

# SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

## FORM 10-Q

(Check One)

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

For the quarterly period ended September 30, 2017

**TRANSITION PURSUANT TO SECTION 13 OR 15(D)  
OF THE SECURITIES EXCHANGE ACT**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

*COMMISSION FILE NO. (0-16577)*

### CYBEROPTICS CORPORATION

(Exact name of registrant as specified in its charter)

**Minnesota**

(State or other jurisdiction of  
incorporation or organization)

**41-1472057**

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

**5900 Golden Hills Drive  
MINNEAPOLIS, MINNESOTA**

(Address of principal executive offices)

**55416**

(Zip Code)

**(763) 542-5000**

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or 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, 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

Non-Accelerated Filer  (Do not check if a smaller reporting company)

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 Act). Yes  No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date. At October 31, 2017, there were 6,977,515 shares of the registrant's Common Stock, no par value, issued and outstanding.

## PART I. FINANCIAL INFORMATION

### ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

**CONDENSED CONSOLIDATED BALANCE SHEETS**  
**CYBEROPTICS CORPORATION**  
**(Unaudited)**

(In thousands, except share information)	September 30, 2017	December 31, 2016
<b>ASSETS</b>		
Cash and cash equivalents	\$ 5,593	\$ 10,640
Marketable securities	6,701	6,493
Accounts receivable, less allowance for doubtful accounts of \$514 at September 30, 2017 and \$547 at December 31, 2016	11,932	10,895
Inventories	16,634	11,531
Other current assets	1,739	1,535
Total current assets	42,599	41,094
Marketable securities, long-term	8,949	8,728
Equipment and leasehold improvements, net	2,303	2,438
Intangible assets, net	413	438
Goodwill	1,366	1,366
Other assets	202	193
Deferred tax assets	5,484	5,323
Total assets	\$ 61,316	\$ 59,580
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Accounts payable	\$ 7,083	\$ 6,217
Advance customer payments	325	328
Accrued expenses	2,014	3,756
Total current liabilities	9,422	10,301
Other liabilities	109	250
Reserve for income taxes	131	131
Total liabilities	9,662	10,682
Commitments and contingencies		
<b>Stockholders' equity:</b>		
Preferred stock, no par value, 5,000,000 shares authorized, none outstanding	—	—
Common stock, no par value, 25,000,000 shares authorized, 6,972,515 shares issued and outstanding at September 30, 2017 and 6,901,887 shares issued and outstanding at December 31, 2016	34,052	32,801
Accumulated other comprehensive loss	(1,506)	(1,940)
Retained earnings	19,108	18,037
Total stockholders' equity	51,654	48,898
Total liabilities and stockholders' equity	\$ 61,316	\$ 59,580

SEE THE ACCOMPANYING NOTES TO UNAUDITED INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
**CYBEROPTICS CORPORATION**  
(Unaudited)

(In thousands, except per share amounts)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenues	\$ 11,828	\$ 15,040	\$ 40,157	\$ 52,785
Cost of revenues	6,236	8,399	21,434	30,055
Gross margin	5,592	6,641	18,723	22,730
Research and development expenses	1,947	1,997	5,892	6,137
Selling, general and administrative expenses	3,793	3,491	11,821	11,028
Amortization of intangibles	15	16	50	50
Income (loss) from operations	(163)	1,137	960	5,515
Interest income and other	(25)	56	(141)	69
Income (loss) before income taxes	(188)	1,193	819	5,584
Income tax provision (benefit)	(116)	21	10	108
Net income (loss)	\$ (72)	\$ 1,172	\$ 809	\$ 5,476
Net income (loss) per share – Basic	\$ (0.01)	\$ 0.17	\$ 0.12	\$ 0.80
Net income (loss) per share – Diluted	\$ (0.01)	\$ 0.16	\$ 0.11	\$ 0.78
Weighted average shares outstanding – Basic	6,959	6,859	6,939	6,813
Weighted average shares outstanding – Diluted	6,959	7,154	7,041	7,013

SEE THE ACCOMPANYING NOTES TO UNAUDITED INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**CYBEROPTICS CORPORATION**  
(Unaudited)

(In thousands)	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Net income (loss)	\$ (72)	\$ 1,172	\$ 809	\$ 5,476
<b>Other comprehensive income, before tax:</b>				
Foreign currency translation adjustments	157	(116)	587	78
<b>Unrealized gains on available-for-sale securities:</b>				
Unrealized gains (losses)	—	(36)	31	32
Reclassification adjustments	—	—	—	—
Total unrealized gains (losses) on available-for-sale securities	—	(36)	31	32
<b>Unrealized gains on foreign exchange forward contracts:</b>				
Unrealized gains	—	—	—	53
Reclassification adjustments for losses included in net income (loss)	—	—	—	36
Total unrealized gains on foreign exchange forward contracts	—	—	—	89
Other comprehensive income (loss), before tax	157	(152)	618	199
Income tax provision related to items of other comprehensive income (loss)	(35)	—	(184)	—
Other comprehensive income (loss), net of tax	122	(152)	434	199
Total comprehensive income	\$ 50	\$ 1,020	\$ 1,243	\$ 5,675

SEE THE ACCOMPANYING NOTES TO UNAUDITED INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**CYBEROPTICS CORPORATION**  
(Unaudited)

(In thousands)	<b>Nine Months Ended September 30,</b>	
	<b>2017</b>	<b>2016</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$ 809	\$ 5,476
<b>Adjustments to reconcile net income to net cash provided by (used in) operating activities:</b>		
Depreciation and amortization	1,659	1,520
Provision for doubtful accounts	(15)	10
Deferred taxes	(27)	15
Foreign currency transaction losses (gains)	139	(66)
Stock based compensation	640	694
<b>Changes in operating assets and liabilities:</b>		
Accounts receivable	(1,022)	(4,022)
Inventories	(5,260)	1,169
Other assets	(133)	(303)
Accounts payable	866	(304)
Advance customer payments	(3)	(26)
Accrued expenses	(1,906)	1,467
Net cash provided by (used in) operating activities	<u>(4,253)</u>	<u>5,630</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Proceeds from maturities of available-for-sale marketable securities	5,187	3,571
Proceeds from sales of available-for-sale marketable securities	—	1,402
Purchases of available-for-sale marketable securities	(5,604)	(6,923)
Additions to equipment and leasehold improvements	(851)	(994)
Additions to patents	(107)	(59)
Net cash used in investing activities	<u>(1,375)</u>	<u>(3,003)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from exercise of stock options	330	425
Proceeds from issuance of common stock under Employee Stock Purchase Plan	258	181
Net cash provided by financing activities	<u>588</u>	<u>606</u>
Effects of exchange rate changes on cash and cash equivalents	<u>(7)</u>	<u>9</u>
Net increase (decrease) in cash and cash equivalents	(5,047)	3,242
Cash and cash equivalents – beginning of period	10,640	4,274
Cash and cash equivalents – end of period	<u>\$ 5,593</u>	<u>\$ 7,516</u>

SEE THE ACCOMPANYING NOTES TO UNAUDITED INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

**NOTES TO THE UNAUDITED INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**CYBEROPTICS CORPORATION**

**1. INTERIM REPORTING:**

The interim condensed consolidated financial statements presented herein as of September 30, 2017, and for the three and nine month periods ended September 30, 2017 and 2016, are unaudited, but in the opinion of management, include all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of financial position, results of operations and cash flows for the periods presented.

The results of operations for the three and nine month periods ended September 30, 2017 do not necessarily indicate the results to be expected for the full year. The December 31, 2016 consolidated balance sheet data was derived from audited consolidated financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States of America. The unaudited interim condensed consolidated financial statements should be read in conjunction with our consolidated financial statements and notes thereto contained in our Annual Report on Form 10-K for the year ended December 31, 2016.

**2. MARKETABLE SECURITIES:**

Our investments in marketable securities are classified as available-for-sale and consist of the following:

(In thousands)	September 30, 2017			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
<b>Short-Term</b>				
U.S. government and agency obligations	\$ 4,693	\$ —	\$ (6)	\$ 4,687
Corporate debt securities and certificates of deposit	1,665	—	(1)	1,664
Asset backed securities	350	—	—	350
Marketable securities – short-term	\$ 6,708	\$ —	\$ (7)	\$ 6,701
<b>Long-Term</b>				
U.S. government and agency obligations	\$ 4,525	\$ —	\$ (13)	\$ 4,512
Corporate debt securities and certificates of deposit	1,566	1	(6)	1,561
Asset backed securities	2,797	—	(5)	2,792
Equity security	42	42	—	84
Marketable securities – long-term	\$ 8,930	\$ 43	\$ (24)	\$ 8,949
December 31, 2016				
(In thousands)	Cost	Unrealized Gains	Unrealized Losses	Fair Value
<b>Short-Term</b>				
U.S. government and agency obligations	\$ 5,005	\$ 4	\$ (1)	\$ 5,008
Corporate debt securities and certificates of deposit	1,476	1	(1)	1,476
Asset backed securities	9	—	—	9
Marketable securities – short-term	\$ 6,490	\$ 5	\$ (2)	\$ 6,493
<b>Long-Term</b>				
U.S. government and agency obligations	\$ 4,815	\$ 1	\$ (12)	\$ 4,804
Corporate debt securities and certificates of deposit	2,161	—	(17)	2,144
Asset backed securities	1,732	—	(5)	1,727
Equity security	42	11	—	53
Marketable securities – long-term	\$ 8,750	\$ 12	\$ (34)	\$ 8,728

Net pre-tax unrealized gains for marketable securities of \$12,000 at September 30, 2017 and net pre-tax unrealized losses for marketable securities of \$19,000 at December 31, 2016 were recorded as a component of accumulated other comprehensive loss in stockholders' equity. No marketable securities were sold in the nine months ended September 30, 2017 or the three months ended September 30, 2016. We received proceeds from the sale of marketable securities in the nine months ended September 30, 2016 of \$1.4 million. No gain or loss was recognized from the sale of marketable securities during the 2016 period.

Our investments in marketable debt securities all have maturities of less than five years. At September 30, 2017, marketable debt securities valued at \$2.0 million were in an unrealized gain position totaling \$1,000, and marketable debt securities valued at \$13.6 million were in an unrealized loss position totaling \$31,000 (all of these securities had been in an unrealized loss position for less than 12 months). At December 31, 2016, marketable debt securities valued at \$6.4 million were in an unrealized gain position totaling \$6,000, and marketable debt securities valued at \$8.8 million were in an unrealized loss position totaling \$36,000 (all of these securities had been in an unrealized loss position for less than 12 months).

Investments in marketable securities classified as cash equivalents of \$3.2 million at September 30, 2017 and \$5.2 million at December 31, 2016 consist of the following:

<b>September 30, 2017</b>				
<b>(In thousands)</b>	<b>Cost</b>	<b>Unrealized Gains</b>	<b>Unrealized Losses</b>	<b>Recorded Basis</b>
Money market and certificates of deposit	\$ 3,164	\$ —	\$ —	\$ 3,164
	<u>\$ 3,164</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 3,164</u>
<b>December 31, 2016</b>				
<b>(In thousands)</b>	<b>Cost</b>	<b>Unrealized Gains</b>	<b>Unrealized Losses</b>	<b>Recorded Basis</b>
Money market and certificates of deposit	\$ 5,195	\$ —	\$ —	\$ 5,195
	<u>\$ 5,195</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,195</u>

Cash and marketable securities held by foreign subsidiaries totaled \$197,000 at September 30, 2017 and \$614,000 at December 31, 2016.

### **3. DERIVATIVES:**

We may enter into foreign exchange forward contracts to hedge against the effect of exchange rate fluctuations on cash flows denominated in foreign currencies associated with our subsidiary in Singapore. These transactions are designated as cash flow hedges and are recorded in the accompanying consolidated balance sheets at fair value. The effective portion of the gain or loss on these derivatives is reported as a component of other comprehensive income (loss) and reclassified into earnings in the same period during which the hedged transaction affects earnings. Gains and losses on the derivatives representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings. The maximum length of time over which we hedge our exposure to the variability in future cash flows is 12 months.

There were no open cash flow hedges at December 31, 2016 or at any time during the nine months ended September 30, 2017. In the nine months ended September 30, 2016, hedge ineffectiveness and the amounts excluded from effectiveness testing recognized in earnings on cash flow hedges were not material.

Reclassifications of amounts from accumulated other comprehensive income (loss) into earnings for cash flow hedges include accumulated gains (losses) at the time earnings were impacted by the hedged transaction. The location in the consolidated statements of operations and consolidated statements of comprehensive income and amounts of gains and losses related to derivative instruments designated as cash flow hedges are as follows:

<b>(In thousands)</b>	<b>Nine Months Ended September 30, 2016</b>	
	<b>Pretax Gain Recognized in Other Comprehensive Income (Loss) on Effective Portion of Derivative</b>	<b>Pretax Loss Recognized in Earnings on Effective Portion of Derivative as a Result of Reclassification from Accumulated Other Comprehensive Loss</b>
Cost of revenues	\$ 32	\$ (27)
Research and development	14	(6)
Selling, general and administrative	7	(3)
Total	\$ 53	\$ (36)

At September 30, 2017 and December 31, 2016, there were no amounts recorded in accumulated other comprehensive loss for cash flow hedging instruments. Additional information with respect to the impact of derivative instruments on other comprehensive income (loss) is included in Note 11.



#### 4. FAIR VALUE MEASUREMENTS:

We determine the fair value of our assets and liabilities based on the exchange price that would be received for an asset or paid to transfer a liability (i.e., the exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value maximize the use of observable inputs and minimize the use of unobservable inputs. We use a fair value hierarchy with three levels of inputs, of which the first two are considered observable and the last is considered unobservable, to measure fair value. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1). The next highest priority is based on quoted prices for similar assets or liabilities in active markets or quoted prices for identical or similar assets or liabilities in non-active markets or other observable inputs (Level 2). The lowest priority is given to unobservable inputs (Level 3). The following provides information regarding fair value measurements for our marketable securities as of September 30, 2017 and December 31, 2016 according to the three-level fair value hierarchy:

(In thousands)	Fair Value Measurements at September 30, 2017 Using			
	Balance September 30, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Marketable securities:</b>				
U.S. government and agency obligations	\$ 9,199	\$ —	\$ 9,199	\$ —
Corporate debt securities and certificates of deposit	3,225	—	3,225	—
Asset backed securities	3,142	—	3,142	—
Equity security	84	84	—	—
Total marketable securities	\$ 15,650	\$ 84	\$ 15,566	\$ —

(In thousands)	Fair Value Measurements at December 31, 2016 Using			
	Balance December 31, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Marketable securities:</b>				
U.S. government and agency obligations	\$ 9,812	\$ —	\$ 9,812	\$ —
Corporate debt securities and certificates of deposit	3,620	—	3,620	—
Asset backed securities	1,736	—	1,736	—
Equity security	53	53	—	—
Total marketable securities	\$ 15,221	\$ 53	\$ 15,168	\$ —

During the nine months ended September 30, 2017 and the year ended December 31, 2016, there were no transfers within the three level hierarchy. A significant transfer is recognized when the inputs used to value a security have been changed sufficiently to merit a transfer between the disclosed levels of the valuation hierarchy.

The fair value for our U.S. government and agency obligations, corporate debt securities and certificates of deposit and asset backed securities are determined based on valuations provided by external investment managers which obtain them from a variety of industry standard data providers. The fair value for our equity security is based on a quoted market price obtained from an active market.

The carrying amounts of financial instruments such as cash equivalents, accounts receivable, other assets, accounts payable, advance customer payments, accrued expenses and other liabilities are approximately equal to their related fair values due to their short-term maturities. Non-financial assets such as equipment and leasehold improvements, goodwill and intangible assets are subject to non-recurring fair value measurements if they are deemed impaired. We had no re-measurements of non-financial assets to fair value in the nine months ended September 30, 2017 or the nine months ended September 30, 2016.

## 5. ACCOUNTING FOR STOCK-BASED COMPENSATION:

We have three stock-based compensation plans that are administered by the Compensation Committee of the Board of Directors. We have an Employee Stock Incentive Plan for officers, other employees, consultants and independent contractors under which we have granted options and restricted stock units to officers and other employees, an Employee Stock Purchase Plan under which shares of our common stock may be acquired by employees at discounted prices, and a Non-Employee Director Stock Plan that provides for automatic grants of shares of our common stock to non-employee directors. New shares of our common stock are issued upon stock option exercises, vesting of restricted stock units, issuances of shares to board members and issuances of shares under the Employee Stock Purchase Plan.

### Employee Stock Incentive Plan

As of September 30, 2017, there were 429,939 shares of common stock reserved in the aggregate for issuance pursuant to future awards under our Employee Stock Incentive Plan and 530,174 shares of common stock reserved in the aggregate for issuance pursuant to outstanding awards under our Employee Stock Incentive Plan. Although our Compensation Committee has authority to issue options, restricted stock, restricted stock units, share grants and other share based benefits under our Employee Stock Incentive Plan, to date only restricted stock units and stock options have been granted under the plan. Options have been granted at an option price per share equal to the market value of our common stock on the date of grant, vest over a four year period and expire seven years after the date of grant. Restricted stock units vest over a four year period and entitle the holders to one share of our common stock for each restricted stock unit. Reserved shares underlying outstanding awards, including options and restricted shares, that are forfeited are available under the Employee Stock Incentive Plan for future grants.

### Non-Employee Director Stock Plan

As of September 30, 2017, there were 68,000 shares of common stock reserved in the aggregate for issuance pursuant to future awards under our Non-Employee Director Stock Plan and 16,000 shares of common stock reserved in the aggregate for issuance pursuant to outstanding stock option awards under our Non-Employee Director Stock Plan. Under the terms of the plan, each non-employee director will automatically be granted 2,000 shares of our common stock on the date of each annual meeting at which such director is elected to serve on the board. At our May 11, 2017 annual meeting, our shareholders, upon recommendation of the Board of Directors, approved amendments to the Non-Employee Director Stock Plan that eliminated annual stock option grants for non-employee directors and provide for share grants under the Non-Employee Director Stock Plan which will vest in four equal quarterly installments during the year after the grant date provided the non-employee director is still serving as a director on the applicable vesting date.

Pursuant to the plan, on the date of our 2017 annual meeting, we issued a total of 8,000 shares of our common stock to our non-employee directors. The shares had an aggregate fair market value on the date of grant equal to \$167,000 (grant date fair value of \$20.90 per share). As of September 30, 2017, 2,000 of these shares were vested. The aggregate fair value of the vested shares, based on the closing share price of our common stock on the vesting date, was \$31,000. The aggregate fair value of the outstanding unvested shares based on the closing share price of our common stock on September 30, 2017 was \$98,000.

Pursuant to the original plan, on the date of our 2016 annual meeting, we issued a total of 8,000 shares of our common stock and stock options to acquire 16,000 shares of our common stock to our non-employee directors. Both the shares and the options were fully vested on the date of grant. The shares had an aggregate fair market value on the date of grant equal to \$136,000 (grant date fair value of \$16.97 per share) and the options had an aggregate fair market value on the date of grant using the Black-Scholes model equal to \$139,000 (grant date fair value of \$8.71 per option to acquire one share of our common stock).

### Stock Option Activity

The following is a summary of stock option activity in the nine months ended September 30, 2017:

	Options Outstanding	Weighted Average Exercise Price Per Share
Outstanding, December 31, 2016	547,625	\$ 9.39
Granted	—	—
Exercised	(42,000)	9.24
Expired	—	—
Forfeited	—	—
Outstanding, September 30, 2017	505,625	\$ 9.41
Exercisable, September 30, 2017	229,063	\$ 7.67

The intrinsic value of an option is the amount by which the market price of the underlying stock exceeds the option's exercise price. For options outstanding at September 30, 2017, the weighted average remaining contractual term of all outstanding options was 4.2 years and their aggregate intrinsic value was \$3.8 million. At September 30, 2017, the weighted average remaining contractual term of options that were exercisable was 3.7 years and their aggregate intrinsic value was \$2.0 million. The aggregate intrinsic value of stock options exercised in the nine months ended September 30, 2017 was \$679,000. We received proceeds from stock option exercises of \$330,000 in the nine months ended September 30, 2017 and \$425,000 in the nine months ended September 30, 2016. The total fair value of options that vested in the nine months ended September 30, 2017 was \$130,000.

### Restricted Stock Units

Restricted stock units are granted under our Employee Stock Incentive Plan. There were no restricted stock units granted in the nine months ended September 30, 2017. The aggregate fair value of outstanding restricted stock units based on the closing share price of our common stock on September 30, 2017 was \$659,000. The aggregate fair value of restricted stock units that vested, based on the closing share price of our common stock on the vesting date, in the nine months ended September 30, 2017 was \$170,000.

A summary of activity for non-vested restricted stock units in the nine months ended September 30, 2017 is as follows:

Non-vested restricted stock units	Shares	Weighted Average Grant Date Fair Value	
Non-vested at December 31, 2016	45,549	\$	11.93
Granted	—		—
Vested	(5,000)		6.97
Forfeited	—		—
Non-vested at September 30, 2017	40,549	\$	12.54

### Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan available to eligible U.S. employees. Under terms of the plan, eligible employees may designate from 1% to 10% of their compensation to be withheld through payroll deductions, up to a maximum of \$6,500 in each plan year, for the purchase of common stock at 85% of the lower of the market price on the first or last day of the offering period. Shares issued under this plan totaled 18,404 shares in the nine months ended September 30, 2017 and 36,481 shares in the nine months ended September 30, 2016. As of September 30, 2017, 40,872 shares remain available for future issuance under the Employee Stock Purchase Plan.

### Stock Based Compensation Information

All stock based compensation awarded to our employees and non-employee directors, representing grants of shares, stock options and restricted stock units are recognized as an expense in our consolidated statement of operations based on the grant date fair value of the award. We utilize the straight-line method of expense recognition over the vesting period for our options subject to time-based vesting restrictions. The fair value of stock options granted has been determined using the Black-Scholes model. Prior to January 1, 2017, stock compensation expense for all equity based awards was recognized based on the number of awards that were expected to vest. On January 1, 2017, we adopted the provisions of Accounting Standards Update (ASU) No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*, which permits accounting for the impact of stock option forfeitures on stock compensation expense when the forfeitures occur. In the nine months ended September 30, 2017, the impact of the change in accounting for stock option forfeitures was inconsequential. We have classified equity-based compensation expenses within our statement of operations in the same manner as our cash based compensation costs.

Stock based compensation expense in the three months ended September 30, 2017 totaled \$240,000, and included \$116,000 for stock options, \$33,000 for our Employee Stock Purchase Plan, \$49,000 for unvested restricted stock units and \$42,000 for unvested restricted shares. Stock based compensation expense in the nine months ended September 30, 2017 totaled \$640,000, and included \$345,000 for stock options, \$85,000 for our Employee Stock Purchase Plan, \$145,000 for unvested restricted stock units and \$65,000 for unvested restricted shares.

Stock based compensation expense in the three months ended September 30, 2016 totaled \$142,000, and included \$88,000 for stock options, \$22,000 for our Employee Stock Purchase Plan and \$32,000 for unvested restricted stock units. Stock based compensation expense in the nine months ended September 30, 2016 totaled \$694,000, and included \$409,000 for stock options, \$54,000 for our Employee Stock Purchase Plan, \$95,000 for unvested restricted stock units and \$136,000 for shares issued without restriction.

At September 30, 2017, the total unrecognized compensation cost related to outstanding non-vested stock based compensation arrangements was \$1.3 million, and the related weighted average period over which this cost is expected to be recognized is 1.25 years.

## 6. CHANGES IN STOCKHOLDERS' EQUITY:

A reconciliation of the changes in our stockholders' equity is as follows:

(In thousands)	Common Stock		Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance, December 31, 2016	6,902	\$ 32,801	\$ (1,940)	\$ 18,037	\$ 48,898
Increase related to adoption of ASU 2016-09	—	23	—	262	285
Exercise of stock options, vesting of restricted stock units and grants of restricted shares, net of shares exchanged as payment	53	330	—	—	330
Stock-based compensation	—	640	—	—	640
Issuance of common stock under Employee Stock Purchase Plan	18	258	—	—	258
Other comprehensive income, net of tax	—	—	434	—	434
Net income	—	—	—	809	809
Balance, September 30, 2017	<u>6,973</u>	<u>\$ 34,052</u>	<u>\$ (1,506)</u>	<u>\$ 19,108</u>	<u>\$ 51,654</u>

See Note 15 for further discussion regarding the impact of our adoption of ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting* on our consolidated financial statements.

## 7. OTHER FINANCIAL STATEMENT DATA:

The components of our inventories are as follows:

(In thousands)	September 30, 2017	December 31, 2016
Raw materials and purchased parts	\$ 8,022	\$ 6,475
Work in process	1,640	826
Finished goods	6,972	4,230
Total inventories	<u>\$ 16,634</u>	<u>\$ 11,531</u>

The components of our accrued expenses are as follows:

(In thousands)	September 30, 2017	December 31, 2016
Wages and benefits	\$ 959	\$ 2,673
Warranty liability	691	717
Other	364	366
	<u>\$ 2,014</u>	<u>\$ 3,756</u>

### Warranty costs:

We provide for the estimated cost of product warranties, which cover products for periods ranging from 1 to 3 years, at the time revenue is recognized. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of component suppliers, warranty obligations are affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. If actual product failure rates, material usage or service delivery costs differ from our estimates, revisions to the estimated warranty liability would be required and could be material. At the end of each reporting period, we revise our estimated warranty liability based on these factors. The current portion of our warranty liability is included as a component of accrued expenses. The long-term portion of our warranty liability is included as a component of other liabilities.

A reconciliation of the changes in our estimated warranty liability is as follows:

(In thousands)	Nine Months Ended September 30,	
	2017	2016
Balance at beginning of period	\$ 790	\$ 645
Accrual for warranties	362	615
Warranty revision	(23)	(27)
Settlements made during the period	(413)	(415)
Balance at end of period	716	818
Current portion of estimated warranty liability	(691)	(736)
Long-term estimated warranty liability	\$ 25	\$ 82

#### Deferred warranty revenue:

The current portion of our deferred warranty revenue is included as a component of advance customer payments. The long-term portion of our deferred warranty revenue is included as a component of other liabilities. A reconciliation of the changes in our deferred warranty revenue is as follows:

(In thousands)	Nine Months Ended September 30,	
	2017	2016
Balance at beginning of period	\$ 346	\$ 199
Revenue deferrals	321	490
Amortization of deferred revenue	(325)	(330)
Total deferred warranty revenue	342	359
Current portion of deferred warranty revenue	(301)	(278)
Long-term deferred warranty revenue	\$ 41	\$ 81

#### 8. INTANGIBLE ASSETS:

Intangible assets consist of the following:

(In thousands)	September 30, 2017			December 31, 2016		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Patents	\$ 2,673	\$ (2,433)	\$ 240	\$ 2,567	\$ (2,351)	\$ 216
Software	206	(104)	102	206	(82)	124
Marketing assets and customer relationships	101	(42)	59	101	(33)	68
Non-compete agreements	101	(89)	12	101	(71)	30
	\$ 3,081	\$ (2,668)	\$ 413	\$ 2,975	\$ (2,537)	\$ 438

Amortization expense in the three and nine months ended September 30, 2017 and 2016 is as follows:

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Patents	\$ 31	\$ 27	\$ 82	\$ 79
Software	6	7	22	22
Marketing assets and customer relationships	3	3	9	9
Non-compete agreements	5	6	18	19
	<u>\$ 45</u>	<u>\$ 43</u>	<u>\$ 131</u>	<u>\$ 129</u>

Amortization of patents has been classified as research and development expense in our statements of operations. Estimated aggregate amortization expense based on current intangibles for the next five years is expected to be as follows: \$46,000 for the remainder of 2017; \$142,000 in 2018; \$109,000 in 2019; \$76,000 in 2020; \$20,000 in 2021; and \$20,000 in 2022.

Intangible and other long lived assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. An impairment loss would be recognized when future undiscounted cash flows expected to result from use of the asset and its eventual disposition are less than the carrying amount.

#### 9. REVENUE CONCENTRATIONS, SIGNIFICANT CUSTOMERS AND GEOGRAPHIC AREAS:

Export sales as a percentage of total sales in the three and nine months ended September 30, 2017 were 66% and 73%, respectively. Export sales as a percentage of total sales in the three and nine months ended September 30, 2016 were 84% and 83%, respectively. Virtually all of our export sales are negotiated, invoiced and paid in U.S. dollars. Export sales by geographic area are summarized as follows:

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Americas	\$ 159	\$ 344	\$ 976	\$ 1,114
Europe	2,543	3,592	9,114	13,463
Asia	4,959	8,675	18,933	29,322
Other	103	10	247	44
Total export sales	<u>\$ 7,764</u>	<u>\$ 12,621</u>	<u>\$ 29,270</u>	<u>\$ 43,943</u>

In the nine months ended September 30, 2017, sales to one significant customer accounted for 13% of our total revenue. As of September 30, 2017, accounts receivable from this customer were \$1.4 million.

#### 10. NET INCOME (LOSS) PER SHARE:

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Net income per diluted share is computed by dividing net income by the weighted average number of common and common equivalent shares outstanding during the period. Common equivalent shares consist of shares of common stock to be issued upon exercise of stock options, the vesting of restricted shares and restricted stock units and the purchase of shares under our Employee Stock Purchase Plan, as calculated using the treasury stock method. All common equivalent shares were excluded from the calculation of net loss per diluted share in the three months ended September 30, 2017 due to their anti-dilutive effect. The components of net income (loss) per basic and diluted share are as follows:

(In thousands except per share amounts)	Net Loss	Weighted Average Shares Outstanding	Per Share Amount
<b>Three Months Ended September 30, 2017</b>			
Basic	\$ (72)	6,959	\$ (0.01)
Dilutive effect of common equivalent shares	—	—	—
Dilutive	<u>\$ (72)</u>	<u>6,959</u>	<u>\$ (0.01)</u>

(In thousands except per share amounts)	Net Income	Weighted Average Shares Outstanding	Per Share Amount
<b>Three Months Ended September 30, 2016</b>			
Basic	\$ 1,172	6,859	\$ 0.17
Dilutive effect of common equivalent shares	—	295	(0.01)
Dilutive	<u>\$ 1,172</u>	<u>7,154</u>	<u>\$ 0.16</u>

(In thousands except per share amounts)	Net Income	Weighted Average Shares Outstanding	Per Share Amount
<b>Nine Months Ended September 30, 2017</b>			
Basic	\$ 809	6,939	\$ 0.12
Dilutive effect of common equivalent shares	—	102	(0.01)
Dilutive	<u>\$ 809</u>	<u>7,041</u>	<u>\$ 0.11</u>

(In thousands except per share amounts)	Net Income	Weighted Average Shares Outstanding	Per Share Amount
<b>Nine Months Ended September 30, 2016</b>			
Basic	\$ 5,476	6,813	\$ 0.80
Dilutive effect of common equivalent shares	—	200	(0.02)
Dilutive	<u>\$ 5,476</u>	<u>7,013</u>	<u>\$ 0.78</u>

Potentially dilutive shares excluded from the calculations of net income (loss) per diluted share due to their anti-dilutive effect were as follows: 575,000 shares in the three months ended September 30, 2017; 411,000 shares in the nine months ended September 30, 2017; zero shares in the three months ended September 30, 2016; and 132,000 shares in the nine months ended September 30, 2016.

#### 11. OTHER COMPREHENSIVE INCOME (LOSS):

Reclassification adjustments are made to avoid double counting for items included in comprehensive income that are also recorded as part of net income (loss). Reclassifications to earnings related to cash flow hedging instruments are discussed in Note 3. Other comprehensive income (loss) consists of the following:

(In thousands)	Three Months Ended September 30, 2017			Three Months Ended September 30, 2016		
	Before Tax	Tax Effect	Net of Tax Amount	Before Tax	Tax Effect	Net of Tax Amount
Foreign currency translation adjustments	\$ 157	\$ (35)	\$ 122	\$ (116)	\$ —	\$ (116)
Net changes related to available-for-sale securities:						
Unrealized losses	—	—	—	(36)	—	(36)
Reclassification adjustments	—	—	—	—	—	—
Total net changes related to available-for-sale securities	—	—	—	(36)	—	(36)
Other comprehensive income (loss)	<u>\$ 157</u>	<u>\$ (35)</u>	<u>\$ 122</u>	<u>\$ (152)</u>	<u>\$ —</u>	<u>\$ (152)</u>

(In thousands)	Nine Months Ended September 30, 2017			Nine Months Ended September 30, 2016		
	Before Tax	Tax Effect	Net of Tax Amount	Before Tax	Tax Effect	Net of Tax Amount
Foreign currency translation adjustments	\$ 587	\$ (173)	\$ 414	\$ 78	\$ —	\$ 78
Net changes related to available-for-sale securities:						
Unrealized gains	31	(11)	20	32	—	32
Reclassification adjustments	—	—	—	—	—	—
Total net changes related to available-for-sale securities	31	(11)	20	32	—	32
Net changes related to foreign exchange forward contracts:						
Unrealized gains	—	—	—	53	—	53
Reclassification adjustments:						
Cost of revenues	—	—	—	27	—	27
Research and development expenses	—	—	—	6	—	6
Selling, general and administrative expenses	—	—	—	3	—	3
Total net change related to foreign exchange forward contracts	—	—	—	89	—	89
Other comprehensive income	\$ 618	\$ (184)	\$ 434	\$ 199	\$ —	\$ 199

At September 30, 2017 and September 30, 2016, components of accumulated other comprehensive loss were as follows:

(In thousands)	Foreign Currency Translation Adjustments	Available-for-Sale Securities	Foreign Exchange Forward Contracts	Accumulated Other Comprehensive Loss
Balances at December 31, 2016	\$ (1,928)	\$ (12)	\$ —	\$ (1,940)
Other comprehensive income before reclassifications	414	20	—	434
Amounts reclassified from accumulated other comprehensive loss	—	—	—	—
Total change for the period	414	20	—	434
Balances at September 30, 2017	\$ (1,514)	\$ 8	\$ —	\$ (1,506)

(In thousands)	Foreign Currency Translation Adjustments	Available-for-Sale Securities	Foreign Exchange Forward Contracts	Accumulated Other Comprehensive Loss
Balances at December 31, 2015	\$ (1,545)	\$ (17)	\$ (147)	\$ (1,709)
Other comprehensive income before reclassifications	78	32	53	163
Amounts reclassified from accumulated other comprehensive loss	—	—	36	36
Total change for the period	78	32	89	199
Balances at September 30, 2016	\$ (1,467)	\$ 15	\$ (58)	\$ (1,510)



## 12. INCOME TAXES:

We recorded an income tax benefit of \$116,000 in the three months ended September 30, 2017, compared to income tax expense of \$21,000 in the three months ended September 30, 2016. We recorded income tax expense of \$10,000 in the nine months ended September 30, 2017, compared to income tax expense of \$108,000 in the nine months ended September 30, 2016. During the fourth quarter of 2016, we substantially reduced the valuation allowances recorded against our U.S. and Singapore deferred tax assets, primarily due to significant improvement in our operating results and financial outlook. Our income tax expense in the nine months ended September 30, 2017, primarily reflects a 25.5% effective income tax rate and excess tax benefits from employee share-based payments. Our income tax benefit in the three months ended September 30, 2017 reflects the impact of a decline in our effective income tax rate due to a reduction in our anticipated level of profitability for 2017. Income tax expense in the three and nine months ended September 30, 2016 included U.S. federal alternative minimum taxes, minimal state income tax expense and foreign income tax expense incurred by our subsidiaries in the United Kingdom and China.

Effective January 1, 2017, we adopted Accounting Standards Update No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*, which requires recognition of excess tax benefits or tax deficiencies from employee share-based payments in income tax expense or benefit as a discrete item in the reporting period in which they occur. In the three months ended September 30, 2017, the recognized excess tax benefits or tax deficiencies from employee share-based payments were inconsequential. In the nine months ended September 30, 2017, we recognized \$207,000 of excess tax benefits from employee share-based payments.

We have significant deferred tax assets as a result of temporary differences between taxable income on our tax returns and U.S. GAAP income, research and development tax credit carry forwards and federal, state and foreign net operating loss carry forwards. A deferred tax asset generally represents future tax benefits to be received when temporary differences previously reported in our consolidated financial statements become deductible for income tax purposes, when net operating loss carry forwards are applied against future taxable income, or when tax credit carry forwards are utilized on our tax returns. We assess the realizability of our deferred tax assets and the need for a valuation allowance based on the guidance provided in current financial accounting standards.

Significant judgment is required in determining the realizability of our deferred tax assets. The assessment of whether valuation allowances are required considers, among other matters, the nature, frequency and severity of any current and cumulative losses, forecasts of future profitability, the duration of statutory carry forward periods, our experience with loss carry forwards not expiring unused and tax planning alternatives. In analyzing the need for valuation allowances, we first considered our history of cumulative operating results for income tax purposes over the past three years in each of the tax jurisdictions where we operate, our financial performance in recent quarters, statutory carry forward periods and tax planning alternatives. Finally, we considered both our near-term and long-term financial outlook. After considering all available evidence both positive and negative, we concluded that recognition of valuation allowances for substantially all of our U.S. and Singapore deferred tax assets was not required at September 30, 2017.

## 13. SHARE REPURCHASE:

Our Board of Directors has authorized a \$3.0 million share repurchase program. The common stock may be acquired from time to time in open market transactions, block purchases and other transactions complying with the Securities and Exchange Commission's Rule 10b-18. The share repurchase program will terminate on September 30, 2018. As of September 30, 2017, no shares have been repurchased under this program.

## 14. CONTINGENCIES:

We are periodically a defendant in miscellaneous claims and disputes in the ordinary course of business. While the outcome of these matters cannot be predicted with certainty, management presently believes the disposition of these matters will not have a material effect on our financial position, results of operations or cash flows.

In the normal course of business to facilitate sales of our products and services, we at times indemnify other parties, including customers, with respect to certain matters. In these instances, we have agreed to hold the other parties harmless against losses arising out of intellectual property infringement or other types of claims. These agreements may limit the time within which an indemnification claim can be made, and almost always limit the amount of the claim. It is not possible to determine the maximum potential liability under these indemnification agreements due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. Historically, payments made, if any, under these agreements have not had a material impact on our operating results, financial position or cash flows.

## **15. ADOPTION OF ACCOUNTING STANDARDS UPDATE NO. 2016-09, IMPROVEMENTS TO EMPLOYEE SHARE-BASED PAYMENT ACCOUNTING:**

On January 1, 2017, we adopted ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting* (ASU No. 2016-09). The guidance impacted the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification in the consolidated statement of cash flows.

At January 1, 2017, we had excess tax benefits from employee share-based payments that were not recognized because current taxes payable had not been reduced. Under the new guidance, we are required to recognize the excess tax benefits regardless of whether or not they reduce income taxes payable in the current period. The new guidance also requires all excess tax benefits and tax deficiencies to be recognized as income tax expense or benefit in our statement of operations. Prior to our adoption of ASU No. 2016-09, stock compensation expense was based on the number of awards that were expected to vest in the future. Under the new guidance, we are allowed to account for the impact of stock option forfeitures on stock compensation expense when the forfeitures occur.

Recognition of the deferred tax assets for previously unrecognized excess tax benefits and the impact of additional stock compensation expense resulting from the change in the accounting for stock option forfeitures were required to be applied using a modified retrospective approach. At January 1, 2017, we recorded a \$278,000 credit to retained earnings and a corresponding debit to deferred tax assets for previously unrecognized excess tax benefits. We also recorded a \$23,000 credit to common stock, a \$16,000 debit to retained earnings and a \$7,000 debit to deferred tax assets for additional stock compensation expense related to the change in accounting for stock option forfeitures.

Our income tax provision in the nine months ended September 30, 2017, includes a \$207,000 excess tax benefit from employee share-based payments. The impact of the change in accounting for stock option forfeitures on stock compensation expense in the nine months ended September 30, 2017 was inconsequential.

ASU 2016-09 includes an amendment specifying that excess tax benefits are to be classified as an operating activity in the statement of cash flows on either a prospective or retrospective basis. This amendment had no impact on our consolidated statements of cash flows for any period presented because excess tax benefits have not been used to reduce current tax payments.

ASU 2016-09 also includes an amendment specifying that payments of employee withholding taxes resulting from stock option exercises, by withholding shares acquired by an option holder, are to be classified as a financing activity in the consolidated statements of cash flows on a retrospective basis. This amendment had no impact on our consolidated statements of cash flows for any period presented because no shares were withheld for payment of employee taxes.

## **16. RECENT ACCOUNTING DEVELOPMENTS:**

In January 2017, the Financial Accounting Standards Board (FASB) issued guidance on simplifying the test for goodwill impairment (ASU No. 2017-04, *Simplifying the Test for Goodwill Impairment*). Under the new standard, goodwill impairment would be measured as the amount by which a reporting unit's carrying value exceeds its fair value, but not in an amount in excess of the carrying value of goodwill. The new guidance eliminates the requirement to determine goodwill impairment by calculating the implied fair value of goodwill by hypothetically assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination. The new guidance is to be applied prospectively to impairment tests beginning January 1, 2020, with early adoption permitted. We are currently evaluating when we will adopt the new guidance.

In May 2014, the FASB issued guidance on the recognition of revenue from contracts with customers (ASU No. 2014-09, *Revenue from Contracts with Customers*). Revenue recognition will depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance also requires disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The guidance permits two methods of adoption: retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying the guidance recognized on the date of adoption. The FASB has delayed the effective date of the standard by one year to January 1, 2018, with early adoption permitted as of the original effective date of January 1, 2017. We have performed a review of the requirements of the new guidance and have identified which of our revenue streams will be within the scope of ASU 2014-09. We have applied the five-step model of the new standard to a selection of contracts within each of our revenue streams, and have compared the results to our current accounting practices. Based on this analysis, we do not currently expect a material impact on our consolidated financial statements. We are continuing to evaluate the impact of the new guidance on our consolidated financial statements, and we anticipate that we will expand our consolidated financial statement disclosures in order to comply with the new ASU. As part of this, we are assessing changes that might be necessary to information technology systems, processes, and internal controls to capture new data and address changes in financial reporting. We now anticipate that we will adopt the new standard retrospectively, with recognition of a cumulative effect adjustment on January 1, 2018, the date of adoption.

In February 2016, the FASB issued new lease accounting guidance (ASU No. 2016-02, *Leases*). Under the new guidance, at the commencement date, lessees will be required (a) to recognize a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis, and (b) to record a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. The new guidance is not applicable for leases with a term of 12 months or less. Lessor accounting is largely unchanged. U.S. public companies are required to apply the amendments in ASU 2016-02 for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early application is permitted. Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach. We are currently evaluating the impact of the new guidance on our consolidated financial statements.

In July 2015, the FASB issued guidance that simplified the measurement of inventory (ASU No. 2015-11, *Simplifying the Measurement of Inventory*). The guidance requires an entity to measure inventory at the lower of cost or net realizable value, which consists of estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The new guidance eliminated unnecessary complexity that existed under previous "lower of cost or market" guidance. The updated guidance was applied prospectively beginning January 1, 2017. Our implementation of this standard did not have a material impact on our consolidated financial statements.

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

### CRITICAL ACCOUNTING POLICIES AND ESTIMATES:

The preparation of the financial information contained in this Form 10-Q requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate these estimates, including those estimates related to revenue recognition, bad debts, warranty obligations, inventory valuation, intangible assets and income taxes. We base these estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. These estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions. These critical accounting policies are discussed in more detail in the Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K for the year ended December 31, 2016.

### FORWARD LOOKING STATEMENTS:

The following management's discussion and analysis contains a number of estimates and predictions that are forward looking rather than based on historical fact. Among other matters, we discuss (i) our level of anticipated revenues, gross margins, and expenses; (ii) the timing of orders and shipments of our existing products, particularly the SQ3000, our 3D automated optical inspection (AOI) system; (iii) the timing of initial revenue and projected improvements in gross margins from sales of new products that have been recently introduced, that we have under development or that we anticipate introducing in the future; (iv) the amount of anticipated revenue and potential revenue opportunity from recently introduced new products or potential new products we may launch in the future; (v) our assessment of trends in the general economy and their impact on the markets for our products and (vi) the impact of currency fluctuations on our operations. Although we have made these statements based on our experience and expectations regarding future events, there may be events or factors that we have not anticipated, and the accuracy of our statements and estimates are subject to a number of risks, including those risks identified in our Annual Report on Form 10-K for the year ended December 31, 2016.

### RESULTS OF OPERATIONS

#### General

Our products are used in general purpose metrology and 3D scanning, surface mount technology (SMT) and semiconductor markets. We market our products to original equipment manufacturers (OEMs) that sell production and inspection equipment used in these markets and to end-user customers that use our products to significantly improve yields and productivity.

We are working to strategically re-position our company as a developer, manufacturer and global leader of high-precision 3D sensors. A key element in our strategic re-positioning is the development of new high precision 3D sensors based on our proprietary Multi-Reflection Suppression (MRS) technology. MRS technology inhibits reflections that can result in measurement inaccuracies, which is particularly critical for inspecting shiny objects.

We have entered into a mutually exclusive agreement to supply KLA-Tencor with high-precision 3D sensor subsystems for its back-end semiconductor advanced packaging inspection systems. We also have entered into an agreement to supply Nordson-YESTECH with high precision 3D sensor subsystems for the SMT inspection market. The sensor subsystems provided to both KLA-Tencor and Nordson-YESTECH are based on our proprietary 3D MRS technology.

We have significantly advanced our MRS-enabled 3D sensor technology as part of a research and development initiative aimed at applying our MRS technology to mid-end and front-end semiconductor inspection. Our MRS technology is now able to inspect cracks and other defects as small as 30 microns in wafer dies. This mid-end inspection capability is currently being demonstrated to semiconductor manufacturers, and we believe that initial sales of products based on this technology are possible before the end of 2018.

Our 3D MRS technology has also been deployed in our 3D AOI system, the SQ3000, which is designed to expand our presence in markets requiring high precision inspection. In these markets, identifying defects has become highly challenging and critical due to smaller electronics packaging and increasing component density on circuit boards. We believe the combination of our MRS technology and sophisticated 3D fusing algorithms allows the SQ3000 to provide microscopic image quality at production speeds. We have expanded our base of SQ3000 customers during the past year as more manufacturers are recognizing the competitive advantages offered by our 3D MRS technology platform, which is enabling us to capitalize upon the growing demand for high-precision inspection. We believe we can expand our share of the growing worldwide 3D AOI market, and believe that the future sales potential of the SQ3000 is significant.

We have recently introduced two new scanning systems that incorporate MRS-enabled 3D sensor technology: CyberGage®360 and SQ3000™ 3D CMM, which offers greater resolution than CyberGage®360, but within a smaller working envelope. We believe these products will be able to address many inspection applications in the general purpose metrology market. Previously, we disclosed that we have been working with a major new customer for MRS sensors on a general purpose metrology application related to the inspection of finished goods. Although we continue to work with this customer, we cannot predict whether new orders from this customer will be forthcoming. We sold two CyberGage®360 systems in the third quarter of 2017. Even though our sales of MRS based products into the general purpose metrology market to date have been minimal, we believe that future sales of these products could be significant based upon positive feedback from product evaluations. However, there can be no assurance that our MRS based products will achieve widespread market acceptance in the general purpose metrology market.

We have continued to invest in our WaferSense® and ReticleSense® products. In response to ongoing input from semiconductor manufacturers, we are developing additional product offerings for new applications in semiconductor fabs and flat panel display manufacturing. Strong future sales growth is anticipated for the WaferSense/ReticleSense product line.

In the SMT and semiconductor markets, we believe that the performance characteristics of MRS are superior to other technologies offered by our competitors. We are very optimistic about the future prospects of our MRS technology, particularly in the areas of inspection and metrology for semiconductor advanced packaging applications, as well as complex mobile devices and automotive applications. With challenges resulting from shrinkage of transistor dimensions, semiconductor advanced packaging is expected to grow rapidly in the next 5 to 10 years to enable stacking of chips in 3D. We believe our MRS technology is well suited for many of these applications. In order to take advantage of these opportunities, we intend to expand our sales capabilities by adding new sales representatives and field engineers. We believe this initiative will position us to better penetrate our targeted markets and attain significantly improved operating results over the long term.

Our quarterly results will continue to fluctuate on a sequential and year-over-year basis, reflecting the frequency of new orders and customer acceptances for our 3D products. We ended the third quarter of 2017 with a backlog of \$11.2 million. Our backlog was \$12.4 million at September 30, 2016 and \$7.3 million at June 30, 2017. For the fourth quarter of 2017, we are forecasting revenue of \$11.5 million to \$13.0 million. Given the competitive advantages of our suite of MRS-enabled sensors and inspection systems, the potential for incremental revenue from mid-end semiconductor inspection and the steadily growing acceptance of our WaferSense/ReticleSense products, we expect improved financial results in future years.

We believe that we have the financial resources required to attain our future growth objectives. At September 30, 2017, our available balances of cash and marketable securities totaled \$21.2 million.

## Revenues

Our revenues decreased by 21% to \$11.8 million in the three months ended September 30, 2017, from \$15.0 million in the three months ended September 30, 2016. Revenues decreased by 24% to \$40.2 million in the nine months ended September 30, 2017, from \$52.8 million in the nine months ended September 30, 2016. The following table sets forth revenues by product line for the three and nine months ended September 30, 2017 and 2016:

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
SMT and High Precision 3D Sensors	\$ 4,030	\$ 3,393	\$ 13,569	\$ 15,997
Semiconductor Sensors	2,228	2,198	7,698	7,462
SMT Inspection Systems	4,288	7,955	14,825	21,945
3D Scanners and Services	1,282	1,494	4,065	7,381
Total	\$ 11,828	\$ 15,040	\$ 40,157	\$ 52,785

Revenue from sales of SMT and high precision 3D sensors increased by \$637,000 or 19% to \$4.0 million in the three months ended September 30, 2017, from \$3.4 million in the three months ended September 30, 2016. Revenue from sales of this product line decreased by \$2.4 million or 15% to \$13.6 million in the nine months ended September 30, 2017, from \$16.0 million in the nine months ended September 30, 2016. The revenue increase in the three months ended September 30, 2017 resulted from higher sales of 3D MRS-enabled sensors and legacy 2D LaserAlign sensors to recurring OEM customers. The revenue decrease in the nine months ended September 30, 2017 resulted from reduced sales of legacy 2D LaserAlign sensors. Sales of 2D LaserAlign sensors in the nine months ended September 30, 2016 were driven by orders from a longstanding OEM customer which experienced a significant increase in sales of its products that incorporate our sensors. Sales of SMT and high precision 3D sensors are dependent on the success of our OEM partners selling products that incorporate our sensors. Quarterly sales of SMT and high precision 3D MRS enabled sensors are prone to significant fluctuations, both sequentially and on a year-over-year basis.

Sales to KLA-Tencor are expected to continue to increase as our 3D MRS enabled sensors are now becoming standard on KLA-Tencor's back-end semiconductor inspection systems that utilize 3D optical inspection. Nordson-YESTECH introduced its 3D MRS-equipped AOI system at the IPC APEX Expo trade show in March 2016 and the product received a very favorable reception. As a result, we believe that sales of sensors under our supply agreement with Nordson-YESTECH should contribute to our future sales growth.

Revenue from sales of semiconductor sensors, principally our WaferSense/ReticleSense product line, totaled \$2.2 million in the three months ended September 30, 2017, up minimally from the three months ended September 30, 2016. Revenue from sales of semiconductor sensors increased by \$236,000 or 3% to \$7.7 million in the nine months ended September 30, 2017, from \$7.5 million in the nine months ended September 30, 2016. The sales increases were due to increased customer awareness of our semiconductor sensor products and improved account penetration at major semiconductor manufacturers and capital equipment suppliers. We anticipate that the benefits from growing market awareness and new product introductions will lead to additional WaferSense/ReticleSense sales in future periods.

Revenue from sales of SMT inspection systems decreased by \$3.7 million or 46% to \$4.3 million in the three months ended September 30, 2017, from \$8.0 million in the three months ended September 30, 2016. Revenue from sales of SMT inspection systems decreased by \$7.1 million or 32% to \$14.8 million in the nine months ended September 30, 2017, from \$21.9 million in the nine months ended September 30, 2016. Sales of SMT inspection systems declined in the three and nine months ended September 30, 2017 because higher sales of SQ3000 3D AOI systems were unable to offset lower sales of legacy products and the lack of sales of MX600 memory module inspection systems. Revenue from sales of the MX600 memory module inspection system totaled \$2.8 million in the three months ended September 30, 2016 and \$5.7 million in the nine months ended September 30, 2016.

We believe a growing number of companies are transitioning from 2D AOI to 3D AOI systems to meet the increasingly demanding inspection requirements of the electronics and industrial markets. We believe sales of our new 3D MRS enabled AOI products will represent an increasing percentage of our total AOI and solder paste inspection (SPI) product sales in the future. We expect that the competitive advantages of our unique 3D MRS technology will provide us with an opportunity to capture significant market share in the 3D AOI systems market.

Revenue from sales of 3D scanners and services decreased by \$212,000 or 14% to \$1.3 million in the three months ended September 30, 2017, from \$1.5 million in the three months ended September 30, 2016. Revenue from sales of 3D scanners and services decreased by \$3.3 million or 45% to \$4.1 million in the nine months ended September 30, 2017, from \$7.4 million in the nine months ended September 30, 2016. The revenue decreases were primarily due to the lack of sales of X-ray scanning systems. Revenue from sales of X-ray scanning systems totaled \$360,000 in the three months ended September 30, 2016 and \$3.3 million in the nine months ended September 30, 2016. We believe that our future revenue growth from sales of 3D scanners and services will be determined in large part by market acceptance of our new CyberGage®360 and SQ3000™ 3D CMM products.

Export revenue totaled \$7.8 million or 66% of total revenue in the three months ended September 30, 2017, compared to \$12.6 million or 84% of total revenue in the three months ended September 30, 2016. Export revenue totaled \$29.3 million or 73% of total revenue in the nine months ended September 30, 2017, compared to \$43.9 million or 83% of total revenue in the nine months ended September 30, 2016. Most of the large transactions that drove our strong revenue in the three and nine months ended September 30, 2016 were export sales. As result, export revenue as a percentage of total revenue was lower in the three and nine months ended September 30, 2017, when compared to the three and nine months ended September 30, 2016.

## Cost of Revenues and Gross Margin

Cost of revenues decreased by \$2.2 million or 26% to \$6.2 million in the three months ended September 30, 2017, from \$8.4 million in the three months ended September 30, 2016. Cost of revenues decreased by \$8.6 million or 29% to \$21.4 million in the nine months ended September 30, 2017, from \$30.1 million in the nine months ended September 30, 2016. The decrease in cost of revenues was mainly due to the corresponding revenue decreases in the three and nine months ended September 30, 2017. Our sales mix was also more favorable in the three and nine months ended September 30, 2017, with higher margin products constituting a greater portion of our total revenue. Items included in cost of revenues that fluctuate with the level of sales include raw materials, direct labor and factory overhead costs.

Total gross margin as a percentage of revenue was 47% in the three months ended September 30, 2017, compared to 44% in the three months ended September 30, 2016. Total gross margin as a percentage of revenue was 47% in the nine months ended September 30, 2017, compared to 43% in the nine months ended September 30, 2016. The improvement in gross margin percentage was mainly due to a change in product mix. Sales of our new 3D MRS sensors, SQ3000 3D AOI products and WaferSense/ReticleSense products, which have higher gross margins than some of our legacy products, constituted a larger portion of our total revenue in the three and nine months ended September 30, 2017, when compared to the three and nine months ended September 30, 2016. The X-ray scanning systems sold in the three and nine months ended September 30, 2016 also generated a lower gross margin percentage than some of our other products.

Our markets are highly price competitive, particularly the electronic assembly market, resulting in continual pressure on our gross margins. We compensate for pricing pressure by introducing new products with more features and improved performance and through manufacturing cost reduction programs. Sales of many products that we have recently introduced or are about to introduce, including our CyberGage®360 and SQ3000™ 3D CMM products, SQ3000 3D AOI products, 3D MRS sensors and WaferSense/ReticleSense sensor products have, or are expected to have, more favorable gross margins than many of our existing products.

We anticipate that our total gross margin percentage in the fourth quarter of 2017 will be approximately the same or slightly higher than the gross margin percentage in the third quarter of 2017.

## Operating Expenses

Research and development expenses were \$1.9 million or 16% of revenue in the three months ended September 30, 2017, compared to \$2.0 million or 13% of revenue in the three months ended September 30, 2016. Research and development expenses were \$5.9 million or 15% of revenue in the nine months ended September 30, 2017, compared to \$6.1 million or 12% of revenue in the nine months ended September 30, 2016. The reduction in research and development expenses was due to lower bonus accruals for employees who work in research and development and lower expenditures for engineering proto-types. Current research and development expenditures are primarily focused on continued development of our MRS technology and related products, including 3D sensor subsystems, enhancements to the SQ3000 3D AOI system, and commercialization of a sensor for mid-end semiconductor inspection. In addition, research remains underway to determine whether our MRS sensor technology can be applied to front-end semiconductor inspection.

Selling, general and administrative expenses were \$3.8 million or 32% of revenue in the three months ended September 30, 2017, compared to \$3.5 million or 23% of revenue in the three months ended September 30, 2016. Selling, general and administrative expenses were \$11.8 million or 29% of revenue in the nine months ended September 30, 2017, compared to \$11.0 million or 21% of revenue in the nine months ended September 30, 2016. The increase in selling, general and administrative expenses was due to additional investment in marketing programs, which included additional sales and marketing personnel to better penetrate our targeted markets. These cost increases were offset in part by lower incentive compensation expenses due to reduced levels of revenue and profitability.

We anticipate that total operating expenses in the fourth quarter of 2017 will increase slightly from total operating expenses in the third quarter of 2017.

## Interest Income and Other

Interest income and other includes interest earned on investments and gains and losses associated with foreign currency transactions, including intercompany financing transactions associated with our subsidiaries in the United Kingdom, Singapore and China. Because we maintain our investments in instruments designed to avoid risk of loss of principal, we have generated very little interest income in the current interest rate environment. We recognized losses from foreign currency transactions, primarily intercompany financing transactions, of \$38,000 in the three months ended September 30, 2017, compared to gains of \$48,000 in the three months ended September 30, 2016. We recognized losses from foreign currency transactions, primarily intercompany financing transactions, of \$194,000 in the nine months ended September 30, 2017, compared to gains of \$51,000 in the nine months ended September 30, 2016.

## Income Taxes

We recorded an income tax benefit of \$116,000 in the three months ended September 30, 2017, compared to income tax expense of \$21,000 in the three months ended September 30, 2016. We recorded income tax expense of \$10,000 in the nine months ended September 30, 2017, compared to income tax expense of \$108,000 in the nine months ended September 30, 2016. During the fourth quarter of 2016, we substantially reduced the valuation allowances recorded against our U.S. and Singapore deferred tax assets, primarily due to significant improvement in our operating results and financial outlook. Our income tax expense in the nine months ended September 30, 2017, primarily reflects a 25.5% effective income tax rate and excess tax benefits from employee share-based payments. Our income tax benefit in the three months ended September 30, 2017 reflects the impact of a decline in our effective income tax rate due to a reduction in our anticipated level of profitability for 2017. Income tax expense in the three and nine months ended September 30, 2016, included U.S. federal alternative minimum taxes, minimal state income tax expense and foreign tax expense incurred by our subsidiaries in the United Kingdom and China.

Effective January 1, 2017, we adopted Accounting Standards Update No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*, which requires recognition of excess tax benefits or tax deficiencies from employee share-based payments in income tax expense or benefit as a discrete item in the reporting period in which they occur. In the three months ended September 30, 2017, the recognized excess tax benefits or tax deficiencies from employee share-based payments were inconsequential. In the nine months ended September 30, 2017, we recognized \$207,000 of excess tax benefits from employee-share based payments.

We have significant deferred tax assets as a result of temporary differences between taxable income on our tax returns and U.S. GAAP income, research and development tax credit carry forwards and federal, state and foreign net operating loss carry forwards. A deferred tax asset generally represents future tax benefits to be received when temporary differences previously reported in our consolidated financial statements become deductible for income tax purposes, when net operating loss carry forwards are applied against future taxable income, or when tax credit carry forwards are utilized on our tax returns. We assess the realizability of our deferred tax assets and the need for a valuation allowance based on the guidance provided in current financial accounting standards.

Significant judgment is required in determining the realizability of our deferred tax assets. The assessment of whether valuation allowances are required considers, among other matters, the nature, frequency and severity of any current and cumulative losses, forecasts of future profitability, the duration of statutory carry forward periods, our experience with loss carry forwards not expiring unused and tax planning alternatives. In analyzing the need for valuation allowances, we first considered our history of cumulative operating results for income tax purposes over the past three years in each of the tax jurisdictions where we operate, our financial performance in recent quarters, statutory carry forward periods and tax planning alternatives. Finally, we considered both our near-term and long-term financial outlook. After considering all available evidence both positive and negative, we concluded that recognition of valuation allowances for substantially all of our U.S. and Singapore deferred tax assets was not required at September 30, 2017.

We do not expect to make significant income tax payments for the foreseeable future due to our available federal net operating loss carryforwards and federal research and development tax credit carryforwards.

## Backlog

Backlog totaled \$112 million at September 30, 2017, \$10.2 million at December 31, 2016 and \$12.4 million at September 30, 2016. Our products are typically shipped two weeks to two months after receipt of an order. However, in some instances, our OEM customers may place orders for shipment of products covering periods of nine months or longer. Sales of some SMT inspection system products may require customer acceptance due to performance or other acceptance criteria included in the terms of sale. For these SMT product sales, revenue is recognized at the time of customer acceptance. Our backlog at any time may vary significantly based on the timing of orders from OEM customers. Accordingly, backlog may not be an accurate indicator of performance in the future.

## Liquidity and Capital Resources

Our cash and cash equivalents decreased by \$5.0 million in the nine months ended September 30, 2017, principally resulting from \$4.3 million of cash used in operating activities and purchases of fixed assets and capitalized patent costs totaling \$958,000. Purchases of marketable securities totaled \$5.6 million. Cash used for these activities was offset in part by sales and maturities of marketable securities totaling \$5.2 million and proceeds of \$588,000 from stock option exercises and share purchases under our Employee Stock Purchase Plan. Our cash and cash equivalents fluctuate in part because of sales and maturities of marketable securities and investment of cash balances in marketable securities. Accordingly, we believe the combined balances of cash and marketable securities provide a more reliable indication of our available liquidity than cash balances alone. Combined balances of cash and marketable securities decreased by approximately \$4.7 million to \$21.2 million as of September 30, 2017 from \$25.9 million as of December 31, 2016.



Operating activities used \$4.3 million of cash in the nine months ended September 30, 2017. Cash used in operations included our net income of \$809,000. Included in net income are non-cash expenses totaling \$2.4 million for depreciation and amortization, provision for doubtful accounts, deferred income taxes, non-cash losses from foreign currency transactions and stock-based compensation costs. Changes in operating assets and liabilities using cash in the nine months ended September 30, 2017 included an increase in accounts receivable of \$1.0 million, an increase in inventories of \$5.3 million, an increase in other assets of \$133,000 and a decrease in accrued expenses of \$1.9 million. The change in operating assets and liabilities providing cash in the nine months ended September 30, 2017 was an increase in accounts payable of \$866,000. Accounts receivable increased due to slower cash collections in the third quarter of 2017, compared to the fourth quarter of 2016. Inventory increased because materials were purchased to support higher sales of our new products that were originally anticipated in the later half of 2017. Sales of these products have been lower than we originally expected. Planned inventory purchases in the fourth quarter of 2017 have been reduced, and we anticipate lower inventory balances by December 31, 2017. Other assets were up slightly due to payments for recoverable goods and services taxes and facility lease deposits. Accrued expenses decreased due to payment of accrued 2016 incentive compensation and bonuses. Accruals for incentive compensation and bonuses in 2017 have been considerably lower than accruals in the 2016 periods due to lower levels of revenue and profitability. Accounts payable increased due to the additional inventory purchases.

Investing activities used \$1.4 million of cash in the nine months ended September 30, 2017. Changes in the level of investment in marketable securities, resulting from the purchases, sales and maturities of those securities, used \$417,000 of cash in the nine months ended September 30, 2017. We used \$958,000 of cash in the nine months ended September 30, 2017 to purchase fixed assets and to fund capitalized patent costs.

Financing activities provided \$588,000 of cash in the nine months ended September 30, 2017 from the exercise of stock options and share purchases under our Employee Stock Purchase Plan.

At September 30, 2017, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which are used to establish off-balance sheet arrangements.

The following summarizes our contractual obligations at December 31, 2016, and the effect such obligations are expected to have on our liquidity and cash in future periods.

<b>December 31, 2016 (in thousands)</b>	<b>Total</b>	<b>Less Than 1 Year</b>	<b>1 – 4 Years</b>	<b>After 4 Years</b>
<b>Contractual Obligations:</b>				
Non-cancelable operating lease obligations	\$ 3,350	\$ 1,357	\$ 1,993	\$ —
Purchase obligations	11,095	11,095	—	—
Reserve for income taxes	131	—	131	—
<b>Total contractual cash obligations</b>	<b>\$ 14,576</b>	<b>\$ 12,452</b>	<b>\$ 2,124</b>	<b>\$ —</b>

There have been no significant changes to our contractual commitments in the nine months ended September 30, 2017 other than purchase commitments for inventory, which can vary based on the volume of product sales and resulting inventory requirements.

We lease a 50,724 square foot mixed office and warehouse facility built to our specifications in Golden Valley, Minnesota, which functions as our corporate headquarters and primary manufacturing facility. The lease for this space will expire in December 2018. We lease a 19,805 square foot mixed office and warehouse facility in Singapore. The lease for our Singapore facility expires in July 2020.

Purchase obligations are defined as agreements to purchase goods or services that are enforceable and legally binding. Included in the purchase obligations category in the table above are orders for inventory purchases under our standard terms and conditions and under negotiated agreements with vendors and utilities. We expect to receive consideration (products or services) in exchange for these purchase obligations. The purchase obligation amounts do not represent all anticipated future purchases, but instead represent only those items for which we are contractually obligated. The majority of our products and services are purchased as needed, with no contractual commitment. Consequently, the amounts in the purchase obligations category of the table above do not provide a reliable indicator of our expected future cash outflows.

Our Board of Directors has authorized a \$3.0 million share repurchase program. The common stock may be acquired from time to time in open market transactions, block purchases and other transactions complying with the Securities and Exchange Commission's Rule 10b-18. The share repurchase program will expire on September 30, 2018. As of September 30, 2017, no shares have been repurchased under this program.

Our cash, cash equivalents and marketable securities totaled \$21.2 million at September 30, 2017. We believe that our cash, cash equivalents and marketable securities, coupled with anticipated cash flow from operations, will be adequate to fund our cash flow needs for the foreseeable future, including the contractual obligations set forth in the table above.

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

#### Foreign Currency Exchange Risk

Most of our international export sales are negotiated, invoiced and paid in U.S. dollars. We manufacture our SMT inspection system products in Singapore and a portion of our raw material purchases are denominated in Singapore dollars. We also have research and development and sales personnel located in Singapore and sales offices located in other parts of the world. Although currency fluctuations do not significantly affect our revenue, they can impact our costs and influence the price competitiveness of our products and the willingness of existing and potential customers to purchase these products.

As of September 30, 2017, we did not have any open foreign exchange forward contracts to hedge our exposure to fluctuations in foreign currency exchange rates. We recognized a loss from foreign currency transactions, primarily intercompany financing transactions, of \$194,000 in the nine months ended September 30, 2017. The loss from foreign currency transactions was primarily caused by a weaker U.S. dollar in relation to the Singapore dollar and the British pound sterling. Balance sheet related foreign currency translation adjustments are recorded in accumulated other comprehensive loss, a component of shareholders' equity. Accordingly, these adjustments do not impact our net income.

#### Interest Rate Risk

We invest excess funds not required for current operations in marketable securities. Our investments in marketable securities consist of U.S. Government or U.S. Government agency securities, various tax exempt securities or certain approved corporate instruments with maturities of five years or less. The average maturity of securities in our investment portfolio does not exceed 18 months. We also hold an investment in a certain specified marketable equity security issued by a public company. As of September 30, 2017, our portfolio of marketable securities had an approximate weighted average effective maturity 1.1 years. All marketable securities are classified as available for sale and carried at fair value. We estimate that a hypothetical 1% increase in market interest rates would result in an approximate \$180,000 decrease in the market value of our portfolio of marketable securities. If such a rate increase occurred, our net income would only be impacted if securities were sold prior to maturity.

### ITEM 4 – CONTROLS AND PROCEDURES

a. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer 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 by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in applicable rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, in a manner that allows timely decisions regarding required disclosure.

b. There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the period covered by this quarterly report 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**

None.

### **ITEM 1A – RISK FACTORS**

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2016, which could materially affect our business, financial condition or future results.

### **ITEM 2 – UNREGISTERED SALES OF EQUITY SECURITIES, USE OF PROCEEDS AND ISSUER PURCHASES OF EQUITY SECURITIES**

None.

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

None.

### **ITEM 4 – MINE SAFETY DISCLOSURES**

None.

### **ITEM 5 – OTHER INFORMATION**

None.

### **ITEM 6 – EXHIBITS**

- 31.1: Certification of Chief Executive Officer pursuant to Rule 15d-14(a) (17 CFR 240.15d-14(a)) and Section 302 of the Sarbanes Oxley Act of 2002
- 31.2: Certification of Chief Financial Officer pursuant to Rule 15d-14(a) (17 CFR 240.15d-14(a)) and Section 302 of the Sarbanes Oxley Act of 2002
- 32: Certification of Chief Executive Officer and Chief Financial Officer Pursuant to Section 906 of the Sarbanes Oxley Act of 2002
- 101: Financial statements formatted in Inline Extensible Business Reporting Language: (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statement of Operations, (iii) the Condensed Consolidated Statements of Comprehensive Income, (iv) the Condensed Consolidated Statements of Cash Flows and (v) the Notes to the Interim Condensed Consolidated Financial Statements.

## SIGNATURES

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

CYBEROPTICS CORPORATION

/s/ Subodh Kulkarni

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By Subodh Kulkarni, President and Chief Executive Officer  
(Principal Executive Officer and Duly Authorized Officer)

/s/ Jeffrey A. Bertelsen

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By Jeffrey A. Bertelsen, Vice President, Chief Financial  
Officer and Chief Operating Officer  
(Principal Accounting Officer and Duly Authorized Officer)

Dated: November 6, 2017

I, Subodh Kulkarni, certify that:

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

Date: November 6, 2017

/s/ Subodh Kulkarni

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Signature

Name: Subodh Kulkarni

Title: President and Chief Executive Officer

I, Jeffrey A. Bertelsen, certify that:

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

Date: November 6, 2017

/s/ Jeffrey A. Bertelsen

Signature

Name: Jeffrey A. Bertelsen

Title: Vice President, Chief Financial Officer and Chief Operating Officer

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

In connection with the Quarterly Report of CyberOptics Corporation (the “Company”) on Form 10-Q for the period ended September 30, 2017 as filed with the Securities and Exchange Commission on or about the date hereof (the “Report”), the undersigned, Subodh Kulkarni, Chief Executive Officer of the Company, and Jeffrey A. Bertelsen, Chief Financial Officer of the Company, each certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Subodh Kulkarni

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Subodh Kulkarni  
President and Chief Executive Officer  
November 6, 2017

/s/ Jeffrey A. Bertelsen

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Jeffrey A. Bertelsen  
Vice President, Chief Financial Officer and Chief Operating Officer  
November 6, 2017

**END OF FILING**