NANOMETRICS INC
Form 10-Q
May 10, 2007
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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 March 31, 2007

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) 435-9600

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 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 x Non-accelerated filer ¨

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 April 24, 2007, there were 18,153,099 shares of common stock, $0.001 par value, issued and outstanding.

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NANOMETRICS INCORPORATED

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FOR QUARTER ENDED MARCH 31, 2007

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PART I FINANCIAL INFORMATION

ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS

NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED BALANCE SHEETS

(Amounts in thousands except share amounts)

(Unaudited)

	March 31, 2007	December 30, 2006
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 9,202	$ 7,957
Accounts receivable, net of allowances of $758 and $841, respectively	28,114	24,888
Inventories	39,058	43,601
Prepaid expenses and other	3,859	3,639
Total current assets	80,233	80,085
Property, plant and equipment, net	42,756	43,294
Goodwill and indefinite-lived intangible assets	55,217	55,217
Intangible assets, net	26,034	27,583
Other assets	1,595	1,985
Total assets	$ 205,835	$ 208,164
LIABILITIES AND STOCKHOLDERS EQUITY		
Current Liabilities:		
Accounts payable	$ 11,034	$ 9,155
Accounts payable to related party	676	181
Accrued payroll and related expenses	4,872	5,227
Deferred revenue and product margin	6,603	6,239
Other current liabilities	7,287	8,381
Income taxes payable	565	695
Current portion of debt obligations	492	486
Total current liabilities	31,529	30,364
Deferred income taxes	1,848	1,848
Debt obligations	1,198	1,321
Total liabilities	34,575	33,533
Commitments and Contingencies		
Stockholders Equity:		
Preferred stock, $0.001 par value; 3,000,000 shares authorized; no shares issued or authorized		
Common stock, $0.001 par value; 47,000,000 shares authorized; 18,152,099 and 18,141,589, respectively, outstanding	18	18
Additional paid-in capital	183,387	182,096
Accumulated deficit	(14,520)	(9,909)

Accumulated other comprehensive income	2,375	2,426
Total stockholders equity	171,260	174,631
Total liabilities and stockholders equity	$ 205,835	$ 208,164

See Notes to Unaudited Condensed Consolidated Financial Statements

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NANOMETRICS INCORPORATED

CONSOLIDATED STATEMENTS OF OPERATIONS

(Amounts in thousands except per share amounts)

(Unaudited)

	Three Months Ended	
	March 31, 2007	April 1, 2006
Net revenues:		
Products	$ 32,526	$ 15,972
Service	4,589	2,996
Total net revenues	37,115	18,968
Costs and expenses:		
Cost of products	18,130	7,909
Cost of service	5,829	2,534
Research and development	4,586	2,528
Selling	6,267	3,102
General and administrative	6,993	4,550
Total costs and expenses	41,805	20,623
Loss from operations	(4,690)	(1,655)
Other income (expense):		
Interest income	23	332
Interest expense	(39)	(13)
Other, net	119	35
Total other income (expense), net	103	354
Loss before income taxes	(4,587)	(1,301)
Provision for income taxes	24	21
Net loss	$ (4,611)	$ (1,322)
Net loss per share:		
Basic	$ (0.26)	$ (0.10)
Diluted	$ (0.26)	$ (0.10)
Shares used in per share computation:		
Basic	17,658	13,018
Diluted	17,658	13,018

See Notes to Unaudited Condensed Consolidated Financial Statements.

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NANOMETRICS INCORPORATED

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands)

(Unaudited)

	Three Months Ended	
	March 31, 2007	April 1, 2006
Cash flows from operating activities:		
Net loss	$ (4,611)	$ (1,322)
Reconciliation of net loss to net cash used in operating activities:		
Depreciation and amortization	2,298	572
Stock-based compensation	1,234	853
Changes in assets and liabilities:		
Accounts receivable	(3,319)	(1,337)
Inventories, net	4,337	(929)
Prepaid expenses and other	(103)	(609)
Other assets	240	(17)
Accounts payable, accrued and other current liabilities	1,551	333
Deferred revenue and product margin	339	223
Income taxes payable	(5)	(24)
Net cash provided by (used in) operating activities	1,961	(2,257)
Cash flows from investing activities:		
Purchase of Soluris net assets, net of cash received		(6,752)
Sales/maturities of short-term investments		4,949
Purchases of property, plant and equipment	(252)	(48)
Deferred acquisition costs related to the Accent and Soluris mergers		(1,960)
Net cash used in investing activities	(252)	(3,811)
Cash flows from financing activities:		
Repayments of debt obligations	(137)	(793)
Proceeds from sale of shares under employee stock option plan and purchase plan	57	298
Net cash used in financing activities	(80)	(495)
Effect of exchange rate changes on cash and cash equivalents	(382)	33
Net increase (decrease) in cash and cash equivalents	1,629	(6,563)
Cash and cash equivalents, beginning of period	7,955	40,445
Cash and cash equivalents, end of period	$ 9,202	$ 33,915
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 23	$ 13
Cash paid (refunded) for income taxes	$ 78	$ (151)

See Notes to Unaudited Condensed Consolidated Financial Statements.

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NANOMETRICS INCORPORATED

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

Note 1. Consolidated Financial Statements

In the opinion of management, the accompanying Unaudited Consolidated Interim 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 30, 2006 audited consolidated financial statements and include all adjustments, consisting of only normal recurring adjustments, necessary to fairly present the information set forth therein. 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 30, 2006, which were included in the Company s Annual Report on Form 10-K, which was filed with the SEC on March 15, 2007.

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 For the balance sheet as of December 30, 2006, Nanometrics reclassified $4.2 million from Inventories to Deferred revenue and product margins to conform to the current period s presentation.

Note 2. Recent Accounting Pronouncements

In February 2007, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities-Including an Amendment of FASB Statement No. 115* . SFAS No.159 permits all entities to choose to measure eligible assets and liabilities at fair value at specified election dates. A business entity shall report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. Early adoption is permitted as of the beginning of a fiscal year that begins on or before November 15, 2007, provided the entity also elects to apply the provisions of SFAS No. 157. The Company is evaluating the impact of the adoption of the provisions of SFAS No. 159.

In September 2006, the FASB finalized SFAS No. 157, *Fair Value Measurements* which will become effective in 2008. This Statement defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements; however, it does not require any new fair value measurements. The provisions of SFAS No. 157 will be applied prospectively to fair value measurements and disclosures in the Company s financial statements beginning in the first quarter of 2008.

In July 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement No. 109* (FIN 48), which provides clarification related to the process associated with accounting for uncertain tax positions recognized in the Company s Consolidated Financial Statements. The Company s adoption of the provisions of FIN 48 on December 31, 2006 did not have a material impact on its financial condition or results of operations. The application of this Interpretation requires a two-step process that separates recognition from measurement. The first step is determining whether a tax position has met the recognition threshold; the second step is measuring a tax position that meets the recognition threshold. The recognition threshold is met when the taxpayer (the reporting enterprise) concludes that it is more likely than not that the taxpayer will sustain the benefit taken or expected to be taken in the tax return in a dispute with taxing authorities if the taxpayer takes the dispute to the court of last resort. Upon implementing FIN 48 and performing the analysis, we will not recognize any increase or decrease to reserves for uncertain tax positions.

We have elected to record interest and penalties recognized in accordance with FIN 48 in the condensed consolidated financial statements as income taxes. Any subsequent change in classification of FIN 48 interest and penalties will be treated as a change in accounting principle subject to the requirements of SFAS No. 154, *Accounting Changes and Error Corrections.*

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Note 3. 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 sheet as the criteria for sale treatment established by SFAS No. 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*, had been met. Under SFAS No. 140, after a transfer of financial assets, an entity stops recognizing the financial assets when the control has been surrendered. The agreement met the criteria of a true sale of these assets since the acquiring party retained the title to these receivables and had assumed the risk that the receivables will be collectible. The Company pays administrative fees as well as interest at 1.625% based on the anticipated length of time between the date the sale is consummated and the expected collection date of the receivables sold. During the three months ended March 31, 2007, $4.0 million of receivables were sold under the terms of the agreement and there were no material gains or losses on the sale of such receivables. There were no such sales of receivables during the three months ended April 1, 2006. There were no amounts due from the financial institution at March 31, 2007 and December 30, 2006.

Note 4. Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market and consist of the following (in thousands):

	March 31, 2007	December 30, 2006
Raw materials and subassemblies	$ 15,840	$ 20,227
Work in process	10,392	9,693
Finished goods	12,826	13,681
Total inventories	$ 39,058	$ 43,601

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Note 5. Related Party Transactions

A member of the Company s executive staff is a significant shareholder of a major supplier of assembly parts to the Company. Purchases of assembly parts from the related party were $0.6 million and $1.0 million in the three months ended March 31, 2007 and April 1, 2006, respectively. Consulting services received from the related party were $0.2 million for each of the three months ended March 31, 2007 and April 1, 2006, respectively. The balance of amounts prepaid to the supplier was $0.3 million and $0.3 million as of March 31, 2007 and December 30, 2006, respectively. Amounts due to the related party as of March 31, 2007 and December 30, 2006 were $0.7 million and $0.2 million, respectively.

Note 6. Goodwill and Intangible Assets

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 No. 142, *Goodwill and Other intangible Assets,* goodwill is reviewed annually or whenever events or circumstances occur which indicate that goodwill might be impaired. As a result of the Company s acquisition of Soluris and Accent in 2006, the Company recorded goodwill totaling $54.8 million.

Intangible assets with an indefinite life are evaluated annually for impairment or whenever events or circumstances occur which indicate that those assets might be impaired. On March 15, 2006, as a result of the Company s acquisition of Soluris, the Company acquired a trademark with a value of $0.4 million with an indefinite life.

Finite-lived intangible assets are recorded at cost, less accumulated amortization. Finite-lived intangible assets as of March 31, 2007 and December 30, 2006 consist of the following (in thousands):

	Gross Carrying Amount	Accumulated Amortization	Net Intangible Assets
March 31, 2007			
Developed technology acquired in business combinations	$ 9,800	$ 936	$ 8,864
Customer relationships	15,700	2,143	13,557
Brand names	3,600	338	3,262
Patented technology	1,790	1,471	319
Backlog	3,131	3,099	32
Non-compete agreement	50	50	
Other	250	250	
Total	$ 34,321	$ 8,287	$ 26,034

	Gross Carrying Amount	Accumulated Amortization	Net Intangible Assets
December 30, 2006			
Developed technology acquired in business combinations	$ 9,800	$ 607	$ 9,193
Customer relationships	15,700	1,373	14,327
Brand names	3,600	216	3,384
Patented technology	1,790	1,406	384
Backlog	3,131	2,846	285
Non-compete agreement	50	40	10
Other	250	250	
Total	$ 34,321	$ 6,738	$ 27,583

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 are amortized over one year. Amortization expense for developed technology acquired in a business combination, patented technology and backlog is included in cost of product

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sales whereas amortization expense for customer relationships, brand names and non-compete agreements is included in selling expense in the Company s consolidated statements of operations. Total amortization expense was $1.5 million and $0.1 million for the quarters ended March 31, 2007 and April 1, 2006, respectively.

The estimated future amortization expense as of March 31, 2007 is as follows (in thousands):

Fiscal Years	
2007 (remaining nine months)	$ 3,884
2008	4,881
2009	4,257
2010	3,675
2011	3,201
2012 and after	6,136
Total amortization	$ 26,034

Note 7. Other Current Liabilities

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

	March 31, 2007	**December 30, 2006**
Accrued warranty	$ 4,583	$ 4,349
Accrued professional services	763	1,912
Other	1,941	2,120
Total other current liabilities	$ 7,287	$ 8,381

Note 8. Stockholders Equity

Net Income (Loss) Per Share Basic net income (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted net income per share gives effect to all potentially dilutive common shares outstanding during the period, which include certain stock options, calculated using the treasury stock method. A reconciliation of the share denominator of the basic and diluted net income (loss) per share computations is as follows (in thousands):

	Three Months Ended	
	March 31, 2007	**April 1, 2006**
Weighted average common shares outstanding-shares used in basic net income (loss) per share computation	17,658	13,018
Potentially dilutive common stock equivalents, using the treasury stock method		
Shares used in diluted net income (loss) per share computation	17,658	13,018

For the quarters ended March 31, 2007 and April 1, 2006, 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 antidilutive. Weighted average common share equivalents, consisting of stock options excluded from the calculation of diluted net loss per share were 2.8 million and 1.2 million in the quarters ended March 31, 2007 and April 1, 2006, respectively.

Note 9. Stock-Based Compensation

The following table summarizes stock-based compensation expense for all share-based payment awards made to the Company s employees and directors pursuant to the Employee Stock Purchases under SFAS 123R for the quarters ended March 31, 2007 and April 1, 2006 (in thousands):

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	Three Months Ended March 31, 2007	Three Months Ended April 1, 2006
Cost of products	$ 76	$ 67
Cost of service	78	38
Research and development	221	260
Selling	279	147
General and administrative	580	341
Stock-based compensation expense included in costs and expenses	1,234	853
Total stock-based compensation expense related to employee stock options and employee stock purchases	$ 1,234	$ 853

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 SAB 107. 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.

	Three Months Ended March 31, 2007	Three Months Ended April 1, 2006
Stock Options:		
Expected life	4.5 years	4.3 years
Volatility	66.5%	73.6%
Risk free interest rate	4.72%	4.55%
Dividends		
Employee Stock Purchase Plan:		
Expected life	0.5 years	0.5 years
Volatility	46.5%	37.5%
Risk free interest rate	5.1%	1.7%
Dividends		

The weighted average fair values per share of the stock options awarded in the three months ended March 31, 2007 and April 1, 2006 was $2.42 and $8.39, respectively, based on the fair market value of the Company s common stock on the grant dates.

A summary of option activity under the Company s stock option plans during the quarter ended March 31, 2007 is as follows:

	Shares Available	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value (in Thousands)
Options					
Outstanding at December 30, 2006	1,081,900	3,826,806	$ 10.60		
Shares added through 2005 Option Plan	544,248				
Exercised		(10,533)	5.34		
Granted	(77,200)	77,200	9.46		

Cancelled	323,452	(323,452)		11.08		
Outstanding at March 31, 2007	1,872,400	3,570,021	$	10.52	4.9	$ 930
Exercisable at March 31, 2007		2,083,753	$	9.80	4.1	$ 930

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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 $6.70 as of March 31, 2007, 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 quarter ended March 31, 2007 was not material. The total intrinsic value of options exercised during the quarter ended April 1, 2006 was $0.3 million. The fair value of options vested was $1.6 million and $0.9 million, respectively for the quarters ended March 31, 2007 and April 1, 2006, respectively.

Note 10. Comprehensive Income (Loss)

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

	Three Months Ended	
	March 31, 2007	April 1, 2006
Net loss	$ (4,611)	$ (1,322)
Foreign currency translation adjustment, net of tax	(51)	190
Total comprehensive loss	$ (5,662)	$ (1,132)

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.

Note 11. 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, 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):

	Three Months Ended	
	March 31, 2007	April 1, 2006
Balance as of beginning of period	$ 4,349	$ 1,440
Actual warranty costs	(502)	(235)
Provision for warranty	736	205
Balance as of end of period	$ 4,583	$ 1,410

Intellectual Property Indemnification Obligations In addition to product warranties, the Company will, from time to time, in the normal course of business, 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 on the consolidated balance sheets as of March 31, 2007 and December 30, 2006.

Note 12. Income Taxes

The provision for income taxes for the first quarter of 2007 was the result of foreign taxes of $0.2 million offset by $0.2 million of tax benefit in a certain foreign jurisdiction where sufficient deferred tax liabilities exist to allow for benefiting the

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operating loss. The Company s income tax expense for the first quarter of 2006 was primarily a result of foreign income taxes as our U.S. federal income taxes were primarily offset by a reduction in deferred tax asset valuation allowances. In the future, we will continue to review our expectations for future taxable income to determine the amount of valuation allowance necessary to reserve against deferred tax assets.

Note 13. Contingencies

On March 9, 2005, Nova Measuring Instruments Ltd. (Nova) filed suit against the Company in the United States District Court for the Northern District of California. The complaint alleged that certain of the Company s products infringe a Nova patent and sought a preliminary and permanent injunction against their sale and unspecified damages. In late March 2006, the Company filed suit against Nova in the United States District Court for the Northern District of California. The Company s complaint alleged that certain of Nova s products sold in the U.S. infringe intellectual property rights of Nanometrics. In a settlement conference on April 11, 2007, Nanometrics and Nova agreed to dismiss, without prejudice, all pending patent litigation between the two parties, and have entered into a covenant not to sue one another for any patent for a period of one year. The settlement terminated the three lawsuits pending in the U.S. District Court for the Northern District of California.

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). These requests for re-examination were recently accepted for review by the 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.

Note 14. Geographic and Significant Customer Information

The Company s operating divisions consist of geographically based entities in the United States, Europe, Japan, South Korea and Taiwan. All such operating divisions have similar economic characteristics, as defined in SFAS No. 131, *Disclosures About Segments of an Enterprise and Related Information*, and accordingly, the Company operates in one reportable segment: the sale, design, manufacture, marketing and support of thin film, optical critical dimension and overlay dimension metrology systems. For the years ended December 30, 2006, December 31, 2005 and January 1, 2005, the Company recorded revenue from customers primarily in the United States, Asia and Europe. The following table summarizes total net revenues and long-lived assets (excluding intangible assets) attributed to significant countries (in thousands):

	Three Months Ended	
	March 31, 2007	April 1, 2006
Total net revenues:		
United States	$ 16,360	$ 12,188
Japan	5,587	4,386
South Korea	3,765	1,371
Taiwan	2,164	406
Europe	7,302	213
All other	1,937	404
Total net revenues*	$ 37,115	$ 18,968

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

	March 31, 2007	December 30, 2006
Long-lived assets:		
United States	$ 36,626	$ 37,079

Japan	2,158	2,300
Europe	610	708
South Korea	4,854	5,095
Taiwan	103	97
Total long-lived assets**	$ 44,351	$ 45,279

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** Long-lived assets include tangible assets only.

As of March 31, 2007, two customers, Samsung and Hynix, accounted for 20.7%, and 12.2% of total accounts receivable, respectively. As of December 30, 2006, no customer accounted for 10% or more of total accounts receivable.

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

	Three Months Ended	
	March 31, 2007	April 1, 2006
Applied Materials		31.4%
Samsung	37.0%	23.5%
Ebara		11.7%
Hynix	13.4%	

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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, current and prospective investors should carefully consider these factors in addition to the other information set forth in this document. We believe that it is important to communicate our expectations to our investors. However, there may be events in the future that we are not able to predict accurately or over which we have no control. You should be aware that the occurrence of the events described in such risk factors and elsewhere in this report 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 audited consolidated financial statements and notes thereto for the year ended December 30, 2006, which were included in our Annual Report on Form 10-K filed with the Securities Exchange Commission on March 15, 2007.

Overview

We are an innovator in the field of metrology systems for the semiconductor industry. 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 and their suppliers are critical to our success. The demand by these manufacturers and suppliers is driven by the expected market demand for new products and new applications. The increasing complexity of the 300mm manufacturing processes for semiconductors is an important factor in the demand for our innovative metrology systems. The incorporation of smaller features sizes, copper interconnect technology and optical critical dimension technology are expected to result in increased demand. Our strategy is to continue to innovate organically as well to evaluate strategic acquisitions in order to address business challenges and opportunities.

Our revenues are derived from product sales and customer service, which include sales of accessories and service for the installed base of our products. In the year ended December 30, 2006, we derived 83.7% of our total net revenues from product sales and 16.3% of our total net revenues from services.

Important Themes and Significant Trends

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

Incorporation of Optical Critical Dimension Metrology in the Patterning Process. Our customers use photolithographic processes to create patterns on wafers. Critical dimensions must be carefully controlled during this process. Our proprietary optical critical dimension systems can provide the critical process control of these circuit dimensions that is necessary for successful manufacturing of these state of the art devices.

Copper Interconnect Technology. The need for ever increasing device circuit speed coupled with lower power consumption has pushed semiconductor device manufacturers to begin the replacement of the subtractive aluminum interconnect process with copper damascene technology. This new copper processing technology has driven the need for new metrology techniques such as non-destructive laser profiling and the use of optical critical dimension (OCD) technology for control of the copper process.

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Incorporation of 65nm and 45nm Feature Sizes. In an effort to reduce costs and increase device performance, semiconductor manufacturers are decreasing both the die size and feature size. Monitoring the increased tolerance requirements on smaller features sizes requires increased use of metrology systems. Our thin film and critical dimension metrology systems are well suited and are being adopted for these next generation processes.

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 semiconductor equipment companies exist. Given that the available number of potential customers is decreasing, previous customer relationships, product positioning and critical mass take on greater importance.

Adoption of New Types of Thin Film Materials. Manufacturers are adopting new processes and technologies that increase the importance and utilization of thin film metrology systems. To achieve greater semiconductor device speed, manufacturers are utilizing copper and new, low dielectric constant (low k) insulating materials. Our advanced metrology solutions are required in the manufacturing process to characterize these materials.

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.

Critical Accounting Policies

The preparation of our financial statements conforms with 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. For a summary of all of our accounting policies, including those discussed below, see Note 1 to The Consolidated Financial Statements included in our Annual Report on Form 10-K filed with the SEC on March 15, 2007.

Revenue Recognition We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the sales price is fixed or determinable, and collectibility is reasonably assured. Product revenue includes hardware and also software that is incidental to the products. For product sales to existing customers, revenue recognition generally occurs at the time of shipment, as our terms are FOB shipping point, if we have met defined customer acceptance experience levels with both the customer and the specific type of equipment. All other product revenue is recognized upon customer acceptance including deemed acceptances. In Japan, where risk of loss and title transfers to the customer upon customer technical acceptance, revenue is recognized upon customer technical acceptance.

All of our products are assembled prior to shipment to our customers. We often perform limited installation for our customers; however such installation is inconsequential and perfunctory as it may also be performed by third parties. Revenue related to spare parts sales is recognized generally upon shipment and is included as part of service revenue. Service revenue also includes service contracts and non-warranty, billable repairs of systems. 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. 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. Service contracts may be purchased by the customer when the warranty period expires.

In limited situations we have multiple deliverables in our customer arrangements. Those situations arise with the sale of repair services and parts together. Revenues on such sales are recognized when both the services and parts have been delivered. We also provide technical support to our customers as part of our warranty program. Upon recognition of product revenue, a liability is recorded for anticipated warranty costs.

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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 collectibility 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 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. 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 are stated at the lower of cost, using the first-in, first-out method, or market value.

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, 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.

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 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, which is completed as of the last day of November of each year, compares the fair value of our reportable segment (which we have determined to be our reporting unit) to its carrying value, including the goodwill related to the segment. To determine the fair value, our review process uses the income method and is based on a discounted future cash flow approach that uses estimates including the following for each segment: revenue, based on assumed market growth rates and our assumed market share; estimated costs; and appropriate discount rates based on the particular business s 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. If future forecasts are revised, they may indicate or require future impairment charges. We also considered our market capitalization on the dates of our impairment tests under SFAS 144, in determining the fair value of the respective businesses.

Our fair value estimates, are based on the extensive use of management s estimates and assumptions, and the result of these processes can have a significant impact on our future operating results.

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

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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 Upon adoption of SFAS 123(R) on January 1, 2006, we began estimating the value of employee stock options on the date of grant using the Black-Scholes model. Prior to the adoption of SFAS 123(R), the value of each employee stock option was estimated on the date of grant using the Black-Scholes model for the purpose of the pro forma financial disclosure in accordance with SFAS 123. 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 SAB 107. The expected volatility is based on the historical volatility of our stock price.

Recent Accounting Pronouncements

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

Results of Operations

Quarters ended March 31, 2007 and April 1, 2006

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

	Three Months Ended		
	March 31, 2007	April 1, 2006	Percentage Change
Automated systems	$ 29,000	$ 7,915	266.4%
Integrated systems	3,526	8,057	(56.2)
Service	4,589	2,996	53.2
Total net revenues	$ 37,115	$ 18,968	95.7%

In the first quarter of 2007 net revenues from automated systems increased over the comparable period of 2006 as a result of additional revenues of $10.7 million from Accent products and of higher demand for our automated products as semiconductor manufacturers continue to increase their manufacturing capacity. Sales of our integrated systems decreased during the first quarter of 2007 as we deferred $3.8 million of revenue related to integrated systems which have not yet fully met revenue recognition criteria. Service revenue increased as a result of our Accent and Soluris acquisitions which contributed to higher sales of parts and services, due in part to a larger installed base of systems.

Gross margin. The product gross margin decreased for the first quarter of 2007 to 44% as compared to the gross margin for the first quarter of 2006 of 50% due primarily to higher warranty costs of $0.7 million and charges for excess and obsolete inventory of $0.7 million and amortization of intangible assets for developed technology and backlog related to the Accent and Soluris acquisitions of $0.6 million. The gross margin for Service decreased in the first quarter of 2007 as compared to 2006 as we have not been able to fully recover the higher costs associated with meeting our customers increasing service demands. Management is currently evaluating the negative margins in our service line of business and if future performance does not improve significantly we may incur charges to write-down the goodwill associated with the service line of business.

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

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	Three Months Ended			
	March 31, 2007	April 1, 2006	Change	
Research and development	$ 4,586	$ 2,528	$ 2,058	81.4%
Selling	6,267	3,102	3,165	102.0
General and administrative	6,993	4,550	2,443	53.7
Total operating expenses	$ 17,846	$ 10,180	$ 7,666	75.3%

Research and development. Research and development expenses increased by $2.1 million for the first quarter of 2007 over the comparable quarter in 2006 due to the additional expenses associated with the additional headcount and our acquisitions of Accent and Soluris, respectively.

In the United States and United Kingdom, our research and development efforts are focused on semiconductor metrology. In South Korea, our research and development efforts are focused on the overlay metrology. We are committed to the development of new and enhanced products and believe that new product introductions are required for us to maintain a competitive position.

Selling. Selling increased $3.2 million for the quarter ended March 31, 2007 over the comparable quarter of 2006 due to additional headcount related expenses associated with the acquisitions of Soluris on March 15, 2006 and Accent on July 21, 2006 and higher levels of revenue. Also in the first quarter of 2007, we incurred $0.9 million amortization of intangible assets for customer relationships and brand names related to the Accent and Soluris acquisitions.

General and administrative. General and administrative expenses for the first quarter of 2007 increased $2.4 million over the comparable quarter in 2006 as a result of termination charges of $0.5 million of certain senior executives, higher legal expenses of $0.4 million associated with our patent infringement lawsuits with Nova and KLA and from stock-based compensation charges of $0.2 million.

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

	Three Months Ended			
	March 31, 2007	April 1, 2006	Change	
Interest income	$ 23	$ 332	$ (309)	(93.1)%
Interest expense	(39)	(13)	(26)	200.0
Other income (loss)	119	35	84	240.0
Total other income (expense), net	$ 103	$ 354	$ (251)	(70.9)%

The lower interest income is due to lower average cash and cash equivalent balances. Interest expenses relate to our debt obligations in Japan and the United Kingdom and are expected to decrease, before exchange rate adjustments, with the balance of the debt. With the acquisition of Accent, we incurred foreign exchange losses due to exchange rate fluctuations associated with extensive intercompany balances assumed with the transaction. Other income (expense) includes a gain on the sale of assets, commission income and rental income and miscellaneous expenses.

Provision/credit for income taxes. The provision for income taxes for the first quarter of 2007 was the result of foreign taxes of $0.2 million offset by $0.2 million of tax benefit in a certain foreign jurisdiction where sufficient deferred tax liabilities exist to allow for benefiting the operating loss. Our income tax expense for the first quarter of 2006 was primarily a result of foreign income taxes as our U.S. federal income taxes were primarily offset by a reduction in deferred tax asset valuation allowances. In the future, we will continue to review our expectations for future taxable income to determine the amount of valuation allowance necessary to reserve against deferred tax assets.

Liquidity and Capital Resources

At March 31, 2007, our cash and cash equivalents totaled $9.2 million. At March 31, 2007, we had working capital of $48.7 million compared to $49.7 million at December 30, 2006. The current ratio at March 31, 2007 was 2.5 to 1.

Operating activities provided cash of $2.0 million in the first quarter of 2007. Cash provided by operations resulted from an increase in net working capital assets and certain non-cash charges of $2.3 million associated with amortization and depreciation, $1.2 million in stock based compensation offset by our net loss of $4.6 million and increases in our accounts receivable due to higher revenue levels. Operating activities in

the first quarter of 2006 used cash of $2.3 million primarily

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from our net loss and higher accounts receivable resulting from increased sales, the timing of shipments and receipt of payments as compared to the first quarter of 2005. These uses of cash were offset to some extent by non-cash charges associated with stock-based compensation of $0.9 million in addition to depreciation and amortization of $0.6 million.

Investing activities for the first quarter of 2007 used $0.3 million for capital equipment acquisitions. In the first quarter of 2006, investing activities used $3.8 million due to cash of $6.8 million related to our acquisition of Soluris and capitalized acquisition costs of $2.0 million associated with our merger with Accent, partially offset, by maturities of short-term investments in the amount of $4.9 million.

For the quarter ended March 31, 2007, financing activities used $0.1 million, primarily for the repayment of long-term debt in Japan. Financing activities for the first quarter of 2006 used $0.5 million due to repayments of short-term and long-term debt in Japan of $0.8 million. These amounts were partially offset by the sale of stock from the exercise of employee stock options of $0.3 million.

We have evaluated and will continue to evaluate the acquisition of products, technologies or businesses that are complementary to our business. These activities may result in product and business investments, which may affect our cash position and working capital balances. Some of these activities might require significant cash outlays. However, we believe working capital including cash and cash equivalents and funds available to us under our line of credit, will be sufficient to meet our needs through at least the next twelve months. However, we may require additional cash to fund acquisitions or investment opportunities or other events may arise in the future. In these instances, we may seek to raise such additional funds through public or private equity or debt financings or from other sources. We may not be able to obtain adequate or favorable financing at that time. Any financing we obtain may dilute your ownership interests and any debt financing could contain covenants that impose limitations on the conduct of our business.

In February 2007, we entered into a two-year agreement for a revolving line of credit facility in a maximum principal amount of $15 million. The instrument governing the facility includes certain financial covenants regarding 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 Libor rate 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. The revolving line of credit is collateralized by a blanket lien on all of our domestic assets excluding intellectual property. Although we have no current plans to request any advances under this credit facility, we may use the proceeds of any future borrowing for general corporate purposes or for future acquisitions or expansion of our business.

Contractual obligations

The following table summarizes our contractual cash obligations as of March 31, 2007, and the effect such obligations are expected to have on liquidity and cash flow in future periods (in thousands):

	Total	Remaining nine months of fiscal 2007	1-3 Years	4-5 Years	More than 5 Years
Debt obligations (1)	$ 1,690	$ 367	$ 984	$ 339	$
Operating leases	1,868	1,045	758	65	
Total	$ 3,558	$ 1,412	$ 1,742	$ 404	$

(1) Our debt obligations relate to the construction of a facility in Japan and to an equipment financing arrangement in the United Kingdom. All amounts include interest, which we are obligated to pay.

We maintain certain open inventory purchase commitments with our suppliers to ensure a smooth and continuous supply chain for key components. Our liability in these purchase commitments is generally restricted to a forecasted time-horizon as mutually agreed upon between the parties. This forecast time-horizon can vary among different suppliers. We estimate our open inventory purchase commitment as of March 31, 2007 was approximately $4 million. Actual expenditures will vary based upon the volume of the transactions and length of contractual service provided. In addition, the amounts paid under these arrangements may be less in the event that the arrangements are renegotiated or cancelled. Certain agreements provide for potential cancellation penalties.

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 30, 2006. 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.

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ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management evaluated, with the participation of our interim Chief Executive Officer and our interim Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. As of March 31, 2007 our management, with the participation of our interim Chief Executive Officer and our interim 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 (as defined in Rules 13a-15(f) and 15d-(f) under the Exchange Act) that occurred during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

On March 9, 2005, Nova Measuring Instruments Ltd. (Nova) filed suit against us in the United States District Court for the Northern District of California. The complaint alleged that certain of our products infringed a Nova patent and sought a preliminary and permanent injunction against their sale and unspecified damages. In late March 2006, we filed suit against Nova in the United States District Court for the Northern District of California. Our complaint alleged that certain of Nova s products sold in the U.S. infringe our intellectual property rights. In October, 2006, we filed suit against Nova in the United States District Court for the Northern District of California. The Complaint alleged that certain of Nova s products infringed one of our patents and seeks damages. In a settlement conference on April 11, 2007, we and Nova agreed to dismiss, without prejudice, all pending patent litigation between the two parties, and have entered into a covenant not to sue one another for any patent for a period of one year. The settlement terminated the three lawsuits pending in the U.S. District Court for the Northern District of California.

In August 2005, KLA-Tencor Corporation, or KLA, filed a complaint against us in the United States District Court for the Northern District of California. The complaint alleges that certain of our 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. We do not believe that any of our products infringe the intellectual property of any third party and we intend to vigorously and aggressively defend ourselves in the litigation. As part of such defense, we have filed a request for re-examination of the three allegedly infringed KLA-Tencor patents with the U.S. Patent & Trademark Office, or PTO. These requests for re-examination were accepted for review by the PTO. In March 2006, we filed a motion for and were granted a stay in the patent litigation case until such re-examination is completed.

ITEM 1A. RISK FACTORS

A restated description of the risk factors associated with our business is set forth below. This description includes any material changes to and supersedes the description of the risk factors included in our Annual Report on Form 10K for the fiscal year ended December 30, 2006. The risks and uncertainties described below are not the only ones that we face. If any of the following risks actually occurs, our business, financial condition or operating results could be harmed. In such case, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to Our Business

Cyclicality in the semiconductor industry has led to substantial fluctuations in demand for our systems and may, from time to time, continue to do so.

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Our operating results have varied significantly from period to period due to the cyclical nature of the semiconductor industry. The majority of our business depends upon the capital expenditures of semiconductor device and equipment manufacturers. These manufacturers capital expenditures, in turn, depend upon the current and anticipated market demand for semiconductors and products using semiconductors. The semiconductor industry is cyclical and has historically experienced periodic downturns. These downturns have often resulted in substantial decreases in the demand for semiconductor manufacturing equipment, including metrology systems. We have found that the resulting decrease in capital expenditures has typically been more pronounced than the downturn in semiconductor device industry revenues. We expect the cyclical nature of the semiconductor industry, and therefore, our business, to continue in the foreseeable future.

We depend on Applied Materials and other OEM suppliers for sales of our integrated metrology systems, and the loss of Applied Materials or any of our other OEM suppliers as a customer 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 Applied Materials to sell semiconductor equipment products that include our metrology systems as components. If Applied Materials is unable to sell such products, or if Applied Materials chooses to focus its attention on products that do not integrate our systems, our business could suffer. If we were to lose Applied Materials as a customer for any reason, our ability to realize sales from integrated metrology systems would be significantly diminished, which would harm our business.

If any of our systems fail to meet or exceed our internal quality specifications, we do not ship them until such time as they have met such specifications. If we experience significant delays or are unable to ship our products to our customers as a result of our internal processes, or for any other reason, 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. We must actively monitor our manufacturing processes to ensure that our products meet our internal quality specifications. 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.

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 as a result of 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.

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 or if they delayed or cancelled a large order.

Historically, a significant portion of our revenues in each quarter and each year has been derived from sales to a relatively few number of 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 any of our key customers were to purchase significantly fewer systems, or if a large order were delayed or cancelled, our revenues could significantly decline. In 2006, sales to Applied Materials accounted for 20.1% and sales to Samsung accounted for 14.3% of our total net revenues, respectively. In 2005, sales to Applied Materials accounted for 20.6% and sales to Samsung accounted for 15.9% of our total net revenues, respectively. In 2004, sales to Applied Materials accounted for 21.4% and sales to Samsung accounted for 14.7% of our total net revenues, respectively.

The success of our product development efforts depends on our ability to anticipate market trends and the price, performance and functionality requirements of semiconductor device manufacturers. In order to anticipate these trends and ensure that critical development projects proceed in a coordinated manner, we must continue to collaborate closely with our customers. Our relationships with our customers provide us with access to valuable information regarding industry trends, which enables us to better plan our product development activities. 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 long-term ability to produce commercially successful systems could be adversely affected.

We have had significant management changes since the end of the last fiscal year and these changes may impact our ability to execute our business strategy in the near term. In general, our success depends to a significant extent on the performance of our senior management and on our ability to identify, hire and retain key management personnel.

In March 2007, our President and Chief Executive Officer left the Company, and an interim President and Chief Executive Officer was named. In April 2007, our Chief Financial Officer left the Company, and an interim Chief Financial Officer was named. We are in the process of conducting a search for these executives successors. While we are confident in the interim officers abilities to manage the Company, our business may be affected during the transition period. Furthermore, we must be able to identify, hire and retain key personnel. If we fail to attract, motivate and retain qualified senior management personnel, our business could be harmed and our ability to implement our strategy compromised.

We could have new material weaknesses in our internal controls in the future.

We have in the past identified material weaknesses in our internal controls and procedures. A material weakness is a control deficiency, or combination of them, that results in more than a remote likelihood that a material misstatement in our financial statements will not be prevented or detected. We believe that we have remedied the past material weaknesses in our internal controls and procedures as of December 30, 2006, we could have new material weaknesses in the future, as we integrate the acquired entities during 2007 and streamline and or automate our current internal controls.

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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 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.

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 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. In March 2006, we were granted a stay in the KLA patent infringement cases. There can be no assurance that Nanometrics new or current products do not infringe any valid intellectual property rights. Even if our products do not infringe, we may be required to expend significant sums of money to defend against infringement claims, as in the KLA lawsuit described above, or to actively protect our intellectual property rights through litigation.

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.

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Woollam Company for the purchase of the spectroscopic ellipsometer component incorporated in our advanced measurement 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.

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 six 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 $200,000 to over $1,000,000 per system, our integrated metrology systems range in price from approximately $80,000 to $400,000 per system and our tabletop metrology systems range in price from approximately $50,000 to $200,000 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

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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.

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 cause 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 IVS 185, VerteX Rapid Photoluminescence Mapping System for Compound Semiconductors**,** Atlas-M and Orion. 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. As a result, there can be no assurance that the introduction of these products will be commercially successful or that these products will result in significant additional revenues or improved operating margins in future periods.

Our intellectual property may be infringed upon 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 may license 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, in the event that these agreements may be 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 Ltd. 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 have entered into a covenant not to sue one another for any patent for a period of one year.

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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. For example, in July 2006, we consummated our merger with Accent Optical, a leading supplier of process control and metrology systems to the global semiconductor manufacturing industry. At the outset, we do not know if we will be able to complete any 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 an equity financing, that result in dilution to our stockholders. If we are unable to integrate any acquired entities, products or technologies effectively, our business will suffer.

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

We produce all of our systems in our manufacturing facilities located in Milpitas, California, and beginning with our acquisition of Accent in July 2006, in York, England. To a lesser extent, we also manufacture through our subsidiary in South Korea and, beginning with our acquisition of Soluris in March 2006, in Concord, Massachusetts, and our contract manufacturer in Japan. 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.

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 2006, 2005 and 2004, 53.9%, 66.7% and 71.8%, 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 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.

Continuing economic and 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.

We incur increased costs as a result of changes in laws and regulations affecting public companies.

Compliance with changes in 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 Securities and Exchange Commission 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.

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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 Part I, Item 2 of this Form 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 lead us to change our methods, estimates and judgments. Changes in those methods, estimates and judgments could significantly affect our results of operations. In particular, the calculation of share-based compensation expense under SFAS No. 123(R) requires us to use valuation methodologies (which were not developed for use in valuing employee stock options) and a number of assumptions, estimates and conclusions regarding matters such as expected forfeitures, expected volatility of our share price, the expected dividend rate with respect to our common stock and the exercise behavior of our employees. Furthermore, there are no means, under applicable accounting principles, to compare and adjust our expense if and when we learn of additional information that may affect the estimates that we previously made, with the exception of changes in expected forfeitures of share-based awards. Factors may arise over time that lead us to change our estimates and assumptions with respect to future share-based compensation arrangements, resulting in variability in our share-based compensation expense over time. Changes in forecasted share-based compensation expense could impact our gross margin percentage; research and development expenses; marketing, general and administrative expenses; and our tax rate.

Our quarterly 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 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;
- 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;
- the timing of acquisitions of businesses, products or technologies;
- the levels of our fixed expenses, including research and development costs associated with product development, relative to our revenue levels; and

fluctuations in foreign currency exchange rates, particularly the Japanese yen.

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

Sales to customers in foreign countries accounted for approximately 53.9%, 66.7% and 71.8% of our total net revenues in 2006, 2005 and 2004, respectively. We maintain facilities in Japan, Taiwan, South Korea 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, Taiwan and with the acquisition of Soluris and Accent, the European Union and Singapore, 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.

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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. There can be no assurance that violations of environmental laws or regulations will not occur in the future as a result of the inability to obtain permits, human error, equipment failure or other causes.

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.

In September 2006, we changed our state of incorporation from California to Delaware. The anti-takeover provisions of the Delaware General Corporation Law may discourage, delay or prevent a change in control by prohibiting us from engaging 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 the successors to the directors whose terms have expired will be elected to serve from the time of election and qualification until the third annual meeting following their election;
- 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.

Significant amounts of goodwill and intangible assets after the completion of the acquisitions of Accent and Soluris transactions could make our reported results more volatile.

Goodwill is tested for impairment annually or when an event occurs indicating the potential for impairment. The evaluation is prepared based on our current and projected performance for the identified reporting units. The fair value of our reporting units is determined using a combination of the cash flow and market comparable approaches. If we conclude at any time that the carrying value of our goodwill and other intangible assets for any of our reporting units exceeds its implied fair value, we will be required to recognize an impairment, which could materially reduce operating income and net income in the period in which such impairment is recognized.

In the application of these methodologies, we were required to make estimates of future operating trends and judgments on discount rates and other variables. Actual future results and other assumed variables could differ from these estimates, including changes in the economy, the business environment in which we operate, and/or our own relative performance. Any differences in actual results compared to our estimates could result in further future impairments. Accordingly, our future earnings may be subject to significant volatility, particularly on a period-to-period basis.

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Any future acquisitions we make, or attempt to make, could disrupt our business and harm our financial condition if we are not able to timely and successfully close the acquisition or successfully integrate acquired businesses and technologies.

We have made and may continue to make acquisitions of business and technologies to enhance our business. Acquisitions involve numerous risks, including problems combining the purchased operations and key employees, technologies or products, unanticipated costs, diversion of management s attention from our core business, adverse effects on existing business relationships with suppliers and customers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. The integration of businesses that we have acquired or that we may acquire in the future into our business has been and will continue to be a complex, time consuming and expensive process. Failure to operate as a combined organization utilizing common information and communication systems, operating procedures, financial controls and human resources practices could adversely impact the success of any business combination.

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

None

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None

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

None

ITEM 5. OTHER INFORMATION

None

ITEM 6. EXHIBITS

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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 Indemnification Agreement between the Registrant and each of its directors and executive officers
10.2	Registrant s 2000 Director Stock Option Plan, as amended and restated on March 7, 2007, and form of Stock Option Agreement
10.3	Registrant s 2002 Nonstatutory Stock Option Plan, as amended and restated on March 7, 2007, and form of Stock Option Agreement
10.4	Registrant s 2005 Equity Incentive Plan, as amended and restated on March 7, 2007
	All Other Material Contracts
10.5	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.
31	**Rule 13a-14(a)/15d-14(a) Certifications**
31.1	Certification of Bruce C. Rhine, interim principal executive officer of the Registrant, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Quentin B. Wright, interim principal financial officer of the Registrant, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32	**Section 1350 Certifications**
32.1	Certification of Bruce C. Rhine, interim principal executive officer of the Registrant, and Quentin B. Wright, interim principal financial officer of the Registrant, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(1) Incorporated by reference to exhibits filed with the Registrant s Current Report on Form 8-K filed October 5, 2006
(2) Incorporated by reference to Exhibit 10.1 filed with the Registrant s Annual Report on Form 10-K filed March 15, 2007

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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/ Quentin B. Wright
Quentin B. Wright

Interim Chief Financial Officer
Dated: May 10, 2007