NANOMETRICS INC Form 10-Q May 09, 2012

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

FORM 10-O

(Mark One)

T Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the quarterly period ended March 31, 2012

OR

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

For the transition period from to

Commission file number 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 (§232.405 of this chapter) 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 \pounds Accelerated filer S

Non-accelerated filer £ (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 £ No O

As of May 7, 2012 there were 23,487,234 shares of common stock, \$0.001 par value, issued and outstanding.

Table of Contents

NANOMETRICS INCORPORATED INDEX TO QUARTERLY REPORT ON FORM 10-Q FOR QUARTER ENDED MARCH 31, 2012

PART I. FIN	ANCIAL INFORMATION	Page 3
Item 1.	Financial Statements (Unaudited)	<u>3</u>
	Condensed Consolidated Balance Sheets at March 31, 2012 and December 31, 2011	<u>3</u>
	Condensed Consolidated Statements of Comprehensive Income for the Three Month Periods Ended March 31, 2012 and April 2, 2011	<u>4</u>
	Condensed Consolidated Statements of Cash Flows for the Three Month Periods Ended March 31, 2012 and April 2, 2011	<u>5</u>
	Notes to Condensed Consolidated Financial Statements	<u>6</u>
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	<u>19</u>
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	<u>25</u>
Item 4.	Controls and Procedures	<u>26</u>
PART II. OT	HER INFORMATION	<u>26</u>
Item 1.	Legal Proceedings	<u>27</u>
Item 1	A. Risk Factors	<u>27</u>
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	<u>28</u>
Item 6.	<u>Exhibits</u>	<u>29</u>
Signatu	u <u>res</u>	<u>30</u>
2		

Table of Contents

PART I — FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

NANOMETRICS INCORPORATED CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands except per share amounts)

(Unaudited)

	March 31, 2012	December 31, 2011
ASSETS		
Current assets:		
Cash and cash equivalents	\$95,478	\$97,699
Accounts receivable, net of allowances of \$126 and \$117, respectively	38,783	29,289
Inventories	48,978	52,260
Inventories-delivered systems	1,884	1,637
Prepaid expenses and other	10,629	8,119
Deferred income tax assets	9,527	12,406
Total current assets	205,279	201,410
Property, plant and equipment, net	38,255	35,521
Goodwill	11,951	11,990
Intangible assets, net	13,618	14,394
Deferred income tax assets	3,140	2,864
Other assets	892	1,042
Total assets	\$273,135	\$267,221
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$10,364	\$7,975
Accrued payroll and related expenses	7,661	8,837
Deferred revenue	7,648	5,788
Other current liabilities	14,301	16,709
Income taxes payable	588	707
Current portion of debt obligations	775	765
Total current liabilities	41,337	40,781
Deferred revenue	5,441	4,547
Income taxes payable	2,411	2,401
Other long-term liabilities	2,151	2,813
Debt obligations	6,551	6,687
Total liabilities	57,891	57,229
Commitments and contingencies (Note 15)		
Stockholders' equity:		
Preferred stock, \$0.001 par value; 3,000,000 shares authorized; no shares issued or		
outstanding		
Common stock, \$0.001 par value, 47,000,000 shares authorized; 23,437,033 and	23	23
23,182,771, respectively, issued and outstanding	23	23
Additional paid-in capital	240,038	236,735
Accumulated deficit	(26,612) (28,315
Accumulated other comprehensive income	1,795	1,549
Total stockholders' equity	215,244	209,992

Total liabilities and stockholders' equity See Notes to Condensed Consolidated Financial Statements \$273,135

\$267,221

Table of Contents

NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands except per share amounts)

(Unaudited)

(Onaudited)	Three Months End	led
	March 31, 2012	April 2, 2011
Net revenues:	,	1 /
Products	\$47,858	\$53,983
Service	7,634	8,160
Total net revenues	55,492	62,143
Costs of net revenues:		
Cost of products	24,819	22,647
Cost of service	4,970	4,341
Amortization of intangible assets	637	232
Total costs of net revenues	30,426	27,220
Gross profit	25,066	34,923
Operating expenses:		
Research and development	7,476	5,488
Selling	7,211	6,699
General and administrative	6,081	5,499
Amortization of intangible assets	192	174
Total operating expenses	20,960	17,860
Income from operations	4,106	17,063
Other income (expense)		
Interest income	52	40
Interest expense	(269)	(337)
Other, net	(175)	(513)
Total other expense, net	(392)	(810)
Income before income taxes	3,714	16,253
Provision for income taxes	2,011	5,743
Net income	1,703	10,510
Other Comprehensive Income:		
Foreign currency translation gain	246	334
Comprehensive Income	\$1,949	\$10,844
Net income per share:		
Basic	\$0.07	\$0.47
Diluted	\$0.07	\$0.45
Shares used in per share calculation:		
Basic	23,349	22,568
Diluted	23,981	23,397

See Notes to Condensed Consolidated Financial Statements

Table of Contents

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

(Unaudited)

(Unaudited)	Three Month March 31, 2012	as Ended April 2, 2011	
Cash flows from operating activities:			
Net income	\$1,703	\$10,510	
Reconciliation of net income to net cash provided by (used in) operating			
activities:	2.007	1 420	
Depreciation and amortization	2,087	1,428	
Stock-based compensation	1,461	822	
Excess tax benefit from equity awards	(645) (2,236)
Loss on disposal of fixed assets	118		
Inventory write down	509	273	
Deferred income taxes	2,468	1,467	
Changes in fair value of contingent payments to Zygo Corporation	8	147	
Changes in assets and liabilities:	(O. 61 -		
Accounts receivable	(9,617) (3,602)
Inventories	(713) (1,657)
Inventories-delivered systems	(61) (1,065)
Prepaid expenses and other	(2,337) 562	
Accounts payable, accrued and other liabilities	(1,166) (2,567)
Deferred revenue	2,731	3,393	
Income taxes payable	518	3,024	
Net cash provided (used in) by operating activities	(2,936) 10,499	
Cash flows from investing activities:			
Payments to Zygo Corporation related to acquisition	(107) (61)
Purchases of property, plant and equipment	(867) (755)
Net cash used in investing activities	(974) (816)
Cash flows from financing activities:			
Repayments of debt obligations	(186) (186)
Proceeds from sale of shares under employee stock option plans and purchase plan	1,214	1,603	
Excess tax benefit from equity awards	645	2,236	
Taxes paid on net issuance of stock awards	(16) (23)
Net cash provided by financing activities	1,657	3,630	
Effect of exchange rate changes on cash and cash equivalents	32	398	
Net increase (decrease) in cash and cash equivalents	(2,221) 13,711	
Cash and cash equivalents, beginning of period	97,699	66,460	
Cash and cash equivalents, end of period	\$95,478	\$80,171	
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 in order 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 wafer 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 31, 2011 and include all adjustments necessary to fairly present the information set forth therein, which include only normal recurring adjustments. 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 31, 2011, which were included in the Company's Annual Report on Form 10-K filed with the SEC on March 14, 2012.

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, depreciation and amortization, valuation of intangible assets and long-lived assets, warranty reserves, income taxes, valuation of stock-based compensation, and contingencies.

Foreign Currency Translation – The assets and liabilities of foreign subsidiaries are translated from their respective local functional currencies at exchange rates in effect at the balance sheet date and income and expense accounts are translated at average exchange rates during the reporting period. Resulting translation adjustments are reflected in

"Accumulated other

comprehensive income," a component of stockholders' equity. Foreign currency transaction gains and losses are reflected in

"Other income (expense)" in the consolidated statements of operations in the period incurred and consist of \$0.2 million loss

and \$0.5 million gain for the three month periods ended March 31, 2012 and April 2, 2011, respectively.

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, automated process control metrology systems (the "system(s)"). Nanometrics' systems consist of hardware and software components that function together to deliver the essential

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

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.

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 it includes delivery of different types of services. The Company's tools, upgrades, and spare parts are delivered to customers within a period of up to six months from order date. Installation is usually performed soon after delivery of the tool. 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, such terms can be up to 12 months. 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.

On January 2, 2011, the Company adopted the new accounting guidance for arrangements with software elements and/or multiple deliverables. The amended guidance for multiple deliverable arrangements did not change the units of accounting for the Company's revenue transactions, and most products and services qualify as separate units of accounting. The new guidance established a hierarchy of evidence to determine the standalone selling price of a deliverable based on vendor specific objective evidence ("VSOE"), third party evidence ("TPE"), or best estimate of selling price ("BESP").

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 the new guidance, the Company allocates the arrangement consideration among the deliverables based on relative selling price. 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 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

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

ensure that changes in circumstances are accounted for in a timely manner. The adoption of the new accounting standards did not have a significant impact on the consolidated financial statements.

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.

Business Combinations - The Company allocates the purchase price of acquired companies to the tangible and intangible assets acquired and liabilities assumed based upon their estimated fair values at the acquisition date. The purchase price allocation process requires management to make significant estimates and assumptions, especially at the acquisition date with respect to intangible assets and inventory acquired. While best estimates and assumptions as a part of the purchase price allocation process are used to accurately value assets acquired and liabilities assumed at the acquisition date, estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in the consolidated statements of operations.

The Company estimates the fair value of inventory acquired by utilizing the net realizable value method which is based on the estimated sales price of the product less appropriate costs to complete and selling costs. Examples of critical estimates in valuing certain intangible assets that were acquired or may be acquired in the future include but are not limited to:

future expected cash flows from sales of products, services and acquired developed technologies and patents; expected costs to develop the in-process research and development into commercially viable products and estimated cash flows from the projects when completed;

the acquired company's customer relationships, as well as assumptions about the estimated useful lives of the relationships;

discount rates.

Unanticipated events and circumstances may occur which may affect the accuracy or validity of assumptions, estimates or actual results associated with business combinations.

Note 2. Recent Accounting Pronouncements

In September 2011, the FASB issued Accounting Standards Update ("ASU") 2011-08, Intangibles-Goodwill and Other (Topic 350): Testing Goodwill for Impairment which is intended to simplify how an entity tests goodwill for impairment. The amendment is effective for the Company beginning in the first quarter of fiscal 2012. Under this accounting standard update, an entity is allowed to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. An entity no longer will be required to calculate the fair value of a reporting unit unless the entity determines, based on a qualitative assessment, that it is more likely than not that its fair value is less than its carrying amount. This guidance is effective for goodwill impairment tests performed for fiscal years beginning after December 15, 2011, with early adoption permitted. The Company early adopted this standard during the fourth quarter of 2011. Refer to Note 4 "Acquisition, Goodwill Impairment and Long-Lived Asset Impairment" for a summary of the accounting impact.

In June 2011, the FASB issued ASU 2011-05, Comprehensive Income: Presentation of Comprehensive Income (ASU 2011-05), which provides amendments to FASB Accounting Standards Codification ("ASC") Topic 220, Comprehensive Income. The objective of ASU 2011-05 is to require an entity to present the total of comprehensive income, the components of net income and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. ASU 2011-05 eliminates the option to present the components of other comprehensive income as part of the statement of equity. The Company adopted this standard during the first quarter of 2012. This adoption did not have an impact on the Company's financial position, results of operations or cash flows, as it only requires a change in the format of the Company's current presentation. Other comprehensive income is presented as a single continuous statement included in the Condensed Consolidated Statements of Comprehensive Income.

In May 2011, the FASB issued ASU 2011-04, Fair Value Measurement (Accounting Standards Codification ("ASC") Topic 820) - Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs (ASU 2011-04), which is effective for annual reporting periods beginning after December 15, 2011. This guidance amends

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

certain accounting and disclosure requirements related to fair value measurements. It had no material impact on the Company's consolidated financial statements.

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 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 our discounted present value analysis of future cash flows, which reflects our 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.

The following table presents the Company's fair value measurements that are measured at the estimated fair value, on a recurring basis, categorized in accordance with the fair value hierarchy (in thousands):

As of March 31, 2012	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Fair value of deferred payments to Zygo Corporation related to acquisition	n	_	\$2,641	\$2,641
Total financial liabilities	_	_	\$2,641	\$2,641
As of December 31, 2011	Quoted Price in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Fair value of royalty payments to RTM related to acquisition of Nanda	_	_	\$561	\$561
	_	_	2,633	2,633

Fair value of deferred payments to Zygo Corporation related to acquisition Total financial liabilities	_	_	\$3,194	\$3,194
9				

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

	Level 3	
Fair value at December 31, 2011	\$3,194	
Payments made to Zygo Corporation	(107)
Change in fair value included in earnings	115	
Adjustment to the purchase price allocation of royalty payments to	(561	`
RTM related to acquisition of Nanda Technologies GmbH	(301	,
Fair Value at March 31, 2012	\$2,641	

As of March 31, 2012, 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. Of the \$2.6 million of Zygo liability at March 31, 2012, \$0.8 million was current liability and \$1.8 million was long-term liability. The fair values of these liabilities were determined using level 3 inputs. In the three month period ended March 31, 2012, the Company recorded a \$0.6 million reduction in the fair value of royalty payments to RTM to intangible assets and goodwill with a corresponding decrease of \$0.4 million decrease to goodwill and \$0.2 million decrease to intangible assets. See Note 4 for a summary of the acquisition and goodwill impairment analysis.

As of December 31, 2011, the Company had liabilities of \$0.6 million resulting from the acquisition of Nanda and \$2.6 million resulting from the acquisition of certain assets from Zygo which are measured at fair value on a recurring basis. Of the \$2.6 million of Zygo liability at December 31, 2011, \$0.7 million was current liability and \$1.9 million was long-term liability. The fair value of these liabilities were determined using level 3 inputs.

Other financial instruments included cash and cash equivalents, accounts receivable, accounts payable and debt obligations. Cash equivalents were stated at fair market value based on quoted market prices. The carrying values of accounts receivable and accounts payable approximated their fair values because of the short term maturity of these financial instruments.

Refer to Note 10 "Line of Credit and Debt Obligations" for the carrying value and fair value of our debt obligations.

Note 4. Acquisition, Goodwill Impairment and Long-lived Asset Impairment

While the Company uses best estimates and assumptions as part of the purchase price allocation process to value assets acquired and liabilities assumed at the business combination date, estimates and assumptions are subject to refinement. As a result, during the preliminary purchase price allocation period, which may be up to one year from the business combination date, the Company records adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. The Company records adjustments to assets acquired or liabilities assumed subsequent to the purchase price allocation period in the operating results in the period in which the adjustments were determined. In the three month period ended March 31, 2012, the Company recorded a \$0.6 million reduction in the fair value of royalty payments to RTM with a corresponding decrease of \$0.4 million to goodwill and \$0.2 million decrease to intangible assets.

The total purchase price allocated to the tangible assets acquired was assigned based on the fair values as of the date of the acquisition. The fair value assigned to identifiable intangible assets acquired was determined using the income approach which discounts expected future cash flows to present value using estimated assumptions determined by management. The Company believes that these identified intangible assets will have no residual value after their estimated economic useful lives.

Acquisition of Nanda Technologies GmbH in 2011

On November 21, 2011, the Company acquired 100% of the outstanding shares of Nanda Technologies GmbH ("Nanda"), a privately-held company with headquarters near Munich, Germany. The total purchase price consisted of approximately \$25.2 million in cash, subject to certain post-closing adjustments associated with Nanda's working capital as of the acquisition date. As a result of the acquisition, the Company obtained a new technology and product line which enables the capture of full-wafer surface inspection images at high-volume production speeds. The technology is expected to enable the Company to address a significant market opportunity incremental to the metrology segments currently served by the Company's optical process control products. The transaction met the conditions of a business combination under ASC 805 and was accounted for under this guidance. With the Nanda acquisition, the Company recorded approximately \$12 million of

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

goodwill as the purchase price exceeded the fair value allocated to net tangible assets and identifiable intangible assets at March 31, 2012.

Goodwill Impairment and Long-lived Asset Impairment

The Company's impairment review process is completed as of November 30th of each year or whenever events or circumstances occur which indicate that an impairment may have occurred. The accounting standard update provides the option to assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If, after assessing the qualitative factors, a company determines that it is not more likely than not that the fair value of a reporting unit is less than its carrying value, then performing the two-step impairment test is unnecessary. However, if a company concludes otherwise, then it is required to perform the first step of the two-step goodwill impairment test.

The Company completed its annual goodwill impairment assessment as of November 30, 2011 by first performing a qualitative assessment. As part of this assessment, the Company considered the trading value of the Company's stock and the implied value of the Company as compared to the Company's net assets as well as the valuation of Nanda that was performed as of the acquisition on November 21, 2011. The Company concluded that it was not more likely than not that the fair value was less than the carrying values of the Company's reporting unit and therefore did not proceed to the Step 1 of the goodwill impairment test.

The process of evaluating the potential impairment of long-lived assets is highly subjective and requires significant judgment. In estimating the fair value of these assets, the Company made estimates and judgments about future revenues and cash flows. The Company's forecasts were based on assumptions that are consistent with the plans and estimates the Company is using to manage its business. Changes in these estimates could change the Company's conclusion regarding impairment of the long-lived assets and potentially result in future impairment charges for all or a portion of their balance at December 31, 2011. The Company did not record any impairment charges in the fiscal year 2011.

Note 5. Accounts Receivable

The Company maintains arrangements under which eligible accounts receivable in Japan are sold without recourse to unrelated third-party financial institutions. These receivables were not included in the consolidated balance sheet as the criteria for sale treatment had been met. After a transfer of financial assets, an entity stops recognizing the financial assets when control has been surrendered. The agreement met the criteria of a true sale of these assets since the acquiring party retained the title to these receivables and had assumed the risk that the receivables will be collectible. The Company pays administrative fees as well as interest ranging from 1.41% to 1.48% 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 \$1.4 million and \$3.2 million of receivables, respectively, during the three month periods ended March 31, 2012 and April 2, 2011. 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 March 31, 2012 and December 31, 2011.

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 (in thousands):

Table of Contents

	At	
	March 31,	December 31,
	2012	2011
Raw materials and sub-assemblies	\$26,468	\$24,963
Work in process	8,814	11,143
Consignment inventory	7,756	8,910
Finished goods	5,940	7,244
Inventories	48,978	52,260
Inventories-delivered systems	1,884	1,637
Total inventories	\$50,862	\$53,897

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 consist of the following (in thousands):

	At	
	March 31, 2012	December 31,
	Maich 31, 2012	2011
Land	\$15,570	\$15,570
Building and improvements	19,426	19,191
Machinery and equipment	17,996	14,693
Furniture and fixtures	2,269	2,285
Capital in progress	1,186	516
Total property, plant and equipment, gross	56,447	52,255
Accumulated depreciation	(18,192)	(16,734)
Total property, plant and equipment, net	\$38,255	\$35,521

Total depreciation expense for the three month periods ended March 31, 2012 and April 2, 2011 was \$1.0 million and \$0.6 million, respectively.

Note 8. Intangible Assets

Finite-lived intangible assets are recorded at cost, less accumulated amortization. Finite-lived intangible assets as of March 31, 2012 and December 31, 2011 consist of the following (in thousands):

	Adjusted cost as of	Adjustments to cost in the three months ended	Accumulated amortization as of	Net carrying amount as of
	March 31, 2012	March 31, 2012	March 31,	March 31,
Davalanad tashnalagy	\$17,881		2012 \$(6,618)	2012 \$11,107
Developed technology	·	\$(156)		•
Customer relationships	9,561	_	(8,147)	1,414
Brand names	1,927		(1,523)	404
Patented technology	2,252		(1,873)	379
In-process research and development	330	(26)	_	304
Trademark	80	_	(70)	10
Total	\$32,031	\$(182)	\$(18,231)	\$13,618

Table of Contents NANOMETRICS INCORPORATED NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Adjusted cost as of December 31, 2011

Developed technology

Accumulated amortization as amount as of December 31, 31, 2011

Sustamer relationships

Accumulated amortization as amount as of December 31, 31, 2011

Power specific properties and the sustained amount as of December 31, 31, 2011

Accumulated Net carrying amount as of Specific properties and Specific pr

		31, 2011	2011
Developed technology	\$17,881	\$(6,254) \$11,627
Customer relationships	9,561	(7,961) 1,600
Brand names	1,927	(1,498) 429
Patented technology	2,252	(1,856) 396
In-process research and development	330		330
Trademark	80	(68) 12
Total	\$32,031	\$(17,637) \$14,394
The emertization of finite lived intensibles is commu	stad ssaina tha atmaight lina	mathad arrant f	om overtome om

The amortization of finite-lived intangibles is computed using the straight-line method except for customer relationships which are computed using an accelerated method. Estimated lives of finite-lived intangibles range from two to ten years. Total amortization expense for the three month periods ended March 31, 2012 and April 2, 2011 was \$0.8 million and \$0.4 million.

In the three month period ended March 31, 2012, the Company recorded a \$0.6 million reduction in the fair value of royalty payments to RTM with a corresponding decrease of \$0.4 million to goodwill and \$0.2 million to intangible assets. See Note 4 for a summary of the acquisition and goodwill impairment analysis.

Note 9. Other Current Liabilities

(Unaudited)

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

	At	
	March 31,	December 31,
	2012	2011
Accrued warranty	\$4,923	\$4,797
Accrued professional services	1,249	1,497
Customer deposits	4,912	4,912
Fair value of current portion of contingent payments to Zygo Corporation related to acquisition	798	679
Legal settlement	_	2,500
Other	2,419	2,324
Total other current liabilities	\$14,301	\$16,709

Note 10. Line of Credit and Debt Obligations

Debt obligations consist of the following (in thousands):

	At March 31, 2012	December 31, 2011
Line of Credit		
Balance on line of credit	\$ —	\$ —
Debt Obligations		
Milpitas building mortgage	7,326	7,452

Total debt obligations	7,326	7,452	
Current portion of debt obligations	(775) (765)
Long-term debt obligations	\$6,551	\$6,687	

On April 13, 2010, the Company amended an existing credit facility to (i) increase the maximum principal amount available thereunder from \$15.0 million to \$20.0 million, (ii) extend the maturity date of such facility by one year to April 30,

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

2012, and (iii) decrease the unused revolving line commitment fee from 0.25% per annum to 0.1875% per annum. On April 23, 2012, the Company amended the revolving line of credit facility to (i) extend the maturity date of such facility by two years to April 30, 2014, (ii) decrease the unused revolving line commitment fee from 0.1875% per annum to 0.10% per annum, and (iii) reduce the minimum interest rate on borrowings from 5.75% to 3.0% per annum. 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 3.0% per annum. Borrowing is limited to the lesser of (a) \$7.5 million plus the borrowing base, or (b) \$20.0 million. The borrowing base available as of March 31, 2012 was \$20.0 million. As of March 31, 2012, the Company was not in breach of any restrictive covenants in connection with this line of credit. There are no outstanding amounts drawn on this facility, the Company may use the proceeds of any future borrowing for general corporate purposes, future acquisitions or expansion of the Company's business.

In July 2008, the Company entered into a mortgage agreement with General Electric Commercial Finance ("GE") pursuant to which it borrowed \$13.5 million. The mortgage initially bears interest at the rate of 7.18% per annum, which rate will be reset after five years to 3.03% over the then weekly average yield of five-year U.S. Dollar Interest Rate Swaps as published by the Federal Reserve. Monthly principal and interest payments are based on a twenty year amortization for the first sixty months and fifteen year amortization thereafter. The remaining principal balance of the mortgage and any accrued but unpaid interest will be due on August 1, 2018. The mortgage is secured, in part, by a lien on and security interest in the building and land comprising the Company's principal offices in Milpitas, California. GE subsequently sold the mortgage on March 31, 2011 to Sterling Savings Bank, however, no changes were made to the terms of the original loan agreement with GE as a result of the sale.

According to the terms of the loan agreement, the Company can make annual pre-payments of up to 20% of the outstanding principal balance without incurring any penalty. In July 2011, the Company prepaid \$1.95 million, representing 20% of the outstanding balance.

At March 31, 2012, future annual maturities of all debt obligations were as follows (in thousands):

Fiscal years	Amount	
2012	\$963	
2013	1,126	
2014	811	
2015	811	
2016	811	
Thereafter	4,779	
Total obligations	9,301	
(less) Interest	(1,975)
Total loan amount	\$7,326	

The Company's level 2 valuation estimate of the fair value of its debt is based on the interest rates for similar debt instruments issued by other entities with credit ratings comparable to the Company's. The estimated fair value of the debt as of March 31, 2012 and December 31, 2011 was \$7.8 million and \$8.3 million, respectively.

Note 11. Net Income Per Share

Basic net income per share excludes dilution and is computed by dividing net income by the number of weighted average common shares outstanding for the period. Diluted net income per share gives effect to all potentially dilutive common shares outstanding during the period, including contingently issuable shares and certain stock options, calculated using the treasury stock method. A reconciliation of the share denominator of the basic and diluted net income per share computations is as follows (in thousands):

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

	Three Months Ended March 31, 2012	April 2, 2011
Weighted average common shares outstanding used in basic net income per share calculation	23,349	22,568
Potential dilutive common stock equivalents, using treasury stock method	632	829
Shares used in diluted net income per share computation	23,981	23,397

For the three month periods ended March 31, 2012 and April 2, 2011, the Company had securities outstanding which could potentially dilute basic earnings per share in the future. For the three month periods ended March 31, 2012 and April 2, 2011, weighted average common share equivalents consisting of stock options included in the calculation of diluted net income per share were 0.6 million and 0.8 million respectively. However, these potential dilutive common stock equivalents would be anti-dilutive and excluded from the calculation of net loss per share, if any net loss in the future.

Note 12. Stock-Based Compensation

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 term 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 Nanometrics' 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. The assumptions in the following table do not include the assumptions used in the Option Exchange Program as disclosed in Note 5 the Company's 2011 Annual Report on Form 10-K for the fiscal year ended December 31, 2011 filed with the SEC on March 13, 2012.

	Three Months E	nded		
	March 31,		April 2,	
	2012		2011	
Stock Options				
Expected life	4.58 years		4.53 years	
Volatility	78.13	%	76.90	%
Risk free interest rate	0.88	%	2.04	%
Dividends	_		_	
Employee Stock Purchase Plan				
Expected life	0.5 years		0.5 years	
Volatility	55.93	%	69.30	%
Risk free interest rate	0.06	%	0.16	%
Dividends	_			

The weighted average fair value per share of the stock options awarded in the three month periods ended March 31, 2012 and April 2, 2011 was \$11.13 and \$10.11, 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 three month period ended March 31, 2012 is as follows:

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

	Number of Shares Outstanding (Options)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in Thousands)
Options				
Outstanding at December 31, 2011	2,348,162	\$10.53	4.86	\$18,556
Exercised	(201,276	6.03		
Granted	160,100	18.41		
Cancelled	(22,626	13.38		
Outstanding at March 31, 2012	2,284,360	\$11.45	4.94	\$16,199
Exercisable at March 31, 2012	1,132,115	\$8.52	4.07	\$11,315

The aggregate intrinsic value in the preceding table represents the total pretax intrinsic value, based on the Company's closing stock price of \$18.51 as of March 31, 2012 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 month periods ended March 31, 2012 and April 2, 2011 was \$2.7 million and \$3.6 million, respectively. During the three month period ended March 31, 2012, 5,830 Restricted Stock Units ("RSUs") were released, and the Company granted 37,000 RSUs which vest between three and four years after the vesting commencement date identified in the applicable grant document. As of March 31, 2012, there were 331,228 RSUs outstanding. Stock-based compensation expense for all share-based payment awards made to the Company's employees and directors pursuant to the employee stock option and employee stock purchase plans by function were as follows (in thousands):

	Three Months Ended	
	March 31,	
	2012	2011
Cost of products	\$57	\$37
Cost of service	58	53
Research and development	319	147
Selling	441	215
General and administrative	586	370
Total stock-based compensation expense	\$1,461	\$822

Note 13. Warranties

Product Warranty – The Company sells the majority of its products with a 12-month repair or replacement warranty from the date of acceptance. 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 differ from the Company's estimates, revisions to the estimated warranty obligations would be required. 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. Components of the warranty

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

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

	Three Months Ended		
	March 31,	April 2,	
	2012	2011	
Balance as of beginning of period	\$4,797	\$3,129	
Accruals for warranties issued during period	1,472	1,246	
Aggregate changes in liabilities related to preexisting warranties	609	832	
Settlements during the period	(1,955) (1,482)
Balance as of end of period	\$4,923	\$3,725	

Note 14. Income Taxes

The Company accounts for income taxes under the provisions of ASC 740, Accounting for Income Taxes. The Company's effective tax rate of approximately 54% for the three month period ended March 31, 2012 is based on the Company's estimated annual effective tax rate of approximately 47% adjusted for discrete items of \$(0.1) million in the period. The Company's income tax provisions for the three month periods ended March 31, 2012 and April 2, 2011 were \$2.0 million and \$5.7 million, respectively.

The effective income tax rate for the three month period ended March 31, 2012 exceeded the statutory U.S. federal income tax rate of 35% primarily due to state income taxes and foreign losses for which no current benefit is available, offset by the domestic manufacturing deduction benefit. The effective income tax rate for the three month period ended April 2, 2011 was substantially equivalent to the statutory U.S. federal income tax rate of 35% primarily due to state income taxes expense offset by the domestic manufacturing deduction benefit.

As of March 31, 2012 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 balance 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 United States and various states including California, and foreign jurisdictions including South Korea, Japan, China, Germany, France and the United Kingdom. Due to tax attribute carry-forwards, the Company is subject to examination by the Internal Revenue Service for tax years beginning from the 2003 tax year for U.S. tax purposes. The Company is also subject to examination in various states for tax years beginning from the 2002 tax year. The Company is also subject to examination in various foreign jurisdictions beginning from the 2006 tax year. 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 is not material for the three month period ended March 31, 2012. The Company believes it may recognize up to \$0.2 million of its existing unrecognized tax benefits within the next twelve months as a result of the lapse of the applicable statutes of limitations.

Note 15. 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 Nanometrics'

products, when used for their intended purpose(s), or our intellectual property, infringe the intellectual property rights of such third parties or other claims made against parties with whom it enters into contractual relationships. It is not possible to determine the maximum potential amount of liability under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances that are likely to be involved in each particular claim. Historically, the Company has not made payments under these obligations and believes that the estimated fair value of these agreements is immaterial. Accordingly, no liabilities have been recorded for these obligations in the accompanying unaudited consolidated balance sheets as of March 31, 2012 and December 31, 2011.

On January 13, 2012, the Company entered into a settlement and limited patent cross license agreement with KLA to resolve all existing patent litigation between the parties. Pursuant to the settlement agreement, the Company agreed to make a one-time payment of \$2.5 million to KLA. The settlement additionally included other features including limited cross-licenses

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

of the patents that were subject to the litigation. The Company determined the principal benefit of the settlement was the economic benefit of avoiding litigation expenses and that the value attributable to the other settlement features was de minimus. As a result, the Company recorded a \$2.5 million charge to legal settlement in operating expense in the fourth quarter of fiscal 2011. The payment was made made in the three month ended March 31, 2012.

Note 16. Geographic and Significant Customer Information

The Company has one operating segment, which is the sale, design, manufacture, marketing and support of thin film, optical critical dimension and overlay dimension metrology systems. The following table summarizes 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	
	March 31,	April 2,
	2012	2011
Total net revenues:		
United States	\$11,577	\$14,565
Israel	6,316	7,736
Japan	4,339	7,890
South Korea	27,471	25,144
All other	5,789	6,808
Total net revenues	\$55,492	\$62,143
	At	
	March 31,	December 31,
	2012	2011
Long-lived tangible assets:		
United States	\$35,976	\$33,127
Israel	112	115
Japan	161	159
South Korea	586	503
All other	1,420	1,617
Total long-lived tangible assets	\$38,255	\$35,521

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

	At			
	March 31,		December 31,	
	2012		2011	
Samsung Electronics Co. Ltd.	35.3	%	30.0	%
Intel Corporation	19.7	%	16.9	%
Hynix	12.6	%	11.4	%

The following customers accounted for 10% or more of total revenue

Inree Months Ended	
March 31,	April 2,
2012	2011

Intel Corporation	29.9	%	28.7	%
Samsung Electronics Co. Ltd.	40.5	%	27.5	%
Hynix Semiconductor, Inc.	***		11.7	%
18				

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

*** The customer accounted for less than 10% of total consolidated revenue for that period.

Note 17. Stock Repurchase

On November 29, 2010, our Board of Directors approved a program to repurchase up to \$10.0 million of the Company's common stock. Share 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 fiscal year 2010, the Company repurchased and retired 65,000 shares of the Company common stock under this program at a weighted average price of \$11.91 per share. During the fiscal year 2011, the Company repurchased and retired a total of 265,040 shares of the Company's common stock under this program at a weighted average price of \$16.00 per share. The Company did not repurchase any of our common stock under this program during the three months ended March 31, 2012. As of March 31, 2012, there remained \$5.0 million available for the future repurchase of shares of common stock.

Subsequent to March 31, 2012, the Company repurchased a total of 96,000 shares of the Company's common stock under this program at a weighted average price of \$14.93 per share through May 7, 2012. As of May 7, 2012, there remained \$3.5 million available for the future purchase of shares of common stock.

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 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including, without limitation, statements regarding future periods, financial results, revenues, margins, growth, customers, contractors, tax rates, product performance, and the impact of accounting rules on our business. We may identify these statements by the use of words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "mi "potential," "predict," "project," "should," "will," "would" and other similar expressions. All forward-looking statements including 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 risk factors, including those 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 31, 2011. In evaluating our business, investors should carefully consider these factors in addition to the other information set forth in this document. 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 the (i) audited consolidated financial statements and notes thereto for the fiscal year ended December 31, 2011 which were included in our 2011 Annual Report on Form 10-K filed with the Securities Exchange Commission (SEC) on March 14, 2012 and (ii) our other filings with the SEC.

Overview

Nanometrics Incorporated and its subsidiaries ("Nanometrics", the "Company", or "we") 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"), data storage devices and solar photovoltaics ("solar PV"). 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

Table of Contents

their manufacturing costs. Our systems are categorized as: 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 XP/Atlas XP+ and Atlas-M represent our line of high-performance metrology systems providing optical critical dimension ("OCIP"), thin film metrology and wafer stress for transistor and interconnect metrology applications. The OCD technology is supported by our NanoCDTM suite of solutions including our NanoDiffræsoftware and NanoGen® scalable computing engine that enables visualization, modeling, and analysis of complex structures. The Mosaic IITM provides cost effective overlay metrology solutions, for today's advanced 300mm overlay process technologies, and is available on our LynxTM platform. 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 SPARK 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"). Our Q240 is a 200mm overlay metrology system that incorporates the same measurement technology as the MosaicTM, which thereby extends the technology capability of our customers' existing factories. The IVS®-185 system supports critical dimension and overlay measurements for semiconductor, MEMS, and HB-LED manufacturing. The NanoSpec® 9100 thin film measurement system is capable of handling wafers ranging in size from 75 to 200 mm in diameter, and is used in all segments of semiconductor manufacturing, including data storage head manufacturing.

System Platform

The LynxTM cluster metrology platform enables improved cost of ownership to our customers by combining our MosaicTM, Atlas[®] II and IMPULSE[®] metrology systems in configurations to provide high throughput, reduced footprint systems for leading 300mm wafer metrology applications including OCD, overlay, 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, DBO, 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 NanoCDTM solutions suite is sold in conjunction with our IMPULSE® and legacy 90x0 systems. Our TrajectoryTM system provides in-line measurement of layers in thin film thickness and composition in solar cell and semiconductor applications.

Materials Characterization

The Materials Characterization products include systems that are used to monitor the physical, optical, electrical and material characteristics of HB-LED, solar 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 segment. 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 of products includes the 3000 and 6100 supporting thin film measurement across all segments in both low volume production and research applications. Our Business

We offer a diverse line of process control and inspection products and technologies to address the manufacturing requirements of the semiconductor (and other solid state device) manufacturing industry. Our metrology systems measure and characterize the physical dimensions, material composition, optical and electrical characteristics and other critical parameters of solid state devices, from initial wafer substrate manufacturing through final packaging. For

the photolithographic process, thin-film metrology, critical-dimension and overlay systems provide control of device dimensions and layer alignment. Advanced packaging technology requires metrology systems to control wafer scale features for through-silicon-via ("TSV") and flip-chip

Table of Contents

technologies. Our metrology systems for materials monitor the physical, optical, and electrical characteristics of materials including compound semiconductor, LEDs, solar PVs and silicon wafers. Our defect inspection systems locate large area and microscopic defects on patterned and unpatterned wafers. The system can be used for inspection at nearly every stage of the semiconductor production flow.

We are continually working to strengthen our competitive position by developing new technologies and products in our market segment. We have expanded our product offerings to address growing applications within the semiconductor manufacturing industry. In continuance of our goals, we have:

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

Diversified our product line and served markets through acquisitions, such as the 2006 acquisition of Accent Optical Technologies, Inc. a supplier of overlay and thin film metrology and process control systems; the 2008 acquisition of Tevet Process Control Technologies ("Tevet"), an integrated metrology supplier serving both semiconductor and solar PV industries; the 2009 acquisition of the UnifireTM product line from Zygo Corporation; and 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.

Critical Accounting Policies

The preparation of our financial statements conforms to accounting principles generally accepted in the United States of America, which requires management to make estimates and judgments in applying our accounting policies 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 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 have been no significant changes to our critical accounting policies discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011.

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 on results of operations and financial condition.

Results of Operations

Three Month Periods (First Quarter) Ended March 31, 2012 and April 2, 2011

Total net revenues - Our net revenues were comprised of the following categories (in thousands):

	Three Months	s Ended				
	March 31,	April 2,	Changes In	ì		
	2012	2011	Amount		%	
Automated systems	\$40,982	\$39,790	\$1,193		3.0	%
Integrated systems	4,281	5,862	(1,581)	(26.9)%
Materials characterization	2,595	8,331	(5,736)	(68.9)%
Total product revenue	47,858	53,983	(6,124)	(11.3)%
Service revenue	7,634	8,160	(527)	(6.5)%

Total net revenues \$55,492 \$62,143 \$(6,651) (10.7)% In the first quarter of 2012, total product revenue decreased by \$6.1 million in comparison to the first quarter of 2011. In the first quarter of 2011, the semiconductor industry was in the latter stages of a period of capacity expansion, resulting in high demand from our customers across all of our product lines. In the first quarter of 2012, net revenues from automated systems increased by \$1.2 million compared to the first quarter of 2011, principally due to customer demand for the Atlas® II,

Table of Contents

released in the fourth quarter of 2011 and continued strong demand for our Atlas® XP+. Net revenues from our integrated systems decreased by \$1.6 million in the first quarter of 2012 compared to the first quarter of 2011. The net decrease resulted from a decline in customer demand of our legacy 9010 series products partially offset by an increase in demand for our integrated IMPULSE® OCD systems. Net revenues from our materials characterization products decreased by \$5.7 million in the first quarter of 2012 from the first quarter of 2011, due principally to a decline in customer demand for our FTIR and RPM systems, resulting from excess capacity in the HB-LED market and lack of expansion in the bare wafer silicon market.

Service revenue decreased by \$0.5 million in the first quarter of 2012 from the first quarter of 2011. The decrease was primarily due to a decrease in sales of billable upgrades, which 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. This decrease was partially offset by increases in revenue from sales of extended warranty and service contracts.

Gross margins. Our gross margin for product and services was as follows:

	I nree Months	I nree Months Ended		
	March 31,		April 2,	
	2012		2011	
Product	46.8	%	57.6	%
Services	34.9	%	46.8	%

The calculation of product gross margin includes both cost of products and amortization of intangible assets. Product gross margin for the first quarter of 2012 was 46.8%, a decrease of 10.8 points from the first quarter of 2011. Approximately one-third of the decrease was due to higher costs and resulting lower gross margin on production of the Atlas® II, which was launched late in the fourth quarter of 2011 and adopted by customers more rapidly than expected, ahead of our ability to establish high volume supply agreements with vendors. While we anticipate Atlas® II gross margins to improve in future quarters, we expect the high demand and accelerated production rates of the Atlas® II will continue to put downward pressure on product gross margin in the second quarter of 2012. Approximately one-fourth of the decrease resulted from lower factory absorption due to the reduced volume of system sales in the first quarter of 2012 compared with the first quarter of 2011. The remainder of the decrease results from changes in product mix of tools sold in the first quarter of 2012 compared with the first quarter of 2011, and an increase in amortization of intangible assets related to the acquisition of Nanda.

The gross margin for our services business was 34.9% in the first quarter of 2012, a decrease of 11.9 points from the first quarter of 2011. Approximately one-third of the decrease is due to sale of an upgrade that had been previously marked to fair value at the time of our acquisition of Nanda in the fourth quarter of 2011. The remainder of the decrease results from the effects of a decline in upgrade revenue and higher labor costs associated with delivery of services under contracts.

Operating expenses. Our operating expenses were comprised of the following (in thousands):

	Three Months	s Ended			
	March 31,	April 2,	Changes in		
	2012	2011	Amount	%	
Research and development	\$7,476	\$5,488	\$1,988	36.2	%
Selling	7,211	6,699	512	7.6	%
General and administrative	6,081	5,499	582	10.6	%
Amortization of intangible assets	192	174	18	10.3	%
Total operating expenses	\$20,960	\$17,860	\$3,100	17.4	%

Research and development. Research and development expenses increased by \$2.0 million for the three month period ended March 31, 2012 over the comparable period in 2011, primarily due to \$0.9 million in labor and related costs associated with incremental hiring and headcount increases from the Nanda acquisition, \$0.8 million on development

projects and related activities, and \$0.3 million in depreciation on capital equipment. Investments in research and development personnel and associated projects are part of our strategy to ensure our products stay in the forefront of current and future market demands.

Table of Contents

Selling. Selling expenses increased by \$0.5 million for the three month period ended March 31, 2012 as compared to the corresponding period in 2011, primarily due to an increase in labor and related costs associated with additions in customer-facing applications personnel as a result of the Nanda acquisition.

General and administrative. General and administrative expenses increased by \$0.6 million for the three month period ended March 31, 2012 compared to the corresponding period in 2011, primarily due to \$0.3 million of labor and related costs associated with the Nanda acquisition, \$0.1 million in consulting costs, \$0.1 million in facilities costs, and \$0.1 million in reserve for bad debt.

Amortization of intangible assets. Amortization of intangible assets increased slightly for the three month period ended March 31, 2012 when compared to the same period in 2011, due principally to increased amortization associated with the Nanda acquisition, and partially offset by reduced amortization on certain intangible assets that became fully amortized during the prior year.

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

	Three Month	ns En	ided				
	March 31,		April 2,		Changes in		
	2012		2011		Amount	%	
Interest income	\$52		\$40		\$12	30.0	%
Interest expense	(269)	(337)	68	(20.2)%
Other, net	(175)	(513)	338	(65.9)%
Total other income (expense), net	\$(392)	\$(810)	\$418	(51.6)%

For the three month period ended March 31, 2012 compared to the same period of 2011, interest income increased due to increases in cash and equivalents. Interest expense for the three month period ended March 31, 2012 was lower than the interest expense in the comparable prior year period due principally to prepayments of \$1.95 million on the mortgage on our headquarters in July 2011, in addition to ongoing monthly payments, which reduced the principal amount under the loan. Other net expenses represented principally foreign exchange losses resulting from translation of our inter-company balances between subsidiaries, and consisted of losses of \$0.2 million and \$0.5 million for the three month periods ended March 31, 2012 and April 2, 2011, respectively.

Provision for income taxes. We account for income taxes under the provisions of ASC 740, Accounting for Income Taxes. Our effective tax rate of approximately 54% for the three month period ended March 31, 2012 is based on our estimated annual effective tax rate of approximately 47%, adjusted for discrete items of \$(0.1) million in the period. Our income tax provisions for the three month period ended March 31, 2012 and April 2, 2011 were \$2.0 million and \$5.7 million, respectively.

Our effective income tax rate for the three month period ended March 31, 2012 exceeded the statutory U.S. federal income tax rate of 35% primarily due to state income taxes and foreign losses for which no current benefit is available, offset by the domestic manufacturing deduction benefit. Subject to IRS approval of certain foreign entity tax elections filed in April 2012, we expect our income tax rate to decrease in the second quarter of 2012, resulting in an effective tax rate in the range of 33% to 37% for the first six months of 2012. Our effective income tax rate for the three month period ended April 2, 2011 was substantially equivalent to the statutory U.S. federal income tax rate of 35% primarily due to state income taxes expense offset by the domestic manufacturing deduction benefit.

As of March 31, 2012 we continue to maintain a valuation allowance against certain net deferred tax assets as a result of uncertainties regarding the realization of the asset balance due to cumulative losses and uncertainty of future taxable income in various jurisdictions. In the event we determine that the deferred tax assets are realizable, we will reflect an adjustment to the valuation allowance in the tax provision for the period in which 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, China, Germany, France and the United Kingdom. Due to tax attribute carry-forwards,

we are subject to examination by the Internal Revenue Service for tax years beginning from the 2003 tax year forward 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. We accrue interest and penalties

Table of Contents

related to unrecognized tax benefits in our provision for income taxes. The total amount of accrued penalties and interest is not material for the three month period ended March 31, 2012. We believe we may recognize up to \$0.2 million of our existing unrecognized tax benefits within the next twelve months as a result of the lapse of the applicable statutes of limitations.

Liquidity and Capital Resources

We have historically relied on cash flow from operations, borrowings under a credit facility and mortgage, and issuances of equity securities for our liquidity needs. At March 31, 2012, our cash and cash equivalents totaled \$95.5 million and working capital was \$163.9 million, compared to \$97.7 million of cash and equivalents and \$160.6 million of working capital as of December 31, 2011.

Our principal cash requirements include working capital, capital expenditures, payment of taxes and payment of principal and interest on borrowings. In addition, we regularly evaluate our ability to repurchase our common stock, pre-pay outstanding debts, and acquire other businesses and technologies. As of March 31, 2012, there remained \$5.0 million available for the future repurchase of shares of our common stock under a program to repurchase up to \$10.0 million of our common stock approved by Board of Directors on November 29, 2010.

Operations -

Cash used by operating activities for the three month period ended March 31, 2012 was \$2.9 million, which primarily resulted from the following offsetting factors: Net income of \$1.7 million, significant non-cash transactions including (i) deferred income tax of \$2.5 million, (ii) depreciation and amortization of \$2.1 million, and (iii) stock based compensation of \$1.5 million. This operating cash flow was offset by \$10.6 million decrease in non-cash working capital, consisting principally of an increase in accounts receivable of \$9.6 million associated with the increase in revenues over the fourth quarter of 2011; an increase in prepaid expenses and other assets of \$2.3 million associated principally with prepaid taxes; and decrease in accounts payable and other accrued liabilities of \$1.2 million, which included a \$2.5 million payment of the legal settlement accrued at December 31, 2011. The non-cash working capital decrease was partly offset by an increase in deferred revenue of \$2.7 million.

Operating activities provided cash of \$10.5 million for the three month period ended April 2, 2011. This amount was derived principally from net income for the three month period of \$10.5 million, increased by adjustments for certain non-cash charges including deferred taxes of \$1.5 million, depreciation and amortization of \$1.4 million, stock-based compensation expense of \$0.8 million, offset by excess tax benefit from equity awards of \$2.2 million. Changes in non-cash working capital reduced operating cash flow by \$1.9 million. Significant uses of non-cash working capital included an increase in accounts receivable of \$3.6 million, increase in inventory of \$2.7 million, and a decrease in accounts payable and other accrued liabilities of \$2.6 million. These were offset by increases in deferred revenue of \$3.4 million and income taxes payable of \$3.0 million.

For the three month period ended March 31, 2012, \$0.9 million cash was used for capital asset purchases and \$0.1 million for payments to Zygo Corporation related to the asset acquisition from 2009. For the three month period ended April 2, 2011, \$0.8 million cash was used for capital asset purchases and \$0.1 million for payments to Zygo. In order to fulfill current and future market demands, achieve operating efficiencies, and maintain product quality, we plan to

continue to invest in new technologies and capital equipment.

Financing -

For the three month period ended March 31, 2012, \$1.7 million was provided by financing activities, primarily due to \$1.2 million from the issuance of common stock from employee stock option exercises and stock purchased under the employee stock purchase program, and \$0.6 million of excess tax benefits from employee stock option exercises, partially offset \$0.2 million for repayment of debt obligations.

For the three month period ended April 2, 2011, \$3.6 million was provided by financing activities, primarily from \$2.2 million excess tax benefits from employee stock option exercises and \$1.6 million from the issuance of common stock from employee stock option exercises and stock purchased under the employee stock purchase program. This was partially offset by \$0.2 million of repayments of debt obligations.

Table of Contents

Line of Credit - On April 13, 2010, we amended an existing revolving line of credit facility to (i) increase the maximum principal amount available there under from \$15.0 million to \$20.0 million, (ii) extend the maturity date of such facility by one year to April 30, 2012, and (iii) decrease the unused revolving line commitment fee from 0.25% per annum to 0.1875% per annum. On April 23, 2012, we amended the revolving line of credit facility principally to (i) extend the maturity date of such facility by two years to April 30, 2014, (ii) decrease the unused revolving line commitment fee from 0.1875% per annum to 0.10% per annum, and (iii) reduce the minimum interest rate on borrowings from 5.75% to 3.0% per annum.

The instrument governing the 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 3.0% per annum. The maximum borrowing allowed on the line of credit is \$20.0 million. Borrowing is limited to the lesser of (a) \$7.5 million plus the borrowing base or (b) \$20.0 million. The borrowing base available as of March 31, 2012 was \$20.0 million. As of March 31, 2012, we were not in breach of any restrictive covenants in connection with our line of credit and debt obligations. There were no borrowings against (or payments to) the line of credit during the fiscal year 2011 and 2010 and there are no amounts outstanding on this facility as of March 31, 2012 or December 31, 2011. 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 bears interest at the rate of 7.18% per annum, which rate will be 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 are based on a twenty year amortization for the first sixty months and fifteen 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, we can 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 2011, we prepaid \$1.95 million of the loan, representing 20% of the outstanding balance. As of March 31, 2012, the outstanding balance of the loan was \$7.3 million.

Repurchases of Common Stock - On November 29, 2010, our Board of Directors approved a program to repurchase up to \$10.0 million of our common stock. Share 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 fiscal year 2010, we repurchased and retired 65,000 shares of our common stock under this program at a weighted average price of \$11.91 per share. During the fiscal year 2011, the Company repurchased and retired a total of 265,040 shares of our common stock under this program at a weighted average price of \$16.00 per share. We did not repurchase any of our common stock under this program during the three months ended March 31, 2012. As of March 31, 2012, there remained \$5.0 million available for the future repurchase of shares of our common stock under this program at a weighted average price of \$14.93 per share through May 7, 2012. As of May 7, 2012, there remained approximately \$3.5 million available for the future purchase of shares of our

common stock.

Business Partnership - On June 17, 2009, we announced a strategic business relationship with Zygo whereby Nanometrics has purchased inventory and certain other assets from Zygo and the two companies have entered into a supply agreement. We will make payments to Zygo (with an estimated present value of \$2.6 million as of March 31, 2012) 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 \$0.4 million to Zygo in each fiscal year of 2011 and 2010, respectively. We have evaluated and will continue to evaluate the acquisitions of products, technologies or businesses that are complimentary 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 and borrowing availability will be sufficient to meet our needs through at least the next twelve months.

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

Table of Contents

fiscal year ended December 31, 2011 filed with the SEC on March 14, 2012. 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. As of March 31, 2012, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective to ensure that information that we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934 were recorded, processed, summarized and reported within the time periods specified in SEC rules and forms.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the three month period ended March 31, 2012 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

PART II — OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

In August 2005, KLA-Tencor Corporation ("KLA") filed a complaint against us in the United States District Court for the Northern District of California (the "California District Court"). The complaint alleged that certain of our products infringe two of KLA's patents. On January 30, 2006, KLA added a third patent to its complaint. The complaint sought a preliminary and permanent injunction against the sale of these products as well as the recovery of monetary damages and attorneys' fees. As part of our defense, we filed requests for re-examinations of the allegedly infringed KLA patents with the U.S. Patent & Trademark Office ("PTO") to determine whether or not the patents should remain enforceable as written.

In March 2006, the California District Court stayed the patent litigation case until the re-examinations were completed. On November 4, 2008, the PTO issued an Ex Parte Reexamination Certificate (indicating completion of the reexamination process) on one of the three patents-in-suit. On December 8, 2009, the PTO issued an Ex Parte Reexamination Certificate for another of the KLA patents-in-suit. On September 21, 2009, while the reexamination of the third patent-in-suit was still pending, we filed a second request for re-examination relating to the third patent. On March 30, 2010, the PTO issued an Ex Parte Reexamination Certificate as to the first reexamination of the third patent.

In August 2011, we filed a complaint against KLA in the United States District Court for the District of Delaware. The complaint alleged that several of KLA's overlay metrology products infringe two of our patents. The complaint sought injunctive relief against KLA's sale of these products as well as a recovery of monetary damages and attorney's fees from KLA.

On January 13, 2012, we entered into a settlement and limited patent cross license agreement with KLA to resolve all existing patent litigation between the parties. Pursuant to the settlement agreement, we agreed to make a one-time payment of \$2.5 million to KLA and each party agreed to a cross-license of the patents that were subject to the litigation. We accrued for the one-time payment of \$2.5 million as expense incurred in the fiscal year of 2011, and the payment was made in the three month period ended March 31, 2012.

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 I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the SEC on March 14, 2012. 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 31, 2011, except:

If we do not manage our supply chain effectively, our operating results may be adversely affected

We need to continually evaluate our global supply chains and assess opportunities to reduce costs. We must also enhance quality, speed and flexibility to meet changing demand for our products and product mix and uncertain market conditions. Our success also depends in part on refining our cost structure and supply chains so that we have flexibility and are able to protect and improve profitability. Failure to achieve the desired level of cost reductions could adversely affect our financial results. Despite our efforts to control costs and increase efficiency in our facilities,

changes in demand could still cause us to realize lower operating margins and profitability.

Changes in our effective income tax rate could affect our results of operations.

Fluctuations in the Company's effective tax rate may affect operating results. The Company's effective tax rate is subject to fluctuation based on a variety of factors, such as the jurisdictions in which our profits are determined to be earned and taxed; changes to tax laws, regulations and interpretations; our ability to obtain approval and the timing of receipt of approval from the Internal Revenue Service of certain tax elections; certain changes in the valuation of our deferred tax assets and liabilities; increases in expenses not deductible for tax purposes, including write-offs of acquired in-process research and development and impairment of goodwill in connection with acquisitions and changes in available tax credits.

Table of Contents

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

We have not granted any equity awards outside of our approved stock plans, made any repurchases under our stock repurchase program or otherwise, nor made any unregistered sales of equity securities in the three months ended March 31, 2012.

Table of Contents

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
3.3(2)	Bylaws of the Registrant
10	All Other Material Contracts
10.1(3)	Fifth Amendment to the Loan and Security Agreement dated April 23, 2012
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	Section 1350 Certifications
32.1(5)	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 as of March 31, 2012 and December 31,2011, (ii) Condensed Consolidated Statements of Operations for the three months ended March 31, 2012 and April 2, 2011 (iii) Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2012 and April 2, 2011, 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.

Incorporated by reference to Exhibit 3.1 filed with the Registrant's Current Report on Form 8-K filed on October 5, 2006.

⁽²⁾ Incorporated by reference to Exhibit 3.1 filed with the Registrant's Current Report on Form 8-K filed on April 12, 2012.

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Incorporated by reference to Exhibit 99.1 filed with the Registrant's Current Report on Form 8-K filed on May 8, 2012.

- (4) Filed herewith.
- (5) Furnished herewith.

Table of Contents

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

Dated:

May 9, 2012

Table of Contents

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