NANOMETRICS INC Form 10-Q August 01, 2014

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

FORM 10-O

(Mark One)

x Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the quarterly period ended June 28, 2014

OR

o Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from to

Commission file number 0-13470

NANOMETRICS INCORPORATED

(Exact name of registrant as specified in its charter)

Delaware 94-2276314
(State or other jurisdiction of incorporation or organization) Identification No.)

1550 Buckeye Drive, Milpitas, CA 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 Q 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 such shorter period that the registrant was required to submit and post such file) Yes Q 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.

Large accelerated filer o Accelerated filer x

Non-accelerated filer o (Do not check if a smaller reporting company) Smaller reporting company Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

As of July 25, 2014, there were 24,123,337 shares of common stock, \$0.001 par value, issued and outstanding.

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PART I — FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

NANOMETRICS INCORPORATED
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

(Unaudited)

(Ullaudited)				
		June 28,	December 28,	,
ACCETC		2014	2013	
ASSETS				
Current assets:		¢27.007	¢ 44 765	
Cash and cash equivalents		\$37,987	\$44,765	
Marketable securities	105 1 0202	49,374	48,097	
Accounts receivable, net of allowances of \$2	and \$293, respectively	33,458	31,436	
Inventories		37,753	34,520	
Inventories-delivered systems		358	6,901	
Prepaid expenses and other		9,911	10,519	
Deferred income tax assets		14,054	14,516	
Total current assets		182,895	190,754	
Property, plant and equipment, net		47,244	47,439	
Goodwill		11,677	11,743	
Intangible assets, net		6,280	7,864	
Deferred income tax assets		4,344	4,338	
Other assets		679	696	
Total assets		\$253,119	\$262,834	
LIABILITIES AND STOCKHOLDERS' EQ	DUITY			
Current liabilities:				
Accounts payable		\$6,982	\$10,604	
Accrued payroll and related expenses		8,059	7,853	
Deferred revenue		7,870	21,749	
Other current liabilities		8,348	7,993	
Income taxes payable		121	758	
Total current liabilities		31,380	48,957	
Deferred revenue		2,626	3,718	
Income taxes payable		615	1,171	
Other long-term liabilities		1,603	1,615	
Total liabilities		36,224	55,461	
Commitments and contingencies (Note 16)		,	,	
Stockholders' equity:				
Preferred stock, \$0.001 par value; 3,000,000	shares authorized; no shares issued or			
outstanding	,	_	_	
Common stock, \$0.001 par value, 47,000,00	0 shares authorized: 24.029.033 shares		•	
and 23,537,275 shares, respectively, issued a		24	24	
Additional paid-in capital	6	251,679	244,733	
Accumulated deficit		(35,813) (37,996)
Accumulated other comprehensive income		1,005	612	_
Total stockholders' equity		216,895	207,373	
Total liabilities and stockholders' equity		\$253,119	\$262,834	
1			, ,	

See Notes to Condensed Consolidated Financial Statements

NANOMETRICS INCORPORATED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share amounts) (Unaudited)

	Three Months	Ended	Six Months En	nded	
	June 28, 2014	June 29, 2013	June 28, 2014	June 29, 20)13
Net revenues:					
Products	\$39,224	\$26,533	\$82,504	\$39,612	
Service	8,805	8,019	17,101	19,492	
Total net revenues	48,029	34,552	99,605	59,104	
Costs of net revenues:					
Cost of products	19,789	14,832	41,428	22,792	
Cost of service	4,655	4,593	9,769	10,041	
Amortization of intangible assets	677	647	1,351	1,305	
Total costs of net revenues	25,121	20,072	52,548	34,138	
Gross profit	22,908	14,480	47,057	24,966	
Operating expenses:					
Research and development	9,373	8,321	17,687	15,768	
Selling	6,681	6,613	14,054	13,545	
General and administrative	6,001	5,507	12,339	11,019	
Amortization of intangible assets	107	195	215	393	
Total operating expenses	22,162	20,636	44,295	40,725	
Income (loss) from operations	746	(6,156)	2,762	(15,759)
Other income (expense):					
Interest income	10	20	24	45	
Interest expense	(96)	(205)	(196)	(431)
Other income (expense), net	(84)	(637)	168	(597)
Total other income (expense), net	(170	(822)	(4)	(983)
Income (loss) before income taxes	576	(6,978)	2,758	(16,742)
Provision for (benefit from) income taxes	(12)	(2,412)	575	(6,594)
Net income (loss)	\$588	\$(4,566)	\$2,183	\$(10,148)
Net income (loss) per share:					
Basic	\$0.02	\$(0.20)	\$0.09	\$(0.44)
Diluted	\$0.02	\$(0.20)	\$0.09	\$(0.44)
Weighted shares used in per share calculation:					
Basic	23,939	23,138	23,825	23,240	
Diluted	24,220	23,138	24,217	23,240	
See Notes to Condensed Consolidated Financial State	·				

NANOMETRICS INCORPORATED CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (In thousands) (Unaudited)

	Three Months Ended		Six Months Ended			
	June 28, 2014	June 29, 20)13	June 28, 2014	June 29, 20	13
Net income (loss)	\$588	\$(4,566)	\$2,183	\$(10,148)
Other comprehensive income (loss):						
Change in foreign currency translation adjustmen	t 174	(35)	385	(1,979)
Net change on unrealized gains on	8	(8	`	8	(3	`
available-for-sale investments	O	(0	,	O	(3	,
Other comprehensive income (loss)	182	(43)	393	(1,982)
Comprehensive income (loss)	\$770	\$(4,609)	\$2,576	\$(12,130)

See Notes to Condensed Consolidated Financial Statements

NANOMETRICS INCORPORATED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (In thousands) (Unaudited)

Six Months Ended June 28, June 29, 2014 2013 Cash flows from operating activities: Net income (loss) \$2,183 \$(10,148)) Reconciliation of net income (loss) to net cash used in operating activities: Depreciation and amortization 4,814 4,268 Stock-based compensation 3,410 3.208 Excess tax benefit from equity awards 367 Loss on disposal of fixed assets 28 10 Inventory write-down 1.527 2,764 Deferred income taxes 490 (6,657) Changes in fair value of contingent consideration 1,000 66 Changes in assets and liabilities: Accounts receivable (1.909)) (11,095) Inventories (3,830)) (4,121 Inventories-delivered systems 6,543 (170)Prepaid expenses and other 1,251 (109)Accounts payable, accrued and other liabilities (2,961)) 1,566 Deferred revenue (14,978)) 2,548 Income taxes payable) (389 (1,203)Net cash used in operating activities (4,569) (16,958 Cash flows from investing activities: Maturities of marketable securities 17,620 22,788 Purchases of marketable securities (19,479) (23,454 Purchases of property, plant and equipment (3,813)) (1,970 Net cash used in investing activities (5,672)) (2,636 Cash flows from financing activities: Payments of contingent consideration (261)) (216 Repayments of debt obligations (456 Proceeds from sale of shares under employee stock option and purchase plans 2,858 4,201 Excess tax benefit from equity awards (367 Taxes paid on net issuance of stock awards (664) (86 Repurchases of common stock (5,000)Net cash provided by (used in) financing activities 3,276 (3,267)Effect of exchange rate changes on cash and cash equivalents (952 187 Net decrease in cash and cash equivalents) (23,813 (6,778)Cash and cash equivalents, beginning of period 44,765 62,915 Cash and cash equivalents, end of period \$37,987 \$39,102 See Notes to Condensed Consolidated Financial Statements

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

Note 1. Nature of Business and Basis of Presentation

Description of Business – Nanometrics Incorporated ("Nanometrics" or the "Company") and its wholly-owned subsidiaries, design, manufacture, market, sell and support thin film, optical critical dimension 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 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 Company's optical critical dimension 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 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 28, 2013, and include all normal recurring adjustments necessary to fairly present 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. 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 28, 2013, which were included in the Company's Annual Report on Form 10-K filed with the SEC on March 7, 2014.

Fiscal Period – The Company uses a 52/53 week fiscal year ending on the Saturday nearest to December 31. All references to the quarter refer to Nanometrics' fiscal quarter. The fiscal quarters presented herein include 13 weeks.

Reclassification – Certain prior year amounts have been reclassified to conform to the current year presentation.

Use of Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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.

Revenue Recognition – The Company derives revenue from the sale of process control metrology systems ("product revenue") as well as spare part sales, billable service, service contracts and upgrades (together "service revenue"). Upgrades are a group of parts and/or software that change the existing configuration of a product and are included in service revenue. They are distinguished from product revenue, which consists 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 often include defined customer-specified acceptance criteria.

In summary, the Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller's price is fixed or determinable, and collectability is reasonably assured.

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NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

For product sales to existing customers, revenue recognition occurs at the time title and risk of loss transfer to the customer, which usually occurs upon shipment from the Company's manufacturing location, if it can be reliably demonstrated that the product has successfully met the defined customer specified acceptance criteria and all other recognition criteria has been met. For initial sales where the product has not previously met the defined customer specified acceptance criteria, product revenues are recognized upon the earlier of receipt of written customer acceptance or expiration of the contractual acceptance period. In Japan, where contractual terms with the customer specify risk of loss and title transfers upon customer acceptance, revenue is recognized upon receipt of written customer acceptance, provided that all other recognition criteria have been met.

The Company warrants its products against defects in manufacturing. Upon recognition of product revenue, a liability is recorded for anticipated warranty costs. On occasion, customers request a warranty period longer than the Company's standard warranty. In those instances where extended warranty services are separately quoted to the customer, the associated revenue is deferred and recognized as service revenue ratably over the term of the contract. 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.

As part of its customer services, the Company sells software that is considered to be an upgrade to a customer's existing systems. These standalone software upgrades are not essential to the tangible product's functionality and are accounted for under software revenue recognition rules which require vendor specific objective evidence ("VSOE") of fair value to allocate revenue in a multiple element arrangement. Revenue from upgrades is recognized when the upgrades are delivered to the customer, provided that all other recognition criteria have been met.

Revenue related to spare parts is recognized upon shipment. Revenue related to billable services is recognized as the services are performed. Service contracts may be purchased by the customer during or after the warranty period and revenue is recognized ratably over the service contract period.

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. 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. The Company does not grant its customers a general right of return or any refund terms and imposes a penalty on orders canceled prior to the scheduled shipment date.

The Company regularly evaluates its revenue arrangements to identify deliverables and to determine whether these deliverables are separable into multiple units of accounting. In accordance with revenue recognition guidance, the Company allocates the arrangement consideration among the deliverables based on relative selling prices. The Company has established VSOE for some of its products and services when a substantial majority of selling prices falls within a narrow range when sold separately. For deliverables with no established VSOE, the Company uses best estimate of selling price to determine standalone selling price for such deliverable. The Company does not use third party evidence ("TPE") to determine standalone selling price since this information is not widely available in the

market as the Company's products contain a significant element of proprietary technology and the solutions offered differ substantially from competitors. The Company has established a process for developing estimated selling prices, which incorporates historical selling prices, the effect of market conditions, gross margin objectives, pricing practices, as well as entity-specific factors. The Company monitors and evaluates estimated selling price on a regular basis to ensure that changes in circumstances are accounted for in a timely manner.

When certain elements in multiple-element arrangements are not delivered or accepted at the end of a reporting period, the relative selling prices of undelivered elements are deferred until these elements are delivered and/or accepted. If deliverables 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.

NANOMETRICS INCORPORATED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(Unaudited)

Note 2. Recent Accounting Pronouncements

In July 2013, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2013-11, Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists (a consensus of the FASB Emerging Issues Task Force) ("ASU 2013-11"), which provides that a liability related to an unrecognized tax benefit would be offset against a deferred tax asset for a net operating loss carryforward, a similar tax loss or a tax credit carryforward if such settlement is required or expected in the event the uncertain tax position is disallowed. In situations in which a net operating loss carryforward, a similar tax loss or a tax credit carryforward is not available at the reporting date under the tax law of the jurisdiction or the tax law of the jurisdiction does not require, and the entity does not intend to use, the deferred tax asset for such purpose, the unrecognized tax benefit will be presented in the financial statements as a liability and will not be combined with deferred tax assets. The amendments should be applied prospectively to all unrecognized tax benefits that exist at the effective date. Retrospective application is permitted. ASU 2013-11 is effective for fiscal years and interim periods beginning after December 15, 2013. The Company adopted this standard during the three months ended March 29, 2014, resulting in a one-time tax benefit of \$0.3 million, a reduction in deferred tax assets of \$0.3 million, and a reduction in long-term income taxes payable of \$0.6 million.

In May 2014, the Financial Accountings Standards Board issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers ("ASU 2014-09"), which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The standard will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The new standard is effective for the Company on January 1, 2017. Early application is not permitted. The standard permits the use of either the retrospective or cumulative effect transition method. The Company is evaluating the effect that ASU 2014-09 will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor has it determined the effect of the standard on its ongoing financial reporting.

Note 3. Fair Value Measurements and Disclosures

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 Company determines the fair values of its financial instruments based on the fair value hierarchy established in ASC 820, 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.

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

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:

	June 28, 2014 Fair Value Measurements Using Input Types			December 28, 2013 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	\$403	\$ —	\$ —	\$403	\$876	\$ —	\$ —	\$876
Commercial paper	_	_			_	750		750
Total cash equivalents	403			403	876	750	_	1,626
Marketable securities:								
U.S. Treasury, U.S. Governmen	ıt							
and U.S. Government agency	5,009	13,416		18,425	5,036	11,980		17,016
debt securities								
Commercial paper, municipal								
securities and corporate debt		30,949		30,949		31,081		31,081
securities								
Total marketable securities	5,009	44,365		49,374	5,036	43,061	_	48,097
Total (1)	\$5,412	\$44,365	\$—	\$49,777	\$5,912	\$43,811	\$—	\$49,723
Liabilities:								
Contingent consideration payable	\$ —	\$ —	\$2,588	\$2,588	\$—	\$—	\$2,783	\$2,783

⁽¹⁾ Excludes cash of \$37.6 million and \$43.1 million held in operating accounts as of June 28, 2014 and December 28, 2013, respectively.

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 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.

Changes in Level 3 liabilities (in thousands)		
Fair value at December 28, 2013	\$2,783	
Payments made to Zygo Corporation	(261)
Change in fair value included in earnings	66	
Fair Value at June 28, 2014	\$2.588	

As of June 28, 2014, the Company had liabilities of \$2.6 million resulting from the acquisition of certain assets from Zygo Corporation ("Zygo"), which are measured at fair value on a recurring basis, with changes in fair value recorded in other income (expense), net. Of the \$2.6 million of Zygo liabilities at June 28, 2014, \$1.2 million was a current

liability and \$1.4 million was a long-term liability. As of December 28, 2013, the liabilities totaled \$2.8 million of which \$1.3 million was a current liability and \$1.5 million was a long-term liability. The fair values of these liabilities were determined using Level 3 inputs applying a discounted cash flow model incorporating assumptions that market participants would use in their estimates of fair value. Some of these assumptions included estimates for discount rate, and timing and the amount of cash flows.

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

Note 4. Cash and Investments

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

	June 28, 2014				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses		Estimated Fair Market Value
Cash	\$37,584	_	\$ —		\$37,584
Cash equivalents: Money market funds Marketable securities:	403	_	_		403
Commercial paper	999	_	_		999
U.S. Treasury securities	5,008	1	_		5,009
U.S. Government agency securities	13,412	6	(2)	13,416
Municipal securities	8,228	5	(1)	8,232
Corporate debt securities	21,710	14	(6)	21,718
Total cash, cash equivalents, and marketable securities	\$87,344	\$26	\$(9)	\$87,361
	December 28, 2013				
	December 28, 2013 Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses		Estimated Fair Market Value
Cash Cash aguivalents					
Cash Cash equivalents: Money market funds Commercial paper Marketable securities:	Amortized Cost \$43,139 876 750	Gains	Losses		Market Value
Cash equivalents: Money market funds Commercial paper Marketable securities: U.S. Treasury Securities	Amortized Cost \$43,139 876 750	Gains	Losses		Market Value \$43,139 876
Cash equivalents: Money market funds Commercial paper Marketable securities: U.S. Treasury Securities U.S. Government	Amortized Cost \$43,139 876 750	Gains	Losses)	Market Value \$43,139 876 750
Cash equivalents: Money market funds Commercial paper Marketable securities: U.S. Treasury Securities U.S. Government agency securities Municipal securities	Amortized Cost \$43,139 876 750 5,036	Gains \$— — —	Losses \$— — —)	Market Value \$43,139 876 750 5,036
Cash equivalents: Money market funds Commercial paper Marketable securities: U.S. Treasury Securities U.S. Government agency securities	Amortized Cost \$43,139 876 750 5,036 11,980	Gains \$— 4	Losses \$— — — — (4		Market Value \$43,139 876 750 5,036 11,980

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 June 28, 2014 and December 28, 2013, were available-for-sale and reported at fair value based on the estimated or quoted market prices as of the balance sheet date. 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 and six months ended June 28, 2014 and June 29, 2013, were insignificant and no

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

marketable securities had other than temporary impairment. All marketable securities as of June 28, 2014 and December 28, 2013, had maturity dates of less than two years and were not invested in foreign entities.

Note 5. Accounts Receivable

The Company maintains arrangements under which eligible accounts receivables 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 in total from 1.23% 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 \$1.0 million and \$3.2 million of receivables during the three months ended June 28, 2014 and June 29, 2013, respectively, and sold \$1.5 million and \$4.6 million of receivables during the six months ended June 28, 2014 and June 29, 2013, respectively. There were no material gains or losses on the sale of such receivables. There were no amounts due from such third party financial institutions at June 28, 2014 and December 28, 2013, respectively.

Note 6. Inventories

Inventories are stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or market. Inventories consist of the following as of the following dates (in thousands):

	June 28,	December 28,
	2014	2013
Raw materials and sub-assemblies	\$20,754	\$19,655
Work in process	8,943	7,597
Finished goods	8,056	7,268
Inventories	37,753	34,520
Inventories-delivered systems	358	6,901
Total inventories	\$38.111	\$41.421

The Company reflects the cost of systems that were invoiced upon shipment but deferred for revenue recognition purposes separate from its inventory held for sale as "Inventories-delivered systems."

Note 7. Property, Plant and Equipment

Property, plant and equipment, net, consist of the following as of the following dates (in thousands):

	June 28, 2014	December 28, 2013	
Land	\$15,575	\$15,569	
Building and improvements	19,803	19,403	
Machinery and equipment	28,146	27,820	
Furniture and fixtures	2,362	2,308	
Software	7,810	1,851	
Capital in progress	1,533	5,833	
Total property, plant and equipment, gros	s75,229	72,784	
Accumulated depreciation and amortization	(27,985	(25,345)
Total property, plant and equipment, net	\$47,244	\$47,439	

Total depreciation and amortization expense for the three months ended June 28, 2014 and June 29, 2013, was \$1.6 million and \$1.3 million, respectively. Total depreciation and amortization expense for the six months ended June 28, 2014 and June 29, 2013, was \$3.2 million and \$2.6 million, respectively.

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

Note 8. Goodwill and Intangible Assets

The following table summarizes the activity in the Company's goodwill during the six months ended June 28, 2014 (in thousands):

Balance as of December 28, 2013	\$11,743	
Foreign currency movements	(66)
Balance as of June 28, 2014	\$11.677	

Finite-lived intangible assets are recorded at cost, less accumulated amortization. Finite-lived intangible assets consisted of the following as of the following dates (in thousands):

	June 28, 2014		
	Adjusted cost	Accumulated amortization	Net carrying amount
Developed technology	\$18,060	\$(12,334) \$5,726
Customer relationships	9,567	(9,420) 147
Brand names	1,927	(1,751) 176
Patented technology	2,252	(2,021) 231
Trademark	80	(80) —
	\$31,886	\$(25,606) \$6,280
	December 28, 2013	3	
	December 28, 201	Accumulated amortization	Net carrying amount
Developed technology	•	Accumulated	
Developed technology Customer relationships	Adjusted cost	Accumulated amortization	amount
1	Adjusted cost \$18,095	Accumulated amortization \$(11,032	amount) \$7,063
Customer relationships	Adjusted cost \$18,095 9,573	Accumulated amortization \$(11,032) (9,263)	amount) \$7,063) 310
Customer relationships Brand names	Adjusted cost \$18,095 9,573 1,927	Accumulated amortization \$(11,032) (9,263) (1,700)	amount) \$7,063) 310) 227

The amortization of finite-lived intangibles is computed using the straight-line method. Estimated lives of finite-lived intangibles range from 2 to 10 years. Total amortization expense for each of the three months ended June 28, 2014 and June 29, 2013 was \$0.8 million and \$0.8 million, respectively. Total amortization expense for each of the six months ended June 28, 2014 and June 29, 2013, was \$1.6 million and \$1.7 million, respectively.

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

At June 28, 2014, estimated future amortization expense of intangible assets were as follows (in thousands):

Fiscal years	Amount
2014 (remaining six months)	\$1,536
2015	2,392
2016	1,940
2017	206
2018	140
Thereafter	66
Total future amortization expense	\$6,280

Note 9. Other Current Liabilities

Other current liabilities consist of the following as of the following dates (in thousands):

	June 28,	December 28,
	2014	2013
Accrued warranty	\$3,484	\$3,426
Accrued professional services	712	545
Customer deposits	930	867
Fair value of contingent payments to Zygo Corporation related to acquisition - current	t _{1 157}	1,344
portion	1,137	1,577
Other	2,065	1,811
Total other current liabilities	\$8,348	\$7,993

Note 10. Line of Credit and Debt Obligations

Line of Credit - On May 30, 2014, the Company amended its revolving line of credit facility (i) to extend the maturity date of such facility by two years to May 30, 2016, and (ii) to increase the minimum amount available to borrow to \$12.0 million. The instrument governing the line of credit facility includes certain financial covenants regarding tangible net worth. The revolving line of credit agreement includes a provision for the issuance of commercial or standby letters of credit by the bank on behalf of the Company. The value of all letters of credit outstanding reduces the total line of credit available. The revolving line of credit is collateralized by a blanket lien on all of the Company's domestic assets excluding intellectual property and real estate. The minimum borrowing interest rate is 3.00% per annum. Borrowing is limited to the lesser of (a) \$12.0 million plus the borrowing base, or (b) \$20.0 million. The total borrowing available as of June 28, 2014, was \$17.6 million. As of June 28, 2014, the Company was not in breach of any restrictive covenants in connection with this line of credit. There were no outstanding amounts drawn on this facility as of June 28, 2014. Although management has no current plans to request advances under this credit facility, the Company may use the proceeds of any future borrowing for general corporate purposes, future acquisitions or expansion of the Company's business.

Mortgage Loan - In July 2008, the Company entered into a mortgage loan agreement with General Electric Commercial Finance ("GE") pursuant to which it borrowed \$13.5 million, secured, in part, by a lien on and security interest in the building and land comprising the Company's principal offices in Milpitas, California. The loan initially bore interest at the rate of 7.18% per annum, which rate was scheduled to reset in August 2013 to 3.03% over the

weekly average yield of five-year U.S Dollar Interest Rate Swaps as published by the Federal Reserve. Monthly principal and interest payments were based on a 20 year amortization for the first 60 months and 15 year amortization thereafter. The remaining principal balance of the loan and any accrued but unpaid interest will be due on August 1, 2018. According to the terms of the loan agreement, the Company could make annual pre-payments of up to 20% of the outstanding principal balance without incurring any penalty. GE subsequently sold the mortgage on March 31, 2011 to Sterling Saving Bank; however, no changes were made to the terms of the original loan agreement with GE as a result of the sale. In July 2012, the Company prepaid \$1.4 million of the loan, representing 20% of the outstanding balance at the time of prepayment. On July 18, 2013, the Company repaid \$4.8 million of the loan, representing the entire outstanding principal balance of the loan and all accrued interest. The Company did not incur any fees associated with

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

the prepayment of the loan. As of June 28, 2014, there was no outstanding balance and no available amounts to borrow on the loan.

Note 11. Net Income (Loss) Per Share

The Company presents both basic and diluted net income (loss) per share on the face of its condensed consolidated statements of operations. Basic net income (loss) per share are computed by dividing net income (loss) by the weighted-average number of shares of common stock outstanding for the period. Diluted net income (loss) per share are computed using the weighted-average number of shares of common stock outstanding 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 (loss) per share computations for the three and six months ended June 28, 2014 and June 29, 2013, is as follows (in thousands):

	Three Months Ended		Six Months En	nded
	June 28, 2014	June 29, 2013	June 28, 2014	June 29, 2013
Weighted average common shares outstanding used in basic net income (loss) per share calculation	23,939	23,138	23,825	23,240
Dilutive common stock equivalents, using treasury stock method	281	_	392	_
Shares used in diluted net income (loss) per share computation	24,220	23,138	24,217	23,240

The Company excluded an insignificant amount of ESPP shares for the six months ended June 28, 2014, since their inclusion would have been anti-dilutive. Since the Company had a net loss for the three and six months ended June 29, 2013, potentially dilutive securities of 0.4 million shares were not included in the computation of diluted shares for each period since inclusion of such shares would have been anti-dilutive. Accordingly, basic and diluted net loss per share were the same for the three and six months ending June 29, 2013.

Note 12. Equity and Stock Based Compensation Plans Options

The fair value of each option award is estimated on the date of grant using the Black-Scholes valuation model and the assumptions noted in the following table. The expected life of options granted was calculated using the simplified method. The risk-free rate is based on the U.S. Treasury rates in effect during the corresponding period of grant. The expected volatility is 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			Six Months Ended				
	June 28,		June 29,		June 28,		June 29,	
	2014		2013		2014		2013	
Stock Options								
Expected life	4.6 years		4.6 years		4.6 years		4.5 years	
Expected volatility	52.00	%	68.90	%	54.86	%	72.32	%
Risk-free interest rate	1.56	%	1.02	%	1.54	%	0.90	%
Dividends	_		_		_		_	
Employee Stock Purchase Plan								

Expected life Expected volatility Risk-free interest rate Dividends	0.5 years 32.60 1.00	, -	0.5 years 25.94 0.10	% %	0.5 years 32.60 1.00	% %	0.5 years 27.61 0.11	% %
15								

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

The weighted average fair value per share of the stock options awarded in the three months ended June 28, 2014 and June 29, 2013, was \$7.30 and \$7.94, respectively, and in the six months ended June 28, 2014 and June 29, 2013, was \$8.13 and \$8.70, respectively, based on the fair market value of the Company's common stock on the grant dates. A summary of activity under the Company's stock option plans during the six months ended June 28, 2014 is as follows:

	Number of Shares Outstanding (Options)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in Thousands)
Options:				
Outstanding at December 28, 2013	1,909,039	\$13.22	4.02	\$10,341
Exercised	(327,466) \$10.39		
Granted	74,300	\$17.56		
Cancelled	(70,688) \$15.42		
Outstanding at June 28, 2014	1,585,185	\$13.91	3.96	\$7,139
Exercisable at June 28, 2014	1,028,377	\$12.73	3.17	\$5,840

The aggregate intrinsic value in the preceding table represents the total pretax intrinsic value, based on the Company's closing stock price of \$18.37 as of June 27, 2014, 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 June 28, 2014 and June 29, 2013, was \$0.8 million and \$0.6 million, respectively, and during the six months ended June 28, 2014 and June 29, 2013, was \$2.5 million and \$1.4 million, respectively.

Restricted Stock Units ("RSUs")

A summary of activity for RSUs during the six months ended June 28, 2014, is as follows:

Number of PSUs	Weighted Average Fair
01 K508	Value
334,444	\$18.61
385,385	\$17.65
(134,858) \$17.91
(15,246) \$17.51
569,725	\$18.37
	of RSUs 334,444 385,385 (134,858 (15,246

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

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 was as follows (in thousands):

	Three Months Ended		Six Months En	ded	
	June 28, June 29,		June 28,	June 29,	
	2014	2013	2014	2013	
Cost of products	\$68	\$53	\$129	\$98	
Cost of service	89	71	174	130	
Research and development	296	362	636	679	
Selling	437	501	863	941	
General and administrative	886	764	1,608	1,360	
Total stock-based compensation expense	\$1,776	\$1,751	\$3,410	\$3,208	

Note 13. Components of Accumulated Other Comprehensive Income (Loss)

The following table shows a summary of changes in components of accumulated other comprehensive income (loss) for the six months ended June 28, 2014 (in thousands):

	Defined	Foreign	Unrealized	
	Benefit	Currency	Gain on	Total
	Pension Plans	Translations	Investment	
Balance at December 28, 2013	\$(28)	\$631	\$9	\$612
Other comprehensive income		385	8	393
Balance at June 28, 2014	\$(28)	\$1,016	\$17	\$1,005

Note 14. Warranties

The Company sells the majority of 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. The warranty accrual represents the best estimate of the amount necessary to settle future and existing claims on products sold as of the balance sheet date. The Company periodically assesses the adequacy of its reported warranty reserve and adjusts such amounts in accordance with changes in these factors.

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

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

	Three Months Ended			Six Months Ended		ded	Į	
	June 28,		June 29,		June 28,		June 29,	
	2014		2013		2014		2013	
Balance at beginning of the period	\$3,575		\$3,655		\$3,426		\$4,203	
Accruals for warranties issued during period	913		701		2,013		1,124	
Aggregate changes in liabilities related to preexisting warranties	993		386		1,204		603	
Settlements during the period	(1,997)	(1,223)	(3,159)	(2,411)
Balance at end of the period	\$3,484		\$3,519		\$3,484		\$3,519	

Note 15. 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 recorded a tax benefit of \$0.01 million and \$2.4 million for the three months ended June 28, 2014 and June 29, 2013, respectively, and a tax provision of \$0.6 million and a tax benefit of \$6.6 million for the six months ended June 28, 2014 and June 29, 2013, respectively. The change during the three months ended June 28, 2014, compared to the corresponding period in 2013, was primarily related to the increase in profitability of the Company during the three months ended June 28, 2014. The change during the six months ended June 28, 2014, compared to the corresponding period in 2013, was primarily related to the increase in profitability of the Company during the six months ended June 28, 2014, as well as a one-time benefit of \$0.6 million recorded during the six months ended June 29, 2013 related to the retroactive reinstatement of the 2012 Federal R&D tax credit.

As of June 28, 2014, the Company continued to maintain a valuation allowance against certain net deferred tax assets as a result of uncertainties regarding the realization of the asset due to cumulative losses and uncertainty of future taxable income in various tax jurisdictions. In the event that 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 South Korea, Japan and United Kingdom. Due to tax attribute carry-forwards, the Company is subject to examination for tax years from 2003 forward for U.S. tax purposes. The Company is also subject to examination in various states for tax years from 2002 forward. The Company is subject to examination for tax years from 2006 forward for various foreign jurisdictions.

On September 13, 2013, the U.S. Treasury Department and the IRS issued final regulations that address costs incurred in acquiring, producing, or improving tangible property (the "tangible property regulations"). The tangible property regulations are generally effective for tax years beginning on or after January 1, 2014, and may be adopted in earlier years. The tangible property regulations required the Company to make additional tax accounting method changes as of January 1, 2014. The impact of these changes was not material to the Company's consolidated financial position or

its results of operations.

The Company accrues interest and penalties related to unrecognized tax benefits in its provision for income taxes. The total amount of accrued penalties and interest was immaterial for the three and six months ended June 28, 2014. During the next twelve months, the Company anticipates increases in its unrecognized tax benefits of approximately \$0.3 million.

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

Note 16. 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 which 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 June 28, 2014 and December 28, 2013.

Note 17. Geographic and Significant Customer Information

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

	Three Months Ended		Six Months End	ed
	June 28, 2014	June 29, 2013	June 28, 2014	June 29, 2013
United States	\$13,302	\$16,328	\$20,043	\$25,761
Japan	2,222	5,407	5,906	6,051
Taiwan	6,281	2,018	10,697	7,230
China	9,358	5,594	24,846	9,141
South Korea	8,373	506	24,262	761
Other	8,493	4,699	13,851	10,160
Total net revenues	\$48,029	\$34,552	\$99,605	\$59,104

	At				
	June 28, 2014	December 28, 2013			
United States	\$44,963	\$44,775			
Japan	105	125			
South Korea	383	445			
All Other	1,793	2,094			
Total long-lived tangible assets	\$47,244	\$47,439			

The following customers accounted for 10% or more of total accounts receivable as of the following dates:

	June 28, 2014	December 28, 2013		
SK Hynix	24	%	22	%
Taiwan Semiconductor Mfg. Co.	17	%	12	%
Global Foundries	17	%	***	
Samsung Electronics Co. Ltd.	***		27	%

Intel Corporation *** 14 %

*** The customer accounted for less than 10% of total accounts receivable as of that period end.

NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (Unaudited)

The following customers accounted for 10% or more of total net revenues:

<u> </u>	Three Months Ended				Six Months	Ended		
	June 28,	June 29,			June 28,		June 29,	
	2014		2013		2014		2013	
Intel Corporation	18	%	29	%	16	%	27	%
SK Hynix	18	%	23	%	13	%	15	%
Samsung Electronics Co. Ltd.	16	%	15	%	35	%	12	%
Global Foundries	15	%	***		***		***	
Taiwan Semiconductor Mfg. Co.	11	%	***		***		***	

^{***} The customer accounted for less than 10% of total net revenues for that period.

Note 18. Subsequent Event

In July 2014, the Company communicated a plan to consolidate a portion of its European operations to maximize efficiencies. The Company anticipates recording a charge related to employee involuntary termination benefits of approximately \$0.7 million. The Company will incur additional charges related to a facility lease which currently expires in 2017. The Company will measure and recognize the exit liability associated with this lease at the cease-use date. The Company expects to complete this restructuring plan by March 2015. Other related costs will be recognized as incurred.

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

This Quarterly Report on Form 10-Q contains forward-looking statements that involve risks and uncertainties. The statements contained in this document that are not purely historical are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, including, without limitation, statements regarding future periods, financial results, revenues, margins, growth, customers, tax rates, product performance, and the impact of accounting rules on our business and the future implications of our statements regarding goals, strategy, and similar terms. We may identify these statements by the use of words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "likely," "may," "might," "plan," "potential," "predict," "project," "should," "will," "would," and other similar expressions. All forward-looking statements included in this document are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements, except as may otherwise be required by law.

Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain risks, uncertainties and changes in circumstances, many of which may be difficult to predict or beyond our control, including those factors referenced in Part II, Item 1A, Risk Factors, and elsewhere in this document, and in Part I, Item 1A, Risk Factors, in our Annual Report on Form 10-K for the fiscal year ended December 28, 2013. In particular our results could vary significantly based on: changes in customer and industry spending; rate and extent of changes in product mix; adoption of new products; timing of orders, shipments, and acceptance of products; our ability to secure volume supply agreements; and general economic conditions. In evaluating our business, investors should carefully consider these factors in addition to any other risks and uncertainties set forth elsewhere. The occurrence of the events described in the risk factors and elsewhere in this report as well as other risks and uncertainties could materially and adversely affect our business, operating results and financial condition. While management believes that the discussion and analysis in this report is adequate for a fair presentation of the information presented, we recommend that you read this discussion and analysis in conjunction with (i) our audited consolidated financial statements and notes thereto for the fiscal year ended December 28, 2013, which were included in our 2013 Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 7, 2014, and (ii) our other filings with the SEC.

We are an innovator in the field of metrology and inspection systems for semiconductor manufacturing and other industries. Our systems are designed to precisely monitor film thickness and critical dimensions that are necessary to control the manufacturing process and to identify defects that can affect production yields and performance. Principal factors that impact our revenue growth include capital expenditures by manufacturers of semiconductors to increase capacity and to enable their development of new technologies, and our ability to gain market share. The increasing complexity of the manufacturing processes for semiconductors is an important factor in the demand for our innovative metrology systems, as are the adoption of optical critical dimension metrology across fabrication processes, the adoption of immersion lithography and double patterning, the adoption of new types of thin film materials, the adoption of advanced packaging strategies and wafer backside inspection, and the need for improved process control to drive process efficiencies. Our strategy is to continue to innovate organically as well as to evaluate strategic acquisitions to address business challenges and opportunities.

Our revenues are primarily derived from product sales but are also derived from customer service and system upgrades ("services") for the installed base of our products. For the six months ended June 28, 2014, we derived 83% of our total net revenues from product sales and 17% of our total net revenues from services.

Overview

Nanometrics Incorporated, together with its subsidiaries, is a leading provider of advanced, high-performance process control metrology and inspection systems used primarily in the fabrication of integrated circuits, high-brightness LEDs ("HB-LED"), discrete components and data storage devices. Our automated and integrated systems address numerous process control applications, including critical dimension and film thickness measurement, device

topography, defect inspection, overlay registration, and analysis of various other film properties such as optical, electrical and material characteristics. Our process control solutions are deployed throughout the fabrication process, from front-end-of-line substrate manufacturing, to high-volume production of semiconductors and other devices, to advanced wafer-scale packaging applications. Our systems enable device manufacturers to improve yields, increase productivity and lower their manufacturing costs. Our defect inspection systems locate large area and microscopic defects on patterned and unpatterned wafers. This system can be used for inspection at nearly every stage of the semiconductor production flow.

Nanometrics Products

We offer a diverse line of systems to address the broad range of process control requirements of the semiconductor manufacturing industry. In addition, we believe that our engineering expertise, strategic acquisitions, supplier alliances and short-cycle production strategies enable us to develop and offer advanced process control solutions in the future that should address industry advancement and trends. We categorize our systems as follows:

Automated Standalone Systems

Our automated systems are made up of both semi-automated and fully automated metrology systems which are employed in both high-volume and low-volume production environments. The Atlas® II, Atlas II+, Atlas XP/Atlas XP+ and Atlas-M represent our line of high-performance metrology systems providing optical critical dimension ("OCI®), thin film metrology and wafer stress for transistor and interconnect metrology applications. The OCD technology is supported by our NanoCD® suite of solutions including our NanoDiffract® software and NanoGenTM scalable computing engine that enables visualization, modeling, and analysis of complex structures. The UniFireTM system enables users to measure multiple parameters at any given process step in the advanced packaging process flow for critical dimension, overlay, and topography applications. Our SPARKTM defect inspection system, offers ultra-fast inspection of patterned and unpatterned semiconductor wafers.

We continue to offer automated products for 200mm factories running at 90nm nodes and above, as well as systems supporting micro-electrical mechanical systems ("MEMS").

System Platform

The Lynx® platform enables cluster metrology factory automation for improved cost of ownership to our customers by combining our Atlas® II and IMPULSE®, UniFire metrology and SPARK inspection systems in configurations to provide high throughput, reduced footprint systems for leading 300mm wafer metrology applications including OCD and thin film process control.

Integrated Systems

Our integrated metrology ("IM") systems are installed directly onto wafer processing equipment to provide near real-time measurements for improved process control and maximum throughput. Our IM systems are sold directly to end customers and through OEM channels. The IMPULSE® system is our latest metrology platform for OCD and thin film metrology, and has been successfully qualified on numerous OEM platforms. Our 90x0 system is qualified for OEM and direct sales supporting thin film and OCD applications. Our NanoCD solutions suite is sold in conjunction with our IMPULSE® and legacy 90x0 systems. Our Trajectory® system provides in-line measurement of layers in thin film thickness and composition in semiconductor applications.

Materials Characterization

Our Materials Characterization products include systems that are used to monitor the physical, optical, electrical and material characteristics of discrete electronic industry, HB-LED, solar Photo-Voltaics ("PV"), compound semiconductor, strained silicon and silicon-on-insulator ("SOI") devices, including composition, crystal structure, layer thickness, dopant concentration, contamination and electron mobility.

Our VertexTM is a photoluminescence ("PL") mapping system designed for high-volume compound semiconductor metrology applications including power control and photonics applications. The RPMBlueTM is our latest PL mapping system designed specifically for the HB-LED market. We sell Fourier-Transform Infrared ("FTIR") automated and manual systems in the QS2200/3300 and QS1200 respectively. The FTIR systems are spectrometers designed for non-destructive wafer analysis for various applications. The NanoSpec[®] line, including the NanoSpec II products supporting thin film measurement across all applications in both low volume production and research applications.

We are continually working to strengthen our competitive position by developing new technologies and products in our market segment. In furtherance of our goals, we have:

Introduced new products in every core product line and primary market served;

Diversified our product line and addressed new markets through acquisitions, such as the 2011 acquisition of Nanda Technologies GmbH, a supplier of high sensitivity, high throughput defect inspection systems;

Continued development of new measurement and inspection technologies for advanced fabrication processes; and

Researched and developed innovative applications of existing technology to new market opportunities within the solar PV, HB-LED, and data storage industries.

Important Themes and Significant Trends

The semiconductor equipment industry is characterized by cyclical growth. Changing trends in the semiconductor industry continue to drive the need for metrology as a major component of manufacturing systems. These trends include:

Proliferation of Optical Critical Dimension Metrology across Fabrication Processes. Our customers use photolithographic processes to create patterns on wafers. Critical dimensions must be carefully controlled during this process. In advanced node device definition, additional monitoring of thickness and profile dimensions on these patterned structures at CMP, Etch, and Thin Film processing is driving broader OCD adoption. Our proprietary OCD systems can provide the critical process control of these circuit dimensions that is necessary for successful manufacturing of these state-of-the-art devices. Nanometrics OCD technology is broadly adopted across NAND, DRAM, HDD, and logic semiconductor manufacturing processes.

Adoption of Advanced Packaging Processes. Our customers use photolithographic, etching, metallization and wafer thinning to enable next generation advanced packaging solutions for semiconductor devices. The new packaging leads to increased functionality in smaller, less expensive form factors. Advanced packages can be broken down into high density flip chip or bump packages that increase pin density allowing for more complex I/O on advanced CPU parts. Similar or different devices can be stacked at the wafer level using a Through Silicon Via ("TSV") process. The TSV process enables high density small form factor parts, being primarily driven by mobile consumer products (e.g. cellular telephones with integrated CMOS camera sensors). Increasingly advanced packaging technologies are being adopted by our end customers.

Adoption of New Types of Thin Film Materials. The need for ever increasing device circuit speed coupled with lower power consumption has pushed semiconductor device manufacturers to begin the replacement of the traditional aluminum etch back interconnect flows as well as conventional gate dielectric materials, all which drive a broader adoption of thin film and OCD metrology systems. To achieve greater semiconductor device speed, manufacturers have adopted copper in Logic/IDM and it is now proliferating in next generation DRAM and Flash nodes.

Additionally, to achieve improved transistor performance in logic devices and higher cell densities in memory devices, new materials including high dielectric constant (or high-k) gate materials are increasingly being substituted for traditional silicon-oxide gate dielectric materials. High-k materials comprise complex thin films including layers of hafnium oxide and a bi-layer of thin film metals. Our advanced metrology and inspection solutions are required for control of process steps, which are critical to enable the device performance improvements that these new materials allow.

Development of 3D Transistor Architectures. Our end customers continue to improve device density and performance by scaling front end of line transistor architectures. Many of these designs, including fin-fet transistors and 3D-NAND have buried features and high aspect ratio stacked features that enable improved performance and density. The advanced designs require additional process control to manage the complex shapes and materials properties, driving additional applications for both OCD and our UniFire systems.

Need for Improved Process Control to Drive Process Efficiencies. Competitive forces influencing semiconductor device manufacturers, such as price-cutting and shorter product life cycles, place pressure on manufacturers to rapidly achieve production efficiency. Device manufacturers are using our integrated and automated systems throughout the fabrication to ensure that manufacturing processes scale rapidly, are accurate and can be repeated on a consistent basis.

Reduced Number of Customers. Our market is characterized by an ongoing oligopsonistic trend which drives customer concentration. Our largest customer accounted for 35% of our total revenue in the six months ended June 28, 2014, and 27% of our total revenue in the six months ended June 29, 2013.

Critical Accounting Policies

The preparation of our financial statements conforms to accounting principles generally accepted in the United States of America, which requires management, in applying our accounting policies, to make estimates and judgments that have an important impact on our reported amounts of assets, liabilities, revenue, expenses and related disclosures at the date of our financial statements. On an on-going basis, management evaluates its estimates including those related to bad debts, inventory valuations, warranty obligations, impairment and income taxes. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from management's estimates. There were no significant changes in our critical accounting policies during the six months ended June 28, 2014. Please refer to Item 7, "Management's Discussion and Analysis of

Financial Condition and Results of Operations," in our Annual Report on Form 10-K for the fiscal year ended December 28, 2013 for a complete discussion of our critical accounting policies.

Recent Accounting Pronouncements

See Note 2 of the Unaudited Condensed Consolidated Financial Statements for a description of recent accounting pronouncements, including the respective dates of adoption and effects or anticipated effects on our results of operations and financial condition.

Results of Operations

Net Revenues

Our net revenues by category were as follows (in thousands, except percentages):

	Three Mo	nths Ended			Six Months Ended						
	June 28,	June 29,	, Changes In			June 28,	June 29,	Changes In			
	2014	2013	Amount	%		2014	2013	Amount	%		
Automated Systems	\$33,456	\$23,366	\$10,090	43	%	\$67,339	\$28,628	\$38,711	135	%	
Integrated Systems	2,853	1,761	1,092	62	%	9,775	3,916	5,859	150	%	
Materials Characterization	2,915	1,406	1,509	107	%	5,390	7,068	(1,678	(24)%	
Total product revenues	39,224	26,533	12,691	48	%	82,504	39,612	42,892	108	%	
Service revenues	8,805	8,019	786	10	%	17,101	19,492	(2,391)	(12)%	
Total net revenues	\$48,029	\$34,552	\$13,477	39	%	\$99,605	\$59,104	\$40,501	69	%	

For the three and six months ended June 28, 2014, total net revenues increased by \$13.5 million and \$40.5 million, respectively, relative to the comparable 2013 periods. These increase were primarily from an industry-wide improvement in memory-related semiconductor capital spending and from an increase in foundry penetration, supported by the adoption of multiple Atlas®, UniFireTM and IMPULSE® systems by multiple customers. For the three and six months ended June 28, 2014, product revenues increased by \$12.7 million and \$42.9 million, respectively, relative to the comparable 2013 period. These increases were led by a \$10.1 million and \$38.7 million increase in the three and six months ended June 28, 2014, relative to the comparable 2013 periods, in Automated Systems sales (primarily from Atlas® II, followed by UniFireTM) and a \$1.1 million and \$5.9 million increase in the three and six months ended June 28, 2014, relative to the comparable 2013 periods, in Integrated Systems sales (primarily from IMPULSE® systems), for the reasons cited above.

Service revenues increased by \$0.8 million during the three months ended June 28, 2014, relative to the comparable 2013 period, due to an increase in demand for core services from customers. Service revenues decreased by \$2.4 million during the six months ended June 28, 2014, relative to the comparable 2013 period, primarily due to upgrades of a large number of installed tools by a customer during the first quarter of 2013. Upgrades tend to fluctuate from quarter-to-quarter based on availability of new functionality from upgrades and customer production cycles, which determine when customers purchase available upgrades.

With a significant portion of the world's semiconductor manufacturing capacity located in Asia, a substantial portion of our revenues continue to be generated in that region. Although sales to customers within individual countries of that region will vary from time-to-time, we expect that a substantial portion of our revenues will continue to be generated in Asia.

Gross Margin

Our gross margin for product and services were as follows:

	Three Month	hs Ended	Six Months	s Ended	
	June 28,	June 29,	June 28,	June 29,	
	2014	2013	2014	2013	
Product	47.8	% 41.7	% 48.1	% 39.2	%
Services	47.1	% 42.7	% 42.9	% 48.5	%

The calculation of product gross margin includes both cost of products and amortization of intangible assets. Product gross margin for the three and six months ended June 28, 2014, was 47.8% and 48.1%, respectively, reflecting an increase of 6.1 percentage points and 8.9 percentage points, respectively, from the comparable periods in 2013. The increase during the three and six months ended June 28, 2014, compared to the same periods of the prior fiscal year, was primarily driven by the favorable impact of higher revenues against fixed costs, such as fixed overhead and amortization of intangible assets, and by the decrease in reserves for excess and obsolete inventory.

The gross margin for our services business was 47.1% and 42.9%, respectively, for the three and six months ended June 28, 2014, reflecting an increase of 4.4 percentage points and a decrease of 5.6 percentage points, respectively, from the comparable period in 2013. The increase in the three months ended June 28, 2014, as compared to the same period in 2013, was primarily driven by higher core services revenue. The decrease in the six months ended June 28, 2014, as compared to the same period in 2013, was due principally to a decrease in upgrade revenues, which typically have higher margins than core service revenue.

Operating Expenses

Our operating expenses comprised the following (in thousands, except percentages):

	Three Mon	ths Ended		Six Months Ended						
			Changes i	n				Changes in		
	June 28, 2014	June 29, 2013	Amount	%		June 28, 2014	June 29, 2013	Amount	%	
Research and development	\$9,373	\$8,321	\$1,052	13	%	\$17,687	\$15,768	\$1,919	12	%
Selling	6,681	6,613	68	1	%	14,054	13,545	509	4	%
General and administrative	6,001	5,507	494	9	%	12,339	11,019	1,320	12	%
Amortization of intangible assets	107	195	(88)	(45)%	215	393	(178)	(45)%
Total operating expenses	\$22,162	\$20,636	\$1,526	7	%	\$44,295	\$40,725	\$3,570	9	%

Research and development. Research and development expenses increased by \$1.1 million for the three months ended June 28, 2014, over the comparable period in 2013, primarily due to the following:

- •a \$0.8 million increase in spending for non-recurring engineering projects, including product design and prototype development, along with related material spending; and
- •a \$0.5 million increase in personnel related costs, primarily related to increased headcount and personnel related benefit cost; partially offset by
- •a \$0.3 million decrease in use of outside consultants.

Research and development expenses increased by \$1.9 million for the six months ended June 28, 2014, over the comparable period in 2013, primarily due to the following:

- •a \$1.2 million increase in spending for non-recurring engineering projects, including product design and prototype development, along with related material spending; and
- •a \$1.0 million increase in personnel related costs, primarily related to increased headcount and personnel-related benefit cost; partially offset by

•a \$0.3 million decrease in use of outside consultants.

Selling. Selling expenses were unchanged for the three months ended June 28, 2014, over the comparable period in 2013. Increases in personnel related cost and sales commissions of \$0.3 million were offset by a decrease of \$0.2 million in demonstration equipment amortization.

Selling expenses increased by \$0.5 million for the six months ended June 28, 2014, over the comparable period in 2013, primarily due to the following:

•a \$0.6 million increase in personnel related costs, including commissions and travel costs; partially offset by •a \$0.2 million decrease in demonstration tool amortization.

General and administrative. General and administrative expenses increased by \$0.5 million for the three months ended June 28, 2014, over the comparable period in 2013, primarily due to the increase in consulting, and software license fees and amortization related to the implementation of a new Enterprise Resource Planning ("ERP") system in the first quarter of 2014.

General and administrative expenses increased by \$1.3 million for the six months ended June 28, 2014, over the comparable periods in 2013, primarily due to a \$0.9 million increase in consulting, and software license fees and amortization related to the implementation of the ERP system in the first quarter of 2014.

Restructuring. In July 2014, the Company communicated a plan to consolidate a portion of its European operations to maximize efficiencies. In the second half of 2014, the Company anticipates recording a charge related to employee involuntary termination benefits of approximately \$0.7 million. The Company will incur additional charges related to a facility lease which currently expires in 2017. The Company will measure and recognize the exit liability associated with this lease at the cease-use date. The Company expects to complete this restructuring plan by March 2015. Other related costs will be recognized as incurred.

Amortization of intangible assets. Amortization of intangible assets decreased for the three and six months ended June 28, 2014, compared to the same periods in 2013, as a result of the reduction in amortization due to intangible assets that became fully amortized in 2013.

Other Income (expense), net. Our other income (expense), net, consisted of the following categories (in thousands, except percentages):

	Three Months Ended				Six Months Ended											
					Changes	in							Changes	in		
	June 28, 2014		June 29, 2013		Amount		%		June 28, 2014		June 29, 2013		Amount		%	
Interest income	\$10		\$20		\$(10)	(50)%	\$24		\$45		\$(21)	(47)%
Interest expense	(96)	(205)	109		(53)%	(196)	(431)	235		(55)%
Other income (expense), net	(84)	(637)	553		(87)%	168		(597)	765		(128)%
Total other income (expense), net	\$(170)	\$(822)	\$652		(79)%	\$(4)	\$(983)	\$979		(100)%

Interest expense for the three and six months ended June 28, 2014, was lower than the comparable prior year period due to the repayment of the entire outstanding balance of the mortgage on our headquarters during 2013. The decrease in other expense, net, during the three and six months ended June 28, 2014, compared to the same periods in 2013, was primarily due to a change in fair value of contingent consideration payable as a result of fluctuation of unobservable inputs, which resulted in an increase of \$0.5 million and \$0.8 million in other expense during the three and six months ended June 30, 2013, compared to a nominal adjustment during the three and six months ended June 28, 2014.

Income Taxes

We account for income taxes under the provisions of ASC 740, Accounting for Income Taxes. We adjust the effective tax rate each quarter to be consistent with the estimated annual effective tax rate. We also record 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. Our 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.

We recorded a tax benefit of \$0.1 million and \$2.4 million for the three months ended June 28, 2014 and June 29, 2013, respectively, and a tax provision of \$0.6 million and a tax benefit of \$6.6 million for the six months ended June 28, 2014 and June 29, 2013, respectively. The change during the three months ended June 28, 2014, compared to the corresponding period in 2013, was primarily related to the increase in profitability during the three months ended June 28, 2014. The change during the six months ended June 28, 2014, compared to the corresponding period in 2013, was primarily related to the increase in profitability during the six months ended June 28, 2014, as well as a one-time benefit of \$0.6 million recorded during the six months ended June 29, 2013 related to the retroactive reinstatement of the 2012 Federal R&D tax credit.

As of June 28, 2014, we continued to maintain a valuation allowance against certain net deferred tax assets as a result of uncertainties regarding the realization of the asset due to cumulative losses and uncertainty of future taxable income in various tax jurisdictions. In the event that we determine 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. We are subject to taxation in the United States and various states including California, and foreign jurisdictions including South Korea, Japan and the United Kingdom. Due to tax attribute carry-forwards, we are subject to examination by the IRS for tax years beginning from the 2003 tax year for U.S. tax purposes. We are also subject to examination in various states for tax years beginning from the 2002 tax year. We are also subject to examination in various foreign jurisdictions beginning from the 2006 tax year.

On September 13, 2013, the U.S. Treasury Department and the IRS issued final regulations that address costs incurred in acquiring, producing, or improving tangible property (the "tangible property regulations"). The tangible property regulations are generally effective for tax years beginning on or after January 1, 2014. The tangible property regulations required us to make additional tax accounting method changes as of January 1, 2014. The impact of these changes was not material to our consolidated financial position or our results of operations.

We accrue interest and penalties related to unrecognized tax benefits in the provision for income taxes. The total amount of accrued penalties and interest was immaterial for the three and six months ended June 28, 2014. During the next twelve months, we anticipate increases in our unrecognized tax benefits of approximately \$0.3 million. Liquidity and Capital Resources

We maintain an ongoing investment strategy of maintaining a portion of our cash and investments in available-for-sale investments with the objective of preserving capital and maintaining liquidity while mitigating concentration risk and increasing yields. Our policy is to maintain a marketable securities portfolio consisting of highly rated investments that may include: obligations issued by the U.S. Treasury and its agencies, corporate bonds and commercial paper, tax exempt debt obligations of U.S. municipalities, and time deposits at commercial banks. Our policy is that, with the exception of U.S. treasury and agency issues, no single issue at the time of purchase, may exceed 5% of the total portfolio or have a duration exceeding two years. At June 28, 2014, our cash and cash equivalents, and marketable securities totaled \$87.4 million and working capital was \$151.5 million, compared to \$92.9 million and \$141.8 million, respectively, as of December 28, 2013.

Our principal cash requirements include working capital, capital expenditures, and payment of taxes. In addition, we regularly evaluate our ability to repurchase our common stock and acquire other businesses and technologies. Our principal sources of liquidity are from our cash, cash equivalents and marketable securities, cash flow generated from our operations, and, to a lesser extent, available borrowings from a line of credit. Our liquidity is affected by many factors, including those that relate to our specific operations and those that relate to the uncertainties of global and regional economies and the sectors of the semiconductor industry which we operate in. Although our cash requirements will fluctuate based on the timing and extent of these factors, we believe our existing cash, cash equivalents and marketable securities, and borrowing availability, combined with cash currently projected to be generated from our operations, will be sufficient to meet our liquidity needs through at least the next twelve months. Cash Flows from Operating Activities

Cash used in operating activities for the six months ended June 28, 2014, was \$4.6 million, which resulted primarily from the following factors: Net income of \$2.2 million and non-cash transactions of \$10.3 million, offset in part by an \$17.1 million reduction in non-cash working capital. Non-cash transactions primarily consisted of depreciation and

amortization expense of \$4.8 million, stock based compensation of \$3.4 million, inventory write down of \$1.5 million, and a \$0.5 million decrease in deferred income taxes. The reduction in non-cash working capital as of June 28, 2014, compared to December 28, 2013, was primarily due to a \$15.0 million decrease in deferred revenue, a \$3.0 million decrease in accounts payables, accrued and other liabilities, a \$3.8 million increase in inventory, and a \$1.9 million increase in accounts receivables, offset in part by a \$6.5 million decrease in inventory - delivered systems and a \$1.2 million decrease in prepaid expenses and other.

Cash used by operating activities for the six months ended June 29, 2013, was \$17.0 million, which resulted primarily from the following factors: net loss of \$10.1 million and a \$11.8 million decrease in non-cash working capital offset in part by non-cash items of \$5.0 million. Non-cash items primarily consisted of depreciation and amortization expense of \$4.3 million, stock based compensation of \$3.2 million, inventory write down of \$2.8 million, and a \$1.0 million increase in the fair value of contingent consideration, offset in part by \$6.7 million of deferred income taxes. The reduction in non-cash working capital as of June 29, 2013, from December 29, 2012, was primarily due to an \$11.1 million increase in accounts receivable as a result of higher sales volumes during the second quarter ended June 29, 2013, and a \$4.1 million increase in inventory, partially offset by a \$2.5 million decrease in deferred revenue. Cash Flows from Investing Activities

For the six months ended June 28, 2014, \$19.5 million of cash was used for purchases of marketable securities, and \$3.8 million for capital asset purchases. These outflows were offset in part by \$17.6 million cash received from maturities of marketable securities.

For the six months ended June 29, 2013, \$23.5 million of cash was used for purchases of marketable securities, and \$2.0 million for capital asset purchases. These outflows were offset by \$22.8 million cash received from maturities of marketable securities.

Cash Flows from Financing Activities

For the six months ended June 28, 2014, \$3.3 million was provided by financing activities primarily from \$4.2 million, net of tax, received from the issuance of common stock from employee stock option exercises and stock purchased under the employee stock purchase program, partially offset by a \$0.7 million reduction related to employee taxes paid on net issuances of stock awards and \$0.3 million paid to Zygo related to royalties and sustaining engineering payments.

For the six months ended June 29, 2013, \$3.3 million was used for financing activities primarily composed of \$5.0 million used to repurchase common stock, \$0.5 million used to repay debt obligations, and a \$0.4 million reduction related to the effect of excess tax benefits from the exercise of stock options. These payments were partially offset by \$2.9 million, net of tax, received from the issuance of common stock from employee stock option exercises and stock purchased under the employee stock purchase program.

Line of Credit

On May 30, 2014, we amended our revolving line of credit facility with Comerica Bank principally (i) to extend the maturity date of such facility by two years to May 30, 2016, and (ii) to increase the minimum amount available to borrow to \$12.0 million. The instrument governing the line of credit facility includes certain financial covenants regarding tangible net worth. The revolving line of credit agreement includes a provision for the issuance of commercial or standby letters of credit by the bank on our behalf. The value of all letters of credit outstanding reduces the total line of credit available. The revolving line of credit is collateralized by a blanket lien on all of our domestic assets excluding intellectual property and real estate. The minimum borrowing interest rate is 3.00% per annum. Borrowing is limited to the lesser of (a) \$12.0 million plus the borrowing base, or (b) \$20.0 million. The total borrowing available as of June 28, 2014 was \$17.6 million. As of June 28, 2014, we were not in breach of any restrictive covenants in connection with this line of credit. There were no outstanding amounts drawn on this facility as of June 28, 2014. Although we have no current plans to request advances under this credit facility, we may use the proceeds of any future borrowing for general corporate purposes, future acquisitions or expansion of our business.

Mortgage Loan

In July 2008, we entered into a loan agreement with General Electric Commercial Finance ("GE") pursuant to which we borrowed \$13.5 million, secured, in part, by a lien on and security interest in the building and land comprising our principal offices in Milpitas, California. The loan initially bore interest at the rate of 7.18% per annum which rate was scheduled to reset in August 2013 to 3.03% over the weekly average yield of five-year U.S. Dollar Interest Rate Swaps as published by the Federal Reserve. Monthly principal and interest payments were based on a 20 year amortization for the first 60 months and 15 year amortization thereafter. The remaining principal balance of the loan and any accrued but unpaid interest was due on August 1, 2018. According to the terms of the loan agreement, we could make annual pre-payments of up to 20% of the outstanding principal balance without incurring any penalty. GE

subsequently sold the mortgage on March 31, 2011 to Sterling Saving Bank; however, no changes were made to the terms of the original loan agreement with GE as a result of the sale. In July 2012, we prepaid \$1.4 million of the loan, respectively, representing 20% of the outstanding balance at the time of prepayment. On July 18, 2013, we repaid \$4.8 million of the loan, representing the entire outstanding principal balance of the loan and all accrued interest. We did not incur any fees associated with the prepayment of the loan. As of June 28, 2014, there was no outstanding balance and no available amount to borrow under the loan.

Repurchases of Common Stock

On May 29, 2012, our Board of Directors approved a program to repurchase up to \$20.0 million of our common stock, referred to as the 2012 program. Stock repurchases under this program may be made through open market and privately negotiated transactions, at times and in such amounts as management deems appropriate. The timing and actual number of shares repurchased is dependent on a variety of factors including price, corporate and regulatory requirements and other market conditions. During the three months ended March 30, 2013, we repurchased and retired 332,771 shares of our common stock under this approved program at the weighted average price of \$15.03 per share. We made no repurchases of our common stock during the six months ended June 28, 2014. As of June 28, 2014, \$11.5 million remained available for the future repurchase of shares of our common stock under the 2012 program.

Business Partnership

On June 17, 2009, we announced a strategic business relationship with Zygo under which we purchased inventory and certain other assets including the UniFire system from Zygo and the two companies entered into a supply agreement. We will make payments to Zygo (with an estimated present value of \$2.6 million as of June 28, 2014, compared to \$2.8 million as of December 28, 2013) over a period of time as acquired inventory is sold and other aspects of the supply agreement are executed. We made royalty and sustaining engineering payments of \$0.3 million and \$0.2 million to Zygo in each of the six months ended June 28, 2014 and June 29, 2013, respectively.

We have evaluated and will continue to evaluate the acquisitions of products, technologies or businesses that are complementary to our business. These activities may result in product and business investments, which may affect our cash position and working capital balances. Some of these activities might require significant cash outlays.

We believe our cash, cash equivalents, marketable securities, and borrowing availability will be sufficient to meet our needs through at least the next twelve months. Our ability to fund our working capital needs, planned capital expenditures and scheduled debt payments, as well as to comply with all of the financial covenants under our debt agreements, depends on our future operating performance and cash flow, which in turn are subject to prevailing economic conditions, and to financial, business and other factors, some of which are beyond our control.

Off-Balance Sheet Arrangements

As of June 28, 2014, we had no off-balance sheet arrangements or obligations.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk does not differ materially from that discussed in our Annual Report on Form 10-K for the fiscal year ended December 28, 2013, filed with the SEC on March 7, 2014. However, we cannot give any assurance as to the effect that future changes in interest rates or foreign currency rates will have on our consolidated financial position, results of operations or cash flows.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management evaluated, with the participation of our Chief Executive Officer, Timothy J. Stultz, and our Chief Financial Officer, Ronald W. Kisling, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that as of June 28, 2014, our disclosure controls and procedures were effective to ensure that information we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934 were (i) recorded, processed, summarized and reported within the time periods specified in SEC rules and

forms; and (ii) accumulated and reported to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely discussions regarding required disclosures.

Changes in Internal Control over Financial Reporting

During the first quarter of 2014, we implemented a new enterprise resource planning or ERP system. The new ERP system was designed and implemented, in part, to enhance the overall system of internal control over financial reporting through further automation and integration of business processes and was not implemented in response to any identified deficiency or material

weakness in the Company's internal control over financial reporting. This implementation was significant in scale and complexity and significantly affected certain accounting functions. Both during and after the implementation, the Company attempted to maintain its internal control design to achieve all key financial reporting assertions. During the quarter ended June 28, 2014, there were no changes in our internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, has designed our disclosure controls and procedures and our internal control over financial reporting to provide reasonable assurances that the controls' objectives will be met. However, management does not expect that disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within Nanometrics have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any system's design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of a system's control effectiveness into future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

PART II — OTHER INFORMATION

ITEM 1A. RISK FACTORS

Investing in our securities involves a high degree of risk. In assessing these risks, you should carefully consider the information included in or incorporated by reference into this report, including our financial statements and the related notes thereto. You should carefully review and consider all of the risk factors set forth in Part 1, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 28, 2013, filed with the SEC on March 7, 2014. The risks described in our Annual Report on Form 10-K are not the only ones we face. Additional risks and uncertainties that are not presently known to us or that we currently believe are immaterial may also impair our business operations. Our business, operating results and financial conditions could be materially harmed by any of these risks. The trading price of our common stock could decline due to any of these risks and investors may lose all or part of their investment. There have been no material changes in our risk factors from those discussed in our Annual Report on Form 10-K for the fiscal year ended December 28, 2013.

ITEM 6. EXHIBITS

The following exhibits are filed, furnished or incorporated by reference with this Quarterly Report on Form 10-Q:

Exhibit No.	Description
3(i)	Certificate of Incorporation
3.1(1)	Certificate of Incorporation of the Registrant
3(ii)	Bylaws
3.2(2)	Bylaws of the Registrant
10	Material Contracts
	All Other Material Contracts
10.2(3)	Sixth Amendment to Loan and Security Agreement by and between Comerica Bank and Nanometrics Incorporated dated May 30, 2014.
31	Rule 13a-14(a)/15d-14(a) Certifications
31.1(4)	Certification of Timothy J. Stultz, principal executive officer of the Registrant, pursuant to rule 13a-14(a) or rule 15a-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2(4)	Certification of Ronald W. Kisling, principal financial officer of the Registrant, pursuant to rule 13a-14(a) or rule 15a-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32 32.1(4)	Section 1350 Certifications Certification of Timothy J. Stultz, principal executive officer of the Registrant, and Ronald W. Kisling, principal financial officer of the Registrant, pursuant to rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101(5)	The following financial statements, formatted in XBRL: (i) Condensed Consolidated Balance Sheets at June 28, 2014, and December 28, 2013, (ii) Condensed Consolidated Statements of Operations for the three and six months ended June 28, 2014 and June 29, 2013, (iii) Condensed Consolidated Statements of Cash Flows for the six months ended June 28, 2014 and June 29, 2013, and (v) Notes to Unaudited Condensed Consolidated Financial Statements, tagged as blocks of text. The information is Exhibit 101 is "furnished" and not "filed", as provided in Rule 402 of Regulation S-T.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

- (2) Incorporated by reference to Exhibit 3.1 filed with the Registrant's Current Report on Form 8-K (SEC File No. 000-13470) filed with the SEC on April 12, 2012.
- Incorporated by reference to Exhibit 99.1 filed with the Registrant's Current Report on Form 8-K filed on June 4, 2014.
- (4) Filed herewith.
- (5) Furnished herewith.

Incorporated by reference to Exhibit 3.1 filed with the Registrant's Current Report on Form 8-K (SEC File No. 000-13470) filed with the Securities and Exchange Commission ("SEC") on October 5, 2006.

SIGNATURES

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

NANOMETRICS INCORPORATED (Registrant)

By: /S/ RONALD W. KISLING Ronald W. Kisling Chief Financial Officer (Principal Financial Officer)

Dated: July 31, 2014

EXHIBIT INDEX

Exhibit No.	Description Contificate of Incorporation
3(i)	Certificate of Incorporation
3.1(1)	Certificate of Incorporation of the Registrant
3(ii)	Bylaws
3.2(2)	Bylaws of the Registrant
10	Material Contracts
	All Other Material Contracts
10.1(3)	Sixth Amendment to Loan and Security Agreement by and between Comerica Bank and Nanometrics Incorporated dated May 30, 2014.
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