

**UNITED STATES
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, 2020

**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)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, no par value	CYBE	NASDAQ Stock Market LLC

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes 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

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, 2020, there were 7,254,684 shares of the registrant's Common Stock, no par value, issued and outstanding.

PART I. FINANCIAL INFORMATION

ITEM 1. INTERIM CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

INTERIM CONDENSED CONSOLIDATED BALANCE SHEETS
CYBEROPTICS CORPORATION
(Unaudited)

(In thousands, except share information)	September 30, 2020	December 31, 2019
ASSETS		
Cash and cash equivalents	\$ 5,665	\$ 5,836
Marketable securities	8,549	8,295
Accounts receivable, less allowances of \$365 at September 30, 2020 and \$322 at December 31, 2019	18,167	16,059
Inventories	21,285	15,580
Prepaid expenses	685	559
Other current assets	1,683	1,020
Total current assets	<u>56,034</u>	<u>47,349</u>
Marketable securities, long-term	13,703	12,168
Equipment and leasehold improvements, net	3,237	3,341
Intangible assets, net	286	310
Goodwill	1,366	1,366
Right-of-use assets (operating leases)	2,710	2,111
Trade notes receivable, long-term	532	962
Deferred tax assets	4,658	4,992
Total assets	<u>\$ 82,526</u>	<u>\$ 72,599</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Accounts payable	\$ 10,051	\$ 7,023
Advance customer payments	758	499
Accrued expenses	3,685	2,572
Current operating lease liabilities	769	688
Total current liabilities	<u>15,263</u>	<u>10,782</u>
Other liabilities	150	202
Long-term operating lease liabilities	3,424	3,141
Reserve for income taxes	150	150
Total liabilities	<u>18,987</u>	<u>14,275</u>
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, no par value, 5,000,000 shares authorized, none outstanding	—	—
Common stock, no par value, 25,000,000 shares authorized, 7,254,684 shares issued and outstanding at September 30, 2020 and 7,154,591 shares issued and outstanding at December 31, 2019	37,648	36,659
Accumulated other comprehensive loss	(1,456)	(1,406)
Retained earnings	27,347	23,071
Total stockholders' equity	<u>63,539</u>	<u>58,324</u>
Total liabilities and stockholders' equity	<u>\$ 82,526</u>	<u>\$ 72,599</u>

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

INTERIM CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
CYBEROPTICS CORPORATION
(Unaudited)

(In thousands, except per share amounts)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Revenues	\$ 20,820	\$ 12,391	\$ 53,245	\$ 42,411
Cost of revenues	12,125	6,885	29,953	23,290
Gross margin	8,695	5,506	23,292	19,121
Research and development expenses	2,403	2,408	6,980	6,950
Selling, general and administrative expenses	4,082	3,855	11,900	11,779
Income (loss) from operations	2,210	(757)	4,412	392
Interest income (expense) and other	(2)	170	326	306
Income (loss) before income taxes	2,208	(587)	4,738	698
Income tax expense (benefit)	409	(234)	462	92
Net income (loss)	\$ 1,799	\$ (353)	\$ 4,276	\$ 606
Net income (loss) per share – Basic	\$ 0.25	\$ (0.05)	\$ 0.59	\$ 0.09
Net income (loss) per share – Diluted	\$ 0.24	\$ (0.05)	\$ 0.57	\$ 0.08
Weighted average shares outstanding – Basic	7,240	7,117	7,198	7,108
Weighted average shares outstanding – Diluted	7,519	7,117	7,445	7,245

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

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

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net income (loss)	\$ 1,799	\$ (353)	\$ 4,276	\$ 606
Other comprehensive income (loss) before income taxes:				
Foreign currency translation adjustments	236	(269)	(210)	(199)
Unrealized gains (losses) on available-for-sale securities	(58)	1	203	129
Total other comprehensive income (loss) before income taxes	178	(268)	(7)	(70)
Income tax expense (benefit)	(12)	—	43	26
Total other comprehensive income (loss) after income taxes	190	(268)	(50)	(96)
Total comprehensive income (loss)	<u>\$ 1,989</u>	<u>\$ (621)</u>	<u>\$ 4,226</u>	<u>\$ 510</u>

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

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

(In thousands)	Nine Months Ended September 30,	
	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	\$ 4,276	\$ 606
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	1,899	2,102
Non-cash operating lease expense	384	—
Provision (recovery) for doubtful accounts	43	(31)
Deferred taxes	289	107
Foreign currency transaction gains	(181)	(112)
Share-based compensation	863	737
Unrealized loss on available-for-sale equity security	23	10
Changes in operating assets and liabilities:		
Accounts and trade notes receivable	(1,721)	2,568
Inventories	(6,380)	(1,123)
Prepaid expenses and other assets	(785)	235
Accounts payable	3,060	(3,538)
Advance customer payments and other	208	(50)
Accrued expenses	1,120	(1,077)
Operating leases	(616)	482
Net cash provided by operating activities	2,482	916
CASH FLOWS FROM INVESTING ACTIVITIES:		
Proceeds from maturities of available-for-sale marketable securities	9,016	6,144
Purchases of available-for-sale marketable securities	(10,637)	(7,080)
Additions to equipment and leasehold improvements	(1,049)	(1,065)
Additions to patents	(115)	(88)
Net cash used in investing activities	(2,785)	(2,089)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from exercise of stock options	322	173
Tax payments for shares withheld related to stock option exercises	(420)	—
Common stock repurchases	—	(353)
Proceeds from issuance of common stock under employee stock purchase plan	224	203
Net cash provided by financing activities	126	23
Effects of exchange rate changes on cash and cash equivalents	6	6
Net decrease in cash and cash equivalents	(171)	(1,144)
Cash and cash equivalents – beginning of period	5,836	9,248
Cash and cash equivalents – end of period	\$ 5,665	\$ 8,104

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 of CyberOptics Corporation and its wholly-owned subsidiaries ("we", "us" or "our") presented herein as of September 30, 2020, and for the three and nine month periods ended September 30, 2020 and 2019, 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, 2020 do not necessarily indicate the results to be expected for the full year. The December 31, 2019 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 ("U.S. GAAP"). 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, 2019.

2. COVID-19 PANDEMIC:

Effect of Covid-19 Outbreak on Business Operations

In December 2019, a novel strain of coronavirus ("Covid-19") was first identified, and in March 2020, the World Health Organization categorized Covid-19 as a pandemic. The Covid-19 pandemic is affecting our customers, suppliers, service providers and employees, and the ultimate impacts of Covid-19 on our business, results of operations, liquidity and prospects are not fully known at this time. The Covid-19 outbreak has not had a significant impact on our business to date. However, the following factors have affected and may continue to affect our business:

- Our key factories are located in Minnesota and Singapore. Both of these locations have been subject to government mandated shelter-in-place orders. Because our operations have been deemed essential, we were able to keep our factories up and running while the shelter-in-place mandates were in effect. If the pandemic worsens, it is possible that our operations may not be deemed essential under future government mandated shelter-in-place orders, and we may be required to shut-down factory operations. We have periodically implemented split-shifts for our factory operations to minimize the number of employees in our facilities at any given time, but these measures have not affected our production capacity. Most of the time, our non-factory employees are working remotely. To date, the shelter-in-place mandates and remote work arrangements have had a minimal impact on operations, but material negative effects on our business could result if the pandemic worsens and continues for an extended period of time.
- Sales of some products, mainly our SQ3000 Multi-Function inspection and measurement systems and MX memory module inspection products, require customer acceptance due to performance or other criteria that is considered more than a formality. Most of our customer's factories have remained open during the Covid-19 pandemic because they are deemed to be essential under government shelter-in-place mandates. However, global travel restrictions and quarantine measures have hindered our ability to obtain customer acceptances of certain of our products at various times in the nine months ended September 30, 2020. Continuing or new global travel restrictions and quarantine measures could hinder our ability to obtain customer acceptances in a timely manner in the future, and therefore impact the timing of revenue recognition.
- We have experienced some supply disruptions due to the Covid-19 pandemic, mainly from suppliers not deemed essential by shelter-in-place mandates in certain countries. Key supply chain disruptions have been resolved to date. However, supply chain disruptions could increase significantly if the pandemic worsens and continues for an extended period of time. To date, our on-hand inventories have been sufficient to enable us to mitigate supply disruptions.

Although we cannot estimate the length or gravity of the impact of the Covid-19 outbreak at this time, if the pandemic continues as expected for the foreseeable future, it may have an adverse effect on our results of future operations, financial position and liquidity in the fourth quarter of 2020 and beyond. There have been recent spikes in Covid-19 cases, and some health experts have predicted that the Covid-19 pandemic will worsen during the winter months.

CARES Act

On March 27, 2020, the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act") was signed into law in the United States. The CARES Act, among other things, includes provisions relating to refundable payroll tax credits, deferment of employer side social security payments, net operating loss carryback periods and alternative tax credit refunds. The CARES Act also appropriated funds for the Small Business Administration Paycheck Protection Program loans that are forgivable in certain circumstances to promote continued employment. We have analyzed the provisions of the CARES Act and presently do not believe it will have a material benefit to our financial condition, results of operations or liquidity. However, we will continue to monitor the impact the CARES Act could have on our business.

Singapore Jobs Support Program

The Singapore Government implemented a jobs support program in 2020 that is intended to support businesses and encourage retention of employees during the period of economic uncertainty caused by the Covid-19 pandemic. Under the jobs support program, the Singapore Government has co-funded a portion of the gross monthly wages paid to local employees, which reduced our operating expenses in the three and nine months ended September 30, 2020 by \$76,000 and \$371,000, respectively. We anticipate that the Singapore jobs support program will reduce operating expenses in the fourth quarter of 2020 by approximately \$35,000.

3. RECENT ACCOUNTING DEVELOPMENTS:

In January 2017, the Financial Accounting Standards Board ("FASB") issued guidance on simplifying the test for goodwill impairment, ASU 2017-04, *Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). Under ASU 2017-04, goodwill impairment is 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 standard eliminated 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. ASU 2017-04 was effective for impairment tests beginning January 1, 2020. Our adoption of ASU 2017-04 did not have any impact on our consolidated financial statements.

No other new accounting pronouncements are expected to have a significant impact on our consolidated financial statements.

4. REVENUE RECOGNITION:

Our revenue performance obligations are primarily satisfied at a point in time and limited revenue streams are satisfied over time as work progresses.

The following is a summary of our revenue performance obligations:

(In thousands except percentages)	Three Months Ended September 30, 2020		Three Months Ended September 30, 2019	
	Revenues	Percent of Revenues	Revenues	Percent of Revenues
Revenue recognized over time	\$ 546	3%	\$ 403	3%
Revenue recognized at a point in time	20,274	97%	11,988	97%
	<u>\$ 20,820</u>	<u>100%</u>	<u>\$ 12,391</u>	<u>100%</u>

(In thousands except percentages)	Nine Months Ended September 30, 2020		Nine Months Ended September 30, 2019	
	Revenues	Percent of Revenues	Revenues	Percent of Revenues
Revenue recognized over time	\$ 1,101	2%	\$ 1,041	2%
Revenue recognized at a point in time	52,144	98%	41,370	98%
	<u>\$ 53,245</u>	<u>100%</u>	<u>\$ 42,411</u>	<u>100%</u>

See Note 11 for additional information regarding disaggregation of revenue.

Contract Balances

Contract assets consist of unbilled amounts from sales where we recognize the revenue over time and the revenue recognized exceeds the amount billed to the customer at a point in time. Accounts and trade notes receivable are recorded when the right to payment becomes unconditional. Contract liabilities consist of payments received in advance of performance under the contract. Contract liabilities are recognized as revenue when we perform under the contract.

The following summarizes our contract assets and contract liabilities:

(In thousands)	September 30, 2020	December 31, 2019
Contract assets, included in other current assets	\$ 29	\$ 2
Contract liabilities - advance customer payments	\$ 484	\$ 389
Contract liabilities - deferred warranty revenue	\$ 388	\$ 275

Changes in contract assets in the nine months ended September 30, 2020 and the nine months ended September 30, 2019 resulted from unbilled amounts under sensor product arrangements and longer duration 3D scanning service projects in which revenue is recognized over time. Changes in contract liabilities primarily resulted from reclassification of beginning contract liabilities to revenue as performance obligations were satisfied or from cash received in advance and not recognized as revenue. See Note 9 for changes in contractual obligations related to deferred warranty revenue. Unsatisfied performance obligations are generally expected to be recognized as revenue over the next one to three years. There were no impairment losses for contract assets in the nine months ended September 30, 2020 or the nine months ended September 30, 2019.

The following summarizes the amounts reclassified from beginning contract liabilities to revenue:

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Amounts reclassified from beginning contract liabilities to revenue	\$ 287	\$ 342	\$ 106	\$ 401
Amounts reclassified from deferred warranty revenue	86	111	269	334
Total	<u>\$ 373</u>	<u>\$ 453</u>	<u>\$ 375</u>	<u>\$ 735</u>

5. MARKETABLE SECURITIES:

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

(In thousands)	September 30, 2020			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Short-Term				
U.S. government and agency obligations	\$ 4,927	\$ 46	\$ —	\$ 4,973
Corporate debt securities and certificates of deposit	3,408	33	—	3,441
Asset backed securities	133	2	—	135
Marketable securities – short-term	<u>\$ 8,468</u>	<u>\$ 81</u>	<u>\$ —</u>	<u>\$ 8,549</u>
Long-Term				
U.S. government and agency obligations	\$ 7,268	\$ 87	\$ (1)	\$ 7,354
Corporate debt securities and certificates of deposit	3,732	68	(2)	3,798
Asset backed securities	2,471	54	—	2,525
Equity security	42	—	(16)	26
Marketable securities – long-term	<u>\$ 13,513</u>	<u>\$ 209</u>	<u>\$ (19)</u>	<u>\$ 13,703</u>

(In thousands)	December 31, 2019			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Short-Term				
U.S. government and agency obligations	\$ 5,766	\$ 22	\$ —	\$ 5,788
Corporate debt securities and certificates of deposit	1,085	1	—	1,086
Asset backed securities	1,417	4	—	1,421
Marketable securities – short-term	<u>\$ 8,268</u>	<u>\$ 27</u>	<u>\$ —</u>	<u>\$ 8,295</u>
Long-Term				
U.S. government and agency obligations	\$ 6,524	\$ 30	\$ (1)	\$ 6,553
Corporate debt securities and certificates of deposit	3,004	14	—	3,018
Asset backed securities	2,535	15	(1)	2,549
Equity security	42	6	—	48
Marketable securities – long-term	<u>\$ 12,105</u>	<u>\$ 65</u>	<u>\$ (2)</u>	<u>\$ 12,168</u>

At September 30, 2020 and December 31, 2019, investments in marketable debt securities in an unrealized loss position were as follows:

(In thousands)	In Unrealized Loss Position For Less Than 12 Months		In Unrealized Loss Position For Greater Than 12 Months	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
September 30, 2020				
U.S. government and agency obligations	\$ 754	\$ (1)	\$ —	\$ —
Corporate debt securities and certificates of deposit	485	(2)	—	—
Marketable securities	\$ 1,239	\$ (3)	\$ —	\$ —
December 31, 2019				
U.S. government and agency obligations	\$ 149	\$ (1)	\$ —	\$ —
Asset backed securities	684	(1)	—	—
Marketable securities	\$ 833	\$ (2)	\$ —	\$ —

Our investments in marketable debt securities all have maturities of less than five years. Net pre-tax unrealized gains for marketable debt securities of \$287,000 at September 30, 2020 and \$84,000 at December 31, 2019 have been recorded as a component of accumulated other comprehensive loss in stockholders' equity. We have determined that the net pre-tax unrealized losses for marketable debt securities at September 30, 2020 and December 31, 2019 were caused by fluctuations in interest rates and are temporary in nature. We review our marketable debt securities to identify and evaluate investments that have indications of possible impairment. Factors considered in determining whether a loss is other-than-temporary include the length of time and extent to which fair value has been less than the cost basis, credit quality and our ability and intent to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value. No marketable securities were sold in the nine months ended September 30, 2020 or the nine months ended September 30, 2019. See Note 6 for additional information regarding the fair value of our investments in marketable securities.

Investments in marketable securities classified as cash equivalents totaled \$1.9 million at September 30, 2020 and \$2.6 million at December 31, 2019 and consist of corporate debt securities and certificates of deposit. There were no unrealized gains or losses associated with any of these securities at September 30, 2020 or December 31, 2019.

Cash and marketable securities held by foreign subsidiaries totaled \$371,000 at September 30, 2020 and \$327,000 at December 31, 2019.

6. 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 (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, 2020 and December 31, 2019 according to the three-level fair value hierarchy:

(In thousands)	Fair Value Measurements at September 30, 2020 Using			
	Balance September 30, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Marketable securities:				
U.S. government and agency obligations	\$ 12,327	\$ —	\$ 12,327	\$ —
Corporate debt securities and certificates of deposit	7,239	—	7,239	—
Asset backed securities	2,660	—	2,660	—
Equity security	26	26	—	—
Total marketable securities	\$ 22,252	\$ 26	\$ 22,226	\$ —

(In thousands)	Fair Value Measurements at December 31, 2019 Using			
	Balance December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Marketable securities:				
U.S. government and agency obligations	\$ 12,341	\$ —	\$ 12,341	\$ —
Corporate debt securities and certificates of deposit	4,104	—	4,104	—
Asset backed securities	3,970	—	3,970	—
Equity security	48	48	—	—
Total marketable securities	\$ 20,463	\$ 48	\$ 20,415	\$ —

During the nine months ended September 30, 2020 and the year ended December 31, 2019, we owned no Level 3 securities, and 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 which merit a transfer between the 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 who 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 included in cash equivalents approximate their related fair values due to the short-term maturities of those instruments. See Note 5 for additional information regarding our investments in marketable securities.

Non-financial assets such as equipment and leasehold improvements, goodwill and intangible assets and right-of-use assets for operating leases 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, 2020 or the nine months ended September 30, 2019. See Note 10 for our analysis regarding potential impairment of goodwill, other long-lived assets and intangibles.

The fair value for trade notes receivable is based on discounted future cash flows using current interest rates that would be offered for a similar transaction to a similarly situated customer. The difference between the carrying amount and estimated fair value for trade notes receivable is immaterial. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy. At September 30, 2020, our trade notes receivable were deemed to be fully collectible, and no trade notes receivable were past due more than 90 days or in a non-accrual status with respect to interest income.

7. SHARE-BASED COMPENSATION:

We have three share-based compensation plans that are administered by the Compensation Committee of the Board of Directors. We have (a) 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, (b) an Employee Stock Purchase Plan under which shares of our common stock may be acquired by employees at discounted prices, and (c) a Non-Employee Director Stock Plan that provides for automatic grants of restricted 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, 2020, there were 185,351 shares of common stock reserved in the aggregate for issuance pursuant to future awards under our Employee Stock Incentive Plan and 464,904 shares of common stock reserved in the aggregate for issuance pursuant to outstanding awards under such 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 stock units, that are forfeited are available again under the Employee Stock Incentive Plan for future grant.

Non-Employee Director Stock Plan

As of September 30, 2020, there were 44,000 shares of common stock reserved in the aggregate for issuance pursuant to future restricted share grants under our Non-Employee Director Stock Plan and 12,000 shares of common stock reserved in the aggregate for issuance pursuant to outstanding stock option awards under our Non-Employee Director Stock Plan (which previously authorized the granting of stock options to non-employee directors). Under the terms of the plan, each non-employee director receives annual restricted share grants of 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. The annual restricted share grants of common stock 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.

On the date of our 2020 annual meeting, we issued a total of 8,000 shares of our common stock to our non-employee directors, which were restricted as specified in the Non-Employee Director Stock Plan. The shares granted at the 2020 annual meeting had an aggregate fair market value on the date of grant equal to \$226,720 (grant date fair value of \$28.34 per share). As of September 30, 2020, 2,000 of these shares were vested. The aggregate fair value of the 6,000 unvested shares based on the closing price of our common stock on September 30, 2020 was \$191,000.

Stock Option Activity

The following is a summary of stock option activity in the nine months ended September 30, 2020:

	Options Outstanding	Weighted Average Exercise Price Per Share
Outstanding, December 31, 2019	520,513	\$ 12.25
Granted	—	—
Exercised	(107,813)	8.10
Expired	—	—
Forfeited	—	—
Outstanding, September 30, 2020	412,700	\$ 13.33
Exercisable, September 30, 2020	273,126	\$ 11.22

The intrinsic value of an option is the amount by which the market price of the underlying common stock exceeds the option's exercise price. For options outstanding at September 30, 2020, the weighted average remaining contractual term of all outstanding options was 3.3 years and their aggregate intrinsic value was \$7.6 million. At September 30, 2020, the weighted average remaining contractual term of options that were exercisable was 2.3 years and their aggregate intrinsic value was \$5.6 million. The aggregate intrinsic value of stock options exercised was \$2.1 million in the nine months ended September 30, 2020 and \$121,000 in the nine months ended September 30, 2019. We received proceeds from stock option exercises of \$322,000 in the nine months ended September 30, 2020 and \$173,000 in the nine months ended September 30, 2019. No stock options vested in the nine months ended September 30, 2020.

Restricted Shares and Restricted Stock Units

Restricted shares are granted under our Non-Employee Director Stock Plan. There were 8,000 restricted shares granted in the nine months ended September 30, 2020. Restricted stock units are granted under our Employee Stock Incentive Plan. No restricted stock units were granted in the nine months ended September 30, 2020 or the nine months ended September 30, 2019. The aggregate fair value of outstanding restricted shares and restricted stock units based on the closing share price of our common stock as of September 30, 2020 was \$2.2 million. The aggregate fair value of restricted shares and restricted stock units that vested, based on the closing price of our common stock on the vesting date, was \$179,000 in the nine months ended September 30, 2020 and \$105,000 in the nine months ended September 30, 2019.

The following is a summary of activity in restricted shares and restricted stock units in the nine months ended September 30, 2020:

Restricted shares and restricted stock units	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2019	68,204	\$ 17.39
Granted	8,000	28.34
Vested	(6,000)	20.95
Forfeited	—	—
Non-vested at September 30, 2020	70,204	\$ 18.33

Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan available to eligible U.S. employees. Under the 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 (which begins on August 1st and ends on July 31st of each year). There were 19,897 shares purchased under this plan in the nine months ended September 30, 2020. As of September 30, 2020, 136,791 shares remain available for future purchase under the Employee Stock Purchase Plan.

Share-Based Compensation Information

All share-based compensation awarded to our employees and non-employee directors, including grants of stock options, restricted stock units and restricted shares, are required to be recognized as an expense in our consolidated statements of operations based on the grant date fair value of the award. We utilize the straight-line method of expense recognition over the award's service period for our graded vesting options. The fair value of stock options has been determined as of the date of grant using the Black-Scholes model. We have classified employee share-based compensation within our statements of operations in the same manner as our cash-based employee compensation costs.

Pre-tax share-based compensation expense in the three months ended September 30, 2020 totaled \$305,000, and included \$115,000 for stock options, \$31,000 for our Employee Stock Purchase Plan, \$102,000 for restricted stock units and \$57,000 for restricted shares. Pre-tax share-based compensation expense in the nine months ended September 30, 2020 totaled \$863,000, and included \$343,000 for stock options, \$79,000 for our Employee Stock Purchase Plan, \$304,000 for restricted stock units and \$137,000 for restricted shares.

Pre-tax share-based compensation expense in the three months ended September 30, 2019 totaled \$244,000, and included \$110,000 for stock options, \$21,000 for our Employee Stock Purchase Plan, \$78,000 for restricted stock units and \$35,000 for restricted shares. Pre-tax share-based compensation expense in the nine months ended September 30, 2019 totaled \$737,000, and included \$327,000 for stock options, \$81,000 for our Employee Stock Purchase Plan, \$231,000 for restricted stock units and \$98,000 for restricted shares.

At September 30, 2020, the total unrecognized compensation cost related to non-vested share-based compensation arrangements was \$1.8 million and the related weighted average period over which such cost is expected to be recognized was 2.24 years.

8. CHANGES IN STOCKHOLDERS' EQUITY:

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

Three Months Ended September 30, 2020:

(In thousands)	Common Stock		Accumulated Other Comprehensive Loss	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance, June 30, 2020	7,232	\$ 37,053	\$ (1,646)	\$ 25,548	\$ 60,955
Exercise of stock options, net of shares exchanged as payment	3	66	—	—	66
Share-based compensation	—	305	—	—	305
Issuance of common stock under Employee Stock Purchase Plan	20	224	—	—	224
Other comprehensive income, net of tax	—	—	190	—	190
Net income	—	—	—	1,799	1,799
Balance, September 30, 2020	7,255	\$ 37,648	\$ (1,456)	\$ 27,347	\$ 63,539

Nine Months Ended September 30, 2020:

(In thousands)	Common Stock		Accumulated Other Comprehensive Loss	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance, December 31, 2019	7,155	\$ 36,659	\$ (1,406)	\$ 23,071	\$ 58,324
Exercise of stock options, net of shares exchanged as payment	88	322	—	—	322
Tax payments for shares withheld related to stock option exercises	(16)	(420)	—	—	(420)
Share issuances for director compensation	8	—	—	—	—
Share-based compensation	—	863	—	—	863
Issuance of common stock under Employee Stock Purchase Plan	20	224	—	—	224
Other comprehensive loss, net of tax	—	—	(50)	—	(50)
Net income	—	—	—	4,276	4,276
Balance, September 30, 2020	7,255	\$ 37,648	\$ (1,456)	\$ 27,347	\$ 63,539

Three Months Ended September 30, 2019:

(In thousands)	Common Stock		Accumulated Other Comprehensive Loss	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance, June 30, 2019	7,115	\$ 36,189	\$ (1,518)	\$ 23,256	\$ 57,927
Exercise of stock options	15	114	—	—	114
Share-based compensation	—	244	—	—	244
Issuance of common stock under Employee Stock Purchase Plan	18	203	—	—	203
Repurchase of common stock	(26)	(353)	—	—	(353)
Other comprehensive loss, net of tax	—	—	(268)	—	(268)
Net loss	—	—	—	(353)	(353)
Balance, September 30, 2019	7,122	\$ 36,397	\$ (1,786)	\$ 22,903	\$ 57,514

Nine Months Ended September 30, 2019:

(In thousands)	Common Stock		Accumulated Other Comprehensive Loss	Retained Earnings	Total Stockholders' Equity
	Shares	Amount			
Balance December 31, 2018	7,101	\$ 35,637	\$ (1,690)	\$ 22,264	\$ 56,211
Increase related to adoption of ASU 2016-02	—	—	—	33	33
Exercise of stock options	21	173	—	—	173
Share issuances for director compensation	8	—	—	—	—
Share-based compensation	—	737	—	—	737
Issuance of common stock under Employee Stock Purchase Plan	18	203	—	—	203
Repurchase of common stock	(26)	(353)	—	—	(353)
Other comprehensive loss, net of tax	—	—	(96)	—	(96)
Net income	—	—	—	606	606
Balance, September 30, 2019	7,122	\$ 36,397	\$ (1,786)	\$ 22,903	\$ 57,514

9. OTHER FINANCIAL STATEMENT DATA:

Inventories consisted of the following:

(In thousands)	September 30, 2020	December 31, 2019
Raw materials and purchased parts	\$ 12,428	\$ 9,845
Work in process	2,236	1,837
Finished goods	5,408	2,373
Demonstration inventories, net	1,213	1,525
Total inventories	\$ 21,285	\$ 15,580

Excess and obsolete inventories were written down by \$656,000 at September 30, 2020 and \$649,000 at December 31, 2019. Demonstration inventories are stated at cost less accumulated amortization, generally based on a 36 month useful life. Accumulated amortization for demonstration inventories totaled \$2.6 million at September 30, 2020 and \$2.4 million at December 31, 2019.

Accrued expenses consisted of the following:

(In thousands)	September 30, 2020	December 31, 2019
Wages and benefits	\$ 2,544	\$ 1,319
Warranty liability	784	761
Income taxes payable	199	333
Other	158	159
Total accrued expenses	\$ 3,685	\$ 2,572

Warranty costs:

We provide for the estimated cost of product warranties, which cover products for periods ranging from one to three 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 components provided by suppliers, warranty obligations do arise. These obligations are affected by product failure rates, the cost of materials used in correcting product failures and service delivery expenses incurred to make these corrections. If actual product failure rates and material or service delivery costs differ from our estimates, revisions to the estimated warranty liability are 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,	
	2020	2019
Balance at beginning of period	\$ 798	\$ 789
Accrual for warranties	726	713
Warranty revision	(21)	(7)
Settlements made during the period	(683)	(626)
Balance at end of period	820	869
Current portion of estimated warranty liability	(784)	(843)
Long-term estimated warranty liability	\$ 36	\$ 26

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,	
	2020	2019
Balance at beginning of period	\$ 275	\$ 218
Revenue deferrals	382	352
Amortization of deferred revenue	(269)	(335)
Total deferred warranty revenue	388	235
Current portion of deferred warranty revenue	(274)	(182)
Long-term deferred warranty revenue	\$ 114	\$ 53

10. INTANGIBLE ASSETS:

Impairment Considerations (goodwill and intangibles)

The current Covid-19 pandemic has caused a significant deterioration in global economic conditions, including high levels of unemployment and a significant contraction in economic activity. Many economists and analysts believe the Covid-19 pandemic has resulted or could result in an economic recession or depression. We evaluate the carrying value of goodwill and intangibles for impairment whenever management believes indicators of impairment might exist. A significant deterioration in macroeconomic conditions is a key indicator of possible impairment. In addition to macroeconomic conditions, management considered the factors in the FASB's Accounting Standards Codification Topic 350 when analyzing goodwill and intangibles for possible impairment, including the following:

- Conditions in the global SMT and semiconductor capital equipment markets (including conditions resulting from the Covid-19 pandemic);
- Our revenue and profitability in the nine months ended September 30, 2020;
- Our backlog at September 30, 2020, which stood at \$17.7 million;
- Our forecasts for revenue and profitability for the fourth quarter of 2020 and beyond;
- The manner of use and applicability of our intangibles, which is not expected to change; and
- Our stock market capitalization, which is significantly greater than our net book value.

After carefully considering the factors outlined above, among others, we determined that it is more likely than not that our goodwill and intangibles were not impaired as of September 30, 2020.

Intangible assets consisted of the following:

(In thousands)	September 30, 2020			December 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Patents	\$ 3,014	\$ (2,772)	\$ 242	\$ 2,898	\$ (2,662)	\$ 236
Software	206	(193)	13	206	(170)	36
Marketing assets and customer relationships	101	(70)	31	101	(63)	38
Total intangible assets	\$ 3,321	\$ (3,035)	\$ 286	\$ 3,205	\$ (2,895)	\$ 310

Amortization expense in the three and nine months ended September 30, 2020 and the three and nine months ended September 30, 2019 was as follows:

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Patents	\$ 38	\$ 33	\$ 111	\$ 97
Software	7	7	22	22
Marketing assets and customer relationships	2	3	7	7
Total amortization expense	\$ 47	\$ 43	\$ 140	\$ 126

Estimated aggregate amortization expense based on current intangible assets for the next five years is expected to be as follows: \$48,000 for the remainder of 2020; \$133,000 in 2021; \$75,000 in 2022; \$28,000 in 2023; and \$2,000 in 2024.

11. REVENUE CONCENTRATIONS, SIGNIFICANT CUSTOMERS AND GEOGRAPHIC AREAS:

The following summarizes our revenue by product line:

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
High Precision 3D and 2D Sensors	\$ 3,645	\$ 3,170	\$ 12,512	\$ 8,923
Inspection and Metrology Systems	13,339	5,545	29,361	22,554
Semiconductor Sensors	3,836	3,676	11,372	10,934
Total	\$ 20,820	\$ 12,391	\$ 53,245	\$ 42,411

Export revenues as a percentage of total revenues in the three and nine months ended September 30, 2020 was 84% and 80%, respectively. Export revenues as a percentage of total revenues in the three and nine months ended September 30, 2019 was 77% and 73%, respectively. Export revenues are attributed to the country where the product is shipped. Substantially all of our export revenues are negotiated, invoiced and paid in U.S. dollars. Export revenues by geographic area are summarized as follows:

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Americas	\$ 94	\$ 418	\$ 592	\$ 994
Europe	2,221	1,926	6,693	6,189
China	4,829	2,135	12,662	8,469
Taiwan	2,237	842	4,716	3,986
Other Asia	7,706	4,005	16,864	10,824
Other	453	248	1,167	632
Total export sales	\$ 17,540	\$ 9,574	\$ 42,694	\$ 31,094

In the nine months ended September 30, 2020, sales to significant customer A accounted for 13% of our total revenues and sales to significant customer B accounted for 14% of our total revenues. As of September 30, 2020, accounts receivable from significant customer A were \$1.3 million and accounts receivable from significant customer B were \$5.8 million.

12. NET INCOME PER SHARE:

Basic net income (loss) per share for a period 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 common shares to be issued upon exercise of stock options, vesting of restricted stock units, vesting of restricted shares and from purchases of shares under our Employee Stock Purchase Plan, as calculated using the treasury stock method. Common equivalent shares are excluded from the calculations of net loss per diluted share due to their anti-dilutive effect, and are excluded from the calculations of net income per diluted share if their effect is anti-dilutive. The components of net income (loss) per basic and diluted share were as follows:

(In thousands except per share amounts)	Net Income	Weighted Average Shares Outstanding	Per Share Amount
Three Months Ended September 30, 2020			
Basic	\$ 1,799	7,240	\$ 0.25
Dilutive effect of common equivalent shares	—	279	(0.01)
Dilutive	\$ 1,799	7,519	\$ 0.24

(In thousands except per share amounts)	Net Loss	Weighted Average Shares Outstanding	Per Share Amount
Three Months Ended September 30, 2019			
Basic	\$ (353)	7,117	\$ (0.05)
Dilutive effect of common equivalent shares	—	—	—
Dilutive	\$ (353)	7,117	\$ (0.05)

(In thousands except per share amounts)	Net Income	Weighted Average Shares Outstanding	Per Share Amount
Nine Months Ended September 30, 2020			
Basic	\$ 4,276	7,198	\$ 0.59
Dilutive effect of common equivalent shares	—	247	(0.02)
Dilutive	\$ 4,276	7,445	\$ 0.57

(In thousands except per share amounts)	Net Income	Weighted Average Shares Outstanding	Per Share Amount
Nine Months Ended September 30, 2019			
Basic	\$ 606	7,108	\$ 0.09
Dilutive effect of common equivalent shares	—	137	(0.01)
Dilutive	\$ 606	7,245	\$ 0.08

Potentially dilutive shares consist of stock options, restricted stock units, restricted shares and purchases of shares under our Employee Stock Purchase Plan. Potentially dilutive shares excluded from the calculations of net income (loss) per diluted share due to their anti-dilutive effect were as follows: 11,000 shares in the three months ended September 30, 2020; 63,000 shares in the nine months ended September 30, 2020; 567,000 shares in the three months ended September 30, 2019; and 309,000 shares in the nine months ended September 30, 2019.

13. OTHER COMPREHENSIVE INCOME (LOSS):

Reclassification adjustments are made to avoid double counting for items included in other comprehensive income (loss) that are also recorded as part of net income (loss). There were no reclassification adjustments in the three and nine months ended September 30, 2020 or the three and nine months ended September 30, 2019. Taxes related to items of other comprehensive income (loss) were as follows:

(In thousands)	Three Months Ended September 30, 2020			Three Months Ended September 30, 2019		
	Before Tax	Tax Effect	Net of Tax Amount	Before Tax	Tax Effect	Net of Tax Amount
Foreign currency translation adjustments	\$ 236	\$ —	\$ 236	\$ (269)	\$ —	\$ (269)
Unrealized gains (losses) on available-for-sale securities	(58)	(12)	(46)	1	—	1
Other comprehensive income (loss)	\$ 178	\$ (12)	\$ 190	\$ (268)	\$ —	\$ (268)

(In thousands)	Nine Months Ended September 30, 2020			Nine Months Ended September 30, 2019		
	Before Tax	Tax Effect	Net of Tax Amount	Before Tax	Tax Effect	Net of Tax Amount
Foreign currency translation adjustments	\$ (210)	\$ —	\$ (210)	\$ (199)	\$ —	\$ (199)
Unrealized gains on available-for-sale securities	203	43	160	129	26	103
Other comprehensive income (loss)	\$ (7)	\$ 43	\$ (50)	\$ (70)	\$ 26	\$ (96)

At September 30, 2020 and September 30, 2019, components of accumulated other comprehensive loss is as follows:

(In thousands)	Foreign Currency Translation Adjustments	Available-for-Sale Securities	Accumulated Other Comprehensive Loss
Balances at December 31, 2019	\$ (1,475)	\$ 69	\$ (1,406)
Other comprehensive income (loss) for the nine months ended September 30, 2020	(210)	160	(50)
Balances at September 30, 2020	\$ (1,685)	\$ 229	\$ (1,456)

(In thousands)	Foreign Currency Translation Adjustments	Available-for-Sale Securities	Accumulated Other Comprehensive Loss
Balances at December 31, 2018	\$ (1,649)	\$ (41)	\$ (1,690)
Other comprehensive income (loss) for the nine months ended September 30, 2019	(199)	103	(96)
Balances at September 30, 2019	\$ (1,848)	\$ 62	\$ (1,786)

14. INCOME TAXES:

We recorded income tax expense of \$409,000 in the three months ended September 30, 2020, compared to an income tax benefit of \$234,000 in the three months ended September 30, 2019. We recorded income tax expense of \$462,000 in the nine months ended September 30, 2020, compared to income tax expense of \$92,000 in the nine months ended September 30, 2019. Income tax expense in the nine months ended September 30, 2020 was reduced by \$367,000 for excess tax benefits from employee stock option exercises. Our income tax expense in the nine months ended September 30, 2020 reflected an effective tax rate of approximately 10%, compared to an effective tax rate of approximately 13% in the nine months ended September 30, 2019. The reduction in effective tax rate in the nine months ended September 30, 2020, when compared to the nine months ended September 30, 2019, was due to the significant excess tax benefits from employee stock option exercises recognized in the nine months ended September 30, 2020, deductions for Foreign Derived Intangible Income ("FDII") and Global Intangible Low-Taxed Income ("GILTI") and foreign tax credits. We were unable to take advantage of the FDII and GILTI deductions and foreign credits in 2019, because we had un-used federal net operating loss carry forwards. We expect to use our remaining federal net operating loss carry forwards in 2020.

We have significant deferred tax assets as a result of temporary differences between taxable income on our tax returns and U.S. GAAP income, R&D tax credit carry forwards and federal and state 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 could be 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 in which we operate, our financial performance in recent quarters, statutory carry forward periods and tax planning alternatives. In addition, 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 based deferred tax assets were not required.

The Inland Revenue Authority of Singapore has initiated a routine compliance review of our 2018 income tax return. We presently anticipate that the outcome of this audit will not have a significant impact on our financial position or results of operations.

15. OPERATING LEASES:

Operating leases are included in operating lease right-of-use (“ROU”) assets, current operating lease liabilities, and long-term operating lease liabilities in our consolidated balance sheets. ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized based on the present value of lease payments over the lease term. Because our leases do not provide an implicit rate, we use our incremental borrowing rate to determine the present value of lease payments. Lease expense is recognized on a straight-line basis over the lease term. We have lease agreements with lease and non-lease components (e.g., common-area or other maintenance costs) which are generally accounted for separately and expensed monthly.

In February 2020, we finalized an extension to our lease for our existing 19,805 square foot mixed office and warehouse facility in Singapore, which serves as a sales, development and final assembly and integration facility for our inspection and metrology system products. The lease runs from the expiration date of our old lease in July 2020 through July 24, 2023. The new lease does not contain any incentives or renewal options. Rent and facility operating costs under the new lease are expected to remain unchanged from the old lease that expired in July 2020.

At September 30, 2020, the future maturities of lease liabilities are as follows:

Twelve months ending September 30,	(In thousands)
2021	\$ 969
2022	1,008
2023	956
2024	654
2025	670
2026 and thereafter	572
Total lease payments	4,829
Less: amount representing interest	636
Present value of operating lease liabilities	\$ 4,193

At September 30, 2020, the weighted average remaining term for our operating leases is 5.10 years, and the weighted average discount rate applied to our operating leases was 5.19%.

Operating lease liabilities were increased by \$941,000 in the nine months ended September 30, 2020 for ROU assets related to the extended leases for our Singapore and China facilities and a new small leased facility in Taiwan. Incentives from the landlord recorded as leasehold improvements in the nine months ended September 30, 2019 were \$783,000.

16. SHARE REPURCHASES:

In July 2019, our Board of Directors authorized a \$3.0 million share repurchase program which expired on June 30, 2020. There were no share repurchases under this program in the six months ended June 30, 2020.

17. CONTINGENCIES:

We are periodically a defendant in lawsuits, 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 amount of exposure 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. However, there can be no assurance that intellectual property infringement and other claims against us or parties we have indemnified will not have a greater impact in the future.

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

FORWARD LOOKING STATEMENTS:

The following management's discussion and analysis of the financial condition and results of operations of CyberOptics Corporation and its wholly-owned subsidiaries ("we", "us" and "our") contains a number of estimates and predictions that are forward looking statements rather than statements based on historical fact. Among other matters, we discuss (i) a possible world-wide recession or depression due to the economic consequences of the pandemic resulting from the worldwide spread of a novel form of coronavirus (Covid-19); (ii) the negative effect on our revenue and operating results of the economic crisis resulting from the Covid-19 pandemic on our customers and suppliers, the market for our products and the global supply chain; (iii) the availability of parts to meet customer orders; (iv) the level of anticipated revenues, gross margins, and expenses; (v) the timing of orders and shipments of our existing products, particularly our 3D Multi-Reflection Suppression™ (MRS™)-enabled SQ3000™ Multi-Function systems for automated optical inspection ("AOI") and MX systems for memory module inspection; (vi) the level of orders from our original equipment manufacturer ("OEM") customers; (vii) 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; (viii) the improvement in gross margins resulting from future cost reduction programs; (ix) market acceptance of our SQ3000 Multi-Function inspection and measurement system and products for semiconductor wafer level and advanced packaging inspection and metrology (x) our assessment of trends in the surface mount technology ("SMT") and semiconductor capital equipment markets; and (xi) changes in the level of tariffs and other trade policies of the United States. 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. Therefore, the accuracy of our forward-looking 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, 2019 and in Section 1A of this report.

RESULTS OF OPERATIONS

General

We are a leading global developer and manufacturer of high precision 3D sensors and system products for inspection and metrology. We also develop and manufacture our WaferSense® products, which is a family of wireless, wafer-shaped sensors that provide measurements of critical factors in the semiconductor fabrication process. We intend to leverage our sensor technologies in the SMT and semiconductor industries to deliver profitable growth. A key element of our strategy is the continued development and sale of high precision 3D sensors and system products based on our proprietary Multi-Reflection Suppression ("MRS") technology. We believe that our MRS technology is a breakthrough 3D optical technology for high-end inspection and metrology with the potential to significantly expand our markets. Another key element in our strategy is the continued development and introduction of new sensor applications for our WaferSense® family of products.

Our operating results in 2019 were affected by the cyclical, industry-wide slowdown in demand for SMT and semiconductor capital equipment as well as uncertainty relating to the global trade environment. We believe that the three months ended September 30, 2019 marked the trough of the downturn in the SMT and semiconductor capital equipment markets, and that industry conditions have started to strengthen. Over the longer-term, we expect a growing number of opportunities in the markets for SMT and semiconductor inspection and metrology. We believe that our 3D MRS-enabled sensor and system products and our WaferSense® family of products have the potential to expand our presence in the markets for SMT and semiconductor capital equipment.

Manufacturing yield challenges as electronics and semiconductors become more complex are driving the need for more precise inspection and metrology. We believe 3D inspection and metrology represent high-growth segments in both the SMT and semiconductor capital equipment markets. We believe our 3D MRS technology platform is well suited for many applications in these markets, particularly with respect to complex circuit boards and semiconductor wafer level and advanced packaging inspection and metrology applications. We are taking advantage of current market trends by deploying our 3D MRS sensor technology in the following products:

- Our SQ3000™ Multi-Function inspection and measurement machines (the SQ3000 and SQ3000™ 3D CMM) for AOI, Solder Paste Inspection ("SPI") and coordinate measurement ("CMM") applications, which are designed to expand our presence in markets requiring high precision inspection and metrology. In these markets, identifying defects has become highly challenging and critical due to smaller semiconductor and electronics packaging and increasing component density on circuit boards. We believe the 3D MRS sensor technology used in our products is uniquely suited for many of these applications because of its ability to offer microscopic image quality and superior measurement performance at production line speeds.
- Our next generation MX3000™ AOI system for 3D inspection of memory modules following the singulation step of the manufacturing process. We recognized our first revenue from the sale of the MX3000 product in the first quarter of 2020.

- Our new MRS-enabled WX3000™ metrology and inspection system for wafer-level and advanced packaging applications, which incorporates our next generation ultra-high resolution three micron pixel 3D NanoResolution MRS sensor. The WX3000 performs 100% 3D and 2D inspection and metrology simultaneously at high speed and delivers through-put of more than 25 wafers per hour. We believe the WX3000 performs two to three times faster than alternate technologies at data processing speeds in excess of 75 million 3D data points per second. The WX3000 is suitable for many semiconductor wafer level and advanced packaging inspection and metrology applications for features down to 25-micron. We anticipate that sales of 3D MRS-enabled sensors and systems for semiconductor wafer level and advanced packaging inspection and metrology applications will provide us with long-term growth opportunities.

Revenue from our MRS-based products, including 3D AOI systems and high precision 3D MRS sensors, increased by \$8.9 million or 60% to \$23.8 million in the nine months ended September 30, 2020, from \$14.9 million in the nine months ended September 30, 2019. Over the long term, we anticipate continued increases in sales of products based on our MRS technology in the SMT and semiconductor capital equipment markets. In particular, we believe inspection and metrology for micro LED, memory modules and semiconductor wafer level and advanced packaging applications represent significant long-term growth opportunities. We anticipate increasing sales of MRS-based products by selling them to new OEM customers and system integrators, and by expanding direct sales of inspection and metrology system products to end-user customers.

We have continued to invest in our WaferSense® family of products, because fabricators of semiconductors and other customers view these products as valuable tools for improving yields and productivity. We have recently introduced several new WaferSense® products to further increase our revenue growth, including the In-Line Particle Sensor™ (IPS™). This sensor detects particles in gas and vacuum lines in semiconductor process equipment, and is particularly relevant for EUV lithography tools. Additional WaferSense® applications are currently under development. Over the long-term, strong future sales growth is anticipated for our WaferSense® family of products.

Our order backlog was \$17.7 million at September 30, 2020, down from \$24.8 million at June 30, 2020, and up from \$14.4 million at September 30, 2019. We are forecasting sales of \$15.5 to \$17.0 million for the fourth quarter of 2020. Our forecast for the fourth quarter of 2020 includes \$1.4 million of sales from our order backlog for SQ3000™ Multi-Function systems used in micro LED inspection and metrology and \$1.6 million of sales from our order backlog for MX600 memory module inspection systems. Our forecast for the fourth quarter of 2020 does not include any significant new orders for SQ3000™ Multi-Function systems for micro LED inspection and metrology or MX systems for memory module inspection. We believe that demand in the SMT and semiconductor capital equipment markets will remain solid through 2021. However, an increase in the severity of the current Covid-19 outbreak, or a resulting prolonged economic recession or depression, could cause a slow-down in demand for SMT and semiconductor capital equipment. Over the long term, we believe anticipated sales growth of our 3D MRS-enabled products and WaferSense sensors should increase revenues and net income.

Impact from Covid-19

Effect of Covid-19 Outbreak on Business Operations

In December 2019, Covid-19 was first identified, and in March 2020, the World Health Organization categorized Covid-19 as a pandemic. The Covid-19 pandemic is affecting our customers, suppliers, service providers and employees, and the ultimate impacts of Covid-19 on our business, results of operations, liquidity and prospects are not fully known at this time. However, the Covid-19 outbreak has had a relatively minimal impact on our business to date. Our revenues increased by 26% to \$53.2 million in the first nine months of 2020, from \$42.4 million in the first nine months of 2019. We are forecasting revenues of \$15.5 to \$17.0 million for the fourth quarter of 2020, compared to \$16.9 million in the fourth quarter of 2019. Our forecast for the fourth quarter of 2020 could change if the Covid-19 pandemic worsens, or if unforeseen events related to the pandemic occur. The most significant impacts on our business from the Covid-19 pandemic include the following:

- Our key factories are located in Minnesota and Singapore. Both of these locations have been subject to government mandated shelter-in-place orders. Because our operations have been deemed essential, we were able to keep our factories up and running while the shelter-in-place mandates were in effect. If the pandemic worsens, it is possible that our operations may not be deemed essential under future government mandated shelter-in-place orders, and we may be required to shut-down factory operations. We have periodically implemented split-shifts for our factory operations to minimize the number of employees in our facilities at any given time, but these measures have not affected our production capacity. Most of the time, our non-factory employees are working remotely. To date, the shelter-in-place mandates and remote work arrangements have had a minimal impact on operations, but that could change if the pandemic worsens and is more than temporary.

- Sales of some products, mainly our SQ3000 Multi-Function inspection and measurement systems and MX memory module inspection products, require customer acceptance due to performance or other criteria that is considered more than a formality. Most of our customer's factories have remained open during the Covid-19 pandemic because they are deemed to be essential under government shelter-in-place mandates. However, global travel restrictions and quarantine measures have hindered our ability to obtain customer acceptances of certain of our products at various times in the nine months ended September 30, 2020. Continuing or new global travel restrictions and quarantine measures could hinder our ability to obtain customer acceptances in a timely manner in the future, and therefore impact the timing of revenue recognition.
- Total operating expenses were reduced in the three and nine months ended September 30, 2020 due to the Covid-19 pandemic. Wage costs were reduced in the three and nine months ended September 30, 2020 by \$76,000 and \$371,000, respectively, from a jobs support program implemented by the government of Singapore. In addition, travel, trade show and other costs were reduced due to changes in employee travel patterns and trade show cancellations.
- We have experienced some supply disruptions due to the Covid-19 pandemic, mainly from suppliers not deemed essential by shelter-in-place mandates in certain countries. Key supply chain disruptions have been resolved to date. However, supply chain disruptions could increase significantly if the pandemic worsens and continues for an extended period of time. To date, our on-hand inventories have been sufficient to enable us to mitigate any supply disruptions with minimal impact on our sales or ability to service customers. We presently do not expect that supply chain disruptions will have a significant impact on our revenue in the fourth quarter of 2020.

We currently do not anticipate any significant credit losses or asset impairments resulting from the Covid-19 pandemic. As of September 30, 2020, our available balances of cash and marketable securities totaled \$27.9 million. We believe that we have the resources required to attain our growth objectives and to meet any unforeseen difficulties resulting from the Covid-19 pandemic. However, we will continue to closely monitor the Covid-19 pandemic and its impact on our business in the coming months. There have been recent spikes in Covid-19 cases, and some health experts have predicted that the Covid-19 pandemic will worsen during the winter months.

CARES Act

On March 27, 2020, the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act") was signed into law in the United States. The CARES Act, among other things, includes provisions relating to refundable payroll tax credits, deferment of employer side social security payments, net operating loss carryback periods and alternative tax credit refunds. The CARES Act also appropriated funds for the Small Business Administration Paycheck Protection Program loans that are forgivable in certain circumstances to promote continued employment. We have analyzed the provisions of the CARES Act and presently do not believe it will have a material benefit to our financial condition, results of operations or liquidity. However, we will continue to monitor the impact the CARES Act could have on our business.

Singapore Jobs Support Program

As stated above, the Singapore Government implemented a jobs support program in 2020 that is intended to support businesses and encourage retention of employees during the period of economic uncertainty caused by the Covid-19 pandemic. Under the jobs support program, the Singapore Government will co-fund a portion of the gross monthly wages paid to local employees. We anticipate that the Singapore jobs support program will reduce operating expenses in the fourth quarter of 2020 by approximately \$35,000.

Revenues

Our revenues increased by 68% to \$20.8 million in the three months ended September 30, 2020, from \$12.4 million in the three months ended September 30, 2019. Our revenues increased by 26% to \$53.2 million in the nine months ended September 30, 2020, from \$42.4 million in the nine months ended September 30, 2019. The following table sets forth revenues by product line for the three and nine months ended September 30, 2020 and 2019:

(In thousands)	Three Months Ended September 30,			Nine Months Ended September 30,		
	2020	2019	% Change	2020	2019	% Change
High Precision 3D and 2D Sensors	\$ 3,645	\$ 3,170	15 %	\$ 12,512	\$ 8,923	40 %
Inspection and Metrology Systems	13,339	5,545	141 %	29,361	22,554	30 %
Semiconductor Sensors	3,836	3,676	4 %	11,372	10,934	4 %
Total	\$ 20,820	\$ 12,391	68 %	\$ 53,245	\$ 42,411	26 %

Revenues from sales of high precision 3D and 2D sensors increased by \$475,000 or 15% to \$3.6 million in the three months ended September 30, 2020, from \$3.2 million in the three months ended September 30, 2019. Revenues from sales of high precision 3D and 2D sensors increased by \$3.6 million or 40% to \$12.5 million in the nine months ended September 30, 2020, from \$8.9 million in the nine months ended September 30, 2019. The increases in both periods were primarily due to higher sales of 3D MRS-enabled sensors. Sales of high precision 3D MRS-enabled sensors increased by \$746,000 or 59% to \$2.0 million in the three months ended September 30, 2020 from \$1.3 million in the three months ended September 30, 2019. Sales of high precision 3D MRS-enabled sensors increased by \$3.9 million or 96% to \$8.1 million in the nine months ended September 30, 2020 from \$4.1 million in the nine months ended September 30, 2019. The increase was due to improving conditions in the global semiconductor capital equipment market.

Sales of high precision 3D and 2D sensors are dependent on the success of our OEM customers selling products that incorporate our sensors. We believe sales of our new 3D MRS enabled sensors, including our next generation ultra-high resolution three micron pixel 3D NanoResolution MRS sensor, will represent an increasing percentage of our total high precision 3D and 2D sensor sales in the future. Sales of high precision 3D and 2D sensors, including 3D-MRS enabled sensors, are prone to significant quarterly fluctuations due to variations in market demand and customer inventory levels. Revenues from sales of high precision 3D and 2D sensors are expected to decline on a year-over-year basis in the fourth quarter of 2020.

Revenues from sales of inspection and metrology systems increased by \$7.8 million or 141% to \$13.3 million in the three months ended September 30, 2020, from \$5.5 million in the three months ended September 30, 2019. Revenues from sales of inspection and metrology systems increased by \$6.8 million or 30% to \$29.4 million in the nine months ended September 30, 2020, from \$22.6 million in the nine months ended September 30, 2019. The revenue increases were mainly due to higher sales of SQ3000™ Multi-Function systems and MX memory module inspection systems. Sales of SQ3000™ Multi-Function systems increased by \$3.6 million or 109% to \$6.9 million in the three months ended September 30, 2020, from \$3.3 million in the three months ended September 30, 2019. Sales of 2D and 3D MX memory module inspection systems totaled \$3.3 million in the three months ended September 30, 2020, compared to \$561,000 in the three months ended September 30, 2019. Sales of SQ3000™ Multi-Function systems increased by \$4.5 million or 43% to \$14.8 million in the nine months ended September 30, 2020, from \$10.4 million in the nine months ended September 30, 2019. Sales of 2D and 3D MX memory module inspection systems totaled \$4.7 million in the nine months ended September 30, 2020, compared to \$3.3 million in the nine months ended September 30, 2019. Revenues from sales of inspection and metrology systems are forecasted to decline on a year-over-year basis in the fourth quarter of 2020 due to normal quarter-to-quarter fluctuations in demand for these products.

We believe the increase in sales of SQ3000™ Multi-Function systems in the nine months ended September 30, 2020 was due to the competitive advantages offered by our SQ3000™ Multi-Function system products, and resulted from many companies transitioning from 2D AOI to 3D AOI systems to meet the increasingly demanding product inspection and metrology requirements in the SMT and semiconductor markets. The market transition away from 2D AOI systems is expected to result in an industry-wide 20% compound annual rate of growth in global sales of 3D AOI systems through 2025. In addition, we believe the performance advantages of the SQ3000™ Multi-Function system has allowed us to attain a leadership position in the high growth micro LED inspection and metrology market. Sales of SQ3000™ Multi-Function systems for micro LED inspection and metrology applications totaled \$2.2 million in the three months ended September 30, 2020, compared to \$120,000 in the three months ended September 30, 2019. Sales of these systems for micro LED inspection and metrology applications totaled \$4.0 million in the nine months ended September 30, 2020, compared to \$1.2 million in the nine months ended September 30, 2019. Given these market dynamics and because of the competitive advantages of our 3D MRS sensor technology, we anticipate sales of SQ3000™ Multi-Function systems will represent an increasing percentage of our total inspection and metrology system sales in the future.

Revenues from sales of semiconductor sensors, principally our WaferSense® line of products, increased by \$160,000 or 4% to \$3.8 million in the three months ended September 30, 2020, from \$3.7 million in the three months ended September 30, 2019. Revenues from sales of semiconductor sensors increased by \$438,000 or 4% to \$11.4 million in the nine months ended September 30, 2020, from \$10.9 million in the nine months ended September 30, 2019. The revenue increases were due to growing acceptance of our WaferSense® products as important productivity enhancement tools by semiconductor manufacturers, and improved account penetration at major semiconductor manufacturers and capital equipment suppliers. Over the long term, we anticipate that the benefits from growing market awareness of our WaferSense® products, improved account penetration at major semiconductor manufacturers and capital equipment suppliers and new product introductions will lead to additional WaferSense® product sales. Revenues from sales of semiconductor sensors in the fourth quarter of 2020 are forecasted to grow by more than 10% on a year-over-year basis.

Export revenues totaled \$17.5 million or 84% of our total revenues in the three months ended September 30, 2020, compared to \$9.6 million or 77% of total revenues in the three months ended September 30, 2019. Export revenues totaled \$42.7 million or 80% of our total revenues in the nine months ended September 30, 2020, compared to \$31.1 million or 73% of total revenues in the nine months ended September 30, 2019. Export revenues as a percentage of total revenues increased in the three and nine months ended September 30, 2020, compared to the three and nine months ended September 30, 2019, because most of our customers for micro LED and memory module inspection and metrology are located in Asia. In addition, the Covid-19 pandemic has had a more negative impact on U.S. sales, when compared to the effect on sales in Asia and Europe.

Cost of Revenues and Gross Margin

Cost of revenues increased by \$5.2 million or 76% to \$12.1 million in the three months ended September 30, 2020, from \$6.9 million in the three months ended September 30, 2019. Cost of revenues increased by \$6.7 million or 29% to \$30.0 million in the nine months ended September 30, 2020, from \$23.3 million in the nine months ended September 30, 2019. The increase in cost of revenues in both periods was mainly due to revenue increases. Revenues increased by 68% in the three months ended September 30, 2020, when compared to the three months ended September 30, 2019, and revenues increased by 26% in the nine months ended September 30, 2020, when compared to the nine months ended September 30, 2019.

Total gross margin as a percentage of revenues was 42% in the three months ended September 30, 2020, compared to 44% in the three months ended September 30, 2019. Total gross margin as a percentage of revenues was 44% in the nine months ended September 30, 2020, compared to 45% in the nine months ended September 30, 2019. The decrease in gross margin percentage in both the three and nine months ended September 30, 2020 was primarily due to a less favorable product mix. Product mix reflected lower sales of higher margin WaferSense products as a percentage of our total revenues in both the three and nine months ended September 30, 2020, when compared to the three and nine months ended September 30, 2019. In the three months ended September 30, 2020, higher margin MRS-based products were also a lower percentage of our total revenues. In addition, sales of inspection system products in the lower margin general purpose SMT market increased during the three months ended September 30, 2020, when compared to the three months ended September 30, 2019.

Our total gross margin as a percentage of revenues in the fourth quarter of 2020 is expected to be above the level in this year's third quarter, and should be closer to our total gross margin as percentage of revenue in the first nine months of 2020 and calendar year 2019.

Our markets are highly price competitive, particularly in the electronics assembly and SMT markets. As a result, we have experienced continual pressure on our gross margins. We compensate for the pressure to reduce the price of our products 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 current and future MRS-enabled SQ3000™ Multi-Function systems, next generation 3D MRS sensors and semiconductor sensors (consisting primarily of our WaferSense® line of products) have, or are expected to have, more favorable gross margins than many of our existing products. Our next generation 3D MRS-enabled sensor and system products, including wafer level and advanced packaging inspection and metrology products, are being designed for more complex and demanding inspection and metrology applications in the SMT and semiconductor markets. Sales prices and gross profit margins for these applications tend to be higher than margins for products sold in the general purpose SMT market. However, the gross margin percentage for our next generation 3D MRS-enabled MX3000 AOI system for inspection of memory modules will be lower than our current total gross margin percentage due to the significant costs for material handling and automation required for this product. We are working on cost reduction strategies for our SQ3000™ Multi-Function system which should benefit gross margins for this product starting in the second quarter of 2021.

Operating Expenses

R&D expenses were \$2.4 million or 12% of revenues in the three months ended September 30, 2020, compared to \$2.4 million or 19% of revenues in the three months ended September 30, 2019. R&D expenses were \$7.0 million or 13% of revenues in the nine months ended September 30, 2020, compared to \$7.0 million or 16% of revenues in the nine months ended September 30, 2019. R&D expenses in the three and nine months ended September 30, 2020 were reduced by \$61,000 and \$307,000, respectively, due to the favorable impact of the Singapore Government's jobs support program on wage costs discussed above. Expenditures for R&D proto-types were also lower in the three and nine months ended September 30, 2020, when compared to the three and nine months ended September 30, 2019. These reductions were offset by higher compensation costs for new and existing R&D employees, including higher bonus accruals due to our improved financial performance. Current R&D expenditures are primarily focused on the continued development of our portfolio of next generation 3D MRS-enabled sensor and system products, and continued R&D work on new WaferSense® products. We also continue to enhance our SQ3000™ Multi-Function inspection and measurement systems.

Selling, general and administrative ("S,G&A") expenses were \$4.1 million or 20% of revenues in the three months ended September 30, 2020, compared to \$3.9 million or 31% of revenues in the three months ended September 30, 2019. S,G&A expenses were \$11.9 million or 22% of revenues in the nine months ended September 30, 2020, compared to \$11.8 million or 28% of revenues in the nine months ended September 30, 2019. The decrease in S,G&A expenses as a percentage of revenues in both the three and nine months ended September 30, 2020 resulted from a higher level of revenues. The increase in S,G&A expenses in both the three and nine months ended September 30, 2020 was due to higher commissions and bonus accruals due to our improved financial performance and an increase in provision for doubtful accounts due to higher sales. These increases were offset in part by lower costs for travel and cancellation of trade shows due to the Covid-19 pandemic, and the favorable impact of the Singapore Government's jobs support program on wage costs.

We anticipate that operating expenses in the fourth quarter of 2020 will be slightly lower on a sequential basis when compared to the third quarter of 2020, primarily due to a reduction in commissions and bonus accruals due to our forecast for lower revenue levels.

Interest Income (Expense) and Other

Interest income (expense) and other includes interest earned on investments and gains and losses associated with foreign currency transactions, primarily intercompany financing transactions associated with our subsidiaries in the United Kingdom, Singapore, China and Taiwan. We recognized losses from foreign currency transactions of \$77,000 in the three months ended September 30, 2020, compared to gains from foreign currency transactions of \$71,000 in the three months ended September 30, 2019. We recognized gains from foreign currency transactions of \$65,000 in the nine months ended September 30, 2020, compared to gains from foreign currency transactions of \$45,000 in the nine months ended September 30, 2019.

Income Taxes

We recorded income tax expense of \$409,000 in the three months ended September 30, 2020, compared to an income tax benefit of \$234,000 in the three months ended September 30, 2019. We recorded income tax expense of \$462,000 in the nine months ended September 30, 2020, compared to income tax expense of \$92,000 in the nine months ended September 30, 2019. Income tax expense in the nine months ended September 30, 2020 was reduced by \$367,000 for excess tax benefits from employee stock option exercises. Our income tax expense in the nine months ended September 30, 2020 reflected an effective tax rate of approximately 10%, compared to an effective tax rate of approximately 13% in the nine months ended September 30, 2019. The reduction in effective tax rate in the nine months ended September 30, 2020, when compared to the nine months ended September 30, 2019, was due to the significant excess tax benefits from employee stock option exercises recognized in the nine months ended September 30, 2020, deductions for Foreign Derived Intangible Income ("FDII") and Global Intangible Low-Taxed Income ("GILTI") and foreign tax credits. We were unable to take advantage of the FDII and GILTI deductions and foreign credits in 2019, because we had un-used federal net operating loss carry forwards. We expect to use our remaining federal net operating loss carry forwards in 2020.

We have significant deferred tax assets as a result of temporary differences between taxable income on our tax returns and U.S. GAAP income, R&D tax credit carry forwards and federal and state 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 could be 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 in which we operate, our financial performance in recent quarters, statutory carry forward periods and tax planning alternatives. In addition, 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 based deferred tax assets were not required.

The Inland Revenue Authority of Singapore has initiated a routine compliance review of our 2018 income tax return. We presently anticipate that the outcome of this audit will not have a significant impact on our financial position or results of operations.

Liquidity and Capital Resources

Our cash and cash equivalents decreased by \$171,000 in the nine months ended September 30, 2020. Cash provided by operating activities of \$2.5 million and proceeds of \$9.0 million from maturities of marketable securities were more than offset by purchases of marketable securities totaling \$10.6 million and purchases of fixed assets and capitalized patent costs totaling \$1.2 million. Proceeds from stock option exercises and share purchases under our Employee Stock Purchase Plan totaling \$546,000, were mostly offset by \$420,000 of cash used to make employee withholding tax payments for shares withheld related to stock option exercises. Our cash and cash equivalents fluctuate in part because of sales and maturities of marketable securities and investment of cash balances in marketable securities, and from other sources of cash. 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 increased by \$1.6 million to \$27.9 million as of September 30, 2020, from \$26.3 million as of December 31, 2019.

Operating activities provided \$2.5 million of cash in the nine months ended September 30, 2020. The amount of cash provided by operations was favorably impacted by net income of \$4.3 million. Net income was affected by non-cash expenses totaling \$3.3 million for depreciation and amortization, non-cash operating lease expense, provision for doubtful accounts, deferred taxes, non-cash gains from foreign currency transactions, share-based compensation costs and an unrealized loss on our available-for-sale equity security. Changes in operating assets and liabilities providing cash included an increase in accounts payable of \$3.1 million and an increase in accrued expenses of \$1.1 million. Changes in operating assets and liabilities using cash included an increase in accounts and trade notes receivable of \$1.7 million, an increase in inventories of \$6.4 million, an increase in prepaid expenses and other current assets of \$785,000 and various changes in other operating assets and liabilities totaling \$408,000. Increases in accounts payable and inventories at September 30, 2020 were due to planned purchases of raw materials to meet anticipated customer demand for SQ3000™ Multi-Function systems. The increase in accrued expenses was mainly due to bonus accruals resulting from our improved financial performance. Accounts and trade notes receivable increased due to the significant increase in sales in the third quarter of 2020 when compared to the fourth quarter of 2019. The increase in prepaid expenses and other current assets was due to higher balances of refundable goods and services taxes resulting from the additional purchases of raw materials and amounts receivable under the Singapore jobs support program. The decrease in other operating assets and liabilities was mainly due to payments for operating lease liabilities.

Investing activities used \$2.8 million of cash in the nine months ended September 30, 2020. Changes in the level of investment in marketable securities, resulting from purchases and maturities of those securities, used \$1.6 million of cash in the nine months ended September 30, 2020. We used \$1.2 million of cash in the nine months ended September 30, 2020 for the purchase of fixed assets and capitalized patent costs.

Financing activities provided \$126,000 of cash in the nine months ended September 30, 2020. Proceeds from the exercise of stock options and share purchases under our employee stock purchase plan provided \$546,000 of cash in the nine months ended September 30, 2020. Tax payments for shares withheld related to stock option exercises used \$420,000 of cash in the nine months ended September 30, 2020.

In July 2019, our Board of Directors authorized a \$3.0 million share repurchase program which expired on June 30, 2020. No shares were repurchased under this program in the six months ended June 30, 2020.

In February 2020, we finalized an extension to our lease for our existing 19,805 square foot mixed office and warehouse facility in Singapore, which serves as a sales, development and final assembly and integration facility for our inspection and metrology system products. The new lease runs from the expiration date of our old lease in July 2020 through July 24, 2023. Rent and facility operating costs under the new lease are expected to remain unchanged from the old lease that expired in July 2020.

At September 30, 2020, 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. These entities are established by some companies for the purpose of establishing off-balance sheet arrangements or for other contractually narrow or limited purposes.

We believe that on-hand cash, cash equivalents and marketable securities, coupled with anticipated future cash flow from operations, will be adequate to fund our cash flow needs for the foreseeable future.

ITEM 3 – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

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 risk factors discussed in Part I “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2019. The risks identified in these risk factors could materially affect our business, financial condition or future results. There are no material changes from these risk factors, other than the addition of the following risk factor:

The Covid-19 pandemic has significantly and negatively impacted worldwide economic conditions that may result in a global recession or depression, and could have a material adverse effect on our operations and business in the future. The Covid-19 pandemic is likely to continue to affect our business, especially if government authorities continue to impose or re-impose mandatory closures, shelter-in-place mandates and social distancing protocols, and seek voluntary facility closures or impose other restrictions. Recently, most domestic and foreign governments have taken actions to re-open their economies. However, as a result of increased cases of Covid-19 infections and deaths, certain domestic and foreign governments have taken steps to reverse some of these re-opening initiatives. Actions to impede spread of Covid-19 could materially adversely affect our ability to adequately staff and maintain our operations and negatively impact long-term research and development projects. Global travel restrictions could continue to hinder our ability to obtain timely customer acceptance for some product sales, which has negatively impacted our revenue and operating results. Our global supply chain has been and may continue to be disrupted, which has negatively affected our sales, ability to provide products to our customers and ability to service our customers. In addition, the economic disruptions caused by the Covid-19 outbreak could prevent customers from paying us for our products and result in significant credit losses. A prolonged global recession or depression resulting from the Covid-19 pandemic most likely would have a significant negative impact on our revenue and operating results, and could lead to asset impairment charges. As we cannot predict the duration or scope of the Covid-19 pandemic, the anticipated negative financial impact to our operating results cannot be reasonably estimated, but could be material and last for an extended period of time.

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 Statements of Operations, (iii) the Condensed Consolidated Statements of Comprehensive Income (Loss), (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

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

/s/ Jeffrey A. Bertelsen

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

Dated: November 10, 2020

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 10, 2020

/s/ Subodh Kulkarni

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 10, 2020

/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, 2020 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

Subodh Kulkarni

President and Chief Executive Officer

November 10, 2020

/s/ Jeffrey A. Bertelsen

Jeffrey A. Bertelsen

Vice President, Chief Financial Officer and Chief Operating Officer

November 10, 2020

END OF FILING