

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2004

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 000-30941

AXCELIS TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

34-1818596
(IRS Employer Identification No.)

108 Cherry Hill Drive
Beverly, Massachusetts 01915
(Address of principal executive offices, including zip code)

(978) 787-4000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of class
None

Name of each exchange on which registered
None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, \$.001 par value
Preferred Share Purchase Rights

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

Indicate by check mark if whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes No

As of November 4, 2004 there were 99,959,827 shares of the registrant's common stock outstanding.

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

[Consolidated Statements of Operations for the three and nine months ended September 30, 2004 and 2003](#)

[Consolidated Balance Sheets as of September 30, 2004 and December 31, 2003](#)

[Consolidated Statements of Cash Flows for the nine months ended September 30, 2004 and 2003](#)

[Notes to Consolidated Financial Statements](#)

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

[Overview](#)

[Critical Accounting Estimates](#)

[Results of Operations](#)

[Liquidity and Capital Resources](#)

[Outlook](#)

[Risk Factors](#)

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

ITEM 4. CONTROLS AND PROCEDURES

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

ITEM 2. CHANGES IN SECURITIES, USE OF PROCEEDS AND ISSUER PURCHASES OF EQUITY SECURITIES

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

ITEM 4. SUBMISSION OF MATTERS TO VOTE OF SECURITY HOLDERS

ITEM 5. OTHER INFORMATION

ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K

SIGNATURES

2

PART 1. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

**AXCELIS TECHNOLOGIES, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)
(Unaudited)**

	Three months ended September 30,		Nine months ended September 30,	
	2004	2003	2004	2003
Revenue				
Systems	\$ 79,402	\$ 28,225	\$ 277,992	\$ 134,702
Services	44,827	30,782	125,097	91,381
Royalties, primarily Sumitomo Eaton Nova Corporation	3,667	265	10,380	3,288
	<u>127,896</u>	<u>59,272</u>	<u>413,469</u>	<u>229,371</u>
Cost of revenue	<u>73,817</u>	<u>45,108</u>	<u>240,814</u>	<u>157,493</u>
Gross profit	<u>54,079</u>	<u>14,164</u>	<u>172,655</u>	<u>71,878</u>
Operating expenses				
Research & development	16,645	16,273	48,009	48,376
Selling	12,248	11,983	36,683	35,590
General & administrative	11,943	10,841	34,645	30,383
Amortization of intangible assets	612	563	1,836	1,293
Restructuring	—	4,745	—	4,745
	<u>41,448</u>	<u>44,405</u>	<u>121,173</u>	<u>120,387</u>
Income (loss) from operations	12,631	(30,241)	51,482	(48,509)
Other income (expense)				
Equity income of Sumitomo Eaton Nova Corporation	9,065	41	22,212	4,534
Interest income	571	431	1,205	1,485
Interest expense	(1,643)	(1,552)	(5,017)	(4,663)
Other—net	(445)	(267)	(1,091)	(945)
	<u>7,548</u>	<u>(1,347)</u>	<u>17,309</u>	<u>411</u>
Income (loss) before income taxes	20,179	(31,588)	68,791	(48,098)
Income taxes	1,097	354	1,657	69,048
Net income (loss)	<u>\$ 19,082</u>	<u>\$ (31,942)</u>	<u>\$ 67,134</u>	<u>\$ (117,146)</u>

Basic net income (loss) per share	\$	0.19	\$	(0.32)	\$	0.68	\$	(1.19)
Diluted net income (loss) per share		0.19		(0.32)		0.66		(1.19)

Shares used in computing

Basic net income (loss) per share	99,797	98,697	99,432	98,423
Diluted net income (loss) per share	101,007	98,697	101,271	98,423

See accompanying Notes to Consolidated Financial Statements

3

AXCELIS TECHNOLOGIES, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)
(Unaudited)

	September 30, 2004	December 31, 2003
ASSETS		
Current assets		
Cash & cash equivalents	\$ 138,004	\$ 93,249
Restricted cash	3,370	3,800
Short-term investments	23,549	14,972
Accounts receivable, net	110,259	73,751
Inventories	117,619	123,985
Other current assets	20,208	20,102
Total current assets	<u>413,009</u>	<u>329,859</u>
Property, plant & equipment, net	76,163	80,927
Investment in Sumitomo Eaton Nova Corporation	93,628	73,327
Goodwill	46,773	46,774
Intangible assets	18,283	20,119
Restricted cash, long-term portion	2,616	2,616
Other assets	28,470	31,973
	<u>\$ 678,942</u>	<u>\$ 585,595</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	\$ 28,280	\$ 36,335
Accrued compensation	25,499	15,061
Warranty	14,642	17,000
Income taxes	5,919	7,109
Deferred revenue	36,183	14,441
Other current liabilities	8,219	11,925
Total current liabilities	<u>118,742</u>	<u>101,871</u>
Long-term debt	125,000	125,000
Other long-term liabilities	10,505	5,474
Stockholders' equity		
Preferred stock	—	—
Common stock	100	99
Additional paid-in capital	457,177	451,389
Deferred compensation	(527)	(811)
Treasury stock	(1,218)	(1,218)
Retained earnings deficit	(34,373)	(101,507)
Accumulated other comprehensive income	3,536	5,298
	<u>424,695</u>	<u>353,250</u>
	<u>\$ 678,942</u>	<u>\$ 585,595</u>

See accompanying Notes to Consolidated Financial Statements

4

AXCELIS TECHNOLOGIES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

Nine months ended
September 30,
2004 2003

Operating activities				
Net income (loss)	\$	67,134	\$	(117,146)
Adjustments required to reconcile net income (loss) to net cash provided by (used for) operating activities				
Depreciation and amortization		14,998		16,805
Amortization of intangible assets		1,836		1,293
Stock compensation expense, net of forfeitures		196		109
Undistributed income of Sumitomo Eaton Nova Corporation		(22,212)		(4,534)
Deferred income taxes		—		73,685
Changes in operating assets & liabilities				
Accounts receivable		(36,547)		(7,145)
Inventories		6,268		(2,382)
Other current assets		(6,354)		(3,331)
Accounts payable & other current liabilities		(2,399)		1,627
Deferred revenue		26,151		3,593
Income taxes		(1,207)		(5,453)
Other assets and liabilities		(2,927)		(12,824)
Other—net		—		(1,057)
Net cash provided by (used for) operating activities		44,937		(56,760)
Investing activities				
Acquisition of Matrix Integrated Systems, net of cash acquired		—		(14,418)
(Purchase) sale of short-term investments, net		(8,577)		11,077
Proceeds from sale of building		5,958		—
Expenditures for property, plant & equipment		(3,240)		(3,185)
Decrease (increase) in restricted cash		430		(1,754)
Other-net		—		396
Net cash used for investing activities		(5,429)		(7,884)
Financing activities				
Proceeds from the exercise of stock options		1,540		175
Proceeds from employee stock purchase plan		3,376		3,158
Net cash provided by financing activities		4,916		3,333
Effect of exchange rate changes on cash		331		199
Net increase (decrease) in cash & cash equivalents		44,755		(61,112)
Cash & cash equivalents at beginning of period		93,249		146,298
Cash & cash equivalents at end of period	\$	138,004	\$	85,186

See accompanying Notes to Consolidated Financial Statements

AXCELIS TECHNOLOGIES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)
(In thousands, except per share amounts)

Note 1. Nature of Business and Basis of Presentation

Axcelis Technologies, Inc. (“Axcelis” or the “Company”), is a worldwide producer of ion implantation, dry strip, rapid thermal processing and photostabilization equipment used in the fabrication of semiconductors in the United States, Europe and Asia. In addition, the Company provides extensive aftermarket service and support, including spare parts, equipment upgrades, and maintenance services. The Company owns 50% of the equity of a joint venture with Sumitomo Heavy Industries, Ltd. in Japan. This joint venture, which is known as Sumitomo Eaton Nova Corporation, or SEN, licenses technology from the Company relating to the manufacture of ion implantation products and has exclusive rights to manufacture and sell these products to companies in the territory of Japan. SEN is the leading producer of ion implantation equipment in Japan.

The accompanying unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments which are of a normal recurring nature (except for adjustments to record a valuation allowance for deferred tax assets in 2003, to record the reversal of income taxes payable in 2004 (see Note 9), and to reflect a change in estimate relating to unfunded pension liabilities and other benefit claims in 2003 (see Note 10)), considered necessary for a fair presentation have been included. Operating results for the interim periods presented are not necessarily indicative of the results that may be expected for other interim periods or for the year as a whole.

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

The balance sheet at December 31, 2003 has been derived from the audited financial statements at that date but does not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. For further information, refer to the consolidated financial statements and footnotes thereto included in Axcelis Technologies, Inc.’s annual report on Form 10-K for the year ended December 31, 2003.

Note 2. Revenue Recognition

The Company’s revenue recognition policy involves significant judgment by management. As described in detail below, the Company considers a broad array of facts and circumstances in determining when to recognize revenue, including contractual obligations to the customer, the complexity of the customer’s post delivery acceptance provisions, and the installation process. In the future, if the post delivery acceptance provisions and installation process

become more complex or result in a materially lower rate of acceptance than we now experience, the Company may have to revise its revenue recognition policy, which could affect the timing of revenue recognition.

For revenue arrangements prior to July 1, 2003 Axcelis generally recognized the full sale price at the time of shipment to the customer. The costs of system installation at the customer's site were accrued at the time of shipment for installation and acceptance testing performance obligations incurred at the time of sale. The Company recognized the full sales price at the time of shipment as management believes that the customer's post delivery acceptance provisions and installation process were established to be routine, commercially inconsequential and perfunctory because the process was a replication of the pre-shipment procedures. Also, customer payment terms typically provide that the majority of the purchase price is payable upon shipment. Terms do generally contain delayed payment arrangements for a portion of the purchase price, which are typically time-based.

In November 2002, the Financial Accounting Standards Board's Emerging Issues Task Force reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). This issue addresses determination of whether an arrangement involving more than one deliverable contains more than one unit of accounting and how the arrangement consideration should be measured and allocated to the separate units of accounting. EITF 00-21 became effective for revenue arrangements entered into in periods beginning after June 15, 2003. For revenue arrangements occurring on or after July 1, 2003, the Company has revised its revenue recognition policy to comply with the provisions of EITF 00-21.

6

In December 2003, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition." SAB 104 supersedes Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements ("SAB 101"). SAB 104's primary purpose is to rescind accounting guidance contained in SAB 101 related to multiple element revenue arrangements, superseded as a result of the issuance of EITF 00-21. Additionally, SAB 104 rescinds the SEC's Revenue Recognition in Financial Statements Frequently Asked Questions and Answers ("the FAQ") issued with SAB 101 that had been codified in SEC Topic 13, Revenue Recognition. Selected portions of the FAQ have been incorporated into SAB 104. While the wording of SAB 104 has changed to reflect the issuance of EITF 00-21, the revenue recognition principles of SAB 101 remain largely unchanged by the issuance of SAB 104. As a result, the adoption of this pronouncement did not have any impact on the Company's consolidated financial statements.

Axcelis' revenue transactions include sales of systems under multiple element arrangements. Revenue under these arrangements is allocated to each element, except systems, based upon its estimated fair market value. The amount of revenue allocated to systems is calculated on a residual method. Under this method, the total value of the arrangement is allocated first to the undelivered elements, with the residual amount being allocated to systems revenue. The value of the undelivered elements includes (a) the greater of (i) the fair value of the installation or (ii) the portion of the sales price that will not be received until the installation is completed (the "retention") plus (b) the fair value of all other undelivered elements. The amount allocated to installation is based upon hourly rates and the estimated time to complete the service. The fair value of all other undelivered elements is based upon the price charged when these elements are sold separately. System revenue is generally recognized upon shipment provided title and risk of loss has passed to the customer, evidence of an arrangement exists, fees are contractually fixed or determinable, collectibility is reasonably assured through historical collection results and regular credit evaluations, and there are no uncertainties regarding customer acceptance. Revenue from installation services is recognized at the time formal acceptance is received from the customer or, for installation of certain systems to certain customers, at the time of receipt of the retention payment. Revenue for other elements is recognized at the time products are shipped or the related services are performed.

Management continues to believe recognition of systems revenue at the time of shipment is appropriate because the customer's post delivery acceptance provisions and installation process have been established to be routine, commercially inconsequential and perfunctory because the process is a replication of the pre-shipment procedures. The majority of Axcelis' systems are designed and tailored to meet the customer's specifications as outlined in the contract between the customer and Axcelis. To ensure that the customer's specifications are satisfied, per contract terms, many customers request that newer systems are to be tested at Axcelis' facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. Customers for mature products generally do not require pre-shipment testing. Axcelis has never failed to successfully complete a system installation. Should an installation not be successfully completed, the contractual provisions do not provide for forfeiture, refund or other purchase price concession beyond those prescribed by the provisions of the Uniform Commercial Code applicable generally to such transactions.

In the small number of instances where Axcelis is unsure of meeting the customer's specifications or obtaining customer acceptance upon shipment of the system or for initial shipments of systems with new technologies, Axcelis will defer the recognition of systems revenue until written customer acceptance of the system. This deferral period is generally within twelve months of shipment.

Service revenue includes revenue from spare parts, equipment upgrades and maintenance services. Revenue related to maintenance and service contracts is recognized ratably over the duration of the contracts. Revenue related to time and material services is recorded when the services are performed. Revenue related to spare parts sales is recognized upon the later of shipment or when the title and risk of loss passes to the customer.

Note 3. Net Income (Loss) Per Share

Statement of Financial Accounting Standards ("SFAS") No. 128, "Earnings Per Share," requires two presentations of earnings per share, "basic" and "diluted." Basic earnings per share is computed by dividing income available to common stockholders (the numerator) by the weighted-average number of common shares outstanding (the denominator) for the period. The computation of diluted earnings per share includes the number of additional common shares that would have been outstanding if potentially dilutive common shares had been issued. A reconciliation of net income and shares used in computing basic and diluted earnings per share follows:

7

	Three Months Ended September 30, 2004			Nine Months Ended September 30, 2004		
	Income (numerator)	Shares (denominator)	Per Share Amount	Income (numerator)	Shares (denominator)	Per Share Amount
Basic EPS						
Income available to common	\$ 19,082	99,797	\$ 0.19	\$ 67,134	99,432	\$ 0.68

stockholders

Effect of Diliutive Securities

Stock options	—	1,210	—	—	1,839	(0.02)
---------------	---	-------	---	---	-------	--------

Diluted EPS

Income available to common stockholders adjusted for options and conversion of bonds	\$	19,082	101,007	\$	0.19	\$	67,134	101,271	\$	0.66
--	----	--------	---------	----	------	----	--------	---------	----	------

	Three Months Ended September 30, 2003			Nine Months Ended September 30, 2003		
	Loss (numerator)	Shares (denominator)	Per Share Amount	Loss (numerator)	Shares (denominator)	Per Share Amount

Basic EPS

Loss available to common stockholders	\$	(31,942)	98,697	\$	(0.32)	\$	(117,146)	98,423	\$	(1.19)
---------------------------------------	----	----------	--------	----	--------	----	-----------	--------	----	--------

Effect of Diliutive Securities

	—	—	—	—	—	—
--	---	---	---	---	---	---

Diluted EPS

Loss available to common stockholders adjusted for options and conversion of bonds	\$	(31,942)	98,697	\$	(0.32)	\$	(117,146)	98,423	\$	(1.19)
--	----	----------	--------	----	--------	----	-----------	--------	----	--------

The Company has excluded 6,250 of common stock equivalents attributable to conversion of the notes, computed using the if converted method, from the computation of diluted earnings per share for the three and nine months ended September 30, 2004, respectively, because they were not dilutive.

The Company has excluded 7,352 and 6,761 of common stock equivalents attributable to outstanding stock options and restricted stock, computed using the treasury stock method, and conversion of the notes, computed using the if converted method, from the computation of diluted earnings per share for the three and nine months ended September 30, 2003, respectively, because they were not dilutive.

Note 4. Comprehensive Income (Loss)

The components of comprehensive income (loss) follow:

	Three months ended September 30,		Nine months ended September 30,	
	2004	2003	2004	2003
Net income (loss)	\$ 19,082	\$ (31,942)	\$ 67,134	\$ (117,146)
Foreign currency translation adjustments	(420)	5,712	(1,762)	6,911
Comprehensive income (loss)	\$ 18,662	\$ (26,230)	\$ 65,372	\$ (110,235)

Note 5. Inventories

The components of inventories follow:

	September 30, 2004	December 31, 2003
Raw materials	\$ 74,964	\$ 87,629
Work-in-process	33,219	32,292
Finished goods	9,436	4,064
	\$ 117,619	\$ 123,985

Note 6. Restructuring

In 2003 the Company recorded a restructuring charge of \$4.9 million related to severance and other benefits associated with reduction in force actions, which reduced headcount by approximately 200 permanent positions. At September 30, 2004, \$4.8 million had been paid, of which \$0.1 million was paid in the third quarter of 2004 and \$0.8 million was paid during the nine months ended September 30, 2004. The remaining balance of \$0.1 million is expected to be paid by the end of the fourth quarter of 2004.

Note 7. Product Warranty and Installation

The Company offers a one to three year warranty for all of its products, the terms and conditions of which vary depending upon the product sold. Prior to July 1, 2003, the Company estimated the warranty and product installation costs that may be incurred and recorded a liability in the amount of such costs at the time product revenue was recognized. Subsequent to July 1, 2003, in connection with the change in its revenue recognition policy (see Revenue Recognition), the Company no longer accrues the estimated costs of its installation but defers the revenue related to the greater of the fair value of the installation services or the retention amount that is contingent upon the completion of the installation services. Factors that affect the Company's

determination of warranty and installation liability include the number of installed units, historical and anticipated product failure rates, material usage and service labor costs. The Company periodically assesses the adequacy of its recorded warranty liability and adjusts the amount as necessary.

Changes in the Company's product warranty and installation liability are as follows:

	2004	2003
Balance at December 31	\$ 17,000	\$ 16,625
Warranties and installations issued during the period	19,950	15,761
Settlements made during the period	(22,058)	(17,707)
Changes in liability for pre-existing warranties and installation during the period	(250)	2,647
Balance as of September 30	<u>\$ 14,642</u>	<u>\$ 17,326</u>

Note 8. Stock-Based Compensation

As permitted under Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation," as amended by SFAS No. 148, "Accounting for Stock-Based Compensation Transition and Disclosure," Axcelis has elected to follow the provisions of Accounting Principles Board (APB) No. 25, "Accounting for Stock Issued to Employees," to account for stock-based awards to employees. Under APB No. 25, compensation expense with respect to such awards is not recognized, if on the date the awards were granted, the exercise price was not less than the market value of the common shares.

As required by SFAS No. 123 the following pro forma information is presented as if Axcelis had accounted for stock-based awards to its employees granted subsequent to 1995 under the fair value method. The fair values of the options granted and shares purchased under the Employee Stock Purchase Plan have been estimated at the date of grant using the Black-Scholes options valuation model. The Black-Scholes options valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because Axcelis' options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in the opinion of management, the existing models do not necessarily provide a reliable single measure of the fair value of the Company's options.

9

For purposes of the following pro forma information, the estimated fair values of the options are assumed to be amortized to expense over the options' vesting periods.

	Three months ended September 30,		Nine months ended September 30,	
	2004	2003	2004	2003
Net income (loss)	\$19,082	\$(31,942)	\$67,134	\$(117,146)
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(5,880)	(5,686)	(16,652)	(17,220)
Pro forma net income (loss)	<u>\$13,202</u>	<u>\$(37,628)</u>	<u>\$50,482</u>	<u>\$(134,366)</u>
Net income (loss) per share				
Basic — as reported	\$0.19	\$(0.32)	\$0.68	\$(1.19)
Basic — pro forma	0.13	(0.38)	0.51	(1.37)
Diluted — as reported	\$0.19	\$(0.32)	\$0.66	\$(1.19)
Diluted — pro forma	0.13	(0.38)	0.50	(1.37)

Note 9. Income Taxes

The Company has deferred tax assets resulting from tax credit carryforwards, net operating losses and other deductible temporary differences, which are available to reduce taxable income in future periods. The aggregate amount of deferred tax assets before valuation allowance was \$91.6 million at December 31, 2003. SFAS No. 109, "Accounting for Income Taxes," requires that a valuation allowance be established when it is "more likely than not" that all or a portion of deferred tax assets will not be realized. A review of all available positive and negative evidence needs to be considered, including a company's performance, the market environment in which the Company operates, length of carryback and carryforward periods, existing sales backlog and projections of future operating results. Where there are cumulative losses in recent years, SFAS No. 109 creates a strong presumption that a valuation allowance is needed. This presumption can be overcome in very limited circumstances.

As of March 31, 2003 and December 31, 2002, the Company's evaluation of the realization of these assets was based upon evidence of cumulative historical profitability and estimates of future taxable income. The Company was profitable in year 2000 but was not profitable in years 2001 and 2002. Projections of future earnings were based on revenue assumptions consistent with industry forecasts for the next three years along with the necessary operating expenses to support the Company's revenue assumptions. Based on these projections, the Company estimated that the loss carryforwards would be fully utilized. During the second quarter of 2003, the Company entered a three year cumulative loss position and revised its projections of the amount and timing of future earnings. Due to these factors as well as the uncertainty of the amount and timing of profitability in future periods, the Company increased its valuation allowance by \$69.7 million to record a full valuation allowance for all future tax benefits during the second quarter of 2003.

The Company expects to record a full valuation allowance on future tax benefits until it can sustain an appropriate level of profitability and until such time, the Company would not expect to recognize such future tax benefits in its future results of operations. However, going forward, if there is sufficient evidence, in accordance with the provisions of SFAS No. 109, to support the ultimate realization of income tax benefits attributable to net operating losses, tax credit carryforwards and other deductible temporary differences, a reduction in the valuation allowance may be recorded and the carrying value of deferred tax assets may be restored, resulting in a non-cash credit to earnings.

Income tax expense, primarily attributable to foreign operations, for the nine month period ended September 30, 2004 has been reduced by \$4.0 million from the reversal of income tax accruals recorded in prior years related to the underlying tax matters that were resolved in the second quarter of 2004.

Note 10. General and Administrative Expenses

General and administrative expenses for the nine month period ended September 30, 2003 were reduced by \$1.7 million, representing an adjustment in the second quarter of 2003 to reflect a change in estimate relating to an overaccrual for unfunded pension liabilities and other benefit claims recorded in prior periods.

Note 11. Recent Accounting Pronouncements

In December 2003, the Financial Accounting Standards Board (“FASB”) issued Interpretation No. 46R “Consolidation of Variable Interest Entities, an Interpretation of Accounting Research Bulletin No. 51” (FIN 46R). FIN 46R provides a new consolidation model that determines control and consolidation based on potential variability in gains and losses. The provisions of FIN 46R are effective for enterprises with variable interests in variable interest entities created after December 31, 2003. For public companies with variable interest in variable interest entities created before December 31, 2003, the provisions of FIN 46R are to be applied no later than March 31, 2004. The Company has determined that its equity investment in SEN does not constitute a variable interest entity that would require consolidation. Accordingly, FIN 46R did not have any impact on the Company’s consolidated financial statements.

On October 13, 2004, the FASB concluded that Statement 123R, “Share-Based Payment”, which would require all companies to measure compensation cost for all share-based payments (including employee stock options) at fair value, would be effective for public companies (except small business issuer as defined in SEC Regulation S-B) for interim or annual periods beginning after June 15, 2005. Retroactive application of the requirements of Statement of Financial Accounting Standards No. 123, “Accounting for Stock-Based Compensation,” (“Statement 123”), not Statement 123R, to the beginning of the fiscal year that includes the effective date would be permitted, but not required. Note 8 — “Stock-Based Compensation” sets forth the pro forma effect on net income and earnings per share assuming the Company had applied the fair value recognition provisions of Statement 123. The Company expects to adopt Statement 123R effective July, 1 2005.

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

Certain statements in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” are forward-looking statements that involve risks and uncertainties. Words such as may, will, should, would, anticipates, expects, intends, plans, believes, seeks, estimates and similar expressions identify such forward-looking statements. The forward-looking statements contained herein are based on current expectations and entail various risks and uncertainties that could cause actual results to differ materially from those expressed in such forward-looking statements. Factors that might cause such a difference include, among other things, those set forth under “Liquidity and Capital Resources,” “Outlook,” and “Risk Factors” in this MD&A. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management’s analysis only as of the date hereof. The Company assumes no obligation to update these forward-looking statements to reflect actual results or changes in factors or assumptions affecting forward-looking statements.

Overview

We are a worldwide producer of ion implantation, dry strip, rapid thermal processing and photostabilization equipment used in the fabrication of semiconductors. In addition, we provide extensive aftermarket service and support, including spare parts, equipment upgrades, and maintenance services. We own 50% of the equity of a joint venture, known as SEN, with Sumitomo Heavy Industries, Ltd. in Japan. SEN licenses technology from the Company relating to the manufacture of ion implantation products and has exclusive rights to manufacture and sell these products to the territory of Japan. SEN is the leading producer of ion implantation equipment in Japan.

The semiconductor capital equipment industry is subject to significant cyclical swings in capital spending by semiconductor manufacturers. Capital spending is influenced by demand for semiconductors and the products using them, the utilization rate and capacity of existing semiconductor manufacturing facilities and changes in semiconductor technology, all of which are outside of the Company’s control. As a result, the Company’s revenues and gross margins, to the extent affected by increases or decreases in volume, can fluctuate significantly from year to year and period to period. The Company’s expense base is largely fixed and does not vary significantly with changes in volume. Therefore, the Company expects to experience significant fluctuations in operating results and cash flows depending on the level of capital expenditures by semiconductor equipment manufacturers.

Operating results for the interim periods presented are not necessarily indicative of the results that may be expected for other interim periods or for the year as a whole.

Critical Accounting Estimates

Management’s discussion and analysis of our financial condition and results of operations are based upon Axcelis’ consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, the Company evaluates its estimates, including those related to revenue recognition, income taxes, accounts receivable, inventory and warranty obligations. Management bases its estimates on historical experience and on various other assumptions 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 these estimates under different assumptions or conditions.

The Company believes the following accounting policies are critical in the portrayal of our financial condition and results of operations and require management's most significant judgments and estimates in the preparation of our consolidated financial statements.

Revenue Recognition

The Company's revenue recognition policy involves significant judgment by management. As described in detail below, the Company considers a broad array of facts and circumstances in determining when to recognize revenue, including contractual obligations to the customer, the complexity of the customer's post delivery acceptance provisions, and the installation process. In the future, if the post delivery acceptance provisions and installation process become more complex or result in a materially lower rate of acceptance than we now experience, the Company may have to revise its revenue recognition policy, which could affect the timing of revenue recognition.

For revenue arrangements prior to July 1, 2003 Axcelis generally recognized the full sale price at the time of shipment to the customer. The costs of system installation at the customer's site were accrued at the time of shipment for installation and acceptance testing performance obligations incurred at the time of sale. The Company recognized the full sales price at the time of shipment as management believes that the customer's post delivery acceptance provisions and installation process were established to be routine, commercially inconsequential and perfunctory because the process was a replication of the pre-shipment procedures. Also, customer payment terms typically provide that the majority of the purchase price is payable upon shipment. Terms do generally contain delayed payment arrangements for a portion of the purchase price, which are typically time-based.

In November 2002, the Financial Accounting Standards Board's Emerging Issues Task Force reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). This issue addresses determination of whether an arrangement involving more than one deliverable contains more than one unit of accounting and how the arrangement consideration should be measured and allocated to the separate units of accounting. EITF 00-21 became effective for revenue arrangements entered into in periods beginning after June 15, 2003. For revenue arrangements occurring on or after July 1, 2003, the Company has revised its revenue recognition policy to comply with the provisions of EITF 00-21.

In December 2003, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition." SAB 104 supersedes Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements ("SAB 101"). SAB 104's primary purpose is to rescind accounting guidance contained in SAB 101 related to multiple element revenue arrangements, superseded as a result of the issuance of EITF 00-21. Additionally, SAB 104 rescinds the SEC's Revenue Recognition in Financial Statements Frequently Asked Questions and Answers ("the FAQ") issued with SAB 101 that had been codified in SEC Topic 13, Revenue Recognition. Selected portions of the FAQ have been incorporated into SAB 104. While the wording of SAB 104 has changed to reflect the issuance of EITF 00-21, the revenue recognition principles of SAB 101 remain largely unchanged by the issuance of SAB 104. As a result, the adoption of this pronouncement did not have any impact on the Company's consolidated financial statements.

Axcelis' revenue transactions include sales of systems under multiple element arrangements. Revenue under these arrangements is allocated to each element, except systems, based upon its estimated fair market value. The amount of revenue allocated to systems is calculated on a residual method. Under this method, the total value of the arrangement is allocated first to the undelivered elements, with the residual amount being allocated to systems revenue. The value of the undelivered elements includes (a) the greater of (i) the fair value of the installation or (ii) the portion of the sales price that will not be received until the installation is completed (the "retention") plus (b) the fair value of all other undelivered elements. The amount allocated to installation is based upon hourly rates and the estimated time to complete the service. The fair value of all other undelivered elements is based upon the price charged when these elements are sold separately. System revenue is generally recognized upon shipment provided title and risk of loss has passed to the customer, evidence of an arrangement exists, fees are contractually fixed or determinable, collectibility is reasonably assured through historical collection results and regular credit evaluations, and there are no uncertainties regarding customer acceptance. Revenue from installation services is recognized at the time formal acceptance is received from the customer or, for installation of certain systems to certain customers, at the time of receipt of the retention payment. Revenue for other elements is recognized at the time products are shipped or the related services are performed.

Management continues to believe recognition of systems revenue at the time of shipment is appropriate because the customer's post delivery acceptance provisions and installation process have been established to be routine, commercially inconsequential and perfunctory because the process is a replication of the pre-shipment procedures. The majority of Axcelis' systems are designed and tailored to meet the customer's specifications as outlined in the contract between the customer and Axcelis. To ensure that the customer's specifications are satisfied, per contract terms, many customers request that newer systems are to be tested at Axcelis' facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. Customers for mature products generally do not require pre-shipment testing. Axcelis has never failed to successfully complete a system installation. Should an installation not be successfully completed, the contractual provisions do not provide for forfeiture, refund or other purchase price concession beyond those prescribed by the provisions of the Uniform Commercial Code applicable generally to such transactions.

In the small number of instances where Axcelis is unsure of meeting the customer's specifications or obtaining customer acceptance upon shipment of the system or for initial shipments of systems with new technologies, Axcelis will defer the recognition of systems revenue until obtaining written customer acceptance of the system. This deferral period is generally within twelve months of shipment.

Service revenue includes revenue from spare parts, equipment upgrades and maintenance services. Revenue related to maintenance and service contracts is recognized ratably over the duration of the contracts. Revenue related to time and material services is recorded when the services are performed. Revenue related to spare parts sales is recognized upon the later of shipment or when the title and risk of loss passes to the customer.

Deferred Tax Assets

The Company has deferred tax assets resulting from tax credit carryforwards, net operating losses and other deductible temporary differences, which are available to reduce taxable income in future periods. The aggregate amount of deferred tax assets before valuation allowance was \$91.6 million at December 31, 2003. SFAS No. 109 "Accounting for Income Taxes" requires that a valuation allowance be established when it is "more likely than not" that all or a portion of deferred tax assets will not be realized. A review of all available positive and negative evidence needs to be considered, including a company's performance, the market environment in which the Company operates, length of carryback and carryforward periods, existing sales backlog and projections of future operating results. Where there are cumulative losses in recent years, SFAS No. 109 creates a strong presumption that a valuation allowance is needed. This presumption can be overcome in very limited circumstances.

As of March 31, 2003 and December 31, 2002, the Company's evaluation of the realization of these assets was based upon evidence of cumulative historical profitability and estimates of future taxable income. The Company was profitable in year 2000 but was not profitable in years 2001 and 2002. Projections of future earnings were based on revenue assumptions consistent with industry forecasts for the next three years along with the necessary operating expenses to support the Company's revenue assumptions. Based on these projections, the Company estimated that the loss carryforwards would be fully utilized within three years. During the second quarter of 2003, the Company entered a three year cumulative loss position and revised its projections of the amount and timing of future earnings. Due to these factors as well as the uncertainty of the amount and timing of profitability in future periods, the Company increased its valuation allowance by \$69.7 million to record a full valuation allowance for all future tax benefits during the second quarter of 2003.

The Company expects to record a full valuation allowance on future tax benefits until it can sustain an appropriate level of profitability and until such time, the Company would not expect to recognize any significant tax benefits in its future results of operations. However, going forward, if there is sufficient evidence, in accordance with the provisions of SFAS No. 109, to support the ultimate realization of income tax benefits attributable to net operating losses, tax credit carryforwards and other deductible temporary differences, a reduction in the valuation allowance may be recorded and the carrying value of deferred tax assets may be restored, resulting in a non-cash credit to earnings.

Goodwill and Other Intangible Assets

We account for acquisitions under the purchase method of accounting pursuant to Statement of Financial Accounting Standard (SFAS) No. 141, "Business Combinations." Goodwill represents the excess of cost over net assets,

including all identifiable intangible assets, of acquired businesses that are consolidated. Pursuant to SFAS No. 142, "Goodwill and Other Intangible Assets," goodwill is not amortized. Other intangible assets that are separable from goodwill and have determinable useful lives are valued separately and amortized over their useful lives. Such other identifiable intangible assets consist mainly of developed technology and customer related intangibles and are generally amortized over periods ranging from five to ten years. We have determined that all of our other intangible assets have finite lives.

The Company performs an annual impairment review of goodwill. Impairment reviews may be performed more frequently if there are other indicators of impairment. The annual impairment test consists of determining the fair market value of the business unit through a discounted cash flow analysis. Management's best judgments are employed in determining future market conditions that impact this discounted cash flow analysis. As a result of our annual review conducted as of December 31, 2003, we determined that there was no impairment of our goodwill. If we determine through the impairment review process that goodwill has been impaired, we would record the impairment charge in our statement of operations as a non-cash charge to earnings.

We assess the impairment of intangible assets, other than goodwill, whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important that could trigger an impairment review include the following:

- a significant underperformance relative to expected operating results;
- a significant change in the manner of our use of the acquired asset or the strategy for our overall business;
- a significant negative industry or economic trend; and
- our market capitalization relative to net book value.

As part of this assessment, we review the expected future undiscounted cash flows to be generated by the assets. When we determine that the carrying value of intangibles may not be recoverable, we measure any impairment based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model.

Accounts Receivable—Allowance for Doubtful Accounts

Axcelis records an allowance for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. If the financial condition of Axcelis' customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be necessary.

Inventory—Allowance for Excess and Obsolescence

Axcelis records an allowance for estimated excess and obsolete inventory. The allowance is determined using management's assumptions of future materials usage, based on estimates of future demand and market conditions. If actual market conditions become less favorable than those projected by management, additional inventory write-downs may be required.

Product Warranty and Installation Costs

The Company offers a one to three year warranty for all of its products, the terms and conditions of which vary depending upon the product sold. Prior to July 1, 2003, the Company estimated the costs that may be incurred under its standard warranty and product installation obligation and recorded a liability in the amount of such costs at the time product revenue was recognized. Subsequent to July 1, 2003, in connection with the change in its revenue recognition policy (see Revenue Recognition), the Company no longer accrues the estimated costs of its installation but defers the revenue related to the greater of the fair value of the installation services or the retention amount that is contingent upon the completion of the installation services. Factors that affect the Company's warranty and installation liability include the number of installed units, historical and anticipated product failure rates, material usage and service labor costs. The Company periodically assesses the adequacy of its recorded warranty liability and adjusts the amount as necessary.

The following table sets forth our results of operations as a percentage of net sales for the periods indicated:

	Three months ended September 30,		Nine months ended September 30,	
	2004	2003	2004	2003
Revenue				
Systems	62.1%	47.6%	67.2%	58.7%
Services	35.0	51.9	30.3	39.9
Royalties	2.9	0.5	2.5	1.4
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Gross profit	42.3	23.9	41.8	31.3
Other costs and expenses				
Research & development	13.0	27.5	11.6	21.1
Selling	9.6	20.2	8.9	15.5
General & administrative	9.3	18.3	8.4	13.2
Amortization of intangible assets	0.5	1.0	0.4	0.6
Restructuring	—	8.0	—	2.1
Income (loss) from operations	9.9	(51.0)	12.5	(21.1)
Other income (expense)				
Equity income of Sumitomo Eaton Nova Corporation	7.1	0.1	5.4	2.0
Interest income	0.5	0.7	0.3	0.7
Interest expense	(1.3)	(2.6)	(1.2)	(2.0)
Other-net	(0.4)	(0.5)	(0.3)	(0.4)
Income (loss) before income taxes	15.8	(53.3)	16.6	(21.0)
Income taxes	0.9	0.6	0.4	30.1
Net income (loss)	<u>14.9%</u>	<u>(53.9%)</u>	<u>16.2%</u>	<u>(51.1%)</u>

Revenue

Revenue from systems was \$79.4 million, or 62.1% of revenue for the third quarter of 2004 versus revenue from systems of \$28.2 million, or 47.6% of revenue for the third quarter of 2003. Revenue from systems was \$278.0 million, or 67.2% of revenue for the nine months ended September 30, 2004 versus revenue from systems \$134.7 million, or 58.7% of revenue for the nine months ended September 30, 2003. The increase in sales of systems compared with 2003 was primarily attributable to strong market demand resulting from high levels of chip production by our semiconductor manufacturing customers.

On a product basis, approximately 64.8% of revenue from systems for the third quarter of 2004 was from the sale of 200mm products and 35.2% was from the sale of 300mm products compared with 78.9% and 21.1%, respectively, for the third quarter of 2003. For the nine months ended September 30, 2004 approximately 63.4% of systems revenue was from 200mm products and 36.6% was from 300mm products compared with 70.7% and 29.3%, respectively, for the nine months ended September 30, 2003. Sales of 200mm products were strong during the nine months ended September 30, 2004 due to the expansion of existing 200 mm production capacity which has outpaced the investment in new 300 mm fabrication facilities.

Service revenue, which includes spare parts, equipment upgrades and maintenance services, was \$44.8 million, or 35.0% of revenue for the third quarter of 2004, compared with \$30.8 million, or 51.9% of revenue, for the third quarter of 2003. Service revenue was \$125.1 million, or 30.3% of revenue for the nine months ended September 30, 2004, compared with \$91.4 million, or 39.9% of revenue for the nine months ended September 30, 2003. The increase in service revenue in 2004 as compared with 2003 was a result of increased capacity utilization by our customers which has a direct effect on demand for spare parts.

Royalties were \$3.7 million, or 2.9% of revenue, for the third quarter of 2004, compared with \$0.3 million, or 0.5% of revenue, in the third quarter of 2003. Royalties for the nine months ended September 30, 2004 were \$10.4 million, or 2.5% of revenue, compared with \$3.3 million, or 1.4% of revenue, for the nine months ended September 30, 2003.

Royalties increased by \$3.4 million in the third quarter of 2004 compared with the third quarter of 2003 and by \$7.1 million in the first nine months of 2004 due to higher SEN sales volume reflecting growth in demand for equipment by Japanese semiconductor manufacturers.

Revenue from sales of ion implantation products and services for the third quarter accounted for \$98.1 million, or 76.7%, of total revenue in the third quarter of 2004, compared with \$46.9 million, or 79.1%, of total revenue in the third quarter of 2003. Revenue from sales of ion implantation products and services for the nine months ended September 30, 2004 accounted for \$334.3 million, or 80.9% of total revenue, compared with \$173.6 million, or 75.7%, of total revenue for the nine months ended September 30, 2003. The higher proportion of total revenue from the sale of ion implantation products and services in 2004 is primarily a result of capacity expansion by semiconductor manufacturers whereby capital spending for ion implantation products has outpaced increases in total wafer fabrication equipment spending.

Worldwide revenues for the third quarter and nine months ended September 30, 2004, including revenues of the Company's 50% owned joint venture in Japan, Sumitomo Eaton Nova Corporation ("SEN"), were \$219 million and \$653.2 million, respectively. Worldwide revenues for the third quarter and nine months ended September 30, 2004 increased \$140.2 million and \$322 over the comparable periods in 2003 due to the growth in demand for equipment by semiconductor manufacturers discussed above. Axcelis believes that the information regarding the aggregate quarterly revenues of SEN, a 50% owned unconsolidated subsidiary of Axcelis, combined with Axcelis' own revenues for the quarter, is useful to investors. SEN's ion implant products are covered by a license from Axcelis and therefore the combined revenue of the two companies indicates the full market penetration of Axcelis' technology.

Gross Profit

Gross profit was 42.3% of revenue in the third quarter of 2004 compared with gross profit of 23.9% of revenue in the third quarter of 2003. Increased sales volume and the related increased absorption of fixed manufacturing costs (approximately 8%), reduced system warranty costs (approximately 8%), and improved pricing due to favorable market conditions which have provided increased demand and an expanded customer base (approximately 1%), were the primary drivers of the 18.4 percentage point increase in gross profit in the third quarter.

Gross profit was 41.8% of revenue for the nine months ended September 30, 2004 compared with gross profit of 31.3% of revenue for the nine months ended September 30, 2003. Increased sales volume and the related increased absorption of fixed manufacturing costs (approximately 5%), reduced system warranty costs (approximately 4%), and improved pricing (approximately 2%) due to favorable market conditions which have provided increased demand and an expanded customer base, were the primary drivers of the 10.5 percentage point increase in gross profit in the nine months ended September 30, 2004.

Research and Development

Research and development expense was \$16.6 million in the third quarter of 2004, an increase of \$0.4 million, or 2.3%, compared with \$16.3 million in the third quarter of 2003 primarily due to increased variable compensation and higher project material and consulting fees which were both offset in part by lower salary expense due to an approximate 17.4% reduction in headcount resulting from the Company's September 2003 restructuring. Research and development expense was \$48.0 million for the nine months ended September 30, 2004, a decrease of \$0.4 million, or 0.8%, compared with \$48.4 million for the nine months ended September 30, 2003 due primarily to lower salary expense associated with headcount reductions and lower R&D utilized demo tool amortization offset in part by increased variable compensation and expenses associated with the timing of projects.

Selling

Despite significant increases in the volume of business in 2004 compared to 2003, selling expenses have remained relatively stable period to period. Selling expense was \$12.2 million in the third quarter of 2004, an increase of \$0.2 million, or 2.2%, compared with \$12.0 million in the third quarter of 2003 primarily due to increased customer and evaluation tool support costs. Selling expense was \$36.7 million for the nine months ended September 30, 2004, an increase of \$1.1 million, or 3.1%, compared with \$35.6 million for the nine months ended September 30, 2003 primarily due to increased customer and evaluation tool support costs, and commission expense offset in part by a lower salary expense due to an approximate 10% reduction in headcount resulting from the Company's September 2003 restructuring.

General and Administrative

Despite significant increases in the volume of business in 2004 compared to 2003, general and administrative expenses have remained relatively stable period to period. General and administrative expense was \$11.9 million in the third quarter of 2004, an increase of \$1.1 million, or 10.2%, compared with \$10.8 million in the third quarter of 2003. General and administrative expense was \$34.6 million for the nine months ended September 30, 2004, an increase of \$4.2 million, or 14.0%, compared with \$30.4 million for the nine months ended September 30, 2003. General and administrative expense increased in the third quarter and nine months ended September 30, 2004 primarily due to increased variable compensation.

The nine months ended September 30, 2003 also includes a \$1.7 million write down reflecting a change in estimate relating to both an unfunded pension expense and other benefit claims reported in prior periods.

Amortization of Intangible Assets

Amortization of intangible assets was \$0.6 million in the third quarter of 2004 and the third quarter of 2003. Amortization of intangible assets was \$1.8 million for the nine months ended September 30, 2004, an increase of \$0.5 million, or 42%, from \$1.3 million for the nine months ended September 30, 2003. The increase in amortization is due primarily to the incremental amortization of intangible assets arising from the July 2003 acquisition of Matrix Integrated Systems, Inc.

Other Income (Expense)

Total other income was \$7.5 million for the third quarter of 2004, an increase of \$8.9 million compared with \$1.3 million net expense for the third quarter of 2003. Total other income was \$17.3 million for the nine months ended September 30, 2004, an increase of \$16.9 million compared with \$0.4 million for the nine months ended September 30, 2003. Other income consists primarily of equity income from SEN, which increased by \$9.0 million and \$17.7 million, respectively, for the three and nine months ended September 30, 2004, compared with the same periods in 2003, due to higher SEN sales volume and profitability.

Income Taxes

Income tax expense for the nine month period ended September 30, 2004 includes a \$4.0 million reversal of income tax accruals recorded in prior years related to the underlying tax matters that were resolved and recorded in the second quarter of 2004. In 2004 the income tax provision is set at an estimated annual effective rate of 8.2%. Income tax expense relates principally to operating results of foreign entities in jurisdictions where the Company is taxable. Income tax expense attributable to U.S. operations is minimal because taxable income derived from the current year operating results is substantially offset by available net operating loss carryforwards.

The Company recorded income tax expense of \$1.1 million and \$0.4 million for the three months ended September 30, 2004 and 2003 respectively. The Company recorded income tax expense of \$1.7 million and \$69.0 million for the nine months ended September 30, 2004 and 2003 respectively. Income taxes in 2003 consisted primarily of a valuation allowance of \$69.7 million recorded at June 30, 2003 to reduce the carrying value of deferred tax assets to zero.

Liquidity and Capital Resources

Cash, cash equivalents (including restricted cash) and short-term investments at September 30, 2004 were \$167.5 million compared with \$114.6 million at December 31, 2003. The \$52.9 million increase in cash, cash equivalents and short-term investments is mainly attributable to \$44.9 million in cash generated by operations, \$6.0 million in net proceeds from the sale of a building located in Beverly, Massachusetts in January 2004, \$4.9 million in proceeds from the exercise of stock options and stock purchases under the Employee Stock Purchase Plan offset by \$3.2 million in capital expenditures.

Net working capital was \$294.3 million at September 30, 2004 compared with \$228.0 million at December 31, 2003. The \$66.3 million increase in net working capital is attributable principally to the Company's higher levels of profitable operations.

Capital expenditures were \$3.2 million for the nine months ended September 30, 2004 and 2003. The Company has no significant capital projects planned for 2004 and total capital expenditures are projected to be less than \$7.0 million for the year. Future capital expenditures beyond 2004 will depend on a number of factors, including the timing and rate of the expansion of our business.

Expenditures for demo tools, used in-house for research and development and training, and evaluation tools, which are located at customers' sites and are being evaluated for potential purchase, were approximately \$15.9 million and \$18.1 million for the first nine months of 2004 and 2003, respectively. Demo and evaluation tools are included in amounts reported as other assets.

The Company has no off-balance sheet arrangements.

In October 2003 the Company renegotiated its \$50 million revolving credit facility to extend the maturity to October

2006. The purpose of the facility is to provide funds for working capital and general corporate purposes as required. To the extent that the Company has borrowings under the agreement, those borrowings would bear interest at the bank's base rate, as defined in the agreement, or LIBOR plus an applicable percentage. The Company currently has no plans to borrow against the facility but may use the facility to support letters of credit in the future. The credit facility is secured by substantially all of the Company's assets (excluding the Company's investment in Sumitomo Eaton Nova Corporation) and contains certain financial and other restrictive covenants including minimum levels of tangible net worth, liquidity, profitability and indebtedness as well as maximum levels of capital spending. At September 30, 2004, the Company was in compliance with all covenants.

Axcelis' liquidity is affected by many factors. Some of these factors are based on normal operations of the business and others relate to the uncertainties of global economies and the semiconductor equipment industry. See "Outlook" and "Risk Factors" below. Although our cash requirements fluctuate based on the timing and extent of these factors, we believe that our existing cash and cash equivalents will be sufficient to satisfy our anticipated cash requirements for at least the next twelve months.

The Company has standby letters of credit of approximately \$3.4 million to support certain operating lease obligations, workers' compensation insurance, and certain value added tax claims in Europe. In addition, the Company has guarantees and surety bonds of approximately \$9.1 million related to value added tax refunds in Europe. Of these standby letters of credit, guarantees and surety bonds, \$6.0 million is cash collateralized at September 30, 2004. This is reflected as restricted cash on the balance sheet.

Outlook

The Company's performance is directly related to semiconductor manufacturers' increasing levels of capital expenditures to open new fabrication facilities and expand existing ones, as well as operational improvements implemented by the Company in recent quarters. The level of capital expenditures by these manufacturers depends upon the current and anticipated market demand for semiconductors and the products utilizing them, the available manufacturing capacity in manufacturers' fabrication facilities, and the ability of manufacturers to increase productivity in existing facilities without incurring additional capital expenditures.

During September 2004 the Company started to see a slowdown in capital spending by semiconductor manufacturers and pushouts of anticipated shipments to customers and customer orders to at least the first half of 2005. Revenue in the third quarter of 2004 was lower than the Company's expectation at the beginning of the quarter and decreased 15.4% sequentially. The Company, based on ongoing discussions with its customers of their future plans and requirements, is currently forecasting that revenues will continue to decrease in the fourth quarter of 2004.

On November 3, 2004, the Company announced its expectation that its revenues for the fourth quarter of 2004 will be in the range of \$95 million to \$105 million. Gross margins will be in the low 40% range. Net income is expected to be \$5 million to \$9 million, the equivalent of \$0.05 to \$0.09 per diluted share. The Company also expects to generate approximately \$10 million of cash during the fourth quarter. However, it is difficult for us to predict our customers' capital spending plans, which can change very quickly. In addition, at our current sales level, each sale, or failure to make a sale, could have a material effect on us in a particular quarter.

Risk Factors

Some of the matters discussed in this filing contain forward-looking statements regarding future events that are subject to risks and uncertainties. The following important factors, among others, could cause actual results to differ materially from those described by such statements. These factors include, but are not limited to: the cyclical nature of the semiconductor industry, our ability to keep pace with rapid technological changes in semiconductor manufacturing processes, the highly competitive nature of the semiconductor equipment industry, quarterly fluctuations in operating results attributable to the timing and amount of orders for our products and services, dependence on SEN (our Japanese joint venture) for access to the Japanese semiconductor equipment market, and those risk factors contained in the section titled "Outlook" and Exhibit 99.1 of this Form 10-Q, which is incorporated herein by reference. If any of those risk factors actually occurs, our business, financial condition and results of operations could be seriously harmed and the trading price of our common stock could decline.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

A discussion of market risk exposures is included in Exhibit 99.1 filed herewith. There has been no material change in the information provided as of the end of 2003.

Item 4. Controls and Procedures

- (a) **Evaluation of Disclosure Controls and Procedures.** Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this quarterly report. Based on this evaluation, our principal executive officer and principal financial officer concluded that these disclosure controls and procedures are effective and designed to ensure that the information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the requisite time periods.
- (b) **Changes in Internal Controls.** Except as set forth below, there was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) that was implemented during our third quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

In connection with its audit of the Company's consolidated financial statements for the year ended December 31, 2003, Ernst & Young LLP ("Ernst & Young"), the Company's independent accountants, advised the Audit Committee and management of reportable conditions with respect to revenue recognition transactions. Specifically, the reportable conditions related to the Company's processes over evaluation of revenue recognition criteria in accordance with SAB 104, identification and accounting for multiple deliverables and the timing of revenue recognition of certain elements in revenue transactions. While the reportable conditions were addressed by the Company during the first half of 2004, and additional improvements were made in the third quarter, the Company intends to further improve its revenue recognition control processes in these areas during the fourth quarter.

PART II. OTHER INFORMATION**ITEM 1. LEGAL PROCEEDINGS**

The Company is not a party to any material pending legal proceedings.

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 VOTE OF SECURITY HOLDERS

None

ITEM 5. OTHER INFORMATION

The following information is not required disclosure under Form 8-K but is additional information provided for investors:

The Company's independent auditor, Ernst & Young LLP ("E&Y"), has recently advised the Securities and Exchange Commission, the Public Company Accounting Oversight Board, and the Audit Committee of Axcelis' Board of Directors that certain non-audit work performed by E&Y's China and Taiwan affiliates has raised questions regarding E&Y's independence with respect to its performance of audit services. The non-audit work at issue occurred from 2001 to 2003, in connection with the performance of tax services for the benefit of the Company's expatriate employees in China and Taiwan. Specifically, during this period E&Y's affiliates held Axcelis tax funds totaling approximately \$38,000, for the purpose of subsequent payment to the applicable taxing authorities on behalf of the Company's expatriate employees and in certain instances (of which the Company was unaware until being informed by E&Y) such funds of approximately \$4,000 were held by E&Y and not remitted to the taxing authority until August 2004. Such services were discontinued in 2003. Axcelis paid approximately \$6,000 in fees to E&Y's affiliates over the three-year period in question for the tax return preparation services.

The Company's Audit Committee and E&Y have discussed E&Y's independence with respect to Axcelis in light of the foregoing facts. E&Y has informed the Audit Committee that it does not believe that the holding and paying of these funds impaired E&Y's independence with respect to Axcelis. Given the facts, the Company's Audit Committee has concluded that it concurs with E&Y's assessment regarding its independence. The Company is unaware, and E&Y has informed the Audit Committee that it is unaware, of any similar instance in which E&Y has held custody of Axcelis funds in a manner raising questions regarding E&Y's independence. E&Y has informed the Company that it has adopted procedures aimed at preventing similar occurrences in the future. The Company has also adopted procedures directed at preventing a reoccurrence.

ITEM 6. EXHIBITS

Exhibits are numbered in accordance with the Exhibit Table of Item 601 of Regulation S-K:

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of the Company. Incorporated by reference from Exhibit 3.1 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
3.2	Bylaws of the Company, as amended as of January 23, 2002. Incorporated by reference from Exhibit 3.2 of the Company's Form 10-K for the year ended December 31, 2001, filed with the Commission on March 12, 2002.
3.3	Certificate of Designation of Series A Participating Preferred Stock, filed with the Secretary of State of Delaware on July 5, 2000. Incorporated by reference from Exhibit 3.3 of the Company's Form 10-K for the year ended December 31, 2000, filed with the Commission on March 30, 2001.
4.1	Indenture between the Company and State Street Bank and Trust Company, as Trustee, including the form of note, dated as of January 15, 2002. Incorporated by reference from Exhibit 4.1 to the Company's Report on Form 8-K filed with the Commission on January 15, 2002.
4.5	Revolving Credit Agreement dated as of October 3, 2003 among the Company, ABN Amro Bank N.V. and the other lenders named therein, as amended by the First Amendment to Revolving Credit Agreement, dated as of May 3, 2004. Pursuant to Regulation S-K, Item 601(b)(4) (iii), this exhibit has not been filed, since the total amount of the facility does not exceed 10% of the Company's total assets at this time. The Company will furnish a copy of the Credit Agreement to the Commission on request.
10.1	Form of Employee non-qualified stock option grant under the 2000 Stock Plan, updated as of April 5, 2002. Filed herewith.
10.2	Form of Non-Employee Director stock non-qualified stock option grant under the 2000 Stock Plan, updated as of July 12, 2004. Filed herewith.
31.1	Certification of the Chief Executive Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated November 9, 2004. Filed herewith.
31.2	Certification of the Chief Financial Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated November 9, 2004. Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated November 9, 2004. Filed herewith.
32.2	Certification of the Chief Financial Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated November 9, 2004. Filed herewith.
99.1	Factors Affecting Future Operating Results as of September 30, 2004. Filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

AXCELIS TECHNOLOGIES, INC.

/s/ Stephen G. Bassett

DATED: November 9, 2004

By: Stephen G. Bassett, Senior Vice President
and Chief Financial Officer
Duly authorized officer and Principal financial officer

2000 NSO- _____

Shares _____

AXCELIS TECHNOLOGIES, INC.
2000 Stock Plan
Non-Qualified Stock Option Certificate

Axcelis Technologies, Inc. (the "Company"), a Delaware corporation, hereby grants to the person named below an option to purchase shares of Common Stock, \$0.001 par value, of the Company (the "Option") under and subject to the Company's 2000 Stock Plan (the "Plan") exercisable on the following terms and conditions and those set forth on the reverse side of this certificate:

Name of Optionholder: _____
Address: _____

Social Security No. _____

Number of Shares: _____

Option Price: \$ _____

Date of Grant: _____, 20__

Exercisability

Schedule: Subject to Section 8 on the reverse side:
after ____, 20__, as to __% of the Number of Shares above,
after ____, 20__, as to an additional __% of the Number of Shares above,
after ____, 20__, as to an additional __% of the Number of Shares above, and
after ____, 20__, as to an additional __% of the Number of Shares above.

The exercisability of this Option shall not accelerate upon a Change in Control (as defined in the Plan), except as may be provided in a Change in Control Agreement between the Company and the optionholder.

Expiration Date: ____, 20__ (10th anniversary of the date of grant)

This Option shall not be treated as an Incentive Stock Option under section 422 of the Internal Revenue Code of 1986, as amended (the "Code").

By acceptance of this Option, the Optionholder agrees to the terms and conditions hereof.

AXCELIS TECHNOLOGIES, INC.

ACCEPTED:

By: _____
Title: _____

Name: _____

AXCELIS TECHNOLOGIES, INC. 2000 STOCK PLAN

Non-Qualified Stock Option Terms And Conditions

1. **Plan Incorporated by Reference.** This Option is issued pursuant to the terms of the Plan and may be amended as provided in the Plan. Capitalized terms used and not otherwise defined in this certificate have the meanings given to them in the Plan. This certificate does not set forth all of the terms and conditions of the Plan, which are incorporated herein by reference. The Board administers the Plan and its determinations regarding the operation of the Plan are final and binding. Copies of the Plan may be obtained upon written request without charge from the Human Resources Department of the Company.

2. **Option Price.** The price to be paid for each share of Common Stock issued upon exercise of the whole or any part of this Option is the Option Price set forth on the face of this certificate.

3. **Exercisability Schedule.** This Option may be exercised at any time and from time to time up to the number of shares and in accordance with the Exercisability schedule set forth on the face of this certificate, but only for the purchase of whole shares. This Option may not be exercised as to any shares after the Expiration Date.

4. **Method of Exercise.** To exercise this Option, the Optionholder shall deliver written notice to the Chief Financial Officer of the Company specifying the number of shares with respect to which the Option is being exercised accompanied by payment of the Option Price for such shares in cash; provided, however, that the Board may (but shall not be required to) permit payment to be made by delivery to the Company of either (a) shares of Common Stock held by the Optionholder for at least six months or (b) any combination of cash and Common Stock or (c) such other consideration as the Board deems

appropriate and in compliance with applicable law. In the event that any shares of Common Stock shall be accepted as payment of all or any part of the Option Price, such shares shall be valued at their Fair Market Value, as defined in the Plan.

5. Rights as a Stockholder or Employee. The Optionholder shall not have any rights in respect of shares to which the Option shall not have been exercised and payment made as provided above. The Optionholder shall not have any rights to continued employment by the Company by virtue of the grant of this Option.

6. Recapitalization, Mergers, Etc. As provided in the Plan, in the event of corporate transactions affecting the Company's outstanding Common Stock, the Board shall equitably adjust the number and kind of shares subject to this Option and the exercise price hereunder. If such transaction involves a Merger of the Company (as defined in the Plan), and the Company is not the surviving entity, then either (A) the Acquiring Corporation will assume this option or provide a substitute option or (B) prior to the Merger, the Board shall provide that any unexercisable portion of this option shall be immediately exercisable and vested as of a date prior to such Merger with unexercised options terminating upon consummation of the Merger.

7. Option Not Transferable. This Option is not transferable by the Optionholder otherwise than by will or the laws of descent and distribution or to the extent permitted by rules or regulations under Section 16(b) under the Exchange Act and the Board. Subject to the foregoing, this Option is exercisable, during the Optionholder's lifetime, only by the Optionholder. The Optionholder's Beneficiary may exercise the Optionholder's rights to the extent they are exercisable hereunder following the death of the Optionholder.

8. Exercise of Option After Termination of Employment. In the event of the Optionholder's voluntary or involuntary Termination of Employment (as defined in the Plan) for any reason other than death, Disability or Retirement, the right of the Optionholder to exercise this Option shall terminate on the 90th day following the date of such Termination of Employment unless the Termination of Employment is for cause, as determined in the reasonable discretion of the Board and unless the option is terminated in accordance with Section 6. The post termination exercise period may be extended by the Board. In the event of the Optionholder's Termination of Employment by reason of death, Disability or Retirement, the right of the Optionholder to exercise this Option (to the extent exercisable as of the Termination of Employment) shall terminate upon the earlier of (A) the first anniversary of the date of such Termination of Employment and (B) the Expiration Date, unless the option is terminated in accordance with Section 6.

9. Compliance with Securities Laws. It shall be a condition to the Optionholder's right to purchase shares of Common Stock hereunder that the Company may, in its discretion, require (a) that the shares of Common Stock reserved for issue upon the exercise of this Option shall have been duly listed, upon official notice of issuance, upon any national securities exchange or automated quotation system on which the Company's Common Stock may then be listed or quoted, (b) that either (i) a registration statement under the Securities Act of 1933 with respect to the shares shall be in effect, or (ii) in the opinion of counsel for the Company, the proposed purchase shall be exempt from registration under that Act and the Optionholder shall have made such undertakings and agreements with the Company as the Company may reasonably require, and (c) that such other steps, if any, as counsel for the Company shall consider necessary to comply with any law applicable to the issue of such shares by the Company shall have been taken by the Company or the Optionholder, or both. The certificates representing the shares purchased under this Option may contain such legends as counsel for the Company shall consider necessary to comply with any applicable law.

10. Payment of Taxes. The Company shall be entitled, if the Board deems it necessary or desirable, to withhold (or secure payment from the Optionholder in lieu of withholding) the amount of any withholding or other tax required by law to be withheld or paid by the Company with respect to any amount payable and/or shares issuable under this Option, and the Company may defer payment of cash or issuance of shares upon exercise of this Option unless indemnified to its satisfaction against any liability for any such tax. The amount of such withholding or tax payment shall be determined by the Board and shall be payable by the Optionholder in cash at such time as the Board determines; *provided, however*, that with the approval of the Board, the Optionholder may elect to meet his or her withholding requirement, in whole or in part, by having withheld from this Option upon exercise that number of shares of Common Stock, rounded up to the next whole share, the Fair Market Value of which is equal to the amount of withholding taxes due.

11. Cancellation of Option for Breach of Contract; Repayment Obligation. (a) The Board may cancel this Option at any time the Optionholder is not in compliance with any agreement between the Company and the Optionholder or any other legal obligation of the Optionholder relating to non-competition, confidentiality or proprietary interests, or if the Optionholder voluntarily leaves employment of the Company or a subsidiary and within one year of such termination of employment enters into an activity as employee, agent, officer, director or proprietor which, in the sole judgment of the Board is in competition with the Company or a subsidiary.

(b) In addition, failure to comply with such agreements or obligations or engaging in such activities prior to, or during the twelve (12) months after any exercise of this Option shall obligate the Optionholder to return to the Company in cash within ten (10) days after notice from the Company an amount equal to the difference between the Fair Market Value on the date of exercise of the shares acquired and the Option Price paid.

Revised 4-5-02

2000 NSO- _____

Shares _____

AXCELIS TECHNOLOGIES, INC.
2000 Stock Plan
Non-Qualified Stock Option Certificate
Non-Employee Director Grant Form

Axcelis Technologies, Inc. (the "Company"), a Delaware corporation, hereby grants to the person named below an option to purchase shares of Common Stock, \$0.001 par value, of the Company (the "Option") under and subject to the Company's 2000 Stock Plan (the "Plan") exercisable on the following terms and conditions and those set forth on the reverse side of this certificate:

Name of Optionholder: _____
Address: _____

Social Security No. _____

Number of Shares: _____
Option Price: \$ _____
Date of Grant: _____, 20__

Exercisability Schedule: Subject to Sections 3 and 8 on the reverse side, this option shall be exercisable as to 100% of the Number of Shares above after _____, 20__ (the 181st day after the Date of Grant).

The exercisability of this option will not accelerate upon a Change in Control (as defined in the Plan).

Expiration Date: _____, 20__ (the 10th anniversary of the Date of Grant)

This Option shall not be treated as an Incentive Stock Option under section 422 of the Internal Revenue Code of 1986, as amended (the "Code").

By acceptance of this Option, the Optionholder agrees to the terms and conditions hereof.

AXCELIS TECHNOLOGIES, INC.

ACCEPTED:

By: _____
Title: _____

Name: _____

AXCELIS TECHNOLOGIES, INC. 2000 STOCK PLAN

Non-Qualified Stock Option Terms And Conditions
[Non-Employee Director Form]

1. **Plan Incorporated by Reference.** This Option is issued pursuant to the terms of the Plan and may be amended as provided in the Plan. Capitalized terms used and not otherwise defined in this certificate have the meanings given to them in the Plan. This certificate does not set forth all of the terms and conditions of the Plan, which are incorporated herein by reference. The Board administers the Plan and its determinations regarding the operation of the Plan are final and binding. Copies of the Plan may be obtained upon written request without charge from the Human Resources Department of the Company.

2. **Option Price.** The price to be paid for each share of Common Stock issued upon exercise of the whole or any part of this Option is the Option Price set forth on the face of this certificate.

3. **Exercisability Schedule.** This Option may be exercised at any time and from time to time up to the number of shares and in accordance with the Exercisability schedule set forth on the face of this certificate, but only for the purchase of whole shares. This Option may not be exercised as to any shares after the Expiration Date or after any early expiration of this Option in accordance with Sections 6 or 8. Termination of the holder's services as a director of the Company will have no effect upon the exercisability of this Option, to the extent exercisable at termination.

4. **Method of Exercise.** To exercise this Option, the Optionholder shall deliver written notice to the Chief Financial Officer of the Company specifying the number of shares with respect to which the Option is being exercised accompanied by payment of the Option Price for such shares in cash; provided, however, that the Board may (but shall not be required to) permit payment to be made by delivery to the Company of either (a) shares of Common Stock held by the Optionholder for at least six months or (b) any combination of cash and Common Stock or (c) such other consideration as the Board deems appropriate and in compliance with applicable law. In the event that any shares of Common Stock shall be accepted as payment of all or any part of the Option Price, such shares shall be valued at their Fair Market Value, as defined in the Plan.

5. Rights as a Stockholder or Board Member. The Optionholder shall not have any rights in respect of shares to which the Option shall not have been exercised and payment made as provided above. The Optionholder shall not have any rights to continue as a member of the Board of Directors by virtue of the grant of this Option.

6. Recapitalization, Mergers, Etc. As provided in the Plan, in the event of corporate transactions affecting the Company's outstanding Common Stock, the Board shall equitably adjust the number and kind of shares subject to this Option and the exercise price hereunder. If such transaction involves a Merger of the Company (as defined in the Plan), and the Company is not the surviving entity, then either (A) the Acquiring Corporation will assume this option or provide a substitute option or (B) prior to the Merger, the Board shall provide that any unexercisable portion of this option shall be immediately exercisable and vested as of a date prior to such Merger with unexercised options terminating upon consummation of the Merger.

7. Option Not Transferable. This Option is not transferable by the Optionholder otherwise than by will or the laws of descent and distribution or to the extent permitted by rules or regulations under Section 16(b) under the Exchange Act and the Board. Subject to the foregoing, this Option is exercisable, during the Optionholder's lifetime, only by the Optionholder. The Optionholder's Beneficiary may exercise the Optionholder's rights to the extent they are exercisable hereunder following the death of the Optionholder.

8. Exercise of Option After Death. In the event of the death of the Optionholder, the right of the Optionholder to exercise this Option (to the extent exercisable as of the date of death) shall terminate upon the earlier of (A) the first anniversary of the date of death and (B) the Expiration Date.

9. Compliance with Securities Laws. It shall be a condition to the Optionholder's right to purchase shares of Common Stock hereunder that the Company may, in its discretion, require (a) that the shares of Common Stock reserved for issue upon the exercise of this Option shall have been duly listed, upon official notice of issuance, upon any national securities exchange or automated quotation system on which the Company's Common Stock may then be listed or quoted, (b) that either (i) a registration statement under the Securities Act of 1933 with respect to the shares shall be in effect, or (ii) in the opinion of counsel for the Company, the proposed purchase shall be exempt from registration under that Act and the Optionholder shall have made such undertakings and agreements with the Company as the Company may reasonably require, and (c) that such other steps, if any, as counsel for the Company shall consider necessary to comply with any law applicable to the issue of such shares by the Company shall have been taken by the Company or the Optionholder, or both. The certificates representing the shares purchased under this Option may contain such legends as counsel for the Company shall consider necessary to comply with any applicable law.

10. Payment of Taxes. The Company shall be entitled, if the Board deems it necessary or desirable, to withhold (or secure payment from the Optionholder in lieu of withholding) the amount of any withholding or other tax required by law to be withheld or paid by the Company with respect to any amount payable and/or shares issuable under this Option, and the Company may defer payment of cash or issuance of shares upon exercise of this Option unless indemnified to its satisfaction against any liability for any such tax. The amount of such withholding or tax payment shall be determined by the Board and shall be payable by the Optionholder in cash at such time as the Board determines; *provided, however*, that with the approval of the Board, the Optionholder may elect to meet his or her withholding requirement, in whole or in part, by having withheld from this Option upon exercise that number of shares of Common Stock, rounded up to the next whole share, the Fair Market Value of which is equal to the amount of withholding taxes due.

12. Cancellation of Option for Breach of Contract; Repayment Obligation. The Board may cancel this Option at any time the Optionholder is not in compliance with any agreement between the Company and the Optionholder or any other legal obligation of the Optionholder relating to non-competition, confidentiality or proprietary interests. In addition, failure to comply with such agreements or obligations prior to, or during the twelve (12) months after any exercise of this Option shall obligate the Optionholder to return to the Company in cash within ten (10) days after notice from the Company an amount equal to the difference between the Fair Market Value on the date of exercise of the shares acquired and the Option Price paid.

Revised 7-12-04

CERTIFICATION
of the Principal Financial Officer of Axcelis Technologies, Inc.
under Section 302 of the Sarbanes-Oxley Act of 2002

I, Stephen G. Bassett, certify that:

1. I have reviewed this Form 10-Q of Axcelis Technologies, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 9, 2004

By: /s/ Stephen G. Bassett
Stephen G. Bassett
Senior Vice President and Chief Financial Officer

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Executive Officer

Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Executive Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certifies, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-Q quarterly report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned has executed this Certification as of November 9, 2004.

/s/ Mary G. Puma

Mary G. Puma

Chief Executive Officer of Axcelis Technologies, Inc.

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Financial Officer

Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Financial Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certifies, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-Q quarterly report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned has executed this Certification as of November 9, 2004.

/s/ Stephen G. Bassett

Stephen G. Bassett

Senior Vice President and Chief Financial Officer of Axcelis Technologies,
Inc.