

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q/A

Amendment No. 1

(Mark One)

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

For the quarterly period ended March 31, 2008

or

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

For the transition period from _____ to _____

Commission file number 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)

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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer
(Do not check if a smaller
reporting company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes No

As of May 9, 2008 there were 102,440,712 shares of the registrant's common stock outstanding.

EXPLANATORY NOTE

This Form 10-Q/A corrects the inadvertent omission of the inventory amounts from the Consolidated Balance Sheets as of March 31, 2008 and December 31, 2007 included in Part 1, Item 1 of our Form 10-Q for the period ended March 31, 2008 as filed on May 12, 2008 (the "Q1 2008 Form 10-Q"). Part 1, Item 1 of this Form 10-Q/A replaces in its entirety Part 1, Item 1 of the Q1 2008 Form 10-Q as previously filed. However, the only change is to insert the inventory amounts in the Consolidated Balance Sheets as of March 31, 2008 and December 31, 2007. The information in this Form 10-Q/A has not been updated to reflect events since the Q1 2008 Form 10-Q filing.

Item 1. Financial Statements.

Axcelis Technologies, Inc.
Consolidated Statements of Operations
(In thousands, except per share amounts)
(Unaudited)

	Three months ended March 31,	
	2008	2007
Revenue		
Product	\$ 69,784	\$ 80,726
Service	13,993	14,741
Royalties, primarily from SEN	1,117	2,059
	<u>84,894</u>	<u>97,526</u>
Cost of revenue		
Product	47,988	47,701
Service	7,690	8,575
	<u>55,678</u>	<u>56,276</u>
Gross profit	29,216	41,250
Operating expenses		
Research and development	16,853	18,228
Sales and marketing	11,905	12,938
General and administrative	9,814	10,476
Amortization of intangible assets	656	656
Restructuring charges	51	—
	<u>39,279</u>	<u>42,298</u>
Loss from operations	(10,063)	(1,048)
Other income (expense)		
Equity income of SEN	1	4,667
Interest income	690	1,454
Interest expense	(1,601)	(1,668)
Other—net	318	(24)
	<u>(592)</u>	<u>4,429</u>
Income (loss) before income taxes	(10,655)	3,381
Income taxes	426	709
Net income (loss)	<u>\$ (11,081)</u>	<u>\$ 2,672</u>
Net income (loss) per share		
Basic	\$ (0.11)	\$ 0.03
Diluted	(0.11)	0.03
Shares used in computing basic and diluted income (loss) per share		
Basic	102,447	101,492
Diluted	102,447	102,421

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Consolidated Balance Sheets
(In thousands)
(Unaudited)

	March 31, 2008	December 31, 2007
ASSETS		
Current assets		
Cash and cash equivalents	\$ 68,192	\$ 83,877
Restricted cash	18,300	17,018
Accounts receivable, net	55,093	76,067
Inventories, net	186,003	169,278
Prepaid expenses and other current assets	<u>23,492</u>	<u>32,442</u>

Total current assets	351,080	378,682
Property, plant and equipment, net	67,309	68,101
Investment in SEN	148,481	132,911
Goodwill	42,115	42,115
Intangible assets	10,269	10,925
Other assets	35,859	37,195
	<u>\$ 655,113</u>	<u>\$ 669,929</u>

LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities		
Accounts payable	\$ 23,521	\$ 27,054
Accrued compensation	12,457	17,003
Warranty	4,513	5,011
Income taxes	763	531
Deferred revenue	21,389	35,827
Other current liabilities	7,907	8,577
Current portion of convertible subordinated debt	80,721	—
Total current liabilities	151,271	94,003
Convertible subordinated debt	—	79,923
Long-term deferred revenue	4,383	4,704
Other long-term liabilities	5,340	5,293
Stockholders' equity		
Preferred stock	—	—
Common stock	103	103
Additional paid-in capital	479,604	478,726
Treasury stock	(1,218)	(1,218)
Accumulated deficit	(12,896)	(1,815)
Accumulated other comprehensive income	28,526	10,210
	<u>494,119</u>	<u>486,006</u>
	<u>\$ 655,113</u>	<u>\$ 669,929</u>

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Three months ended	
	2008	2007
March 31,		
Operating activities		
Net income (loss)	\$ (11,081)	\$ 2,672
Adjustments required to reconcile net income to net cash used for operating activities		
Depreciation and amortization	5,008	4,460
Amortization of intangible assets	656	656
Accretion of premium on convertible subordinated debt	798	737
Stock-based compensation expense	941	1,081
Undistributed income of SEN	(1)	(4,667)
Changes in operating assets and liabilities		
Accounts receivable	21,838	(6,346)
Inventories	(13,686)	(13,587)
Other current assets	9,550	(6,624)
Accounts payable and other current liabilities	(10,197)	(29,342)
Deferred revenue	(14,760)	4,490
Income taxes	226	(2,426)
Cash dividend from SEN	—	5,677
Other assets and liabilities	(1,587)	(3,501)
Net cash used for operating activities	(12,295)	(46,720)
Investing activities		
Sales and maturities of marketable securities	—	29,200
Expenditures for property, plant and equipment	(1,212)	(3,649)
Increase in restricted cash	—	(39)

Net cash (used for) provided by investing activities	(1,212)	25,512
Financing activities		
Repayment of convertible subordinated debt	—	(74,217)
Proceeds from the exercise of stock options	20	394
Proceeds from employee stock purchase plan	424	585
Net cash (used for) provided by financing activities	444	(73,238)
Effect of exchange rate changes on cash	(2,622)	(593)
Net increase (decrease) in cash and cash equivalents	(15,685)	(95,039)
Cash and cash equivalents at beginning of period	83,877	140,451
Cash and cash equivalents at end of period	<u>\$ 68,192</u>	<u>\$ 45,412</u>

See accompanying Notes to Consolidated Financial Statements

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Axcelis Technologies, Inc.

Notes To Consolidated Financial Statements (Unaudited)

(All tabular amounts 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 and other processing equipment used in the fabrication of semiconductor chips 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 to the semiconductor industry. 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 SEN Corporation, an SHI and Axcelis Company (“SEN”), licenses technology from the Company relating to the manufacture of specified ion implantation products and has exclusive rights to manufacture and sell these products in the territory of Japan. SEN is the leading producer of ion implantation equipment in Japan.

As of March 31, 2008, the Company had approximately \$68.2 million of cash and cash equivalents. During the first quarter of 2008, the Company experienced negative cash flows from operations and anticipates continued cash outflows in the second quarter of 2008. Furthermore, as of March 31, 2008, the Company’s New Notes (see Note 8), due January 15, 2009, were reclassified to current liabilities. On April 23, 2008, the Company entered into a revolving credit facility (the “facility”) with a bank that provides for borrowings up to the lesser of (A) \$50 million or (B) specified percentages of the amounts of qualifying accounts receivable and inventory (approximately \$28 million on the date of execution). Presently, the Company’s 2008 forecast does not anticipate drawing down on the facility. The underlying agreement contains financial covenants that limit the amounts of net loss the Company can incur in the second and third quarters of 2008 and specify that the Company must report net income in the fourth quarter of 2008 and thereafter. The Company’s current forecast for the second quarter of 2008 indicates that it will not meet the financial covenant. The Company does expect to achieve compliance in the fourth quarter of 2008. Should the Company not be able to meet these financial covenants, it may not be able to borrow against the facility. The Company is also negotiating a sale-leaseback of the Company’s headquarters and manufacturing facility located in Beverly, Massachusetts. However, there can be no assurance that the sale-leaseback transaction will be completed.

The Company expects that existing cash and cash equivalents and expected positive cash flow for the remainder of 2008, based primarily on current expectations of customer ordering patterns, coupled with planned financing events, will be sufficient to satisfy the Company’s anticipated cash requirements for the remainder of 2008 and beyond. Should the Company not be able to obtain financing with acceptable terms and/or current estimates for anticipated cash flow in 2008 prove incorrect, the Company’s management may seek alternative strategies intended to improve the Company’s cash position. These strategies could include initiating further cost reduction efforts, seeking improvements in working capital management such as seeking additional financing, and reducing or delaying capital expenditures.

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, 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.

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The balance sheet at December 31, 2007 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, 2007.

Note 2. Stock-Based Compensation

The Company maintains the Axcelis Technologies, Inc. 2000 Stock Plan (the “2000 Plan”), a stock award and incentive plan which permits the issuance of options, restricted stock, restricted stock units and performance awards to selected employees, directors and consultants of the Company. The Company also maintains the Axcelis Technologies, Inc. Employee Stock Purchase Plan (the “ESPP”), an Internal Revenue Code Section 423 plan. The 2000 Plan and the ESPP are more fully described in Note 15 to the consolidated financial statements in our 2007 Annual Report on Form 10-K.

Under SFAS No. 123R, the Company recognized stock-based compensation expense of \$0.9 million and \$1.1 million for the three months ended March 31, 2008 and 2007, respectively. These amounts include the impact of recognizing compensation expense related to restricted stock units, restricted stock, non-qualified stock options and stock offered under the ESPP.

Note 3. Net Income Per Share

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 is similar to basic earnings per share, except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potentially dilutive common shares had been issued.

For purposes of computing diluted earnings per share, weighted average common shares outstanding do not include stock options and restricted stock awards with an exercise price inclusive of unrecognized compensation expense which exceeded the average fair market value of the Company's common stock for the period, as the effect would be anti-dilutive. The Company has excluded 0.1 million incremental shares attributable to restricted stock, restricted stock units and outstanding stock options for the three months ended March 31, 2008 as their effect would be anti-dilutive. In addition, 4.0 million and 3.9 million shares of common stock for the assumed conversion of the Company's convertible debt for the three months ended March 31, 2008 and 2007, respectively, computed using the if converted method, were excluded from the computation of diluted earnings per share as the effect of conversion would be anti-dilutive. These stock options, restricted stock awards, and conversions could, however, become dilutive in future periods.

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A reconciliation of net income and shares used in computing basic and diluted earnings per share follows:

	Three months ended March 31,	
	2008	2007
(In thousands, except per share data)		
Income (loss) available to common stockholders	\$ (11,081)	\$ 2,672
Weighted average common shares outstanding used in computing basic net income (loss) per share	102,447	101,492
Incremental shares	—	929
Weighted average common shares outstanding used in computing diluted net income (loss) per share	102,447	102,421
Net income (loss) per share		
Basic	\$ (0.11)	\$ 0.03
Diluted	(0.11)	0.03

Note 4. Comprehensive Income

The components of comprehensive income follow:

	Three months ended March 31,	
	2008	2007
(in thousands)		
Net income (loss)	\$ (11,081)	\$ 2,672
Other comprehensive income		
Foreign currency translation adjustments	18,316	1,125
Unrealized gain on marketable securities	—	2
Comprehensive income	\$ 7,235	\$ 3,799

Note 5. Inventories

The components of inventories follow:

	March 31, 2008	December 31, 2007
	(in thousands)	
Raw materials	\$ 99,009	\$ 95,289
Work-in-process	53,716	41,018
Finished goods (completed systems)	33,278	32,971
	\$ 186,003	\$ 169,278

Approximately \$89.3 million and \$75.9 million of inventory as of March 31, 2008 and December 31, 2007, respectively, relates to the Optima product family.

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Effective January 1, 2008, the Company refined its methodology to more accurately estimate excess inventory amounts on a global basis. Under the previous methodology, the Company would have been required to reserve approximately \$1.1 million in excess amounts.

Note 6. Restructuring Charges

In October 2007, the Company implemented a reduction in force related to planned actions taken by management to control costs and improve the focus of its operations in order to sustain future profitability and conserve cash. This reduction in force is expected to result in a total charge to expense of approximately \$2.9 million related to separation and outplacement costs, of which \$2.5 million was recorded in 2007 and \$0.1 million was recorded in the period ended March 31, 2008. The remaining \$0.3 million will be recorded in the remainder of 2008. A total of \$2.3 million has been paid through March 31, 2008. Substantially all payments related to these actions are expected to be completed in 2008.

Changes in the Company's restructuring liability, which consists primarily of severance and related costs, included in amounts reported as other current liabilities, follows:

	<u>(in thousands)</u>
Balance at December 31, 2007	\$ 916
Restructuring expense	51
Cash payments	<u>(742)</u>
Balance at March 31, 2008	<u>\$ 225</u>

Note 7. Product Warranty

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. For all systems sold, the Company accrues a liability for the estimated cost of standard warranty at the time of system shipment and defers the portion of systems revenue attributable to the fair value of non-standard warranty. Revenue for non-standard warranty is recognized ratably over the applicable warranty period. Costs for non-standard warranty are expensed as incurred. Factors that affect the Company's warranty 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 liability and adjusts the amount as necessary.

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

	<u>Three months ended</u>	
	<u>March 31,</u>	
	<u>2008</u>	<u>2007</u>
	<u>(in thousands)</u>	
Balance at December 31	\$ 6,245	\$ 6,472
Warranties issued during the period	858	1,136
Settlements made during the period	(1,689)	(1,447)
Changes in liability for pre-existing warranties during the period	<u>12</u>	<u>(297)</u>
Balance at March 31	<u>\$ 5,426</u>	<u>\$ 5,864</u>
Amount classified as current	\$ 4,513	\$ 4,609
Amount classified as long-term	<u>913</u>	<u>1,255</u>
Balance at March 31	<u>\$ 5,426</u>	<u>\$ 5,864</u>

Note 8. Convertible Subordinated Debt

In January 2002, the Company completed an offering of \$125 million of 4.25% Convertible Subordinated Notes due January 15, 2007 (the "Old Notes").

On May 2, 2006, the Company entered into an exchange and purchase agreement pursuant to which the holder of an aggregate of approximately \$50.8 million of the Old Notes agreed to exchange its Old Notes for \$50.8 million in aggregate principal amount of the Company's newly issued 4.25% Convertible Senior Subordinated Notes due January 15, 2009 (the "New Notes"), plus accrued and unpaid interest on the Old Notes through but excluding May 2, 2006, the closing date of the exchange. In addition, the Company issued an additional \$24.2 million of New Notes, resulting in an aggregate of \$75 million of New Notes outstanding.

The New Notes are unsecured senior indebtedness of the Company and bear interest at the rate of 4.25% per annum. Interest is payable on January 15 and July 15 of each year, commencing July 15, 2006. The New Notes mature on January 15, 2009. At maturity, the Company is required to repay the outstanding principal of the New Notes, plus a maturity premium of 11.125% of such principal, resulting in an effective annual yield to maturity of approximately 8.0%.

The principal amount of the New Notes, together with the accreted portion of the maturity premium, which increases over the term of the notes, as of the conversion date, are convertible at the option of the holder, at any time on or prior to maturity, into shares of the Company's common stock at a conversion price equal to \$20.00 per share, which also was the conversion price of the Old Notes, subject to adjustment in certain circumstances. In addition, debt issuance costs of approximately \$0.2 million related to the New Notes are being amortized to interest expense over the term of the New Notes.

On January 15, 2007, the Company paid \$74.2 million to redeem the remaining Old Notes.

Note 9. Income Taxes

Income tax expense relates principally to operating results of foreign entities in jurisdictions, primarily in Asia, where the company earns taxable income. The Company has significant net operating losses in the United States and certain foreign tax jurisdictions and, as a result, does not pay significant income taxes in those jurisdictions. Accordingly, our effective income tax rate is not meaningful.

Note 10. Significant Customers

In the three months ended March 31, 2008, one customer accounted for approximately 24% of revenue. In the three months ended March 31, 2007, two customers accounted for approximately 19% and 14% of revenue, respectively. For the three months ended March 31, 2008 and 2007, no other customer accounted for more than 10% of revenue.

Note 11. Contingencies

Litigation

The Company is not presently a party to any litigation that it believes might have a material adverse effect on its business operations. The Company is, from time to time, a party to litigation that arises in the normal course of its business operations. Pending matters that arose outside of the ordinary course of business and which had developments since January 1, 2008 are:

Two purported class actions were filed against the Company in connection with proposals made by Sumitomo Heavy Industries, Ltd. in 2008 to acquire the outstanding common stock of the Company. We believe each of these cases is without merit and continue to defend against them vigorously.

- On or about February 11, 2008, Martin Meltzer filed a purported shareholder class action complaint in Massachusetts Superior Court (Civil Action No. 08-0692-E), naming as defendants the Company, its current Directors and a former Director. The complaint alleges that the Company and its Board of Directors breached their fiduciary duties to Axcelis shareholders by failing to properly consider the February 11, 2008 unsolicited offer by Sumitomo Heavy Industries Ltd. to purchase all of the outstanding stock of the Company for \$5.20 per share. The complaint seeks an order from the Court directing the Company and its Board of Directors to “give due consideration to any proposed business combination” to maximize shareholder value, while ensuring that no conflicts of interest exist. The litigation is in a preliminary stage.
- On or about February 28, 2008, Shirley Simon filed a purported shareholder class action complaint in Delaware Chancery Court (Case No. 3582), naming as defendants the Company and its current Directors. The complaint alleges that the Company and its Board of Directors breached their fiduciary duties to Axcelis shareholders by failing to properly consider the February 11, 2008 unsolicited offer by Sumitomo Heavy Industries Ltd. to purchase all of the outstanding stock of the Company for \$5.20 per share, and subsequently rejecting that offer. The complaint seeks an order from the Court directing the Company and its Board of Directors to cooperate with any person or entity, including Sumitomo that proposes a merger, acquisition or other transaction that would maximize shareholder value, while ensuring that no conflicts of interest exist. The complaint also seeks to have the defendants other than the Company, pay damages suffered to the class as a result of their alleged breaches of fiduciary duty. A motion to dismiss and accompanying brief were filed by Axcelis on March 26, 2008. On April 30, 2008, the plaintiffs amended their complaint to cover the proposal made by Sumitomo on March 10, 2008 and other matters relating to the annual meeting of stockholders held on May 1, 2008.

On April 23, 2008, Varian Semiconductor Associates, Inc. filed a complaint in Federal District Court in Massachusetts claiming that Axcelis’ “Optima products” infringe a Varian patent that was

re-issued in January 2008. The complaint was served on April 28, 2008. Axcelis deems this lawsuit to be without merit and intends to defend its position to the fullest extent necessary.

Indemnifications

The Company’s system sales agreements typically include provisions under which the Company agrees to take certain actions, provide certain remedies and defend its customers against third-party claims of intellectual property infringement under specified conditions and to indemnify customers against any damage and costs awarded in connection with such claims. The Company has not incurred any material costs as a result of such indemnifications and has not accrued any liabilities related to such obligations in the accompanying consolidated financial statements.

Note 12. Subsequent Events

On April 23, 2008, the Company entered into a revolving credit facility (the “Facility”) with a bank that provides for borrowings up to the lesser of (A) \$50 million or (B) specified percentages of the amounts of qualifying accounts receivable and inventory (approximately \$28 million at the date of execution). The underlying agreement contains financial covenants which limit the amounts of net loss the Company can incur in the second and third quarters of 2008 and specify that the Company must report net income in the fourth quarter of 2008 and thereafter. The Company’s current forecast for the second quarter of 2008 indicates that it will not meet the financial covenant. The Company does expect to achieve compliance in the fourth quarter of 2008. If the Company is not able to meet the financial covenants, it may not be able to borrow against the facility. Axcelis expects to use the credit facility for working capital and for general corporate purposes.

In connection with the credit facility, the Company also entered into a receivables purchase facility with Silicon Valley Bank. Silicon Valley Bank may purchase up to \$20 million of receivables from Axcelis; provided that the total amount outstanding under the receivables purchase facility and credit facility does not exceed \$50 million. The receivables purchase facility is secured by the same collateral as the credit facility. Axcelis expects to use the receivables purchase facility for working capital and for general corporate purposes.

The credit facility matures on April 23, 2010, when all amounts will be due and payable in full. The receivables purchase facility also terminates on April 23, 2010.

See Note 1 for discussion of liquidity.

Note 13. Recent Accounting Pronouncements

In September 2006, the Financial Accounting Standards Board (FASB) issued SFAS No. 157, *Fair Value Measurement*. SFAS No. 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and establishes a hierarchy that categorizes and prioritizes the sources to be used to estimate fair value. SFAS No. 157 also expands financial statement disclosures about fair value measurements. On February 6, 2008, the FASB issued FASB Staff Position (FSP) 157-b, which delayed the effective date of SFAS No. 157 for one year for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). SFAS No. 157 and FSP 157-b are effective for financial statements issued for fiscal years beginning after November 15, 2007. We have elected a partial deferral of SFAS No. 157 under the provisions of FSP 157-b related to the measurement of fair value used when evaluating goodwill, other intangible assets and other long-lived assets for impairment and valuing asset retirement obligations and liabilities for exit or disposal activities. The impact of partially adopting SFAS No. 157 effective January 1, 2008 was not material to our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of SFAS 115*, which permits but does not require us to measure financial instruments and certain other items at fair value. Unrealized gains and losses on items for which the fair value option has been elected are reported in earnings. This statement is effective for financial statements issued for fiscal years beginning after November 15, 2007. As we have not elected to fair value any of our financial instruments under the provisions of SFAS No. 159, the adoption of this statement will not have any impact to our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141(R) *Business Combinations*. This statement applies to all transactions or other events in which an entity (the acquirer) obtains control of one or more businesses (the acquiree), including those sometimes referred to as “true mergers” or “mergers of equals” and combinations achieved without the transfer of consideration, for example, by contract alone or through the lapse of minority veto rights. This statement applies to all business entities, including mutual entities that previously used the pooling-of-interests method of accounting for some business combinations. It does not apply to 1) the formation of a joint venture; 2) the acquisition of an asset or a group of assets that does not constitute a business; 3) a combination between entities or businesses under common control; 4) a combination between not-for-profit organizations or the acquisition of a for-profit business by a not-for-profit organization. This statement applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. An entity may not apply it before that date. The effective date of this statement is the same as that of the related SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements*. The adoption of SFAS No. 141(R) is not expected to have a material impact on the Company’s financial position, results of operations or liquidity.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements, an Amendment to ARB No. 51*. This statement applies to all entities that prepare consolidated financial statements, except not-for-profit organizations, but will affect only those entities that have an outstanding noncontrolling interest in one or more subsidiaries or that deconsolidate a subsidiary. This statement is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008 (that is, January 1, 2009, for entities with calendar year-ends). Earlier adoption is prohibited. The effective date of this statement is the same as that of the related SFAS No. 141(R). The adoption of SFAS No. 160 is not expected to have a material impact on the Company’s financial position, results of operations or liquidity.

PART II—OTHER INFORMATION

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 to 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 August 8, 2007. Incorporated by reference to Exhibit 3.2 of the Company’s Form 10-Q for the quarter ended June 30, 2007, filed with the Commission on August 9, 2007.
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 to 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.
10.1	Loan and Security Agreement dated as of April 23, 2008 between Axcelis Technologies, Inc. and Silicon Valley Bank. Incorporated by reference to Exhibit 10.1 of the Company’s Form 10-Q for the quarter ended March 30, 2008, filed with the Commission on May 12, 2008.
31.1	Certification of the Principal Executive Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated June 12, 2008. Filed herewith.
31.2	Certification of the Principal Financial Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated June 12, 2008. Filed herewith.
32.1	Certification of the Principal Executive Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the

- 32.2 Certification of the Principal 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 June 12, 2008. 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: June 12, 2008

By: Stephen G. Bassett
Executive Vice President and Chief Financial Officer
Duly Authorized Officer and Principal Financial Officer

CERTIFICATION
of the Principal Executive Officer
Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)

I, Mary G. Puma, certify that:

1. I have reviewed this quarterly report on Form 10-Q/A 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; and
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 company as of, and for, the periods presented in this report.

Date: June 12, 2008

/s/ MARY G. PUMA

Mary G. Puma, *Chairman, Chief Executive Officer and
President*

CERTIFICATION
of the Principal Financial Officer
Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)

I, Stephen G. Bassett, certify that:

1. I have reviewed this quarterly report on Form 10-Q/A 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; and
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 company as of, and for, the periods presented in this report.

Date: June 12, 2008

/s/ STEPHEN G. BASSETT

Stephen G. Bassett, *Executive Vice President and Chief
Financial Officer*

AXCELIS TECHNOLOGIES, INC.
Certification of the Principal 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/A 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 June 12, 2008.

/s/ Mary G. Puma

Mary G. Puma

Chairman, Chief Executive Officer and President of
Axcelis Technologies, Inc.

AXCELIS TECHNOLOGIES, INC.
Certification of the Principal 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/A 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 June 12, 2008.

/s/ Stephen G. Bassett

Stephen G. Bassett

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