NANOMETRICS INC
Form 10-Q
August 11, 2009
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D. C. 20549

FORM 10-Q

(Mark One)

x Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the quarterly period ended June 27, 2009

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)	**(I. R. S. Employer 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 x 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 ¨ No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer x (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 x

As of July 31, 2009 there were 18,587,645 shares of common stock, $0.001 par value, issued and outstanding.

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FOR QUARTER ENDED JUNE 27, 2009

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PART I FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED BALANCE SHEETS

(Amounts in thousands except share amounts)

(Unaudited)

	June 27, 2009	December 27, 2008
ASSETS		
Current assets:		
Cash and cash equivalents	$ 14,482	$ 23,980
Accounts receivable, net of allowances of $735 and $309, respectively	14,912	17,143
Inventories	34,209	31,583
Inventories-delivered systems	69	205
Assets held for sale	203	
Prepaid expenses and other	1,789	1,838
Deferred income tax assets	573	350
Total current assets	66,237	75,099
Property, plant and equipment, net	38,119	40,136
Intangible assets, net	7,895	6,901
Other assets	1,580	1,718
Total assets	$ 113,831	$ 123,854
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Revolving line of credit	$ 3,500	$
Accounts payable	5,009	4,824
Accrued payroll and related expenses	2,842	3,435
Deferred revenue	1,036	1,539
Other current liabilities	6,720	5,800
Income taxes payable	897	1,187
Current portion of debt obligations	373	413
Total current liabilities	20,377	17,198
Deferred revenue	265	162
Other long-term liabilities	2,514	644
Debt obligations	12,912	13,083
Total liabilities	36,068	31,087
Commitments and Contingencies		
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; 18,587,645 and 18,413,054, respectively, issued and outstanding	18	18

Additional paid-in capital	190,824	189,927
Accumulated deficit	(114,237)	(96,643)
Accumulated other comprehensive income (loss)	1,158	(535)
Total stockholders equity	77,763	92,767
Total liabilities and stockholders equity	$ 113,831	$ 123,854

See Notes to Unaudited Condensed Consolidated Financial Statements

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NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(Amounts in thousands except per share amounts)

(Unaudited)

	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Net revenues:				
Products	$ 7,897	$ 18,504	$ 12,837	$ 46,433
Service	6,620	5,257	11,737	12,056
Total net revenues	14,517	23,761	24,574	58,489
Costs of net revenues:				
Cost of products	5,206	9,162	8,901	22,824
Cost of service	3,304	4,532	6,820	9,770
Total costs of net revenues	8,510	13,694	15,721	32,594
Gross profit	6,007	10,067	8,853	25,895
Operating expenses:				
Research and development	3,055	4,422	6,294	8,677
Selling	3,258	4,844	6,873	9,683
General and administrative	3,488	5,302	7,460	10,826
Amortization of intangible assets	337	1,330	706	2,615
Asset impairment	1,899	13,213	1,899	13,213
Restructuring charge	445		1,134	870
Total operating expenses	12,482	29,111	24,366	45,884
Loss from operations	(6,475)	(19,044)	(15,513)	(19,989)
Other income (expense)				
Interest income	12	34	27	132
Interest expense	(281)	(26)	(547)	(103)
Other, net	(582)	(32)	(1,941)	422
Total other income (expense), net	(851)	(24)	(2,461)	451
Loss before benefit or income taxes	(7,326)	(19,068)	(17,974)	(19,538)
Provision benefit for income taxes	(361)	(154)	(380)	100
Net Loss	$ (6,965)	$ (18,914)	$ (17,594)	$ (19,638)
Net loss per share:				
Basic	$ (0.38)	$ (1.02)	$ (0.95)	$ (1.06)
Diluted	$ (0.38)	$ (1.02)	$ (0.95)	$ (1.06)

Shares used in per share calculation:				
Basic	18,526	18,632	18,470	18,611
Diluted	18,526	18,632	18,470	18,611

See Notes to Unaudited Condensed Consolidated Financial Statements

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NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands)

(Unaudited)

	Six-Months Ended	
	June 27, 2009	June 28, 2008
Cash flows from operating activities:		
Net loss	$ (17,594)	$ (19,638)
Reconciliation of net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	2,835	4,625
Asset impairment	1,899	13,213
Stock-based compensation	721	1,999
Loss on disposal of fixed assets	47	
Accounts receivable reserves	458	(3)
Deferred taxes	(191)	
Unrealized foreign exchange loss on non-permanent intercompany loans	1,158	
Changes in assets and liabilities, net of assets acquired:		
Accounts receivable	1,641	6,542
Inventories, net	(798)	798
Inventories-delivered systems	132	555
Prepaid expenses and other	32	(703)
Other assets	117	162
Accounts payable, accrued and other liabilities	(2,509)	(4,090)
Deferred revenue	(553)	(1,520)
Income taxes payable	(294)	(974)
Net cash provided by (used in) operations	(12,899)	966
Cash flows from investing activities:		
Cash received from Tevet on escrow settlement	215	
Purchase of Tevet s net assets, net of cash received		(3,316)
Purchases of property, plant and equipment	(336)	(2,049)
Net cash used in investing activities	(121)	(5,365)
Cash flows from financing activities:		
Borrowings from line of credit	3,500	
Repayments of debt obligations	(158)	(78)
Proceeds from sale of shares under employee stock option plans and purchase plan	178	638
Repurchases of common stock		(535)
Net cash provided by financing activities	3,520	25
Effect of exchange rate changes on cash and cash equivalents	2	(892)
Net decrease in cash and cash equivalents	(9,498)	(5,266)
Cash and cash equivalents, beginning of period	23,980	14,919
Cash and cash equivalents, end of period	$ 14,482	$ 9,653

Supplemental disclosure of cash flow information:		
Non-cash purchase of Unifire from Zygo Semiconductor Solutions (see Note 3)	$ 5, 092	
Cash paid for interest	$ 521	$ 110
Cash paid for income taxes	$ 83	$ 673

See Notes to Unaudited Condensed Consolidated Financial Statements.

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NANOMETRICS INCORPORATED

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

Note 1. Condensed Consolidated Financial Statements

In the opinion of management, the accompanying Unaudited Condensed Consolidated Financial Statements (financial statements) of Nanometrics Incorporated and its wholly-owned subsidiaries (collectively, Nanometrics or the Company) have been prepared on a consistent basis with the December 27, 2008 audited condensed consolidated financial statements and include all adjustments, consisting of only normal recurring adjustments, necessary to fairly present the information set forth therein. All significant intercompany accounts and transactions have been eliminated in consolidation.

The financial statements have been prepared in accordance with the regulations of the United States Securities and Exchange Commission (SEC), 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 year ended December 27, 2008, which were included in the Company s Annual Report on Form 10-K, which was filed with the SEC on March 27, 2009.

Fiscal Period Nanometrics 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 The Company reclassifies certain prior year amounts to conform to the current presentation. During 2008, the Company determined that amortization of demonstration systems, which was previously recorded on the cash flow statement as a deduction in the carrying value of its inventories, should be classified to the depreciation and amortization line item on the cash flow statement. Amortization of demonstration systems was $0.4 million and $0.3 million for the three-month period ended June 27, 2009 and June 28, 2008, respectively, and $0.7 million and $0.5 million for the six-month period ended June 27, 2009 and June 28, 2008, respectively.

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, 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 in the condensed consolidated statements of operations in the quarter incurred and consist of a $0.5 million loss and no charge for the three-month period ended June 27, 2009 and June 28, 2008, respectively, and a $1.9 million loss and a gain of $0.5 million for the six month period ended June 27, 2009 and June 28, 2008, respectively. As of December 27, 2008, we reclassified loans we had on the books with our Japanese subsidiary from permanent to non-permanent so we could have the subsidiary pay back some of those loans to bring the cash back to the U.S. Corporate Headquarters to fund working capital worldwide. Statements of Financial Accounting Standards (SFAS) No. 52, Foreign Currency Translation requires that when intercompany loans are no longer considered permanent, any changes in foreign currency rates for such loans are to be recorded as a period charge on the statement of operations rather than a component in equity. As a result of the loan reclassification and substantial weakening of foreign currencies versus the dollar during the six-month period ended June 27, 2009, there was a $1.9 million expense on the statement of operations for that period, $1.2 million of which was non-cash expense .

Fair Value Measurement In September 2006, the Financial Accounting Standard Board (FASB) issued Statement No. 157, Fair Value Measurements (SFAS 157). This statement does not require any new fair value measurements but clarifies the fair value definition, establishes a fair value hierarchy that prioritizes the information used to develop assumptions for measuring fair value, and expands disclosures about fair value measurements. SFAS 157 clarifies that the

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fair value is the exchange price in an orderly transaction between market participants to sell the asset or transfer the liability in the market. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1 input), then to quoted prices (in non-active markets or in active markets for similar assets or liabilities), inputs other than quoted prices that are observable for the asset or liability, and inputs that are not directly observable, but that are corroborated by observable market data for the asset or liability (Level 2 input), then the lowest priority to unobservable inputs, for example, the Company s own data about the assumptions that market participants would use in pricing an asset or liability (Level 3 input). It emphasizes that fair value is a market-based measurement, not an entity-specific measurement and a fair value measurement should therefore be based on the assumptions that market participants would use in pricing the asset or liability. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. In February 2008, the FASB issued FASB Staff Position (FSP) No. FAS 157-1 to exclude SFAS 13, Accounting for Leases, and its related interpretive accounting pronouncements that address leasing transactions. Also in February 2008, the FASB issued FASB Staff Position No. FAS 157-2 to defer the effective date of SFAS 157 for one year for nonfinancial assets and nonfinancial liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis at least annually, which are deferred until fiscal years beginning after November 15, 2008 and interim periods within those fiscal years.

The Company adopted SFAS 157 for financial assets and liabilities at the beginning of its fiscal year 2008 on December 30, 2007, and for non-financial assets and liabilities at the beginning of its fiscal year 2009 on December 28, 2008.

In order to determine the implications of adopting SFAS 157, the Company reviewed all the assets and liabilities recorded on its balance sheet. Based on the results of its review, the Company determined that a majority of its assets and liabilities are either not required to be measured at fair value in its financial statements, are outside the scope of SFAS 157, or are subject to the deferred implementation FSP No 157-2. The Company does have a liability of $5.1 million resulting from the acquisition of certain assets from Zygo Semiconductor Solutions (Zygo), of which $3.1 is included in other current liabilities and $2.0 million in other long-term liabilities on the Company s condensed consolidated balance sheet. The fair value of this liability is a Level 2 input.

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Note 2. Recent Accounting Pronouncements

In May 2009, FASB issued FAS 165, Establishing Principles and Requirements for Subsequent Events which sets forth; (a) the period after the balance sheet date during which management of a reporting entity shall evaluate events or transactions that may occur for potential recognition for disclosure in the financial statements, (b) the circumstances under which an entity shall recognize events or transactions occurring after the balance sheet date in its financial statements, and (c) the disclosures that an entity shall make about events or transactions that occurred after the balance sheet date. In accordance with this Statement, an entity should apply the requirements to interim or annual financial periods ending after June 15, 2009. Events that occurred after the balance sheet date if any are in Note 19 Subsequent Events.

In April 2009, the FASB issued FSP 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transaction That Are Not Order,* (FSP SFAS 157-4) which provides additional guidance for estimating fair value in accordance with SFAS No. 157 when the volume and level of activity for the asset or liability have significantly decreased. This FSP re-emphasizes that regardless of market conditions the fair value measurement is an exit price concept as defined in SFAS No. 157. This FSP clarifies and includes factors to consider in determining whether there has been a significant decrease in market activity for an asset or liability and provides additional clarification on estimating fair value when the market activity for an asset or liability has declined significantly. The scope of this FSP does not include assets and liabilities measured under level 1 inputs. FSP SFAS 157-4 is applied prospectively to all fair value measurements where appropriate and will be effective for interim and annual periods ending after June 15, 2009. The adoption of this new guidance on June 27, 2009 did not significantly impact our condensed financial statements.

In April 2009, the FASB issued FSP SFAS 107-1 and APB 28-1, Interim Disclosures about Fair Value of Financial Instruments (FSP SFAS 107-1 and APB 28-1). This FSP which amends SFAS No. 107, Disclosures about Fair Value of Financial Instruments, requires publicly traded companies, as defined in APB Opinion No. 28, Interim Financial Reporting, to provide disclosures on the fair value of financial instruments in interim financial statements. FASP SFAS 107-1 and APB 28-1 are effective for interim periods ending June 15, 2009. The adoption of this new guidance on June 27, 2009 has been disclosed on the Company s condensed consolidated results of operations and financial condition.

In June 2008, the FASB issued FASB Staff Position EITF 03-6-1, Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities (FSP EITF 03-6-1). FSP EITF 03-6-1 addresses whether participating share-based payment awards, that contain non-forfeitable rights to dividends or dividend equivalents (paid or unpaid) prior to vesting, should be included in the computation of earnings per share under the two-class method. FSP EITF 03-6-1 will be effective for financial statements issued for fiscal years beginning after December 15, 2008. The adoption of this new guidance on December 28, 2008 did not significantly impact our condensed consolidated financial statements.

In April 2008, the Financial Accounting Standards Board (FASB) issued FASB Staff Position (FSP) No. 142-3, *Determination of the Useful Life of Intangible Assets* , (FSP 142-3) that amends the factors considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under Statement of Financial Accounting Standards (SFAS) SFAS No. 142, *Goodwill and Other Intangible Assets* (SFAS 142). FSP 142-3 requires a consistent approach between the useful life of a recognized intangible asset under SFAS 142 and the period of expected cash flows used to measure the fair value of an asset under SFAS No. 141 (R), *Business Combinations* (SFAS 141(R)). The FSP also requires enhanced disclosures when an intangible asset s expected future cash flows are affected by an entity s intent and/or ability to renew or extend the arrangement. FSP 142-3 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and is applied prospectively. Early adoption is prohibited. The adoption of this new guidance on December 28, 2008 did not impact our condensed consolidated financial statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements an amendment of ARB No. 51*. SFAS 160 establishes accounting and reporting standards to improve the relevance, comparability and transparency of financial information that a reporting entity provides in its consolidated financial statements. SFAS 160 became effective December 15, 2008. The adoption of SFAS 160 did not have a material impact on the Company s financial position or results of operation.

In February 2008, the FASB issued FASB Staff Position (FSP) FAS-157-2, which delayed the effective date of SFAS No. 157, Fair Value Measurements, to fiscal years ending after November 15, 2008 for non-financial assets and liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis. FASP FAS 157-2n became effective November 15, 2008. The adoption of FSP SFAS 157-2 did not have a material impact on the Company s financial position or results of operations.

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In March 2008, the FASB issued SFAS No. 161 *Disclosures about Derivative Instruments and Hedging Activities an amendment of FASB Statement No. 133* (SFAS 161). The new standard requires additional disclosures regarding a company s derivative instruments and hedging activities by requiring disclosure of the fair values of derivative instruments and their gains and losses in a tabular format. It also requires disclosure of derivative features that are credit risk related as well as cross-referencing within the notes to the financial statements to enable financial statement users to locate important information about derivative instruments, financial performance, and cash flows. The standard is effective for the Company s fiscal year and interim periods within such year, beginning January 1, 2009, with early application encouraged. The adoption of this new guidance did not impact our consolidated financial statements as the Company does not have derivative instruments and does not engage in hedging activities.

In December 2007, the FASB issued SFAS 141 (R), *Business Combinations* (SFAS 141(R)). SFAS 141(R) will change the accounting for business combinations. Under SFAS 141(R), an acquiring entity will be required to recognize all the assets acquired and liabilities assumed in a transaction at the acquisition-date fair value with limited exceptions. SFAS 141(R) will change the accounting treatment for certain specific items, including, acquisition costs will generally be expensed as incurred, non-controlling interest will be valued at fair value at the acquisition date, acquired contingent liabilities will be recorded at fair value at the acquisition date and subsequently measured at either the higher of such amount or the amount determined under existing guidance for non-acquired contingencies, in-process research and development will be recorded at fair value as an indefinite-lived intangible asset at the acquisition date, restructuring costs associated with a business combination will be generally expensed subsequent to the acquisition date, and changes in the deferred tax asset valuation allowances and income tax uncertainties after the acquisition date generally will affect income tax expense. SFAS 141(R) also includes a substantial number of new disclosure requirements. SFAS 141 (R) applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008, or the first quarter of 2009. Earlier adoption is prohibited. During the current period, the Company completed a business combination with Zygo Semiconductor Solutions as discussed in Note 3, accounted for in accordance with SFAS 141(R).

FSP FAS 141 (R) 1 *Accounting for Assets Acquired and Liabilities in a Business Combination That Arise from Contingencies* addresses the contingent consideration arrangements. Paragraph 41, Contingent Consideration The acquirer transfers in exchange for the acquiree includes any asset or liability resulting from a contingent consideration arrangement (paragraph 3(f). The acquirer shall recognize the acquisition-date fair value of contingent consideration as part of the consideration transferred in exchange for the acquiree. Paragraph 42, The acquirer shall classify an obligation to pay contingent consideration as a liability or as equity in accordance with FASB Statement No. 150, Accounting for *Certain Financial Instruments With Characteristics of both Liabilities and Equity*, EITF Issue No. 00-19, Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company s Own Stock, or other applicable GAAP. For example, Statement 150 provides guidance on whether to classify as a liability a contingent consideration arrangement that is, in substance, a put option written by the acquirer on the market price of the acquirer s shares issued in the business combination. Paragraph 65 provides guidance on the subsequent accounting for contingent consideration. Some changes in the fair value of contingent consideration that the acquirer recognizes the acquisition date maybe the result of additional information about facts and circumstances that existed at the acquisition date that the acquirer obtained after that date. Such changes are measurement period adjustments in accordance with paragraphs 51-55. However, changes resulting from events after the acquisition date, such as meeting an earnings target, reaching a specified share price, or reaching a milestone on a research and development project, are not measurement period adjustments. The acquirer shall account for changes in the fair value of contingent consideration that are not measurement period adjustments as follows:

a. Contingent consideration classified as equity shall not be remeasured and its subsequent settlement shall be accounted for within equity.

b. Contingent consideration classified as an asset or liability is remeasured to fair value at each date until the contingency resolved. The changes in fair value are recognized in earnings unless the arrangement is a hedging instrument for which Statement 133, as amended by this Statement, requires the changes to be initially recognized in other comprehensive income.

In June 2009, the FASB issued SFAS 168 The FASB Accounting Standards Codification TM *and the Hierarchy of Generally Accepted Accounting Principles, a replacement of FASB Statement No. 162* (Codification), which will become the source of authoritative U.S. generally accepted accounting principles (GAAP) recognized by the FASB to be applied by nongovernmental entities. Rules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. On the effective date of this Statement, the Codification will supersede all then-existing non-SEC accounting and reporting standards. All other nongrandfathered non-SEC accounting literature not included in the Codification will become nonauthoritative. This Statement is effective for financial statements issued for interim and annual periods ending after September 15, 2009.

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Following this Statement, the Board will not issue new standards in the form of Statements, FASB Staff Positions, or Emerging Issues Task Force Abstracts. Instead, it will issue Accounting Standards Updates. The Board will not consider Accounting Standards Updates as authoritative in their own right. Accounting Standards Updates will serve only to update the Codification, provide background information about the guidance, and provide the bases for conclusions on the change(s) in the Codification.

FASB Statement No. 162, The Hierarchy of Generally Accepted Accounting Principles, which became effective on November 13, 2008, identified the sources of accounting principles and the framework for selecting the principles used in preparing the financial statements of nongovernmental entities that are presented in conformity with GAAP. Statement 162 arranged these sources of GAAP in a hierarchy for users to apply accordingly. Once the Codification is in effect, all of its content will carry the same level of authority, effectively superseding Statement 162. In other words, the GAAP hierarchy will be modified to include only two levels of GAAP: authoritative and nonauthoritative. As a result, this Statement replaces Statement 162 to indicate this change to the GAAP hierarchy.

Note 3. Acquisitions

On June 17, 2009 (acquisition date), Nanometrics announced that it had purchased inventory and certain other assets of Zygo Semiconductor Solutions and that the two companies have entered into a supply agreement. The terms of the agreement is an exclusive OEM arrangement in which Zygo will provide interferometer sensors to Nanometrics for incorporation into the Unifire line of products as well as Nanometrics family of automated metrology systems. The arrangement is structured as an asset transfer and exclusive OEM supply agreement aimed at wafer-based markets. Nanometrics will assume all inventory and customer sales and support responsibilities and Zygo will provide measurement sensors for integration by Nanometrics. By completing this acquisition, Nanometrics anticipates expanding its served markets to include the high end of dimensional control metrology for the rapidly-growing back-end-of-line packaging market, while also enhancing our product offerings to front-end-of-line metrology customers. In addition to the applications currently addressed by Nanometrics and Zygo products, the business partnership allows for the joint development of additional technology solutions targeted at the semiconductor and related industries. This transaction met the conditions of a business combination as defined in SFAS 141(R), and as such is accounted for under SFAS 141 (R). The results from the Unifire line of business were included in the Company s condensed consolidated statements of operations from the date of acquisition.

The following table summarizes the fair value of consideration transferred and the fair value of acquired assets:

Fair value of purchase consideration transferred $5,092

Assets acquired:	
Inventories raw materials	$ 2,014
Property, plant and equipment machinery and equipment	1,378
Total assets acquired:	3,392
Other intangible assets:	
Developed technology	1 400
Customer relationships	300
Total other intangible assets:	1,700
Net assets acquired	$ 5,092

The fair value of the purchase consideration for the assets acquired was $5.1 million, which consisted of deferred payments to Zygo for inventory and fixed assets, as well as future royalty and sustaining engineering support fees. The future royalty and sustaining engineering support fees are considered contingent consideration. The acquisition did not involve any cash payments to Zygo. On the acquisition date, the fair value of purchase consideration transferred including contingent consideration is recorded as a liability on the Company s condensed consolidated balance sheet, with $3.1 million current and $2.0 million long-term. The Company will be required to make payments to Zygo after each sale of the Company s product which incorporates inventory acquired from Zygo. If the Company has not sold sufficient products which incorporate the acquired inventory from Zygo, within one year from the date of the acquisition, the Company must remit the remaining unpaid portion relating to inventory and fixed assets at that time.

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The fair value of the purchase consideration relating to the inventory and fixed assets was determined using an analysis based on management s expected revenue from products which incorporate the acquired inventory from Zygo, discounted by 20 percent to arrive at the present value.

The fair value of the future royalty and sustaining engineering support fees was determined using a relief from royalty method based on the following: (a) amount of the acquired assets that business will generate, (b) a discount rate of 20 percent was utilized to adjust the purchase price payments to the present, based on the consideration of both a weighted average cost of capital calculation and venture capital rates. The Company will pay Zygo a royalty based on net revenues of approved products and the expected sustaining engineering payments based on volumes of heads purchased from Zygo starting in 2010 and over a 10 year period. The range of the undiscounted amounts Nanometrics could pay under the contingent consideration discussed here ranges from $3.4 million to $10.2 million.

The fair value of inventory acquired is $2.0 million since they are considered raw materials in which cost would less reserves would be representative proxy for fair value. The fair value of demonstration equipment is $1.4 million as determined by considering the purchase date and recent usage of the products. Fair value of developed technology of $1.4 million and customer relationships of $0.3 million were determined by similar methodology used above for the contingent consideration, with the following assumptions of (a) royalty rate of 3 percent, and (b) discount rate of 30 percent, and have definite lives amortizable over a period of 10 years on a straight-line basis and accelerated basis amortized over a two-year period, respectively. There was no amortization expense recorded for the acquired intangible assets from the Zygo transaction for the quarter ended June 27, 2009, as such was insignificant.

The fair value of the purchase contingent consideration will be evaluated every reporting period and an appropriate adjustment to the recorded liability will be made. Since the acquisition date, there has been no change to the fair value of the purchase contingent consideration and recorded liabilities.

During the quarter ended June 27, 2009 the Company incurred $0.2 million of third-party acquisition-related costs. These expenses are included in general and administrative expense of Nanometrics condensed consolidated statement of operations for the three-months ended June 27, 2009. Such acquisition-related costs are treated as goodwill for tax purposes and is expected to be deductible for tax purposes

The acquired Zygo business contributed no revenues and a net loss of $0.2 million to Nanometrics for the period from June 17, 2009 to June 27, 2009. The following unaudited pro forma summary presents consolidated information of Nanometrics as if the business combination had occurred at the beginning of the respective periods, December 28, 2008

	Pro Forma Three-Months Ended		Pro Forma Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Net revenues	$ 15,632	$ 25,113	$ 26,731	$ 61,448
Net loss	$ (7,931)	$ (21,372)	$ (21,322)	$ (23,776)
Net loss per share:				
Basic	$ (0.43)	$ (1.15)	$ (1.15)	$ (1.28)
Diluted	$ (0.43)	$ (1.15)	$ (1.15)	$ (1.28)

On May 19, 2008, Nanometrics announced that it had acquired Tevet Process Control Technologies, Ltd., (Tevet) an Israel-based privately held corporation. The acquisition of Tevet, an integrated metrology company serving the worldwide semiconductor and solar manufacturing industry, is expected to further Nanometrics strategy to offer a breadth of process control metrology solutions that address both advanced technology as well as cost of ownership. Under the terms of the asset purchase agreement, which was an all-cash transaction, the total consideration to purchase all assets and assume specified

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liabilities of Tevet was $3.6 million, including $0.2 million in transaction fees, which include legal, valuation and accounting fees. The asset purchase has been accounted for under the purchase method of accounting in accordance with SFAS 141, *Business Combinations* . Under the purchase method of accounting, the total estimated purchase price is allocated to the net tangible and identifiable intangible assets of Tevet acquired in connection with the transaction, based on their respective estimated fair values. The results of operations of Tevet were included in the Company s consolidated statements of operations from the date of the acquisition. The final allocation of the Tevet purchase price is summarized below (in thousands):

Assets acquired:	
Cash	$ 448
Accounts receivable	12
Inventories	467
Other assets	24
Property, plant and equipment	62
Total assets acquired	1,013
Liabilities assumed:	
Accounts payable	129
Deferred revenue	250
Other accrued liabilities	393
Total liabilities assumed	772
Net assets acquired	241
Goodwill and other intangible assets:	
Goodwill	1,848
Developed technology	1,269
Backlog	230
Total goodwill and other intangible assets	3,347
Net purchase price	$ 3,588

The purchase price of $3.6 million was finalized on the escrow close date of April 7, 2009. $215,000 was received by the Company at the escrow close date. The developed technology and backlog are being amortized over their estimated useful lives of seven years and one year, respectively. In the third quarter of 2008, the company recognized an impairment charge of $54.0 million, representing a write-off of the entire amount of the Company s previously recorded goodwill, including the $1.8 million in goodwill arising from the Tevet acquisition. No impairment of intangible assets from the Tevet acquisition has occurred for the quarter ended June 27, 2009. See Note 4, Goodwill and Long-Lived Asset Impairment

If the Company had acquired Tevet at the beginning of the three-and six-months periods ended June 28, 2008, the Company s unaudited pro forma net revenues, net income/loss and net income/loss per share from operations would have been as follows (in thousands, except per share amounts):

	Three-Months Ended June 28, 2008	Six-Months Ended June 28, 2008
Net revenues	$ 24,068	$ 59,310
Net income (loss)	(18,917)	(20,098)
Net income (loss) per share:		

Basic	$	(1.02)	$	(1.08)
Diluted	$	(1.02)	$	(1.08)

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Note 4. Goodwill and Long-Lived Asset Impairment

Goodwill represents the excess of the purchase price paid over the fair value of tangible and identifiable intangible net assets acquired in a business combination. In accordance with SFAS 142 goodwill is reviewed annually or whenever events or circumstances occur which indicate that goodwill might be impaired. SFAS 142 provides for a two-step approach to determining whether and by how much goodwill has been impaired. The first step requires a comparison of the fair value of the Company (reporting units, product and service) to its net book value. If the fair value is greater, then no impairment is deemed to have occurred. If the fair value is less, then the second step must be performed to determine the amount, if any, of actual impairment. The process of evaluating the potential impairment of goodwill is highly subjective and requires significant judgment.

Prior to performing step one of the goodwill impairment testing process for a reporting unit under SFAS 142, if there is reason to believe that other non-goodwill related intangible assets (finite or indefinite lived) and/or long-lived assets may be impaired, these other intangible assets and long-lived assets must first be tested for impairment under SFAS 144. Assets governed by SFAS 144 require a recoverability test whereby the gross undiscounted cash flows are determined specific to the asset. If the sum of gross undiscounted cash flows for the fixed-life intangible asset or long-lived asset exceeds the carrying value of that asset, the test results in no impairment to the asset. If not, then the fair value of the asset must be determined and the impairment is measured by the differential between the fair value and the carrying value. For non-goodwill related indefinite-lived assets, a fair value determination is made. If the carrying value of the asset exceeds the fair value, then impairment occurs. The carrying values of these assets are impaired as necessary to provide the appropriate carrying value for the goodwill impairment calculation.

During the second quarter 2008, the Company determined that indicators of impairment existed for our goodwill and long-lived assets. In accordance with SFAS 144, the Company performed impairment tests to its long-lived assets and goodwill for its reporting units, product and service. Resulting from this test, the Company determined that there was no impairment of goodwill, however, there was impairment to intangible assets and other long-lived-assets, therefore the Company recorded a pre-tax, non-cash impairment charge of $11.8 million for intangible assets and $1.5 million for other long-lived assets.

During the third quarter 2008, as a result of continued significant declines in the Company s stock price and further evidence of the semiconductor industry being in a prolonged cyclical downturn, it was determined that indicators of impairment existed for our goodwill and long-lived assets. In accordance with SFAS 142 and SFAS 144, the Company performed impairment tests to its long-lived assets and goodwill for its reporting units, product and service. As a result of the testing, the Company recorded a pre-tax, non-cash impairment charge of $54.0 million for goodwill and $1.4 million for intangible assets. The $54.0 million represented 100% impairment of the goodwill balance and that there was no impairment of other long-lived assets.

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 the 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 27, 2008.

Due to the decline in our forecasted revenues for certain product lines relating to specific intangible assets acquired in the 2006 acquisitions of Accent Optical Technologies, Inc. and Soluris, Inc., as well as the weakening conditions in the semiconductor equipment market, the Company performed an analysis in accordance with SFAS 144. The Company performed step one of the impairment test for certain of its long-lived assets as of June 28, 2008 and September 27, 2008, and determined that the net book value exceeded the undiscounted future cash flows for certain intangible assets. Accordingly, the Company completed step two of the impairment analysis utilizing a present value technique to estimate the fair value of the impaired assets. As a result of this analysis, in the second and third quarters of 2008 the Company recorded $13.1 million in impairment charges for intangible assets, of which $3.7 million was developed technology, $7.5 million was customer relationships, $1.6 million was brand names and $0.3 million was trade mark.

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Also in accordance with SFAS 144, the Company performed impairment tests for other long-lived assets such as property, plant and equipment during 2008. The Company performed an impairment analysis on its long-lived assets associated with its machine shop and plating facility, which was subcontracted in 2007, due to the significant reduction in forecasted future cash flows resulting from the operational limitations of the facility. Due to these reduced forecasts, the Company performed step one of the impairment test for the machine shop and plating facility as of June 28, 2008, and determined that the net book value exceeded the undiscounted future cash flows. Accordingly, the Company completed step two of the impairment analysis utilizing a present value technique to estimate the fair value of the impaired assets. As a result of this analysis, an impairment charge of $1.5 million was recorded in the second quarter of 2008 to reduce those assets to fair value. The Company also performed step one of the impairment test on the remainder of its long lived assets in the second, third, and fourth quarters of 2008, and determined that no impairment existed.

After considering the results of the intangible and long-lived asset impairments as determined under SFAS 144, the Company then proceeded with step one of its impairment testing of goodwill under SFAS 142. The Company compared the fair value of each reporting unit to its carrying value and determined whether or not the reporting units were impaired as of June 28, 2008 and September 27, 2008.

In 2008, in estimating the fair value of the Company, the Company made estimates and judgments about future revenues and cash flows for each reporting unit. To determine the fair value, the Company s review process included the income method based on a discounted future cash flow approach that uses estimates including the following for each reporting unit: revenue based on assumed market growth rates and its assumed market share; estimated costs; and appropriate discount rates based on the particular business s weighted average cost of capital. The Company s estimates of market segment growth, market segment share and costs are based on historical data, various internal estimates and certain external sources, and are based on assumptions that are consistent with the plans and estimates it uses to manage the underlying businesses. The Company s business consists of both established and emerging technologies and its forecasts for emerging technologies are based upon internal estimates and external sources rather than historical information. The Company also considered its market capitalization on the dates of its impairment tests in determining the fair value of the respective businesses. The Company completed the first step of the SFAS 142 test of its goodwill at June 28, 2008 and determined that the fair value of its reporting units was in excess of the net book value on that date, and hence there was no impairment of goodwill as of the end of our second quarter 2008.

In accordance with SFAS 142, the Company concluded that events had occurred and circumstances had changed during the third quarter of 2008 which might indicate the existence of impairment indicators including a significant decline in the Company s stock price and continued deterioration in the semiconductor equipment market and the related impact on revenue forecasts of each reporting unit. Consistent with the Company s approach in its annual impairment testing, in assessing the fair value of the reporting unit, the Company considered both the market approach and income approach. Under the market approach, the fair value of the reporting unit is based on quoted market prices and the number of shares outstanding of the Company s common stock. Under the income approach, the fair value of the reporting unit is based on the present value of estimated future cash flows. At September 27, 2008, the Company determined that the fair value of its reporting units was less than the net book value of the net assets of each reporting unit and accordingly, the Company performed step two of the impairment test.

In step two of the impairment test, the Company determined the implied fair value of the goodwill and compared it to the carrying value of the goodwill. With the assistance of a third party valuation firm, the Company allocated the fair value of the reporting units to all of its assets and liabilities as if the reporting unit had been acquired in a business combination and the fair value of the reporting units was the price paid to acquire the reporting unit. The excess of the fair value of the reporting unit over the amount assigned to its assets and liabilities is the implied fair value of goodwill. The Company s step two analysis resulted in no implied fair value of goodwill, and therefore, the Company recognized an impairment charge of $54.0 million in the third quarter of 2008, representing a write-off of the entire amount of the Company s previously recorded goodwill including goodwill from the Tevet acquisition which was a part of the impaired reporting units.

In May 2009, the management of Nanometrics decided to close the Pyeongtek, Korea manufacturing facility due to the prevailing industry and economic conditions facing the semiconductor industry. The premises has effectively been vacated prior to the end of the second quarter 2009 with the Company actively pursuing the sale of the facility and related manufacturing assets as of this date. The majority of the assets associated with the machinery and equipment located at the facility are expected to be sold at their net book value with the exception of two assets to be scrapped of which the net book value are zero. In accordance with the paragraph 30 of SFAS No. 144 Accounting for the Impairment or Disposal of Long-Lived Assets (SFAS 144), the facility in Korea met all the requirements as a long-lived assets that is held for sale on June 27, 2009, the Company ceased recording depreciation on the facility at that time. The fair value of the Korea manufacturing facility was determined using a cost approach and a sale comparison approach.

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The cost approach uses the characteristics of the facility to determine the cost of replacement if the facility were new, adjusted for depreciation to date considering the age of the facility. The sale comparison approach considers market comparable sales activity. An average of the two approaches was used to determine the facility fair value of approximately $0.2 million, which included an estimate for selling costs at 10% of the building fair value. An impairment loss of $1.9 million was recorded on the Korea facility for the second quarter of 2009

Note 5. Restructuring Charge

In the first and second quarter of 2009, the Company reduced the global workforce by 51 and 25 employees, respectively, and recorded a restructuring charge of $0.7 million and $0.4 million in each respective quarter. Twelve (12) of the employees terminated in the second quarter of 2009 were in connection with the Korea manufacturing facility closure.

During fiscal year 2008, the Company reduced its global work force by approximately 61 employees. This reduction affected employees in each of the Company s locations worldwide and was aimed at reducing its operating expenses.

		Other Charges	Severance and Other Benefits	Total
Restructuring charges	First Quarter of 2008	$ 84	$ 786	$ 870
Restructuring charges	Third Quarter of 2008		655	655
Cash paid		(84)	(1,361)	(1,445)
Reserve balance at December 27, 2008			80	80
Restructuring charges	First Quarter of 2009		689	689
Cash paid			(769)	(769)
Reserve balance at March 28, 2009				
Restructuring charges-Second Quarter of 2009			445	445
Cash paid			(445)	(445)
Reserve balance at June 27, 2009		$	$	$

Note 6. Accounts Receivable

The Company maintains arrangements under which eligible accounts and notes receivable are sold without recourse to unrelated third-party financial institutions. These receivables were not included in the consolidated balance sheets as the criteria for sale treatment established by SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*, (SFAS 140) had been met. Under SFAS 140, after a transfer of financial assets, an entity stops recognizing the financial assets when the control has been surrendered. The Company s sale of accounts receivable 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 at rates ranging from 1.48 % to 1.74% 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 $2.5 million and $4.4 million of receivables, respectively, during the three-and six-months periods ended June 27, 2009 and sold $3.9 million and $10.6 million of receivables, respectively, during the three-month and six-months ended June 28, 2008. There were no material gains or losses on the sale of such receivables. There were no amounts due from the financial institutions at June 27, 2009 and December 27, 2008.

Note 7. Inventories

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

	June 27, 2009	December 27, 2008
Raw materials and sub-assemblies	$ 20,203	$ 19,113
Work in process	3,468	3,662
Finished goods	10,538	8,808
Total inventories	$ 34,209	$ 31,583

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We reflect the cost of systems that were invoiced upon shipment but deferred for revenue recognition purposes separate from our inventory held for sale as Inventories delivered systems.

Note 8. Property, Plant and Equipment

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

	June 27, 2009	December 27, 2008
Land	$ 15,579	$ 15,577
Building and improvements	18,554	20,973
Machinery and equipment	15,623	15,427
Furniture and fixtures	2,360	2,142
Capital in progress	2,909	2,940
	55,025	57,059
Accumulated depreciation and amortization	(16,906)	(16,923)
Total property, plant and equipment, net	$ 38,119	$ 40,136

During the second quarter of fiscal year 2009, the Company closed its manufacturing facility in Korea and moved certain inventories and machinery and equipments to its headquarters in Milpitas. The Company is actively seeking buyers for the manufacturing facility in Korea. As a result of the closure, a $1.9 million impairment of building and improvements and machinery and equipment was recorded for the quarter ended June 27, 2009. Based on management s estimate of the fair value of the building and improvement, the net realizable fair value of the building improvement is $0.2 million, net of selling costs, and is classified as asset held for sale in the Condensed Consolidated Balance Sheet as of June 27, 2009.

Note 9. Intangible Assets

On June 17, 2009, Nanometrics announced that it had purchased inventory and certain other assets of Zygo Semiconductor Solutions and that the two companies have entered into a supply agreement, as a result, the Company recorded $1.4 million of developed technology and $0.3 million of customer relationships, during second quarter period of 2009. Intangible assets acquired have definite lives and recorded at fair value in accordance with SFAS 141 (R). The Company will amortize the developed technology on a straight line basis over a period of ten-years and the customer relationships on an accelerated basis over a period of two-years.

During the second quarter of 2008, the Company added $1.5 million of finite-lived assets through its acquisition of Tevet. Finite-lived intangible assets are recorded at cost, less accumulated amortization. Finite-lived intangible assets as of June 27, 2009 and December 27, 2008 consist of the following (in thousands):

	Adjusted Basis as of December 27, 2008	2009 Adjustments	(a) Adjusted Basis as of June 27, 2009	Accumulated Amortization	Net Carrying Amount as June 27, 2009
June 27, 2009					
Developed technology(a)	$	$ 1,700		$ (3,539)	$ 5,180
Customer relationships(a)		300	8,483	(6,568)	1,915
Brand names			1,927	(1,159)	768
Patented technology			1,790	(1,790)	

Trademark			80	(48)	32
Backlog			3,361	(3,361)	
Non-compete agreement			50	(50)	
Other			125	(125)	
Total	$	$ 1,700	$ 24,535	$ (16,640)	$ 7,895

(a) During the second quarter, the Company acquired $1.4 million of developed technology and $0.3 million of customer relationships as discussed in Note 3.

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	(b) Original Amount	(c) Impairment and Tax Adjustment During 2008	Adjusted Basis as of December 27, 2008	Accumulated Amortization	Net Carrying Amount as of December 27, 2008
December 27, 2008					
Developed technology	$ 11,069	$ (3,750)	$ 7,319	$ (3,147)	$ 4,172
Customer relationships	15,700	(7,517)	8,183	(6,330)	1,853
Brand names	3,600	(1,673)	1,927	(1,087)	840
Patented technology	1,790		1,790	(1,790)	
Trademark	400	(320)	80	(44)	36
Backlog	3,361		3,361	(3,361)	
Non-compete agreement	50		50	(50)	
Other	250		250	(250)	
Total	$ 36,220	$ (13,260)	$ 22,960	$ (16,059)	$ 6,901

(b) Historical cost of intangible assets acquired. Includes $1.5 million of intangible assets acquired from Tevet in the second quarter of 2008, which consists of $1.3 million developed technology and $0.2 million backlog.

(c) Amounts include impairments charges recorded in the second and third quarters of 2008 of $11.8 million and $1.3 million, respectively and tax adjustments of $0.2 million in the third quarter of 2008.

The amortization of finite-lived intangibles is computed using the straight-line method except for customer relationships which is computed using an accelerated method. Estimated lives of finite-lived intangibles range from five to ten years, except for the non -compete agreement and backlog which were amortized over one year. Total amortization expense for the three-month periods ended June 27, 2009 and June 28, 2008 was $0.3 million and $1.3 million respectively, and for the six-month periods ended June 27, 2009 and June 28, 2008 was $0.7 million and $2.6million, respectively.

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The estimated future amortization expense as of June 27, 2009 is as follows (in thousands):

Fiscal Years	
2009 (remaining six months)	$ 797
2010	1,557
2011	1,319
2012	1,112
2013	951
Thereafter	2,159
Total amortization	$ 7,895

Note 10. Other Current Liabilities

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

	June 27, 2009	**December 27, 2008**
Accrued warranty	$ 1,225	$ 2,075
Accrued professional services	1,046	883
Fair value of deferred payments from Unifire acquisition (Note 3)	3,060	
Other	1,389	2,842
Total other current liabilities	$ 6,720	$ 5,800

Note 11. Line of Credit and Debt Obligations

Debt obligations consist of the following (in thousands):

	June 27, 2009	**December 27, 2008**
Line of Credit		
Borrowings from Line of Credit	$ 3,500	$
Debt Obligations		
Milpitas building mortgage	$ 13,242	$ 13,400
Equipment financing	43	96
Total debt obligations	13,285	13,496
Current portion of debt obligations	(373)	(413)
Long-term debt obligations	$ 12,912	$ 13,083

At the end of the second quarter 2009, the Company borrowed $3.5 million against our outstanding $15.0 million line of credit. The interest rate in effect as of June 27, 2009 is 6.0%, which is the bank s prime rate of 3.25%, plus 2.75%. The minimum borrowing interest rate is 5.75% per annum. The full amount of $3.5 million was repaid in July 2009.

The maximum borrowing allowed on the line of credit is $15.0 million. Borrowing is limited to the lesser of (a) $7.5 million plus the Borrowing Base or (b) $15.0 million. The Borrowing Base is calculated based on eligible receivables (determined by a formula considering specific customers, concentration of receivables, letters of credit, and the other factors) and was $5.2 million as of June 27, 2009. The total amount available for borrowing as of June 27, 2009 was $12.7 million.

In July 2008, the Company entered into a loan agreement pursuant to which we borrowed $13.5 million. The loan 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

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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. The loan is secured, in part, by a lien on and security interest in the building and land comprising of the Company s principal offices in Milpitas, California.

The equipment financing was obtained in November 2006 by the Company s subsidiary in the United Kingdom and is collateralized by the financed assets. The loan is denominated in British pounds sterling (£26,282 as of June 27, 2009) and bears interest at 5.53% per annum. The loan is payable in monthly installments with unpaid principal and interest due in November 2009.

The Company is not in breach of any restrictive covenants in connection with its line of credit and debt obligation. At June 27, 2009, future annual maturities of debt obligations were as follows (in thousands):

2009 (remaining six months)	$ 202
2010	343
2011	3,868
2012	396
2013	426
Thereafter	11,550
Total	$ 16,785

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Note 12. Stockholders Equity

Net Loss Per Share Basic net loss per shares excludes dilution and is computed by dividing net loss by the weighted average common shares outstanding for the period. Diluted net loss per share reflects the potential dilution from outstanding dilutive stock options (using the treasury stock method) shares issuable under the employee stock purchase plan. During the first quarter of 2009 and comparable quarter last year, diluted net loss per shares excludes common equivalent shares outstanding as their effect is anti-dilutive. The total number of common equivalent shares includes stock options with exercise prices, in excess of the fair market value of our common stock, which are always excluded from diluted weighted average shares outstanding, as their effect is anti-dilutive. The reconciliation of the share denominator used in the basic and diluted net loss per share computations is as follows (in thousands):

	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Weighted average common shares outstanding used in basic net loss per share calculation	18,526	18,632	18,470	18,611
Shares used in diluted net loss per share computation	18,526	18,632	18,470	18,611

For the three-month period ended June 27, 2009 and June 28, 2008, the Company had securities outstanding which could potentially dilute basic earnings per share in the future, which were excluded from the computation of diluted net loss per share in the periods presented as their impact would have been anti-dilutive. Weighted average common share equivalents, consisting of stock options excluded from the calculation of diluted net loss per share were 2.5 million and 2.7 million in the three- and six months periods ended June 27, 2009 and 2.7 million for each period in the three- and six-months period ended June 28, 2008.

During the third fiscal quarter of 2007, the Company s Board of Directors authorized a stock repurchase program pursuant to which the Company may repurchase up to $4.0 million shares of its common stock. During the first and second quarter of fiscal year 2009, the Company did not repurchase common shares in the open market. For three- and six-month period ended June 28, 2008, the Company had repurchased 31,900 and 75,500 common shares, at an average price of $7.97 and $7.09 per share, respectively. At June 27, 2009, $1.3 million remained available for the future purchase of shares of common stock.

Note 13. Stock-Based Compensation

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 under SFAS No. 123 (revised 2004), *Share-Based Payment* , (FAS 123(R))is as follows (in thousands):

	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Cost of products	$ 33	$ 99	$ (48)	$ 136
Cost of service	70	131	106	185
Research and development	134	174	112	311
Selling	134	250	279	406
General and administrative	32	427	272	961
Total stock-based compensation expense related to employee stock options and employee stock purchase plans	$ 403	$ 1,081	$ 721	$ 1,999

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 allowed by Staff Accounting Bulletin 107, extended by Staff Accounting Bulletin 110. 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.

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	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Stock Options				
Expected life	4.2 years	4.4 years	4.2 years	4.4 years
Volatility	65.49%	52.98%	63.02%	53.99%
Risk free interest rate	2.56%	3.00%	2.09%	2.98%
Dividends				
Employee Stock Purchase Plan				
Expected life	0.5 years	0.5 years	0.5 years	0.5 years
Volatility	87.73%	72.93%	89.56%	72.93%
Risk free interest rate	1.02%	1.64%	0.94%	1.64%
Dividends				

The weighted average fair value per share of the stock options awarded in the three- and six-month periods ended June 27, 2009 was $1.16 and $0.84, 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 quarter ended June 27, 2009 is as follows:

	Shares Available (Options and RSUs)	Number of Shares (Options)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in Thousands)
Options					
Outstanding at December 27, 2008	1,665,043	3,562,437	$ 7.29	5.1	$ 176
Exercised		(3,932)			
Granted	(251,500)	251,500			
Restricted Stock Units Allocation	(26,000)				
Cancelled (1)	329,539	(329,735)			
Outstanding at June 27, 2009	1,717,082	3,480,270	$ 6.57	5.0	$ 1,487
Exercisable at June 27, 2009		1,850,910	$ 9.14	4.0	$ 203

1 A total of 196 shares expired and was put back into the pool of shares available.

During the second quarter of 2009, the Company granted 12,000 Restricted Stock Units (RSUs) with vesting periods of three years. As of June 27, 2009, there were 71,331 Restricted Stock Units outstanding. The Company s vesting of Restricted Stock Options, vests one-third of the grant on the one year anniversary of the Vesting Commencement date and an additional one-third of the Restricted Stock Units vesting each annual anniversary thereafter for a total of three-year vesting. Prior to December 2008, the majority for options granted by the Compensation Committee vested at a rate of 33 1/3 percent over the first three years of the seven-year option term on each of the first, second and third anniversary of such grants. Starting in December 2008, the majority of the options granted for employees employed for less than one year vest one-third (1/3rd) of the shares subject to the option on the first anniversary of the grant date, and vest one thirty sixth (1/36th) each month for the following two years, for a total three year vesting period with a seven-year option term. Starting in November 2008, the majority of the options granted for employees employed for more than one year vest one thirty-sixth (1/36th) of the shares subject to the options in equal monthly installments starting on the monthly anniversary of the date of grant with a seven-year option term.

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The aggregate intrinsic value in the preceding table represents the total pretax intrinsic value, based on the Company s closing stock price of $2.50 as June 26, 2009, 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- and six-month periods ended June 27, 2009 was immaterial and for the three-and six-month periods ended June 28, 2008 was $0.1 million. The fair value of options vested for the three- month period ended June 27, 2009 was $0.9 million and $2.2 million, respectively and for the three and six-month periods ended June 28, 2008 was $1.7 million and $3.4 million, respectively.

On May 27, 2009, an annual meeting of stockholders was held at the premises of Nanometrics at 1550 Buckeye Drive, Milpitas, California 95035. At the annual meeting the shareholders approved the following;

1) an amendment to the 2003 Employee Stock Purchase Plan (2003 Stock Plan) to increase the number of shares reserved for issuance under the 2003 Stock Plan by 1,200,000 shares; and

2) an amendment and restatement of the 2005 Equity Incentive Plan to allow in 2009 for a one-time stock option exchange program for eligible employees and executive officers.

Under the Stock Option Exchange Program, only the employees and executives are eligible to participate. Stock options will be eligible for the Option Exchange Program if they (a) have a strike price per share greater than or equal to the 52-week high trading price of the Company s Common stock when the Option Exchange Program commences; (b) have been granted at least 12 months prior to the date that the Option Exchange Program commences; and (c) are scheduled to expire more than 12 months after the Option Exchange Program commences (Eligible Options). The opportunity to participate in the Option Exchange Program may be offered to employees and executive officers who hold Eligible Options that were granted under the 2005 Equity Incentive Plan, 2002 Nonstatutory Stock Option Plan, 2000 Employee Stock Option Plan and the Accent Optical Technology Plan (AOT) (collectively referred to as the Plan). Eligible Options surrendered for exchange under the Option Exchange Program that were issued under the Plan will, upon the closing of the exchange offer, be exchanged for new options (New Options) granted pursuant to the Plan.

Under the proposed Option Exchange Program, each New Option will have: (1) a strike price per share equal to the closing price of Company common stock on the day that our exchange offer expires, (2) a new expiration date of seven years from the date of grant, and (3) a three-year vesting schedule with interim installment vesting as determined by the Compensation Committee. The directors recommend the vesting period to be:

a. options will vest over three years;

b. the first 1/3rd will vest immediately at the time of grant; and

c. the remainder will vest 1/24th per month starting in month 13.

The ratio of shares underlying New Options to shares underlying exchanged Eligible Options will be 1 to 1.5 for those Eligible Options with a strike price not more than $10.00 and 1 to 2 for those eligible Options with an exercise price more than $10.00. All New Options will be nonstatutory options.

There are 1,420,532 and 360,846 Eligible Options under the Options Exchange Program available for employees and officers, respectively. The total Eligible Options available are 1,345,480 and 435,898 for US employees and executives and non-US employees and executives, respectively.

Note 14. Comprehensive Income (Loss)

The Company s comprehensive income (loss) was as follows (in thousands):

	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Net loss	$ (6,965)	$ (18,914)	$ (17,594)	$ (19,638)
Foreign currency translation adjustments, net of tax	1,649	(1,180)	1,696	322
Total comprehensive income (loss)	$ (5,316)	$ (20,094)	$ (15,898)	$ (19,316)

Substantially all of the accumulated other comprehensive income reflected as a separate component of stockholders equity consists of accumulated foreign currency translation adjustment for all periods presented.

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Note 15. Warranties

Product Warranty The Company sells the majority of its products with a 12-month repair or replacement warranty from the date of acceptance which generally represents the date of shipment. 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. For new product introductions where limited or no historical information exists, the Company may use warranty information from other previous product introductions to guide it in estimating its warranty accrual. The warranty accrual represents the best estimate of the amount necessary to settle future and existing claims on products sold as of the balance sheet date. The Company periodically assesses the adequacy of its reported warranty reserve and adjusts the amounts in accordance with changes in these factors. Components of the warranty accrual, which was included in the accompanying consolidated balance sheets with other current liabilities, were as follows (in thousands):

	Six-Months Ended	
	June 27, 2009	June 28, 2008
Balance as of beginning of period	$ 1,436	$ 4,545
Actual warranty costs	(633)	(3,009)
Provision for warranty	422	1,726
Balance as of end of period	$ 1,225	$ 3,262

Intellectual Property Indemnification Obligations In addition to product warranties, the Company will, from time to time, in the normal course of business, agree to indemnify certain customers with whom it enters into contractual relationships. The Company has agreed to hold these customers harmless against third party claims that Nanometrics products, when used for their intended purpose(s), infringe the intellectual property rights of such third parties or other claims made against the customer. 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 minimal. Accordingly, no liabilities have been recorded for these obligations in the accompanying unaudited consolidated balance sheets as of June 27, 2009 and December 27, 2008.

Note 16. Income Taxes

For the three-month period ended June 27, 2009 the income tax benefit of $361,000 was the result of foreign tax benefit of $382,000 offset by $21,000 in state tax expense. For the six-month period ended June 27, 2009, the income tax benefit of $380,000 was the result of foreign tax benefit of $421,000 offset by $41,000 in state tax expense.

For the three-month period ended June 28, 2008 the income taxes benefit of $0.2 million was the result of $0.1 million of tax benefit in a certain foreign jurisdiction where sufficient deferred tax liabilities exist to allow for benefiting the operating loss and $0.1 million for reduction of a tax contingency due to the expiration of local statues. For the six month period ended June 28, 2008 the income taxes provision of $0.1 million relates to the aggregate charge for potential tax exposure of certain foreign jurisdictions.

Note 17. Contingencies

In August 2005, KLA-Tencor Corporation (KLA) filed a complaint against the Company in the United States District Court for the Northern District of California. The complaint alleges that certain of the Company s products infringe two of KLA s patents. On January 30, 2006, KLA added a third patent to their claim. The complaint seeks a preliminary and permanent injunction against the sale of these products as well as the recovery of monetary damages and attorneys fees. As

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part of its defense, the Company has filed a request for re-examination of two of the allegedly infringed KLA patents with the U.S. Patent & Trademark Office (PTO). In March 2006, the Company filed a motion for and was granted a stay in the patent litigation case until such re-examination is completed. On July 28, 2008, the PTO issued a Notice of Intent to issue a Reexamination Certificate for one of the KLA patents, and subsequently on June 23, 2009 issued an additional Notice of Intent to issue a Reexamination Certificate on the second of three patents. The last patent reexaminations remain pending. In all three of the reexamination proceedings, the PTO has issued Office Actions rejecting numerous claims of KLA and KLA has amended the claims in response.

Note 18. Geographic and Significant Customer Information

The Company has one operating segment, as defined in SFAS No. 131, *Disclosures About Segments of an Enterprise and Related Information* . The Company s operating segment 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 and long-lived assets (excluding intangible assets) attributed to significant countries (in thousands):

	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Total net revenues:				
United States	$ 6,620	$ 4,081	$ 8,885	$ 15,918
Japan	2,151	9,051	6,903	17,914
South Korea	3,664	4,594	4,117	9,995
Taiwan	632	1,650	850	2,809
China	497	2,538	822	6,983
Europe	837	560	2,503	1,657
All other	116	1,287	494	3,213
Total net revenues*	$ 14,517	$ 23,761	$ 24,574	$ 58,489

* Net revenues are attributed to countries based on the deployment and service locations of systems.

	June 27, 2009	December 27, 2008
Long lived assets		
United States	$ 36,295	$ 35,322
Japan	907	1,138
South Korea	1,126	3,853
Taiwan	80	102
Europe	1,096	1,152
China	15	17
All Other	180	270
Total long lived assets**	$ 39,699	$ 41,854

** Long-lived assets include tangible assets only.

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

	June 27, 2009	June 28, 2008
Hynix Semiconductor, Inc	20.5%	***
Wuhan Semiconductor	***	10.6%
Samsung Semiconductor, Inc	19.2%	***
Western Digital	21.2%	***

*** The customer accounted for less than 10% of total accounts receivable during the period.

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

	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Samsung Electronics Co. Ltd.	22.7%	11.7%	14.0%	17.0%
Renesas Technology	***	10.2%	***	***
Western Digital	19.1%	***	12.3%	***

*** The customer accounted for less than 10% of revenue during the period.

Note 19. Subsequent Events

Stock-Based Compensation On August 6, 2009, the Company filed with the Securities and Exchange Commission for the Offer to Exchange Certain Stock Options for New Stock Options as identified under Note 13 Stock-Based Compensation. The tender offer to exchange and withdrawal rights of employees will expire at 5:00 p.m., Pacific, on September 3, 2009.

Subsequent events have been evaluated through August 11, 2009, the date the condensed consolidated financial statements were issued.

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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 our expectations, beliefs, intentions or strategies regarding our business in future periods. We may identify these statements by the use of words such as anticipate, believe, continue, could, estimate, expect, intend, may, might, plan, potential, predict, project, should, will, would and other similar ex forward-looking statements included in this document are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements, except as may otherwise be required by law.

Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain risk factors, including those set forth in Part II Item 1A Risk Factors and elsewhere in this document. 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 year December 27, 2008 which were included in our 2008 Annual Report on Form 10-K filed with the Securities Exchange Commission on March 27, 2009 and (ii) our other filings with the Securities and Exchange Commission.

Overview

The semiconductor industry is cyclical in nature and has historically experienced periodic downturns and upturns. Today s leading indicators of changes in customer investment patterns may not be any more reliable than in prior years. Demand for our equipment can vary significantly from period to period as a result of various factors, requirements, and our ability to develop, acquire, and market competitive products. For these and other reasons, our current results of operations may not necessarily be indicative of future operating results.

We are an innovator in the field of metrology systems for the semiconductor manufacturing and other industries. Our systems are designed to precisely monitor film thickness and critical dimensions that are necessary to control the manufacturing process and provide increased production yields and performance.

Capital expenditures by manufacturers of semiconductors, especially in Asia, are critical to our success. Purchases of our systems by these manufacturers are driven by the expected market demand for their new products and new applications. The increasing complexity of the manufacturing processes for semiconductors is an important factor in the demand for our innovative metrology systems, as are the adoption of optical critical dimension (OCD) metrology across fabrication processes, adoption of immersion lithography and double patterning, adoption of new types of thin film materials and the need for improved process control to drive process efficiencies. Our strategy is to continue to innovate organically as well to evaluate strategic acquisitions in order to address business challenges and opportunities. Nanometrics product revenues are made up of the following:

1) Our standalone systems are made up of manual, semi-automated and fully automated metrology systems which are employed in high-volume and low-volume production environments. The automated systems incorporate automated material handling interface options for a variety of fab automation environments and implement multiple measurement technologies (including film measurement, overlay and OCD) for a broad range of substrate sizes.

2) Our integrated metrology systems are installed inside wafer processing equipment to provide near real-time measurements for improving process control and increasing throughput. Our integrated systems offer DUV spectroscopic reflectometry and/or critical dimension measurement technologies. Our integrated metrology systems are sold directly to end customers and through our OEM channels.

3) Our material characterization systems include manual and semi-automated thin film thickness, critical dimension, defect inspection and composition measurement systems. Each of these measurement systems uses non-destructive, optical techniques to analyze and measure films. These products also include systems that are used to monitor the physical, optical, electrical and material characteristics of compound semiconductor, strained silicon and silicon-on-insulator (SOI) devices, including composition, crystal structure, layer thickness, dopant concentration, contamination and electron mobility.

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Our revenues are primarily derived from product sales but are also derived from customer service and system upgrades for the installed base of our products. In 2008, we derived 74.0% of our total net revenues from product sales and 26.0% of our total net revenues from services.

Important Themes and Significant Trends

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

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

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

Adoption of Immersion Lithography and Development of Double Patterning for Critical Photolithographic Layers. In an effort to reduce costs and increase device performance, semiconductor manufacturers are decreasing both the die size and feature size. Both immersion processing and double patterning techniques are being implemented to achieve the requisite device linear dimension and density. The additional rigors of these technologies increase the burden on overlay and registration capability as well as critical dimension monitoring and control. These techniques are shrinking total available process windows faster than the scaling predicted by Moore s Law, resulting in the need for additional metrology and process control for both overlay and OCD systems.

Adoption of New Types of Thin Film Materials. The need for ever increasing device circuit speed coupled with lower power consumption has pushed semiconductor device manufacturers to begin the replacement of the traditional aluminum etch back interconnect flows as well as conventional gate dielectric materials, all which drive a broader adoption of thin film and OCD metrology systems. To achieve greater semiconductor device speed, manufacturers have adopted copper in Logic/IDM and it is now proliferating in next generation DRAM and Flash nodes. Additionally, to achieve improved transistor performance in logic devices and higher cell densities in memory devices, new materials including high dielectric constant (or high-k) gate materials are increasingly being substituted for traditional silicon-oxide gate dielectric materials. High-k materials are comprised of complex thin films including layers of hafnium oxide and a bi-layer of thin film metals. Our advanced metrology solutions are required for thickness control of these layers, which is critical to enable the device performance improvements that these new materials allow.

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

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Reduced Number of Customers. Because of the escalating cost of 300mm manufacturing facilities, fewer semiconductor manufacturers can afford the significant investment in these next generation facilities. Therefore, fewer opportunities for semiconductors equipment companies exist. Given that the available number of potential customers is decreasing, pre-existing customer relationships, product positioning and critical mass take on greater importance.

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. We believe that the application of the following accounting policies requires significant judgments and estimates on the part of management.

Revenue Recognition We recognize 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. Product revenue includes hardware and also software that is incidental to the products as defined pursuant to AICPA Statement of Position (SOP) No. 97-2, *Software Revenue Recognition*. We derive revenue from three sources sales of process control metrology systems, spare part sales and, in certain arrangements, separately stated service contracts. Service revenue includes product upgrades. Our arrangements for sales of our systems often include customer-specified objective acceptance criteria. Our systems include hardware and software that is incidental to the system. We periodically review the software element of our equipment systems in accordance with AICPA Statement of Position (SOP) No. 97-2, *Software Revenue Recognition,* and Emerging Issues Task Force (EITF) Issue No. 03-05, *Applicability of SOP 97-2 to Non-Software Deliverables in an Arrangement Containing More-than-Incidental Software*, to ascertain that the software continues to be incidental.

For product sales to existing customers, revenue recognition occurs at the time title and risk of loss transfer, which usually occurs upon delivery, if we have reliably demonstrated that the product has successfully met the defined customer specified criteria, and all other recognition criteria has been met. This occurs at the time of shipment, as our terms are FOB shipping point. For initial sales of product where we have not previously met the defined customer 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 our 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 all other recognition criteria have been met.

All of our products are assembled prior to shipment to our customers. We often perform installation for our customers; however such installation is inconsequential and perfunctory as it may also be performed by third parties and is not considered essential to the functionality of the equipment. Revenue related to spare parts sales is recognized upon shipment and is included as part of service revenue. Service revenue also includes service contracts, and non-warranty and billable repairs of systems, and product upgrades. Whereas service revenue related to service contracts is recognized ratably over the period under contract, service revenue related to billable repairs of systems is recognized as services are performed and service parts are delivered. On occasion, customers request a warranty period longer than our standard 12 month warranty. In those instances where extended warranty services are separately quoted to the customer, we follow the guidance of Financial Accounting Standards Board Technical Bulletin 90-1, *Accounting for Separately Priced Extended Warranty and Product Maintenance Contracts,* associated revenue is deferred and recognized to income ratably over the term of the contract. Unearned maintenance and service contract revenue is included in deferred revenue. Furthermore, generally we do not provide our customers with any return rights.

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The guidance in EITF No. 00-21, *Revenue Arrangements with Multiple Deliverables,* is considered in cases where certain elements of a sales arrangement are not delivered and accepted at the same time. In such cases, we defer the relative fair value of the undelivered element until that element is delivered and accepted by the customer. In order to recognize revenue associated with delivered elements, the following criteria must be met: (a) the delivered item(s) has value to the customer on a standalone basis; (b) there is objective and reliable evidence of the fair value of the undelivered item(s); and (c) delivery or performance of the undelivered item(s) is considered probable and substantially in our control. If the arrangement does not meet all the above criteria, the entire amount of the sales contract is deferred until the criteria have been met or all elements have been delivered to the customer. Objective and reliable evidence of the fair value is based on the amounts for which we sell equivalent products or services on a standalone basis. Upon recognition of product revenue, a liability is recorded for anticipated warranty costs. Service contracts may be purchased by the customer during or after the warranty period.

Allowance for Doubtful Accounts We maintain allowances for estimated losses resulting from the inability of our customers to make required payments. Credit limits are established through a process of reviewing the financial history and stability of our customers. Where appropriate and available, we obtain credit rating reports and financial statements of customers when determining or modifying their credit limits. We regularly evaluate the collectability of our trade receivable balances based on a combination of factors such as the length of time the receivables are past due, customary payment practices in the respective geographies and our historical collection experience with customers. We believe that our allowance for doubtful accounts reflects our risk associated with smaller rather than larger customers and that our reported allowances are adequate. If however, the financial conditions of customers were to deteriorate, resulting in their inability to make payments, we would assess the necessity to record additional allowances which would result in additional general and administrative expenses being recorded for the period in which such determination was made.

Inventories Inventories are stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis), or market. We are exposed to a number of economic and industry factors that could result in portions of our inventory becoming either obsolete or in excess of anticipated usage, or saleable only for amounts that are less than their carrying amounts. These factors include, but are not limited to, technological changes in our market, our ability to meet changing customer requirements, competitive pressures in products and prices, and the availability of key components from our suppliers. We have established inventory reserves when conditions exist that suggest that our inventory may be in excess of anticipated demand or is obsolete based upon our assumptions about future demand for our products and market conditions. We regularly evaluate our ability to realize the value of our inventory based on a combination of factors including the following: historical usage rates, forecasted sales of usage, product end-of-life dates, estimated current and future market values and new product introductions. For demonstration inventory, we also consider the age of the inventory and potential cost to refurbish the inventory prior to sale. Demonstration inventory is amortized over its useful life and the amortization expense is included in total depreciation and amortization on our cash flow statement. When recorded, our reserves are intended to reduce the carrying value of our inventory to its net realizable value. If actual demand for our products deteriorates, or market conditions are less favorable than those that we project, additional reserves may be required.

Inventories delivered systems We reflect the cost of systems that were invoiced upon shipment but deferred for revenue recognition purposes separate from our inventory held for sale as Inventories delivered systems .

Product Warranties We sell the majority of our products with a twelve-month repair or replacement warranty from the date of acceptance which generally represents the date of shipment. We provide 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 reported 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 our estimates, revisions to the estimated warranty obligations would be required. For new product introductions where limited or no historical information exists, we may use warranty information from other previous product introductions to guide us in estimating our warranty accrual. The warranty accrual represents the best estimate of the amount necessary to settle future and existing claims on products sold as of the balance sheet date. We periodically assess the adequacy of our recorded warranty reserve and adjust the amounts in accordance with changes in these factors.

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Goodwill and Intangible Assets Goodwill is initially recorded when the purchase price paid for an acquisition exceeds the estimated fair value of the net identified tangible and intangible assets acquired. Under Statement of Financial Accounting Standards (SFAS) No. 142, *Goodwill and Other Intangible Assets* (SFAS 142), intangible assets with finite lives are amortized over their useful lives while goodwill and indefinite lived assets are not amortized but tested annually for impairment. Our impairment review process is completed as of the last day of November of each year or whenever events or circumstances occur which indicate that an impairment might have occurred. SFAS 142 provides for a two-step approach to determining whether and how much goodwill has been impaired. The first step requires a comparison of the fair value of Nanometrics reporting units (product and service) to its net book value. If the fair value is greater, then no impairment is deemed to have occurred. If the fair value is less, then the second step must be performed to determine the amount, if any, of actual impairment.

The process of evaluating the potential impairment of goodwill is highly subjective and requires significant judgment. In estimating the fair value of Nanometrics, we make estimates and judgments about future revenues and cash flows for each reporting unit. To determine the fair value, our review process includes the income method and is based on a discounted future cash flow approach that uses estimates including the following for each reporting unit: revenue, based on assumed market growth rates and our assumed market share; estimated costs; and appropriate discount rates based on the particular business weighted average cost of capital. Our estimates of market segment growth, our market segment share and costs are based on historical data, various internal estimates and certain external sources, and are based on assumptions that are consistent with the plans and estimates we are using to manage the underlying businesses. Our business consists of both established and emerging technologies and our forecasts for emerging technologies are based upon internal estimates and external sources rather than historical information. We also consider our market capitalization on the dates of our impairment tests in determining the fair value of the respective businesses. As part of the second step in determining the amount of goodwill impairment, if any, we allocate the fair value of the reporting units to all of its assets and liabilities as if the reporting units had been acquired in a business combination and the fair value of the reporting units was the price paid to acquire the reporting unit. The excess of the fair value of each reporting unit over the amount assigned to its assets and liabilities is the implied fair value of goodwill. When impairment is deemed to have occurred, we will recognize an impairment charge to reduce the carrying amount of our goodwill to its implied fair value.

Income Tax Assets and Liabilities We account for income taxes based on SFAS 109, *Accounting for Income Taxes* , whereby deferred tax assets and liabilities must be recognized using enacted tax rates for the effect of temporary differences between the book and tax accounting for assets and liabilities. Also, deferred tax assets must be reduced by a valuation allowance if it is more likely than not that a portion of the deferred tax asset will not be realized in the future. We evaluate the deferred tax assets on a quarterly basis to determine whether or not a valuation allowance is appropriate. Factors used in this determination include future expected income and the underlying asset or liability which generated the temporary tax difference. Our income tax provision is primarily impacted by federal statutory rates, state and foreign income taxes and changes in our valuation allowance.

Stock-Based Compensation In accordance with 123(R), *Share based payment* , we estimate the value of employee stock options on the date of grant using the Black-Scholes model. The determination of fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to the expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is calculated based on the simplified method allowed by Staff Accounting Bulletin 107 and extended by Staff Accounting Bulletin 110. The expected volatility is based on the historical volatility of our stock price.

Restructuring Charge During the first six months of 2009 and also during 2008 and 2007, we implemented a restructuring program based on our business strategy and recorded significant accruals in connection with the restructuring program. In connection with the plan we have recorded estimated expenses for severance and other costs. In accordance with SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities* , generally costs associated with restructuring activities have been recognized when they are incurred rather than the date of a commitment to an exit or disposal plan. In addition post-employment benefits accrued for workforce reductions related to restructuring activities are accounted for under SFAS 112, *Employer s Accounting Post-Employment Benefits* . A liability for post-employment benefits is recorded when payment is probable, the amount is reasonably estimable, and the obligation relates to rights that have vested or accumulated. Given the significance and complexity of restructuring activities, and the timing of the execution of such activities, the restructuring process involves periodic reassessments of the estimates made at the time the original decisions were made, including evaluating market conditions for expected disposals of assets and vacancy of space. Although we believe that these estimates accurately reflect the costs of the restructuring programs, actual results may vary or differ, thereby requiring us to record additional provisions or reverse a portion of such provisions.

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Recent Accounting Pronouncements

See Note 2 of the Unaudited 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

Periods ended June 27, 2009 and June 28, 2008

Total net revenues. Our net revenues were comprised of the following categories:

	Three Months Ended				Six-Months Ended			
	June 27, 2009	June 28, 2008	Changes In Amount	%	June 27, 2009	June 28, 2008	Changes In Amount	%
Automated Metrology	$ 5,946	$ 9,603	$ (3,657)	(38.1)%	$ 6,725	$ 19,812	$ (13,087)	(66.1)%
Integrated Systems	97	3,051	(2,954)	(96.8)%	1,062	7,942	(6,880)	(86.6)%
Material Characterization	1,854	5,850	(3,996)	(68.3)%	5,050	18,679	(13,629)	(73.0)%
Total Product Revenue- (1)	7,897	18,504	(10,607)	(57.3)%	12,837	46,433	(33,596)	(72.4)%
Service	6,620	5,257	1,363	25.9%	11,737	12,056	(319)	(2.6)%
Total Net Revenues	$ 14,517	$ 23,761	$ (9,244)	(38.9)%	$ 24,574	$ 58,489	$ (33,915)	(58.0)%

(1) Please refer to overview, page 26 for full description of product revenues.

For the three- and six-month period ended June 27, 2009, net revenues from automated metrology decreased by $3.7 million and $13.1 million from the comparable periods of 2008 and net revenues from our integrated systems decreased by $3.0 million and $6.9 million from the comparable periods of 2008 and net revenues from our material characterization decreased by $4.0 million and $13.6 million from comparable periods of 2008, due mainly to changes in the product mix from our customer orders. The overall decrease in product revenue of 57.3% and 72.4% is reflective of global reductions in capital spending by the majority of the semiconductor manufacturers.

Service revenue increased by $1.4 million for the three month period ended June 27, 2009 from the comparable period of 2008 due to the higher in-the-field tool upgrades, and decreased by $0.3 million for the six-month period ended June 27, 2009 over the comparable period of 2008 due to a decrease of demand for billable service and spare parts.

Gross margins. Our gross margin breakdown was as follows (in percent):

	Three-Months Ended		Six-Months Ended	
	June 27, 2009	June 28, 2008	June 27, 2009	June 28, 2008
Products	34.1%	50.5%	30.7%	50.8%
Services	50.1%	13.8%	41.9%	19.0%

The product gross margin for the three- and six-month periods ended June 27, 2009 of 34.1% and 30.7% decreased significantly from 50.5% and 50.8% from the comparable periods of 2008. This was as a result of lower revenues resulting in higher absorption of manufacturing overhead costs.

The gross margin for our services line of business increased to 50.1% and 41.9% for the three- and six-month periods ended June 27, 2009 as compared to gross margins of 13.8% and 19.0% for the comparable periods of 2008. Two factors contributing to this increase in gross margin of

the services line are: a) a significant increase in the service upgrades revenues with a higher gross margin relative to the core service revenues at a lower gross margin and b) an increase in the service gross margins due to continued cost reductions in our core service area. Upgrade services revenue has increased from $0.2 million and $1.5 million in the three- and six-month periods ended June 28, 2008 respectively to $2.6 million and $3.5 million in the three- and six-month periods ended June 27, 2009 respectively. In addition, the departmental costs for services declined by $1.0 million and $2.0 million for the three- and six month period from the comparable periods of 2008, as we continue to operate our core service department in a more efficient manner, including scheduling of jobs more dynamically.

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

	Three-Months Ended				Six-Months Ended			
	June 27, 2009	June 28, 2008	Changes in: Amount	%	June 27, 2009	June 28, 2008	Changes in: Amount	%
Research and development	$ 3,055	$ 4,422	$ (1,367)	(30.9)%	$ 6,294	$ 8,677	$ (2,383)	(27.5)%
Selling	3,258	4,844	(1,586)	(32.7)%	6,873	9,683	(2,810)	(29.0)%
General and administrative	3,488	5,302	(1,814)	(34.2)%	7,460	10,826	(3,366)	(31.1)%
Amortization of intangible assets	337	1,330	(993)	(74.7)%	706	2,615	(1,909)	(73.0)%
Asset impairment	1,899	13,213	(11,314)	(85.6)%	1,899	13,213	(11,314)	(85.6)%
Restructuring charge	445		445	**	1,134	870	264	30.3%
Total operating expenses	$ 12,482	$ 29,111	$ (16,629)	(57.1)%	$ 24,366	$ 45,884	$ (21,518)	(46.9)%

**- It does not give meaning to the change.

Research and development. Research and development expenses decreased by $1.4 million for the three- month period ended June 27, 2009 over the comparable period in 2008 due mainly to lower labor and payroll benefits of $1.0 million, lower depreciation expense of $ 0.2 and a combination of lower traveling, stock-based compensation and facilities expenses for a total of $0.2 million. Research and development decreased by $2.4 million for the six-month period ended June 27, 2009 over the corresponding period of 2008 due primarily to reductions of personnel and personnel related expenses of $1.8 million, lower depreciation and facility expenses of $0.3 million and lower bonus and temporary help of $0.3 million.

Selling. Selling expenses decreased by $1.6 million for the three- month period ended June 27, 2009 as compared to the corresponding period of 2008 due primarily to lower personnel related expenses of $1.1 million, lower level of travelling of $0.3 million, lower stock-based compensation of $0.1 million and a combination of lower third party commissions, small tools charges, recruiting and amortization of demo tools of $0.2 offset by higher cross departmental charges supporting sales of $0.1 million. Selling expenses decreased by $2.8 million for the six-month period ended June 27, 2009 over the corresponding period of 2008 due primarily due to lower personnel and personnel related expenses of $2.4 million, lower third-party commissions of $0.2 million, and lower facility costs of $0.2 million.

General and administrative. General and administrative expenses decreased by $1.8 million for the three -month period ended June 27, 2009 with the comparable period in 2008. The decrease was due primarily to lower employee costs of $1.2 million, lower accounting and consulting fees of $0.3 million, lower consulting and bonus of $0.2 million, lower temporary help of $0.1 million and lower travel and relocation of $0.2 million which was partially offset by an increase of $0.2 million for legal fees associated with the acquisition of the Unifire product line from Zygo. For the six-month period ended June 27, 2009 over the comparable period in 2008 general and administrative expenses decreased by $3.4 million. The decrease was primarily due to lower personnel related expenses of $1.9 million, lower accounting and consulting fees of $0.6 million, lower bonus of $0.3 million, lower temporary help of $3.0 million and lower taxes, relocation and travel for a total of $0.5 million and offset by an increase in legal fees of $0.2 million attributable to litigation associated with KLA Tencor.

Amortization of intangible assets. Amortization of intangible assets decreased by $1.0 million and $1.9 million for the three-and six-month periods ended June 27, 2009 versus the comparable periods of 2008. The decreases reflect lower amortization expense in 2009 as the Company recorded $13.1 million of intangible asset impairment at the end of Q2 and Q3 of 2008.

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Restructuring charge. We recorded a charge of $0.4 million in the quarter ended June 27, 2009 driven by the reduction of over 25 people globally. During the second fiscal quarter of 2008, the Company had no restructuring charge. For the six-month period ended June 27, 2009 the Company recorded a total of $1.1 million and over the comparable period in 2008 of $0.9 million. The increase in restructuring charge for the six-month period ended June 29, 2009 over the comparable period in 2008 is mainly due to reduction of 35 people globally.

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

	Three-Months Ended				Six-Months Ended			
	June 27, 2009	June 28, 2008	Changes in: Amount	%	June 27, 2009	June 28, 2008	Changes in: Amount	%
Interest income	$ 12	$ 34	$ (22)	(64.7)%	$ 27	$ 132	$ (105)	(79.5)%
Interest expense	(281)	(26)	(255)	***	(547)	(103)	(444)	***
Other, net	(582)	(32)	(550)	***	(1,941)	422	(2,363)	***
Total operating income (expense)	$ (851)	$ (24)	$ (827)	***	$ (2,461)	$ 451	$ (2,912)	***

***- It does not give meaning to the change.
For the three-and six-month periods ended June 27, 2009 we incurred higher interest expense due to the Company s $13.5 million building mortgage entering into during July 2008. For the three-and six-month periods ended June 27, 2009, we incurred foreign exchange losses of $0.5 million and $1.9 million, respectively, due to exchange rate fluctuations associated with our extensive inter-company balances between our various global entities, which represent a significant increase over the comparable periods of 2008. Foreign exchange losses from our Korean operation of $0.2 million and UK operation $0.4 million comprised the $0.6 million of the other, net line item in the quarter ended June 27, 2009. Foreign exchange losses for the six-month period ended June 27, 2009 of $1.9 million is $2.4 million increase over the comparable period in 2008 and is due mainly to reclassification of our loans between the Company and our Japan subsidiary as Non Permanent as of the last day of fiscal year 2008. During the six-month period ended June 27, 2009, we recorded $1.3 million of loss on foreign exchange in the Yen on these intercompany loans. Foreign exchange losses from Korean and British operations of $0.6 were the result of weakened US dollars compared to Korean Won and British Pounds.

Provision for income taxes.

For the three-month period ended June 27,2009 the income tax benefit of $361,000 was the result of foreign tax benefit of $382,000 offset by $21,000 in state tax expense. For the six-month period ended June 27, 2009, the income tax benefit of $380,000 was the result of foreign tax benefit of $421,000 offset by $41,000 in state tax expense.

For the three-month period ended June 28, 2008 the income taxes benefit of $0.2 million was the result of $0.1 million of tax benefit in a certain foreign jurisdiction where sufficient deferred tax liabilities exist to allow for benefiting the operating loss and $0.1 million for reduction of a tax contingency due to the expiration of local statues. For the six month period ended June 28, 2008 the income taxes provision of $0.1 million relates to the aggregate charge for potential tax exposure of certain foreign jurisdictions.

Liquidity and Capital Resources

At June 27, 2009, our cash and cash equivalents totaled $14.5 million compared to $24.0 million as of December 27, 2008. At June 27, 2009, we had working capital of $45.9 million compared to $57.7 million at December 27, 2008.

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Operating activities used cash of $13.8 million for the six-month period ended June 27, 2009 as a result of our net loss for the six-month period of $17.6 million offset by certain non-cash charges including $2.8 million of depreciation, $1.9 million of asset impairment, $0.7 million of stock-based compensation, $0.1 million loss on disposal of fixed assets, accounts receivable reserves of $0.4 million, unrealized loss on foreign exchange $1.1 million and decreases in deferred tax provision by $0.2 million and decreases in net working capital of $2.2 million. Operating activities provided cash of $1.0 million for the six-month period ended June 28, 2008, resulting from certain non-cash charges including $13.2 million of impairment charges for long-lived assets, $4.6 million associated with amortization and depreciation, $2.0 million in stock-based compensation, and increases in net working capital of $0.8 million partially offset by our net loss of $19.6 million.

Investing activities for the six-month period ended June 27, 2009 used cash of $0.1 million related to cash outlays of $0.3 million in capital equipment offset by net cash received from the Tevet acquisition of $0.2 million., resulting from excess cash payment over the value of some of the assets acquired. Investing activities for the six-month period ended June 28, 2008 used cash of $5.4 million related to cash outlays of $3.3 million of our acquisition of Tevet Process Control Technologies, Ltd. (Tevet) and capital equipment acquisitions of $2.0 million.

For the six-month period ended June 27, 2009, financing activities provided cash of $3.5 million for borrowings against our line of credit in the amount of $3.5 million combined with $0.2 million of proceeds from sale of Company shares to employee stock purchase plan offset by $0.2 million for repayment of debt obligation. As of the filing date, we paid back the $3.5 million in borrowings. For the six-month period ended June 28, 2008, financing activities provided cash of less than $0.1 million. Proceeds from the sale of stock from employee stock plans and purchase plan of $0.6 million were offset by $0.5 million used for the repurchase of our common stock and $0.1 million for debt repayment.

In February 2007, we entered into a two-year agreement for a revolving line of credit facility with a maximum principal amount of up to $15.0 million. The facility was subsequently extended until May 2009. The instrument governing the facility includes certain financial covenants regarding minimum liquidity ratio and net tangible worth. All borrowings under this credit line bear interest, at our election, at a per annum rate equal to the bank s prime rate or at the London Interbank Offered Rate (or LIBOR) plus 2.25%. 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. We had no outstanding letters of credit against this line as of June 27, 2009. The revolving line of credit is collateralized by a blanket lien on all of our domestic assets excluding intellectual property and real estate. We may use the proceeds of any future borrowing under this credit facility for general corporate purposes. On June 15, 2009, we executed the third amendment to the revolving line of credit facility moving one of the financial covenants forward one quarter to June 27, 2009. All borrowings under this third amendment bear interest at a per annum rate equal to the bank s prime rate, or at the LIBOR rate plus 2.75% with a minimum borrowing rate of 5.25% per annum.

We borrowed $3.5 million during the end of the second quarter, fiscal year 2009. This borrowing was prompted by our desire to accelerate cash in from a customer who we gave terms to and who was due to pay us approximately $3.0 million to us on July 15, 2009. That customer has subsequently paid us and we have repaid the $3.5 million borrowings as of the filing date of the 10-Q.

In July 2008, we entered into a loan agreement pursuant to which we borrowed $13.5 million. The loan 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 loan and any accrued but unpaid interest will be due on August 1, 2018. The loan is secured, in part, by a lien on and security interest in the building and land comprising our principal offices in Milpitas, California.

We have evaluated and will continue to evaluate the acquisitions of products, technologies or business that are complementary to our business. These activities may result in product and business investments, which may affect our cash position and working capital balances. Some of these activities might require significant cash outlays. For example in the third quarter of 2007, our Board of Directors authorized stock repurchase program to $4.0 million, of which there remains $1.3 million available for future purchases. We believe our working capital will be sufficient to meet our needs through the next twelve months.

On June 17, 2009, we announced a strategic business partnership with Zygo Corporation whereby Nanometrics has purchased inventory and certain other assets relating to Zygo s Semiconductor Solutions business and the two companies have entered into a supply agreement. We anticipate that this new business will be a use of cash until early 2010

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ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk does not differ materially from that discussed in our Annual Report on Form 10-K for the fiscal year ended December 27, 2008 filed with the SEC on March 27, 2009. 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, James P. Moniz, 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 June 27, 2009 our management, with the participation of our Chief Executive Officer and our 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 Securities and Exchange Commission 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 June 27, 2009 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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PART II OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

In August 2005, KLA-Tencor Corporation (KLA) filed a complaint against the Company in the United States District Court for the Northern District of California. The complaint alleges that certain of the Company s products infringe two of KLA s patents. On January 30, 2006, KLA added a third patent to their claim. The complaint seeks 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 its defense, the Company has filed a request for re-examination of two of the allegedly infringed KLA patents with the U.S. Patent & Trademark Office (PTO). In March 2006, the Company filed a motion for and was granted a stay in the patent litigation case until such re-examination is completed. On July 28, 2008, the PTO issued a Notice of Intent to issue a Reexamination Certificate for one of the KLA patents, and subsequently on June 23, 2009 issued an additional Notice of Intent to issue a Reexamination Certificate on the second of three patents. The last patent reexaminations remain pending. In all three of the reexamination proceedings, the PTO has issued Office Actions rejecting numerous claims and KLA has amended the claims in response.

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ITEM 1A. RISK FACTORS

In addition to the other information contained in this Quarterly Report on Form 10-Q, the following risks and uncertainties that have a material adverse effect on our business, financial condition or results of operations. Investors should carefully consider the risks described below before making an investment decision. The risks described below are not the only ones we face. Additional risks not presently known to us or that we currently believe are immaterial may also impair our business operations. Our business could be 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.

The current severe slowing in the general economy and in the semiconductor industry have caused us recent losses and reductions in available cash, and may continue to negatively impact our financial performance.

The current recession in the global economy and the current downturn in the semiconductor industry have severely impacted and could further impact customer demand for our products and our financial performance. The degree of this impact will depend on a number of factors, including whether the U.S. economy and the global economy continue a prolonged recession. Demand for semiconductor equipment depends on consumer spending. Economic uncertainty may lead to a decrease in consumer spending and may cause certain customers to cancel or delay placing orders.

We may also experience supplier or customer issues as a result of current adverse macroeconomic conditions. If our customers have difficulties in obtaining capital or financing, this could result in lower sales. Customers with liquidity issues could also result in an increase in bad debt expense. These conditions could also affect our key suppliers, which could affect their ability to supply parts and result in delays of our customer shipments. These conditions make it difficult for us to accurately predict our business

Because of the negative effects of the current recession, we may have to take further actions to reduce costs, which could reduce our ability to significantly invest in research and development at levels we believe are necessary. If we are unable to effectively align our cost structure with prevailing market conditions, we will experience additional losses and additional reductions in our cash and equivalents.

We are exposed to risks associated with the ongoing financial crisis and weakened global economy.

The recent severe tightening of the credit markets, turmoil in the financial markets and weakened global economy are contributing to slowdowns in the industries in which we operate. The slowdowns are expected to worsen if these economic conditions are prolonged or deteriorate further. If we are unable to timely and appropriately adapt to changes resulting from the difficult economic environment, our business, financial condition and results of operations will be adversely affected, and we may be required to raise additional funds through public or private equity or debt financings. In that event, we could be forced to obtain financing on terms that are not favorable to us and, in the case of an equity or convertible debt financing, may result in dilution to our stockholders.

Our largest customers account for a substantial portion of our revenue, and our revenue would materially decline if one or more of these customers were to purchase significantly fewer of our systems.

Historically, a significant portion of our revenues in each quarter and each year has been derived from sales to relatively few customers, and we expect this trend to continue. There are only a limited number of large companies operating in the semiconductor industry. Accordingly, we expect that we will continue to depend on a small number of large customers for a significant portion of our revenues for the foreseeable future. If our current relationships with our large customers are impaired, or if we are unable to develop similar collaborative relationships with important customers in the future, our-revenues could significantly decline.

Our current and potential competitors have significantly greater resources than we do, and increased competition could impair sales of our products.

We operate in the highly competitive semiconductor industry and face competition from a number of companies, many of which have greater financial, engineering, manufacturing, marketing and customer support resources than we do. As a result, our competitors may be able to respond more quickly to new or emerging technologies or market developments by devoting greater resources to the development, promotion and sale of products, which could impair sales of our products. Moreover, there has been merger and acquisition activity among our competitors and potential competitors. These transactions by our competitors and potential competitors may provide them with a competitive advantage over us by

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enabling them to rapidly expand their product offerings and service capabilities to meet a broader range of customer needs. Many of our customers and potential customers in the semiconductor industry are large companies that require global support and service for their metrology systems. Some of our larger or more geographically diverse competitors might be better equipped to provide this global support.

We depend on OEM suppliers for sales of our integrated metrology systems, and the loss of our OEM suppliers as customers could harm our business.

We believe that sales of integrated metrology systems will continue to be an important source of our revenues. Sales of our integrated metrology systems depend upon the ability of OEMs to sell semiconductor equipment products that include our metrology systems as components. If our OEMs are unable to sell such products, or if they choose to focus their attention on products that do not integrate our systems, our business could suffer. If we were to lose our OEMs as customers for any reason, our ability to realize sales from integrated metrology systems would be diminished, which would harm our business.

We obtain some of the components and subassemblies included in our systems from a single source or a limited group of suppliers, and the partial or complete loss of one of these suppliers could cause production delays and significant loss of revenue.

We rely on outside vendors to manufacture many components and subassemblies. Certain components, subassemblies and services necessary for the manufacture of our systems are obtained from a sole supplier or limited group of suppliers. We do not maintain any long-term supply agreements with any of our suppliers. We have entered into arrangements with J.A. Woolam Co., Inc. for the purchase of the spectroscopic ellipsometer component incorporated in our advanced measurement systems. We also have supply agreements with MPA and Spectral Systems, and subcontract manufacturing agreements with Fox Semiconductor, IFAT and Toho Technologies. We recently signed a supply agreement with Zygo s Semiconductor Solutions to supply OEM interferometer sensors for incorporation into the Unifire line of products as well as Nanometrics family of automated metrology systems. Our reliance on a sole or a limited group of suppliers involves several risks, including the following:

- we may be unable to obtain an adequate supply of required components;
- we have reduced control over pricing and the timely delivery of components and subassemblies; and
- our suppliers may be unable to develop technologically advanced products to support our growth and development of new systems.

Some of our suppliers have relatively limited financial and other resources. Because the manufacturing of certain of these components and subassemblies involves extremely complex processes and requires long lead times, we may experience delays or shortages caused by our suppliers. If we were forced to seek alternative sources of supply or to manufacture such components or subassemblies internally, we could be forced to redesign our systems, which could cause production delays and prevent us from shipping our systems to customers on a timely basis. Any inability to obtain adequate deliveries from our suppliers, or any other circumstance that would restrict our ability to ship our products, could damage relationships with current and prospective customers, harm our business and result in significant loss of revenue.

Our success depends on the performance of our senior management and on our ability to identify, hire and retain key management personnel.

Our Chief Executive Officer joined the Company in August 2007 and in September 2008, our former Chief Financial Officer and Vice President, Administration, who joined us in November 2007, was replaced, on an interim basis, by Bruce Crawford, our Chief Operating Officer. Our former Chief Accounting Officer also resigned in December 2008. James P. Moniz was appointed as Chief Financial Officer (and our principal accounting officer) on February 18, 2009. Although we have employment agreements with certain key members of our senior management team, including Messrs. Stultz, Crawford and Moniz, these individuals or other key employees may still leave us. We do not have key person life insurance on any of our executives. In addition, to support our future growth, we will need to attract and retain additional qualified employees. Competition for such personnel in our industry is intense, and we may not be successful in attracting and retaining qualified employees. If we fail to attract, motivate and retain qualified senior management personnel, our business could be harmed and our ability to implement our strategy could be compromised.

Restructuring of our operations may disrupt our business and adversely affect our financial condition and operating results.

Since 2007, we have taken steps, including reductions in force, facility closures, and internal reorganizations to reduce the size and cost of our operations and to better match our resources with our market opportunities. We may take similar steps in the future to improve efficiency and match our resources with market opportunities, and as a result of such actions,

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we may incur restructuring expenses. In the first and third quarters of 2008, we undertook a restructuring that involved a reduction of our global workforce by approximately 30 and 34 employees, respectively, which action caused us to record restructuring and reorganization charges of $0.9 million and $0.7 million, respectively. In the first and second quarters of 2009, we reduced the global workforce further by 51 and 25 employees, respectively, and recorded restructuring charges of $0.4 million and $1.1 million, respectively.

Several factors could cause a restructuring to adversely affect our business, financial condition and results of operations. These include potential disruption of our operations, the development of our technology, our supply chain and other aspects of our business. Employee morale and productivity could also suffer and result in unintended employee attrition. Loss of sales, service and engineering talent, in particular, could damage our business. Any restructuring would require substantial management time and attention and may divert management from other important work. If we undertake further employee reductions or other restructuring activities, we will likely record restructuring and related expenses and accounting charges. Accounting charges may include inventory and technology-related write-offs, workforce reduction costs and charges relating to consolidation of excess facilities, and if we are required to take a substantial charge related to any future restructuring activities, our results of operations would be adversely affected in the period in which we take such a charge. Moreover, we could encounter delays in executing any restructuring plans, which could cause further disruption and additional unanticipated expense.

Failure to achieve and maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could have a material effect on our business.

As a publicly traded company, we are subject to rules adopted by the SEC pursuant to Section 404 of the Sarbanes-Oxley Act of 2002. Section 404 requires us to include an internal control report from management in our Annual Report on Form 10-K. The internal control report must include the following: (1) a statement of management s responsibility for establishing and maintaining adequate internal control over financial reporting, (2) a statement identifying the framework used by management to conduct the required evaluation of the effectiveness of our internal control over financial reporting and (3) management s assessment of the effectiveness of our internal control over financial reporting as of the end of each fiscal year, including a statement as to whether or not internal control over financial reporting is effective. A statement that our independent registered public accounting firm has issued an attestation report on management s internal control over financial reporting was not required for 2008 as we are not an accelerated filer. The Company will be required to obtain such an attestation report for the 2009 fiscal year.

Our assessment as of December 29, 2007 identified a material weakness in our internal controls over financial reporting, which also adversely impacted our disclosure controls and procedures. A material weakness is a deficiency, or a combination of deficiencies, in internal controls over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company s annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness identified in 2007 was regarding our internal controls for the provision of income taxes in foreign jurisdictions. Since discovery of the material weakness in 2007, we performed extensive additional work and implemented several procedures to obtain reasonable assurance regarding the reliability of our financial statements. Based on our testing of these enhanced procedures, in the quarter ended December 27, 2008, management determined that as of December 27, 2008, we have remediated the material weakness in internal controls over financial reporting and the controls are now operating effectively. Even with this remediation complete, however, we could have material weaknesses in the future.

If we deliver systems with defects, our credibility will be harmed, revenue from, and market acceptance of, our systems will decrease and we could expend significant capital and resources as a result of such defects.

Notwithstanding our internal quality specifications, our systems have sometimes contained errors, defects and bugs when introduced. If we deliver systems with errors, defects or bugs, our credibility and the market acceptance and sales of our systems would be harmed. Further, if our systems contain errors, defects or bugs, we may be required to expend significant capital and resources to alleviate such problems. Defects could also lead to product liability lawsuits against us or against our customers. We have agreed to indemnify our customers in some circumstances against liability arising from defects in our systems. In the event of a successful product liability claim, we could be obligated to pay damages significantly in excess of our product liability insurance limits.

If we experience significant delays in shipping our products to our customers, our business and reputation may suffer.

Our products are complex and require technical expertise to design and manufacture properly. Various problems occasionally arise during the manufacturing process that may cause delays and/or impair product quality. Any significant delays stemming from the failure of our products to meet or exceed our internal quality specifications, or for any other reasons, would delay our shipments. Shipment delays could harm our business and reputation in the industry.

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Successful infringement claims by third parties could result in substantial damages, lost product sales and the loss of important intellectual property rights by us.

Our commercial success depends, in part, on our ability to avoid infringing or misappropriating patents or other proprietary rights owned by third parties. From time to time we may receive communications from third parties asserting that our metrology systems may contain design features which are claimed to infringe on their proprietary rights. For example, in August 2005, we were served with a complaint by KLA-Tencor, or KLA, alleging that certain of our products infringe two of KLA s patents, Patent No. 6,483,580 and Patent No. 6,590,656. In January 2006, KLA added Patent No. 6,611,330 to its claim. For additional information, refer to Part II, Item 1. Legal Proceedings. Our new or current products may infringe valid intellectual property rights, but even if our products do not infringe, we may be required to expend significant sums of money to defend against infringement claims, or to actively protect our intellectual property rights through litigation.

Variations in the amount of time it takes for us to sell our systems may cause fluctuations in our operating results, which could cause our stock price to decline.

Variations in the length of our sales cycles could cause our revenues to fluctuate widely from period to period. Our customers generally take long periods of time to evaluate our metrology systems. We expend significant resources educating and providing information to our prospective customers regarding the uses and benefits of our systems. The length of time that it takes for us to complete a sale depends upon many factors, including:

- the efforts of our sales force and our independent sales representatives;
- the complexity of the customer s metrology needs;
- the internal technical capabilities and sophistication of the customer;
- the customer s budgetary constraints; and
- the quality and sophistication of the customer s current processing equipment.

Because of the number of factors influencing the sales process, the period between our initial contact with a customer and the time at which we recognize revenue from that customer, if at all, varies widely. Our sales cycles, including the time it takes for us to build a product to customer specifications after receiving an order, typically range from three to nine months. Occasionally our sales cycles can be much longer, particularly with customers in Asia who may require longer evaluation periods. During the sales cycles, we commit substantial resources to our sales efforts in advance of receiving any revenue, and we may never receive any revenue from a customer despite our sales efforts.

If we do complete a sale, customers often purchase only one of our systems and then evaluate its performance for a lengthy period of time before purchasing additional systems. The purchases are generally made through purchase orders rather than through long-term contracts. The number of additional products that a customer purchases, if any, depends on many factors, including a customer s capacity requirements. The period between a customer s initial purchase and any subsequent purchases is unpredictable and can vary from three months to a year or longer. Variations in the length of this period could cause fluctuations in our operating results, which could adversely affect our stock price.

Relatively small fluctuations in our system sales volume may cause our operating results to vary significantly each quarter.

During any quarter, a significant portion of our revenue is derived from the sale of a relatively small number of systems. Our automated metrology systems range in price from approximately $0.2 million to over $1.3 million per system, and our integrated metrology systems range in price from approximately $0.1 million to $0.5 million per system. Accordingly, a small change in the number or mix of systems that we sell could cause significant changes in our operating results.

We depend on orders that are received and shipped in the same quarter, and therefore our results of operations may be subject to significant variability from quarter to quarter.

Our net sales in any given quarter depend upon a combination of orders received in that quarter for shipment in that quarter and shipments from backlog. Our backlog at the beginning of each quarter does not include all systems sales needed to achieve expected revenues for that quarter. Consequently, we are dependent on obtaining orders for systems to be shipped in the same quarter that the order is received. Moreover, customers may reschedule shipments, and production difficulties could delay shipments. Accordingly, we have limited visibility into future product shipments, and our results of operations may be subject to significant variability from quarter to quarter.

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Because of the high cost of switching equipment vendors in our markets, it may be difficult for us to attract customers from our competitors even if our metrology systems are superior to theirs.

We believe that once a semiconductor customer has selected one vendor s metrology system, the customer generally relies upon that system and, to the extent possible, subsequent generations of the same vendor s system, for the life of the application. Once a vendor s metrology system has been installed, a customer must often make substantial technical modifications and may experience downtime in order to switch to another vendor s metrology system. Accordingly, unless our systems offer performance or cost advantages that outweigh a customer s expense of switching to our systems, it will be difficult for us to achieve significant sales from that customer once it has selected another vendor s system for an application.

If we fail to develop new and enhanced metrology systems we will likely lose market share to our competitors.

We operate in an industry that is subject to technological changes, changes in customer demands and the introduction of new, higher performance systems with short product life cycles. To be competitive, we must continually design, develop and introduce in a timely manner new metrology systems that meet the performance and price demands of semiconductor manufacturers and suppliers. We must also continue to refine our current systems so that they remain competitive. We may experience difficulties or delays in our development efforts with respect to new systems, and we may not ultimately be successful in developing them. Any significant delay in releasing new systems could adversely affect our reputation, give a competitor a first-to-market advantage or allow a competitor to achieve greater market share.

Lack of market acceptance for our new products may affect our ability to generate revenue and may harm our business.

We have recently introduced several products to the market including the NanoCD Suite, Impulse and the Lynx platform. We have invested substantial time and resources into the development of these products. However, we cannot accurately predict the future level of acceptance of our new products by our customers. As a result, we may not be able to generate anticipated revenue from sales of these products. While we anticipate that our new products will become an increasingly larger component of our business, their failure to gain acceptance with our customers could materially harm our business. Additionally, if our new products do gain market acceptance, our ability to sell our existing products may be impeded and our business would suffer.

Our intellectual property may be infringed by third parties despite our efforts to protect it, which could threaten our future success and competitive position and harm our operating results.

Our future success and competitive position depend in part upon our ability to obtain and maintain proprietary technology for our principal product families, and we rely, in part, on patent, trade secret and trademark law to protect that technology. If we fail to adequately protect our intellectual property, it will be easier for our competitors to sell competing products. We own or may license patents relating to our metrology systems, and have filed applications for additional patents. Any of our pending patent applications may be rejected, and we may not in the future be able to develop additional proprietary technology that is patentable. In addition, the patents we own, have been issued or licensed, may not provide us with competitive advantages and may be challenged by third parties. Third parties may also design around these patents. In addition to patent protection, we rely upon trade secret protection for our confidential and proprietary information and technology. We routinely enter into confidentiality agreements with our employees. However, if these agreements are breached, we may not have adequate remedies. Our confidential and proprietary information and technology might also be independently developed by or become otherwise known to third parties. We may be required to initiate litigation in order to enforce any patents issued to or licensed by us, or to determine the scope or validity of a third party s patent or other proprietary rights. Any such litigation, regardless of outcome, could be expensive and time consuming, and could subject us to significant liabilities or require us to re-engineer our product or obtain expensive licenses from third parties, any of which would adversely affect our business and operating results. In March 2006, we filed a complaint against Nova Measuring Instruments for infringing our Patent No. Re 34,783. In October 2006, we filed a new complaint against Nova for infringement of Patent No. 5,867,276 and 7,115,858. In April 2007, we and Nova agreed to dismiss, without prejudice, all pending patent litigation and entered into a covenant not to sue one another for any patent for a period of one year.

If we choose to acquire new and complementary businesses, products or technologies instead of developing them ourselves, we may be unable to complete these acquisitions or may not be able to successfully integrate an acquired business in a cost-effective and non-disruptive manner.

Our success depends on our ability to continually enhance and broaden our product offerings in response to changing technologies, customer demands and competitive pressures. To achieve this, from time to time we have acquired complementary businesses, products, or technologies instead of developing them ourselves and may choose to do so in the future. On June 17, 2009, we entered into a strategic partnership with Zygo under an exclusive OEM supply agreement to

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provide interferometer sensors to Nanometrics for incorporation into the Unifire line of products as well as Nanometrics family of automated metrology systems. In May 2008, we acquired Tevet Process Control Technologies, Ltd., an integrated metrology company serving the worldwide semiconductor and solar manufacturing industry. We do not know if we will be able to complete any additional acquisitions, or whether we will be able to successfully integrate any acquired business, operate them profitably or retain their key employees. Integrating any business, product or technology that we acquire could be expensive and time consuming, disrupt our ongoing business and distract our management. In addition, in order to finance any acquisitions, we may be required to raise additional funds through public or private equity or debt financings. In that event, we could be forced to obtain financing on terms that are not favorable to us and, in the case of equity or convertible debt financing, which may result in dilution to our stockholders. If we are unable to integrate any acquired entities, products or technologies effectively, our business will suffer.

We depend on new products and processes for our success. Consequently, we are subject to risks associated with rapid technological change.

Rapid technological changes in semiconductor manufacturing processes subject us to increased pressure to develop technological advances enabling such processes. We believe that our future success depends in part upon our ability to develop and offer new products with improved capabilities and to continue to enhance our existing products. If new products have reliability or quality problems, our performance impacted by reduced orders, higher manufacturing costs, delays in acceptance and payment for new products, and additional service and warranty expenses. We might not be able to develop and manufacture new products successfully, or new products that we introduce may fail in the marketplace. Our failure to complete commercialization of these new products in a timely manner could result in unanticipated costs and inventory obsolescence, which would adversely affect our financial results.

In order to develop new products and processes, we expect to continue to make significant investments in R & D and to pursue joint development relationships with customers, suppliers or other members of the industry. We must manage product transitions and joint development relationships successfully, as introduction of new products could adversely affect our sale of existing products. Moreover, future technologies, processes or product developments may render our current product offerings obsolete, leaving us with non-competitive products, or obsolete inventory, or both.

We manufacture all of our systems at a limited number of facilities, and any prolonged disruption in the operations of hose facilities could reduce our revenues.

We produce all of our systems in our manufacturing facilities located in Milpitas, California. We use contract manufacturers in China, Israel, Japan and the United States. In addition, we perform limited subassembly for certain products at our York, England facility. Our manufacturing processes are highly complex and require sophisticated, costly equipment and specially designed facilities. As a result, any prolonged disruption in the operations of our manufacturing facilities, such as those resulting from a severe fire or earthquake, could seriously harm our ability to satisfy our customer order deadlines.

We are subject to risks associated with our competitors strategic relationships and their introduction of new products and we may lack the financial resources or technological capabilities of certain of our competitors needed to capture increased market share.

We expect to face significant competition from multiple current and future competitors. We believe that other companies are developing systems and products that are competitive to our products and are planning to introduce new products, which may affect our ability to sell our existing products. We face a greater risk if our competitors enter into strategic relationships with leading semiconductor manufacturers covering products similar to those we sell or may develop, as this could adversely affect our ability to sell products to those manufacturers.

We believe that to remain competitive we will require significant financial resources to offer a broad range of products, to maintain customer service and support center worldwide, and to invest in product and process R & D. Certain of our competitors have substantially greater financial resources and more extensive engineering, manufacturing, marketing and customer service and support resources that we do and therefore have the potential to increasingly dominate the semiconductor equipment industry. These competitors may deeply discount products similar to those that we sell, challenging or even exceeding our ability to make similar accommodations and threatening our ability to sell those products. For these reasons, we may fail to continue to compete successfully worldwide.

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In addition our competitors may provide innovative technology that may have performance advantages over systems we currently expect to offer. They maybe able to develop products comparable or superior to those that we offer or may adapt more quickly to new technologies or evolving customer requirements. In particular, while we currently are developing additional product enhancements that we believe will address future customer requirements, we may fail in a timely manner to complete the development or introduction of these additional product enhancements successfully, or these product enhancements may not achieve market acceptance or be competitive. Accordingly, we maybe unable to continue to compete in our markets and competition may intensify, or future competition operating results, financial condition, and/or cash flows could suffer.

If we are unable to adjust the scale of our business in response to rapid changes in demand in the semiconductor equipment industry, our operating results and our ability to compete successfully may be impaired.

The business cycle in the semiconductor equipment industry has historically been characterized by frequent periods of rapid change in demand that challenge our management to adjust spending and resources allocated to operating activities. During periods of growth or decline in demand for our products and services, we face significant challenges in maintaining adequate financial and business controls, management processes, information systems and procedures and in training, managing, and appropriately sizing our supply chain, our work force, and other components of our business on a timely basis. Our success will depend, to a significant extent, on the ability our executive officers and other members our senior management to identify and respond to these challenges, our gross margins and earnings may be impaired during periods of demand decline, and we may lack the infrastructure and resources to scale up our business to meet customer expectations and compete successfully during periods of demand growth.

Our efforts to protect our intellectual property may be less effective in some foreign countries where intellectual property rights are not as well protected as in the United States.

In 2008, 2007 and 2006, 70.5%, 68.2% and 65.0%, respectively, of our total net revenues were derived from sales to customers in foreign countries, including certain countries in Asia, such as Japan, South Korea, China and Taiwan. The laws of some foreign countries do not protect our proprietary rights to as great an extent as do the laws of the United States, and many U.S. companies have encountered substantial problems in protecting their proprietary rights against infringement in such countries. If we fail to adequately protect our intellectual property in these countries, it would be easier for our competitors to sell competing products and our business would suffer.

Our results of operations could vary as a result of the methods, estimates and judgments we use in applying our accounting policies.

The methods, estimates and judgments we use in applying our accounting policies have a significant impact on our results of operations, see Critical Accounting Policies in Item 2 of this 10-Q. Such methods, estimates and judgments are, by their nature, subject to substantial risks, uncertainties and assumptions, and factors may arise over time that leads us to change our methods, estimates and judgments. Changes in those methods, estimates and judgments could significantly affect our results of operations. In particular, our operating results have been affected by adoption of SFAS No. 123(R) for the calculation of share-based compensation expense and by implementation of SFAS 142 and 144 regarding the testing and potential impairment of long-lived assets such as goodwill and other intangible assets. The process of evaluating potential impairments is highly subjective and requires significant judgment, and our results of operations could vary in the future if the forecasts used in subjective assessments are inaccurate.

Our operating results have varied in the past and probably will continue to vary significantly in the future, which will cause volatility in our stock price.

Our quarterly and annual operating results have varied significantly in the past and are likely to vary in the future, which volatility could cause our stock price to decline. Some of the factors that may influence our operating results and subject our stock to extreme price and volume fluctuations include:

- changes in customer demand for our systems;
- economic conditions in the semiconductor industries;

the timing, cancellation or delay of customer orders and shipments;

market acceptance of our products and our customers products;

our ability to recover the higher costs associated with meeting our customers increasing service demands;

competitive pressures on product prices and changes in pricing by our customers or suppliers;

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- the timing of new product announcements and product releases by us or our competitors and our ability to design, introduce and manufacture new products on a timely and cost-effective basis;
- impairment of long-lived assets;
- the timing of acquisitions of businesses, products or technologies;
- the levels of our fixed expenses, relative to our revenue levels; and
- fluctuations in foreign currency exchange rates, particularly the Japanese yen and the British pound sterling.

If our operating results in any period fall below the expectations of securities analysts and investors, the market price of our common stock would likely decline.

We incur significant costs as a result of complying with laws and regulations affecting public companies.

Compliance with laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002, has resulted in and, we expect, will continue to result in substantial accounting, legal and administrative costs. In particular, Section 404 of the Sarbanes-Oxley Act of 2002 and the rules of the SEC and the Public Company Accounting Oversight Board impose requirements with respect to the evaluation of the effectiveness of our internal controls. The cost of complying with these requirements is substantial.

We are highly dependent on international sales and operations, which exposes us to foreign political and economic risks.

We maintain facilities in Japan, Taiwan, the United Kingdom, South Korea, China, Israel and the European Union. We anticipate that international sales will continue to account for a significant portion of our revenues. International sales and operations carry inherent risks such as:

- regulatory limitations imposed by foreign governments;
- obstacles to the protection of our intellectual property, political, military and terrorism risks;
- disruptions or delays in shipments caused by customs brokers or other government agencies;
- unexpected changes in regulatory requirements, tariffs, customs, duties and other trade barriers;
- difficulties in staffing and managing foreign operations; and
- potentially adverse tax consequences resulting from changes in tax laws.

If any of these risks materialize and we are unable to manage them, our international sales and operations would suffer.

We are exposed to fluctuations in the exchange rates of foreign currency.

As a global concern, we face exposure to adverse movements in foreign currency exchange rates. With our operations in Japan, South Korea, the United Kingdom, Taiwan, China and Israel, a significant percentage of our cash flows are exposed to foreign currency risk. These exposures may change over time as business practices evolve and could have a material adverse impact on our financial results and cash flow.

We are subject to various environmental laws and regulations that could impose substantial costs upon us and may harm our business, operating results and financial condition.

Some of our operations use substances regulated under various federal, state, local, and international laws governing the environment, including those relating to the storage, use, discharge, disposal, labeling, and human exposure to hazardous and toxic materials. We could incur costs, fines and civil or criminal sanctions, third-party property damage or personal injury claims, or could be required to incur substantial investigation or remediation costs, if we were to violate or become liable under environmental laws. Liability under environmental laws can be joint and several and without regard to comparative fault. Compliance with current or future environmental laws and regulations could restrict our ability to expand our facilities or require us to acquire additional expensive equipment, modify our manufacturing processes, or incur other significant expenses. We may violate environmental laws or regulations in the future as a result of human error, the inability to obtain permits, equipment failure or other causes.

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Anti-takeover provisions in our charter documents and Delaware law could discourage delay or prevent a change in control of our company and may affect the trading price of our common stock.

The anti-takeover provisions of the Delaware General Corporation Law may discourage, delay or prevent a change in control by limiting our ability to engage in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder, even if a change of control would be beneficial to our existing stockholders. In addition, our certificate of incorporation and bylaws may discourage, delay or prevent a change in our management or control over us that stockholders may consider favorable. Our certificate of incorporation and bylaws:

- authorize the issuance of blank check preferred stock that could be issued by our board of directors to thwart a takeover attempt;
- establish a classified board of directors, as a result of which it will be more difficult for our stockholders to change the composition of our board of directors in a relatively short period of time;
- limit who may call special meetings of stockholders; and
- prohibit stockholder action by written consent, requiring all actions to be taken at a meeting of the stockholders.

Political instability could affect our business and results of operations.

The ongoing threat of terrorism targeted at the United States or other regions where we conduct business increases the uncertainty in our markets and the economy in general. This uncertainty is likely to result in economic stagnation, which would harm our business. In addition, increased international political instability may hinder our ability to do business by increasing our costs of operations. For example, our transportation costs, insurance costs and sales efforts may become more expensive as a result of geopolitical tension. These tensions may also negatively affect our suppliers and customers. If this International economic and political instability continues or increases, our business and results of operations could be harmed.

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

We did not purchase any shares of our common stock during the three- and six-month period ended June 27, 2009.

On July 26, 2007, our Board of Directors approved the repurchase of up to $4.0 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 will depend on a variety of factors including price, corporate and regulatory requirements and other market conditions. The stock repurchase program may be limited or terminated at any time without prior notice. As of June 27, 2009 there remained $1.3 million available for the future purchase of shares of our common stock.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

The annual meeting of stockholders of Nanometrics, Inc. was held on May 27, 2009. At the annual meeting the stockholders were asked to vote upon the following proposals and with the following results:

Proposal 1 To elect two Class II directors, each to serve for a term of three years:

	FOR:	WITHOLD:
J. Thomas Bentley	16,442,208	733,341
Timothy Stultz, Ph.D.	16,611,063	564,480

In addition, the term of office of the following directors continued after the meeting: Howard A. Bain, III; William G. Oldham, PhD; Stephen J. Smith, PhD; Vince J. Coates; and Bruce C. Rhine.

Proposal 2 To approve an amendment and restatement of our 2003 Employee Stock Purchase Plan to increase the number of shares reserved for issuance under the plan by 1,200,000 shares.

FOR:	AGAINST:	ABSTAIN:	BROKER NON-VOTE:
11,704,686	464,224	11,043	4,995,596

Proposal 3 To approve an amendment and restatement of our 2005 Equity Incentive Plan to allow in 2009 for a one-time stock option exchange program for eligible employees and executive officers and to clarify the plan term.

FOR:	AGAINST:	ABSTAIN:	BROKER NON-VOTE:
8,777,170	3,344,028	58,755	4,995,596

Proposal 4 To ratify the appointment of BDO Seidman, LLP as Nanometrics independent registered public accounting firm for the fiscal year ending December 26, 2009.

FOR:	AGAINST:	ABSTAIN:
16,786,008	79,952	309,589

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ITEM 6. EXHIBITS

Exhibit Index

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

Exhibit No.	Description
3(i)	**Certificate of Incorporation**
3.1(1)	Certificate of Incorporation of the Registrant
3(ii)	**Bylaws**
3.2(1)	Bylaws of the Registrant
10	**Material Contracts**
	Management Contracts, Compensatory Plans, Contracts or Arrangements
10.1(2)	Form of Offer Letter to James P. Moniz
10.2(2)	Form of Executive Severance Agreement James P. Moniz
10.3(3)	Asset purchase agreement by and between Tevet Process Control Technologies, Ltd., and Nanometrics-Israel Ltd., dated May 7, 2008
10.4	Amendment No.1 to the Above Referenced Asset Purchase Agreement, dated April 6, 2009.
10.5(4)	Security Agreement, Balloon Promissory Note, and Deed of Trust by and between GE Commercial Finance Business Property Corporation and Nanometrics Incorporated each dated July 25, 2008.
10.6	Confidential Settlement Agreement and General Release by and between Gary Schaefer and Nanometrics Incorporated dated September 5, 2008.
10.7(5)	Loan and Security Agreement effective as of February 14, 2007 by and between Comerica Bank, the Registrant, Accent Optical Technologies, Nanometrics, Inc. and Nanometrics IVS Division, Inc.
10.8(2)	Notice of Extension of the Maturity Date of the Above Referenced Loan and Security Agreement, dated as of February 14, 2009.
10.9	First Amendment to the Above Referenced Loan and Security Agreement dated September 14, 2007.
10.10	Second Amendment to Loan and Security Agreement dated as of May 11, 2009 with an effective date of April 29, 2009.
10.11	Third Amendment to Loan and Security Agreement dated June 15, 2009.
10.12+	Asset Transfer Agreement By and Between Zygo corporation and Nanometrics Incorporated dated June 17, 2009, Supply Agreement Between Zygo and Nanometrics dated June 17, 2009.
10.13+	Supply Agreement By and Between Zygo Corporation and Nanometrics Incorporated dated June 17, 2009.
10.14(6)	Nanometrics Incorporated Amended and Restated 2003 Employee Stock Purchase Plan.
10.15(7)	Nanometrics Incorporated 2005 Equity Incentive Plan
31	**Rule 13a-14(a)/15d-14(a) Certifications**
31.1	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	Certification of James P. Moniz, 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	Certification of Timothy J. Stultz, principal executive officer of the Registrant, and James P. Moniz, 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

+ Confidential treatment has been requested for portions of this exhibit. Omitted portions have been filed separately with the Securities Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

(1) Incorporated by reference to exhibits filed with the Registrant s Current Report on Form 8-K filed on October 5, 2006.

(2) Incorporated by reference to exhibits filed with the Registrant s Annual Report on Form 10-K filed on March 27, 2009.

(3) Incorporated by reference to Exhibit 10.1 filed with the Registrant s Quarterly Report on Form 10-Q filed on August 7, 2008.

(4) Incorporated by reference to exhibits filed with the Registrant s Quarterly Report on Form 10-Q filed on November 6, 2008.

(5) Incorporated by reference to Exhibit 10.5 filed with the Registrant s Quarterly Report on Form 10-Q filed on May 10, 2007.

(6) Incorporated by reference to Appendix 1 filed with the Registrant s Definitive Proxy Statement filed on April 21, 2009.

(7) Incorporated by reference to Appendix 2 filed with the Registrant s Definitive Proxy Statement filed on April 21, 2009.

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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/ James P. Moniz
James P. Moniz
Chief Financial Officer

Dated: August 11, 2009