Table of Contents

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2018

OR

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

For the transition period from to

Commission File Number: 001-35061

NeoPhotonics Corporation
(Exact name of registrant as specified in its charter)

Delaware	**94-3253730**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

2911 Zanker Road
San Jose, California 95134
(Address of principal executive offices, zip code)
(408) 232-9200
(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

As of October 31, 2018, there were approximately 46,049,277 shares of the registrant's Common Stock outstanding.

NEOPHOTONICS CORPORATION
For the Quarter Ended September 30, 2018
Table of Contents

PART I. FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NEOPHOTONICS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

	As of	
(In thousands, except par data)	**September 30, 2018**	**December 31, 2017**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 52,099	$ 78,906
Short-term investments	7,441	12,311
Restricted cash	5,195	2,658
Accounts receivable, net of allowance for doubtful accounts	66,620	67,229
Inventories	57,124	67,301
Assets held for sale	3,192	—
Prepaid expenses and other current assets	28,659	36,235
Total current assets	220,330	264,640
Property, plant and equipment, net	104,965	127,565
Purchased intangible assets, net	3,320	4,294
Goodwill	1,115	1,115
Other long-term assets	3,080	5,339
Total assets	$ 332,810	$ 402,953
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 54,603	$ 69,017
Notes payable and short-term borrowing	3,634	35,607
Current portion of long-term debt	2,798	6,005
Accrued and other current liabilities	46,857	43,242
Total current liabilities	107,892	153,871
Long-term debt, net of current portion	50,356	40,556
Other noncurrent liabilities	13,388	14,075
Total liabilities	171,636	208,502
Commitments and contingencies (Note 11)		
Stockholders' equity:		
Preferred stock, $0.0025 par value, 10,000 shares authorized, no shares issued or outstanding	—	—
Common stock, $0.0025 par value, 100,000 shares authorized		
As of September 30, 2018, 45,840 shares issued and outstanding; as of December 31, 2017, 44,219 shares issued and outstanding	115	111
Additional paid-in capital	559,371	545,953
Accumulated other comprehensive income (loss)	(7,569)	398
Accumulated deficit	(390,743)	(352,011)
Total stockholders' equity	161,174	194,451
Total liabilities and stockholders' equity	$ 332,810	$ 402,953

See accompanying Notes to Condensed Consolidated Financial Statements.

NEOPHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

(In thousands, except per share data)	**Three Months Ended September 30, 2018**	**Three Months Ended September 30, 2017**	**Nine Months Ended September 30, 2018**	**Nine Months Ended September 30, 2017**
Revenue	$ 81,748	$ 71,121	$ 231,436	$ 216,023
Cost of goods sold	62,815	60,608	187,849	170,230
Gross profit	18,933	10,513	43,587	45,793
Operating expenses:				
Research and development	13,177	14,662	40,308	44,412
Sales and marketing	4,351	4,071	12,366	12,913
General and administrative	8,592	7,637	23,509	26,792
Amortization of purchased intangible assets	118	119	357	355
Asset sale related costs	251	78	344	229
Restructuring charges	1,133	2,829	1,786	3,550
Gain on asset sale	—	—	—	(2,000)
Total operating expenses	27,622	29,396	78,670	86,251
Loss from operations	(8,689)	(18,883)	(35,083)	(40,458)
Interest income	85	37	300	141
Interest expense	(540)	(495)	(2,007)	(743)
Other income (expense), net	1,310	(41)	1,891	197
Total interest and other income (expense), net	855	(499)	184	(405)
Loss before income taxes	(7,834)	(19,382)	(34,899)	(40,863)
Income tax (provision) benefit	(291)	1,195	(2,009)	1,813
Net loss	$ (8,125)	$ (18,187)	$ (36,908)	$ (39,050)
Basic net loss per share	$ (0.18)	$ (0.42)	$ (0.82)	$ (0.90)
Diluted net loss per share	$ (0.18)	$ (0.42)	$ (0.82)	$ (0.90)
Weighted average shares used to compute basic net loss per share	45,476	43,790	44,804	43,212
Weighted average shares used to compute diluted net loss per share	45,476	43,790	44,804	43,212

See accompanying Notes to Condensed Consolidated Financial Statements.

NEOPHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
(in thousands)	**2018**	**2017**	**2018**	**2017**
Net loss	$ (8,125)	$ (18,187)	$ (36,908)	$ (39,050)
Other comprehensive income (loss):				
Foreign currency translation adjustments, net of zero tax	(5,588)	2,177	(7,968)	6,090
Unrealized gains on available-for-sale securities, net of zero tax	—	1	1	17
Total other comprehensive income (loss)	(5,588)	2,178	(7,967)	6,107
Comprehensive loss	$ (13,713)	$ (16,009)	$ (44,875)	$ (32,943)

See accompanying Notes to Condensed Consolidated Financial Statements.

Table of Contents

NEOPHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Nine Months Ended September 30,	
(In thousands)	**2018**	**2017**
Cash flows from operating activities		
Net loss	$ (36,908)	$ (39,050)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	23,551	20,630
Stock-based compensation expense	10,527	5,692
Deferred taxes	(42)	673
Others	327	158
Loss (gain) on sale of assets and other write-offs	304	(1,623)
Loss (gain) on foreign currency hedges	2,220	(1,501)
Allowance for doubtful accounts	(144)	76
Write-down of inventories	3,200	7,083
Asset impairment charge	—	275
Foreign currency remeasurement	(4,192)	1,576
Change in assets and liabilities, net of effects of asset sale:		
Accounts receivable	519	13,755
Inventories	5,482	(36,466)
Prepaid expenses and other assets	5,957	(12,002)
Accounts payable	(4,958)	(9,424)
Accrued and other liabilities	3,154	8,937
Net cash provided by (used in) operating activities	8,997	(41,211)
Cash flows from investing activities		
Purchase of property, plant and equipment	(14,377)	(41,461)
Proceeds from sale of property, plant and equipment and other assets	32	21,806
Purchase of marketable securities	(880)	(52,031)
Proceeds from sale of marketable securities	5,000	52,272
Proceeds from maturity of marketable securities	750	6,458
Settlement of foreign currency hedges	(1,776)	1,553
Net cash used in investing activities	(11,251)	(11,403)
Cash flows from financing activities		
Proceeds from exercise of stock options and issuance of stock under ESPP	3,801	3,568
Tax withholding on restricted stock units	(747)	(973)
Payments for public stock offering	—	(117)
Proceeds from bank loans, net of debt issuance costs	29,358	96,039
Repayment of bank loans	(57,323)	(68,270)
Proceeds from issuance of notes payable	4,795	5,842
Repayment of notes payable	(2,568)	(9,789)
Proceeds from government grants	1,228	—
Net cash (used in) provided by financing activities	(21,456)	26,300
Effect of exchange rates on cash, cash equivalents and restricted cash	(560)	1,174
Net decrease in cash, cash equivalents and restricted cash	(24,270)	(25,140)
Cash, cash equivalents and restricted cash at the beginning of the period	81,564	86,585
Cash, cash equivalents and restricted cash at the end of the period	$ 57,294	$ 61,445
Supplemental disclosure of non-cash investing and financing activities:		
Decrease in unpaid property, plant and equipment	$ 8,916	$ 6,430
Asset retirement obligations	$ —	$ 2,146

See accompanying Notes to Condensed Consolidated Financial Statements.

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements
(Unaudited)

Note 1. Basis of presentation and significant accounting policies

Basis of Presentation and Consolidation

The condensed consolidated financial statements of NeoPhotonics Corporation ("NeoPhotonics" or the "Company") as of September 30, 2018 and for the three and nine months ended September 30, 2018 and 2017, have been prepared in accordance with the instructions on Form 10-Q pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). In accordance with those rules and regulations, the Company has omitted certain information and notes normally provided in the Company's annual consolidated financial statements. In the opinion of management, the condensed consolidated financial statements contain all adjustments, consisting only of normal recurring items, except as otherwise noted, necessary for the fair presentation of the Company's financial position and results of operations for the interim periods. The year-end condensed consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by U.S. generally accepted accounting principles ("U.S. GAAP"). These condensed consolidated financial statements should be read in conjunction with the Consolidated Financial Statements and Notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017. The results of operations for the three and nine months ended September 30, 2018 are not necessarily indicative of the results expected for the entire fiscal year. All intercompany accounts and transactions have been eliminated.

Going Concern

Accounting Standards Update ("ASU") No. 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, requires an entity to disclose information about its potential inability to continue as a going concern when conditions and events indicate that it is probable that the entity may be unable to meet its obligations as they become due within one year. Management has assessed the Company's ability to continue as a going concern within one year of the filing date of this Quarterly Report on Form 10-Q with the SEC in November 2018. The accompanying unaudited condensed financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business.

As of September 30, 2018, the Company's working capital was $112.4 million, including available cash, cash equivalents, short-term investments and restricted cash of approximately $64.7 million. In the first nine months of 2018, the Company had operating losses of $35.1 million and cash from operations of $9.0 million. It had an accumulated deficit of approximately $390.7 million as of September 30, 2018.

Through 2017 and the early part of 2018, the Company's operating results and cash flows were negatively affected by demand that was lower than customer estimates that were used to put capacity in place over the last two years. In the three months ended June 30, 2018, demand continued to be strong, primarily due to volume growth in the Americas and the result of increased domestic deployments in China plus exports for international deployments. In the three months ended September 30, 2018, demand was in line with the increased demand experienced during the three months ended June 30, 2018.

To adjust to the demand that was less than estimates used for capacity decisions, the Company implemented restructuring plans in May and September 2017 that included a reduction in force and consolidation of facilities, in order to reduce expenses. The Company has also reduced or delayed certain product development projects and capital expenditures, aggressively pursued collections of accounts and notes receivable and continued to closely manage production and inventory levels.

In September 2017, the Company entered into a revolving line of credit agreement with Wells Fargo Bank, National Association ("Wells Fargo") which provides for borrowings under an accounts receivable based formula up to a maximum of $50.0 million. As of September 30, 2018, $35.6 million was outstanding under this line. The remaining borrowing capacity as of September 30, 2018 was $14.4 million, of which $5.0 million is required to be maintained as unused borrowing capacity. Borrowings under the Wells Fargo line are not due until June 30, 2022 as long as the borrowing base is not less than the outstanding amount (See Note 9). Additionally, the Company had $3.6 million of notes payable and $2.8 million of current portion of long-term debt as of September 30, 2018, which it plans to pay out of its existing available cash.

The Company currently believes it will have sufficient resources to fund its currently planned operations and expenditures over the next twelve months without additional financing or other actions. In addition, the Company believes there are a number of ongoing and potential actions that may further strengthen its projected cash and projected financial position.

The Company operates in an industry in which it is difficult to evaluate its prospects with certainty. Future declines in China market demand or other changes to the Company's forecasts could adversely affect the Company's results of operations, financial position and cash flows. As a result, the Company may need to raise additional debt or equity capital to fund its operations. Any

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

additional debt arrangements may likely require regular interest and principal payments which could adversely affect the Company's operations. There can be no assurance that additional debt or equity capital will be available on acceptable terms, or at all.

Certain Significant Risks and Uncertainties

The Company operates in a dynamic industry and, accordingly, can be affected by a variety of factors. For example, any of the following areas could have a negative effect on the Company in terms of its future financial position, results of operations or cash flows: the general state of the U.S., China and world economies; the highly cyclical nature of the industries the Company serves; the loss of any of a small number of its larger customers; ability to obtain additional financing; inability to meet certain debt covenants; fundamental changes in the technology underlying the Company's products; the hiring, training and retention of key employees; successful and timely completion of product design efforts; and new product design introductions by competitors.

Concentration

In the three months ended September 30, 2018, Huawei Technologies Co. Ltd. and its affiliate HiSilicon Technologies (together with Huawei Technologies Co. Ltd., "Huawei") accounted for approximately 47% of the Company's total revenue. One other customer accounted for approximately 28% of the Company's total revenue and the Company's top five customers represented approximately 89% of the Company's total revenue. In the three months ended September 30, 2017, Huawei accounted for approximately 39% of the Company's total revenue. Two other customers accounted for approximately 14% and 11% of the Company's total revenue and the Company's top five customers represented approximately 79% of the Company's total revenue. In the nine months ended September 30, 2018, Huawei accounted for approximately 47% of the Company's total revenue. One other customer accounted for approximately 25% of the Company's total revenue and the Company's top five customers represented approximately 89% of its total revenue. In the nine months ended September 30, 2017, Huawei accounted for approximately 39% of the Company's total revenue. One other customer accounted for approximately 16% of the Company's total revenue and the Company's top five customers represented approximately 76% of the Company's total revenue.

As of September 30, 2018, three customers accounted for approximately 41%, 20% and 12% of the Company's accounts receivable. As of December 31, 2017, three customers accounted for approximately 36%, 14% and 10%, respectively, of the Company's accounts receivable.

Use of Estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported revenue and expenses during the reporting period. Significant estimates made by management include: the useful lives of property, plant and equipment and intangible assets as well as future cash flows to be generated by those assets; fair values of identifiable assets acquired and liabilities assumed in business combinations; allowances for doubtful accounts; valuation allowances for deferred tax assets; valuation of excess and obsolete inventories; warranty reserves; litigation accrual and recognition of stock-based compensation, among others. Actual results could differ from these estimates.

Accounting Standards Update Recently Adopted

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-9, *Revenue from Contracts with Customers* ("ASU 2014-9"). The standard, along with the amendments issued in 2016 and 2015, provides companies with a single model for use in accounting for revenue arising from contracts with customers and supersedes current revenue recognition guidance, including industry-specific revenue guidance. The core principle of the model is to recognize revenue when control of the goods or services transfers to the customer, as opposed to recognizing revenue when the risks and rewards transfer to the customer under the existing revenue guidance. ASU 2014-9 is required to be adopted, using either of two methods: (i) retrospective to each prior reporting period presented with the option to elect certain practical expedients as defined within ASU 2014-9; or (ii) retrospective with the cumulative effect of initially applying ASU 2014-9 recognized at the date of initial application and providing certain additional disclosures. This standard, as amended, is effective for annual and interim periods beginning after December 15, 2017 and permits entities to early adopt for annual and interim reporting periods beginning after December 15, 2016. The Company adopted this standard as of January 1, 2018, using the full retrospective transition method. See Note 2 for further details.

In May 2017, the FASB issued ASU No. 2017-9, *Compensation—Stock Compensation (718)—Scope of Modification Accounting* (ASU 2017-9"). This guidance redefines which changes to the terms and conditions of a share-based payment award require an entity to apply modification accounting for a share-based payment. ASU 2017-9 is effective for interim and annual periods after December 15, 2017 and early adoption is permitted in any interim period. The Company adopted this standard effective January 1, 2018. The impact on the Company's consolidated financial statements upon the adoption of this standard was immaterial.

In January 2017, the FASB issued ASU 2017-1, *Business Combinations (Topic 805): Clarifying the Definition of a Business* (“ASU 2017-1”). This standard provides a framework in determining when a set of assets and activities is a business. ASU 2017-1 is effective for interim and annual periods beginning after December 15, 2017 on a prospective basis. The Company adopted this standard effective January 1, 2018. The impact on the Company's consolidated financial statements upon the adoption of this standard was immaterial.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* (“ASC 2016-18”). This standard provides guidance on the classification and presentation of restricted cash in the statement of cash flows and must be applied retrospectively. ASU 2016-18 is effective for fiscal years beginning after December 15, 2017. The Company adopted this standard effective January 1, 2018. The reclassified restricted cash balances from investing activities to changes in cash, cash equivalents and restricted cash on the condensed consolidated statements of cash flows were not material for all periods presented.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory* (“ASU 2016-16”). This standard provides guidance on the tax accounting for the transferring and receiving entities upon transfer of an asset. ASU 2016-16 is effective for the Company’s interim and annual periods beginning after December 15, 2017 and should be applied on a modified retrospective basis. Upon adoption of this standard on January 1, 2018, the Company recorded $1.8 million to accumulated deficit balance for intra-entity transfer of an asset other than inventory in prior years.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* (“ASU 2016-15”). This standard provides guidance on the classification of certain cash receipts and payments in the statement of cash flows. It is effective, retrospectively, for the Company’s annual and interim reporting periods beginning after December 15, 2017 or prospectively from the earliest date practicable if retrospective application is impracticable. The Company adopted this standard effective January 1, 2018, using the retrospective transition method. The impact on the Company's consolidated financial statements upon the adoption of this standard was immaterial.

In January 2016, the FASB issued ASU 2016-1, *Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities* (“ASU 2016-1”). ASU 2016-1 revises an entity’s accounting related to (1) the classification and measurement of investments in equity securities and (2) the presentation of certain fair value changes for financial liabilities measured at fair value. It also amends certain disclosure requirements associated with the fair value of financial instruments and is effective for the Company’s annual and interim reporting periods beginning after December 15, 2017. The Company adopted this standard effective January 1, 2018. The impact on the Company's consolidated financial statements upon the adoption of this standard was immaterial.

In March 2017, the FASB issued ASU No. 2017-7, *Compensation-Retirement Benefits (Topic 715)-Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* (“ASU 2017-7”). This guidance revises the presentation of employer-sponsored defined benefit pension and other postretirement plans for the net periodic benefit cost in the statement of operations and requires that the service cost component of net periodic benefit be presented in the same income statement line items as other employee compensation costs for services rendered during the period. The other components of the net benefit costs are required to be presented in the statement of operations separately from the service cost component and outside the subtotal of income from operations. This guidance allows only the service cost component of net periodic benefit costs to be eligible for capitalization. ASU 2017-7 is effective for interim and annual periods after December 15, 2017. The Company adopted this standard effective January 1, 2018. The impact on the Company's consolidated financial statements upon the adoption of this standard was immaterial.

There have been no other changes in the Company’s significant accounting policies in the nine months ended September 30, 2018, as compared to the significant accounting policies described in its Annual Report on Form 10-K for the year ended December 31, 2017.

Recent Accounting Standards Update Not Yet Effective

In January 2017, the FASB issued ASU 2017-4, *Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* (“ASU 2017-4”). This standard amends the goodwill impairment test to compare the fair value of a

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, up to the total amount of goodwill allocated to that reporting unit. ASU 2017-4 is effective prospectively for interim and annual periods beginning after December 15, 2019. Early adoption is permitted for interim and annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company has not determined whether it will elect early adoption and is currently evaluating the impact of the adoption of this standard on its consolidated financial statements and related disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"). ASU 2016-13 amends existing guidance on the impairment of financial assets and adds an impairment model that is based on expected losses rather than incurred losses and requires an entity to recognize as an allowance its estimate of expected credit losses for its financial assets. An entity will apply this guidance through a cumulative-effect adjustment to retained earnings upon adoption (a modified-retrospective approach) while a prospective transition approach is required for debt securities for which an other-than-temporary impairment had been recognized before the effective date. It is effective for the Company's annual and interim reporting periods beginning after December 15, 2019. Early adoption is permitted. The Company is in the process of evaluating the impact of the adoption on its consolidated financial statements and related disclosure.

In February 2016, the FASB issued ASU 2016-2, *Leases (Topic 842)* ("ASU 2016-2"). ASU 2016-2 introduces a lessee model that requires recognition of assets and liabilities arising from qualified leases on the consolidated balance sheets and consolidated statements of operations and to disclose qualitative and quantitative information about lease transactions. It is effective for interim and annual periods beginning after December 15, 2018. Early adoption is permitted. Certain optional practical expedients are allowed. The Company is in the process of evaluating the impact of the adoption on its consolidated financial statements and related disclosure.

Note 2. Revenue

Adoption of ASC Topic 606, "Revenue from Contracts with Customers"

On January 1, 2018, the Company adopted Topic 606 using the full retrospective method which required it to restate each prior reporting period presented. The adoption did not have a material impact on the Company's consolidated financial statements and as a result, no changes were made to prior reporting periods presented.

Product revenue

The Company develops, manufactures and sells optoelectronic products that transmit, receive, modify and switch high speed digital optical signals for communications networks. Revenue is derived primarily from the sale of hardware products. The Company sells its products worldwide, primarily to leading network equipment manufacturers.

Revenue recognition

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products or services. The Company generally bears all costs, risk of loss or damage and retains title to the goods up to the point of transfer of control of promised products to customer. Revenue related to the sale of consignment inventories at customer vendor managed locations is not recognized until the products are pulled from consignment inventories by customers. In instances where acceptance of the product or solutions is specified by the customer, revenue is deferred until such required acceptance criteria have been met. Shipping and handling costs are included in the cost of goods sold. The Company presents revenue net of sales taxes and any similar assessments.

Nature of products

Revenue from sale of hardware products is recognized upon transfer of control to the customer. The performance obligation for the sale of hardware products is satisfied at a point in time. The Company has aligned its products in two groups - High Speed Products and Network Products and Solutions. The following presents revenue by product group (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
High Speed Products	$ 68,519	$ 59,426	$ 197,362	$ 177,488
Network Products and Solutions	13,229	11,695	34,074	38,535
Total revenue	$ 81,748	$ 71,121	$ 231,436	$ 216,023

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

The following table presents the Company's revenue information by geographical region. Revenue is classified based on the ship to location requested by the customer. Such classification recognizes that for many customers, including those in North America or in Europe, designated shipping points are often in China or elsewhere in Asia (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
China	$ 46,134	$ 40,513	$ 133,917	$ 117,599
Americas	22,369	13,487	52,270	36,853
Rest of world	13,245	17,121	45,249	61,571
Total revenue	$ 81,748	$ 71,121	$ 231,436	$ 216,023

Certain prior period amounts have been reclassified to conform to the current period presentation.

Deferred revenue

The Company records deferred revenue when cash payments are received or due in advance of our performance. Refer to Note 7 for disclosure of deferred revenue balances. The increase in the deferred revenue balances during the three and nine months ended September 30, 2018 was immaterial, offset by approximately $0.2 million and $0.8 million of revenue recognized during the three and nine months ended September 30, 2018 that was included in the deferred revenue balance as of December 31, 2017. The increase in the deferred revenue balances during the three and nine months ended September 30, 2017 was $0.1 million and $1.7 million, respectively, offset by approximately $0.2 million and $0.7 million of revenue recognized during the three and nine months ended September 30, 2017, respectively, that was included in the deferred revenue balance as of December 31, 2016.

Contract assets

The Company records contract assets when the revenue is recognized but the customer payment is contingent on a future event. The balance of contract assets as of September 30, 2018 and December 31, 2017 was immaterial.

Refund liabilities

The Company records refund liabilities when the contract permits the customer to return the product if certain circumstances arise. The balance of refund liabilities as of September 30, 2018 and December 31, 2017 was immaterial.

Note 3. Net loss per share

The following table sets forth the computation of the basic and diluted net loss per share for the periods indicated (in thousands, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Numerator:				
Net loss	$ (8,125)	$ (18,187)	$ (36,908)	$ (39,050)
Denominator:				
Weighted average shares used to compute per share amount:				
Basic	45,476	43,790	44,804	43,212
Diluted	45,476	43,790	44,804	43,212
Basic net loss per share	$ (0.18)	$ (0.42)	$ (0.82)	$ (0.90)
Diluted net loss per share	$ (0.18)	$ (0.42)	$ (0.82)	$ (0.90)

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

The Company has excluded the impact of the following outstanding employee stock options and restricted stock units as well as the shares expected to be issued under its employee stock purchase plan from the computation of diluted net loss per share, as their effect would have been antidilutive (in thousands):

	September 30, 2018	September 30, 2017
Employee stock options	3,405	4,227
Restricted stock units	2,630	2,504
Market-based restricted stock units	665	—
Employee stock purchase plan	174	245
	6,874	6,976

Note 4. Cash, cash equivalents, short-term investments, and restricted cash

The following table summarizes the Company's cash, cash equivalents, short-term investments and restricted cash (in thousands):

	September 30, 2018	December 31, 2017
Cash and cash equivalents:		
Cash	$ 52,099	$ 78,906
Cash equivalents	—	—
Cash and cash equivalents	$ 52,099	$ 78,906
Short-term investments	$ 7,441	$ 12,311
Restricted cash	$ 5,195	$ 2,658

	September 30, 2018	December 31, 2017
Cash and cash equivalents	$ 52,099	$ 78,906
Restricted cash	5,195	2,658
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	$ 57,294	$ 81,564

As of September 30, 2018 restricted cash primarily included approximately $2.1 million pursuant to an asset purchase agreement with APAT Optoelectronics Components Co., Ltd. ("APAT OE") relating to the asset sale closed in January 2017, approximately $1.2 million relating to government grants received in advance and approximately $1.9 million for the compensating balances relating to the Company's notes payable issued under its line of credit facilities in China (see Note 9). As of December 31, 2017, restricted cash primarily included approximately $2.1 million pursuant to an asset purchase agreement with APAT OE. The following table summarizes the Company's unrealized gains and losses related to its cash equivalents and short-term investments in marketable securities designated as available-for-sale (in thousands):

	As of September 30, 2018				As of December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Loss	Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Loss	Fair Value
Marketable securities:								
Money market funds	$ 7,441	$ —	$ —	$ 7,441	$ 11,561	$ —	$ —	$ 11,561
U.S. government securities	—	—	—	—	751	—	(1)	750
Total	$ 7,441	$ —	$ —	$ 7,441	$ 12,312	$ —	$ (1)	$ 12,311
Reported as:								
Short-term investments	7,441	—	—	7,441	12,312	—	(1)	12,311
Total	$ 7,441	$ —	$ —	$ 7,441	$ 12,312	$ —	$ (1)	$ 12,311

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

As of September 30, 2018 and December 31, 2017, maturities of marketable securities were as follows (in thousands):

	September 30, 2018	December 31, 2017
Less than 1 year	$ 7,441	$ 12,311
Due in 1 to 2 years	—	—
Due in 3 to 5 years	—	—
Total	$ 7,441	$ 12,311

Realized gains and losses on the sale of marketable securities during the three and nine months ended September 30, 2018 and 2017 were insignificant. The Company did not recognize any impairment losses on its marketable securities during the three and nine months ended September 30, 2018 or 2017. As of September 30, 2018, the Company did not have any investments in marketable securities that were in an unrealized loss position for a period in excess of 12 months.

Note 5. Fair value disclosures

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table presents the Company's assets that are measured at fair value on a recurring basis (in thousands):

	As of September 30, 2018				As of December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash equivalents and short-term investments:								
Money market funds	$ 7,441	$ —	$ —	$ 7,441	$ 11,561	$ —	$ —	$ 11,561
U.S. government securities	—	—	—	—	750	—	—	750
Total	$ 7,441	$ —	$ —	$ 7,441	$ 12,311	$ —	$ —	$ 12,311
Foreign currency forward contracts*	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Mutual funds held in Rabbi Trust, recorded in other long-term assets	$ 569	$ —	$ —	$ 569	$ 523	$ —	$ —	$ 523

____

*The fair value of the Company’s foreign currency forward contract was immaterial as of December 31, 2017.

The Company offers a Non-Qualified Deferred Compensation Plan (“NQDC Plan”) to a select group of its highly compensated employees. The NQDC Plan provides participants the opportunity to defer payment of certain compensation as defined in the NQDC Plan. A Rabbi Trust has been established to fund the NQDC Plan obligation, which was fully funded at September 30, 2018. The assets held by the Rabbi Trust are substantially in the form of exchange traded mutual funds and are included in the Company’s other long-term assets on its condensed consolidated balance sheets as of September 30, 2018 and December 31, 2017.

Effective July 1, 2016, the Company maintains a hedging program using forward exchange contracts as economic hedges, to protect against volatility of foreign exchange rate exposure when it is deemed economical to do so, based on a cost-benefit analysis that considers the magnitude of the exposure, the volatility of the exchange rate and the cost of the hedging instrument. The forward contracts are not designated for hedge accounting.

Under the hedging program, the Company enters into monthly forward exchange contracts, that have average maturities of one month, to offset the effects of exchange rate exposures for its net intercompany activities denominated in Chinese Renminbi, or RMB, by buying and selling the underlying foreign currency in the future at fixed exchange rates, to offset the consequences of changes in foreign exchange on the balance sheet. Accordingly, fair value changes in the forward contracts help mitigate the changes in the value of the re-measurement of the hedged assets and liabilities attributable to changes in foreign currency exchange rates, except to the extent of the spot-forward differences. The net effect of fair value changes is reported in other income (expense), net. The Company temporarily discontinued entering into forward exchange contracts in the quarter ended September 30, 2018, as it was uneconomical for the Company to enter into forward exchange contracts.

The following table presents the Company's liabilities that are measured at fair value on a recurring basis (in thousands):

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

	As of September 30, 2018				As of December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Rusnano payment derivative	$ —	$ —	$ 2,000	$ 2,000	$ —	$ —	$ 389	$ 389
Foreign currency forward contracts	—	—	—	—	—	43	—	43
	$ —	$ —	$ 2,000	$ 2,000	$ —	$ 43	$ 389	$ 432

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

As of September 30, 2018 and December 31, 2017 the Company had no assets or liabilities required to be measured at fair value on a nonrecurring basis. In the three months ended March 31, 2017, the Company recorded a $6.7 million contingent liability within accrued and other current liabilities on its balance sheet in connection with the contingent indemnification commitments pursuant to an asset sale closed in January 2017. See Note 6. This liability was measured using the Company's best estimate of the likelihood of payment based on circumstances the Company identified as having a significant impact on its fair value during the period, which is considered to be a level 3 fair value measurement.

Assets and Liabilities Not Measured at Fair Value

The carrying values of accounts receivable, accounts payable, notes payable and short-term borrowings approximate their fair values due to the short-term nature and liquidity of these financial instruments.

The estimated fair value of the Company's long-term debt approximated its carrying value as of September 30, 2018 and December 31, 2017, as the interest rates approximated rates currently available to the Company on the issuance of liabilities with a similar maturity. This estimate is considered to be a level 2 fair value measurement.

Note 6. Asset sale

In January 2017, the Company completed the sale of its Low Speed Transceiver Products' assets to APAT OE pursuant to an asset purchase agreement dated December 14, 2016 for consideration of approximately $25.0 million (in RMB equivalent) plus approximately $1.4 million (in RMB equivalent) for post-closing transaction service fees under a transition services agreement with APAT OE in which the Company provided short-term manufacturing and other specific services pursuant to such agreement. The related supply chain purchase commitments and value-added tax obligations have been assumed by APAT OE. The receivable and payable balances related to the transition service arrangement were $12.1 million and $11.8 million, respectively, as of September 30, 2018. See Note 11 for litigation and arbitration matters with APAT OE.

As of December 31, 2016, the balance in assets held for sale was $13.9 million, consisting of $13.1 million in inventories and $0.8 million in property, plant and equipment. As a result of post-closing adjustments, total consideration was reduced by approximately $3.4 million for inventory. In addition, an immaterial amount of property, plant and equipment was reclassified from assets held for sale. Upon closing, assets sold to APAT OE were approximately $12.8 million, including approximately $12.1 million in inventories and $0.7 million in property, plant and equipment. The adjusted consideration received of approximately $21.6 million is subject to further reduction of up to $10.0 million for any indemnification claims. As of September 30, 2018, the Company has a reserve of $6.8 million within accrued and other current liabilities for warranty claims. The indemnification warranties expired on June 30, 2017. The Company recognized a $2.2 million gain on the sale of these assets within the operating loss in 2017.

All of the Low Speed Transceiver Products were part of the Company's Network Products and Solution product group and included the low speed optical network (PON) products for which the end-of-life plan was announced in mid-2016.

Note 7. Balance sheet components

Accounts receivable, net

Accounts receivable, net, consists of the following (in thousands):

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

	September 30, 2018	December 31, 2017
Accounts receivable	$ 66,264	$ 65,499
Trade notes receivable	476	2,356
Allowance for doubtful accounts	(120)	(626)
	$ 66,620	$ 67,229

Inventories, net

Inventories, net consist of the following (in thousands):

	September 30, 2018	December 31, 2017
Raw materials	$ 26,904	$ 33,400
Work in process	11,755	13,246
Finished goods(1)	18,465	20,655
	$ 57,124	$ 67,301

____

(1)Finished goods inventory at customer vendor managed inventory locations was $6.8 million and $7.1 million as of September 30, 2018 and December 31, 2017, respectively.

Assets held for sale

In September 2018, the Company received a non binding term sheet from Joint Stock Company Rusnano, a related party, for Joint Stock Company Rusnano group to purchase the 100% interest in the operations of NeoPhotonics Corporation, LLC, the Company's manufacturing operations in Russia. In the three and nine months ended September 30, 2018, the Company recorded additional restructuring expense of $1.0 million and $1.6 million, respectively for the Rusnano payment derivative related to these operations.

As of September 30, 2018, the Company reclassified assets with carrying value of $3.2 million as held for sale primarily consisting of $2.6 million of property, plant and equipment and $0.6 million of prepaid expenses and other current assets. The estimated fair value less direct costs of sale approximates the related carrying value. The balance for liabilities held for sale as of September 30, 2018 was immaterial and was primarily included in accrued and other current liabilities.

Prepaid expenses and other current assets

Prepaid expenses and other current assets consist of the following (in thousands):

	September 30, 2018	December 31, 2017
Prepaid taxes and taxes receivable	$ 7,167	$ 15,162
Transition services agreement receivable (Note 6)	12,120	12,817
Deposits and other prepaid expenses	3,975	4,138
Other receivable	5,397	4,118
	$ 28,659	$ 36,235

Property, plant and equipment, net

Purchases of property, plant and equipment unpaid as of September 30, 2018 and September 30, 2017 was $1.1 million and $9.7 million, respectively.

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

Purchased intangible assets

Purchased intangible assets consist of the following (in thousands):

	September 30, 2018			December 31, 2017		
	Gross Assets	Accumulated Amortization	Net Assets	Gross Assets	Accumulated Amortization	Net Assets
Technology and patents	$ 37,045	$ (34,833)	$ 2,212	$ 37,684	$ (34,923)	$ 2,761
Customer relationships	15,123	(14,888)	235	15,425	(14,835)	590
Leasehold interest	1,240	(367)	873	1,309	(366)	943
	$ 53,408	$ (50,088)	$ 3,320	$ 54,418	$ (50,124)	$ 4,294

Amortization expense relating to technology and patents and the leasehold interest intangible assets is included within cost of goods sold and customer relationships within operating expenses. The following table presents details of the amortization expense of the Company's purchased intangible assets as reported in the condensed consolidated statements of operations (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of goods sold	$ 185	$ 202	$ 572	$ 667
Operating expenses	118	119	357	355
Total	$ 303	$ 321	$ 929	$ 1,022

The estimated future amortization expense of purchased intangible assets as of September 30, 2018, is as follows (in thousands):

2018 (remaining three months)	$ 302
2019	855
2020	737
2021	645
2022	28
Thereafter	753
	$ 3,320

Accrued and other current liabilities

Accrued and other current liabilities consist of the following (in thousands):

	September 30, 2018	December 31, 2017
Transition services agreement payables (Note 6)	$ 11,769	$ 11,222
Employee-related	14,742	12,990
Asset sale related contingent liabilities (Note 6)	6,760	7,135
Accrued warranty	1,199	1,334
Deferred revenue, current	704	939
Income and other taxes payable	2,376	542
Rusnano payment derivative	2,000	—
Other accrued expenses	7,307	9,080
	$ 46,857	$ 43,242

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

Warranty Accrual

The table below summarizes the movement in the warranty accrual, which is included in accrued and other current liabilities (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Beginning balance	$ 1,592	$ 528	$ 1,334	$ 678
Warranty accruals	(42)	1,047	487	1,019
Settlements	(351)	(173)	(622)	(295)
Ending balance	$ 1,199	$ 1,402	$ 1,199	$ 1,402

Other noncurrent liabilities

Other noncurrent liabilities consist of the following (in thousands):

	September 30, 2018	December 31, 2017
Pension and other employee-related	$ 4,651	$ 4,675
Deferred rent	3,023	2,908
Deferred revenue	112	617
Government grant	1,912	1,095
Rusnano payment derivative	—	389
Deferred income tax liabilities	63	106
Asset retirement obligations and other	3,627	4,285
	$ 13,388	$ 14,075

Note 8. Restructuring

In 2017, the Company initiated restructuring actions in order to focus on key growth initiatives and to move towards a lower break even revenue level through lower operating expenses and manufacturing cost reductions. Actions included a reduction in force, facilities consolidation and certain asset-related adjustments. The Company recorded $0.1 million and $0.2 million in restructuring charges within cost of goods sold in the three and nine months ended September 30, 2018, respectively, and $1.1 million and $1.8 million in restructuring charges within operating expenses in the three and nine months ended September 30, 2018, respectively. The Company recorded $3.1 million and $4.1 million in restructuring charges within cost of goods sold and operating expenses in the three and nine months ended September 30, 2017. Restructuring activities for the nine months ended September 30, 2018 were as follows (in thousands):

	Employee Severance	Facilities Consolidation	Others	Total
Restructuring obligations December 31, 2017	$ —	$ 1,580	$ 43	$ 1,623
Charges	269	—	1,704	1,973
Cash payments	(147)	(640)	(43)	(830)
Non-cash settlements and others	—	—	(94)	(94)
Restructuring obligations September 30, 2018	$ 122	$ 940	$ 1,610	$ 2,672

The current restructuring liability reported in Accrued and other current liabilities in the Condensed Consolidated Balance Sheets as of September 30, 2018 was $2.6 million. The non-current restructuring liability reported in other noncurrent liabilities in the Condensed Consolidated Balance Sheets as of September 30, 2018 was $0.1 million.

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

Note 9. Debt

The table below summarizes the carrying amount and weighted average interest rate of the Company's debt (in thousands, except percentages):

	September 30, 2018		December 31, 2017	
	Carrying Amount	Interest Rate	Carrying Amount	Interest Rate
Note payable to Shanghai Pudong Development Bank	$ —		$ 17,000	4.10%
Note payable to China CITIC Bank	—		17,000	4.00%
Notes payable to suppliers	3,634	—	1,607	
Total notes payable and short-term borrowing	$ 3,634		$ 35,607	
Long-term debt, current and non-current:				
Borrowing under Wells Fargo Credit Facility	$ 35,630	4.51%	$ 30,018	3.29%
Mitsubishi Bank loans	11,206	1.05% - 1.45%	16,924	1.05% - 1.45%
Mitsubishi Bank and Yamanashi Chou Bank loan	6,942	1.1%	—	
Unaccreted discount and issuance costs within current portion of long-term debt	(161)		(86)	
Unaccreted discount and issuance costs within long-term debt, net of current portion	(463)		(295)	
Total long-term debt, net of unaccreted discount and issuance costs	$ 53,154		$ 46,561	
Reported as:				
Current portion of long-term debt	$ 2,798		$ 6,005	
Long-term debt, net of current portion	50,356		40,556	
Total long-term debt, net of unaccreted discount and issuance costs	$ 53,154		$ 46,561	

Notes payable and short-term borrowing

The Company regularly issues notes payable to its suppliers in China. These notes are supported by non-interest bearing bank acceptance drafts issued under the Company's existing line of credit facilities and are due three to six months after issuance. As a condition of the notes payable arrangements, the Company is required to keep a compensating balance at the issuing banks that is a percentage of the total notes payable balance until the amounts are settled. As of September 30, 2018, the Company's subsidiary in China had three line of credit facilities with the following banking institutions:

- Under the first line of credit facility with Shanghai Pudong Development Bank, the Company can borrow up to RMB 120.0 million ($17.5 million) for short-term loans at varying interest rates, or up to approximately RMB 240.0 million ($34.9 million) for bank acceptance drafts (with up to 50% compensating balance requirement). This line of credit facility expires in July 2019. In November 2017, the Company borrowed $17.0 million under this line which bore interest at 4.1%. The amount of $17.0 million under this line was repaid in May 2018.

- Under the second line of credit facility with Shanghai Pudong Development Bank, which expires in July 2019, the Company can borrow up to RMB 30.0 million ($4.4 million) for short-term loans at varying interest rates, or up to approximately RMB 60.0 million ($8.7 million) for bank acceptance drafts (with up to 50% compensating balance requirement).

- In December 2017, the Company's subsidiary in China entered into a third line of credit facility with China CITIC Bank in China, which expires in November 2018. The purpose of the credit facility is to provide short-term borrowings, bank acceptance drafts and letters of credits. Under this credit facility, the Company can borrow up to approximately RMB 250 million ($36.4 million) at varying interest rates, or up to approximately RMB 390.6 million ($56.9 million) for bank acceptance drafts (with up to 36% compensating balance requirement). In February 2018, the Company borrowed $17.0 million under this line which bore interest at 4.7%. The amount of $17.0 million under this line was repaid in August 2018.

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

The Company had a line of credit facility previously with China CITIC Bank in China which expired during September 2017. In July 2017, the Company borrowed $17.0 million under this line which bears interest at LIBOR plus 2.55%. The amount of $17.0 million under this line was repaid to CITIC Bank in January 2018.

Under these line of credit facilities, the non-interest bearing bank acceptance drafts issued in connection with the Company's notes payable to its suppliers in China, had an outstanding balance of $3.6 million and $1.6 million as of September 30, 2018 and December 31, 2017, respectively. In addition to the outstanding notes payable, three letters of credit totaling $1.6 million were issued to its suppliers in 2016 for equipment purchases delivered by December 2016. These letters of credit required a 30% compensating balance. As of December 31, 2016, the outstanding balance of these letters of credit was immaterial and was fully repaid as of December 31, 2017.

As of September 30, 2018 and December 31, 2017, compensating balances relating to these bank acceptance drafts and letters of credit issued to suppliers and the Company's subsidiaries totaled $1.9 million and $0.5 million, respectively. Compensating balances are classified as restricted cash on the Company's condensed consolidated balance sheets.

In China, when there is a case pending in judicial court, banks may choose to limit borrowing against existing credit lines, regardless of the legitimacy of the case. The Company has a dispute pending with APAT OE in judicial court (See Note 11). The Company does not expect to make any additional draws against its credit facilities in China until this matter is resolved.

Credit facilities

The Company had a credit agreement, as amended, with Comerica Bank as lead bank in the U.S. (the "Comerica Bank Credit Facility") with a borrowing capacity of up to $30.0 million. In January 2017, the Company amended the Comerica Bank Credit Facility to extend the maturity to April 30, 2017 and to remove the covenant related to EBITDA. In April 2017, the Company amended the Comerica Bank Credit Facility to extend the maturity date to July 31, 2017 and to add a financial covenant that required maintenance of a modified EBITDA. In June 2017, the Company amended the Comerica Bank Credit Facility to extend the maturity to August 31, 2017, to allow NeoPhotonics China to borrow up to $17.0 million, to limit the indebtedness under the facility to $20.0 million and to modify the EBITDA requirement. In August 2017, the Credit Facility was further amended to extend the maturity to September 30, 2017. Borrowings under the Comerica Bank Credit Facility bore interest at an interest rate option of a base rate as defined in the agreement plus 1.75% or LIBOR plus 2.75%. The base rate was the greater of (a) the effective prime rate, (b) the Federal Funds effective rate plus one percent, and (c) the daily adjusting LIBOR rate plus one percent.

In September 2017, the Company entered into a revolving line of credit agreement with Wells Fargo Bank, National Association ("Wells Fargo") as the administrative agent for a lender group (the "Wells Fargo Credit Facility" or "Credit Facility"), and the amount outstanding under the Comerica Bank Credit Facility was paid in full.

The Wells Fargo Credit Facility provides for borrowings equal to the lower of (a) a maximum revolver amount of $50.0 million, or (b) an amount equal to 80% - 85% of eligible accounts receivable plus 100% of qualified cash balances up to $15.0 million, less certain discretionary adjustments ("Borrowing Base"). The maximum revolver amount may be increased by up to $25.0 million, subject to certain conditions. At closing, $50.0 million was available, of which $30.0 million was drawn. The Company used $20.0 million of this amount to pay the principal and interest due under the Comerica Bank Credit Facility, which has since been terminated.

The Credit Facility matures on June 30, 2022 and borrowings bear interest at an interest rate option of either (a) the LIBOR rate, plus an applicable margin ranging from 1.50% to 1.75% per annum, or (b) the prime lending rate, plus an applicable margin ranging from 0.50% to 0.75% per annum. The Company is also required to pay a commitment fee equal to 0.25% of the unused portion of the Credit Facility.

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

The Credit Facility agreement ("Agreement") requires prepayment of the borrowings to the extent the outstanding balance is greater than the lesser of (a) the most recently calculated Borrowing Base, or (b) the maximum revolver amount. The Company is required to maintain a combination of certain defined cash balances and unused borrowing capacity under the Credit Facility of at least $20.0 million, of which at least $5.0 million shall include unused borrowing capacity. The Agreement also restricts the Company's ability to dispose of assets, permit change in control, merge or consolidate, make acquisitions, incur indebtedness, grant liens, make investments and make certain restricted payments. Borrowings under the Credit Facility are collateralized by substantially all of the Company's assets. The Company was in compliance with the covenants of this Credit Facility as of September 30, 2018. As of September 30, 2018, the outstanding balance under the Credit Facility was $35.6 million and the weighted average rate under the LIBOR option was 4.51%. The remaining borrowing capacity as of September 30, 2018 was $14.4 million, of which $5.0 million is required to be maintained as unused borrowing capacity. The Company repaid $5.0 million in October 2018, which was borrowed in September 2018.

Mitsubishi Bank loans

On February 25, 2015, the Company entered into certain loan agreements and related agreements with the Bank of Tokyo-Mitsubishi UFJ, Ltd. (the “Mitsubishi Bank”) that provided for (i) a term loan in the aggregate principal amount of 500 million JPY ($4.4 million) (the “Term Loan A”) and (ii) a term loan in the aggregate principal amount of one billion JPY ($8.8 million) (the “Term Loan B” and together with the Term Loan A, the “2015 Mitsubishi Bank Loans”). The Mitsubishi Bank Loans are secured by a mortgage on certain real property and buildings owned by the Company’s Japanese subsidiary. Interest on the 2015 Mitsubishi Bank Loans accrues and is paid monthly based upon the annual rate of the monthly Tokyo Interbank Offer Rate (TIBOR) plus 1.40%. The Term Loan A required interest only payments until the maturity date of February 23, 2018, with a lump sum payment of the aggregate principal amount on the maturity date. The Term Loan B requires equal monthly payments of principal equal to 8,333,000 JPY until the maturity date of February 25, 2025, with a lump sum payment of the balance of 8,373,000 JPY on the maturity date. Interest on the Term Loan B is accrued based upon monthly TIBOR plus 1.40% and is secured by real estate collateral. In conjunction with the execution of the Bank Loans, the Company paid a loan structuring fee, including consumption tax, of 40,500,000 JPY ($0.4 million). The Term Loan A of 500 million JPY (approximately $4.4 million) was repaid to the Mitsubishi Bank in January 2018.

The 2015 Mitsubishi Bank Loans contain customary representations and warranties and customary affirmative and negative covenants applicable to the Company’s Japanese subsidiary, including, among other things, restrictions on cessation in business, management, mergers or acquisitions. The 2015 Mitsubishi Bank Loans contain financial covenants relating to minimum net assets, maximum ordinary loss and a dividends covenant. Outstanding principal balance for Term Loan B and unamortized debt issuance costs were approximately 641.7 million JPY (approximately $5.6 million) and 71.0 million JPY (approximately $0.6 million), respectively, as of September 30, 2018. The Company was in compliance with the related covenants as of September 30, 2018 and December 31, 2017.

In March 2017, the Company entered into a loan agreement and related agreements with the Mitsubishi Bank for a term loan of 690 million JPY (approximately $6.1 million) (the “2017 Mitsubishi Bank Loan”) to acquire manufacturing equipment for its Japanese subsidiary. This loan is secured by the manufacturing equipment acquired from the loan proceeds. Interest on the 2017 Mitsubishi Bank Loan is based on the annual rate of the monthly TIBOR rate plus 1.00%. The 2017 Mitsubishi Bank Loan matures on March 29, 2024 and requires monthly interest and principal payments over 72 months commencing in April 2018. The loan contains customary covenants relating to minimum net assets, maximum ordinary loss and a dividends covenant. The Company was in compliance with these covenants as of September 30, 2018. The loan was available from March 31, 2017 to March 30, 2018 and 690 million JPY (approximately $6.1 million) under this loan was fully drawn in March 2017.

Mitsubishi Bank and Yamanashi Chou Bank loan

In January 2018, the Company entered into a term loan agreement with Mitsubishi Bank and The Yamanashi Chou Bank, Ltd. for a term loan in the aggregate principal amount of 850 million JPY (approximately $7.5 million) (the “Term Loan C”). The purpose of the Term Loan C is to obtain machinery for the core parts of the manufacturing line and payments for related expenses by the Company's subsidiary in Japan. The Term Loan C is secured by the assets owned by the Company's subsidiary in Japan. The Term Loan C was available from January 29, 2018 to January 29, 2025. The full amount of the Term Loan C was drawn in January 2018. Interest on the Term Loan C is based upon the annual rate of the three months TIBOR rate plus 1.00%. The Term Loan C requires quarterly interest payments, along with the principal payments, over 82 months commencing in April 2018. The Term Loan C loan agreement contains customary representations and warranties and customary affirmative and negative covenants applicable to the Japanese Subsidiary, including, among other things, restrictions on cessation in business, management, mergers or acquisitions. The Term Loan C loan agreement contains financial covenants relating to minimum net assets and maximum ordinary loss. The Company was in compliance with these covenants as of September 30, 2018.

As of September 30, 2018, maturities of total long-term debt were as follows (in thousands):

2018 (remaining three months)	$ 740
2019	2,959
2020	2,959
2021	2,959
2022	38,589
Thereafter	5,572
	$ 53,778

Note 10. Japan pension plan

The pension liability related to the Company's Retirement Allowance Plan ("RAP") in Japan as of September 30, 2018 was $4.1 million which was recorded in other noncurrent liabilities on the Company's condensed consolidated balance sheet. The pension liability related to the Company's RAP in Japan as of December 31, 2017 was $4.6 million, of which $0.5 million, was recorded in accrued and other current liabilities and the remainder in other noncurrent liabilities on the Company's condensed consolidated balance sheet.

Net periodic pension cost associated with this plan was immaterial in the three and nine months ended September 30, 2018 and 2017.

Note 11. Commitments and contingencies

Litigation

From time to time, the Company is subject to various claims and legal proceedings, either asserted or unasserted, that arise in the ordinary course of business. The Company accrues for legal contingencies if the Company can estimate the potential liability and if the Company believes it is probable that the case will be ruled against it. If a legal claim for which the Company did not accrue is resolved against it, the Company would record the expense in the period in which the ruling was made. The Company believes that the likelihood of an ultimate amount of liability, if any, for any pending claims of any type (alone or combined) that will materially affect the Company's financial position, results of operations or cash flows is remote. The ultimate outcome of any litigation is uncertain, however, and unfavorable outcomes could have a material negative impact on the Company's financial condition and operating results. Regardless of outcome, litigation can have an adverse impact on the Company because of defense costs, negative publicity, diversion of management resources and other factors.

On January 5, 2010, Finisar Corporation, or Finisar, filed a complaint in the U.S. District Court for the Northern District of California, or the Court, against Source Photonics, Inc., MRV Communications, Inc., Oplink Communications, Inc. and the Company, or collectively, the co-defendants. In the complaint Finisar alleged infringement of certain of its U.S. patents. In 2010 the Company filed an answer to the complaint and counterclaims, asserting two claims of patent infringement and additional claims. The Court dismissed without prejudice all co-defendants (including the Company) except Source Photonics, Inc., on grounds that such claims should have been asserted in four separate lawsuits, one against each defendant. This dismissal does not prevent Finisar from bringing a new similar lawsuit against the Company. In 2011 the Company and Finisar agreed to suspend their respective claims and in 2012 the Company and Finisar further agreed to toll their respective claims. While there has been no action on this matter since 2012, the Company is currently unable to predict the outcome of this dispute and therefore cannot determine the likelihood of loss nor estimate a range of possible loss.

On December 27, 2016 the Company was served with a lawsuit filed by Lestina International Ltd. ("Lestina"), in Santa Clara County, CA. The lawsuit is regarding a dispute of approximately $3.0 million related to purchase orders for the Company's Low Speed Transceiver Products that was soon thereafter sold by the Company to APAT OE in January 2017. The purchase orders in question were included in the asset sale and were assumed liabilities by the purchaser of the business. The Company is unable to predict with certainty the outcome of this matter, but is seeking to resolve the matter either through a court dismissal of the action or a resolution with the plaintiff and/or the purchaser of the Low Speed Transceiver Products' assets. Discovery is currently in process. Because the purchase orders in question were an assumed liability of the Low Speed Transceiver Products' assets that were transferred to the purchaser, the Company does not expect that the ultimate costs to resolve these matters will have a material adverse effect on its consolidated financial position, results of operations or cash flows. A trial date is currently scheduled for January 14, 2019.

On April 21, 2018, APAT OE filed a lawsuit in the Qianhai Court in Shenzhen, China against NeoPhotonics (China) Co., Ltd. ("NeoChina"), NeoPhotonics Corporation and NeoPhotonics Dongguan Co. Ltd. The lawsuit is in reference to the sale of the low speed transceiver business to APAT OE from NeoChina. APAT OE claims that the business has been losing money and that APAT OE was not given all of the information about the business they purchased prior to signing the Asset Purchase Agreement. On May 28, 2018, counsel on behalf of NeoChina filed a motion objecting to the jurisdiction, claiming that the proper jurisdiction for any dispute between these parties is the Shenzhen Court of International Arbitration and the proper parties to this dispute are NeoChina and APAT OE, pursuant to the Asset Purchase Agreement signed by APAT OE and NeoChina. On June 20, 2018 a hearing was held in the Qianhai Court in Shenzhen, China. The Court ruled in favor of APAT OE. NeoChina has filed an appeal which will be heard in the Intermediate Court of Shenzhen; however, a court date has not yet been scheduled. On October 10, 2018, a hearing was held in the Intermediate Court of Shenzhen which was filed by NeoChina. At that hearing arguments were heard regarding the proper jurisdiction for all disputes between NeoChina and APAT OE. NeoChina argued that all disputes between the parties should be decided in the Shenzhen Court of Arbitration per the Asset Purchase Agreement between the parties. APAT OE argued that the Qianhai Court is the appropriate jurisdiction. The Company is unable to predict the outcome of this matter.

APAT Arbitration

On June 16, 2017, APAT OE filed an arbitration claim against NeoChina (the Company's China subsidiary), claiming that approximately $1.5 million of the inventory that was sold to APAT OE by NeoChina in an Asset Purchase Agreement executed between the parties on December 14, 2016 was aged inventory and of no value. The arbitration was heard in the Shenzhen Court of International Arbitration on August 2, 2017. On October 25, 2017, NeoChina was informed that it was successful in the defense of the dispute and was also successful in its counterclaim against APAT OE. NeoChina was awarded approximately RMB700,000 (approximately USD $110,000) in compensatory damages and attorney fees as well as having the approximately $1.5 million claim against it rejected in its entirety.

On or about May 1, 2018, APAT OE filed a Notice of Judicial Review of the arbitration judgment in the Shenzhen Intermediate Court in Shenzhen, China. The case was heard on May 29, 2018, and NeoChina was successful in disputing the Judicial Review, which means that the arbitration judgment against APAT OE and in favor of NeoChina stands. Although APAT OE continues to dispute this matter through the lawsuit as described in the above litigation section, the Company and its affiliates continue to argue that the proper jurisdiction for any dispute in reference to the low speed transceiver business purchased by APAT OE is the Shenzhen Court of International Arbitration.

Indemnifications

In the normal course of business, the Company enters into agreements that contain a variety of representations and warranties and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future, but have not yet been made. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. However, the Company may record charges in the future as a result of these indemnification obligations.

In November 2016, Oyster Communications, Inc. filed nine patent lawsuits against several defendants in the U.S. District Court for the Eastern District of Texas, including one against Cisco Systems, Inc. ("Cisco"). One defendant successfully transferred their case to the U.S. District Court for the Northern District of California. Additional defendants requested venue changes are still pending. The Company was not named as a defendant in any of the lawsuits. In July 2017, Cisco notified the Company that it would be seeking indemnification from the Company for claims against Cisco arising from the lawsuits and the parties engaged in discussions and negotiations. In September 2018, the Company and Cisco signed a settlement agreement under which the Company agreed to pay to Cisco $300,000 to be paid by January 31, 2019 and $150,000 in product credits to be applied during calendar year 2019. This settlement resolves Cisco's indemnification claims against the Company in this matter.

Leases

The Company leases various facilities under non-cancelable operating leases expiring through 2027. As of September 30, 2018, future minimum payments under these operating leases totaled approximately $27.8 million and future minimum

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

sublease receipts were approximately $1.4 million. Rent expense was $1.1 million and $3.2 million in the three and nine months ended September 30, 2018 and $1.3 million and $3.5 million in the three and nine months ended September 30, 2017.

On June 13, 2017, the Company entered into an office lease for approximately 39,000 square feet for the Company's current headquarters in San Jose, California (the "2017 Lease") with a commencement date of June 1, 2017. The Company's existing office lease for the facility was terminated and replaced by the 2017 Lease. Upon commencement, the 2017 Lease had an initial term of one hundred and twenty-three (123) months, ending September 30, 2027, (the "02017 Lease Initial Term") with a monthly rental rate of $41,388, escalating annually to a maximum monthly rental rate of approximately $72,525 in the last year of the 2017 Lease Initial Term. Upon termination of the 2017 Lease, the Company anticipates a restoration cost of approximately $0.7 million.

In September 2016, the Company entered into an office lease for approximately 64,000 square feet of office and laboratory space located adjacent to the Company's current headquarters in San Jose, California (the "2016 Lease"). The term of the 2016 Lease commenced on January 1, 2017. Upon commencement, the 2016 Lease has an initial term of one hundred and twenty-nine (129) months, ending on September 30, 2027 (the "2016 Lease Initial Term"), with a monthly rental rate of $144,000, escalating annually to a maximum monthly rental rate of approximately $194,000 in the last year of the 2016 Lease Initial Term. The Landlord has agreed to provide the office and laboratory space to the Company free of charge for the first nine months of the 2016 Lease Initial Term through September 30, 2017. Upon termination of the 2016 Lease, the Company anticipates a restoration cost of approximately $3.1 million.

Penalty Payment Derivative

In connection with a private placement transaction with Joint Stock Company "Rusnano" (formerly Open Joint Stock Company "RUSNANO"), or Rusnano, in 2012, the Company agreed to certain performance obligations including establishing a wholly-owned subsidiary in Russia and making a $30.0 million investment commitment (the "Investment Commitment') towards the Company's Russian operations, which could be partially satisfied by cash and/or non-cash investment inside or outside of Russia and/or by way of non-cash asset transfers.

The Rights Agreement, as amended in 2015 (the "Amended Rights Agreement") limits the maximum amount of penalties and/or exit fee (the "Rusnano Payment") to be paid by the Company to $5.0 million in the aggregate and allows such payment to be reduced when certain milestones are met over time. The Amended Rights Agreement also provides for an updated investment plan for the Company's Russian subsidiaries that includes non-cash transfer of licensing rights to intellectual property, non-cash transfers of existing equipment and commitments to complete the remaining investment milestones through 2019. The Company fulfilled its investment commitment required by 2016 and had contributed over $21.0 million in cash and assets to its subsidiaries in Russia as of December 31, 2016.

As of September 30, 2018, the remaining Investment Commitment was approximately $7.5 million to be invested at any time on or before December 31, 2019. At any point between September 30, 2018 and December 31, 2019, the Company may elect to pay a $2.0 million exit fee to terminate any remaining obligations associated with the Investment Commitment.

In August 2016, the Company entered into a letter of agreement with Rusnano to agree to transfer a 10G SFP+ transceiver product line and incur expected costs of approximately $0.1 million, by July 30, 2017, which will not be counted toward the Company's overall Investment Commitment. Since the asset sale of the Company's Low Speed Transceiver Products was completed in January 2017, the Company may undertake an alternative path for spending such amount to be discussed and agreed between the parties.

Rusnano has non-transferable veto rights over the Company's Russian subsidiaries' annual budget during the investment period and must approve non-cash asset transfers to be made in satisfaction of the Investment Commitment. The Company accounted for the Rusnano Payment as an embedded derivative instrument. The fair value of the Penalty Payment derivative has been estimated at the date of the original common stock sale (April 27, 2012) and at each subsequent balance sheet date using a probability-weighted discounted future cash flow approach using unobservable inputs, which are classified as Level 3 within the fair value hierarchy. The primary inputs for this approach include the probability of achieving the Investment Commitment and a discount rate that approximates the Company's incremental borrowing rate. After the initial measurement, changes in the fair value of this derivative are recorded in other income (expense), net. The estimated fair value of this derivative was $2.0 million as of September 30, 2018 and $0.4 million as of December 31, 2017. As of September 30, 2018, and December 31, 2017, the derivative was reported within Accrued and other current liabilities and other noncurrent liabilities, respectively on the Company's condensed consolidated balance sheets. See Note 7.

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

Note 12. Stockholders’ equity

Common Stock

As of September 30, 2018, the Company had reserved 7,857,810 common stock for issuance under its equity incentive plans and 644,187 common stock shares for issuance under its employee stock purchase plan.

Accumulated Other Comprehensive Income (loss)

The components of accumulated other comprehensive income (loss), net of related taxes, were as follows (in thousands):

	Foreign Currency Translation Adjustments	Unrealized Gain (Loss) on Available-For-Sale Securities	Defined Benefit Pension Plan Adjustment	Total Accumulated Other Comprehensive Income (loss)
Balance as of December 31, 2017	$ 567	$ (1)	$ (168)	$ 398
Other comprehensive income (loss), net of taxes of zero and reclassifications	(7,968)	1	—	(7,967)
Balance as of September 30, 2018	$ (7,401)	$ —	$ (168)	$ (7,569)

No material amounts were reclassified out of accumulated other comprehensive income during the three and nine months ended September 30, 2018 and 2017 for realized gains or losses on available-for-sale securities.

Accumulated Deficit

Approximately $8.8 million of the Company’s retained earnings within its total accumulated deficit as of December 31, 2017 was subject to restriction due to the fact that the Company’s subsidiaries in China are required to set aside at least 10% of their respective accumulated profits each year end to fund statutory common reserves as well as allocate a discretional portion of their after-tax profits to their staff welfare and bonus fund.

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

Note 13. Stock-based compensation

The following table summarizes the stock-based compensation expense recognized in the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of goods sold	$ 553	$ 340	$ 1,832	$ 811
Research and development	1,016	606	2,618	1,779
Sales and marketing	931	393	2,511	1,170
General and administrative	1,541	595	3,566	1,932
	$ 4,041	$ 1,934	$ 10,527	$ 5,692

Determining Fair Value

The Company estimated the fair value of certain stock-based awards using a Black-Scholes-Merton valuation model with the following assumptions:

	Three Months Ended September 30,		Nine Months Ended September 30,	
Stock options	2018	2017	2018	2017
Weighted-average expected term (years)	0.00	6.00	6.02	6.00
Weighted-average volatility	—%	65%	65%	65%
Risk-free interest rate	—%	2.02%	2.27%-2.62%	2.02%-2.08%
Expected dividends	—%	—%	—%	—%
Stock appreciation units				
Weighted-average expected term (years)	1.87	2.20	1.99	2.30
Weighted-average volatility	65%	71%	66%	71%
Risk-free interest rate	1.73%-2.52%	1.03%-1.55%	1.03%-2.52%	0.51%-1.55%
Expected dividends	—%	—%	—%	—%
ESPP				
Weighted-average expected term (years)	0.00	0.00	0.71	0.67
Weighted-average volatility	—%	—%	61%	55%
Risk-free interest rate	—%	—%	1.20%-1.93%	0.45%-0.91%
Expected dividends	—%	—%	—%	—%

Stock Options and Restricted Stock Units (RSUs)

The following table summarizes the Company’s stock option and RSU activity, excluding market-based RSUs, during the nine months ended September 30, 2018:

	Stock Options		Restricted Stock Units	
	Number of Shares	Weighted Average Exercise Price	Number of Units	Weighted Average Grant Date Fair Value
Balance as of December 31, 2017	3,933,529	$ 5.55	2,404,637	$ 9.02
Granted	158,116	6.64	1,355,262	6.80
Exercised/Converted	(591,322)	4.33	(915,713)	9.02
Cancelled/Forfeited	(95,251)	10.24	(214,048)	8.80
Balance as of September 30, 2018	3,405,072	5.68	2,630,138	7.89

NeoPhotonics Corporation
Notes to Condensed Consolidated Financial Statements (Continued)
(Unaudited)

Market-based Restricted Stock Units

In July 2018, the Company granted 665,000 shares of market-based RSUs to certain employees. These RSUs will vest if the 30-day weighted average closing price of the Company's common stock is equal to or greater than certain price targets per share and the recipients remain in continuous service with the Company through such service period. No market-based RSUs were vested/cancelled during 2018.

The weighted average grant-date fair value per share of market-based RSUs granted during 2018 was approximately $5.82 per share. The fair value of market-based RSUs was measured on the grant date using Monte Carlo simulation model with the following assumptions:

	Three Months Ended September 30,		Nine Months Ended September 30,	
Market-based restricted stock units	**2018**	**2017**	**2018**	**2017**
Weighted-average volatility	66%	—%	66%	—%
Risk-free interest rate	2.79%	—%	2.79%	—%
Expected dividends	—%	—%	—%	—%

Stock Appreciation Units (SAU)

SAUs are liability classified share-based awards. Outstanding SAUs are re-measured each reporting period at fair value until settlement. The Company did not grant any SAUs during the three and nine months ended September 30, 2018 or 2017. As of September 30, 2018 and December 31, 2017, there were 213,205 and 239,824 SAUs outstanding, respectively, and related SAU liabilities were $1.0 million and $0.8 million, respectively.

Employee Stock Purchase Plan (ESPP)

As of September 30, 2018, there was $0.1 million of unrecognized stock-based compensation expense for employee stock purchase rights that will be recognized over the remaining offering period through November 2018.

Note 14. Income taxes

The income tax (provision) benefit for income taxes in the periods presented is based upon the income (loss) before income taxes (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	**2017**	**2018**	**2017**
Income tax (provision) benefit	$ (291)	$ 1,195	$ (2,009)	$ 1,813

The Company’s income tax (provision) benefit in the three and nine months ended September 30, 2018 and 2017 was primarily related to income taxes of the Company’s non-U.S. operations.

The Company conducts its business globally and its operating income is subject to varying rates of tax in the U.S., China and Japan. Consequently, the Company’s effective tax rate is dependent upon the geographic distribution of its earnings or losses and the tax laws and regulations in each geographical region. Historically, the Company has experienced net losses in the U.S. and in the short term, expects this trend to continue.

Due to historical losses in the U.S., the Company has a full valuation allowance on its U.S. federal and state deferred tax assets. Management continues to evaluate the realizability of deferred tax assets and the related valuation allowance. If management's assessment of the deferred tax assets or the corresponding valuation allowance were to change, the Company would record the related adjustment to income during the period in which management makes the determination.

On December 22, 2017, the U.S. President signed into U.S. law the Tax Cuts and Jobs Act of 2017 ("Tax Reform"). The new legislation, among other provisions, lowered the corporate tax rate from 35% to 21%. The SEC staff issued Staff Accounting Bulletin 118 (“SAB 118”) which provides guidance on accounting for the tax effects of the Tax Reform. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Reform enactment date for companies to complete the accounting under ASC 740, Income Taxes. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Reform for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Reform is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Reform. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

The Company adopted ASU 2016-16 on a modified retrospective basis effective January 1, 2018. Upon adoption of this standard on January 1, 2018, the Company recorded $1.8 million to accumulated deficit balance for intra-entity transfer of an asset other than inventory in prior years.

As of September 30, 2018, there were no material changes to either the nature or the amounts of the uncertain tax positions previously determined for the year ended December 31, 2017.

Note 15. Subsequent events

In October 2018, the Company repaid $5.0 million to Wells Fargo under the Credit Facility.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited condensed consolidated financial statements and the related notes thereto included elsewhere in this Quarterly Report on Form 10-Q for the period ended September 30, 2018 and the audited consolidated financial statements and notes thereto and management's discussion and analysis of financial condition and results of operations for the year ended December 31, 2017 included in our Annual Report on Form 10-K. References to "NeoPhotonics," "we," "our," and "us" are to NeoPhotonics Corporation unless otherwise specified or the context otherwise requires.

This Quarterly Report on Form 10-Q for the period ended September 30, 2018 contains "forward-looking statements" that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. The statements contained in this Quarterly Report on Form 10-Q for the period ended September 30, 2018 that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Terminology such as "believe," "may," "might," "objective," "estimate," "continue," "anticipate," "intend," "should," "plan," "expect," "predict," "potential," or the negative of these terms or other similar expressions is intended to identify forward-looking statements.

We have based these forward-looking statements largely on our current expectations and projections about future events and industry and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified in "Part II—Item 1A. Risk Factors" below, and those discussed in the sections titled "Special Note Regarding Forward-Looking Statements" and "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on March 9, 2018. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Business Overview

We develop, manufacture and sell optoelectronic products that transmit, receive, modify and switch high speed digital optical signals for communications networks and related applications. Our products address the highest speed over distance applications and are designed for 100G and beyond data rates, such as at 200G, 400G, 600G and coming Terabit per second rates for telecom and hyper-scale data center, or content provider, networks. We sell our products to the world's leading network equipment manufacturers, including Ciena Corporation ("Ciena"), Cisco Systems, Inc., Fiberhome Technologies, Ltd. ("Fiberhome"), Huawei Technologies Co., Ltd. and its affiliate HiSilicon Technologies, Ltd. (collectively "Huawei") and Nokia (formerly Alcatel-Lucent, which was acquired by Nokia in January 2016). These companies are among our largest customers and a focus of our strategy due to their leading market positions.

Over the last decade we have been a consistent technology innovator in high speed digital optics products and applications, steadily introducing new capabilities and solutions that enable leading market positions for our customers and for our products that they use.

We have research and development and wafer fabrication facilities in San Jose and Fremont, California and in Tokyo, Japan that coordinate with our research and development and manufacturing facilities in Dongguan, Shenzhen and Wuhan, China and Ottawa, Canada. We use proprietary design tools and design-for-manufacturing techniques to align our design process with our precision nanoscale, vertically integrated manufacturing and testing. Today, we believe we are one of the highest volume photonic integrated circuit ("PIC") manufacturers in the world.

Our High Speed Products for data rates of 100G, 200G, 400G and beyond use our Advanced Hybrid Photonic Integration technology. These products using our advanced technology are the core focus of our strategy, and we believe that they are an important competitive differentiator. Our strategic focus on high speed components and coherent solutions recognizes the explosion of optics in converged edge network applications and we are expanding to new markets ranging from data centers to cable television to autonomous vehicle navigation. We align our product group reporting to "High Speed Products", which includes products designed for 100G and beyond communications applications, and "Network Products and Solutions," which comprises all products designed for applications that do not have data rates at or above 100G.

For coherent transport from data center interconnect through long-haul, we are a vertically integrated designer and manufacturer of the highest speed optical components which we sell to the merchant market and which we incorporate into our own module level products. For applications inside the data center, we are focused on supplying the highest value laser, receiver and optical IC solutions to the merchant market. As disaggregation of optical equipment continues to gain momentum, we believe that high performance merchant components capability will be an increasingly important differentiator.

We recently introduced a number of new products for 400G and 600G systems. We see strength in our design wins, most notably across all three of our leading coherent components, including our ultra-narrow linewidth tunable laser, 400G and 600G micro coherent driver-modulator and coherent receiver. Our ultra-narrow linewidth lasers are a critical element in achieving these speeds because they have the narrowest linewidth and minimal phase noise for the higher order modulation schemes - or data coding methods - that are required. Our laser, receiver and modulator work together to enable the highest performance solutions and we offer them as both a full solution and as discrete elements to customers who demand the highest performance and whose systems operate at the highest data rates. We are currently shipping these products to customers to meet their system development needs and we are now ramping manufacturing volumes as 400G and 600G demands grow.

Our coherent module solutions leverage our high performance and high speed components. Our CFP-DCO 100G coherent module is shipping to customers deploying links in metro networks and switch/router connection applications where high signal clarity is key. We further demonstrated at OFC in March 2018 our 400G coherent OSFP module for 400G point to point links over 80 km data center interconnect distances.

Our new client side and data center product offerings are focused on 400G applications. Our 53GBaud Linear Optical Component product family includes PAM4 capable optical components for 100G and 400G cloud data center and other client applications, including drivers and EML lasers for transmitters plus photodetectors and trans-impedance amplifiers for receivers. These provide the optical content necessary for single wavelength 100G PAM4 and four wavelength 400G PAM4 transceivers for 2-10km distances inside data centers, such as DD-QSFP and OSFP. We have also introduced high-power, non-hermetic laser optical sources for shorter reach 100G and 400G Silicon Photonics based transceivers for data center applications.

While supporting our customers' current needs with these advanced components, we are also preparing for their next generation needs by taking steps to integrate and reduce the size of the optics by approximately a factor of two while maintaining the high performance necessary for 400G, 600G and 800G per wavelength. We recently introduced and demonstrated our Coherent Optical Subassembly, or COSA, which integrates our 64GBaud coherent driver-modulator and our coherent receiver in a compact package that occupies less than half the space of the equivalent discrete components. Alongside this, we introduced and demonstrated our “Nano” ultra-narrow linewidth external cavity tunable laser, which combined with ASIC control circuitry similarly reduces the size in half or more while featuring the industry leading linewidth and power consumption of our external cavity laser.

Long Haul, Metro and high density data center interconnect networks also leverage our multi-cast switches to boost network capacity while supporting bandwidth-hungry services. These switches enable contentionless reconfiguration to maximize fiber utilization and capacity growth.

Finally, we are deploying a range of both passive module solutions and long reach laser solutions for 5G network applications, for which network deployments are expected to ramp in 2019.

In 2017, decreased market demand in China for 100G and above product deployments materially affected our operating results. Demand was very strong in 2016 from our China-based customers, who at that time provided optimistic forecasts for 2017 in anticipation of new tenders for provincial and metro 100G system deployments from the leading Chinese telecom carriers. However, tender awards from the China telecom carriers were slower than expected in 2017, which caused a significant drop in demand beginning in the first quarter of 2017. We believe one or more of our leading customers in China had accumulated significant inventory prior to the end of the quarter ended March 31, 2017. We also believe they and other customers rapidly moved to adjust their inventory by reducing their purchases of our products, beginning in the first quarter of 2017 and continuing in successive quarters, to align with the slowing market demand and their own production levels.

Beginning in the quarter ended December 31, 2017 and continuing into the quarter ended September 30, 2018, we saw a steady demand environment emerge in China and inventories of our products stabilize at our Chinese customers, primarily as a result of provincial deployments in China. We believe there remains uncertainty in the market in China, such that accurately anticipating the timing and volume of provincial deployments is difficult. Therefore, we and our customers have limited visibility into the timing and volumes of such tender awards. These market conditions in China adversely affected our revenues, operating results and financial condition throughout 2017 and in early 2018.

On April 15, 2018, the United States Department of Commerce issued a Denial Order which prohibited Chinese telecom equipment maker ZTE Corporation ("ZTE") from receiving items subject to U. S. Export Administration Regulations. This order effectively banned U.S. companies from selling, exporting or re-exporting components, software and technology to ZTE.

Our direct revenue from ZTE during the quarter ended March 31, 2018 was approximately 1% of total revenue, the same as for the entire fiscal year 2017. In addition, we provide component products to certain ZTE supply chain partners, which was estimated to be approximately 2% of total revenue in the quarter ended March 31, 2018, compared to approximately 3% for the entire fiscal year 2017. In addition, in the quarter ended March 31, 2018, we took a reserve for products held in inventory designated for ZTE valued at approximately $1.2 million.

In July 2018, the U.S. Department of Commerce removed the ban as a result of a settlement agreement with ZTE.

Revenue was $81.7 million in the three months ended September 30, 2018, compared to $71.1 million in the same period in 2017 primarily due to volume growth in the Americas, including through off-shore contract manufacturers, and in China due continued domestic deployments plus exports for international deployments. Our gross profit was 23% of revenue in the three months ended September 30, 2018, compared to 15% of revenue in the three months ended September 30, 2017, primarily attributable to improved factory utilization on higher volumes and improved product mix to higher data rates.

In the three months ended September 30, 2018, High Speed Products represented approximately 84% of total revenue, or $68.5 million and Network Products and Solutions represented approximately 16% of total revenue, or $13.2 million. In the three months ended September 30, 2017, High Speed Products were 84% of total revenue, or $59.4 million and Network Products and Solutions represented approximately 16% of total revenue, or $11.7 million.

In September 2017, we initiated certain restructuring actions to improve near-term profitability while focusing our investment and developments on key growth opportunities within and between data centers, front and backhaul for 5G, traditional metro and long haul telecommunications, plus emerging cable TV and edge network applications.

In December 2016, we entered into an Asset Purchase Agreement (the “Asset Purchase Agreement”) with APAT Optoelectronics Components Co., Ltd. (the “Purchaser”) for the sale of certain assets of our access and low speed transceiver product lines (the “Low Speed Transceiver Products”) which was completed in January 2017. All of these products were part of our Network Products and Solutions group and included low speed passive optical network ("PON") products for which an end-of-life plan was announced in mid-2016. In 2017 and 2016, such Low Speed Transceiver Products generated approximately1% and 15% of our total revenue, respectively.

The asset sale consisted of approximately $25.0 million in cash consideration plus approximately $1.4 million post-closing transition services under a transition services agreement ("TSA") with the Purchaser. We recognized a $2.2 million gain on the sale of these assets within our operating loss in 2017. See Note 6 and Note 11 in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

Critical accounting policies and estimates

Other than the policy changes disclosed in Note 1 in Notes to Condensed Consolidated Financial Statements in Item 1, Part I of this Report, there have been no material changes to our critical accounting policies and estimates during the three and nine months ended September 30, 2018 from those disclosed in Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the year ended December 31, 2017.

Results of Operations

Revenue

Our business is focused on the highest speed digital optics and signal processing communications applications. In the three months ended September 30, 2018, our High Speed Products for data rates of 100G and beyond comprised 84% of our revenues.

We sell substantially all of our products to original equipment manufacturers ("OEMs") and their contract manufacturers. Revenue is recognized upon transfer of control of the product to the buyer. We price our products based on market and competitive conditions and may periodically reduce the price of our products as market and competitive conditions change or as manufacturing costs are reduced. Our first quarter revenue is typically seasonally lower than the rest of the year primarily due to the impact of annual price negotiations with customers that occur at the end of the prior year and lower capacity utilization during the holidays in China. However, this historical pattern should not be considered a reliable indicator of our future revenue or financial performance. Our sales transactions to customers are denominated primarily in U.S. dollars, with some portions in Chinese Renminbi (“RMB”) or Japanese Yen (“JPY”).

	Three Months Ended September 30,				Nine Months Ended September 30,			
(in thousands)	**2018**	**2017**	**$ Change**	**% Change**	**2018**	**2017**	**$ Change**	**% Change**
Total revenue	$ 81,748	$ 71,121	$10,627	15%	$ 231,436	$ 216,023	$15,413	7%

We generate most of our revenue from a limited number of customers. Huawei has consistently been our largest customer, which was again the case in the three months ended September 30, 2018, as it accounted for approximately 47% of our revenue. One other customer accounted for an additional 28% of our revenue for the three months ended September 30, 2018. In the three months ended September 30, 2017, Huawei and one other customer accounted for approximately 39% and 14% of our revenue, respectively.

In addition to Huawei, we have several large customers which may or may not exceed 10% of revenue in any given quarter. After Huawei, our next four largest customers accounted for an additional 42% and 40% of our revenue in the three months ended September 30, 2018 and 2017, respectively.

We expect that a significant portion of our revenue will continue to be derived from a limited number of customers. As a result, the loss of, or a significant reduction in, orders from any of our key customers would materially affect our revenue and results of operations. Similarly, our accounts receivable are from a limited number of customers. As of September 30, 2018, three customers accounted for 41%, 20% and 12% of total accounts receivable and as of December 31, 2017, three customers accounted for 36%, 14% and 10% of total accounts receivable.

Three Months Ended September 30, 2018 Compared With Three Months Ended September 30, 2017

Revenue increased $10.6 million, or 15%, in the three months ended September 30, 2018, compared to the same period in 2017, as described in "Business Overview" above. In the three months ended September 30, 2018, High Speed Products represented approximately 84% of total revenue, compared to 84% of total revenue in the same period in 2017, while Network Products and Solutions represented approximately 16% of total revenue in the three months ended September 30, 2018, compared to approximately 16% of total revenue in the same period a year ago. In the three months ended September 30, 2018, revenue from China, Americas and rest of the world, based on the ship to location requested by the customer, was 56%, 28% and 16% of total revenue, respectively, compared to 57%, 19% and 24% of total revenue, respectively, in the same period in 2017.

Nine Months Ended September 30, 2018 Compared With Nine Months Ended September 30, 2017

Revenue increased $15.4 million or 7%, in the nine months ended September 30, 2018, compared to the same period in 2017, primarily due to volume growth in the Americas, including through off-shore contract manufacturers, and in China for domestic deployments plus exports for international deployments. In the nine months ended September 30, 2018, High Speed Products represented approximately 85% of total revenue, compared to 82% of total revenue in the same period in 2017, while Network Products and Solutions represented approximately 15% of total revenue in the nine months ended September 30, 2018, compared to approximately 18% of total revenue in the same period a year ago, which included revenue from Low Speed Transceiver Products for a portion of the first quarter. In the nine months ended September 30, 2018, revenue from China, Americas and rest of the world, based on the ship to location requested by the customer, was 58%, 23% and 19% of total revenue, respectively, compared to 54%, 17% and 29% of total revenue, respectively, in the same period in 2017.

Cost of Goods Sold and Gross Profit

Our cost of goods sold consists primarily of the cost to produce wafers and to manufacture and test our products. Additionally, our cost of goods sold generally includes stock-based compensation, write-downs of excess and obsolete inventory, amortization of certain purchased intangible assets, depreciation, acquisition-related fair value adjustments, restructuring charges, warranty costs, royalty payments, logistics and allocated facilities costs.

Gross profit as a percentage of total revenue, or gross margin, has been and is expected to continue to be affected by a variety of factors including the introduction of new products, production volume, production volume compared to sales over time, the mix of products sold, inventory changes, changes in the average selling prices of our products, changes in the cost and volumes of materials purchased from our suppliers, changes in labor costs, changes in overhead costs or requirements, stock-based compensation, write-downs of excess and obsolete inventories and warranty costs. In addition, we periodically negotiate pricing with certain customers which can cause our gross margins to fluctuate, particularly in the quarters in which the negotiations occurred. Our first quarter gross margins are typically seasonally lower than the fourth quarter of the prior year due to annual price negotiations with customers that occur the end of the prior year as well as lower manufacturing capacity utilization during the holidays in China.

As a manufacturing company, our margins are sensitive to changes in volume and factory utilization. Increasing strength in demand with increasing volume growth across various product lines contributed to the increase in our gross profit in the three months ended September 30, 2018.

The China government has recently imposed tariffs affecting products manufactured in the U.S. Certain of our products manufactured in our U.S. operations have been included in the tariffs imposed on imports into China from the United States. Going forward, we expect these tariffs, as currently applied, will increase our cost of goods sold by about one percentage point for as long as the tariffs remain in place.

	Three Months Ended September 30,				Nine Months Ended September 30,			
(in thousands, except percentages)	2018	2017	$ Change	% Change	2018	2017	$ Change	% Change
Cost of goods sold	62,815	60,608	$ 2,207	4%	187,849	170,230	$ 17,619	10 %
Gross profit	18,933	10,513	$ 8,420	80%	43,587	45,793	$ (2,206)	(5)%

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Gross profit as a % of revenue	23%	15%	19%	21%

Three Months Ended September 30, 2018 Compared With Three Months Ended September 30, 2017

Gross profit increased $8.4 million, or 80%, to $18.9 million in the three months ended September 30, 2018, compared to $10.5 million in the same period in 2017. Gross margin increased by approximately 8 percentage points to 23% in the three months ended September 30, 2018, compared to the same period in 2017. The improvement in gross margin was driven by approximately 6 percentage points of lower inventory write-downs and warranty costs and 2 percentage points of higher factory utilization and lower restructuring costs.

Nine Months Ended September 30, 2018 Compared With Nine Months Ended September 30, 2017

Gross profit decreased $2.2 million or 5%, to $43.6 million in the nine months ended September 30, 2018, compared to $45.8 million in the same period in 2017. Gross margin decreased by approximately 2 percentage points to 19% in the nine months ended September 30, 2018, compared to the same period in 2017. The decline in gross margin was driven by approximately 4 percentage points of annual price reductions, offset by approximately 2 percentage points of lower inventory write-downs and warranty costs.

Operating expenses

Personnel costs are the most significant component of operating expenses and consist of costs such as salaries, benefits, bonuses, stock-based compensation and, with regard to sales and marketing expense, other variable compensation.

	Three Months Ended September 30,				Nine Months Ended September 30,			
(in thousands, except percentages)	2018	2017	$ Change	% Change	2018	2017	$ Change	% Change
Research and development	$ 13,177	$ 14,662	$ (1,485)	(10)%	$ 40,308	$ 44,412	$ (4,104)	(9)%
Sales and marketing	4,351	4,071	280	7 %	12,366	12,913	(547)	(4)%
General and administrative	8,592	7,637	955	13 %	23,509	26,792	(3,283)	(12)%
Amortization of purchased intangible assets	118	119	(1)	(1)%	357	355	2	1 %
Asset sale related costs	251	78	173	222 %	344	229	115	50 %
Restructuring charges	1,133	2,829	(1,696)	(60)%	1,786	3,550	(1,764)	(50)%
Gain on asset sale	—	—	—	— %	—	(2,000)	2,000	(100)%
Total operating expenses	$ 27,622	$ 29,396	$ (1,774)	(6)%	$ 78,670	$ 86,251	$ (7,581)	(9)%

Research and development

Research and development expense consists of personnel costs, including stock-based compensation, for our research and development personnel, and product development costs, including engineering services, development software and hardware tools, depreciation of equipment and facility costs. We record all research and development expense as incurred.

Three Months Ended September 30, 2018 Compared With Three Months Ended September 30, 2017

Research and development expense decreased by $1.5 million, or 10%, in the three months ended September 30, 2018, compared to the same period in 2017. The decrease was primarily due to $1.5 million decrease in development expenses and $0.6 million decrease in payroll and related costs, partially offset by a $0.4 million increase in stock-based compensation expense.

Nine Months Ended September 30, 2018 Compared With Nine Months Ended September 30, 2017

Research and development expense decreased by $4.1 million or 9%, in the nine months ended September 30, 2018, compared to the same period in 2017. The decrease was primarily due to $1.7 million decrease in development expenses, $1.2 million decrease in outside development services, $1.8 million decrease in payroll and related costs and $0.4 million decrease related to higher benefit from government grants, partially offset by a $0.8 million increase in stock-based compensation expense.

Sales and marketing

Sales and marketing expense consists primarily of personnel costs, including stock-based compensation and other variable compensation, costs related to sales and marketing programs and services and facility costs.

Three Months Ended September 30, 2018 Compared With Three Months Ended September 30, 2017

Sales and marketing expense increased $0.3 million, or 7%, in the three months ended September 30, 2018, compared to the same period in 2017. The increase was primarily due to a $0.5 million increase in stock-based compensation expense.

Nine Months Ended September 30, 2018 Compared With Nine Months Ended September 30, 2017

Sales and marketing expense decreased by $0.5 million or 4%, in the nine months ended September 30, 2018, compared to the same period in 2017 primarily due to a $1.2 million decrease in payroll and related costs and $0.6 million decrease from the recovery of bad debts previously written off, partially offset by a $1.3 million increase in stock-based compensation expense.

General and administrative

General and administrative expense consists primarily of personnel costs, including stock-based compensation, for our finance, human resources and information technology personnel and certain executive officers, as well as professional services costs related to accounting, tax, banking, legal and information technology services, depreciation and facility costs.

Three Months Ended September 30, 2018 Compared With Three Months Ended September 30, 2017

General and administrative expense increased by $1.0 million, or 13%, in the three months ended September 30, 2018, compared to the same period in 2017. The increase was primarily due to a $0.9 million increase in stock-based compensation expense, a $0.5 million increase in legal settlement charges, a $0.3 million increase in loss on disposal of property, plant and equipment, a $0.4 million increase in city/local taxes and a $0.2 million increase in payroll and related costs, partially offset by a $0.6 million decrease in facilities-related costs and a $0.7 million decrease in professional services costs related to accounting, tax and legal.

Nine Months Ended September 30, 2018 Compared With Nine Months Ended September 30, 2017

General and administrative expense decreased by $3.3 million or 12%, in the nine months ended September 30, 2018, compared to the same period in 2017. The decrease was primarily due to a $3.3 million decrease in professional services related to accounting, tax and legal, a $1.0 million decrease in payroll and related costs and a $1.9 million decrease in facilities-related costs, partially offset by a $1.6 million increase in stock-based compensation expense, a $0.5 million increase in legal settlement charges, a $0.5 million increase in city/local taxes and a $0.3 million increase in loss on disposal of property, plant and equipment.

Amortization of purchased intangible assets

Our intangible assets are being amortized over their estimated useful lives. Amortization expense relating to technology, patents and leasehold interests are included within cost of goods sold, while customer relationships and other agreements are recorded within operating expenses.

Asset sale related costs

We incurred $0.2 million in the nine months ended September 30, 2017 in asset sale related costs for legal and other professional services.

Restructuring charges

During the three months ended September 30, 2017, we initiated restructuring actions in order to focus on key growth initiatives and to move towards a lower break even revenue level. Actions to lower operating expenses and manufacturing costs included a reduction in force, facilities consolidation and certain asset-related adjustments. Restructuring charges in the three and nine months ended September 30, 2018 were $1.2 million and $2.0 million, respectively, of which $1.1 million and $1.8 million, respectively were included in operating expenses. Restructuring charges in the first nine months of 2018 included $1.6 million related to changes in the fair value of penalty payment derivative. Restructuring charges in the nine months ended September 30, 2017 were $4.1 million, of which $3.6 million was included in operating expenses and the remainder in cost of goods sold. Restructuring charges in the first nine months of 2017 included a reduction in force during the first nine months of 2017 related to the sale of our Low Speed Transceiver Product assets and our lower market outlook for China.

Gain on Asset Sale

In 2017, we recognized a $2.2 million gain associated with the sale of our Low Speed Transceiver Products' assets. See Note 6 in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

Interest and other income (expense), net

Interest income consists of income earned on our cash, cash equivalents and short-term investments, as well as restricted cash. Interest expense consists of amounts paid for interest on our bank and other borrowings. Other income (expense), net is primarily made up of government subsidies as well as foreign currency transaction gains and losses. The functional currency of our subsidiaries in China is the RMB and of our subsidiary in Japan is the JPY. The foreign currency transaction gains and losses of our subsidiaries in China and Japan primarily result from transactions in U.S. dollars.

	Three Months Ended September 30,				Nine Months Ended September 30,			
(in thousands)	**2018**	**2017**	**$ Change**	**% Change**	**2018**	**2017**	**$ Change**	**% Change**
Interest income	$ 85	$ 37	$ 48	130 %	$ 300	$ 141	$ 159	113 %
Interest expense	(540)	(495)	(45)	9	(2,007)	(743)	(1,264)	170
Other income (expense), net	1,310	(41)	1,351	(3,295)	1,891	197	1,694	860
Total	$ 855	$ (499)	$ 1,354	(271)%	$ 184	$ (405)	$ 589	(145)%

Interest expense included in interest and other income (expense), increased in the three and nine months ended September 30, 2018, as compared to the same periods in 2017. The increase in interest expense was due to an increase in outstanding borrowings during the three and nine months ended September 30, 2018. Other income (expense), net included in interest and other income (expense), increased in the three and nine months ended September 30, 2018, as compared to the same periods in 2017, primarily due to the increased purchasing value of U.S. dollar relative to other currencies.

Income taxes

We conduct our business globally and our operating income is subject to varying rates of tax in the U.S., China, Japan and other various foreign jurisdictions. Consequently, our effective tax rate is dependent upon the geographic distribution of our earnings or losses and the tax laws and regulations in each geographical region. Historically, we have experienced net losses in the U.S. and in the short term, we expect this trend to continue.

	Three Months Ended September 30,				Nine Months Ended September 30,			
(in thousands)	**2018**	**2017**	**$ Change**	**% Change**	**2018**	**2017**	**$ Change**	**% Change**
Income tax (provision) benefit	(291)	1,195	$ (1,486)	(124)%	(2,009)	1,813	$ (3,822)	(211)%

Our income tax (provision) benefit in the three and nine months ended September 30, 2018 and 2017 was primarily related to the timing of the income tax provision of our non-U.S. operations.

Liquidity and capital resources

As of September 30, 2018, we had working capital of $112.4 million, including total cash, cash equivalents, short-term investments and restricted cash of $64.7 million. Approximately 22% of our total cash, cash equivalents, short-term investments and restricted cash were held by our foreign entities, including approximately $12.4 million in accounts held by our subsidiaries in China, of which $5.2 million was in restricted cash, and approximately $1.7 million in accounts held by our subsidiary in Japan. Cash, cash equivalents, investments and restricted cash held outside of the U.S. may be subject to taxes if repatriated and may not be immediately available for our working capital needs.

Approximately $8.8 million of our retained earnings within our total accumulated deficit as of December 31, 2017 was subject to restrictions due to the fact that our subsidiaries in China are required to set aside at least 10% of their respective accumulated profits each year end to fund statutory common reserves as well as allocate a discretionary portion of their after-tax profits to their staff welfare and bonus fund. This restricted amount is not distributable as cash dividends except in the event of liquidation.

In January 2017, we completed the sale of certain Low Speed Transceiver Products' assets for an approximately $25.0 million consideration plus an approximately $1.4 million post-closing transition services fees. The consideration was reduced by $3.4 million for inventory adjustment after closing to approximately $21.6 million, which was subject to other adjustments of up to $10.0 million for any potential claims. See Note 6 and Note 11 in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

In September 2017 we entered into a revolving line of credit agreement with Wells Fargo Bank, National Association ("Wells Fargo") as the administrative agent for a lender group (the "Wells Fargo Credit Facility" or "Credit Facility"), and the $20.0 million debt outstanding under our Comerica Bank Credit Facility, which had since been terminated, was paid in full.

The Wells Fargo Credit Facility provides for borrowings equal to the lower of (a) a maximum revolver amount of $50.0 million, or (b) an amount equal to 80% - 85% of eligible accounts receivable plus 100% of qualified cash balances up to $15.0 million, less certain discretionary adjustments ("Borrowing Base"). The maximum revolver amount may be increased by up to $25.0 million, subject to certain conditions. At closing, $50.0 million was available, of which $30.0 million was drawn. We used $20.0 million of this amount to pay the principal and interest due under the Comerica Bank Credit Facility.

The Credit Facility matures on June 30, 2022 and borrowings bear interest at an interest rate option of either (a) the LIBOR rate, plus an applicable margin ranging from 1.50% to 1.75% per annum, or (b) the prime lending rate, plus an applicable margin ranging from 0.50% to 0.75% per annum. We are also required to pay a commitment fee equal to 0.25% of the unused portion of the Credit Facility.

The Credit Facility agreement requires prepayment of the borrowings to the extent the outstanding balance is greater than the lesser of (a) the most recently calculated Borrowing Base, or (b) the maximum revolver amount. The Borrowing Base calculation contains a customary provision that gives the lender the ability to reduce the Borrowing Base by reserves that are subjectively determinable, which is considered a subjective acceleration clause. We are required to maintain a combination of certain defined cash balances and unused borrowing capacity under the Credit Facility of at least $20.0 million, of which at least $5.0 million must be unused borrowing capacity. Borrowings under the Credit Facility are collateralized by substantially all of our assets. We were in compliance with the covenants of this Credit Facility as of September 30, 2018. As of September 30, 2018, the outstanding balance under the Credit Facility was $35.6 million and the weighted average rate under the LIBOR option was 4.51%. The remaining borrowing capacity as of September 30, 2018 was $14.4 million of which $5.0 million is required to be maintained as unused borrowing capacity.

We regularly issue short-term notes payable to our suppliers in China in exchange for accounts payable. These notes are supported by non-interest bearing bank acceptance drafts and are due three to six months after issuance. As a condition of the notes payable arrangements, we are required to keep a compensating balance at the issuing banks that is a percentage of the total notes payable balance until the amounts are settled. As of September 30, 2018, our subsidiary in China had three line of credit facilities with banking institutions.

As of September 30, 2018 and December 31, 2017, the non-interest bearing bank acceptance drafts issued in connection with our notes payable to our suppliers in China under these line of credit facilities had an outstanding balance of $3.6 million and $1.6 million, respectively. Compensating balances relating to these credit facilities totaled $1.9 million and $0.5 million, respectively, as of September 30, 2018 and December 31, 2017. Compensating balances are classified as restricted cash on our condensed consolidated balance sheets. See Note 4 and Note 9 of Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

As of September 30, 2018, we had two loan arrangements with the Bank of Tokyo-Mitsubishi UFJ, Ltd. (collectively the "Mitsubishi Bank Term Loans") and a third loan arrangement with the Bank of Tokyo-Mitsubishi UFJ, Ltd. and The Yamanashi Chou Bank, Ltd. One of Mitsubishi Bank Term Loans requires equal monthly payments of principal equal to 8,333,000 JPY until the maturity date of February 25, 2025, with a lump sum payment of the balance of 8,373,000 JPY on the maturity date. Interest on this loan accrues and is paid monthly based upon the annual rate of the monthly Tokyo Interbank Offer Rate (TIBOR) plus 1.40% and is secured by real estate collateral. The second term loan of 690 million JPY (approximately $6.1 million) (the "2017 Mitsubishi Bank Loan") was entered into in March 2017 to acquire manufacturing equipment for our

Japanese subsidiary and has an annual interest rate of the monthly TIBOR rate plus 1.00%. The 2017 Mitsubishi Bank Loan requires monthly interest and principal payments over 72 months commencing in April 2018. This loan was available from March 31, 2017 to March 30, 2018 and 690 million JPY (approximately $6.1 million) under this loan was fully drawn in March 2017. In January 2018, the Company entered into a term loan agreement with the Bank of Tokyo-Mitsubishi UFJ, Ltd. and The Yamanashi Chou Bank, Ltd. for a term loan in the aggregate principal amount of 850 million JPY (approximately $7.5 million) (the "Mitsubishi-Yamanashi Term Loan"). The Mitsubishi-Yamanashi Term Loan was available from January 29, 2018 to January 29, 2025. The full amount of the Mitsubishi-Yamanashi Term Loan was drawn on January 29, 2018. Interest on the Mitsubishi-Yamanashi Term Loan is based upon the annual rate of the three months TIBOR rate plus 1.00%. The Mitsubishi-Yamanashi Term Loan requires quarterly interest payments, along with the principal payments, over 82 months commencing in April 2018. As of September 30, 2018, our aggregate outstanding principal balance under Mitsubishi Bank Term Loans and Mitsubishi-Yamanashi Term Loan was 2.1 billion JPY (approximately $18.1 million). See Note 9 of Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

From time to time we accept notes receivable in exchange for accounts receivable from certain of our customers in China. These notes receivable are non-interest bearing and are generally due within six months. Historically, we have collected on the notes receivable in full at the time of maturity.

In the first nine months of 2018, we generated operating losses of $35.1 million and cash from operations was $9.0 million. We had an accumulated deficit of $390.7 million as of September 30, 2018. Through 2017 and the early part of 2018, the Company's operating results and cash flows were negatively affected by demand that was lower than customer estimates that were used to put capacity in place over the last two years. In the three months ended June 30, 2018, demand continued to be strong, primarily due to volume growth in the Americas and the result of increased domestic deployments in China plus exports for international deployments. In the three months ended September 30, 2018, demand was in line with the increased demand experienced during the three months ended June 30, 2018.

To adjust to the demand that has been less than estimates used for capacity decisions, we implemented restructuring plans in May and September 2017 that included a reduction in force and consolidation of facilities, in order to reduce expenses. We have also reduced or delayed certain product development projects and capital expenditures, aggressively pursued collections of accounts and notes receivable and continued to closely manage production and inventory levels.

As of September 30, 2018, the remaining borrowing capacity under our revolving line of credit agreement with Wells Fargo, was $14.4 million of which $5.0 million is required to be maintained as unused borrowing capacity. In October 2018, we repaid $5.0 million to Wells Fargo, which was included in long-term debt as of September 30, 2018. Additionally, we had $3.6 million of notes payable and $2.8 million of current portion of long-term debt as of September 30, 2018, which we plan to pay out of our existing available cash.

In China, when there is a case pending in judicial court, banks may choose to limit borrowing against existing credit lines, regardless of the legitimacy of the case. We have a dispute pending with APAT OE in judicial court (See Note 11 of Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report). We do not expect to make any additional draws against our credit facilities in China until this matter is resolved. We have less expensive cash and credit lines available in the U.S., and believe this will not impact on our operations in China.

We currently believe we will have sufficient resources to fund our currently planned operations and expenditures over the next twelve months without additional financing or other actions. In addition, we believe we have a number of ongoing and potential actions that may further strengthen our projected cash and projected financial position.

We operate in an industry in which it is difficult to evaluate our prospects with certainty. Future declines in China market demand or other changes to our forecasts could adversely affect our results of operations, financial position and cash flows. As a result, we may need to raise additional debt or equity capital to fund our operations. Any additional debt arrangements may likely require regular interest or principal payments which could adversely affect our operations. There can be no assurance that additional debt or equity capital will be available on acceptable terms, or at all.

Rusnano Rights Agreement

Under our amended rights agreement, dated June 30, 2015, with Rusnano, one of our principal stockholders, we agreed to make a $30.0 million investment commitment (the "Investment Commitment") toward our Russian operations. The Investment Commitment can be partially satisfied by cash and/or non-cash investment inside or outside of Russia. Our $21.0 million investment milestone for 2016 was met as of December 31, 2016. If certain of the Investment Commitments are not achieved in the indicated time frames through 2019, we have the ability to exit our Russian operations by paying an exit fee of up to $2.0 million at that time. See Note 11 in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

Cash flow discussion

The table below sets forth selected cash flow data for the periods presented:

(in thousands)	Nine Months Ended September 30, 2018	2017
Net cash provided by (used in) operating activities	$ 8,997	$ (41,211)
Net cash used in investing activities	(11,251)	(11,403)
Net cash (used in) provided by financing activities	(21,456)	26,300
Effect of exchange rates on cash, cash equivalents and restricted cash	(560)	1,174
Net decrease in cash, cash equivalents and restricted cash	$ (24,270)	$ (25,140)

Operating activities

Net cash provided by operating activities was $9.0 million in the nine months ended September 30, 2018, compared to $41.2 million net cash used in operating activities in the same 2017 period. The net cash provided by operating activities increased primarily due to $41.9 million increase in cash flows from inventories related to a buildup in inventories in the first quarter of 2017, a $18.0 million increase in cash flows from prepaid expenses, a $4.5 million increase in cash flows related to accounts payable and a $4.8 million decrease in cash flows related to net loss and non-cash adjustments. The increases are partially offset by a $13.2 million decrease in cash flows from accounts receivable due to lower collections in 2018 and a $5.8 million decrease in cash flows from accrued and other liabilities.

Investing activities

Net cash used in investing activities was $11.3 million in the nine months ended September 30, 2018, compared to $11.4 million used in investing activities in the same 2017 period. The decrease in cash flows from investing activities was primarily due to $21.7 million of proceeds from the sale of Low Speed Transceiver Products' assets in January 2017, a $1.8 million decrease due to decrease in net proceeds from sale, maturity and purchase of marketable securities and a $3.3 million decrease due to settlement of foreign currency hedges, partially offset by a $27.1 million increase in cash flows due to lower property, plant and equipment purchases.

Financing activities

Net cash used in financing activities was $21.5 million in the nine months ended September 30, 2018, compared to $26.3 million provided by financing activities in the same 2017 period. The decrease in cash flows from financing activities was primarily due to $49.6 million decrease in net borrowings under our credit facilities, term loans and note payables to banks in China, partially offset by a $1.3 million increase in proceeds from government grants.

Contractual Obligations and Commitments

As of September 30, 2018, our principal commitments consisted of obligations under operating leases, purchase commitments, debt and other contractual obligations. The following table presents additional contractual obligations and update the amounts disclosed in Management's Discussion and Analysis of Financial Condition and Results of Operations, set forth in Part II, Item 7, in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 (in thousands). See Note 9 in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

	Payments Due by Period				
	Total	Less than 1 Year	1-3 years	3-5 Years	More than 5 Years
Mitsubishi Bank and Yamanashi Chou Bank loan	$ 6,942	$ 267	$ 2,136	$ 2,136	$ 2,403
Expected interest payments (1)	238	18	119	73	28
Total	$ 7,180	$ 285	$ 2,255	$ 2,209	$ 2,431

(1) Expected interest payments were calculated using interest rates as of September 30, 2018.

Off-balance Sheet Arrangements

As of September 30, 2018, we did not have any significant off-balance sheet arrangements.

Recent Accounting Pronouncements

See Note 1 “Basis of presentation and significant accounting policies” in the Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Quarterly Report on Form 10-Q for a description of recent accounting pronouncements and accounting changes.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Starting in July 2016, we entered into foreign currency forward contracts to minimize the short-term impact of foreign currency exchange rate fluctuations, related to RMB on our inter-company receivables and payables. During the three months ended September 30, 2018, we temporarily discontinued entering into forward exchange contracts. This may increase the risks to us arising from the short-term impact of foreign currency fluctuations. Other than the foregoing, our exposures to other market risk have not changed materially since December 31, 2017. For quantitative and qualitative disclosures about market risk, see Item 7A Quantitative and Qualitative Disclosures About Market Risk, in our Annual Report on Form 10-K for the year ended December 31, 2017.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2018. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered in this report, our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities and Exchange Act of 1934, as amended) for the quarter ended September 30, 2018 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitation on the Effectiveness of Internal Controls

The effectiveness of any system of internal control over financial reporting is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating, and evaluating the controls and procedures, and the inability to eliminate misconduct completely. Accordingly, any system of internal control over financial reporting can only provide reasonable, not absolute assurances. In addition, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. We intend to continue to monitor and upgrade our internal controls as necessary or appropriate for our business, but cannot assure that such improvements will be sufficient to provide us with effective internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time, we are involved in litigation that we believe is of the type common to companies engaged in our line of business, including commercial disputes and employment issues. As of the date of this Quarterly Report on Form 10-Q, other than as described below, we are not involved in any pending legal proceedings that we believe could have a material adverse effect on our financial condition, results of operations or cash flows. However, as described below, a certain dispute involves a claim by a third party that our activities infringe their intellectual property rights. This and other types of intellectual property rights claims generally involve the demand by a third party that we cease the manufacture, use or sale of the allegedly infringing products, processes or technologies and/or pay substantial damages or royalties for past, present and future use of the allegedly infringing intellectual property. Claims that our products or processes infringe or misappropriate any third-party intellectual property rights (including claims arising through our contractual indemnification of our customers) often involve highly complex, technical issues, the outcome of which is inherently uncertain. Moreover, from time to time, we may pursue litigation to assert our intellectual property rights. Regardless of the merit or resolution of any such litigation, complex intellectual property litigation is generally costly and diverts the efforts and attention of our management and technical personnel which could adversely affect our business.

For a discussion of our current legal proceedings, please refer to the information set forth under the "Litigation" section in Note 11, *Commitments and Contingencies*, in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Quarterly Report on Form 10-Q, which is incorporated herein by reference.

ITEM 1A. RISK FACTORS

Except for those risk factors denoted by an asterisk (*), the risk factors facing our company have not changed materially from those set forth in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on March 9, 2018, which risk factors are set forth below.

Risks Related to Our Business

We are dependent on Huawei Technologies Co., Ltd. and its affiliate HiSilicon Technologies Co., Ltd. and our other key customers for a large portion of our revenue and the loss of, or a significant reduction in orders in any period from any of our major customers may reduce our revenue and adversely impact our results of operations.

We have generated most of our revenue from a limited number of customers. In the nine months ended September 30, 2018, Huawei Technologies Co. Ltd., together with its affiliate HiSilicon Technologies Co., Ltd. (or collectively "Huawei") accounted for approximately 47% of our revenue and our top five customers represented 89% of our revenue. In the year ended December 31, 2017, Huawei accounted for approximately 40% of our revenue and our top five customers represented 78% of our revenue. The loss of, or a significant reduction in orders from any of our other key customers would materially and adversely affect our revenue and results of operations.

We are subject to risks and uncertainties related to our revenue growth outlook in China.

Fiber optics telecommunication growth in China is an important contributor to our success. We expect a major portion of our revenue to come from China infrastructure spending in wireline and wireless networks, notably from the three largest China telecom carriers, China Mobile Communications Corporation, China Telecommunications Corporation and China United Network Communications Group Co., Ltd. In part, this infrastructure spending originates from the publicly announced China Broadband 2020 and related initiatives. In 2017, slower than anticipated spending and tender awards from the China telecom carriers, reduced spending under these tender awards initiatives and excess inventory accumulated and held by our leading customers in China, adversely affected our financial condition and results of operations. While these conditions have improved in 2018, if the anticipated Chinese spending and carrier tender awards do not increase as anticipated, or if there are further unanticipated and/or prolonged delays in the Chinese initiative, our business, financial condition, results of operations and prospects would be further adversely affected.

We are subject to global governmental export and import controls that could subject us to liability, impair our ability to compete in international markets, or restrict our sales to certain customers.

We are subject to export and import control laws, trade regulations and other trade requirements that limit which products we sell and where and to whom we sell our products. In some cases, it is possible that export licenses would be required from the U.S. or other government agencies outside the U.S. such as, but not limited to, Japan, China or Russia for some of our products in accordance with various statutes. In addition, various countries regulate the export or import of certain technologies and have enacted laws that could limit our ability to distribute our products. Failure to comply with these and similar laws on a timely basis, or at all, or any limitation on our ability to export or sell our products or to obtain any required licenses would adversely affect our business, financial condition and results of operations.

We have had a history of losses which may recur in the future.

We have had a history of losses and we may incur additional losses in future periods. As of September 30, 2018, our accumulated deficit was $390.7 million and we incurred a net loss of $36.9 million in the nine months ended September 30, 2018. We continue to review our expenditures related to the ongoing operations of our business for their effectiveness. These include expenditures related to the sales, marketing and development of our products and to maintain our manufacturing facilities and research and development operations. Operations and assets that are deemed to be less effective may be subject to restructuring, which could lead to increased operating losses in future periods when and if restructuring charges are incurred.

Changes in U.S. and international trade policies, particularly with regard to China, may adversely impact our business and operating results.

The U.S. government has recently made statements and taken certain actions that changes U.S. trade policies, including recently-imposed tariffs affecting certain products manufactured in China. At this time, products manufactured by our Chinese affiliates have not been included in the tariffs imposed on imports into the United States from China. However, some products manufactured by our Chinese affiliates have been included on lists of products to be targeted by proposed tariff increases that may be implemented in the future. In addition, the China government has taken certain reciprocal actions, including recently imposed tariffs affecting certain products for all the United States. It is unknown whether and to what extent new tariffs (or other new laws or regulations) will be adopted that increase the cost of importing products to or from the United States, or from China to the United States. Further, it is unknown what effect that any such new tariffs or retaliatory actions would have on us or our industry and customers. As new tariffs, legislation and/or regulations are implemented, or if existing trade agreements are renegotiated or if China or other affected countries take retaliatory trade actions, such changes could have a material adverse effect on our business, financial condition, results of operations or cash flows.

We may need to raise additional capital in order to pursue our business strategies or maintain our operations, and we may not be able to obtain capital when desired on favorable terms, if at all, or without dilution to our stockholders.

We believe that our existing cash and cash equivalents, and cash flows from our operating activities and funds available under our credit facilities will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, we operate in an industry that makes our prospects difficult to evaluate. It is possible that we may not generate sufficient cash flow from operations or otherwise have the capital resources to meet our future capital needs. If this occurs, we may need additional financing to continue operations or execute on our current or future business strategies, including to:

- invest in our research and development efforts, including by hiring additional technical and other personnel;
- maintain and expand our operating or manufacturing infrastructure;
- acquire complementary businesses, products, services or technologies; or
- otherwise pursue our strategic plans and respond to competitive pressures.

We do not know with certainty what forms of financing, if any, will be available to us. If financing is not available on acceptable terms, if and when needed, our ability to fund our operations, enhance our research and development and sales and marketing functions, develop and enhance our products, respond to unanticipated events, including unanticipated opportunities, or otherwise respond to competitive pressures could be adversely impacted. In any such event, our business, financial position and results of operations could be materially harmed. Moreover, if we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we fail to raise sufficient additional capital if needed, we may not be able to completely execute our business plan and may not be able to continue our operations without further reducing expenses.

If we incur additional indebtedness through arrangements such as credit agreements or term loans, such arrangements may impose restrictions and covenants that limit our ability to respond appropriately to market conditions, make capital investments or take advantage of business opportunities. In addition, any additional debt arrangements we may enter into would likely require us to make regular interest payments, which could adversely affect our results of operations.

Manufacturing problems and supply constraints could impact manufacturing yields or result in delays in product shipments to customers and could adversely affect our revenue, competitive position and reputation.

We may experience delays, disruptions or quality control problems in our manufacturing operations or supply chain constraints, which could adversely impact manufacturing volumes, yields or delay product shipments. As a result, we could incur additional costs that would adversely affect our gross margin, and product shipments to our customers could be delayed beyond the shipment schedules requested by our customers, which would negatively affect our revenue, competitive position and reputation.

Additionally, manufacturing yields depend on a number of factors, including the stability and manufacturability of the product design, manufacturing improvements gained over cumulative production volumes, the quality and consistency of component parts and the nature and extent of customization requirements by customers. Capacity constraints, raw materials shortages, logistics issues, labor shortages, volatility in utilization of manufacturing operations, supporting utility services and other manufacturing supplies, the introduction of new product lines, rapid increases in production demands and changes in customer requirements, manufacturing facilities or processes, or those of some third party contract manufacturers and suppliers of raw materials and components have historically caused, and may in the future cause, reduced manufacturing yields, negatively impacting the gross margin on, and our production capacity for, those products. Our ability to maintain sufficient manufacturing yields is particularly challenging with respect to PICs due to the complexity and required precision of a large number of unique manufacturing process steps. Manufacturing yields for PICs can also suffer if contaminated materials or materials that do not meet highly precise composition requirements are inadvertently utilized. Because a large portion of our PIC manufacturing costs are fixed, PIC manufacturing yields have a substantial effect on our gross margin. Lower than expected manufacturing yields could also delay product shipments and decrease our revenue.

Customer demand is difficult to accurately forecast and, as a result, we may be unable to optimally match production with customer demand.

We make planning and spending decisions based on our estimates of customer requirements. The short-term nature of commitments by many of our customers, and the possibility of unexpected changes in demand for their products, reduce our ability to accurately estimate future customer requirements. In 2016 and 2017, we incurred substantial capital expenditures to increase manufacturing capacity in response to strong customer demand in 2016 (particularly in China) and in expectation of continued strong demand in 2017. However, tender awards from the China telecom carriers and spending under the China Broadband 2020 and related initiatives was slower in 2017 than anticipated. Changes in expected worldwide and national growth rates for 2018 and 2019 could lead to increased volatility in demand, particularly from our China customers. Because many of our costs and operating expenses are relatively fixed, reduction in customer demand due to market downturns or other reasons would have a material adverse effect on our operating results, as occurred in 2017.

On the other hand, on occasion, customers may require rapid increases in production, which can strain our resources, cause our manufacturing to be negatively impacted by materials shortages, necessitate higher or more restrictive procurement commitments, increase our manufacturing yield loss and scrapping of excess materials, result in delayed shipments and/or reduce our gross margins. We may not have sufficient capacity at any given time to meet the volume demands of our customers, and we may have difficulty expanding our manufacturing operations on a timely basis to meet increasing customer demand. Additionally, one or more of our suppliers may not have sufficient capacity at any given time to meet our volume demands. Any inability to meet customer demands for rapid increases in production in the future could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are under continuous pressure to reduce the prices of our products, which has adversely affected, and may continue to adversely affect, our gross margins.

The communications networks industry has been characterized by declining product prices over time as technological advances increase price and performance and put pressure on existing products. We have reduced the prices of many of our products in the past, most often during annual end-of-year price negotiation. We expect pricing pressure for our products to continue, including from our major customers. To maintain or increase their market share, our competitors also reduce prices of their products each year. In addition, our customers may seek to internally develop and manufacture competing products at a lower cost than we would otherwise charge, which would add additional pressure on us to lower our selling prices. If we are unable to offset any future reductions in our average selling prices by increasing our sales volume, reducing our costs or introducing new products, our gross margin would be adversely affected.

We depend upon outside contract manufacturers for a portion of the manufacturing process for some of our products. Our operations and revenue related to these products could be adversely affected if we encounter problems with any such contract manufacturer.

While the majority of our products are manufactured internally, we also rely upon contract manufacturers in Thailand, China, Japan and other Asia locations to provide back-end manufacturing and production of some of our products. Our reliance on contract manufacturers for some of our products makes us vulnerable to possible production capacity constraints, reduced control over their supply chains, delivery schedules, manufacturing yields, manufacturing quality/controls and costs. If one of our contract manufacturers is unable to meet all of our customer demand in a timely fashion, whether due to their direct operating control or due to their supply chain, this could have a material adverse effect on the revenue from our products.

If the Metro and data center interconnect market sectors do not grow as rapidly as we expect, or if demand for our products in these sectors is lower than we expect, our revenue growth may be adversely affected.

We expect that our future growth in the market for 100G and beyond coherent products to be driven in large part by the increased adoption of our products in the Metro market segment and in the high-performance data center interconnect market. Over the last several years, 100G and beyond coherent technology has seen increasing adoption in the Long Haul market segment and now is penetrating the much larger Metro sector of the market.

If we fail to achieve or sustain a leadership position in the Long Haul telecom sector and use our position in that market to penetrate the Metro and data center interconnect segments, if these segments fail to grow as expected, or if demand for our products in the Metro and data center interconnect market segments fails to materialize, our business, financial condition, results of operations and prospects would suffer.

We face intense competition which could negatively impact our results of operations and market share.

The communications networks industry is highly competitive. Our competitors range from large international companies offering a wide range of products to smaller companies specializing in niche products.

Some of our competitors have substantially greater name brand recognition, technical, financial, and marketing resources, and greater manufacturing capacity, as well as better-established relationships with customers, than we do. Some of our competitors have more resources to develop or acquire, and more experience in developing or acquiring, new products and technologies. Some of our competitors may be able to develop new products more quickly than us and may be able to develop products that are more reliable or which provide more functionality than ours. In addition, some of our competitors have the financial resources to offer competitive products at below-market pricing levels that could prevent us from competing effectively and result in a loss of sales or market share or cause us to lower prices for our products.

We also face competition from some of our customers who evaluate our capabilities against the merits of manufacturing products internally, including Huawei. Due to the fact that such customers are not seeking to make a comparable profit directly from the manufacture of these products, they may have the ability to provide competitive products at a lower total cost than we would charge such customers. As a result, these customers may purchase less of our products and there would be additional pressure to lower our selling prices which, accordingly, would negatively impact our revenue and gross margin.

The Chinese Government Ministry of Industry and Information Technology has announced a five-year optical component technology roadmap with the aim to reduce China's dependency on non-domestic companies for high-end optical chips and sub-components, including some products manufactured and sold by us. This announcement continues an ongoing trend in China to build domestic industry in this area, and, while we believe local Chinese component suppliers do not currently have the capability to supply the highest performance optical chips and sub-components, those companies may over time develop such capability and negatively impact our revenue and financial performance if we do not continue to innovate and maintain our lead in the highest speed and performance optical components.

If we fail to retain our key personnel or if we fail to attract additional qualified personnel, we may not be able to achieve our anticipated growth and our business could suffer.

Our success and ability to implement our business strategy depends upon the continued contributions of our senior management team and others, including senior management in foreign subsidiaries and our technical and operations employees in all locations. Our future success depends, in part, on our ability to attract and retain key personnel, including our senior management and others. The loss of services of members of our senior management team or key personnel or the inability to continue to attract and retain qualified personnel could have a material adverse effect on our business. Competition for highly skilled technical and operations people where we operate is extremely intense, and we continue to face challenges identifying, hiring and retaining qualified personnel in many areas of our business.

The majority of our customer contracts do not commit customers to specified buying levels, and many of our customers may decrease, cancel or delay their buying levels at any time with little or no advance notice to us.

Our products are typically sold pursuant to individual purchase orders or by use of a vendor-managed inventory, or VMI, model, which is a process by which we ship agreed quantities of products to a customer-designated location and those products remain our inventory and we retain the title and risk of loss for those products until the customer takes possession of the products. Our customers are typically not contractually committed to buy any quantity of products beyond firm purchase orders. Many of our customers may increase, decrease, cancel or delay purchase orders already in place. We have experienced and expect to continue to experience wide fluctuations in demand from customers using VMI, particularly Huawei and its affiliate HiSilicon Technologies Co., Ltd., even in instances where we have built and shipped products to the customer-designated locations as VMI.

If we fail to adequately manage our long-term growth and expansion, our business and financial results will suffer.

Until 2017, we experienced significant growth over several years through, among other things, internal manufacturing and related expansion programs, product development and acquisitions of other businesses and products. Our business expanded to numerous locations, including foreign locations, and as a result became more complex, more demanding of management’s attention and subject to new laws and regulations.

Our success and ability to further scale our business will depend, in part, on our ability to manage changes in a cost-effective and efficient manner. If we cannot manage any future growth, we may be unable to take advantage of market opportunities, execute our business strategies or respond to competitive pressures. Any failure to effectively manage growth, maintain our quality and/or or customer satisfaction could adversely affect our business and reputation.

Our success will depend on our ability to anticipate and quickly respond to evolving technologies and customer requirements.

Our ability to anticipate and respond to evolving technology, industry standards, customer requirements and product offerings, and to develop and introduce new and enhanced products and technologies, will be critical factors in our ability to succeed. In addition, the introduction of new products by other companies embodying new technologies, or the emergence of new industry standards, could render our existing products uncompetitive from a pricing standpoint, obsolete or otherwise unmarketable.

While we rely on many suppliers, there are a few which, if they stopped, decreased or delayed shipments to us, it could have an adverse effect on our business and financial results.

We depend on a limited number of suppliers for certain components and materials we have qualified to use in the manufacture of certain of our products. Some of these suppliers could disrupt our business if they stop, decrease or delay shipments or if the components they ship have quality, consistency, or business continuity issues. Some of these components and materials are available only from a sole source, or have been qualified only from a single source. We may also face component shortages if we experience increased demand for components beyond what our qualified suppliers can deliver. If we experience component shortages from certain key suppliers, we may be unable to meet customer demand or may have higher purchasing costs, or both. Although we engage in various actions to mitigate the impact of these shortages, any inability on our part to obtain sufficient quantities of critical components at reasonable costs could adversely affect our ability to meet demand for our products, which could cause our revenue, results of operations, or both to suffer.

Our customers generally restrict our ability to change the component parts in our modules without their approval and such changes may require repeating product qualification processes. The reliance on a sole supplier, single qualified vendor or limited number of suppliers could result in delivery and quality problems, reduced control over product pricing, reliability and performance and an inability to identify and qualify another supplier in a timely manner. Any supply deficiencies relating to the quality, quantities or timeliness of delivery of components that we use to manufacture our products could adversely affect our ability to fulfill our customer orders and our results of operations.

We must continually achieve new design wins and develop new products or our business and future revenue may be harmed.

The markets for our products are characterized by frequent new product introductions, changes in customer requirements and evolving industry standards, all with an underlying pressure to reduce cost and meet stringent reliability and qualification requirements. Our future performance will depend on our successful development, introduction and market acceptance of new and enhanced products that address these challenges. The anticipated or actual introduction of new and enhanced products by us and by our competitors may cause our customers to defer or cancel orders for our existing products, and could result, and in the past, has resulted, in a write-down in the value of inventory. To the extent customers defer or cancel orders for our products for any reason or we fail to achieve new design wins, our competitive position would be adversely affected and our ability to grow revenue would be impaired.

Furthermore, fast time-to-market with new products can be critical to success in our markets. It is difficult to displace an existing supplier for a particular type of product once a network equipment vendor has chosen a supplier, even if a later-to-market product provides superior performance or cost efficiency. If we are unable to make our new or enhanced products commercially available on a timely basis, we may lose existing and potential customers and our financial results would suffer.

We may be exposed to costs or losses from product lines that we intend to exit or may undertake divestiture of portions of our business that require us to continue providing substantial post-divestiture transition services and support, which may cause us to incur unanticipated costs and liabilities and adversely affect our financial condition and results of operations.

We have a strategy to exit products that have been declining in revenue and have lower gross margins than our other higher speed products. For instance, in January 2017, we completed the sale of assets and transfer of certain liabilities of our access network and low speed transceiver product lines (the “Low Speed Transceiver Products”). We may incur additional costs in connection with the sale or end-of-life of these products, or other products and/or facilities in the future, and our revenues and net income could be negatively affected, particularly in the short term, in connection with the end-of-life or sales of such products and/or facilities. It is also possible that we could incur continued costs or liabilities after the end-of-life process is completed, which could have a material adverse effect on our financial condition or operating results.

We are subject to the cyclical nature of the markets in which we compete and any future downturn may reduce demand for our products and revenue.

The markets in which we compete are tied to the aggregate capital expenditures of telecommunications service providers as they build out and upgrade their network infrastructure. These markets may be cyclical and characterized by rapid technological change, price erosion, evolving standards and wide fluctuations in product supply and demand. In the past, including recently to varying degrees in China, the U.S. and Europe, these markets have experienced significant downturns, often connected with, or in anticipation of, the maturation of product cycles—for both manufacturers’ and their customers’ products—or in response to over or under purchasing of inventory by our customers relative to ultimate carrier demand, and with declining general economic conditions. These downturns have been characterized by diminished product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices.

Our historical results of operations have been subject to substantial fluctuations, and we may experience substantial period-to-period fluctuations in future results of operations.

If spending for communications networks does not continue to grow as expected, our business and financial results may suffer.

Our future success as a provider of components, modules and subsystems to leading network equipment vendors depends on continued capital spending on global communications networks. Network traffic has experienced rapid growth driven primarily by bandwidth-intensive content, including cloud services, mobile video and data services, wireless 4G/LTE and 5G services, social networking, video conferencing and other multimedia. This growth is intensified by the proliferation of fixed and wireless devices that are enabling consumers to access content at increasing data rates anytime and anywhere. Our future success depends on continued demand for high-bandwidth, high-speed communications networks and the ability of network equipment vendors and carrier data center operators to fulfill this demand. In 2017, this growth slowed, primarily due to soft demand and high inventory levels in China, which adversely affected our business and financial condition in 2017. While we believe the long term prospects for growth in data traffic remain strong, our business and financial results will suffer if growth does not occur as expected.

We face a variety of risks associated with international sales and operations, which if not adequately managed could adversely affect our business and financial results.

We derive, and expect to continue to derive, a significant portion of our revenue from international sales in various markets. In addition, a major portion of our operations are based in Shenzhen and Dongguan, China and we have additional operations in Japan, Russia and Canada. Our international revenue and operations are subject to a number of material risks, including, but not limited to:

- difficulties in staffing, managing and supporting operations in more than one country;
- difficulties in enforcing agreements and collecting receivables through foreign legal systems;
- fewer legal protections for intellectual property in foreign jurisdictions;
- the need for compliance with local laws and regulations;
- foreign and U.S. taxation issues and international trade barriers;
- general economic and political conditions in the markets in which we operate;
- difficulties in obtaining any necessary governmental authorizations for the export of our products to certain foreign jurisdictions;
- imposition of export restrictions on sales to any of our major foreign customers;
- fluctuations in foreign economies and fluctuations in the value of foreign currencies and interest rates;
- trade and travel restrictions;
- outbreaks of contagious disease;
- domestic and international economic or political changes, hostilities and other disruptions; and
- difficulties and increased expenses in complying with a variety of U.S. and foreign laws, regulations and trade standards, including the Foreign Corrupt Practices Act and international labor standards.
- Negative developments in any of these areas in China, Japan, Russia or other countries could result in a reduction in demand for our products, the cancellation or delay of orders already placed, difficulties in producing and delivering our products, threats to our intellectual property, difficulty in collecting receivables, higher labor costs and a higher cost of doing business.

In addition, although we maintain an anti-corruption compliance program throughout our company, violations of our compliance program may result in criminal or civil sanctions, including material monetary fines, penalties and other costs against us or our employees, and may have a material adverse effect on our business.

****Failure to complete the proposed sale of our Russian manufacturing facility may affect our results of operations.***

In connection with our raising capital in an April 2012 private placement of common stock, we established a wholly-owned subsidiary and company operations in the Russian Federation and we committed to make substantial investments in our Russian operations over a period of several years. We are required to pay up to $2.0 million to Joint Stock Company "RUSNANO", or Rusnano, if we do not meet certain investment conditions towards our Russian operations by 2019.

In September 2018, we received a non-binding term sheet from Rusnano to purchase our 100% interest in NeoPhotonics Corporation, LLC, the subsidiary for our manufacturing operations in Russia. If we are not successful in completing our proposed business transaction with Rusnano, we could be required to write-off an additional approximately $3.0 million of assets to close our facility there as well as pay the $2.0 million penalty to Rusnano for not meeting the required investment conditions.

Our revenues and costs will fluctuate over time, making it difficult to predict our future results of operations.

Our revenue, gross margin and results of operations have varied significantly and are likely to continue to vary from quarter to quarter due to a number of factors, many of which are not within our control. For instance, changes in gross margin may result from various factors, such as changes in pricing, changes in our fixed costs, changes in the cost of labor, changes in the mix of our products sold, changes in the amount of product manufactured versus the amount of product sold over time, and charges for excess and obsolete inventory. In addition, our first quarter revenue is typically seasonally lower than the rest of the year primarily due to annual price negotiations with customers that occur at the end of the prior year and lower capacity utilization during the holidays in China. It is difficult for us to accurately forecast our future revenue and gross margin and plan expenses accordingly and, therefore, it is difficult for us to predict our future results of operations.

Increasing costs and other factors may adversely impact our gross margins.

We may not be able to maintain or improve our gross margins because of slow introductions of new products, pricing pressure from increased competition, failure to effectively reduce the cost of existing products, failure to improve our product mix, future macroeconomic or market volatility reducing sales volumes, changes in customer demand (including a change in product mix among different areas of our business) or other factors. Our gross margins can also be adversely affected for reasons including, but not limited to, fixed manufacturing costs that would not be expected to decrease in proportion to any decrease in revenues; unfavorable production yields or variances; increases in costs of input parts and materials; the timing of movements in our inventory balances; warranty costs and related returns; changes in foreign currency exchange rates; possible exposure to inventory valuation reserves; and other increases in our costs and expenses, including as a result of rising labor costs in China. Such significant increases in costs without corresponding increases in revenue would materially and adversely affect our business, our results of operations and our financial condition and our gross margins.

If our customers do not qualify our products for use, then our results of operations may suffer.

Prior to placing volume purchase orders with us, most of our customers require us to obtain their approval—called qualification in our industry—of our new and existing products, and our customers often audit our manufacturing facilities and perform other vendor evaluations during this process. The qualification process involves product sampling and reliability testing and collaboration with our product management and engineering teams in the design and manufacturing stages. If we are unable to qualify our products with customers, then our revenue would be lower than expected and we may not be able to recover the costs associated with the qualification process which would have an adverse effect on our results of operations.

In addition, due to evolving technological changes in our markets, a customer may cancel or modify a design project before we have qualified our product or begun volume manufacturing of a qualified product. It is unlikely that we would be able to recover the expenses for cancelled or unutilized custom design projects.

Potential changes in our effective tax rate could negatively affect our future results.

We are subject to income taxes in the U.S., China, Japan and other foreign jurisdictions, and our domestic and international tax liabilities are subject to the allocation of expenses in differing jurisdictions. Our tax rate is affected by changes in the mix of earnings and losses in countries with differing statutory tax rates, certain non-deductible expenses and the valuation of deferred tax assets and liabilities, including our ability to utilize our net operating losses. Increases in our effective tax rate could negatively affect our results of operations.

We may be involved in intellectual property disputes, which could divert management's attention, cause us to incur significant costs and prevent us from selling or using the challenged technology.

Participants in the markets in which we sell our products have experienced frequent litigation regarding patent and other intellectual property rights. Numerous patents in these industries are held by others, including our competitors. In addition, from time to time, we have been notified that we may be infringing certain patents or other intellectual property rights of others. Regardless of their merit, responding to such claims can be time consuming, divert management's attention and resources and may cause us to incur significant expenses. In addition, there can be no assurance that third parties will not assert infringement claims against us, whether or not such claims are valid. While we believe that our products do not infringe in any material respect upon intellectual property rights of other parties and/or meritorious defense would exist with respect to any assertions to the contrary, we cannot be certain that our products would not be found infringing the intellectual property rights of others.

In January 2010, Finisar Corporation, or Finisar, filed a complaint in the U.S. District Court for the Northern District of California against us and three other co-defendants. In the complaint, Finisar alleged infringement of certain of its U.S. patents arising from the co-defendants' respective manufacture, importation, use, sale of or offer to sell certain optical transceiver products in the U.S. In March 2010, we filed an answer to the complaint and counterclaims, asserting two claims of patent infringement and additional claims asserting that Finisar has violated state and federal competition laws and violated its obligations to license on reasonable and non-discriminatory terms. In May 2010, the Court dismissed without prejudice all co-defendants (including us) except Source Photonics, Inc., on grounds that such claims should have been asserted in four separate lawsuits, one against each co-defendant. This dismissal without prejudice does not prevent Finisar from bringing a new similar lawsuit against us. In May 2012, we and Finisar agreed to toll our respective claims until the refiling of certain of the previously asserted claims from this dispute. As a result, Finisar is permitted to bring a new lawsuit against us if it chooses to do so, and we may bring new claims against Finisar upon seven days written notice prior to filing such claims.

Although we believe that we would have meritorious defenses to the infringement allegations and intend to defend any new similar lawsuit vigorously, there can be no assurance that we will be successful in our defense. Even if we are successful, we may incur substantial legal fees and other costs in defending the lawsuit. Further, a new lawsuit, if brought by either party, would be likely to divert the efforts and attention of our management and technical personnel, which could harm our business.

We have pursued and may continue to pursue acquisitions. Acquisitions could be difficult to integrate, divert the attention of key personnel, disrupt our business, dilute stockholder value and impair our financial results.

As part of our business strategy, we have pursued and intend to continue to pursue acquisitions of complementary businesses, products, services or technologies that we believe could accelerate our ability to compete in our existing markets or allow us to enter new markets. Any of these transactions could be material to our financial condition and results of operations. For instance, in October 2011, we completed the acquisition of Santur Corporation, a designer and manufacturer of InP-based PIC products, and in March 2013 we completed the acquisition of the optical semiconductor business unit of LAPIS Semiconductor Co., Ltd., now known as NeoPhotonics Semiconductor. We purchased the tunable laser product lines of EMCORE in January 2015 and the power monitoring products business of EigenLight Corporation, or Eigenlight, in November 2015.

Acquisitions involve numerous risks. The failure to successfully evaluate and execute acquisitions or otherwise adequately address such risks could result in excess costs and materially harm our business and financial results.

Acquisitions also frequently result in the recording of goodwill and other intangible assets which are subject to potential impairments which have occurred in the past and which, were they to occur in the future, could harm our financial results.

It could be discovered that our products contain defects that may cause us to incur significant costs, divert our attention, result in a loss of customers and result in product liability claims.

Our products are complex and undergo quality testing as well as formal qualification, both by our customers and by us. For various reasons, such as the occurrence of performance problems that are unforeseeable in testing or that are detected only when products age or are operated under peak stress conditions, our products may fail to perform as expected long after customer acceptance. Failures could result from faulty components or design, problems in manufacturing or other unforeseen reasons. As a result, we could incur significant costs to repair or replace defective products under warranty, particularly when such failures occur in installed systems. Any significant product failure could result in lost future sales of the affected product and other products, as well as customer relations problems and litigation, which could harm our business.

The communications networks industry has long product development cycles requiring us to incur product development costs without assurances of an acceptable investment return.

Large volumes of communications equipment and support structures are installed with considerable expenditures of funds and other resources, and long investment return period expectations. At the component supplier level, these cycles create considerable, typically multi-year, gaps between the commencement of new product development and volume purchases. Due to changing industry and customer requirements, we are constantly developing new products, including seeking to further integrate functions on PICs and developing and using new technologies in our products. These development activities necessitate significant investment of capital. Our new products often require a long time to develop because of their complexity and rigorous testing and qualification requirements. Accordingly, we and our competitors often incur significant research and development and sales and marketing costs for products that, initially, will be purchased by our customers long after much of the cost is incurred and, in some cases, may never be purchased due to changes in industry or customer requirements in the interim.

We are subject to global governmental export and import controls that could subject us to liability, impair our ability to compete in international markets, or restrict our sales to certain customers.

We are subject to export and import control laws, trade regulations and other trade requirements that limit which products we sell and where and to whom we sell our products, especially laser-dependent products. In some cases, it is possible that export licenses would be required from the U.S. or other government agencies outside the U.S. such as, but not limited to, Japan, China or Russia for some of our products in accordance with various statutes. In addition, various countries regulate the export or import of certain technologies and have enacted laws that could limit our ability to distribute our products. Failure to comply with these and similar laws on a timely basis, or at all, or any limitation on our ability to export or sell our products or to obtain any required licenses would adversely affect our business, financial condition and results of operations.

If we fail to protect our intellectual property and other proprietary rights, our business and results of operations could be materially harmed.

Our success depends to a significant degree on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret and unfair competition laws, as well as license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. We have applied for patent registrations in the U.S. and in other foreign countries, some of which have been issued. We cannot guarantee that our pending applications will be approved by the applicable governmental authorities.

Policing unauthorized use of our technology is difficult and we cannot be certain that the steps we have taken will prevent the misappropriation, unauthorized use or other infringement of our intellectual property rights. Further, we may not be able to effectively protect our intellectual property rights from misappropriation or other infringement in foreign countries where we have not applied for patent protections, and where effective patent, trademark, trade secret and other intellectual property laws may be unavailable, or may not protect our proprietary rights as fully as U.S. or Japan law. Particularly, our U.S. patents do not afford any intellectual property protection in China, Japan, Canada or other Asia locations, including Russia, where we have company operations.

In the future, we may need to take legal actions to prevent third parties from infringing upon or misappropriating our intellectual property or from otherwise gaining access to our technology. Protecting and enforcing our intellectual property rights and determining their validity and scope could result in significant litigation costs and require significant time and attention from our technical and management personnel. If we fail to protect our intellectual property and other proprietary rights, or if such intellectual property and proprietary rights are infringed or misappropriated, our business, results of operations or financial condition could be materially harmed.

If we fail to obtain the right to use the intellectual property rights of others which are necessary to operate our business, and to protect their intellectual property, our business and results of operations will be adversely affected.

From time to time we may choose to, or be required to, license technology or intellectual property from third parties in connection with the development of our products. Failure to obtain a necessary third-party license required for our product offerings or to develop new products and product enhancements could adversely affect our business.

Participation in standards setting organizations may subject us to intellectual property licensing requirements or limitations that could adversely affect our business and prospects.

In the course of our participation in the development of emerging standards for some of our present and future products, we may agree to grant to all other participants a license to our patents that are essential to the practice of those standards on reasonable and non-discriminatory, or RAND, terms. If we fail to limit to whom we license our patents, or fail to limit the terms of any such licenses, we may be required to license our patents or other intellectual property to others in the future, which could limit the effectiveness of our patents against competitors.

Any potential dispute involving our products, services or technology could also include our customers using our products, which could trigger our indemnification obligations to them and result in substantial expenses to us.

In any potential dispute involving allegations that our products, services or technology infringe the intellectual property rights of third parties, our customers could also become the target of litigation. Because we often indemnify our customers for intellectual property claims made against them for products incorporating our technology, any claims against our customers could trigger indemnification obligations in some of our supply agreements, which could result in substantial expenses such as increased legal expenses, product recalls, damages for past infringement or royalties for future use.

Natural disasters, terrorist attacks or other catastrophic events could harm our operations and our financial results.

Our worldwide operations could be subject to natural disasters and other business disruptions, which could harm our future revenue and financial condition and increase our costs and expenses. For example, our corporate headquarters and wafer fabrication facility in Silicon Valley, California and our Tokyo, Japan facility are located near major earthquake fault lines, and our manufacturing facilities are located in Shenzhen and Dongguan, China, areas that are susceptible to typhoons. We are not insured against many natural disasters, including earthquakes.

Similarly, our worldwide operations could be subject to secondary effects of natural disasters, terrorist attacks or other catastrophic events. Even if our facilities are not directly affected, any of these types of events could substantially disrupt the business of our suppliers or customers, which could have a material adverse effect on us.

Rapidly changing standards and regulations could make our products obsolete, which would cause our revenue and results of operations to suffer.

We design our products to conform to regulations established by governments and to standards set by industry standards bodies worldwide, such as The American National Standards Institute, the European Telecommunications Standards Institute, the International Telecommunications Union and the Institute of Electrical and Electronics Engineers. Various industry organizations are currently considering whether and to what extent to create standards for elements used in 100Gbps and beyond systems. Because certain of our products are designed to conform to current specific industry standards, if competing or new standards emerge that are preferred by our customers, we would have to make significant expenditures to develop new products and our revenue and results of operations would suffer.

****Our future results of operations may be subject to volatility as a result of exposure to fluctuations in foreign exchange rates, primarily the Chinese Renminbi (RMB) and Japanese Yen (JPY) exchange rates.***

We are exposed to foreign exchange risks. Foreign currency fluctuations may adversely affect our revenue and our costs and expenses, and hence our results of operations. A substantial portion of our business is conducted through our subsidiaries based in China, whose functional currency is the RMB and Japan, whose functional currency is the JPY, and a smaller amount in Russian Rubles (RUB). The value of the RMB against the U.S. dollar and other currencies and the value of the JPY and RUB against the U.S. dollar and other currencies fluctuate and are affected by, among other things, changes in political and economic conditions.

To the extent that transactions by our subsidiaries in China and Japan are denominated in currencies other than the RMB and JPY, we bear the risk that fluctuations in the exchange rates of the RMB and JPY in relation to other currencies could decrease our revenue or increase our costs and expenses, therefore having an adverse effect on our future results of operations.

While we generate a significant portion of our revenue in U.S dollars, a significant portion of our cost of goods sold are in RMB and JPY. Therefore appreciation in RMB and JPY against the U.S. dollar would negatively impact our cost of goods sold upon translation to U.S. dollars.

Since July 2016, we entered into hedging transactions to reduce the short-term impact of foreign currency fluctuations. During the three months ended September 30, 2018, we temporarily discontinued entering into foreign currency forward contracts. This may increase the risks to us arising from the short-term impact of foreign currency fluctuations. If we resume using hedging transactions to reduce our risks in this area, the availability and effectiveness of these hedging transactions may be limited and we may not be able to successfully hedge our exposure. In addition, our currency exchange variations may be magnified by Chinese exchange control regulations that restrict our ability to convert RMB into foreign currency.

If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be adversely affected.

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Preparing our consolidated financial statements involves a number of complex manual and automated processes, which are dependent upon individual data input or review and require significant management judgment. One or more of these elements may result in errors that may not be detected and could result in a material misstatement of our consolidated financial statements. If we fail to maintain the adequacy of our internal controls over financial reporting, our business and operating results may be harmed and we may fail to meet our financial reporting obligations. If material weaknesses in our internal control are discovered or occur, our consolidated financial statements may contain material misstatements and we could be required to restate our financial results.

Our internal control over financial reporting may not prevent or detect misstatements because of its inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud. Even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. Any failure of our internal controls could adversely affect the results of the periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting. If we cannot provide reliable financial reports or prevent fraud, our business and results of operations could be harmed, investors could lose confidence in our reported financial information, and the trading price of our stock may decline.

We may be subject to disruptions or failures in information technology systems and network infrastructures that could have a material adverse effect on our business and financial condition.

We rely on the efficient and uninterrupted operation of complex information technology systems and network infrastructures to operate our business. A disruption, infiltration or failure of our information technology systems as a result of software or hardware malfunctions, system implementations or upgrades, computer viruses, cyber-attacks, third-party security breaches, employee error, theft or misuse, malfeasance, power disruptions, natural disasters or accidents could cause breaches of data security, loss of intellectual property and critical data and the release and misappropriation of sensitive competitive information and partner, customer and employee personal data. Any of these events could harm our competitive position, result in a loss of customer confidence, cause us to incur significant costs to remedy any damages and ultimately materially adversely affect our business and financial condition.

Covenants in our borrowing arrangements may limit our flexibility in responding to business opportunities and competitive developments and increase our vulnerability to adverse economic or industry conditions.

We have lending arrangements with several financial institutions, which generally require us to maintain certain financial covenants and limit our ability to take certain actions such as incurring some kinds of additional debt, paying dividends, or engaging in certain transactions like mergers and acquisitions, investments and asset sales without the lenders' consent. These restrictions may limit our flexibility in responding to business opportunities, competitive developments and adverse economic or industry conditions. In addition, a breach of any of these covenants, or a failure to pay interest or indebtedness when due under any of our credit facilities, could result in a variety of adverse consequences, including the acceleration of our indebtedness.

We may be unable to utilize our net operating loss carryforwards to reduce our income taxes, which could adversely affect our future financial results.

As of December 31, 2017, we had net operating loss, or NOL, carryforwards for U.S. federal and state tax purposes of $245.0 million and $52.0 million, respectively. As these net operating losses have not been utilized and may not be utilized prior to their expiration in the future. The utilization of the NOL and tax credit carryforwards are subject to a substantial limitation imposed by Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, and similar state provisions. We recorded deferred tax assets, net of valuation allowance, for the NOL carryforwards currently available after considering the existing Section 382 limitation. If we incur an additional limitation under Section 382, then the NOL carryforwards, as disclosed, could be reduced by the impact of any future limitation that would result in existing NOL carryforwards and tax credit carryforwards expiring unutilized and increases in future tax liabilities.

The comprehensive 2017 tax reform law could adversely affect our business and financial condition.

The U.S. government recently enacted comprehensive tax legislation (the Tax Cuts and Jobs Act of 2017, or the Tax Reform Act) that includes significant changes to the taxation of business entities. These changes include, among others, (i) a permanent reduction to the corporate income tax rate from 35% to 21%, (ii) a partial limitation on the deductibility of business interest expense, (iii) a shift of the U.S. taxation of multinational corporations from a tax on worldwide income to a territorial system (along with certain rules designed to prevent erosion of the U.S. income tax base) and (iv) a one-time tax on accumulated offshore earnings held in cash and illiquid assets, with the latter taxed at a lower rate. On December 22, 2017, the Securities and Exchange Commission issued Staff Accounting Bulletin (SAB 118) which provides a measurement period of no more than a year from the Tax Reform Act enactment date for companies to complete the accounting under Accounting Standards Codification 740 (ASC 740). Given our current taxable loss position, based on our preliminary analysis, we do not expect the new tax legislation to have a material cash tax impact on our business other than reducing the NOL carryforwards which is offset by a valuation allowance. However, due to the broad complexities of the Tax Reform Act, our ASC 740 accounting for the Tax Reform Act is still subject to change, which could adversely affect our business and financial condition.

We may utilize conflict minerals in our production or rely on suppliers who utilize conflict minerals in their production, and the use of such conflict minerals may negatively impact our results of operations.

Since 2013, we have been subject to reporting obligations for the use of conflict minerals originating in the Democratic Republic of the Congo and adjoining countries and subsequently have timely filed our conflict minerals reports with the SEC. If we fail to comply with these requirements, our operating results could be harmed.

In some instances, we rely on third-party sales representatives to assist in selling our products, and the failure of these representatives to perform as expected could reduce our future revenue.

Although we primarily sell our products through direct sales to systems vendors, we also sell our products to some of our customers through third-party sales representatives. Many of our third-party sales representatives also market and sell competing products from our competitors. Our third-party sales representatives may terminate their relationships with us at any time, or with short notice. Our future performance will also depend, in part, on our ability to attract additional third-party sales representatives that will be able to market and support our products effectively, especially in markets in which we have not previously distributed our products. If our third-party sales representatives fail to perform as expected or to operate their businesses effectively, our revenue and results of operations could be harmed.

We are subject to environmental, health and safety laws and regulations, which could subject us to liabilities, increase our costs, or restrict our business or operations in the future.

Our manufacturing operations and our products are subject to a variety of federal, state, local and international environmental, health and safety laws and regulations in each of the jurisdictions in which we operate or sell our products. Our failure to comply with present and future environmental, health or safety requirements, or the identification of contamination, could cause us to incur substantial costs, including cleanup costs, monetary fines, civil or criminal penalties, or curtailment of operations, which could have a material adverse effect on our business, financial condition and results of operations.

Additionally, increasing efforts to control emissions of greenhouse gases, or GHG, may also impact us. Additional climate change or GHG control requirements are under consideration at the federal level in the U.S. and in China. Additional restrictions, limits, taxes, or other controls on GHG emissions could increase our operating costs and, while it is not possible to estimate the specific impact any final GHG regulations will have on our operations, there can be no assurance that these measures will not have significant additional impact on us.

Risks Related to Our Operations in China

Our business operations conducted in China are critical to our success. A significant portion of our revenue was recognized from customers for whom we shipped products to a location in China. Additionally, a substantial portion of our net property, plant and equipment, approximately 28% as of September 30, 2018, was located in China. We expect to make further investments in China in the foreseeable future. Therefore, our business, financial condition, results of operations and prospects are to a significant degree subject to economic, political, legal, and social events and developments in China.

Adverse changes in economic and political policies in China, or Chinese laws or regulations could have a material adverse effect on business conditions and the overall economic growth of China, which could adversely affect our business.

Over the past two decades, the Chinese economy has been transitioning from a planned economy, with increased government control, to a more free market-oriented economy. Despite reforms, the government continues to exercise significant control over China's economic growth by way of the allocation of resources, control over foreign currency-denominated obligations and monetary policy and provision of preferential treatment to particular industries or companies. Moreover, the laws, regulations and legal requirements in China, including the laws that apply to foreign-invested enterprises are relatively new and are subject to frequent changes. The interpretation and enforcement of such laws is uncertain. Any adverse changes to these laws, regulations and legal requirements, including tax laws, or their interpretation or enforcement, or the creation of new laws or regulations relating to our business, could have a material adverse effect on our business.

Furthermore, any slowdown or economic downturn, whether actual or perceived, in China could have a material adverse effect on our business, financial condition and results of operation.

Uncertainties with respect to China's legal system could adversely affect the legal protection available to us.

Our operations in China are governed by Chinese laws and regulations. Our subsidiaries in China are generally subject to laws and regulations applicable to foreign investments in China and, in particular, laws applicable to wholly foreign-owned enterprises. China has not developed a fully-integrated legal system to fully address its transition to a more market-oriented economy, and recently-enacted laws and regulations may not sufficiently cover all aspects of economic activities in China. Uncertainties in the Chinese legal system may impede our ability to enforce the contracts we have entered into with our distributors, business partners, customers and suppliers. In addition, protections of intellectual property rights and confidentiality in China may not be as effective as in the U.S. or other countries or regions with more developed legal systems. All of these uncertainties could limit the legal protections available to us and could materially and adversely affect our business and operations.

Changes in China's international trade policies may adversely impact our business and operating results.

The China government has recently made statements and taken certain actions that change trade policies, including recently-imposed tariffs affecting products manufactured in the U.S. Certain of our products manufactured in our U.S. operations have been included in the tariffs imposed on imports into China from the United States. We expect these tariffs, as currently applied, will increase our cost of goods sold by about one percentage point. It is unknown if any additional such tariffs or retaliatory actions will be imposed or what impact they would have on us or our industry and customers. As new tariffs, legislation and/or regulations are implemented, or if existing trade agreements are renegotiated between China and the U.S. or other affected countries, such changes could have a material adverse effect on our business, financial condition, results of operations or cash flows.

A considerable portion of our business involves selling High Speed optical components in China and any move to local Chinese vendors for these products might adversely affect our results.

The Chinese Government Ministry of Industry and Information Technology has announced a five-year optical component technology roadmap with the aim to reduce China's dependency on non-domestic companies for high-end optical chips and sub-components, including some products manufactured and sold by us. This announcement continues an ongoing trend in China to build domestic industry in this area. While we believe local Chinese component suppliers do not currently have the capability to supply the highest performance optical chips and sub-components, those companies may over time develop such capability and negatively impact our revenue and financial performance if we do not continue to innovate and maintain our lead in the highest speed and performance optical components.

Our subsidiaries in China may be subject to restrictions on dividend payments, on making other payments to us or any other affiliated company, and on borrowing or allocating tax losses among our subsidiaries.

Current Chinese regulations permit our subsidiaries in China to pay dividends only out of their accumulated profits, if any, determined in accordance with Chinese accounting standards and regulations, which are different than U.S. accounting standards and regulations. In addition, our subsidiaries in China are required to set aside at least 10% of their respective accumulated profits each year, if any, to fund their statutory common reserves until such reserves have reached at least 50% of their respective registered capital, as well as to allocate a discretional portion of their after-tax profits to their staff welfare and bonus fund. As of September 30, 2018 and December 31, 2017, our Chinese subsidiaries' common reserves had not reached this threshold and, accordingly, these entities are required to continue funding such reserves with accumulated net profits. Accordingly, we may not be able to move our capital easily, which could harm our business.

Restrictions on currency exchange may limit our ability to receive and use our revenue and cash effectively.

Because a portion of our revenue is denominated in RMB, any restrictions on currency exchange may limit our ability to use revenue generated in RMB to fund any business activities we may have outside China or to make dividend payments in U.S. dollars. Under relevant Chinese rules and regulations, the RMB is convertible under the "current account," which includes dividends, trade and service-related foreign exchange transactions, but not under the "capital account," which includes foreign direct investment and loans, without the prior approval of the State Administration of Foreign Exchange, or SAFE. We cannot be certain that Chinese regulatory authorities will not impose more stringent restrictions on the convertibility of the RMB, especially with respect to foreign exchange transactions. If such restrictions are imposed, our ability to adjust our capital structure or engage in foreign exchange transactions may be limited.

If the Chinese government determines that we failed to obtain approvals of, or registrations with, the requisite Chinese regulatory authority with respect to our current and past import and export of technologies, or failed to obtain the necessary licenses to file patent applications outside China for inventions made in China, we could be subject to sanctions, which could adversely affect our business.

China imposes controls on technology import and export. The term "technology import and export" is broadly defined to include, without limitation, the transfer or license of patents, software and know-how, and the provision of services in relation to technology. Depending on the nature of the relevant technology, the import and export of technology to or from China requires either approval by or registration with, the relevant Chinese governmental authorities. Additionally, the Chinese government requires the patent application for any invention made at least in part in China to be filed first in China, then undergo a government secrecy review and obtain a license before such application is filed in other countries.

If the Chinese government determines that we failed to obtain follow required procedures and obtain the appropriate license before filing a patent application outside China for an invention made at least in part in China, our China patents on such products may be invalidated, which could have a material and adverse effect on our business and operations.

China regulation of loans and direct investment by offshore holding companies to China entities may delay or prevent us from using our cash proceeds to make loans or additional capital contributions to our China subsidiaries.

From time to time, we may make loans or additional capital contributions to our China subsidiaries. We cannot assure you that we will be able to obtain these government registrations or approvals on a timely basis, if at all, with respect to our future loans or capital contributions to our China subsidiaries. If we fail to receive such registrations or approvals, our ability to capitalize our China subsidiaries may be negatively affected, which could materially and adversely affect our liquidity and ability to fund and expand our business.

Dividends paid to us by our Chinese subsidiaries may be subject to Chinese withholding tax.

The Enterprise Income Tax Law and the implementation regulations provide that a 10% withholding tax may apply to dividends payable to investors that are "non-resident enterprises," to the extent such dividends are derived from sources within China and in the absence of any tax treaty that may reduce such withholding tax rate.

Our contractual arrangements with our subsidiaries in China may be subject to audit or challenge by the Chinese tax authorities, and a finding that our subsidiaries in China owe additional taxes could substantially reduce our net income and the value of our stockholders' investment.

Under the applicable laws and regulations in China, arrangements and transactions among related parties may be subject to audit or challenge by the Chinese tax authorities. We would be subject to adverse tax consequences if the Chinese tax authorities were to determine that the contracts with or between our subsidiaries were not executed on an arm's length basis, and as a result the Chinese tax authorities could require that our Chinese subsidiaries adjust their taxable income upward for Chinese tax purposes. Such an adjustment could adversely affect us by increasing our tax expenses.

We may have difficulty maintaining adequate management, legal and financial controls in China, which we are required to do in order to comply with Section 404 of the Sarbanes-Oxley Act and securities laws, and which could cause a material adverse impact on our consolidated financial statements, the trading price of our common stock and our business.

Our subsidiaries in China are generally subject to our overall obligations to maintain strong corporate governance, internal controls and computer, financial and other control systems. We may have difficulty hiring and retaining employees in China with experience and expertise relating to accounting principles generally accepted in the U.S. and U.S. public-company reporting requirements. These issues could make it more difficult for us to establish and maintain adequate internal control over our financial reporting, which could then result in errors that could cause a material misstatement of our consolidated financial statements.

We may be exposed to liabilities under the FCPA and Chinese anti-corruption laws, and any determination that we violated these laws could have a material adverse effect on our business.

We are subject to the Foreign Corrupt Practices Act of 1977, or FCPA, and other laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties by U.S. persons and issuers as defined by the statute, for the purpose of obtaining or retaining business. We have operations, agreements with third parties and we make significant sales in China. China also strictly prohibits bribery of government officials. Our activities in China create the risk of unauthorized payments or offers of payments by our employees, consultants, sales agents or distributors, even though they may not always be subject to our control. Although we have implemented policies and procedures to discourage these practices by our employees, our existing safeguards and any future improvements may prove to be less than effective, and our employees, consultants, sales agents or distributors may engage in conduct for which we might be held responsible. Violations of the FCPA or anti-corruption laws in other countries may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could negatively affect our business, operating results and financial condition.

Risks Related to Ownership of Our Common Stock

Our stock price may be volatile due to fluctuation of our financial results from quarter-to-quarter and other factors.

Our quarterly revenue and results of operations have varied in the past and may continue to vary significantly from quarter to quarter. This variability may lead to volatility in our stock price as research analysts and investors respond to these quarterly fluctuations. These fluctuations are due to numerous factors, including:

- fluctuations in demand for our products;
- the timing, size and product mix of sales of our products;
- changes in our pricing and sales policies, particularly in the first quarter of the year, or changes in the pricing and sales policies of our competitors;
- our ability to design, manufacture and deliver products to our customers in a timely and cost-effective manner and that meet customer requirements;
- quality control, yield or other output-related problems in our manufacturing operations;
- our ability to timely obtain adequate quantities of the components used in our products;
- length and variability of the sales cycles of our products;
- unanticipated increases in costs or expenses; and
- fluctuations in foreign currency exchange rates.

The foregoing factors are difficult to forecast, and these, as well as other factors, could materially adversely affect our quarterly and annual results of operations in the future. In addition, a significant amount of our operating expenses is relatively fixed in nature due to our internal manufacturing, research and development, sales and general administrative efforts. Any failure to adjust spending quickly enough to compensate for a revenue shortfall could magnify the adverse impact of such revenue shortfall on our results of operations. Moreover, our results of operations may not meet our announced financial outlook or the expectations of research analysts or investors, in which case the price of our common stock could decrease significantly. There can be no assurance that we will be able to successfully address these risks.

The market price of our common stock could be subject to wide fluctuations in response to, among other things, the risk factors described in this section of this Quarterly Report on Form 10-Q, and other factors beyond our control, such as fluctuations in the valuation of companies perceived by investors to be comparable to us.

The stock markets have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions, such as recessions, sovereign debt or liquidity issues, interest rate changes or international currency fluctuations, may negatively affect the market price of our common stock.

In the past, many companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may become the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

The concentration of our capital stock ownership with our principal stockholders, executive officers and directors and their affiliates may limit other stockholders' ability to influence corporate matters.

As of December 31, 2017, our executive officers and directors, and entities that are affiliated with them or that have a right to designate a director, beneficially own an aggregate of approximately 47% of our outstanding common stock. This significant concentration of share ownership may adversely affect the trading price for our common stock because investors often perceive disadvantages in owning stock in companies with controlling stockholders. Also, as a result, these stockholders, acting together, may be able to control our management and affairs and matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions.

Our charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

Our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- providing for a classified board of directors with staggered, three-year terms;
- not providing for cumulative voting in the election of directors;
- authorizing our board of directors to issue, without stockholder approval, preferred stock rights senior to those of common stock;
- prohibiting stockholder action by written consent;
- limiting the persons who may call special meetings of stockholders; and
- requiring advance notification of stockholder nominations and proposals.

In addition, we have been governed by the provisions of Section 203 of the Delaware General Corporate Law since the completion of our initial public offering. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding common stock, from engaging in certain business combinations without approval of substantially all of our stockholders for a certain period of time.

These and other provisions in our amended and restated certificate of incorporation, our amended and restated bylaws and under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay for shares of our common stock in the future and result in the market price being lower than it would be without these provisions.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit no.	Exhibit Description	Form	SEC File No.	Exhibit	Filing Date	Filed herewith
2.1	Asset Purchase Agreement dated December 14, 2016 between APAT Optoelectronics Components Co., Ltd., NeoPhotonics Dongguan Co., Ltd. and NeoPhotonics (China) Co., Ltd.*	Form 8-K	001-35061	2.1	January 23, 2017	
2.2	Supplementary Agreement to Asset Purchase Agreement, dated January 12, 2017, between APAT Optoelectronics Components Co., Ltd., NeoPhotonics Dongguan Co., Ltd. and NeoPhotonics (China) Co., Ltd.*	Form 8-K	001-35061	2.2	January 23, 2017	
2.3	Second Supplementary Agreement to Asset Purchase Agreement, dated January 14, 2017, between APAT Optoelectronics Components Co., Ltd., NeoPhotonics Dongguan Co., Ltd. and NeoPhotonics (China) Co., Ltd.*	Form 8-K	001-35061	2.3	January 23, 2017	
3.1	Amended and Restated Certificate of Incorporation of NeoPhotonics Corporation.	Form 8-K	001-35061	3.1	February 10, 2011	
3.2	Amended and Restated Bylaws of NeoPhotonics Corporation.	Form S-1/A	333-166096	3.5	November 22, 2010	
4.1	Specimen Common Stock Certificate of NeoPhotonics Corporation.	Form S-1/A	333-166096	4.1	May 17, 2010	
4.2	2008 Investors' Rights Agreement by and between NeoPhotonics Corporation and the investors listed on Exhibit A thereto, dated May 14, 2008.	Form S-1	333-166096	4.2	April 15, 2010	
4.3	Commitment to File Registration Statement and Related Waiver of Registration Rights by and between NeoPhotonics Corporation and Open Join Stock Company "RUSNANO" dated as of December 18, 2014.	Form S-1	333-201180	4.4	December 19, 2014	
31.1	Certification pursuant to Rule 13a-14(a)/15d-14(a).					X
31.2	Certification pursuant to Rule 13a-14(a)/15d-14(a).					X
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document.					X

Exhibit no.	Exhibit Description	Form	SEC File No.	Exhibit	Filing Date	Filed herewith
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.					X

* Translation to English of an original Chinese document.

SIGNATURE

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.

NeoPhotonics Corporation

Date:	November 5, 2018	By:	/S/ ELIZABETH EBY
			Elizabeth Eby
			Senior Vice President, Finance and Chief Financial Officer
			(Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Timothy S. Jenks, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of NeoPhotonics 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 5, 2018

/S/ TIMOTHY S. JENKS

Timothy S. Jenks
President, Chief Executive Officer and
Chairman of the Board of Directors
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Elizabeth Eby, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of NeoPhotonics 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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 5, 2018

/S/ ELIZABETH EBY

Elizabeth Eby
Senior Vice President, Finance and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
AND CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C SECTION 3150, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Section 1350 of Chapter 63 of Title 18 of the U.S. Code (18 U.S.C. § 1350), Timothy S. Jenks, President, Chief Executive Officer and Chairman of the Board of Directors of NeoPhotonics Corporation (the “Company”), and Elizabeth Eby, Senior Vice President, Finance and Chief Financial Officer of the Company, each hereby certifies that, to the best of his/her knowledge:

1. The Company’s Quarterly Report on Form 10-Q for the period ended September 30, 2018, to which this Certification is attached as Exhibit 32.1 (the “Quarterly Report”) fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act, as amended; and

2. The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned have set their hands hereto as of the 5th day of November, 2018.

/S/ TIMOTHY S. JENKS	/S/ ELIZABETH EBY
Timothy S. Jenks	Elizabeth Eby
President, Chief Executive Officer and	Senior Vice President, Finance and Chief Financial Officer
Chairman of the Board of Directors	(Principal Financial and Accounting Officer)
(Principal Executive Officer)	

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of NeoPhotonics Corporation under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.