NANOMETRICS INC
Form 10-Q
May 03, 2018

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 March 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number: 000-13470

NANOMETRICS INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware	94-2276314
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
1550 Buckeye Drive	
Milpitas, California	95035
(Address of principal executive offices)	(Zip Code)

Registrant’s telephone number, including area code: (408) 545-6000

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer		Accelerated filer
Non-accelerated filer	(Do not check if a smaller reporting company)	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 by Rule 12b-2 of the Exchange Act) Yes No

As of April 27, 2018, there were 23,890,563 shares of common stock, $0.001 par value, issued and outstanding.

NANOMETRICS INCORPORATED

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FOR THE QUARTER ENDED MARCH 31, 2018

PART I — FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS
NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands except share and per share amounts)

(Unaudited)

	March 31, 2018	December 30, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$65,912	$34,899
Marketable securities	57,975	82,130
Accounts receivable, net of allowances of $116 and $126, respectively	59,034	62,457
Inventories	53,110	52,860
Inventories-delivered systems	1,493	1,534
Prepaid expenses and other	6,905	6,234
Total current assets	244,429	240,114
Property, plant and equipment, net	43,795	44,810
Goodwill	10,611	10,232
Intangible assets, net	3,171	2,206
Deferred income tax assets	9,671	11,924
Other assets	345	413
Total assets	$312,022	$309,699
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$18,492	$13,857
Accrued payroll and related expenses	9,669	12,901
Deferred revenue	9,029	7,408
Other current liabilities	7,120	7,249
Income taxes payable	3,565	2,680
Total current liabilities	47,875	44,095
Deferred revenue	1,290	1,661
Income taxes payable	1,409	860
Deferred tax liability	186	179
Other long-term liabilities	535	521
Total liabilities	51,295	47,316
Commitments and contingencies (Note 9)		
Stockholders' equity:		

Preferred stock, $0.001 par value; 3,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, $0.001 par value, 47,000,000 shares authorized: 23,890,563 and 24,628,722, respectively, issued and outstanding	24	26
Additional paid-in capital	234,793	255,368
Retained earnings	26,136	9,113
Accumulated other comprehensive loss	(226)	(2,124)
Total stockholders' equity	260,727	262,383
Total liabilities and stockholders' equity	$312,022	$309,699

See Notes to Condensed Consolidated Financial Statements

NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands except per share amounts)

(Unaudited)

	Three Months Ended March 31, 2018	April 1, 2017
Net revenues:		
Products	$71,019	$48,175
Service	11,294	11,139
Total net revenues	82,313	59,314
Costs of net revenues:		
Cost of products	28,593	25,478
Cost of service	6,154	5,337
Amortization of intangible assets	35	52
Total costs of net revenues	34,782	30,867
Gross profit	47,531	28,447
Operating expenses:		
Research and development	10,202	8,694
Selling	9,024	7,938
General and administrative	7,741	6,307
Total operating expenses	26,967	22,939
Income from operations	20,564	5,508
Other income (expense):		
Interest income	3	1
Interest expense	(96)	(40)
Other income (expense), net	352	(3)
Total other income (expense), net	259	(42)
Income before income taxes	20,823	5,466
Provision for income taxes	4,442	114
Net income	$16,381	$5,352
Net income per share:		
Basic	$0.68	$0.21
Diluted	$0.67	$0.21
Weighted average shares used in per share calculation:		
Basic	24,063	25,133
Diluted	24,483	25,833

See Notes to Condensed Consolidated Financial Statements

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NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)

(Unaudited)

	Three Months Ended	
	March 31, 2018	April 1, 2017
Net income	$16,381	$5,352
Other comprehensive income:		
Change in foreign currency translation adjustment	1,987	1,945
Net change on unrealized loss on available-for-sale investments	(89)	(9)
Other comprehensive income:	1,898	1,936
Comprehensive income	$18,279	$7,288

See Notes to Condensed Consolidated Financial Statements

NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

(Unaudited)

	Three Months Ended March 31, 2018	April 1, 2017
Cash flows from operating activities:		
Net income	$16,381	$5,352
Reconciliation of net income to net cash provided by operating activities:		
Depreciation and amortization	1,724	1,854
Stock-based compensation	2,338	2,164
Disposal of fixed assets	45	63
Inventory write-down	95	406
Deferred income taxes	2,062	(479)
Changes in assets and liabilities:		
Accounts receivable	8,035	(6,874)
Inventories	315	(2,695)
Inventories-delivered systems	41	(823)
Prepaid expenses and other	(454)	(88)
Accounts payable, accrued and other liabilities	(1,474)	970
Deferred revenue	2,172	3,039
Income taxes payable	1,434	186
Net cash provided by operating activities	32,714	3,075
Cash flows from investing activities:		
Payments to acquire certain assets	(1,000)	—
Sales of marketable securities	17,435	10,181
Maturities of marketable securities	6,500	24,531
Purchases of marketable securities	—	(36,514)
Purchases of property, plant and equipment	(1,319)	(47)
Net cash provided by (used in) investing activities	21,616	(1,849)
Cash flows from financing activities:		
Proceeds from sale of shares under employee stock option plans and purchase plan	545	1,217
Taxes paid on net issuance of stock awards	(476)	(1,755)
Repurchases of common stock under share repurchase plans	(22,987)	—
Net cash used in financing activities	(22,918)	(538)
Effect of exchange rate changes on cash and cash equivalents	(399)	(333)
Net increase in cash and cash equivalents	31,013	355

Cash and cash equivalents, beginning of period	34,899	47,062
Cash and cash equivalents, end of period	$65,912	$47,417
Supplemental disclosure of non-cash investing activities:		
Transfer of property, plant and equipment to inventory, net	$(91)	$22
Property, plant and equipment included in accounts payable	$265	$789

See Notes to Consolidated Financial Statements

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NANOMETRICS INCORPORATED

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

Note 1. Nature of Business, Basis of Presentation and Significant Accounting Policies

Description of Business – Nanometrics Incorporated ("Nanometrics" or the "Company") and its wholly-owned subsidiaries design, manufacture, market, sell and support optical critical dimension ("OCD"), thin film and overlay dimension metrology and inspection systems used primarily in the manufacturing of semiconductors, solar photovoltaics ("solar PV") and high-brightness LEDs ("HB-LED"), as well as by customers in the silicon wafer and data storage industries. Nanometrics' metrology systems precisely measure a wide range of film types deposited on substrates during manufacturing to control manufacturing processes and increase production yields in the fabrication of integrated circuits. The Company's OCD technology is a patented critical dimension measurement technology that is used to precisely determine the dimensions on the semiconductor wafer that directly control the resulting performance of the integrated circuit devices. The thin film metrology systems use a broad spectrum of wavelengths, high-sensitivity optics, proprietary software, and patented technology to measure the thickness and uniformity of films deposited on silicon and other substrates as well as their chemical composition. The overlay metrology systems are used to measure the overlay accuracy of successive layers of semiconductor patterns on wafers in the photolithography process. Nanometrics' inspection systems are used to find defects on patterned and unpatterned wafers at nearly every stage of the semiconductor production flow. The corporate headquarters of Nanometrics is located in Milpitas, California.

Basis of Presentation – The accompanying condensed consolidated financial statements ("financial statements") have been prepared on a consistent basis with the audited consolidated financial statements as of December 30, 2017, and include all normal recurring adjustments necessary to fairly state the information set forth therein. All significant intercompany accounts and transactions have been eliminated in consolidation.

The financial statements have been prepared in accordance with the regulations of the United States Securities and Exchange Commission ("SEC") for interim periods in accordance with S-X Article 10, and, therefore, omit certain information and footnote disclosure necessary to present the statements in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The operating results for interim periods are not necessarily indicative of the operating results that may be expected for the entire year. These financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the fiscal year ended December 30, 2017, which were included in the Company's Annual Report on Form 10-K filed with the SEC on February 26, 2018.

Fiscal Period – The Company uses a 52/53 week fiscal year ending on the last Saturday of the calendar year. All references to the quarter refer to Nanometrics' fiscal quarter. The fiscal quarters reported herein are 13 week periods.

Use of Estimates – The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ materially from those estimates. Estimates are used for, but not limited to, revenue recognition, the provision for doubtful accounts, the provision for excess, obsolete, or slow-moving inventories, valuation of intangible and long-lived assets, warranty accruals, income taxes, valuation of stock-based compensation, and contingencies.

Changes to Significant Accounting Policies

Except for the changes below, the Company has consistently applied the accounting policies to all periods presented in these financial statements.

The Company adopted the new accounting standard Topic 606, Revenue from Contracts with Customers and all the related amendments using the modified retrospective method of transition. As a result, the Company has changed its accounting policy for revenue recognition as detailed below. We adopted the new standard for all contracts not substantially completed at the date of adoption and the Company expects all new contracts will be governed by the new standard.

Revenue Recognition – The Company derives revenue from the sale of process control metrology and inspection systems and related upgrades (“product revenue”) as well as spare part sales, billable service and service contracts (together “service revenue”). Upgrades are system software and hardware performance upgrades that extend the features and functionality of a product. Upgrades are included in product revenue, which consists of sales of complete, advanced process control metrology and inspection systems (the “system(s)”). Nanometrics’ systems consist of hardware and software components that function together to deliver the essential functionality of the system. Arrangements for sales of systems and upgrades often include defined customer-specified acceptance criteria.

The Company recognizes revenue when control of a good or service has transferred to a customer. The amount of revenue recognized reflects the amount which Nanometrics expects to be entitled to in exchange for the transfer of the goods or services in a contract with a customer. Revenue excludes amounts collected on behalf of third parties including taxes assessed by governmental authorities that are both imposed on and concurrent with a specific revenue producing transaction. Shipping and handling costs associated with outbound freight both before and after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of revenues. Nanometrics records revenue on a gross basis, rather than net, as it acts as the principle in all of its contractual arrangements and not as an agent.

Nanometrics follows a 5-Step process to evaluate its contracts with customers to determine the amount and timing of revenue recognition.

Nanometrics first identifies whether a legally enforceable contract with a customer exists. A legally enforceable contract creates enforceable rights and obligations on both parties. Nanometrics evaluates the following criteria in its evaluation and if all criteria are not met, a contract does not exist and any revenue that otherwise would be recorded because a good or service had been transferred to a customer is deferred until such time that a contract exists: (1) both Nanometrics and the customer have approved the contract and are committed to perform, (2) Nanometrics can identify each party's rights regarding the goods or services to be transferred, (3) Nanometrics can identify the payment terms for the goods or services to be delivered, (4) the contract has commercial substance, and (5) it is probable that Nanometrics will collect substantially all of the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer. Historically, the Company has not experienced Customer payment defaults that would lead us to conclude that we don't have a contract under the new standard. Nanometrics evidences all its contracts in writing and the identification of the contract may include (1) reference to a master agreement that governs for multiple years, (2) a Volume Purchase Agreement that generally governs for 12 months and is negotiated with the larger customers to establish pricing for a committed volume of business, or (3) purchase orders which often govern the purchase of a single system or service item.

Once the contract has been identified, Nanometrics evaluates the promises in the contract to identify performance obligations. Many of the contracts include more than one performance obligation – for example the delivery of a system generally includes the promise to install the system in the customer's facility. Additionally, a contract could include the purchase of multiple systems or the purchase of a system and an upgrade. Promises in contracts which do not result in the transfer of a good or service are not performance obligations, as well as those promises that are administrative in nature, or are immaterial in the context of the contract. Generally, Nanometrics performance obligations can be categorized as (1) systems – including refurbished systems, (2) installation obligations, (3) hardware upgrades, (4) non-operating system software options / upgrades, (5) spare parts, (6) service contracts, (7) billable services and (8) other miscellaneous service items.

Once the performance obligations in the contract have been identified, Nanometrics estimates the transaction price of the contract. The estimate includes amounts that are fixed as well as those that can vary based on contractual terms (eg., performance bonuses/penalties, amounts payable to customers, rebates, prompt payment discounts, etc.) These variable consideration items are rare as most Nanometrics contracts include only fixed amounts. It is expected that estimates of variable consideration will be immaterial for Nanometrics and would occur if customers did not meet their contractual purchase commitments and Nanometrics is entitled to recover additional contract consideration.

Once the transaction price of the contract has been identified, Nanometrics allocates the transaction price to the identified performance obligations. This is done on a relative selling price basis using standalone selling prices ("SSP"). For most performance obligations, Nanometrics does not have observable SSP's as they are not regularly sold on a standalone basis however if a performance obligation does have an observable SSP it is used for allocation purposes (e.g. spares parts are sold using a standard price list and often sold separately). Without observable SSP's, Nanometrics estimates the SSP using a methodology which maximizes the use of observable inputs – namely a cost plus gross margin approach.

Lastly, Nanometrics records the amount allocated to each performance obligation as revenue when control of that good or service has transferred to the customer. Nanometrics first evaluates whether a good or service is transferred over time, and if it is not, then it is recorded at a point in time. For service contracts, Nanometrics records revenue based on its measurement of progress, and the best method to determine this is the percentage of the stand-ready obligation that is completed to date as this best reflects the value of the service transferred to the customer. All other items at Nanometrics are recorded at a point in time other than the service contracts with customers. The timing of satisfaction of the performance obligation to payment is dependent upon the negotiated payment terms but generally occurs within 30 to 60 days. Nanometrics evaluates the following indicators to determine the point in time at which control transfers to the Customer, and may apply judgment in this evaluation: (1) whether Nanometrics has a present right to payment, (2) whether the customer has legal title, (3) whether the customer has physical possession, (4) whether the customer has significant risks and rewards of ownership, and (5) whether customer acceptance is a formality (i.e., whether customer acceptance of the tool is reasonably assured). Typically, for new product introductions, Nanometrics defers revenue recognition until formal customer acceptance is received from the customer. In almost all other situations, there is little or no significant judgment applied by Nanometrics in determining if control of a good or service has transferred to a customer. Additionally, for system shipments to Japan, revenue is deferred because typical contractual terms indicate that payment is not due, and title does not transfer until customer acceptance occurs.

The Company warrants its products against defects in manufacturing. Upon recognition of product revenue, this assurance-type warranty is recorded as a liability for anticipated warranty costs. On occasion, customers request a warranty period longer than the Company's standard warranty. In those instances, in which where extended warranty services are separately quoted to the customer or if the warranty includes services beyond just an assurance that the product will work as intended, an additional performance obligation is created, and the associated revenue is deferred and recognized as service revenue ratably over the term of the extended warranty period. The portion of service contracts and extended warranty services agreements that are uncompleted at the end of any reporting period are included in deferred revenue.

Frequently, the Company delivers products and various services in a single transaction. The Company's deliverables consist of tools, installation, upgrades, billable services, spare parts, and service contracts. The Company's typical multi-element arrangements include a sale of one or multiple tools that include installation and standard warranty. Other arrangements consist of a sale of tools bundled with service elements or delivery of different types of services. The Company's tools, upgrades, and spare parts are generally delivered to customers within a period of up to six months from order date. Installation is usually performed soon after delivery of the tool. The portion of revenue associated with installation is deferred based on relative selling price and that revenue is recognized upon completion of the installation and receipt of final acceptance. Billable services are billed on a time and materials basis and performed as requested by customers. Under service contract arrangements, services are provided as needed over the fixed arrangement term, which terms can be up to twelve months. The Company does not grant its customers a general right of return or any refund terms and may impose a penalty on orders cancelled prior to the scheduled shipment date. Consideration received from customers for cancelled orders is rare as orders are typically not cancelled once placed.

When performance obligations are not transferred to a customer at the end of a reporting period, the amount allocated to those performance obligations are deferred until control of these performance obligations is transferred to the customer. If performance obligations cannot be accounted for as separate units of accounting, the entire arrangement is accounted for as a single unit of accounting and revenue is deferred until all elements are delivered and all revenue recognition requirements are met. These liabilities arising from contracts with customers are reported as Deferred Revenue in the consolidated balance sheet. The amount of revenue recognized in the first quarter of fiscal 2018 that was included in the contract liability balance as of the beginning of the quarter was $1.5 million. Generally, all contracts have expected durations of one year or less. Accordingly, Nanometrics applies the practical expedient allowed for in U.S. GAAP and does not disclose information about remaining performance obligations that have original expected durations of one year or less.

Nanometrics incurs costs related to the acquisition of its contract with customers in the form of sales commissions. Sales commissions are paid to the internal direct sales team as well as to third-party representatives, and distributors. Contractual agreements with each of these parties outline commissions structures and rates to be paid. Generally speaking, the contracts are all individual procurement decisions by the customers and are not for significant periods of time, nor do they include renewal provisions. As such, most of the contracts have an economic life of significantly less than a year, although some volume purchase agreements might extend beyond 12 months (the capitalization and amortization of commission costs for contracts that extend beyond one year is immaterial for Nanometrics). Accordingly, the Company expense these contract acquisition costs in accordance with the practical expedient outlined in U.S. GAAP when the underlying contract asset is less than one year.

Nanometrics does not incur any costs to fulfill the contracts with customers that is not already reported in compliance with another applicable standard (for example, inventory or plant, property and equipment). Given the nature of the systems, the Company does not have costs which are separately identifiable to just a particular contract (for example, dedicated labs).

Nanometrics records accounts receivable when revenue has been recorded and the amount due from the customer is reasonably assured and unconditionally due. In certain situations, Nanometrics may record revenue because goods or services have been transferred to the customer, but the amount is not unconditionally due. In these situations, a contract asset is reflected in the consolidated balance sheet (Unbilled A/R). This amount is subsequently reported as accounts receivable when the condition that made the amount conditional is resolved (for example, when the final installation obligation is completed, and Nanometrics has recorded revenue for the delivery of the system in an amount larger than what has been invoiced). The balance of contract assets included in the Accounts Receivable at March 31, 2018 is $4.4 million. The opening balance of contract assets was $4.3 million, reflecting no significant change during the quarter. The significant change in the balance of contract assets is due to the adoption of the new revenue standard.

Note 2. New Accounting Pronouncements

Recently Adopted Accounting Standards

In October 2016, the FASB issued an accounting standard update which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The Company adopted this standard in the first quarter of fiscal 2018 using a modified retrospective approach. The adoption did not have a material impact on the financial statements.

In August 2016, the FASB issued an accounting standard which addresses eight specific cash flow classification issues. This update is effective for public companies for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years. Early adoption is permitted, including in an interim period. The standard is to be applied through a retrospective transition method to each period presented. If it is impracticable to apply retrospectively for some of the issues, the amendments for those issues would be applied prospectively as of the earliest date practicable. The adoption of this guidance did not have an impact on the Company's consolidated statement of cash flows.

In May 2014, the FASB issued an accounting standard update which requires an entity to recognize the amount of revenue to which it expects to be entitled to for transferring promised goods or services to customers. The Company adopted Topic 606 Revenue from Contracts with Customers with a date of initial application of December 31, 2017. The Company applied Topic 606 using the modified retrospective method by recognizing the cumulative effect of initially applying Topic 606 as an adjustment to the opening balance of equity at December 31, 2017. This method was chosen due to the Company's inability to review all necessary contract information to adopt the standard using the full retrospective methods. Both methods are allowed per U.S. GAAP. Therefore, the comparative information has not been adjusted and continues to be reported under Topic 605.

The following tables summarize the impacts of Topic 606 adoption on the Company's financial statements (in thousands):

	Balance at December 30, 2017	Adjustments Due to Adoption of ASC 606	Balance at December 31, 2017
ASSETS			
Inventory delivered systems	$ 1,534	$ (726)	$ 808
LIABILITIES & STOCKHOLDERS EQUITY			
Deferred Revenue (Current)	$ 7,408	$ (1,666)	$ 5,742
Retained Earnings	$ 9,113	$ 940	$ 10,053

	As Reported	Balances Without	Effect of Change

		Adoption of ASC 606	Higher/(Lower)
Net Revenue	$ 82,313	$ 78,037	$ 4,276
Net Income	$ 16,381	$ 13,320	$ 3,061
Net income per share:			
Basic	$ 0.68	$ 0.55	$ 0.13
Diluted	$ 0.67	$ 0.54	$ 0.13

The adoption of this guidance did not have a material impact on the Company’s first quarter of fiscal 2018 ending balance sheet nor consolidated statement of cash flows.

Recently Issued Accounting Standards

In January 2017, the Financial Accounting Standards Board (the "FASB") issued an accounting standard update which simplifies the subsequent measurement of goodwill and removes step 2 from the goodwill impairment test. Instead, an entity should record an impairment charge based on excess of a reporting unit’s carrying amount over its fair value. The standard is effective for public companies for fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The adoption of this guidance is not expected to have a significant impact on the Company’s consolidated financial condition and results of operations.

In June 2016, the FASB issued an accounting standard which requires measurement and timely recognition of expected credit losses for financial assets. The update is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted as of the fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The standard is to be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. The Company is currently evaluating the effect of this update on its consolidated financial condition and results of operations.

In February 2016, the FASB issued an accounting standard update which requires lessees to record a right-of-use asset and a corresponding lease liability on the balance sheet (with the exception of short-term leases). For lessees, leases will continue to be classified as either operating or financing in the income statement. The standard is effective for public companies for annual reporting periods beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. This standard is required to be applied with a modified retrospective transition approach. The Company generally does not finance purchases of equipment or other capital, but does lease some equipment and facilities. The Company is currently evaluating the impact of this standard on its consolidated financial statements and related disclosures but anticipates most its existing operating lease commitments will be recognized as operating lease liabilities and right-of-use assets.

Note 3. Fair Value Measurements and Disclosures

The Company determines the fair values of its financial instruments based on the fair value hierarchy established in FASB Accounting Standards Codification ("ASC") 820, Fair Value Measurement, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The classification of a financial asset or liability within the hierarchy is based upon the lowest level input that is significant to the fair value measurement. The fair value hierarchy prioritizes the inputs into the following three levels that may be used to measure fair value:

Level 1 — Quoted prices in active markets for identical assets or liabilities.

Level 2 — Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3 — Unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. Such unobservable inputs include an estimated discount rate used in the Company's discounted present value analysis of future cash flows, which reflects the Company's estimate of debt with similar terms in the current credit markets. As there is currently minimal activity in such markets, the actual rate could be materially different.

Fair value is defined as the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The standard assumes that the transaction to sell the asset or transfer the liability occurs in the principal or most advantageous market for the asset or liability and establishes that the fair value of an asset or liability shall be determined based on the assumptions that market participants would use in pricing the asset or liability.

The following tables present the Company's assets and liabilities measured at estimated fair value on a recurring basis, excluding accrued interest components, categorized in accordance with the fair value hierarchy (in thousands), as of the following dates:

	March 31, 2018 Fair Value Measurements Using Input Types				December 30, 2017 Fair Value Measurements Using Input Types			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Cash equivalents:								
Money market funds	$9,680	$—	$ —	$9,680	$256	$—	$ —	$256
Marketable securities:								
U.S. Government agency debt securities	—	1,496	—	1,496	—	1,495	—	1,495
Certificates of deposits	—	6,995	—	6,995	—	14,497	—	14,497
Commercial paper	—	5,474	—	5,474	—	7,949	—	7,949
Corporate debt securities	—	36,842	—	36,842	—	47,968	—	47,968
Asset-backed Securities	—	7,168	—	7,168	—	10,221	—	10,221
Total marketable securities	$—	$57,975	$ —	$57,975	$—	$82,130	$ —	$82,130
Total[(1)]	$9,680	$57,975	$ —	$67,655	$256	$82,130	$ —	$82,386

(1) Excludes $56.2 million and $34.6 million held in operating accounts as of March 31, 2018 and December 30, 2017, respectively. See "Note 4. Cash and Investments" of the Notes to Consolidated Financial Statements for more information.

The fair values of the marketable securities that are classified as Level 1 in the table above were derived from quoted market prices for identical assets or liabilities in active markets that the Company has the ability to access. The fair value of marketable securities that are classified as Level 2 in the table above were derived from non-binding market consensus prices that were corroborated by observable market data, quoted market prices for similar instruments, or pricing models, such as discounted cash flow techniques with all significant inputs derived from or corroborated by observable market data. There were no transfers of instruments between Level 1, Level 2 and Level 3 during the financial periods presented.

Derivatives

The Company uses foreign currency exchange forward contracts to mitigate variability in gains and losses generated from the re-measurement of certain monetary assets and liabilities denominated in foreign currencies. These derivatives are carried at fair value with changes recorded in other income (expense), net in the consolidated statements of operations. Changes in the fair value of these derivatives are largely offset by re-measurement of the underlying assets and liabilities. The derivatives have maturities of approximately 30 days.

The settlement of forward foreign currency contracts included in the three months ended March 31, 2018 and April 1, 2017 was a loss of $1.0 million and a gain of $0.4 million, respectively. These are included in other income (expense), net, in the consolidated statements of operations.

The following table presents the notional amounts and fair values of the Company's outstanding derivative instruments in U.S. Dollar equivalent (in millions):

	As of March 31, 2018			As of December 30, 2017		
		Fair Value			Fair Value	
	Notional Amount	Asset	Liability	Notional Amount	Asset	Liability
Undesignated Hedges:						
Forward Foreign Currency Contracts						
Purchase	$29.4	$—	$ 0.1	$27.5	$—	$ 0.1
Sell	$19.8	$—	$ —	$16.8	$0.1	$ —

Note 4. Cash and Investments

The following tables present cash, cash equivalents, and available-for-sale investments as of the following dates (in thousands):

	March 31, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Market Value
Cash	$56,232	$ —	$ —	$56,232
Cash equivalents:				
Money market funds	9,680	—	—	9,680
Marketable securities:				
U.S. Government agency securities	1,500	—	(4)	1,496
Certificate of deposits	6,999	—	(4)	6,995
Commercial paper	5,481	—	(7)	5,474
Corporate debt securities	37,017	—	(175)	36,842
Asset-backed securities	7,204	—	(36)	7,168
Total cash, cash equivalents, and marketable securities	$124,113	$ —	$ (226)	$123,887

	December 30, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Market Value
Cash	$34,643	$ —	$ —	$34,643
Cash equivalents:				
Money market funds	256	—	—	256
Marketable securities:				
U.S. Government agency securities	1,500	—	(5)	1,495
Certificates of deposits	14,498	—	(1)	14,497
Commercial paper	7,952	—	(3)	7,949
Corporate debt securities	48,073	—	(105)	47,968
Asset-backed securities	10,240	—	(19)	10,221
Total cash, cash equivalents, and marketable securities	$117,162	$ —	$ (133)	$117,029

Available-for-sale marketable securities, readily convertible to cash, with maturity dates of 90 days or less are classified as cash equivalents, while those with maturity dates greater than 90 days are classified as marketable securities within short-term assets. All marketable securities as of March 31, 2018 and December 30, 2017, were available-for-sale and reported at fair value based on the estimated or quoted market prices as of the balance sheet date.

Realized gains and losses on sale of securities are recorded in other income (expense), net, in the Company's statement of operations. For the three months ended March 31, 2018 and April 1, 2017, net realized gains and losses were not material.

Unrealized gains or losses, net of tax effect, are recorded in accumulated other comprehensive income (loss) within stockholders' equity. Both the gross unrealized gains and gross unrealized losses for the three months ended March 31, 2018 and April 1, 2017 were not material and no marketable securities had other than temporary impairment.

All marketable securities as of March 31, 2018 and December 30, 2017, had maturity dates of less than two years.

Note 5. Accounts Receivable

The Company maintains arrangements under which eligible accounts receivable in Japan are sold without recourse to unrelated third-party financial institutions. These receivables were not included in the consolidated balance sheets as the criteria for sale treatment had been met. The Company pays administrative fees as well as interest ranging from 0.62% to 1.68% based on the anticipated length of time between the date the sale is consummated and the expected collection date of the receivables sold.

The Company sold $21.9 million and $5.2 million of receivables during the three months ended March 31, 2018 and April 1, 2017, respectively. There were no amounts due from such third party financial institutions at March 31, 2018 and December 30, 2017.

Note 6. Financial Statement Components

The following tables provide details of selected financial statement components as of the following dates (in thousands):

	At March 31, 2018	December 30, 2017
Inventories:		
Raw materials and sub-assemblies	$29,781	$ 32,187
Work in process	15,781	13,498
Finished goods	7,548	7,175
Inventories	53,110	52,860
Inventories-delivered systems	1,493	1,534
Total inventories	$54,603	$ 54,394
Property, plant and equipment, net:[1]		
Land	$15,573	$ 15,573
Building and improvements	21,212	20,880
Machinery and equipment	39,629	36,380
Furniture and fixtures	2,470	2,420
Software	9,584	9,558
Capital in progress	1,502	4,418
Total property, plant and equipment, gross	89,970	89,229
Accumulated depreciation and amortization	(46,175)	(44,419)
Total property, plant and equipment, net	$43,795	$ 44,810

[1] Total depreciation and amortization expense was $1.7 million and $1.8 million for the three months ended March 31, 2018 and April 1, 2017, respectively.

Other Current Liabilities:		
Accrued warranty	$4,643	$ 4,863
Accrued taxes	721	813
Accrued professional services	470	534
Other	1,286	1,039
Total other current liabilities	$7,120	$ 7,249

Components of Accumulated Other Comprehensive Income (Loss)

Foreign	Defined	Unrealized	Accumulated
Currency	Benefit	(Loss)	Other

	Translations	Pension Plans	on Investment	Comprehensive Income
Balance as of December 30, 2017	$ (1,647)	$ (387)	$ (90)	$ (2,124)
Current period change	1,987	—	(89)	1,898
Balance as of March 31, 2018	$ 340	$ (387)	$ (179)	$ (226)

The items above, except for unrealized loss on investment, did not impact the Company's income tax provision. The amounts reclassified from each component of accumulated other comprehensive loss into income statement line items were insignificant.

Note 7. Goodwill and Intangible Assets

The following table summarizes the activity in the Company’s goodwill during the three months ended March 31, 2018:

	(in thousands)
Balance as of December 30, 2017	$ 10,232
Foreign currency movements	379
Balance as of March 31, 2018	$ 10,611

Finite-lived intangible assets are recorded at cost, less accumulated amortization. Finite-lived intangible assets as of March 31, 2018 and December 30, 2017 consisted of the following (in thousands):

	March 31, 2018		
	Adjusted cost	Accumulated amortization	Net carrying amount
Developed technology	$11,636	$ (8,465)	$ 3,171
Customer relationships	8,521	(8,521)	—
Brand names	1,927	(1,927)	—
Patented technology	2,252	(2,252)	—
Trademark	80	(80)	—
Total	$24,416	$ (21,245)	$ 3,171

	December 30, 2017		
	Adjusted cost	Accumulated amortization	Net carrying amount
Developed technology	$18,887	$ (16,681)	$ 2,206
Customer relationships	9,438	(9,438)	—
Brand names	1,927	(1,927)	—
Patented technology	2,252	(2,252)	—
Trademark	80	(80)	—
Total	$32,584	$ (30,378)	$ 2,206

The amortization of finite-lived intangibles is computed using the straight-line method. Estimated lives of finite-lived intangibles range from two to ten years. The total amortization expense for both the three months ended March 31, 2018 and April 1, 2017 was $0.1 million.

There were no impairment charges related to intangible assets recorded during the three months ended March 31, 2018 and April 1, 2017.

The estimated future amortization expense of finite intangible assets as of March 31, 2018 is as follows (in thousands):

Fiscal Years	Amounts
2018 (remaining nine months)	248
2019	352
2020	429
2021	429
2022	429
Thereafter	1,284
Total future amortization expense	$ 3,171

Note 8. Warranties

The Company generally sells its products with a 12 months repair or replacement warranty from the date of acceptance or shipment date. The Company provides an accrual for estimated future warranty costs based upon the historical relationship of warranty costs to the cost of products sold. The estimated future warranty obligations related to product sales are recorded in the period in which the related revenue is recognized. The estimated future warranty obligations are affected by the warranty periods, sales volumes, product failure rates, material usage, and labor and replacement costs incurred in correcting a product failure. If actual product failure rates, material usage, labor or replacement costs were to differ from the Company's estimates, revisions to the estimated warranty obligations would be required. For new product introductions where limited or no historical information exists, the Company may use warranty information from other previous product introductions to guide it in estimating its warranty accrual.

Components of the warranty accrual, which were included in the accompanying condensed consolidated balance sheets with other current liabilities, were as follows (in thousands):

	Three Months Ended	
	March 31, 2018	April 1, 2017
Balance as of beginning of period	$4,863	$3,838
Accruals for warranties issued during period	1,445	1,369
Settlements during the period	(1,665)	(963)
Balance as of end of period	$4,643	$4,244

Note 9. Commitments and Contingencies

Intellectual Property Indemnification Obligations – The Company will, from time to time, in the normal course of business, agree to indemnify certain customers, vendors or others against third party claims that the Company's products, when used for their intended purpose(s), or the Company's intellectual property, infringe the intellectual property rights of such third parties or other claims made against parties with whom it enters into contractual relationships. It is not possible to determine the maximum potential amount of liability under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances that are likely to be involved in each particular claim. Historically, the Company has not made payments under these obligations and believes that the estimated fair value of these agreements is immaterial. Accordingly, no liabilities have been recorded for these obligations in the accompanying condensed consolidated balance sheets as of March 31, 2018 and December 30, 2017.

Legal Proceedings - From time to time, the Company is subject to various legal proceedings or claims arising in the ordinary course of business.

On August 2, 2017, the Company was named as defendant in a complaint filed in New Hampshire Superior Court ("Complaint"). The Complaint, brought by Optical Solutions, Inc. ("OSI"), alleges claims arising from a purported exclusive purchase contract between OSI and the Company pertaining to certain product. On September 18, 2017, the

Company removed the action to the United States District Court for the District of New Hampshire. On September 25, 2017, the Company moved to transfer the Complaint to the Northern District of California and to dismiss all claims in the Complaint for lack of personal jurisdiction and for failure to state a claim. On September 27, 2017, OSI filed a motion to remand. On January 31, 2018, the District Court of New Hampshire denied OSI's motion to remand. The Court held a hearing on Nanometrics' motions to transfer or dismiss on September 24, 2018, and at the conclusion of the hearing the Court stated that it intended to transfer the case to the Northern District of California.

The Company records a provision for a loss when it believes that it is both probable that a loss has been incurred and the amount can be reasonably estimated. Based on current information, the Company believes it does not have any probable and reasonably estimable losses related to any current legal proceedings and claims. Although it is difficult to predict the outcome of legal proceedings, the Company believes that any liability that may ultimately arise from the resolution of these ordinary course matters will not have a material adverse effect on the business, financial condition and results of operations.

Note 10. Net Income Per Share

The Company presents both basic and diluted net income per share on the face of its condensed consolidated statements of operations. Basic net income per share excludes the effect of potentially dilutive shares and is computed by dividing net income by the weighted-average number of shares of common stock outstanding for the period. Diluted net income per share is computed using the weighted-average number of shares of common stock outstanding for the period plus the effect of all dilutive securities representing potential shares of common stock outstanding during the period.

A reconciliation of the share denominator of the basic and diluted net income per share computations for three months ended March 31, 2018 and April 1, 2017 is as follows (in thousands):

	Three Month Ended March 31, 2018	April 1, 2017
Weighted average common shares outstanding used in basic net income per share calculation	24,063	25,133
Potential dilutive common stock equivalents, using treasury stock method	420	700
Weighted average shares used in diluted net income per share calculation	24,483	25,833

Note 11. Stockholders' Equity and Stock-Based Compensation

Options and Employee Stock Purchase Plan ("ESPP") Awards

The fair value of each option and ESPP award is estimated on the grant date using the Black-Scholes valuation model and the assumptions noted in the following table. The expected lives of options granted were calculated using the simplified method allowed by the Staff Accounting Bulletin No. 107, Share-Based Payment. The risk-free rates were based on the U.S Treasury rates in effect during the corresponding period of grant. The expected volatility was based on the historical volatility of the Company's stock price. The dividend yield reflects that the Company has not paid any cash dividends since inception and does not intend to pay any cash dividends in the foreseeable future.

	Three Months Ended March 31, 2018	April 1, 2017
Employee Stock Purchase Plan:		
Expected life	0.5 years	0.5 years
Volatility	27.2%	35.2%
Risk free interest rate	1.61%	0.65%
Dividends	—	—

No stock options were awarded during the three months ended March 31, 2018 and April 1, 2017.

A summary of activity of stock options during the three months ended March 31, 2018 is as follows:

	Number of Shares Outstanding (Options)	Weighted Average Exercise Price
Options		
Outstanding at December 30, 2017	216,326	$ 16.82
Exercised	(43,614)	16.13
Cancelled	—	—
Outstanding at March 31, 2018	172,712	16.99
Exercisable at March 31, 2018	172,712	$ 16.99

The aggregate intrinsic value in the above table represents the total pretax intrinsic value, based on the Company's closing stock price of $26.90 as of March 29, 2018, the last trading day of the quarter, which would have been received by the option holders had all option holders exercised their options as of that date. The total intrinsic value of options exercised during the three months ended March 31, 2018 and April 1, 2017 was $0.5 million and $0.9 million, respectively.

Restricted Stock Units ("RSUs")

Time-based RSUs are valued using the market value of the Company's common stock on the date of grant, assuming no expectation of dividends paid.

A summary of activity for RSUs is as follows:

Summary of activity for RSUs	Number of RSUs	Weighted Average Fair Value
Outstanding RSUs as of December 30, 2017	790,299	$ 22.46
Granted	109,007	26.58
Released	(84,942)	18.88
Cancelled	(42,668)	22.15
Outstanding RSUs as of March 31, 2018	771,696	$ 23.45

Market-Based Performance Stock Units ("PSUs")

In addition to granting RSUs that vest on the passage of time only, the Company granted PSUs to certain executives. The PSUs vest in three tranches over one, two and three years based on the relative performance of the Company's stock during those periods, compared to a peer group over the same period. If target stock price performance is achieved, 66.7% of the shares of the Company's stock subject to the PSUs will vest and up to a maximum of 100% of the shares subject to the PSUs will vest if the maximum stock price performance is achieved for each tranche.

A summary of activity for PSUs is as follows:

Summary of activity for PSUs	Number of PSUs	Weighted Average Fair Value
Outstanding PSUs as of December 30, 2017	129,950	$ 15.60
Granted	24,640	21.10
Released	(47,929)	12.10
Cancelled	(15,621)	26.21
Outstanding PSUs as of March 31, 2018	91,040	$ 18.47

The preceding table reflects the maximum awards that can be achieved upon full vesting.

Valuation of PSUs

On the date of grant, the Company estimated the fair value of PSUs using a Monte Carlo simulation model. The assumptions for the valuation of PSUs are summarized as follows:

	2018 Award	2017 Award
Grant Date Fair Value Per Share	$20.73-$21.97	$14.57-$26.75
Weighted-average assumptions/inputs:		
Expected Dividend	—	—
Range of risk-free interest rates	2.39%-2.41%	1.40%-1.84%
Range of expected volatilities for peer group	22%-66%	22%-66%

Stock-based Compensation Expense

Stock-based compensation expense for all share-based payment awards made to the Company’s employees and directors pursuant to the employee stock option and employee stock purchase plans by function were as follows (in thousands):

	Three Months Ended	
	March 31, 2018	April 1, 2017
Cost of products	$99	$197
Cost of service	155	145
Research and development	476	398
Selling	533	540
General and administrative	1,075	884
Total stock-based compensation expense related to employee stock options and employee stock purchases	$2,338	$2,164

Note 12. Income Taxes

The Company accounts for income taxes under the provisions of ASC 740, Accounting for Income Taxes. The Company adjusts its effective tax rate each quarter to be consistent with the estimated annual effective tax rate. The Company also records the tax effect of unusual or infrequently occurring discrete items, including changes in judgment about valuation allowances and effects of changes in tax laws or tax rates, in the interim period in which they occur. The Company's effective tax rate reflects the impact of a portion of its earnings being taxed in foreign jurisdictions as well as a valuation allowance maintained on certain deferred tax assets.

The Company’s tax provision takes into account the changes in the tax laws under Tax Cuts and Jobs Act (“The Act”), signed into law on December 22, 2017, including the reduction of the federal corporate tax rate from 35% to 21%. Other components of the Act are accounted for based on the Company’s interpretation of the most current guidance available and are subject to revisions as the Company completes its analysis of the Act, collects and prepares necessary data, and interprets any additional guidance issued by the U.S. Treasury Department, Internal Revenue Service (“IRS”), FASB, and other standard-setting and regulatory bodies. The Company’s accounting for the tax effects of the Act will be completed during the measurement period, which should not extend beyond one year from the enactment date.

The provision for income taxes consists of the following (in thousands):

Three Months Ended

	March 31, 2018	April 1, 2017
Provision for income taxes	$4,442	$114

The Company recorded a tax provision of $4.4 million and $0.1 million for the three months ended March 31, 2018 and April 1, 2017, respectively. The increase in the tax provision for 2018 from 2017 was primarily related to the Company's increased profitability for the three months ending March 31, 2018 as well as a one-time benefit for an entity classification change and a higher tax benefit associated with the settlement of equity options/awards.

The Company continues to maintain a valuation allowance against its California and Switzerland deferred tax assets as a result of uncertainties regarding the realization of the assets due to cumulative losses and uncertainty of future taxable income. The Company will continue to assess the realizability of the deferred tax assets in each of the applicable jurisdictions and maintain the valuation allowances until sufficient positive evidence exists to support a reversal. In the event the Company determines that the deferred tax assets are realizable, an adjustment to the valuation allowance will be reflected in the tax provision for the period such determination is made.

The Company is subject to taxation in the U.S. and various states including California, and foreign jurisdictions including Korea, Japan, Taiwan, China, Singapore, Germany, U.K., France, and Israel. Due to tax attribute carry-forwards, the Company is subject to examination for tax years 2003 forward for U.S. tax purposes. The Company is also subject to examination in various states for tax years 2002 forward. The Company is subject to examination for tax years 2010 forward for various foreign jurisdictions.

The Company accrues interest and penalties related to unrecognized tax benefits in its provision for income taxes. The total amount of penalties and interest were not material as of March 31, 2018 and April 1, 2017. During the next twelve months, the Company anticipates increases in its unrecognized tax benefits of approximately $0.4 million.

Note 13. Segment, Geographic, Product and Significant Customer Information

The Company has one operating segment, which is the sale, design, manufacture, marketing and support of optical critical dimension and thin film systems. The following tables summarize total net revenues and long-lived assets (excluding intangible assets) attributed to significant countries (in thousands):

	Three Months Ended March 31, 2018	April 1, 2017
Total net revenues [1]:		
South Korea	$37,818	$18,619
Japan	13,379	3,353
United States	6,738	13,573
China	8,042	6,687
Taiwan	1,060	11,833
Singapore	12,155	1,491
Other	3,121	3,758
Total net revenues	$82,313	$59,314

	March 31, 2018	December 30, 2017
Long-lived tangible assets:		
United States	$	