inputs that can be corroborated by observable market data; and
- *Level 3*, defined as unobservable inputs for which little or no market data exists, therefore requiring an entity to develop its own assumptions.

The Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of June 30, 2018 and March 31, 2018 was as follows (in thousands):

June 30, 2018	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market securities	$ 41,055	$ —	$ —	$ 41,055
Commercial paper	—	6,991	—	6,991
Corporate Bonds	—	1,000	—	1,000
Total cash equivalents	$ 41,055	$ 7,991	$ —	$ 49,046
Short term investments - available for sale:				
U.S. treasury fund	$ 10,481	$ —	$ —	$ 10,481
Commercial paper	—	34,041	—	34,041
Corporate bonds	—	10,504	—	10,504
Total short-term investments - available for sale	$ 10,481	$ 44,545	$ —	$ 55,026
Forward purchase or sale contracts:				
Japanese Yen	$ —	$ 66	$ —	$ 66
New Taiwan Dollar	—	(57)	—	(57)
Korean Won	—	(94)	—	(94)
Euro	—	3	—	3
British Pound	—	(29)	—	(29)
Chinese Renminbi	—	(91)	—	(91)
Singapore Dollar	—	6	—	6
Total forward contracts	$ —	$ (196)	$ —	$ (196)
Deferred compensation plan assets:*				
Mutual funds and exchange traded funds	$ 2,123	$ —	$ —	$ 2,123
Money market securities	208	—	—	208
Total deferred compensation plan assets	$ 2,331	$ —	$ —	$ 2,331

March 31, 2018	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market securities	$ 41,752	$ —	$ —	$ 41,752
U.S. treasury fund	2,500	—	—	2,500
Commercial paper	—	3,498	—	3,498
Corporate bonds	—	1,999	—	1,999
Total cash equivalents	$ 44,252	$ 5,497	$ —	$ 49,749
Short term investments - available for sale:				
U.S. treasury fund	$ 10,458	$ —	$ —	$ 10,458
Commercial paper	—	25,913	—	25,913
Corporate bonds	—	10,750	—	10,750
Total short-term investments - available for sale	$ 10,458	$ 36,663	$ —	$ 47,121
Forward purchase or sale contracts:				
Japanese Yen	$ —	$ (23)	$ —	$ (23)
New Taiwan Dollar	—	3	—	3
Korean Won	—	(12)	—	(12)
Euro	—	7	—	7
British Pound	—	49	—	49
Chinese Renminbi	—	(29)	—	(29)
Singapore Dollar	—	(1)	—	(1)
Total forward contracts	$ —	$ (6)	$ —	$ (6)
Deferred compensation plan assets:*				
Mutual funds and exchange traded funds	$ 1,841	$ —	$ —	$ 1,841
Money market securities	207	—	—	207
Total deferred compensation plan assets	$ 2,048	$ —	$ —	$ 2,048

*These investments represent assets held in trust for the deferred compensation plan

For Level 1 assets, the Company utilized quoted prices in active markets for identical assets.

For Level 2 assets, exclusive of forward contracts, the Company utilized quoted prices in active markets for similar assets. For forward contracts, spot prices at June 30, 2018 and March 31, 2018 were utilized to calculate fair values.

During the first quarter of 2019 and 2018, there were no transfers between Level 1, 2 or 3 assets.

Investments

The Company's investments, including the investments classified as cash equivalents, at June 30, 2018 and March 31, 2018 were as follows (in thousands):

June 30, 2018	Cost	Unrealized Gain	Unrealized Loss	Fair Value
Available-for-sale securities (current):				
U.S. treasury fund	$ 10,489	$ —	$ (8)	$ 10,481
Commercial paper	41,032	—	—	41,032
Corporate Bonds	11,510	—	(6)	11,504
Total investments (current)	$ 63,031	$ —	$ (14)	$ 63,017
Available-for-sale securities (non-current):				
Mutual funds, exchange traded funds and money market securities*	$ 2,127	$ 204	$ —	$ 2,331
Total investments (non-current)	$ 2,127	$ 204	$ —	$ 2,331

March 31, 2018	Cost	Unrealized Gain	Unrealized Loss	Fair Value
Available-for-sale securities (current):				
U.S. treasury fund	$ 12,975	$ —	$ (17)	$ 12,958
Commercial paper	29,411	—	—	29,411
Corporate bonds	12,768	—	(19)	12,749
Total investments (current)	$ 55,154	$ —	$ (36)	$ 55,118
Available-for-sale securities (non-current):				
Mutual funds, exchange traded funds and money market securities*	$ 1,881	$ 167	$ —	$ 2,048
Total investments (non-current)	$ 1,881	$ 167	$ —	$ 2,048

*These investments represent assets held in trust for the deferred compensation plan

For purposes of determining gross realized gains and losses and reclassification out of accumulated other comprehensive income (loss), the cost of securities sold is based on specific identification. Net unrealized holding gains and losses on current available-for-sale securities included in accumulated other comprehensive income (loss) were insignificant as of June 30, 2018 and March 31, 2018.

4. Inventories

Inventories are principally valued at standard cost, which approximates the lower of cost or net realizable value on a first-in, first-out basis. Components of inventories were as follows:

(In thousands)	Jun 30, 2018	Mar 31, 2018
Raw materials and purchased parts	$ 61,694	$ 52,591
Work-in-process	18,965	18,634
Finished goods	13,606	16,461
	$ 94,265	$ 87,686

5. Other Assets

Other assets consisted of the following:

(In thousands)	Jun 30, 2018	Mar 31, 2018
Demo and leased equipment, net	$ 4,972	$ 6,746
Long term deposits and non-trade receivables	3,205	3,232
Non-current restricted cash	—	1,093
Other non-current assets	2,933	3,709
	$ 11,110	$ 14,780

Depreciation expense for demo and leased equipment totaled $0.4 million in the first quarter of 2019 and $0.1 million in the first quarter of 2018. Of the total $5.0 million and $6.7 million of demo and leased equipment at June 30, 2018 and March 31, 2018, $1.4 million and $3.4 million were leased assets at customer sites generating revenue.

Included in Other non-current assets are long-term investments held in a trust for the deferred compensation plan and other similar items.

6. Accrued Liabilities

Accrued liabilities consisted of the following:

(In thousands)	Jun 30, 2018	Mar 31, 2018
Customer deposits	$ 8,137	$ 2,214
Payroll-related liabilities	6,621	15,879
Product warranty accrual	5,370	4,646
Purchase order commitments and receipts	4,120	2,978
Income taxes payable	2,005	1,152
Current portion, long-term debt	426	421
Other current liabilities	5,514	7,243
	$ 32,193	$ 34,533

Included in other current liabilities above are accrued amounts for value-added taxes, income taxes, freight, restructuring activities and other similar items.

7. Product Warranty

The following is a reconciliation of the changes in the aggregate product warranty accrual:

	Fiscal quarter ended	
(In thousands)	Jun 30, 2018	Jul 1, 2017
Product warranty accrual, beginning	$ 10,220	$ 5,474
Warranty charges incurred, net	(3,601)	(2,445)
Provision for warranty charges	4,906	3,509
Product warranty accrual, ending	$ 11,525	$ 6,538

Net warranty charges incurred include labor charges and costs of replacement parts for repairs under warranty. These costs are recorded net of any estimated cost recoveries resulting from either successful repair of damaged parts or from warranties offered by the Company's suppliers for defective components. The provision for warranty charges reflects the estimate of future anticipated net warranty costs to be incurred for all products under warranty at quarter end and is recorded to cost of sales. Of the total of $11.5 million and $6.5 million of product warranty accruals as of June 30, 2018 and July 1, 2017, $6.2 million and $2.3 million were non-current and were included in Other liabilities on the Condensed Consolidated Balance Sheets.

8. Deferred Revenue

Generally, revenue is recognized upon satisfaction of performance obligations, which includes fulfillment of acceptance criteria at the Company's factory and transfer of risk of loss and title. Revenue is deferred whenever title transfer is pending, risk of loss has not transferred, and/or acceptance criteria have not yet been fulfilled. Deferred revenue arises from, among other factors, sales to Japanese customers, shipments of substantially new products and shipments with custom specifications and other acceptance criteria where the Company cannot demonstrate a track record of acceptance. For sales involving multiple performance obligations, the stand-alone selling price of any undelivered performance obligation, is deferred until the performance obligations are delivered and acceptance criteria are met. Revenue related to maintenance and service contracts is deferred and recognized ratably over the duration of the contracts.

The following is a reconciliation of the changes in deferred revenue:

	Fiscal quarter ended	
(In thousands)	Jun 30, 2018	Jul 1, 2017
Deferred revenue, beginning	$ 10,514	$ 15,397
Revenue deferred	19,726	15,470
Revenue recognized	(20,994)	(15,251)
Deferred revenue, ending	$ 9,246	$ 15,616

Of the total of $9.2 million and $15.6 million of deferred revenue at June 30, 2018 and July 1, 2017, $0.2 million and $0.8 million were non-current and were included in Other liabilities on the Condensed Consolidated Balance Sheets. The amount of revenue recognized in the period that was included in the opening deferred revenue balance and opening customer deposits balance was $4.7 million and $1.2 million, respectively. Customer deposits are included as a component of Accrued liabilities on our balance sheet (see Note 6: Accrued Liabilities). The amount of revenue recognized from performance obligations satisfied in prior periods was not material.

9. Long-term Debt

On January 9, 2017, ESI Leasing, LLC (ESI Leasing), a wholly owned subsidiary of the Company, entered into a loan agreement (Loan Agreement) with First Technology Federal Credit Union (Lender). The Loan Agreement provides for a term loan from the Lender to ESI Leasing in the principal amount of $14 million (Loan). The interest rate of the Loan is fixed at 4.75% per annum, except that it may be increased if certain covenants under the Loan Agreement are not satisfied and after and during the continuation of an "Event of Default" as defined in the Loan Agreement. The Loan amortizes over a period of approximately 20 years, with the outstanding principal maturing and becoming due on January 1, 2027. ESI Leasing pays monthly principal and interest payments on the Loan totaling $1.1 million annually through the maturity of the Loan. The Company unconditionally guarantees the Loan. The Company is required to maintain certain deposits with the Lender through March 31, 2019, at which point the restriction will be removed as long as it is in compliance with certain minimum covenants.

The principal maturities for each of the next five twelve-month periods ending on June 30 are as follows:

(In thousands)	2019	2020	2021	2022	2023
Principal maturities	$ 460	$ 481	$ 506	$ 530	$ 556

Total debt outstanding on the Loan Agreement were as follows:

(In thousands)	Jun 30, 2018	Mar 31, 2018
Total debt outstanding	$ 13,085	$ 13,187
Less: Current portion, long-term debt	(426)	(421)
Long-term debt	$ 12,659	$ 12,766

Deferred debt issuance costs related to the above long-term debt as of June 30, 2018 and March 31, 2018 were $294 thousand and $302 thousand, respectively.

10. Revolving Credit Facility

The Company is party to a loan and security agreement (Credit Facility) with Silicon Valley Bank (SVB), which was initially entered into on March 20, 2015 and amended on July 12, 2016. The Credit Facility provides for a senior secured asset-based revolving facility with availability up to $30.0 million, including a $15.0 million sublimit for letters of credit. In the fourth quarter of fiscal 2017, the Company amended and extended the Credit Facility by one year. With this extension, the Credit Facility expires March 20, 2019. At June 30, 2018, the Company had no amounts outstanding under the Credit Facility, was in compliance with all covenants, and was not in default under the Credit Facility. The commitment fee on the amount of unused credit was 0.3 percent. As amended, the Credit Facility allows for a greater level of EBITDA losses, but reduces the level of permitted acquisitions and purchases of capital equipment. If the Company fails to meet the covenants in its Credit Facility or its lenders fail to fund, access to the facility may be limited or the facility may become unavailable altogether.

11. Commitments and Contingencies

The Company mitigates credit risk by transacting with highly rated counterparties for foreign exchange contracts, letters of credit and other transactions where counterparty risk is a factor. The Company has evaluated the non-performance risks associated with the Company's lenders and other parties and believes them to be insignificant.

From time to time the Company may be party to litigation arising in the normal course of business. Currently, the Company is not party to any litigation it believes would have a material adverse effect on the Company's financial position, results of operations or cash flows.

12. Shareholders' Equity

Share Repurchase Program

In December 2011, the Board of Directors authorized a share repurchase program totaling $20.0 million to acquire shares of the Company's outstanding common stock. The repurchases are to be made at management's discretion in the open market or in privately negotiated transactions in compliance with applicable securities laws and other legal requirements and are subject to market conditions, acceptable share price and other factors. The Company did not repurchase any shares during fiscal 2018 or the first quarter of 2019. There is no expiration date for the repurchase program.

13. Accumulated Other Comprehensive Income (Loss)

The following is a reconciliation of the changes in accumulated other comprehensive income (AOCI):

	Foreign currency translation adjustment	Accumulated other comprehensive income related to benefit plan obligation	Net unrealized loss on available-for-sale securities	Total
Balance at March 31, 2018	$ 590	$ (16)	$ (27)	$ 547
Other comprehensive (loss) income before reclassifications and taxes	(1,228)	6	22	(1,200)
Amounts reclassified from AOCI	—	—	—	—
Tax effect	144	(2)	(5)	137
Other Comprehensive (loss) income	(1,084)	4	17	(1,063)
Balance at June 30, 2018	$ (494)	$ (12)	$ (10)	$ (516)

14. Share-Based Compensation

The Company's share-based compensation consists of restricted stock unit awards with a service condition (time-based RSUs), restricted stock unit awards with a market performance condition (market-based RSUs), restricted stock unit awards with a performance condition other than market performance (performance-based RSUs), an employee stock purchase plan and stock-settled stock appreciation rights (SARs).

The fair value of time-based and performance-based restricted stock units (RSUs) are measured on the grant date based on the market value of the Company's common stock. The market-based RSUs must achieve the total shareholder return (TSR) measures in order for the awards to vest, and the grant date fair value of the awards is calculated using a Monte Carlo simulation model. The Company recognizes expense related to the fair value of the 1990 Employee Stock Purchase Plan (ESPP) and SARs using the Black-Scholes model to estimate the fair value of awards on the date of grant.

Except for performance-based RSUs, the Company recognizes compensation expense for all share-based compensation awards, net of estimated forfeitures, on a straight-line basis over the requisite service period of the award. Expense for performance-based RSUs is recognized based on the probability of achievement of the performance criteria. The compensation cost for market-based RSUs is recognized over the related service period, even if the market condition is never satisfied. The impact of adjustments related to awards where the requisite service period was not completed is reflected as an offset to current period shared-based compensation expense.

The Company granted a total of 239,000 time-based RSUs and 92,500 market-based RSUs during the first quarter of 2019, but did not grant any SARs or performance-based RSUs.

Share-based compensation expense under the stock incentive plans is included in the Company's Condensed Consolidated Statements of Operations as follows:

	Fiscal quarter ended	
(In thousands)	Jun 30, 2018	Jul 1, 2017
Cost of sales	$ 106	$ 67
Selling, general and administrative	1,148	1,061
Research, development and engineering	245	150
Total share-based compensation expense	$ 1,499	$ 1,278

The Company does not have any capitalizable share-based compensation costs for the fiscal quarters ended June 30, 2018 or July 1, 2017. As of June 30, 2018, the Company had $11.1 million of total unrecognized share-based compensation costs, net of estimated forfeitures, which are expected to be recognized over a weighted average period of 2.2 years.

15. Revenues, Product and Geographic Information

Operating segments are defined as components of an enterprise about which separate financial information is available and evaluated regularly by the chief operating decision maker (CODM) in deciding how to allocate resources and in assessing performance. The Company's CODM is its Chief Executive Officer (CEO).

The Company and its consolidated subsidiaries operate in a single segment, defined as a manufacturer of high-technology microfabrication and related equipment. This segment sells products into a variety of end markets that are grouped into four major categories for the purpose of providing an understanding of the principal end markets for the products manufactured by the Company, specifically: (1) Printed Circuit Board (PCB), (2) Component Test, (3) Semiconductor, and (4) Industrial Machining. Service sales are interrelated with all major end markets of the Company and are separately presented.

The following table presents net sales information by the four major market categories and associated service sales addressed by the Company's single segment:

	Fiscal quarter ended	
(In thousands)	Jun 30, 2018	Jul 1, 2017
Printed Circuit Board	$ 66,337	$ 46,185
Component Test	9,405	7,448
Semiconductor	18,777	5,181
Industrial Machining	2,338	3,279
Service	13,767	10,591
Net sales	$ 110,624	$ 72,684

The following table presents net sales information by timing of delivery:

	Fiscal quarter ended	
(In thousands)	Jun 30, 2018	Jul 1, 2017
Point-in-time	$ 104,056	$ 67,326
Over-time	6,568	5,358
Net sales	$ 110,624	$ 72,684

Net sales by geographic area, based on the location of the end user, were as follows:

	Fiscal quarter ended	
(In thousands)	Jun 30, 2018	Jul 1, 2017
Asia	$ 99,366	$ 66,563
Americas	6,363	4,170
Europe	4,895	1,951
Net sales	$ 110,624	$ 72,684

16. Restructuring and Cost Management Plans

2017 Corporate Restructuring:

In the fourth quarter of 2017, the Company initiated a restructuring plan to improve business effectiveness and streamline operations to achieve a stated target profit level for the Company as a whole. As a part of the restructuring plan, the management team was reorganized from a business unit to a functional structure; the Company closed facilities in Montreal, Canada; Napa, California; and Sunnyvale, California; the Company discontinued certain products; and the Company made select reductions in headcount across the Company. Actions under this plan were completed as of the end of the third fiscal quarter of 2018.

Total expenses related to the plan were $17.1 million in 2018, while no expenses have occurred in the first quarter of 2019. Included in the 2018 expenses are approximately $13.3 million of charges impacting gross margins, all incurred in the first and second quarters of 2018, primarily related to impairment of other assets and inventory stemming from the product portfolio program reviews which resulted in discontinuing certain products. Operating expense charges included $2.3 million of facilities and fixed assets charges related to streamlining facilities and discontinued products and $1.3 million of employee severance and related costs. Product portfolio reviews related to the restructuring plan were completed as of the end of the third quarter of 2018. The impacts of the decisions made in the portfolio reviews involve the use of certain estimates. Actual results could differ from those estimates and result in additional charges.

The following table presents the total expected restructuring costs as of June 30, 2018 (in thousands):

	Total Expected Costs for the Plan	Costs Recognized from inception of the plan through the Quarter ended Jun 30, 2018	Remaining Costs to be Recognized Subsequent to Jun 30, 2018
Employee severance and related personnel costs	$ 4,925	$ 4,925	$ —
Site closure costs	1,516	1,516	—
Current asset impairments and other gross profit charges(1)	14,947	14,947	—
Non-current asset impairments	3,033	3,033	—
Other costs	239	239	—
Total	$ 24,660	$ 24,660	$ —

(1) Current asset impairments include inventory charges recorded in cost of sales.

The following table presents the amounts payable related to the 2017 Corporate Restructuring (in thousands):

	Employee severance and related personnel costs	Site closure costs	Current asset impairments and other gross profit charges(1)	Non-current asset impairments	Other Costs	Total
Balance as of April 2, 2017	$ 3,247	$ 888	$ —	$ —	$ —	$ 4,135
Costs incurred	1,337	627	13,278	1,657	175	17,074
Cash payments	(4,445)	(1,515)	(2,402)	32	(175)	(8,505)
Non-cash items	—	—	(10,876)	(1,689)	—	(12,565)
Balance as of March 31, 2018	$ 139	$ —	$ —	$ —	$ —	$ 139
Costs incurred	—	—	—	—	—	—
Cash (payments) receipts	(58)	—	—	—	—	(58)
Non-cash items	—	—	—	—	—	—
Balance as of June 30, 2018	$ 81	$ —	$ —	$ —	$ —	$ 81

(1) Asset and facilities costs include inventory charges recorded in cost of sales.

Other restructuring plans:

The Company's previously disclosed other restructuring plans are largely complete. No net restructuring costs related to these plans were recorded in 2019 while $0.4 million were recorded in 2018. The amounts payable of $0.2 million at June 30, 2018 are expected to be future cash outflows, primarily relating to facility costs to be paid through the end of the third quarter of 2019. The Company does not expect to incur additional expenses related to these plans.

The following table presents the amounts related to restructuring costs payable (in thousands):

Restructuring and cost management amounts payable as of April 2, 2017	$	861
Cash payments and other adjustments		(980)
Costs incurred		409
Restructuring and cost management amounts payable as of March 31, 2018		290
Cash payments and other adjustments		(108)
Costs incurred		—
Restructuring and cost management amounts payable as of June 30, 2018	$	182

Overall restructuring reserve:

As of June 30, 2018, and March 31, 2018, the amount of unpaid restructuring costs included in accrued liabilities on the Consolidated Balance Sheets were $0.3 million and $0.4 million, respectively. Included in the payable balance are amounts for severance and employee benefits, and net lease commitments.

17. Income Taxes

The Tax Cuts and Jobs Act (the “Tax Act”) was enacted into law in the U.S. on December 22, 2017. The Tax Act includes various changes to the tax law, including a reduction in the U.S. corporate income tax rate from 35% to 21%.

The 2017 tax reform legislation added section 250 to the Internal Revenue Code, effectively creating a new preferential tax rate for income derived by domestic corporations from serving foreign markets. The new deduction is described as a deduction for foreign-derived intangible income. This lower tax rate provides a new benefit for owning intangible property and conducting business operations in the United States.

The Tax Act also includes a base erosion and anti-abuse tax (BEAT), applicable to corporations with annual gross receipts of at least $500 million for the prior 3-years, which requires U.S. multinationals making “excessive” deductible payments to their foreign affiliates to pay a 10 percent tax on their income without those deductions, after a one-year, 5 percent transition rate. The Company does not expect the BEAT provisions to apply until it meets the threshold. Further the Tax Act imposes a tax on global intangible low-taxed income (GILTI) on controlled foreign corporations’ aggregate net income over a 10% benchmark return on qualified business asset investment less interest expense. The Company continues to assess the impacts of these provisions on the Company’s financial position, results of operations or cash flows.

The Securities and Exchange Commission Staff Accounting Bulletin No. 118 allows the use of provisional amounts in the Company’s financial statements during a measurement period if accounting for the income tax effects of the Act has not been completed when the Company’s financial statements are issued. This measurement period may extend no longer than one year. The Company continues to evaluate the impact the new legislation will have on its financial position, results of operations, and cash flows. Additional technical guidance from the Department of Treasury, the FASB, and other relevant rule-making bodies continue to evolve, which is likely to impact the interpretation of various provisions of the Tax Act. Areas where changes may still occur include, but are not limited to, GILTI, and calculation of deemed repatriation.

18. Earnings Per Share

The following is a reconciliation of weighted average shares outstanding used in the calculation of basic and diluted earnings per share:

(In thousands, except per share data)	Fiscal quarter ended Jun 30, 2018	Fiscal quarter ended Jul 1, 2017
Net income	$ 31,143	$ 2,902
Weighted average shares used for basic earnings per share	34,459	33,432
Incremental diluted shares	1,465	889
Weighted average shares used for diluted earnings per share	35,924	34,321
Net income per share:		
Basic	$ 0.90	$ 0.09
Diluted	$ 0.87	$ 0.08

Awards of options and awards representing an additional 1.0 million shares of stock for the first quarter of 2018 were not included in the calculation of diluted net earnings per share because their effect would have been antidilutive. Antidilutive shares for the first quarter of 2019 were immaterial.

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

The statements contained in this report that are not statements of historical fact, including without limitation statements containing the words "believes", "expects", "projects", "anticipates," "plan," "continue," "could," "estimates," "intends," "should," "will," "may" and similar words, constitute forward-looking statements that are subject to a number of risks and uncertainties. Forward looking statements include any statements regarding anticipated sales, gross margins, our profitability in future periods, our expectations regarding customer processes and our products, our strategies and beliefs regarding the markets in which we compete or may compete and our product development plans to address these markets, the sufficiency of our financial resources to meet our working capital needs for at least the next 12 months, our expectations regarding taxes and tax adjustments, particularly with respect to the Tax Act, our expectations regarding various legal matters, our ability to rapidly increase our production capacity to accommodate demand, sources of our future revenue, the effect of new or recently adopted accounting standards on our business, financial results, results of operations or cash flows, our expectations regarding our corporate restructuring and our functional structure, our expectation of restructuring costs, future impairment of goodwill, future anticipated net warranty costs, our products' ability to satisfy the needs of manufacturers, our relationships with suppliers and customers, trends that drive increases in applications for laser processing, the size and growth of our markets, our growth of foreign operations, our intent to reinvest foreign earnings, our customer concentrations, overseas production capabilities, our ability to maintain and expand our core technologies and product applications, the adequacy of our liquidity and financing and our expectations regarding access to credit, our expectation that we will invest in new product development and enhancements, and working capital requirements and resources. From time to time, we may make other forward-looking statements. Investors are cautioned that such forward-looking statements involve estimates, assumptions, risks, and uncertainties and are subject to an inherent risk that actual results may differ materially. Factors that may cause or contribute to differences include those discussed below in *Item 1A Risk Factors*.

Overview of Business

Electro Scientific Industries, Inc., and its wholly-owned subsidiaries (ESI, we, our, or the Company), is a leading supplier of innovative laser-based microfabrication solutions for industries reliant on microtechnologies. ESI enables its customers to commercialize technology using precision laser processes. ESI's solutions produce the industry's highest quality and throughput, and we target the lowest total cost of ownership. Founded in 1944, ESI is headquartered in Portland, Oregon, with global operations and subsidiaries in Asia, Europe and North America.

Laser microfabrication comprises a set of precise micron-level processes, including drilling, scribing, dicing, singulation, cutting, ablating, trimming, and precision marking on multiple types of materials. These processes require application-specific laser systems that are able to meet our customers' exacting performance and productivity requirements. Our laser-based systems are utilized in the production of flexible and rigid printed circuit board (PCB), semiconductor devices, advanced semiconductor packaging, consumer electronics, electronic sensors, touch-panel glass, flat panel liquid crystal displays (LCDs), organic light emitting diode (OLED) displays, applications within the automotive, aerospace, medical and display end markets as well as other high-value components and devices to enable functionality, increase performance and improve production yields.

Additionally, we produce high-capacity test and inspection equipment that is critical to the quality control process during the production of multilayer ceramic capacitors (MLCCs). Our equipment ensures that each component meets the electrical and physical tolerances required to perform properly.

The first quarter of 2019 ended June 30, 2018, the fourth quarter of 2018 ended March 31, 2018, and the first quarter of 2018 ended July 1, 2017 were all 13-week periods.

Results of Operations

First Quarter 2019 Highlights:

- Total net sales increased by 52% year-over-year to $110.6 million in the first quarter of 2019 due to record demand for our flexible circuit laser drilling products received in the fourth quarter of 2018 that shipped in the first quarter of 2019. Backlog at the end of the first quarter of 2019 remained strong at $124.3 million.
- Orders in the first quarter of 2019 were $82.3 million primarily due to increased capacity spend by MLCC producers driven by the strong global demand for consumer electronics, automotive and other devices utilizing radio frequency (RF) for communications. The strength in MLCC bookings were partially offset by cyclical softness in flex as customers absorb the new drilling capacity we shipped over the last 18 months.
- Gross margin was 48.1% in the first quarter of 2019, up significantly from 36.3% in the first quarter of 2018, primarily due to higher sales and lower inventory write-offs due to restructuring.
- Operating expenses of $20.2 million decreased by $2.8 million year-over-year and remained relatively flat from the fourth quarter of 2018. The decrease was primarily driven by lower restructuring costs as well as lower variable expense. These decreases were partially offset by increased investment in new product development.
- Net income was $0.87 per diluted share, compared to $0.08 per share a year ago, on higher sales and gross profit combined with lower operating expenses.
- Operating cash flows were $9.8 million, compared to $7.4 million in the first quarter of 2018, on higher net income offset by higher working capital that resulted from our revenue growth.

First Quarter 2019 Ended June 30, 2018 Compared to First Quarter 2018 Ended July 1, 2017

The following table presents results of operations data as a percentage of net sales:

	Fiscal quarter ended	
	Jun 30, 2018	Jul 1, 2017
Net sales	100.0%	100.0 %
Cost of sales	51.9	63.7
Gross profit	48.1	36.3
Selling, general and administrative	9.2	17.5
Research, development and engineering	9.1	12.3
Restructuring costs	—	1.7
Operating income	29.8	4.8
Interest and other income, net	0.4	(0.3)
Total non-operating income (loss)	0.4	(0.3)
Income before income taxes	30.2	4.5
Provision for income taxes	2.0	0.5
Net income	28.2%	4.0 %

Net Sales

The following table presents net sales information by the five major product categories addressed by the Company's single segment:

	Fiscal quarter ended			
	Jun 30, 2018		Jul 1, 2017	
(In thousands, except percentages)	Net Sales	% of Net Sales	Net Sales	% of Net Sales
Printed Circuit Board	$ 66,337	60.0%	$ 46,185	63.6%
Component Test	9,405	8.5	7,448	10.2
Semiconductor	18,777	17.0	5,181	7.1
Industrial Machining	2,338	2.1	3,279	4.5
Service	13,767	12.4	10,591	14.6
Net sales	$ 110,624	100.0%	$ 72,684	100.0%

Net sales for the first quarter of 2019 of $110.6 million increased $37.9 million or 52% when compared to net sales for the first quarter of 2018.

Sales of products into the PCB market for the first quarter of 2019 increased $20.2 million or 44% compared to the first quarter of 2018. This was primarily driven by increased sales of our flex circuit drilling systems off of strong backlog from the 2018 healthy market environment compared to the first quarter of 2018 which was just beginning to show the ramp up in demand. The strong environment was driven by unit growth in consumer electronics and associated capacity additions plus new materials, technologies and applications that require increased levels of complex flexible circuits.

Sales of products into the Component Test market for the first quarter of 2019 increased $2.0 million or 26% compared to first quarter of 2018, primarily driven by increased use of MLCC components, particularly in consumer electronics and automotive applications, which require our tools for processing.

Sales of products into Semiconductor applications for the first quarter of 2019 increased $13.6 million or 262% compared to the first quarter of 2018. This increase was primarily driven by sales of our new Ultrus™ wafer scribing tool, as well as an increase in sales of our wafer mark and wafer trim products.

Sales of products into Industrial Machining applications for the first quarter of 2019 decreased $0.9 million or 29% compared to the first quarter of 2018. This was primarily due to decreased sales of micromachining systems into PCB cutting applications.

Service revenues for the first quarter of 2019 increased $3.2 million or 30.0% compared to the first quarter of 2018. The increase was primarily driven by increased flex contract and spare parts revenues.

The following table presents net sales information by geographic region:

	Fiscal quarter ended			
	Jun 30, 2018		Jul 1, 2017	
(In thousands, except percentages)	Net Sales	% of Net Sales	Net Sales	% of Net Sales
Asia	$ 99,366	89.8%	$ 66,563	91.6%
Americas	6,363	5.8	4,170	5.7
Europe	4,895	4.4	1,951	2.7
Net sales	$ 110,624	100.0%	$ 72,684	100.0%

Net sales to Asia increased by $32.8 million or 49% primarily due to higher sales of flex via drilling products. Net sales to Americas increased primarily due to sales of the new Ultrus™ wafer scribing tools and increased sales of wafer trim products. Europe sales increased primarily due to higher sales of wafer trim products.

Gross Profit

	Fiscal quarter ended			
	Jun 30, 2018		Jul 1, 2017	
(In thousands, except percentages)	Gross Profit	% of Net Sales	Gross Profit	% of Net Sales
Gross Profit	$ 53,198	48.1%	$ 26,420	36.3%

Gross profit was $53.2 million for the first quarter of 2019, an increase of $26.8 million compared to $26.4 million in the first quarter of 2018. The gross profit increase was primarily driven by higher net system sales, while the gross margin increase was primarily driven by favorable absorption of fixed costs on higher production volumes and favorable mix shifts towards flex products. Gross margins were also impacted favorably by lower write-offs of inventory and other assets due to restructuring; these charges in the first quarter of 2018 were $7.2 million.

Operating Expenses

	Fiscal quarter ended			
	Jun 30, 2018		Jul 1, 2017	
(In thousands, except percentages)	Expense	% of Net Sales	Expense	% of Net Sales
Selling, general and administrative	$ 10,130	9.2%	$ 12,808	17.5%
Research, development and engineering	10,059	9.1	8,934	12.3
Restructuring costs	—	—	1,211	1.7
Operating Expenses	$ 20,189	18.3%	$ 22,953	31.5%

Selling, general and administrative

Selling, general and administration (SG&A) expenses primarily consist of labor and other employee-related expenses, including share-based compensation expense, travel expenses, professional fees, sales commissions and facilities costs. SG&A expenses for the first quarter of 2019 decreased $2.7 million compared to the first quarter of 2018. The decrease was primarily due to lower variable expenses and restructuring actions.

Research, Development and Engineering

Research, development and engineering (RD&E) expenses primarily comprise labor and other employee-related expenses, including share-based compensation expense, professional fees, project materials costs, equipment costs and facilities costs. RD&E expenses for the first quarter of 2019 increased $1.1 million compared to the first quarter of 2018, primarily due to increased consulting and materials costs related to investment in new product developments.

Restructuring Costs

In the fourth quarter of 2017, we initiated a restructuring plan to improve business effectiveness, streamline operations and achieve a stated target cost level for the Company as a whole. There were no restructuring costs in the first quarter of 2019. Restructuring costs of $1.2 million in the first quarter of 2018 primarily consisted of $0.5 million of fixed asset write-offs, $0.3 million of facilities lease obligations, and $0.1 million of severance and related benefits charges. See Note 16: Restructuring and Cost Management Plans for further discussion.

Non-operating Income and Expense

	Fiscal quarter ended			
	Jun 30, 2018		Jul 1, 2017	
(In thousands, except percentages)	Non-Operating Income (Expense)	% of Net Sales	Non-Operating Income (Expense)	% of Net Sales
Interest and other income (expense), net	$ 452	0.4%	$ (184)	(0.3)%
Total non-operating income (expense)	$ 452	0.4%	$ (184)	(0.3)%

Non-operating income, net, consists of interest income and expense, market gains and losses on non-operating assets, realized and unrealized foreign exchange gains and losses, bank charges, investment management fees, and other miscellaneous non-operating items, such as investment impairment. Net non-operating income was $452 thousand in the first quarter of 2019 compared to expense of $184 thousand in the first quarter of 2018. The increased income in the first quarter of 2019 was due primari ly to a $0.4 million increase in interest income due to our increased investments balance and $0.3 million due gains from foreign exchange fluctuations.

Income Taxes

	Fiscal quarter ended			
	Jun 30, 2018		Jul 1, 2017	
(In thousands, except percentages)	Income Tax Provision	Effective Tax Rate	Income Tax Provision	Effective Tax Rate
Provision for income taxes	$ 2,318	6.9%	$ 381	11.6%

The income tax provision for the first quarter of 2019 was $2.3 million on pretax income of $33.5 million for an effective tax rate of 6.9%, compared to $0.4 million tax provision on pretax income of $3.3 million for an effective tax rate of 11.6% in the first quarter of 2018. Tax rate in 2019 reflects increased foreign taxes related to higher profits largely offset by the discrete $3.2 million benefit arising from the release of our French valuation allowance.

Financial Condition and Liquidity

At June 30, 2018, our principal sources of liquidity were cash and cash equivalents of $74.9 million, short-term investments of $55.0 million, current accounts receivable of $80.5 million and up to $30.0 million from our credit facility (see Note 10: Revolving Credit Facility) for a total of $240.4 million, as compared to $217.0 million at March 31, 2018 and $146.7 million at July 1, 2017. At June 30, 2018, we had a current ratio of 4.22 with long-term debt outstanding of $12.7 million (see Note 9: Long-term Debt). Working capital of $237.8 million increased $34.6 million compared to the March 31, 2018 balance of $203.2 million, driven primarily by higher current asset balance due to improved business levels.

Sources and Uses of Cash

Net cash provided by operating activities of $9.8 million for the quarter ended June 30, 2018 was primarily a result of $31.1 million in net income, non-cash adjustments of $3.6 million, and a decrease in shipped systems pending acceptance of $2.8 million. These were partially offset by increased trade receivables of $18.2 million, increased inventories of $6.5 million, and decreased accounts payable and accrued liabilities of $3.7 million. We expect inventory to be consistent with the current levels for the next few months due to change in product demand.

For the quarter ended June 30, 2018, net cash used in investing activities was $9.9 million, primarily due to $8.2 million of net purchases of investments. For the quarter ended June 30, 2018, net cash used in financing activities of $0.8 million related withholding taxes on stock-based compensation.

The Company has a loan agreement with First Technology Federal Credit Union that provides for a ten-year term loan with a principal amount of $14 million and with an interest rate fixed at 4.75% per annum, which will come due January 1, 2027. The Company is required to maintain certain deposits with the Lender through March 31, 2019, at which point the restriction will be removed as long as it is in compliance with certain minimum covenants. At June 30, 2018, restricted cash associated with this requirement was $1.1 million and the Company is in compliance with the covenants of the loan.

The Company is also party to a loan and security agreement (Credit Facility) with Silicon Valley Bank (SVB) that provides for a senior secured asset-based revolving facility with availability up to $30 million, including a $15 million sublimit for letters of credit. At June 30, 2018, the Company had no amounts outstanding under the Credit Facility. The Credit Facility expires March 20, 2019. If the Company fails to meet the covenants in the credit facility or the lenders fail to fund, access to the facility may be limited or the facility may become unavailable altogether. Refer to Note 9: Long-term Debt and Note 10: Revolving Credit Facility of the Company's condensed consolidated financial statements for further information.

The Company is expected to incur capital expenditures of approximately $6 million in the next twelve months due to the upgrade of its enterprise resource planning software and related systems that support its operating and financial functions.

We believe that our existing cash, cash equivalents and short-term investments are adequate to fund our operations, capital expenditures and contractual obligations for at least the next twelve months.

Critical Accounting Policies and Estimates

We reaffirm the “Critical Accounting Policies and Estimates” in Part II Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, reported in our Form 10-K for the year ended March 31, 2018. Due to the adoption of accounting standard ASC 606 in the current quarter using the modified retrospective transition approach, we have updated certain revenue related policies, see Note 1: Basis of Presentation.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

There have been no material changes in the market risk disclosure contained in our Form 10-K for the year ended March 31, 2018.

Item 4. Controls and Procedures

Attached to this quarterly report as Exhibits 31.1 and 31.2 are the certifications of our President and Chief Executive Officer (CEO) and our Chief Financial Officer (CFO) required by Section 302 of the Sarbanes-Oxley Act of 2002 (the Section 302 Certifications). This portion of our quarterly report on Form 10-Q is our disclosure of the conclusions of our management regarding the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report based on management's evaluation of those disclosure controls and procedures. This disclosure should be read in conjunction with the Section 302 Certifications for a more complete understanding of the topics presented.

Disclosure Controls and Procedures

Our management has evaluated, under the supervision and with the participation of our CEO and CFO, the effectiveness of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act) as of the end of the period covered by this report pursuant to Rule 13a-15(b) under the Exchange Act. Based on that evaluation, our CEO and CFO have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in ensuring that information required to be disclosed in our Exchange Act reports is (1) recorded, processed, summarized and reported in a timely manner, and (2) accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the first quarter of 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

In the ordinary course of business, we are involved in various routine legal matters, either asserted or unasserted, and investigations incidental to the business. In the opinion of management, ultimate resolution of these matters will not have a material effect on our consolidated financial position, results of operations or cash flows.

Item 1A. Risk Factors

The following risks and uncertainties should be read carefully with the other information included in this quarterly report. If any of the risks described below occur, our business, financial condition, operating results and cash flows could be materially and adversely affected. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations and financial results. All references to years or quarters relate to fiscal years or fiscal quarters unless otherwise noted.

Risks Related to Our Competition and Customers

Substantial competition in markets in which we operate may result in price reductions, reduced profit margins and loss of market share.

We face substantial competition from established competitors throughout the world, some of which have greater financial, engineering, manufacturing and marketing resources than we do. Competitors with greater resources may better withstand periodic downturns, compete more effectively on the basis of price and technology, utilize better established sales channels and customer relationships, or more quickly enhance or develop new generations of products that compete with our products, in addition to other advantages. New companies may enter the markets in which we compete, or industry consolidation may occur, further increasing competition in those markets. We have also experienced new entrants to our markets offering aggressive price and payment terms in an attempt to gain market share. Some competitors, particularly in China, also develop low-cost products employing processes or technology developed by us. In addition, because we frequently price our products in U.S. dollars, a strong U.S. dollar can make our products less price-competitive outside of the United States to products priced in other currencies. We believe that to be competitive, we must continue to expend significant financial resources in order to invest in new product development and enhancements, among other things. We may not be able to compete successfully in the future and increased competition may result in price reductions, reduced profit margins and loss of market share.

Our future success depends on our ability to expand into new markets.

Our future success and growth plans depend in large part on our successful entry into new markets adjacent to our existing markets, such as high-density interconnect drilling, interconnect packaging, advanced wafer scribing, and other industrial and consumer electronics markets, including automotive, aerospace, medical and display. These markets are new to us and our success depends on our displacing entrenched competitors who are familiar with these markets and are known to customers. In many cases, we are attempting to enter or expand our presence in these new markets with newly introduced products that are not yet proven in the industry. In addition, in some cases we need to develop or expand our sales channels and customer relationships in order to execute on this strategy. We provide no assurance that we will succeed in gaining significant, or any, market share in these new markets. If we fail to successfully expand into these markets, we will have difficulty growing our business and may lose business to our competitors.

Volatility in our customers' industries and capital spending can have a direct and material impact on our business.

Our business depends upon the capital equipment expenditures of manufacturers of microelectronics, PCBs, semiconductors, computers, wireless communications and other electronic products. The capital equipment market for the production of those products has historically been characterized by cyclical variations in capital equipment demand. These sometimes sudden and severe cycles may result from a number of factors, including overall consumer and industrial spending and demand for electronic products that drive manufacturer production, as well as the manufacturer's capacity utilization, timing of new product introductions and demand for customers' products, inventory levels relative to demand and access to affordable capital. The timing, severity and duration of these market cycles are difficult to predict. As a result, our business can vary significantly from quarter to quarter or year to year, as evidenced, for example, by comparing 2018 to 2017.

Downturns particularly affect our profitability given the relative fixed cost structure of our business and the need to continually invest in product technology and support and service for our products. For example, in the first and second quarters of 2017, we experienced a significant decline in orders due to reduced demand from PCB manufacturers that significantly impacted our results in the second and third quarters.

Increased pressure on price may result in pricing concessions, extended payment terms and decreased margins.

We have experienced and continue to experience pricing pressure from both competitors and customers in the sale of our products. Pricing pressures typically have become more intense during cyclical downturns when competitors seek to maintain or increase market share, reduce inventory or introduce more technologically advanced or lower-cost products. In addition, we may agree to pricing concessions or extended payment terms with our customers in connection with expanding into new markets or gaining volume orders, or to improve our customer cost of ownership in highly competitive applications. Our business, financial condition, margins or results of operations may be materially and adversely affected by competitive pressure and price-based competition.

A majority of our revenues are generated from exports to foreign countries, primarily in Asia, that are subject to economic and political instability and we compete against a number of Asian equipment suppliers.

The majority of our export sales are made to destinations in Asia. Political or economic instability, particularly in Asia, may adversely impact the demand for capital equipment, including equipment of the type we manufacture and market. In addition, we face intense competition from a number of Asian suppliers that have certain advantages over other suppliers, including us. These advantages include, among other things, proximity to customers, lower cost structures, favorable tariffs and affiliation with significantly larger organizations. In addition, changes in the amount or price of our produced in Asia could impact the profitability or capital equipment spending programs of our foreign and domestic customers. For example, as a result of recent United States tariffs on goods manufactured in China, China added substantial retaliatory tariffs on certain products. Should our products be impacted by these or similar tariffs, our ability to be compete with local suppliers could be impacted and our business, financial condition, margins or results of operations may be materially and adversely affected. In 2018 our sales into Greater China were approximately $237 million.

Because our revenues largely depend on few customers and certain end markets, we have a greater degree of risk if we lose one of those customers, if we fail to win on new product designs, or if end markets are negatively impacted.

We depend on a few significant customers for a large portion of our revenues, and certain of these customers may be suppliers to relatively few end manufacturers. In the first quarter of 2019, our top ten customers accounted for approximately 71% of total net sales with our top two customers accounting for 30% and 12% of total net sales, respectively. These concentrations can vary significantly from quarter to quarter and materially impact revenues and results from operations. For example, in 2018, we had one quarter where our concentration with a single customer was 50% of net sales. We anticipate that sales of our products to a relatively small number of customers will continue to account for a significant portion of our revenues.

Consolidation between customers, changes in technologies or solutions used by customers, changes in products manufactured by customers or in end-user demand for those products, selection of suppliers other than us, customer bankruptcies or customer departures from their respective industries all may result in even fewer customers accounting for a high percentage of our revenue and reduced demand from any single major customer. A change in demand from end manufacturers, or the customers of our direct customers, may impact the demand we receive across multiple direct customers. Additionally, if the end manufacturers have significant share in their end markets, demand from ESI's customer base could be sensitive to, and be broadly impacted by, negative movements in those end markets. The level of sales to our top customers often depends on winning bids on new designs and features each product cycle, and there is no guarantee of future business based on past design wins.

None of our customers have any long-term obligation to continue to buy our products or services and may therefore delay, reduce or cease ordering our products or services at any time. The cancellation, reduction or deferral of purchases of our products by even a single customer could significantly reduce our revenues in any particular quarter. If we lose any of our significant customers, including as a result of any shipment delays due to heightened production levels, or suffer a material reduction in their purchase orders, revenue could decline and our business, financial condition and results of operations could be materially and adversely affected.

Because our revenues are largely based on the sale of a small quantity of product units, our operating results could fluctuate significantly from quarter to quarter.

We derive a substantial portion of our revenue from the sale of a relatively small quantity of products. Accordingly, our revenues, margins and other operating results could fluctuate significantly from quarter to quarter depending upon a variety of factors in addition to those described above, including:

- the timing of orders and terms or acceptance of product shipments by our customers;
- the mix of products and services that we sell in a given quarter;
- timing and market acceptance of our new product introductions; and
- delays or problems in the planned introduction of new products, or in the performance of any such products following delivery to customers.

As a result of these risks, we believe that quarter-to-quarter comparisons of our revenue and operating results may not be meaningful, and that these comparisons may not be an accurate indicator of our future performance.

Risks Related to Our Supply Chain and Production

Limitations on our ability to rapidly change our production capacity in a cost effective manner could result in lower gross margins during sudden downturns and an inability to meet demand in sudden upturns.

To meet rapid changes in demand, such as we have experienced recently, we must effectively manage our resources and production capacity. When upturns occur, it may be difficult to rapidly and effectively increase our manufacturing capacity, or we may be unable to do so, or we may have difficulty procuring sufficient materials to meet sudden increases in customer demand. This could result in shipping delays or the loss of business to our competitors and harm to our relationships with our customers, which may result in penalties or other costs to the Company. Conversely, during periods of decreasing demand for our products, we must be able to appropriately align our cost structure with prevailing market conditions and effectively manage our supply chain. Our ability to timely and effectively reduce our costs in response to rapid downturns is limited by the fixed nature of many of our expenses in the near term, by our need to continue investing in product technology and support and service our products, and by our need to have sufficient production capacity and supply available to respond to sudden increases in demand. This could result in unavoidable short-term costs or excessive inventory levels, including increased risk of inventory obsolescence. If we are not able to timely and cost effectively adapt to changes in our business environment, our business, financial condition or results of operations may be materially and adversely affected.

Our reliance on critical suppliers for key components could lead to production and service interruptions and shortages.

We use a wide range of components from numerous suppliers in the manufacturing of our products, including custom electronic, laser, optical and mechanical components. We generally do not have guaranteed supply arrangements with our suppliers. We seek to reduce the risk of production and service interruptions and shortages of key parts by selecting and qualifying alternative suppliers for key parts, monitoring the financial stability of key suppliers and maintaining appropriate inventories of key parts. However, some key parts are available only from a single supplier or a limited group of suppliers in the short term. In addition, some of the lasers we use in our products are difficult to manufacture, and as a result we may not receive an adequate supply of lasers in a timely fashion to fill orders. Operations at our suppliers' facilities are subject to disruption or discontinuation for a variety of reasons, including changes in business relationships, competition, financial difficulties, work stoppages, fire, natural disasters, customer prioritization, component end of life decisions or other causes. Any such disruption or discontinuation to our suppliers' operations could interrupt or reduce our manufacturing activities and delay delivery of our products, any or all of which could materially and adversely affect our results of operations. This risk is particularly acute when we rely on a single or a limited group of suppliers. In addition, during periods of increased demand for our products, there is a heightened risk that one or more of our suppliers may not meet our increased demand requirements, adversely affecting our ability to fulfill orders and win business with our customers.

Our product delivery schedules may cause us to incur significant expenses without offsetting revenues.

During our sales cycle, our customers generally evaluate, test and qualify our products before making a decision to purchase them. Before a potential customer purchases our products, we may incur significant expenses related to sales and marketing, product development and research and development prior to receiving a customer order that may be delayed or never get placed. We may incur these expenses without receiving revenues to offset such expenses soon thereafter or at all, which could materially and adversely affect our business, financial condition, or results of operations.

We may incur charges for excess or obsolete inventory as a result of having to forecast product demand without firm orders.

To effectively compete, we must deliver products on schedules required by our customers. Management forecasts demand, both in type and number of products, for us to timely meet customer delivery schedules. We use these forecasts to purchase inventory, some of which have exceptionally long lead times, in advance of our receiving firm customer orders. We also order materials based on our technology roadmap, which represents management's assessment of technology we will utilize in new product developments. Certain types of inventory, such as lasers and optical equipment, are particularly expensive and may only be used in the production of a single type of product. If actual demand is lower than forecast, we may have excessive working capital and slow-turning inventory. In addition, we may incur material charges for excess and obsolete inventory if we cannot sell the inventory. Also, if we alter our technology or product development strategy, we may have unusable inventory, which may also result in material accounting charges. For example, during 2018, we recorded approximately $13.6 million of charges in cost of sales, primarily due to inventory write offs associated with discontinued products.

We may be unable to timely deliver certain products made by contract manufacturers.

We have arrangements with contract manufacturers to complete the manufacturing of certain of our product subcomponents. Any significant interruption in our contract manufacturers' ability to provide quality manufacturing services to us as a result of contractual disputes with us or another party, labor disruptions, financial difficulties, natural disasters, delay or interruption in the receipt of inventory, or other causes could result in reduced manufacturing quality or delayed deliveries for certain of our products, any or all of which could materially and adversely affect our business. Additionally, should a contract manufacturer no longer be able to perform for any reason or we need to add a contract manufacturer, it may require substantial time and resources, including the potential of incurring substantial cost, to replace or add the associated manufacturing capabilities, which could materially and adversely affect our business.

Increasing regulations or environmental requirements on our product components could negatively affect our ability to sell our products or source materials.

Many countries, including the United States, China and those in the European Union, have implemented directives that restrict the sale of new electrical and electronic equipment containing certain hazardous substances and require disclosures if certain metals used in products are not from a conflict-free source. The directives could restrict our ability to sell our products in certain countries and affect sourcing at competitive prices and availability in sufficient quantities of certain minerals used in the manufacture of our products. In addition, our reputation could suffer if we are required to disclose that metals in our products are not from conflict-free sources.

Risks Related to Our Organization

Our significant international trade subjects us to greater risks.

International shipments accounted for 95% of net shipments in 2018, with 90% of our net shipments to customers in Asia. We expect that international shipments will continue to represent a significant percentage of net sales in the future. In addition, we obtain supplies through an international supply chain. Our non-U.S. sales and purchases are subject to risks inherent in international trade, many of which are outside our control and include the following:

- periodic local or geographic economic downturns;
- price and currency exchange controls;
- fluctuation in the relative values of currencies;
- difficulty in repatriating money, whether as a result of tax laws or otherwise;
- difficulties protecting intellectual property;
- shipping delays and disruptions, including as a result of border controls;
- retaliatory trade practices, trade tensions, and changes in or inconsistency in application of trading policies, regulatory requirements, export control regulations, tariffs and other barriers, the termination or renegotiation of existing trade agreements; and
- difficulties in managing a global enterprise, including staffing, collecting accounts receivable, and managing suppliers, distributors and representatives.

Our success depends, in part, on hiring and retaining key personnel.

Our continued success depends in part upon the services of our key managerial, financial and technical personnel. The loss of key personnel, or our inability to attract, assimilate and retain qualified personnel, could result in the loss of customers, inhibit our ability to operate and grow our business and otherwise have a material adverse effect on our business and results of operations. We have previously had to, and may in the future have to, impose salary reductions on employees during economic downturns in an effort to maintain our financial position. On several occasions in recent years, executives and other employees have received limited or no annual bonuses due to our financial performance relative to the performance parameters in our annual bonus plans. These events may have an adverse effect on employee loyalty and may make it more difficult for us to attract and retain key personnel. Competition for qualified personnel in the industries and locations in which we compete for talent is intense, and we may not be successful in attracting and retaining qualified personnel. We may incur significant costs in our efforts to recruit and retain key personnel, which could affect our financial position and results of operations.

In February 2017, we announced a reorganization and restructuring, which resulted in site closures in Montreal, Canada, Napa and Sunnyvale, California, and reductions in headcount in all functions and geographies. Additionally, we have replaced key executives in recent years. These events may disrupt operating activities, may negatively affect employee morale and loyalty, and may make it more difficult to retain or rehire key personnel.

Our business and reputation could be negatively impacted by cyber-attacks and other security breaches.

We electronically store sensitive data, including intellectual property, our customers', suppliers' and business partners' proprietary business information, and our employees' personally identifiable information. The secure maintenance and transmission of this information is critical to our operations and business strategy. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other actions. Further, the increasingly international, mobile-device, internet, and email-based environment in which we do business may subject the Company to new risks, such as email phishing attempts, or other activities designed to defraud the Company of funds or sensitive information, and may also provide multiple points of entry for cyber-attacks. Additionally, we rely on a number of third-party "cloud-based" providers of corporate infrastructure services relating to, among other things, human resources, electronic communication services and some financial functions, and we are therefore dependent on the security systems of these providers. Any breach or other unauthorized access to either our systems or our service-providers' systems through viruses, loggers, malfeasant code in data or software, or other means could expose us to information loss or disclosure of confidential information and could compromise our networks such that the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, disrupt our operations, damage our reputation, or hurt our competitive position, which could adversely affect our business, financial position and results of operations.

Our implementation of an updated enterprise resource planning software may result in unintended consequences that could negatively impact our business.

We expect to upgrade our enterprise resource planning software and related systems that support our operating and financial functions. We may experience difficulties in connection with such upgrades, including loss or corruption of data, compatibility issues, decreases in productivity as our personnel implement and become familiar with the upgrades, higher than expected upgrade costs and other integration challenges or delays. If encountered, a significant problem with the system upgrades could negatively impact our business by disrupting our operations. In addition, a significant problem with the system upgrades, integration with other systems or ongoing management of our enterprise resource planning software and related systems could have an adverse effect on our ability to generate and interpret accurate management and financial reports and other information on a timely basis, which could adversely affect our business, financial position and results from operations.

Our success could be negatively impacted if we fail to effectively control, oversee and direct foreign subsidiaries, and our global footprint may result in a substantial amount of management effort, cost and uncertainty.

We are a global company operating in multiple jurisdictions. We have significant foreign operations and subsidiaries, including manufacturing facilities in Singapore and China, research and application development facilities in France, China and Korea, and sales and service offices in various countries to enhance responsiveness and access to customers local to these regions. In 2018, certain additional customer-facing operational resources were moved to countries in Asia, and changes were implemented to our supply chain in regions outside the United States. Our global presence and any changes thereto may subject us to a variety of complexities and risks, many of which may divert a substantial amount of management's time. These risks include:

- exposure to local labor disputes, potential corruption, and noncompliance with labor laws and other laws governing employees;
- unpredictable costs, redundancy costs and cost overruns for developing facilities and acquiring equipment;
- challenges in building local management teams, technical personnel and other staff for functions that we have not previously conducted outside of the United States;
- technical obstacles such as poor production or process yield and loss of quality control during the ramp of a new facility;
- re-qualifications and other procedures that our customers may require;
- our ability to bring up local suppliers to meet our quality and cycle-time needs;
- rapidly changing business conditions that may require us to change or abandon plans before we fully implement them;
- complexity of managing our financial reporting and internal controls and procedures; and
- the ability to understand and comply with many different laws, infrastructures, ways of doing business, and surmount other challenges posed by distance and differences in language and culture.

If we are unable to manage these risks effectively, it could negatively affect our operating performance and our reputation. These and other factors could delay the continuing development, expansion and implementation of our strategy, as well as decrease our gross margins, delay shipments and deliveries, cause us to lose sales, require us to write off investments already made, damage our reputation and harm our business, financial condition and results of operations. For example, we announced restructuring plans in 2015 and 2017 that led to the impairment of leasehold improvements and other assets for several of our facilities, some of which were in international locations.

Our global operations expose us to a greater variety of natural disasters and political and social strife, each of which could directly impact our properties, operations and personnel.

Our business and operating results could be impacted, directly or indirectly, by natural disasters, outbreaks of infectious disease, military action, international conflicts, terrorist activities, civil unrest and associated political instability and policy changes. Many of our facilities, including our Portland, Oregon headquarters, are in areas with known earthquake risk. Some of these events or circumstances may also result in heightened security concerns with respect to domestic and international travel and commerce, including more frequent instances of shipping delays, which may further affect our business and operating results. In particular, recent and potential future tightening of immigration and travel controls may adversely affect the residence status of non-U.S. engineers and other key technical employees in our U.S. facilities, our ability to attract, hire and retain new non-U.S. employees in such facilities or our ability to bring our non-U.S. employees into the United States for business related activities.

Our acquisition activities could result in operational disruptions, integration difficulties and other complications.

We may acquire or make significant investments in other businesses with complementary products, services or technologies, such as our January 2015 acquisition of Wuhan Topwin Optoelectronics Technology Co., Ltd. (Topwin) and our August 2016 acquisition of Visicon Technologies, Inc. (Visicon). Acquisitions involve numerous risks, many of which are unpredictable and beyond our control, including:

- increased costs in connection with integration of personnel, operations, technologies and products of the acquired businesses;
- difficulties in implementation of our enterprise resource planning system into the acquired company's operations;
- diversion of management's attention from other operational matters;
- the potential loss of key employees of the acquired company;
- lack of synergy or inability to realize expected synergies resulting from the acquisition;
- the inability to successfully enter new markets expected to result from the acquisition;
- acquired assets becoming impaired as a result of technological advancements or worse-than-expected performance by the acquired company;
- establishing satisfactory internal controls and accounting practices at the acquired company;
- difficulties implementing internal manufacturing processes at the acquired company;
- achieving our anticipated financial and operational performance for the acquired company or the performance of the combined company following the transaction;
- acquiring unanticipated liabilities; and
- potential litigations arising out of breach of contract terms.

The means by which we finance an acquisition may also significantly affect our business or the value of our common stock. If we issue common stock to pay for an acquisition, the ownership percentage of our existing shareholders will be diluted and the value of the shares held by our existing shareholders could decrease. If we use cash on hand to pay for an acquisition, the payment could significantly reduce the cash that would be available to fund our operations or to use for other purposes. If we borrow funds in connection with an acquisition, we would be required to use cash to service the debt and to comply with financial and other covenants, which may reduce our flexibility.

Risks Related to Technology

We may be unable to realize growth opportunities if we cannot strengthen our marketing and channel capabilities.

The laser microfabrication industry is comprised of broad sets of markets and applications and presents significant opportunities for growth. In order to access these growth opportunities, we are strengthening our approach from customer-centric to market-based. We have reorganized into a functional structure and expanded our marketing team to drive improved process and disciplines across the organization. We believe our ability to successfully access and compete in these broader markets partially depends on our successful development of new marketing capabilities, sales and distribution channel access and customer relationships. Our inability to do so would limit our growth opportunities and profitability. In addition, any new strategy may cause disruption and ultimately prove unsuccessful.

We may be unable to keep up with rapid technological changes in our markets, which could result in customers purchasing fewer of our products.

The markets for our products are characterized by rapid technological change and innovation, frequent new product introductions, changes in customer requirements and evolving industry standards. Our future performance will depend on the successful development, introduction and market acceptance of new and enhanced products that address technological changes and the requirements of current and potential customers. The development of new, technologically advanced products is a complex and uncertain process, requiring high levels of innovation and highly skilled engineering and development personnel, as well as the accurate anticipation of technological and market trends. We may not be able to identify, develop, manufacture, market or support new or enhanced products on a timely basis, if at all. If our competitors introduce new or enhanced products, or alternative technologies, our customers may defer, change or cancel orders for our existing products or cease purchasing our products altogether. Further, our new products may not gain timely market acceptance, and we may not be able to respond effectively to product announcements by competitors, technology changes or emerging industry standards. If we are unable to develop new or enhanced products to address customer requirements, technology changes or new industry standards on a timely basis, if our new or enhanced products are not accepted by the market, or if our customers adopt alternative technologies, our business, financial condition and results of operations may be adversely affected due to loss of market share or due to concentrations in impacted areas.

Our industry requires continued investment in research and development, and we may fail to optimally allocate our resources in this area.

The intense competition in our industry requires us to continue to invest in research and development. If we fail to invest sufficiently in research and development, our products could become obsolete or less attractive to our current and potential customers. Because of our need to maintain our research and development spending levels, our operating margins could be materially decreased if our net sales decline. In addition, our emphasis on research and development and technological innovation could cause our operating costs to increase in the future, and research and development expenses to increase as a percentage of total operating expenses and as a percentage of net sales. Conversely, if we have competing needs for our financial resources, we could spend less on research and development than we believe would be optimal for long-term competitiveness.

Because our products are highly complex, we may experience quality control issues that could result in decreased sales and harm our reputation.

Our products are highly complex, and our extensive product development, manufacturing and testing processes may not be adequate to detect all defects, errors, failures and quality issues that could impact customer satisfaction or result in claims against us. Our strategy to leverage proprietary laser technology to create competitive advantage may increase the probability and impact of these risks. As a result, we may have to replace certain components or provide remediation in response to the discovery of defects in products after they are shipped. The occurrence of any defects, errors, failures or quality issues could result in cancellation of orders, product returns, diversion of our resources, legal actions by our customers and other losses to us or to our customers. These occurrences could also result in the loss of, or delay in, market acceptance of our products, loss of sales and increased expenses and warranty costs.

Risks Related to Legal Matters

Our business depends on proprietary rights that may be difficult to protect, and the loss of any proprietary rights could affect our ability to compete effectively.

Our success depends significantly upon the protection of our proprietary rights. We attempt to protect our proprietary rights through patents, copyrights, trademarks, maintenance of trade secrets and other measures, including entering into confidentiality agreements. Although we incur substantial costs to obtain and maintain patents and to defend our intellectual property rights, we may be unsuccessful in protecting these rights. Additionally, our proprietary rights may not provide the competitive advantages we expect, or other parties may challenge, invalidate or circumvent these rights.

We rely upon the laws of the United States and foreign countries where we develop, manufacture or sell our products to protect our proprietary rights. However, our efforts to protect our intellectual property may be less effective in some foreign countries where intellectual property rights are not as well protected as in the United States. For example, the patent prosecution and enforcement system within China is less mature than the systems in other jurisdictions and therefore we may be limited in our ability to enforce our rights. This disadvantage would likely be compounded by the challenge of any enforcement attempts by us as a foreign entity seeking protection against a Chinese company infringing on our proprietary rights in China. If we fail to adequately protect our intellectual property abroad, it could be easier for our competitors to sell competing products in foreign countries, which could result in reduced sales and gross margins.

Our products may subject us to intellectual property infringement claims that could increase our costs and restrict our ability to do business.

Several of our competitors hold patents covering a variety of technologies, applications and methods of use similar to some of those used in our products. Competitors or others have asserted in the past, and may assert in the future, infringement claims against our customers or us with respect to current or future products or uses. These assertions may result in costly litigation, and if claims of infringement are asserted against our customers, those customers may seek indemnification from us for damages or expenses they incur.

If we become subject to infringement claims, we will evaluate our position and consider the available alternatives, which may include seeking licenses to use the technology in question. These licenses, however, may not be available on satisfactory terms or at all. If we are not able to negotiate the necessary licenses on commercially reasonable terms, or successfully defend our position, our financial condition and results of operations could be materially and adversely affected.

As a global company, we are subject to adverse fluctuations in our effective taxes due to tax audits, changes in tax law, certain preferential tax concessions, and other regulatory requirements.

Our tax liabilities may fluctuate from one period to the next because we operate in numerous tax jurisdictions with a broad range of income tax rates and regulations. Further, we are also periodically under audit by United States and foreign tax authorities and may have exposure to additional tax liabilities as a result. Although we believe our tax estimates are reasonable, the final outcome of tax audits and the impact of changes in tax laws or the interpretation of tax laws could result in a material effect on our financial results, tax positions or cash flows in the period or periods in which the determination is made.

We benefit from a tax incentive program in Singapore pursuant to which we paid no Singapore income tax with respect to our Singapore manufacturing operations. The incentive period ends June 30, 2021 and is conditioned on achieving certain business and investment levels. If we do not achieve these criteria, we may lose the incentive benefits.

We have tax losses and tax credits with remaining lives between 5 and 20 years. In the fourth quarter of 2018, we generated $75.1 million of net income, which resulted in three years of cumulative income. This, combined with our backlog position at March 31, 2018 and our expected ability to utilize certain deferred tax assets and credits prior to their expiration, we believe provided sufficient positive evidence to release $42.3 million of our valuation allowance as of March 31, 2018. A release of the valuation allowance resulted in the recognition of certain deferred tax assets and an income tax benefit for 2018.

The Tax Cuts and Jobs Act (the “Tax Act”) was enacted into law in the U.S. on December 22, 2017. We have elected the Staff Accounting Bulletin No. 118 measurement period and will continue to evaluate the impact the new legislation will have on our consolidated financial condition, results of operations, and cash flows. While not limited to the following, we believe the following risks exist:

- Rule-making and additional technical guidance from the Department of Treasury, the FASB, and other relevant rule-making bodies continues to evolve and is likely to impact the treatment of the impact of the Tax Act.
- The Company’s assessment remains ongoing; therefore, the final impact of the Tax Act may differ due to changes in interpretations, assumptions and we are not able to fully quantify the impact on our condensed consolidated financial statements at this time.
- Reaction to the new regulations by states and international trading partners is not yet clear, and could have a material impact on our business and results from operations.

The change in statutory tax rates in the United States also impacts the gross values of the deferred tax assets and valuation allowance. The release of the valuation allowance and the future utilization of deferred tax assets are recognized at the new, lower rate.

Risks Related to Financial Matters

If we cannot meet our liquidity needs, we may not have sufficient working capital to continue our business operations.

We may require greater working capital to operate than similar size businesses in many other industries. At June 30, 2018, we had working capital of $237.8 million, including $129.9 million in cash, cash equivalents and short-term investments. Our operating cash flows were negative for most quarters between September 2013 and March 2017. Operating cash flows for 2018 were positive and we generated $67.4 million of operating cash. If cash levels were to decline below our working capital requirements due to investment in inventories as a result of production, less favorable collections, or less favorable payment terms, or a combination of these circumstances, among others, we may need additional cash to sustain operations. In addition, many of our contracts to acquire inventory represent purchase commitments. As a result, if we experience lower than anticipated demand for our products we may not avoid the cost of purchasing the associated inventory.

While we have a credit facility in place, if we fail to meet the covenants in our credit facility or our lenders fail to fund, access to the facility may be limited or the facility may become unavailable altogether. Losses, such as those experienced in the second and third quarters of 2017, negatively impact our ability to maintain compliance with these covenants.

If we have a material decrease in available cash, or require additional cash for operations, and we do not have available credit or other funds and are unable to obtain financing on acceptable terms, or at all, our business and our ability to fully fund operations could be materially and adversely affected.

Our existing indebtedness may limit our business opportunities.

As of the first quarter of 2019, we have $13.1 million of long-term indebtedness in the form of secured mortgage. This indebtedness is secured by our headquarters in Portland, Oregon. We also have access to a credit facility under which we may borrow up to a maximum of $30 million, subject to meeting certain availability requirements. Nothing was outstanding under this agreement and the full amount was available under the terms of the agreement as of June 30, 2018. This credit facility is secured by our non-real estate assets and we are required to comply with certain financial covenants under the debt agreements, including maintaining a certain level of earnings, a stated debt service coverage ratio and a specified level of certain types of liquid assets, as well as limiting our discretion to make capital expenditures or acquisitions. If we are unable to comply with the covenants in our debt agreements or make payments when due and the lender declares an event of default, any outstanding indebtedness would likely be immediately due and owing and the lenders could foreclose on the collateral securing the debt.

Unfavorable currency exchange rate fluctuations could reduce our net sales abroad or cause us to incur losses on our forward exchange contracts.

Unfavorable currency fluctuations could require us to increase prices to foreign customers, which could result in lower net sales by us to those customers. Alternatively, if we do not adjust the prices for our products in response to unfavorable currency fluctuations, we could be forced to sell our products at a lower margin or at a net loss. A weak dollar may lead to impairment of inventories if costs begin to exceed selling prices as translated to the functional currency. In addition, some of our foreign sales are denominated in the currency of the country in which these products are sold and that currency could be less valuable at the time of receipt as a result of exchange rate fluctuations. From time to time, we enter into forward exchange contracts to hedge the value of accounts receivable primarily denominated in euros and other currencies. However, our efforts may not be adequate to protect us against significant currency fluctuations and such efforts may expose us to additional exchange rate risks, which could adversely affect our results of operations.

An impairment of our investments could reduce our available liquidity.

Our investment portfolio is primarily comprised of commercial paper, corporate bonds, debt securities issued by U.S. governmental agencies and money market securities. These investments are intended to be highly liquid and low risk. If the markets for these securities deteriorated for any reason, including as a result of a downgrade in the credit rating of U.S. government securities, the liquidity and value of these investments could be negatively affected, which could result in impairment charges and a material impact to our financial condition and results of operations. In addition, if our investments become illiquid or materially decrease in value, we may not have access to sufficient cash to meet or working capital and liquidity needs.

An impairment of Goodwill, Intangible and Long-Lived Assets could negatively impact our consolidated earnings.

We held a total of $4.8 million in acquired intangible assets, net of accumulated amortization, and $2.6 million in goodwill at June 30, 2018. As with the impairment recognized in the fourth quarter of 2017, events may occur or circumstances change such that the carrying value is not recoverable or it becomes more likely than not that the fair value of long-lived assets is reduced below the carrying value of the reporting unit, which could result in a further write-down of the fair-value of our assets. For example, the performance of our Topwin reporting unit did not meet expectations and, as a result, an impairment of goodwill and intangibles associated with that reporting unit was triggered in 2017, impacting consolidated earnings.

In addition, certain of our long-lived assets such as leasehold improvements, machinery, equipment, and loan and demo assets may experience impairment as a result of events such as the closure of sites, introduction of new products, decisions to exit certain products or markets, and changes in technology. We depreciate long-lived assets and amortize intangible assets at levels we believe are adequate; however, an impairment of these assets could have a material adverse impact on our business, financial condition and results of operations. For example, due to the 2017 restructuring plan, $3.0 million of non-current assets were impaired since the beginning of the plan through 2018 and included in operating expenses.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud and our stock price and our business may be adversely affected.

Effective internal controls are necessary for us to provide reliable financial reports and effectively prevent fraud. If we cannot provide reliable financial reports or prevent fraud, our operating results could be harmed.

Although we are committed to continue to improve our internal control processes and to diligently and vigorously review our internal control over financial reporting in order to ensure compliance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, any control system, regardless of how well designed, operated and evaluated, can provide only reasonable, not absolute, assurance that its objectives will be met. Therefore, we cannot be certain that in the future any material weaknesses or significant deficiencies will be avoided. If such weaknesses or deficiencies occur, they could result in misstatements of our results of operations, restatements of our Consolidated Financial Statements, a decline in our stock price and investor confidence, or other material negative effects on our business, reputation, financial condition or liquidity.

Our implementation of the new revenue recognition requirements may not be fully complete and accurate, which could adversely affect our reported financial results.

Although we have spent considerable time preparing to implement and implementing the new Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers: Topic 606 (ASU 2014-09)*, we do not have extensive experience with the new requirements in practice. The SEC requires us to publish our financial results in short time frames, which could result in our having difficulty implementing the new requirements completely and accurately as intended within the prescribed financial reporting periods. Untimely or inaccurate implementation of ASU 2014-09 could adversely affect our reported financial results. See Note 1: Basis of Presentation and Note 2: Recent Accounting Pronouncements for further information regarding implementation and the changes to our policies and financials due to implementation of the ASU.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Not Applicable.

Item 4. Mine Safety Disclosures

Not Applicable.

Item 5. Other Information

Beginning with the first quarter of fiscal 2019, the Company will now break out Net sales of Service, interrelated with all four major end markets as a separate line item to provide better insights into revenue streams. As such, the below tables provide comparative presentation for the prior year reported numbers.

The Company and its consolidated subsidiaries operate in a single segment, and this single segment sells products into a variety of end markets that are grouped into four major categories for the purpose of providing an understanding of the principal end markets for the products manufactured by the Company, specifically: (1) Printed Circuit Board (PCB), (2) Component Test, (3) Semiconductor, and (4) Industrial Machining. Service sales are interrelated with all major end markets of the Company and are separately presented.

	Fiscal quarter ended					
	Jul 1, 2017			Sep 30, 2017		
(In thousands)	As reported	Adjustment	As Reclassified	As reported	Adjustment	As Reclassified
Printed Circuit Board	$ 52,318	$ (6,133)	$ 46,185	$ 43,541	$ (5,354)	$ 38,187
Component Test	8,181	(733)	7,448	7,677	(670)	7,007
Semiconductor	6,737	(1,556)	5,181	12,028	(2,387)	9,641
Industrial Machining	5,448	(2,169)	3,279	7,721	(2,240)	5,481
Service	—	10,591	10,591	—	10,651	10,651
Net sales	$ 72,684	$ —	$ 72,684	$ 70,967	$ —	$ 70,967

	Fiscal quarter ended					
	Dec 30, 2017			Mar 31, 2018		
(In thousands)	As reported	Adjustment	As Reclassified	As reported	Adjustment	As Reclassified
Printed Circuit Board	$ 83,799	$ (6,866)	$ 76,933	$ 76,772	$ (5,876)	$ 70,896
Component Test	7,473	(969)	6,504	9,459	(1,058)	8,401
Semiconductor	12,351	(1,687)	10,664	24,055	(1,693)	22,362
Industrial Machining	7,217	(1,900)	5,317	3,107	(1,244)	1,863
Service	—	11,422	11,422	—	9,871	9,871
Net Sales	$ 110,840	$ —	$ 110,840	$ 113,393	$ —	$ 113,393

Item 6. Exhibits

This list is intended to constitute the exhibit index.

3.1	Third Restated Articles of Incorporation, as amended. Incorporated by reference to Exhibit 3.1 of the Company's Annual Report on Form 10-K, filed on June 15, 2010.
3.2	2009 Amended and Restated Bylaws, as amended. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on March 26, 2015.
10.1	Form of Executive Time-Based Restricted Stock Unit Award Agreement (May 2018)
10.2	Form of Executive Performance Market-Based Restricted Stock Unit Award Agreement (May 2018)
31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document *
101.SCH	XBRL Taxonomy Extension Schema Document *
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document *
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document *
101.LAB	XBRL Taxonomy Extension Label Linkbase Document *
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document *

* Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933 or Section 18 of the Securities and Exchange Act of 1934, and otherwise are not subject to liability under those sections.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

Date:	August 7, 2018	ELECTRO SCIENTIFIC INDUSTRIES, INC.	
		By:	/s/ Michael D. Burger
			Michael D. Burger
			President and Chief Executive Officer
			(Principal Executive Officer)
		By:	/s/ Allen Muhich
			Allen Muhich
			Vice President, Chief Financial Officer and Corporate Secretary
			(Principal Financial Officer)

RESTRICTED STOCK UNITS
AWARD AGREEMENT

This Award Agreement (the "Agreement") is entered into as of [Grant Date] by and between Electro Scientific Industries, Inc., an Oregon corporation (the "Company"), and [Recipient Name] ("Recipient"), for the grant of restricted stock units with respect to the Company's Common Stock ("Common Stock"). By accepting this award Recipient agrees to be bound by the terms and conditions of this Agreement.

The Compensation Committee of the Company's Board of Directors (the "Committee") made a restricted stock units award to Recipient pursuant to the Company's 2004 Stock Incentive Plan (the "Plan") and Recipient desires to accept the award subject to the terms and conditions of this Agreement.

IN CONSIDERATION of the mutual covenants and agreements set forth in this Agreement, the parties agree to the following.

1. **Grant and Terms of Restricted Stock Units**. The Company grants to Recipient [Total Shares Granted] restricted stock units, subject to the adjustments, restrictions, terms and conditions set forth in this Agreement.

(a) *Rights under Restricted Stock Units.* A restricted stock unit (an "RSU") represents the unsecured right to require the Company to deliver to Recipient one share of Common Stock for each RSU, subject to Section 1(c). The number of shares of Common Stock deliverable with respect to each RSU is subject to adjustment as determined by the Board of Directors of the Company as to the number and kind of shares of stock deliverable upon any merger, reorganization, consolidation, recapitalization, stock dividend, spin-off or other change in the corporate structure affecting the Common Stock generally.

(b) *Vesting and Delivery Dates.* The RSUs issued under this Agreement shall initially be 100% unvested and subject to forfeiture. Subject to this Section 1(b) and Section 1(c), the RSUs shall vest according to the below vesting schedule. The RSUs shall become vested on the vesting date only if Recipient continues to be an employee of the Company through such vesting date. The delivery date for a RSU shall be the date on which such RSU vests.

Vest Date	**# of Shares**
{vest date 1}	{# of Shares 1}
{vest date 2} (if needed)	{# of Shares 2}
{vest date 3} (if needed)	{# of Shares 3}
(and so on if needed.)	

(c) *Payment before Vesting Date.*

(1) *Payment on Death or Total Disability*. If Recipient ceases to be an employee of the Company by reason of Recipient's death or physical disability, outstanding but unvested RSUs shall become immediately vested in an amount determined by multiplying the total number of RSUs subject to this Agreement by a percentage calculated by dividing the number of whole months elapsed from the date of this Agreement to the date of termination of service by the total number of whole months in the vesting period (the "Pro Rata Percentage"); provided, however, that the number of RSUs so vested shall be reduced by the number of any RSUs that previously vested pursuant to Section 1(b). The delivery date shall also accelerate. The term "total disability" means a medically determinable mental or physical impairment that is expected to result in death or has lasted or is expected to last for a continuous period of 12 months or more and that, in the opinion of the Company and two independent physicians approved by the Company, causes Recipient to be unable to perform his or her duties as an

employee, director, officer or consultant of the Company and unable to engage in any substantial gainful activity. Total disability shall be deemed to have occurred after both of the following have occurred:

(A) The two independent physicians have furnished their written opinion of total disability to the Company; and

(B) The Company has reached an opinion of total disability.

(2) *Acceleration on Normal Retirement.* After Recipient attains age 65, outstanding but unvested RSUs shall become vested each calendar year in an amount determined by multiplying the total number of RSUs subject to this Agreement by the Pro Rata Percentage as of the earlier of December 31 of the year or the date of Recipient's termination of employment. The delivery date shall also be accelerated.

(3) *Double Trigger Acceleration on Change in Control.*

(i) All of the RSUs shall immediately vest if a Change in Control (as defined below) occurs and at any time after the Change in Control and on or before the first anniversary of the Change in Control, (i) the Recipient's employment is terminated by the Company (or its successor) without Cause (as defined below), or (ii) the Recipient's employment is terminated by the Recipient for Good Reason (as defined below); provided, however, that the RSUs may also immediately vest in connection with a sale of the Company as provided in Section 1(c)(4) below.

(ii) For purposes of this Agreement, a "Change in Control" of the Company shall mean the occurrence of any of the following events:

(A) At any time during a period of two consecutive years, individuals who at the beginning of such period constituted the Board of Directors of the Company ("Incumbent Directors") shall cease for any reason to constitute at least a majority thereof; provided, however, that the term "Incumbent Director" shall also include each new director elected during such two-year period whose nomination or election was approved by two-thirds of the Incumbent Directors then in office;

(B) Any "person" or "group" (within the meaning of Sections 13(d) and 14(d)(2) of the Exchange Act) shall, as a result of a tender or exchange offer, open market purchases or privately negotiated purchases from anyone other than the Company, have become the beneficial owner (within the meaning of Rule 13d-3 under the Exchange Act), directly or indirectly, of more than fifty percent (50%) of the then outstanding Common Stock of the Company;

(C) A consolidation, merger or plan of exchange involving the Company ("Merger") as a result of which the holders of outstanding securities of the Company ordinarily having the right to vote for the election of directors ("Voting Securities") immediately prior to the Merger do not continue to hold at least 50% of the combined voting power of the outstanding Voting Securities of the surviving corporation or a parent corporation of the surviving corporation immediately after the Merger, disregarding any Voting Securities issued to or retained by such holders in respect of securities of any other party to the Merger; or

(D) A sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of the Company.

(iii) For purposes of this Agreement, "Cause" shall mean (a) the willful and continued failure to perform substantially the Recipient's reasonably assigned duties with the Company (or its successor) (other than any such failure resulting from incapacity due to physical or mental illness) after a demand for substantial performance is delivered to the Recipient by the Company (or its successor) which specifically identifies the manner in which the Company (or its successor) believes that the Recipient has not substantially performed the Recipient's duties, (b) the willful engagement in illegal conduct which is materially and demonstrably injurious to the Company (or its successor), or (c) the commission of an act by Recipient, or the failure of Recipient to act, which constitutes gross negligence or gross misconduct. No act, or failure to act, shall be considered "willful" if the Recipient reasonably believed that the action or omission was in, or not opposed to, the best interests of the Company (or its successor).

(iv) For purposes of this Agreement, "Good Reason" shall mean Recipient's voluntary termination, within 30 days following the expiration of any Company cure period (discussed below) following the occurrence of one or more of the following, without Recipient's consent:

(A) the assignment of a different title, job or responsibilities that results in a substantial reduction in the duties of the Recipient after the Change in Control when compared to the Recipient's duties with respect to the Company's operations prior to the Change in Control; provided that any change made solely as the result of the Company becoming a subsidiary or business unit of a larger company in a Change in Control shall not constitute Good Reason unless Recipient's new duties are substantially reduced from his or her prior duties;

(B) a reduction in Recipient's target bonus or base salary as in effect immediately prior to the Change in Control;

(C) a material reduction in total benefits available to the Recipient under cash incentive, stock incentive and other employee benefit plans after the Change in Control compared to the total package of such benefits as in effect prior to the Change in Control;

(D) the Recipient is required to be based more than 50 miles from where the Recipient's office is located immediately prior to the Change in Control except for required travel on company business to an extent substantially consistent with the business travel obligations which the Recipient undertook on behalf of the Company prior to the Change in Control; or

(E) the failure by any successor to the Company to expressly assume this Agreement or any obligation under this Agreement.

Recipient may not resign for Good Reason without first providing the Company with written notice within 90 days of the initial existence of the condition that Recipient believes constitutes Good Reason specifically identifying the acts or omissions constituting the grounds for Good Reason and a reasonable cure period of not less than 30 days following the date of such notice.

For purposes of the "Good Reason" definition, the term "Company" will be interpreted to include any subsidiary, parent, affiliate or successor thereto, if applicable.

(4) *Sale of the Company*. If there shall occur a merger, consolidation or plan of exchange involving the Company pursuant to which the outstanding shares of Common Stock of the Company are converted into cash or other stock, securities or property, or a sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all, or substantially all, the assets of the Company, then, as determined by the Committee or the Board of Directors, either:

(i) the unvested RSUs shall be converted into restricted stock units for stock of the surviving or acquiring corporation in the applicable transaction, with the amount and type of shares subject thereto to be conclusively determined by the Committee, taking into account the relative values of the companies involved in the applicable transaction and the exchange rate, if any, used in determining shares of the surviving corporation to be held by the former holders of the Company's Common Stock following the applicable transaction, and disregarding fractional shares, with the dates for vesting of RSUs and delivery of shares of Common Stock unchanged;

(ii) the unvested RSUs shall be converted into a cash payment obligation of the surviving or acquiring corporation in an amount equal to the proceeds a holder of the underlying shares would have received in proceeds from such transaction with respect to those shares; or

(iii) all of the unvested RSUs shall immediately vest and all underlying shares shall be delivered simultaneously with the closing of the applicable transaction such that the Recipient will participate as a shareholder in receiving proceeds from such transaction with respect to those shares.

(d) *Forfeiture of RSUs on Other Terminations of Employment.* If Recipient ceases to be an employee of the Company for any reason that does not result in acceleration or payment pursuant to Section 1(c), Recipient shall immediately forfeit all outstanding but unvested RSUs granted pursuant to this Agreement and Recipient shall have no right to receive the related Common Stock.

(e) *Restrictions on Transfer and Delivery on Death.* Recipient may not sell, transfer, assign, pledge or otherwise encumber or dispose of the RSUs. If Recipient dies before the delivery date, the shares will be released with the Company's brokerage, or Recipient's brokerage if separately designated. Recipient should maintain proper beneficiary designations with the brokerage and/or ensure Recipient's estate is aware of the share's location for proper delivery.

(f) *Reinvestment of Dividend Equivalents.* On each date on which the Company pays a dividend on a share of Common Stock with respect to an RSU, the number of RSUs subject to this Agreement shall be increased by a number equal to the number of whole or fractional shares of Common Stock with a value equal to the value of the dividends that would have been paid on the stock deliverable pursuant to the RSUs (if such shares were outstanding), divided by the closing stock price on the dividend payment date. If the vesting date for any RSUs subject to this Agreement occurs within seven business days of the payment date for a dividend, the Company, at its option, may elect to pay to Recipient cash, net of withholding, equal to the cash dividend payable on the RSUs which so vest in lieu of increasing the number of RSUs subject to this Agreement.

(g) *Delivery on Delivery Date.* As soon as practicable following the delivery date, the Company shall deliver to Recipient a certificate for the number of shares of Common Stock represented by all RSUs having a delivery date on the same date, rounded down to the whole share. No fractional shares of Common Stock shall be issued. The Company shall pay to Recipient in cash an amount equal to the value of any fractional shares that would otherwise have been issued, valued as of the delivery date. If shares or cash are to be delivered on a particular date, the shares or cash shall be deemed delivered on that date for purposes of compliance with the terms of this Agreement if the cash or shares are actually delivered within 45 days after the specified date as determined in the Company's discretion with the Recipient having no right to determine the delivery date. Recipient shall not have any right to determine or direct the date of actual delivery.

(h) *Recipient's Rights as Shareholder.* Recipient shall have no rights as a shareholder with respect to the RSUs or the shares underlying them until the Company delivers the shares to Recipient on the delivery date.

(i) *Tax Withholding*. Recipient acknowledges that, not later than the actual delivery date, the value of delivered shares of Common Stock will be treated as ordinary compensation income for federal and state income and FICA tax purposes, and that the Company will be required to withhold taxes on this income amount. The Company will notify Recipient of the required withholding amount. Concurrently with or prior to the delivery of the certificate referred to in Section 1(g), Recipient shall pay to the Company the required withholding amount in cash or, at the election of Recipient (which election must be made on or before the vesting date), by surrendering to the Company for cancellation shares of the Company's Common Stock to be delivered with respect to the RSUs or other shares of the Company's Common Stock valued at the closing market price for the Company's Common Stock on the vesting date. If Recipient pays the withholding amount in shares of Common Stock, the Company shall pay to Recipient in cash the amount of any resulting over payment.

(j) *Section 409A*. The award made pursuant to this Agreement shall be interpreted in accordance with Section 409A and Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance issued after the grant of the award. For example, notwithstanding anything to the contrary in this Agreement, (i) a termination of employment shall be determined with respect to standards for "separation from service" within the meaning of applicable regulations; (ii) the provisions described in Sections 1(c)(4)(ii) and 1(c)(4)(iii) shall apply only if such events qualify as a "termination or liquidation of the plan" within the meaning of Treas. Reg. § 1.409A 3(j)(4)(ix); and (iii) the provision described in Section 1(c)(4)(i) shall apply only if such events qualify as a "change of control event" within the meaning of Treas. Reg. § 1.409A-3(i)(5)(i).

(1) Notwithstanding any provision of the award to the contrary, the Company may adopt such amendments to the award or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Company determines are necessary or appropriate to (1) exempt the award from the application of Section 409A or preserve the intended tax treatment of the benefits provided with respect to the award, or (2) comply with the requirements of Section 409A.

(2) If an amount is determined to be subject to applicable provisions of Section 409A of the Code, payment in connection with termination of employment for a reason other than death may not start or be made to Recipient if the Company determines Recipient is a "key employee" as defined in Section 416(i) of the Code, without regard to Section 416(i)(5) of the Code, before the date which is six months after the date of termination, notwithstanding any other provisions for time of payment in this Agreement, if such delay in payment is necessary to comply with Section 409A of the Code. The Company may determine that Recipient is a key employee in the event of doubt or to avoid impractical efforts or expense to make an exact determination of key employees. Recipient shall have no claim, rights or remedy if the determination is not correct.

2. **Miscellaneous**.

(a) *Entire Agreement; Amendment.* This Agreement and the Plan (including without limitation Section 17 thereof) constitutes the entire agreement of the parties with regard to the subjects hereof and may be amended only by written agreement between the Company and Recipient.

(b) *Notices.* Any notice required or permitted under this Agreement shall be in writing and shall be deemed sufficient when delivered personally to the party to whom it is addressed or when deposited into the United States mail as registered or certified mail, return receipt requested, postage prepaid, addressed to Electro Scientific Industries, Inc., Attention: Corporate Secretary, at its principal executive offices or to Recipient at the address of Recipient in the Company's records, or at such other address as such party may designate by ten (10) days' advance written notice to the other party.

(c) *Rights and Benefits.* The rights and benefits of this Agreement shall inure to the benefit of and be enforceable by the Company's successors and assigns and, subject to the restrictions on transfer of this Agreement, be binding upon Recipient's heirs, executors, administrators, successors and assigns.

(d) *Further Action.* The parties agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement.

(e) *Applicable Law; Attorneys' Fees.* The terms and conditions of this Agreement shall be governed by the laws of the State of Oregon. In the event either party institutes litigation hereunder, the prevailing party shall be entitled to reasonable attorneys' fees to be set by the trial court and, upon any appeal, the appellate court.

PERFORMANCE-BASED

RESTRICTED STOCK UNITS AWARD AGREEMENT

This Award Agreement (the "Agreement") is entered into as of [Grant Date] by and between Electro Scientific Industries, Inc., an Oregon corporation (the "Company"), and [Recipient Name] ("Recipient"), for the grant of restricted stock units with respect to the Company's Common Stock ("Common Stock"). By accepting this award Recipient agrees to be bound by the terms and conditions of this Agreement.

The Compensation Committee of the Company's Board of Directors made a restricted stock units award to Recipient pursuant to the Company's 2004 Stock Incentive Plan (the "Plan"). Recipient desires to accept the award subject to the terms and conditions of this Agreement.

IN CONSIDERATION of the mutual covenants and agreements set forth in this Agreement, the parties agree to the following:

1. **Grant and Terms of Restricted Stock Units**. The Company grants to Recipient under the Plan [Total Shares Granted] restricted stock units, subject to the adjustments, restrictions, terms and conditions set forth in this Agreement.

(a) *Rights under Restricted Stock Units*. A restricted stock unit (an "RSU") represents the unsecured right to require the Company to deliver to Recipient one share of Common Stock for each RSU. The number of shares of Common Stock deliverable with respect to each RSU is subject to adjustment as determined by the Board of Directors of the Company as to the number and kind of shares of stock deliverable upon any merger, reorganization, consolidation, recapitalization, stock dividend, spin-off or other change in the corporate structure affecting the Common Stock generally.

(b) *Vesting*. The RSUs issued under this Agreement shall initially be 100% unvested and subject to forfeiture as set forth below.

(i) Except as set forth in Section 1(d), if Recipient ceases to be employed by the Company for any reason or for no reason prior to [Vest Date], the unvested RSUs shall be forfeited to the Company.

(ii) To the extent that the number of RSUs first specified above are reduced in accordance with Section 1(b)(iii) and except as provided in Section 1(d), the reduction shall be forfeited to the Company. The extent to which any Performance Goal is achieved, if at all, shall be determined by a date that is no later than December 31 of the calendar year in which the Performance Period to which the Performance Goal relates ends. Nothing contained in this Agreement shall confer upon Recipient any right to be employed by the Company or to continue to provide services to the Company or to interfere in any way with the right of the Company to terminate Recipient's services at any time for any reason, with or without cause.

(iii) The RSUs shall be earned based on three "Performance Goals" based on the relative performance of the Company's Common Stock against the Russell 2000 Index, as follows:

(A) One third of the granted RSUs will be earned based on the Relative Performance Percentage for the period beginning on the date of grant and ending on the first anniversary of the date of grant (the "First Performance Period"), as follows: (i) 100% of the RSUs will be earned if the Relative Performance Percentage for the First Performance Period is equal to 100%; (ii) for every percentage point that the Relative Performance Percentage is less than 100% for the First Performance Period, three percent fewer of the RSUs available to be earned with respect to the First Performance Period will be earned, so that no RSUs will be earned with respect to that period if the Relative Performance Percentage is less than or equal to 66.7%; and (iii) for every percentage point that the Relative Performance Percentage for the First Performance Period is greater than 100%, two percent more of the RSUs available to be earned for such period will be earned, so that 150% of the target RSUs for such period will be earned if the Relative Performance Percentage is 125% for such period, provided that no more than 150% of the RSUs available to be earned in the First Performance Period may be earned based on this Performance Goal.

(B) One third of the granted RSUs will be earned based on the Relative Performance Percentage for the period beginning on the date of grant and ending on the second anniversary of the date of grant (the "Second Performance Period"), as follows: (i) 100% of the RSUs will be earned if the Relative Performance Percentage for the Second Performance Period is equal to 100%; (ii) for every percentage point that the Relative Performance Percentage is less than 100% for the Second Performance Period, three percent fewer of the RSUs available to be earned with respect to the Second Performance Period will be earned, so that no RSUs will be earned with respect to that period if the Relative Performance Percentage is less than or equal to 66.7%; and (iii) for every percentage point that the Relative Performance Percentage for the Second Performance Period is greater than 100%, two percent more of the RSUs available to be earned for such period will be earned, so that 200% of the target RSUs for such period will be earned if the Relative Performance Percentage is 150% for such period, provided that no more than 200% of the RSUs available to be earned in the Second Performance Period may be earned based on this Performance Goal.

(C) The full number of granted RSUs will be earned based on the Relative Performance Percentage for the period beginning on the date of grant and ending on the third anniversary of the date of grant (the "Third Performance Period"), as follows: (i) 100% of the RSUs will be earned if the Relative Performance Percentage for the Third Performance Period is equal to 100%; (ii) for every percentage point that the Relative Performance Percentage is less than 100% for the Third Performance Period, three percent fewer of the RSUs available to be earned with respect to the Third Performance Period will be earned, so that no RSUs will be earned with respect to that period if the Relative Performance Percentage is less than or equal to 66.7%; and (iii) for every percentage point that the Relative Performance Percentage for the Third Performance Period is greater than 100%, two percent more of the RSUs available to be earned for such period will be earned, so that 200% of the target RSUs for such period will be earned if the Relative Performance Percentage is 150% for such period, provided that no more than 200% of the RSUs available to be earned at target performance in the Third Performance Period may be earned based on this Performance Goal, with such number reduced by the aggregate number of RSUs earned with respect to the First Performance Period and the Second Performance Period (but with such reduction not to reduce the number of RSUs earned in the Third Performance Period below zero).

(D) Notwithstanding anything in this Agreement to the contrary, the total number of RSUs that are earned under this Agreement shall not exceed the lesser of (i) a number of shares with an aggregate value, based on the closing price of the Company's Common Stock on the last trading date preceding the vesting date, that is five times the result of (A) [Total Shares Granted] by (B) $[Grant Date Closing Price], rounded down to the nearest whole share, and (ii) 200% of the number of RSUs set forth in the first sentence of Section 1.

(E) Performance of the Company's Common Stock relative to the Russell 2000 Index for a given Performance Period will be measured as follows:

(i) To determine relative performance, the baseline metrics are the 30 trading day average closing price of the Company's Common Stock and the

Russell 2000 Index, as reported in The Wall Street Journal, or such other reliable source as is determined by the Compensation Committee or the Board of Directors, in its sole discretion, with the last of the 30 trading days falling on the first market open date directly preceding the date of grant. This 30 day average establishes both the Company baseline stock price (the "Company Baseline Stock Price") and the Russell 2000 Index baseline (the "Russell 2000 Baseline") against which future Company stock and Russell 2000 Index performance will be compared.

(ii) Next, the Company will measure the 30 trading day average closing price of the Company and the Russell 2000 Index, as reported in The Wall Street Journal, or such other reliable source as is determined by the Compensation Committee or the Board of Directors, in its sole discretion, with the last trading day of such 30 trading day period ending on the last trading day of the applicable Performance Period (establishing both the "Company Closing Price" and the "Russell 2000 Index Closing Price" for such Performance Period).

(iii) The Company will then measure Company performance for a given Performance Period by dividing the Company Closing Price by the Company Baseline Stock Price, with the quotient expressed as a percentage of the Company Baseline Stock Price (the "Company Percentage Performance"). The Company will then measure Russell 2000 Index Performance over the same period by dividing the Russell 2000 Index Closing Price by the Russell 2000 Index Baseline with the quotient expressed as a percentage of the Russell 2000 Index Baseline (the "Russell 2000 Index Percentage Performance").

(iv) The Company will then subtract the Russell 2000 Index Percentage Performance from the Company Percentage Performance, then add 100 to the result, with the final result constituting the relative Company Common Stock performance as a percentage (the "Relative Performance Percentage").

(F) "Performance Period" means any of the First Performance Period, the Second Performance Period or the Third Performance Period.

(G) The number of RSUs determined pursuant to clauses (A), (B) and (C) of this Section 1(b)(iii) (subject to the limitations in clause (D)) shall vest on the last day of the Third Performance Period, subject to Section 1(b)(i). Except as provided in Section 1(d), any RSUs that are not vested at the end of the Third Performance Period shall be forfeited.

(c) *Delivery Date*. Except as set forth in Section 1(d)(iv), the delivery date for shares of Common Stock with respect to RSUs earned subject to this Agreement shall be as soon as practicable after the Third Performance Period ends, but in no event later than December 31 of the calendar year in which such fiscal year ends.

(d) Proration upon Termination for Certain Reasons Prior to End of Performance Period; Treatment on Change in Control.

(i) *Proration on Death or Total Disability*. If Recipient ceases to be an employee of the Company prior to the end of the Performance Period by reason of Recipient's death or total disability, the RSUs that have not otherwise vested or been forfeited pursuant to Section 1(b)(iii)(G) shall not be forfeited under Section 1(b)(i) and the following shall apply:

(1) With respect to any Performance Period that is completed prior to Recipient's termination of employment, the number of RSUs earned with respect to such Performance Period(s) shall not be reduced.

(2) With respect to the any Performance Period during which Recipient's employment terminates, the number of RSUs Recipient would otherwise be entitled to receive pursuant to Section 1(b)(iii) with respect to that Performance Period if Recipient were employed through the end of that Performance Period (the "Base Payout") shall be reduced to a number determined by multiplying the Base Payout by a percentage calculated by dividing the number of months elapsed from the beginning of such Performance Period to the date of

termination of employment (rounded down to the whole month) by the number of months in such Performance Period. RSUs for the Performance Period in which employment terminates that exceed the reduced number shall be forfeited to the Company.

(3) The shares of Common Stock with respect to RSUs determined under (1) and (2) shall be delivered as soon as practicable on or after the end of the Third Performance Period in which employment terminates, but in no event later than December 31 of the calendar year in which the Third Performance Period ends.

(4) The term "total disability" means a medically determinable mental or physical impairment that is expected to result in death or has lasted or is expected to last for a continuous period of 12 months or more and that, in the opinion of the Company and two independent physicians approved by the Company, causes Recipient to be unable to perform his or her duties as an employee, director, officer or consultant of the Company and unable to engage in any substantial gainful activity. Total disability shall be deemed to have occurred after both of the following have occurred:

(A) The two independent physicians have furnished their written opinion of total disability to the Company; and

(B) The Company has reached an opinion of total disability.

(ii) *Double Trigger Acceleration on Change in Control*.

(1) The number of unvested RSUs Recipient would otherwise be entitled to receive pursuant to Section 1(b)(iii) if Recipient were employed through the end of the Third Performance Period shall immediately vest (provided, however, that if vesting occurs pursuant to this Section 1(d)(ii) during or prior to the end of a Performance Period that has not yet ended it will be conclusively presumed that the RSUs would have been at the 100% vesting level for each such unfinished Performance Period, subject to any action taken by the Compensation Committee or the Board of Directors pursuant to clause (1) or (2) of Section 1(d)(iii), including the final paragraph of Section 1(d)(iii)) if a Change in Control (as defined below) occurs and either:

(A) at any time after the Change in Control and on or before the first anniversary of the Change in Control, (i) the Recipient's employment is terminated by the Company (or its successor) without Cause (as defined below), or (ii) the Recipient's employment is terminated by the Recipient for Good Reason (as defined below); or

(B) at any time after the Change in Control (i) the Company or the surviving or acquiring entity terminates this Agreement and all similar agreements, including because the achievement of any of the Performance Goals becomes reasonably unable to be determined;

Notwithstanding the foregoing, the RSUs may also immediately vest in connection with a sale of the Company as provided in Section 1(d)(iii) below.

(2) For purposes of this Agreement, a "Change in Control" of the Company shall mean the occurrence of any of the following events:

(A) At any time during a period of two consecutive years, individuals who at the beginning of such period constituted the Board of Directors of the Company ("Incumbent Directors") shall cease for any reason to constitute at least a majority thereof; provided, however, that the term "Incumbent Director" shall also include each new director elected during such two-year period whose nomination or election was approved by two-thirds of the Incumbent Directors then in office;

(B) Any "person" or "group" (within the meaning of Sections 13(d) and 14(d)(2) of the Exchange Act) shall, as a result of a tender or exchange offer, open market purchases or privately negotiated purchases from anyone other than the Company, have become the beneficial owner (within the meaning of Rule 13d-3 under the Exchange Act), directly or indirectly, of more than fifty percent (50%) of the then outstanding Common Stock of the Company;

(C) A consolidation, merger or plan of exchange involving the Company ("Merger") as a result of which the holders of outstanding securities of the Company ordinarily having the right to vote for the election of directors ("Voting Securities") immediately prior to the Merger do not continue to hold at least fifty percent (50%) of the combined voting power of the outstanding Voting Securities of the surviving corporation or a parent corporation of the surviving corporation immediately after the Merger, disregarding any Voting Securities issued to or retained by such holders in respect of securities of any other party to the Merger; or

(D) A sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of the Company.

(3) For purposes of this Agreement, "Cause" shall mean (a) the willful and continued failure to perform substantially the Recipient's reasonably assigned duties with the Company (or its successor) (other than any such failure resulting from incapacity due to physical or mental illness) after a demand for substantial performance is delivered to the Recipient by the Company (or its successor) which specifically identifies the manner in which the Company (or its successor) believes that the Recipient has not substantially performed the Recipient's duties, (b) the willful engagement in illegal conduct which is materially and demonstrably injurious to the Company (or its successor), or (c) the commission of an act by Recipient, or the failure of Recipient to act, which constitutes gross negligence or gross misconduct. No act, or failure to act, shall be considered "willful" if the Recipient reasonably believed that the action or omission was in, or not opposed to, the best interests of the Company (or its successor).

(4) For purposes of this Agreement, "Good Reason" shall mean:

(A) the assignment of a different title, job or responsibilities that results in a decrease in the level of responsibility of the Recipient after the Change in Control when compared to the Recipient's level of responsibility for the Company's operations prior to the Change in Control; provided that Good Reason shall not exist if the Recipient continues to have the same or a greater general level of responsibility for Company operations after the Change in Control as the Recipient had prior to the Change in Control even if the Company operations are a subsidiary or division of the surviving company;

(B) a reduction in the Recipient's base pay as in effect immediately prior to the Change in Control;

(C) a material reduction in total benefits available to the Recipient under cash incentive, stock incentive and other employee benefit plans after the Change in Control compared to the total package of such benefits as in effect prior to the Change in Control; or

(D) the Recipient is required to be based more than 50 miles from where the Recipient's office is located immediately prior to the Change in Control except for required travel on company business to an extent substantially consistent with the business travel obligations which the Recipient undertook on behalf of the Company prior to the Change in Control; or

(E) the failure by any successor to the Company to expressly assume this Agreement or any obligation under this Agreement.

Recipient may not resign for Good Reason without first providing the Company with written notice within 90 days of the initial existence of the condition that Recipient believes constitutes Good Reason specifically identifying the acts or omissions constituting the grounds for Good Reason and a reasonable cure period of not less than 30 days following the date of such notice.

For purposes of the "Good Reason" definition, the term "Company" will be interpreted to include any subsidiary, parent, affiliate or successor thereto, if applicable.

(iii) *Sale of the Company*. If there shall occur a merger, consolidation or plan of exchange involving the Company pursuant to which the outstanding shares of Common Stock of the Company are converted into cash or other stock, securities or property, or a sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all, or substantially all, the assets of the Company, then, as determined by the Committee or the Board of Directors, either:

(1) the unvested RSUs shall be converted into restricted stock units for stock of the surviving or acquiring corporation in the applicable transaction, with the amount and type of shares subject thereto to be conclusively determined by the Committee, taking into account the relative values of the companies involved in the applicable transaction and the exchange rate, if any, used in determining shares of the surviving corporation to be held by the former holders of the Company's Common Stock following the applicable transaction, and disregarding fractional shares, with the dates for vesting of RSUs, payment and other terms of this Agreement unchanged;

(2) the unvested RSUs shall be converted into a cash payment obligation of the surviving or acquiring corporation in an amount equal to the proceeds a holder of the underlying shares would have received in proceeds from such transaction with respect to those shares, with the dates for vesting of RSUs, payment and other terms of this Agreement unchanged; or

(3) all of the unvested RSUs shall immediately vest based on the number of RSUs earned for completed Performance Periods and assuming 100% earning level for any uncompleted Performance Periods and all underlying shares shall be delivered simultaneously with the closing of the applicable transaction such that the Recipient will participate as a shareholder in receiving proceeds from such transaction with respect to those shares.

In the case of (1) and (2) if any Performance Period has not been completed as of the date of the transaction, the Company Closing Price for such Performance Period shall be deemed to be the price per share received by the Company's stockholders in the transaction. Relative performance for such uncompleted Performance Period shall then be measured against the Russell 2000 Index performance from the Russell 2000 Index Baseline through the 30 trading day average closing price of the Russell 2000 Index in the period ending on the date of the closing of the transaction. The Company's stock performance relative to the Russell 2000 Index shall then be determined consistently with the methodology specified herein for completed Performance Periods. The number of RSUs subject to this Agreement so determined shall then continue to vest based upon Recipient's continuing service to the Company, the acquirer, or their parents or subsidiaries through [Vest Date], subject to accelerated vesting as set forth in Section 1(d)(ii).

(iv) *Delivery Date*. For purposes of Section 1(d)(ii) or (iii), the delivery date for shares of Common Stock with respect to RSUs shall be as soon as practicable on or after the vesting described in such sections.

(e) *Forfeiture of RSUs on Other Terminations of Employment*. If Recipient ceases to be an employee of the Company for any reason that does not result in acceleration or payment pursuant to Section 1(d), Recipient shall immediately forfeit all outstanding but unvested RSUs granted pursuant to this Agreement and Recipient shall have no right to receive the related Common Stock.

(f) *Restrictions on Transfer and Delivery on Death*. Recipient may not sell, transfer, assign, pledge or otherwise encumber or dispose of the RSUs. If Recipient dies before the delivery date, the shares will be released with the Company's brokerage, or Recipient's brokerage if separately designated. Recipient should maintain proper beneficiary designations with the brokerage and/or ensure Recipient's estate is aware of the share's location for proper delivery.

(g) *Reinvestment of Dividend Equivalents*. On each date on which the Company pays a dividend on a share of Common Stock with respect to an RSU, the number of RSUs subject to this Agreement shall be increased by a number equal to the number of whole or fractional shares of Common Stock with a value equal to the value of the dividends that would have been paid on the stock deliverable pursuant to the RSUs (if such shares were outstanding), divided by the closing stock price on the dividend payment date. If the vesting date for any RSUs subject to this Agreement occurs within seven business days of the payment date for a dividend, the Company, at its option, may elect to pay to Recipient cash, net of withholding, equal to the cash dividend payable on the RSUs which so vest in lieu of increasing the number of RSUs subject to this Agreement.

(h) *Delivery on Delivery Date*. On the delivery date the Company shall deliver to Recipient a certificate for the number of shares of Common Stock represented by all RSUs having a delivery date on the same date, rounded down to the whole share. No fractional shares of Common Stock shall be issued. The Company shall pay to Recipient in cash an amount equal to the value of any fractional shares that would otherwise have been issued, valued as of the delivery date. If shares or cash are to be delivered on a particular date, the shares or cash shall be deemed delivered on that date for purposes of compliance with the terms of this Agreement if the cash or shares are actually delivered within 45 days after the specified date as determined in the Company's discretion with the Recipient having no right to determine the delivery date. Recipient shall not have any right to determine or direct the date of actual delivery; provided however, that delivery required to be made in no event later than December 31 of the calendar year in which the Performance Period ends must be made on or before such date.

(i) *Recipient's Rights as Shareholder*. Recipient shall have no rights as a shareholder with respect to the RSUs or the shares underlying them until the Company delivers the shares to Recipient on the delivery date.

(j) *Tax Withholding*. Recipient acknowledges that, not later than the actual delivery date, the value of delivered shares of Common Stock will be treated as ordinary compensation income for federal and state income and FICA tax purposes, and that the Company will be required to withhold taxes on this income amount. The Company will notify Recipient of the required withholding amount. In connection with the delivery of the certificate referred to in Section 1(h), Recipient shall pay to the Company the required withholding amount in cash or, at the election of Recipient (which election must be made on or before the vesting date), by surrendering to the Company for cancellation shares of the Company's Common Stock to be delivered with respect to the RSUs or other shares of the Company's Common Stock valued at the closing market price for the Company's Common Stock on the vesting date. If Recipient pays the withholding amount in shares of Common Stock, the Company shall pay to Recipient in cash the amount of any resulting over payment.

(k) *Section 409A*. The award made pursuant to this Agreement is intended to comply with and shall be interpreted in accordance with the requirements of Section 409A and Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance issued after the grant of the award. Without limiting the generality of the foregoing, notwithstanding anything to the contrary in this Agreement:

(i) Any payment of Non-Qualified Deferred Compensation made pursuant to a voluntary or involuntary termination of employment shall be withheld and not paid until Recipient incurs both (i) such a termination of employment and (ii) a "separation from service" with the Company within the meaning of Treas. Reg. Section 1.409A-1(h).

(ii) The provisions described in Sections 1(d)(ii)(1)(B) and 1(d)(iii)(3) shall apply only if such events qualify as a "termination or liquidation of the plan" within the meaning of Treas. Reg. § 1.409A-3(j)(4)(ix);

(iii) The provision described in Section 1(d)(iii)(1) shall apply only if such events qualify as a "change of control event" within the meaning of Treas. Reg. § 1.409A-3(i)(5)(i).

(iv) If an amount is determined to be subject to applicable provisions of Section 409A of the Code, payment in connection with termination of employment for a reason other than death may not start or be made to Recipient if the Company determines Recipient is a "key employee" as defined in Section 416(i) of the Code, without regard to Section 416(i)(5) of the Code, before the date which is six months after the date of termination, notwithstanding any other provisions for time of payment in this Agreement, if such delay in payment is necessary to comply with Section 409A of the Code. The Company may determine that Recipient is a key employee in the event of doubt or to avoid impractical efforts or expense to make an exact determination of key employees. Recipient shall have no claim, rights or remedy if the determination is not correct.

(v) The Company may adopt such amendments to the award or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Company determines are necessary or appropriate to (1) exempt the award from the application of Section 409A or preserve the intended tax treatment of the benefits provided with respect to the award, or (2) comply with the requirements of Section 409A.

2. **Miscellaneous**.

(a) *Entire Agreement; Amendment*. This Agreement and the Plan (including without limitation Section 17 thereof) constitute the entire agreement of the parties with regard to the subjects hereof and may be amended only by written agreement between the Company and the Recipient.

(b) *Notices*. Any notice required or permitted under this Agreement shall be in writing and shall be deemed sufficient when delivered personally to the party to whom it is addressed or when deposited into the United States mail as registered or certified mail, return receipt requested, postage prepaid, addressed to Electro Scientific Industries, Inc., Attention: Corporate Secretary, at its principal executive offices or to the Recipient at the address of Recipient in the Company's records, or at such other address as such party may designate by ten (10) days' advance written notice to the other party.

(c) *Rights and Benefits*. The rights and benefits of this Agreement shall inure to the benefit of and be enforceable by the Company's successors and assigns and, subject to the restrictions on transfer of this Agreement, be binding upon the Recipient's heirs, executors, administrators, successors and assigns.

(d) *Further Action*. The parties agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement.

(e) *Applicable Law; Attorneys' Fees*. The terms and conditions of this Agreement shall be governed by the laws of the State of Oregon. In the event either party institutes litigation hereunder, the prevailing party shall be entitled to reasonable attorneys' fees to be set by the trial court and, upon any appeal, the appellate court.

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002

I, Michael D. Burger, certify that:

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

Date: August 7, 2018

/s/ Michael D. Burger

Michael D. Burger
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION PURSUANT TO
SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002

I, Allen Muhich, certify that:

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

Date: August 7, 2018

/s/ Allen Muhich

Allen Muhich
Vice President, Chief Financial Officer and
Corporate Secretary

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 this quarterly report on Form 10-Q of Electro Scientific Industries, Inc. (the Company) for the quarterly period ended June 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Michael D. Burger, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(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.

/s/ Michael D. Burger

Michael D. Burger
President and Chief Executive Officer

August 7, 2018

This certification is made solely for the purpose of 18 U.S.C. Section 1350, and not for any other purpose. A signed original of this written statement required by Section 906 has been provided to Electro Scientific Industries, Inc. and will be retained by Electro Scientific Industries, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

**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 this quarterly report on Form 10-Q of Electro Scientific Industries, Inc. (the Company) for the quarterly period ended June 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Allen Muhich, Vice President of Administration, Chief Financial Officer, and Corporate Secretary of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(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.

/s/ Allen Muhich

Allen Muhich
Vice President, Chief Financial Officer and
Corporate Secretary

August 7, 2018

This certification is made solely for the purpose of 18 U.S.C. Section 1350, and not for any other purpose. A signed original of this written statement required by Section 906 has been provided to Electro Scientific Industries, Inc. and will be retained by Electro Scientific Industries, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.