

**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 March 31, 2015

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 has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). 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 Smaller reporting company
(Do not check if a 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 1, 2015 there were 113,528,503 shares of the registrant's common stock outstanding.

PART I - FINANCIAL INFORMATION

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

	Three months ended March 31,	
	2015	2014
Revenue		
Product	\$ 67,530	\$ 55,015
Services	5,753	5,825
Total revenue	<u>73,283</u>	<u>60,840</u>
Cost of revenue		
Product	45,185	33,802
Services	4,718	5,298
Total cost of revenue	<u>49,903</u>	<u>39,100</u>
Gross profit	23,380	21,740
Operating expenses		
Research and development	8,199	9,257
Sales and marketing	5,628	5,476
General and administrative	6,101	6,481
Restructuring charges	10	200
Total operating expenses	<u>19,938</u>	<u>21,414</u>
Income from operations	3,442	326
Other (expense) income		
Interest income	3	2
Interest expense	(1,043)	(251)
Other, net	(433)	292
Total other (expense) income	<u>(1,473)</u>	<u>43</u>
Income before income taxes	1,969	369
Income tax provision	101	195
Net income	<u>\$ 1,868</u>	<u>\$ 174</u>
Net earnings per share		
Basic	<u>\$ 0.02</u>	<u>\$ 0.00</u>
Diluted	<u>\$ 0.02</u>	<u>\$ 0.00</u>
Shares used in computing net earnings per share		
Basic weighted average common shares	<u>113,152</u>	<u>110,649</u>
Diluted weighted average common shares	<u>118,720</u>	<u>115,798</u>

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Axcelis Technologies, Inc.
Consolidated Statements of Comprehensive Income (Loss)
(In thousands)
(Unaudited)

	Three months ended March 31,	
	2015	2014
Net income	\$ 1,868	\$ 174
Other comprehensive income (loss):		
Foreign currency translation adjustments	(1,010)	(677)
Amortization of actuarial losses from pension plan	19	6
Net current-period other comprehensive income (loss)	(991)	(671)
Comprehensive income (loss)	\$ 877	\$ (497)

See accompanying Notes to these Consolidated Financial Statements

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Axcelis Technologies, Inc.
Consolidated Balance Sheets
(In thousands, except per share amounts)
(Unaudited)

	March 31, 2015	December 31, 2014
ASSETS		
Current assets		
Cash and cash equivalents	\$ 74,548	\$ 30,753
Restricted cash	67	825
Accounts receivable, net	42,753	42,794
Inventories, net	109,525	104,063
Prepaid expenses and other current assets	7,493	6,700
Total current assets	234,386	185,135
Property, plant and equipment, net	30,198	30,464
Other assets	11,573	12,055
Total assets	\$ 276,157	\$ 227,654
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	\$ 30,536	\$ 21,605
Accrued compensation	5,611	4,232
Warranty	1,909	1,352
Income taxes	322	196
Deferred revenue	8,247	6,782
Current portion of long-term debt	—	14,530
Other current liabilities	3,748	3,401
Total current liabilities	50,373	52,098
Sale leaseback obligation	47,586	—
Long-term deferred revenue	409	449
Other long-term liabilities	6,520	6,755
Total liabilities	104,888	59,302
Commitments and contingencies (Note 13)		
Stockholders' equity		
Preferred stock, \$0.001 par value, 30,000 shares authorized; none issued or outstanding	—	—
Common stock, \$0.001 par value, 300,000 shares authorized; 113,633 shares issued and 113,513 shares outstanding at March 31, 2015; 112,849 shares issued and 112,729 shares outstanding at December 31, 2014	114	113
Additional paid-in capital	521,107	519,068
Treasury stock, at cost, 120 shares at March 31, 2015 and December 31, 2014	(1,218)	(1,218)
Accumulated deficit	(349,019)	(350,887)
Accumulated other comprehensive income	285	1,276

Total stockholders' equity	171,269	168,352
Total liabilities and stockholders' equity	<u>\$ 276,157</u>	<u>\$ 227,654</u>

See accompanying Notes to these Consolidated Financial Statements

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

	Three months ended March 31,	
	2015	2014
Cash flows from operating activities		
Net income	\$ 1,868	\$ 174
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	1,142	1,140
Deferred taxes	134	312
Stock-based compensation expense	1,126	1,172
Provision for excess inventory	242	59
Changes in operating assets & liabilities		
Accounts receivable	(355)	(1,634)
Inventories	(6,963)	(52)
Prepaid expenses and other current assets	(1,085)	(1,252)
Accounts payable and other current liabilities	11,466	(2,025)
Deferred revenue	1,455	(614)
Income taxes	132	61
Other assets and liabilities	(422)	(1,304)
Net cash provided by (used in) operating activities	<u>8,740</u>	<u>(3,963)</u>
Cash flows used in investing activities		
Expenditures for property, plant, and equipment	(320)	(227)
Net cash (used in) investing activities	<u>(320)</u>	<u>(227)</u>
Cash flows from financing activities		
Decrease in restricted cash	758	—
Financing fees and other expenses	(847)	—
Principal payments on term loan	(14,530)	—
Principal payments on sale leaseback obligation	(392)	—
Proceeds from sale leaseback obligation	48,940	—
Proceeds from exercise of stock options	937	1,277
Net cash provided by financing activities	<u>34,866</u>	<u>1,277</u>
Effect of exchange rate changes on cash	509	(338)
Net increase (decrease) in cash and cash equivalents	<u>43,795</u>	<u>(3,251)</u>
Cash and cash equivalents at beginning of period	30,753	46,290
Cash and cash equivalents at end of period	<u>\$ 74,548</u>	<u>\$ 43,039</u>

See accompanying Notes to these Consolidated Financial Statements

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Axcelis Technologies, Inc.
Notes to Consolidated Financial Statements (Unaudited)

Note 1. Nature of Business

Axcelis Technologies, Inc. ("Axcelis" or the "Company") was incorporated in Delaware in 1995, and is a worldwide producer of ion implantation 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 accompanying unaudited consolidated financial statements have been prepared in accordance with U.S. 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 and considered necessary for a fair presentation of these financial statements 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.

The balance sheet at December 31, 2014 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, 2014.

Note 2. Stock-Based Compensation

The Company maintains the Axcelis Technologies, Inc. 2012 Equity Incentive Plan (the "2012 Equity Plan"), which became effective on May 2, 2012, and permits the issuance of options, restricted stock, restricted stock units and performance awards to selected employees, directors and consultants of the Company. The Company's 2000 Stock Plan (the "2000 Stock Plan"), expired on May 1, 2012 and no new grants may be made under that plan after that date. However, awards granted under the 2000 Stock Plan prior to the expiration remain outstanding and subject to the terms of the 2000 Stock Plan. The Company also maintains the Axcelis Technologies, Inc. Employee Stock Purchase Plan (the "ESPP"), an Internal Revenue Code Section 423 plan.

The 2012 Equity Plan and the ESPP are more fully described in Note 13 to the consolidated financial statements in the Company's 2014 Annual Report on Form 10-K.

The Company recognized stock-based compensation expense of \$1.1 million and \$1.2 million for the three month periods ended March 31, 2015 and 2014, respectively. These amounts include compensation expense related to restricted stock units, non-qualified stock options and stock to be issued to participants under the ESPP.

Note 3. Sale of Corporate Headquarters and Related Leaseback

On January 30, 2015, the Company sold its corporate headquarters facility to Beverly Property Owner LLC ("Beverly Properties"), an affiliate of Middleton Partners, based in Northbrook, Illinois, for the purchase price of \$48.9 million. As part of this sale, the Company also entered into a 22-year lease agreement with Beverly Properties, with the right to extend the term of the lease for five successive periods of five years each. The Company will pay rent of \$4.7 million for the first year of the lease, with increased annual rent payments thereafter that will increase to \$7.3 million in year twenty-two. At the time of this sale, the Company discharged the outstanding term loan of \$14.4 million, the related accrued interest and paid a pre-payment penalty to Northern Bank and Trust Company for a total payment of \$14.8 million. The Company accounted for the sale leaseback transaction as a financing arrangement for financial reporting purposes due to continuing involvement in association with the \$5.9 million collateralized letter of credit requirement. See Note 10 for further discussion. As such, at the time of sale, the Company recorded a financing obligation in the amount of \$48.9 million, less a pre-paid rent amount of \$0.4 million, for a net liability of \$48.5 million. Upon the adoption of Accounting Standards Update 2015-03, the Company reduced the carrying value of the financing obligation for debt issuance costs related to this transaction by \$0.9 million, for a net liability of \$47.6 million. See Note 14 for discussion regarding the adoption of this update. The Company classified the liability as long-term due to initial rent payments relating only to interest with future principal payments occurring outside of one year. The Company retained the historical costs of the property and the related accumulated depreciation on its financial books within property, plant and equipment and will continue to depreciate the property for financial reporting purposes over the remaining useful life as originally determined. The associated lease payments, less the portion considered to decrease the financing liability, will be recorded as interest expense using the effective interest method. The implicit interest rate on the associated cash flows during the initial 22 year lease term is 10.65%. See Note 13 for the schedule of contractual lease payments relating to the lease obligation.

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The Company does not anticipate any material federal or state tax liability associated with the taxable gain on the sale of the building due to its current level of net operating loss carry forwards and has not provided for any federal or state tax expense.

Note 4. Computation of Net Earnings per Share

Basic earnings per share is computed by dividing net 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, calculated using the treasury stock method.

The components of net earnings per share are as follows:

	Three months ended March 31,	
	2015	2014
	(in thousands, except per share data)	
Net income available to common stockholders	\$ 1,868	\$ 174
Weighted average common shares outstanding used in computing basic net earnings per share	113,152	110,649
Incremental options and RSUs	5,568	5,149
Weighted average common shares outstanding used in computing diluted net earnings per share	118,720	115,798
Net earnings per share		
Basic	\$ 0.02	\$ 0.00
Diluted	\$ 0.02	\$ 0.00

Note 5. Accumulated Other Comprehensive Income (Loss)

The following table displays the changes in accumulated other comprehensive income (loss), net of tax, by component for the three months ended March 31, 2015:

	Foreign currency	Defined benefit pension plan (in thousands)	Total
Balance at December 31, 2014	\$ 1,920	\$ (644)	\$ 1,276

Other comprehensive income (loss)	(1,010)	19	(991)
Balance at March 31, 2015	\$ 910	\$ (625)	\$ 285

Note 6. Inventories, net

The components of inventories are as follows:

	March 31, 2015	December 31, 2014
	(in thousands)	
Raw materials	\$ 70,975	\$ 65,723
Work in process	24,655	22,358
Finished goods (completed systems)	13,895	15,982
	<u>\$ 109,525</u>	<u>\$ 104,063</u>

When recorded, inventory reserves are intended to reduce the carrying value of inventories to their net realizable value. The Company establishes inventory reserves when conditions exist that indicate inventory may be in excess of anticipated demand or is obsolete based upon assumptions about future demand for the Company's products or market

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conditions. The Company regularly evaluates the ability to realize the value of inventories based on a combination of factors including the following: forecasted sales or usage, estimated product end of life dates, estimated current and future market value and new product introductions. Purchasing and usage alternatives are also explored to mitigate inventory exposure. As of March 31, 2015 and December 31, 2014, inventories are stated net of inventory reserves of \$22.5 million and \$23.6 million respectively.

Note 7. Restructuring Charges

In 2014, the Company had severance and other costs related to reductions in force. Changes in the Company's restructuring liability, which consists primarily of severance and related costs, included in amounts reported as other current liabilities, are as follows:

	(in thousands)
Balance at December 31, 2014	\$ 481
Severance and related costs	10
Cash payments	(315)
Balance at March 31, 2015	<u>\$ 176</u>

Note 8. Product Warranty

The Company generally offers a one year warranty for all of its systems, 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. 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.

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

	Three months ended March 31,	
	2015	2014
	(in thousands)	
Balance at January 1 (beginning of year)	\$ 1,526	\$ 1,428
Warranties issued during the period	1,080	647
Settlements made during the period	(566)	(467)
Changes in estimate of liability for pre-existing warranties during the period	123	12
Balance at March 31 (end of period)	<u>\$ 2,163</u>	<u>\$ 1,620</u>
Amount classified as current	\$ 1,909	\$ 1,496
Amount classified within other long-term liabilities	254	124
Total warranty liability	<u>\$ 2,163</u>	<u>\$ 1,620</u>

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Note 9. Fair Value Measurements

Certain of the assets and liabilities on the Company's balance sheets are reported at their "fair value". Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

(a) Fair Value Hierarchy

The accounting guidance for fair value measurement requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard establishes a fair value hierarchy based on the level of independent, objective evidence surrounding the inputs used to measure fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The fair value hierarchy is as follows:

Level 1 - applies to assets or liabilities for which there are quoted prices in active markets for identical assets or liabilities.

Level 2 - applies to assets or liabilities for which there are inputs other than quoted prices that are observable for the asset or liability, such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.

Level 3 - applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

(b) Fair Value Measurements

The Company's money market funds are included in cash and cash equivalents in the consolidated balance sheets, and are considered a level 1 investment as they are valued at quoted market prices in active markets. The Company's sale leaseback obligation relating to the sale of our corporate headquarters is carried at amortized cost, which approximates fair value based on an implied borrowing rate of 10.65%. The underlying cash flow associated with our lease payments is being applied to both an interest and principal component using the effective interest method over the associated lease term. The liability is categorized as level 3 within the fair value hierarchy. The Company's term loan was carried at amortized cost, which approximated fair value, based on current market pricing of similar debt instruments and was categorized as level 2 within the fair value hierarchy.

The following table sets forth the Company's assets and liabilities by level within the fair value hierarchy:

	March 31, 2015 Fair Value Measurements			Total
	Level 1	Level 2	Level 3	
	(in thousands)			
Assets				
Cash equivalents:				
Money market funds	\$ 60,106	\$ —	\$ —	\$ 60,106
Liabilities				
Sale leaseback obligation	\$ —	\$ —	\$ 47,586	\$ 47,586

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	December 31, 2014 Fair Value Measurements			Total
	Level 1	Level 2	Level 3	
	(in thousands)			
Assets				
Cash equivalents:				
Money market funds	\$ 7,004	\$ —	\$ —	\$ 7,004
Liabilities				
Term loan	\$ —	\$ 14,530	\$ —	\$ 14,530

(c) Other Financial Instruments

The carrying amounts reflected in the consolidated balance sheets for cash and cash equivalents (which are comprised primarily of deposit accounts), accounts receivable, prepaid expenses and other current and non-current assets, accounts payable and accrued expenses approximate fair value due to their short-term maturities.

Note 10. Financing Arrangements

Term Loan

On February 2, 2015, in connection with the sale of our headquarters facility, the Company repaid the outstanding balance on our term loan of \$14.4 million and related accrued interest of \$0.1 million as well as a 2.0% prepayment penalty of \$0.3 million for a total payment of \$14.8 million. See Note 3 above for further discussion.

Sale Leaseback Obligation

On January 30, 2015, the Company sold its corporate headquarters facility to Beverly Property Owner LLC, an affiliate of Middleton Partners, based in Northbrook, Illinois, for the purchase price of \$48.9 million. As part of the sale, the Company also entered into a 22-year lease agreement with Beverly Properties. The sale leaseback is accounted for as a financing arrangement for financial reporting and, as such, the Company has recorded a financing obligation of \$47.6 million as of March 31, 2015. The associated lease payments will include both an interest component and payment of principal, with the underlying liability being extinguished at the end of the original lease term. The Company posted a collateralized security deposit of \$5.9 million in the form of an irrevocable letter of credit at the time of the closing. See Note 3 above for further discussion.

Credit Facility

The Company has a revolving credit facility with Silicon Valley Bank dated October 31, 2013. Under this revolving credit facility, the Company has the ability to borrow up to \$10.0 million on a revolving basis during its two year term. The Company's ability to borrow under this line of credit is limited to

80% of the then current amount of qualified accounts receivable. As of March 31, 2015, the Company had not drawn down on the line of credit, although a portion of the availability is being used to support outstanding letters of credit in the amount of \$6.9 million, which includes the \$5.9 million associated to the security deposit for the sale leaseback transaction. At March 31, 2015, the Company's available borrowing capacity under the revolving credit facility was \$3.1 million. The Company was in compliance with all covenants associated with the credit facility during the first quarter of 2015.

Note 11. Income Taxes

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

As of December 31, 2014, the Company had deferred tax assets related to Federal and state jurisdictions of approximately \$140.0 million. In addition, the Company was in a three year cumulative loss position in the United States. As such, the Company maintains a 100% valuation allowance to reduce the carrying value of these deferred tax assets to zero. The Company will continue to maintain a full valuation allowance for these tax assets until sustainable future levels of profitability are evident. See Note 3 above relating to any potential tax effect associated with the taxable gain on the sale of the Company's corporate headquarters.

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Note 12. Concentration of Risk

For the three months ended March 31, 2015, the Company had one customer account for approximately 36.5% of consolidated revenue. For the three months ended March 31, 2014, three customers accounted for approximately 38.1%, 12.6% and 10.2% of consolidated revenue, respectively.

At March 31, 2015, four customers accounted for 17.1%, 16.5%, 13.5% and 11.4% of consolidated gross accounts receivable, respectively. For the year ended December 31, 2014, the Company had two customers account for 21.7% and 20.4% of consolidated gross accounts receivable, respectively.

Note 13. Contingencies

(a) 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.

(b) 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.

(c) Lease Commitments

In addition to the lease commitments as described within Note 16 to the consolidated financial statements in the Company's Annual Report on Form 10-K for our year ending December 31, 2014, in January 2015, the Company entered into a 22-year lease agreement relating to our corporate headquarters in Beverly, Massachusetts. The following table relates to the cash payment schedule associated with our lease obligation as of March 31, 2015:

	<u>Lease Obligation</u> (in thousands)
2015	\$ 3,525
2016	4,815
2017	5,315
2018	5,470
2019	5,594
Thereafter	109,567
Total lease payments	<u>\$ 134,286</u>
Less interest portion	<u>(86,700)</u>
Sale leaseback obligation	<u>\$ 47,586</u>

Note 14. Recent Accounting Guidance

Accounting Standards or Updates Recently Adopted

In April 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-03, *Interest — Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*. The amendments in this Update require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. For public business entities, the amendments in this Update are effective for the financial statements issued for fiscal years beginning after December 15, 2015, and the interim periods within those fiscal years. Early adoption of the amendments in this Update is permitted for financial statements that have not been previously issued and shall be applied on a retrospective basis, wherein the balance sheet of each individual period presented should be adjusted to reflect the period-specific effects of applying the new guidance. The Company adopted ASU No. 2015-03, effective on January 1, 2015. Our balance sheet at December 31, 2014 was not retrospectively adjusted, due to the immateriality of the effect of the adoption of this ASU. The Company's balance sheet presentation as of March 31, 2015 netted all capitalized costs associated with our lease obligation. See Note 3 above regarding the amounts recognized relating to the lease obligation.

In May 2014, the FASB issued ASU No. 2014-09, “Revenue from Contracts with Customers,” which provides guidance for revenue recognition. The standard’s core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The new guidance is effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. Early application is not permitted. On April 1, 2015, the FASB proposed a one year delay of the effective date of this update and to permit companies the option to adopt the new standard as of the original effective date. The Company is currently assessing the potential impact of ASU No. 2014-09 on its consolidated financial statements.

The Company has evaluated the accounting guidance recently issued and has determined that these standards or updates will not have a material impact on its financial position or results of operations.

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Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

Overview

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 our control. As a result, our revenue and gross margins fluctuate from year to year and period to period. Our established cost structure does not vary significantly with changes in volume. We may experience fluctuations in operating results and cash flows depending on our revenue as driven by the level of capital expenditures by semiconductor manufacturers as well as by customer demand for our products in comparison to alternative capital equipment.

Consolidation and partnering within the semiconductor manufacturing industry has resulted in a small number of customers representing a substantial portion of our business. Our net revenue from our ten largest customers accounted for 80.8% of total revenue for the three months ended March 31, 2015 compared to 81.2% of revenue for the three months ended March 31, 2014.

A successful semiconductor equipment manufacturer must not only provide some of the most technically complex products manufactured in the world but also must design its business to thrive during the inevitable low points in the cycle. Our recent financial results reflect increasing sales of our innovative Purion ion implantation systems, and our continued investment in research and development programs related to our Purion ion implantation products.

During the first quarter of 2015 the Company made significant progress towards its market share goals as a result of rising Purion platform sales, including both new penetrations and multiple follow on orders, and growth in the memory and non-leading edge foundry and logic segments. Throughout 2015 we expect to continue to grow Purion system sales and maintain tight control of our cost structure.

Critical Accounting Estimates

Management’s discussion and analysis of our financial condition and results of operations included herein and in our Annual Report on Form 10-K for the year ended December 31, 2014 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, revenue and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates and assumptions. Management’s estimates are based 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.

Management has not identified any need to make any material change in, and has not changed, any of our critical accounting estimates and judgments as described in Management’s Discussion and Analysis of Financial Conditions and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2014.

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Results of Operations

The following table sets forth our results of operations as a percentage of total revenue:

	Three months ended March 31,	
	2015	2014
Revenue:		
Product	92.1%	90.4%
Services	7.9	9.6
Total revenue	100.0	100.0
Cost of revenue:		
Product	61.7	55.6
Services	6.4	8.7
Total cost of revenue	68.1	64.3

Gross profit	31.9	35.7
Operating expenses:		
Research and development	11.2	15.2
Sales and marketing	7.7	9.0
General and administrative	8.3	10.7
Restructuring charges	0.0	0.3
Total operating expenses	27.2	35.2
Income from operations	4.7	0.5
Other (expense) income:		
Interest income	—	—
Interest expense	(1.4)	(0.4)
Other, net	(0.6)	0.5
Total other (expense) income	(2.0)	0.1
Income before income taxes	2.7	0.6
Income taxes	0.1	0.3
Net income	2.6%	0.3%

Revenue

The following table sets forth our revenue.

	Three months ended March 31,		Period-to-Period change	
	2015	2014	\$	%
(dollars in thousands)				
Revenue:				
Product	\$ 67,530	\$ 55,015	\$ 12,515	22.7%
Percentage of revenue	92.1%	90.4%		
Services	5,753	5,825	(72)	(1.2)%
Percentage of revenue	7.9%	9.6%		
Total revenue	\$ 73,283	\$ 60,840	\$ 12,443	20.5%

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

Product

Product revenue which includes system sales, sales of spare parts, product upgrades and used systems was \$67.5 million, or 92.1% of revenue during the three months ended March 31, 2015, compared with \$55.0 million, or 90.4% of

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revenue for the three months ended March 31, 2014. The \$12.5 million increase in product revenue for the three month period ending March 31, 2015 was primarily driven by an increase in the number of Purion systems sold.

A portion of our revenue from system sales is deferred until installation and other services related to future deliverables are performed. The total amount of deferred revenue at March 31, 2015 and December 31, 2014 was \$8.7 million and \$7.2 million, respectively. The increase is due to the timing of the acceptance of deferred system sales.

Services

Services revenue, which includes the labor component of maintenance and service contracts and fees for service hours provided by on-site service personnel, was \$5.8 million, or 7.9% of revenue for the three months ended March 31, 2015, flat compared with \$5.8 million, or 9.6%, of revenue for the three months ended March 31, 2014. Although services revenue typically increases with the expansion of the installed base of systems, it can fluctuate from period to period based on capacity utilization at customers' manufacturing facilities, which affects the need for equipment service.

Revenue Categories used by Management

As an alternative to the line item revenue categories discussed above, management also uses revenue categorizations which look at revenue by systems and aftermarket as described below.

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

Systems

Included in total revenue of \$73.3 million during the three months ended March 31, 2015 is revenue from sales of new systems of \$42.5 million, or 58.0% of total revenue, compared with \$32.5 million, or 53.4%, of total revenue for the three months ended March 31, 2014. The increase was due to higher sales of our Purion systems, reflecting market share gains and an improved semiconductor equipment market.

Aftermarket

We refer to the business of selling spare parts, product upgrades and used systems, combined with the sale of maintenance labor and service contracts and service hours, as the "aftermarket" business. Included in total revenue of \$73.3 million during the three months ended March 31, 2015 is revenue from our aftermarket business of \$30.8 million, compared to \$28.3 million for the three months ended March 31, 2014. Aftermarket revenue

generally increases with the expansion of the installed base of systems, but can fluctuate from period to period based on capacity utilization at customers' manufacturing facilities which affects the sale of spare parts and demand for equipment service.

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Gross Profit / Gross Margin

The following table sets forth our gross profit / gross margin.

	Three months ended March 31,		Period-to-Period change	
	2015	2014	\$	%
(dollars in thousands)				
Gross Profit:				
Product	\$ 22,345	\$ 21,213	\$ 1,132	5.3%
<i>Product gross margin</i>	33.1%	38.6%		
Services	1,035	527	508	96.4%
<i>Services gross margin</i>	18.0%	9.0%		
Total gross profit	\$ 23,380	\$ 21,740	\$ 1,640	7.5%
Gross margin	31.9%	35.7%		

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

Product

Gross margin from product revenue was 33.1% for the three months ended March 31, 2015, compared to 38.6% for the three months ended March 31, 2014. The decrease in gross margin of 5.5 percentage points resulted from the net effect of higher systems sales volume of new Purion systems at lower margins and a decreased mix of parts and upgrade revenue.

Services

Gross margin from services revenue was 18.0% for the three months ended March 31, 2015, compared to 9.0% for the three months ended March 31, 2014. The increase in gross margin is attributable to changes in the mix of service contracts and lower overall service costs.

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Operating Expenses

The following table sets forth our operating expenses:

	Three months ended March 31,		Period-to-Period change	
	2015	2014	\$	%
(dollars in thousands)				
Research and development	\$ 8,199	\$ 9,257	\$ (1,058)	(11.4)%
<i>Percentage of revenue</i>	11.2%	15.2%		
Sales and marketing	5,628	5,476	152	2.8%
<i>Percentage of revenue</i>	7.7%	9.0%		
General and administrative	6,101	6,481	(380)	(5.9)%
<i>Percentage of revenue</i>	8.3%	10.7%		
Restructuring charges	10	200	(190)	(95.0)%
<i>Percentage of revenue</i>	0.0%	0.3%		
Total operating expenses	\$ 19,938	\$ 21,414	\$ (1,476)	(6.9)%
<i>Percentage of revenue</i>	27.2%	35.2%		

Our operating expenses consist primarily of personnel costs, including salaries, commissions, bonuses, share-based compensation and related benefits and taxes; project material costs related to the design and development of new products and enhancement of existing products; and professional fees, travel and depreciation expenses. At \$8.6 million, personnel costs are our largest expense, representing 43.0% of our total operating expenses for the three months ended March 31, 2015, as compared to \$12.6 million, or 59.5%, for the three months ended March 31, 2014.

Research and Development

	Three months ended March 31,		Period-to-period change	
	2015	2014	\$	%
(dollars in thousands)				
Research and development	\$ 8,199	\$ 9,257	\$ (1,058)	(11.4)%
<i>Percentage of revenue</i>	11.2%	15.2%		

Our ability to remain competitive depends largely on continuously developing innovative technology, with new and enhanced features and systems, and introducing them at competitive prices on a timely basis. Accordingly, based on our strategic plan, we establish annual R&D budgets to fund programs that we expect will drive competitive advantages.

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

Research and development expense was \$8.2 million during the three months ended March 31, 2015; a decrease of \$1.1 million, or 11.4%, compared with \$9.3 million during the three months ended March 31, 2014. The decrease was due to lower personnel costs driven by reduced headcount from the previous year.

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Sales and Marketing

	Three months ended March 31,		Period-to-period change	
	2015	2014	\$	%
	(dollars in thousands)			
Sales and marketing	\$ 5,628	\$ 5,476	\$ 152	2.8%
Percentage of revenue	7.7%	9.0%		

Our sales and marketing expenses result primarily from the sale of our equipment and services through our direct sales force.

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

Sales and marketing expense was \$5.6 million during the three months ended March 31, 2015; an increase of \$0.2 million, or 2.8%, relatively flat compared with \$5.5 million during the three months ended March 31, 2014.

General and Administrative

	Three months ended March 31,		Period-to-period change	
	2015	2014	\$	%
	(dollars in thousands)			
General and administrative	\$ 6,101	\$ 6,481	\$ (380)	(5.9)%
Percentage of revenue	8.3%	10.7%		

Our general and administrative expenses result primarily from the costs associated with our executive, finance, information technology, legal and human resource functions.

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

General and administrative expense was \$6.1 million during the three months ended March 31, 2015; a decrease of \$0.4 million, or 5.9%, compared with \$6.5 million during the three months ended March 31, 2014. The decrease was primarily due to a reduction in personnel costs associated with a reduction in headcount.

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Restructuring Charges

	Three months ended March 31,		Period-to-period change	
	2015	2014	\$	%
	(dollars in thousands)			
Restructuring charges	\$ 10	\$ 200	\$ (190)	(95.0)%
Percentage of revenue	0.0%	0.3%		

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

We implemented reductions in force in prior periods to improve the focus of our operations, control costs, achieve future profitability and conserve cash. As a result of these actions, we recorded a minor adjustment to restructuring expense in the quarter ended March 31, 2015 compared to \$0.2 million during the three month period ended March 31, 2014.

Other (Expense) Income

Three Months Ended March 31, 2015 Compared with Three Months Ended March 31, 2014

Other expense was \$1.5 million for the three months ended March 31, 2015 compared with other income of \$0.1 million for the three months ended March 31, 2014. Other (expense) income consists primarily of foreign exchange gains and losses attributable to fluctuations of the U.S. dollar against the local currencies of certain of the countries in which we operate, interest earned on our invested cash balances, bank fees associated with our financing arrangements and interest expense related to financing arrangements. The increase in other expense was primarily driven by charges incurred relating to the sale of our corporate headquarters facility. The Company recorded \$0.9 million in interest expense associated with the lease of our headquarters in Beverly, which is being accounted for as a financing obligation. See Note 3 for further discussion. The Company also recorded \$0.3 million in expense related to prepayment charges associated with the satisfaction of our term loan with Northern Bank & Trust Company.

During the three month periods ended March 31, 2015 and 2014, with the exception of the lease agreement entered into by the Company relating to the sale leaseback transaction, we had no significant off-balance-sheet risks such as foreign exchange contracts, option contracts or other foreign hedging arrangements.

Income Tax Provision

	Three months ended March 31,		Period-to-period change	
	2015	2014	\$	%
	(dollars in thousands)			
Income tax provision	\$ 101	\$ 195	\$ (94)	(48.2)%
Percentage of revenue	0.1%	0.3%		

We incur income tax expense relating principally to operating results of foreign entities in Europe and Asia, where we earn taxable income. We have significant net operating loss carryforwards in the United States and certain European tax jurisdictions and, as a result, we do not currently pay significant income taxes in those jurisdictions. Additionally, we do not recognize the tax benefit for such losses in the United States and certain European taxing jurisdictions, and will not do so until we have sufficient income such that these tax benefits can be utilized. As stated in Note 3, the Company does not anticipate incurring any material federal or state tax liability associated with the taxable gain on the sale of its corporate headquarters. The Company will continue to maintain a full valuation allowance for these tax assets until sustainable future levels of profitability are evident.

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Liquidity and Capital Resources

Our liquidity is affected by many factors. Some of these relate specifically to the operations of our business, for example, the rate of sale of our products, and others relate to the uncertainties of global economies, including the availability of credit and the condition of the overall semiconductor equipment industry. Our established cost structure, other than cost of goods sold, does not vary significantly with changes in volume. We experience fluctuations in operating results and cash flows depending on these changes in revenue levels.

During the three month period ended March 31, 2015, the Company generated \$8.7 million of cash from operating activities. This was predominately driven by the Company's income from operations, excluding non-cash charges such as depreciation and amortization and stock based compensation expense. The Company also had increases in accounts payable and other current liabilities and deferred revenue of approximately \$12.9 million, offset by the increases in inventory and prepaid expenses and other current assets of approximately \$8.0 million, resulting in a \$4.9 million increase in cash from operations. In comparison, during the three month period ended March 31, 2014, the Company used \$4.0 million of cash to support operating activities.

Investing activities for the three months periods ending March 31, 2015 and 2014 included \$0.3 million and \$0.2 million, respectively, used for capital expenditures.

Financing activities for the three month period ending March 31, 2015 provided net cash of \$34.9 million, primarily due to \$48.9 million of gross proceeds, less \$0.4 million for prepaid rent, for a net amount of \$48.5 million, from the sale of our corporate headquarters building in Beverly, Massachusetts. The Company also incurred \$0.8 million of related financing costs paid in the first quarter of 2015 associated with the sale of our corporate headquarters. The Company paid \$14.5 million relating to a scheduled principal payment, and upon the sale of corporate headquarters, the retirement of, our term loan with Northern Bank & Trust Company. Also included in cash provided by financing activities was \$0.9 million received relating to the exercise of stock options and a \$0.8 million decrease in our restricted cash balance. In comparison, financing activities for the three month period ending March 31, 2014 included \$1.3 million of cash received upon exercise of stock options.

Our revolving credit facility with Silicon Valley Bank provides for borrowings of up to \$10.0 million on a revolving basis during a two year term ending October 31, 2015, based primarily on accounts receivable. The Company's ability to borrow under this line of credit is limited to 80% of the then current amount of qualified accounts receivable. As of March 31, 2015, the Company had not drawn down on the line of credit, although a portion of the availability is being used to support outstanding letters of credit in the amount of \$6.9 million. At March 31, 2015, our available borrowing capacity under the credit facility was \$3.1 million and we were in compliance with all covenants related to the credit facility. The revolving credit facility is used by the Company to support letters of credit and for short-term borrowing, as needed.

We believe that based on our current market, revenue, expense and cash flow forecasts, our existing cash, cash equivalents and borrowing capacity will be sufficient to satisfy our anticipated cash requirements for the short and long-term. In the event that demand for our products declines in future periods, we believe we can align manufacturing and operating spending levels to the changing business conditions and provide sufficient liquidity to support operations. Our expectation for adequate liquidity is subject to risks that may cause our actual results to differ materially from our expectations. These risks include the timing and degree of customer acceptance of our products, the continuing demand for ion implantation equipment, overall activity levels of semiconductor manufacturing, competitive pressure on sales and pricing, increases in material and other production costs that cannot be recouped in product pricing and global economic, political and financial conditions.

Commitments and Contingencies

Other than the lease obligation related to the sale leaseback of our Corporate headquarters shown in the table below, significant commitments and contingencies at March 31, 2015 are consistent with those discussed in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and Note 16 to the consolidated financial statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014.

The following represents all material changes from our prior year end to our contractual obligations as of March 31, 2015 (in thousands):

Contractual Obligations	Total	Payments Due by Period		
		2015	2016-2019	2020-2037
Lease obligation	\$ 134,286	\$ 3,525	\$ 21,194	\$ 109,567
Total	\$ 134,286	\$ 3,525	\$ 21,194	\$ 109,567

[Table of Contents](#)**Item 3. Quantitative and Qualitative Disclosures about Market Risk.**

As of March 31, 2015, there have been no material changes to the quantitative information about market risk disclosed in Item 7A to our Annual Report on Form 10-K for the year ended December 31, 2014.

Item 4. Controls and Procedures.**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 our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) as of the end of the period covered by this report (the “Evaluation Date”). Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of the Evaluation Date, these disclosure controls and procedures are effective.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) identified in connection with the evaluation of our internal control that occurred during the three months ended March 31, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

[Table of Contents](#)**PART II—OTHER INFORMATION****Item 1. Legal Proceedings.**

The Company is, from time to time, a party to litigation that arises in the normal course of its business operations. The Company is not presently a party to any litigation that it believes might have a material adverse effect on its business operations.

Item 1A. Risk Factors.

As of March 31, 2015, there have been no material changes to the risk factors described in Item 1A to our Annual Report on Form 10-K for the year ended December 31, 2014.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not Applicable.

Item 5. Other Information.

None.

[Table of Contents](#)**Item 6. Exhibits.**

The following exhibits are filed herewith:

Exhibit No	Description
3.1	Amended and Restated Certificate of Incorporation of the Company adopted May 6, 2009. Incorporated by reference to Exhibit 3.1 of the Company’s Current Report on Form 8-K filed with the Commission on May 11, 2009.
3.2	Bylaws of the Company, as amended as of May 13, 2014. Incorporated by reference to Exhibit 3.2 of the Company’s Form 8-K, filed with the Commission on May 19, 2014.

- 10.1 Form of Executive Separation Pay Agreement between the Company and each of Kevin J. Brewer, William Bintz, John E. Aldeborgh, Lynnette C. Fallon and Douglas A. Lawson dated March 5, 2015. Incorporated by reference to Exhibit 10.15 of the Company's Form 10-K for the year ended December 31, 2014, filed with the Commission on March 11, 2015.
- 10.2 Second Amendment to Loan and Security Agreement between the Company and Silicon Valley Bank, effective February 2, 2015. Incorporated by reference to Exhibit 10.23 of the Company's Form 10-K for the year ended December 31, 2014, filed with the Commission on March 11, 2015.
- 10.3 Lease Agreement between the Company and Beverly Property Owner LLC, effective January 30, 2015. Incorporated by reference to Exhibit 10.24 of the Company's Form 10-K for the year ended December 31, 2014, filed with the Commission on March 11, 2015.
- 10.4 Nomination and Standstill Agreement, dated March 5, 2015, among Axcelis Technologies, Inc., Vertex Opportunities Fund, LP and each of the other persons set forth on the signature pages thereto. Incorporated by reference to Exhibit 99.2 of the Company's Form 8-K, filed with the Commission on March 6, 2015.
- 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 May 6, 2015. 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 May 6, 2015. 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 Sarbanes-Oxley Act), dated May 6, 2015. Filed herewith.
- 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 May 6, 2015. Filed herewith.
- 101 The following materials from the Company's Form 10-Q for the quarter ended March 31, 2015, formatted in eXtensible Business Reporting Language (XBRL): (i) Consolidated Statements of Operations, (ii) Consolidated Statements of Comprehensive Income (Loss), (iii) Consolidated Balance Sheets, (iv) Consolidated Statements of Cash Flows and (v) Notes to Consolidated Financial Statements (Unaudited).

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

DATED: May 6, 2015

AXCELIS TECHNOLOGIES, INC.

By: /s/ KEVIN J. BREWER

Kevin J. Brewer
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 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) 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
 - (d) 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: May 6, 2015

/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, Kevin J. Brewer, certify that:

1. I have reviewed this quarterly report on 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) 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
 - (d) 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: May 6, 2015

/s/ KEVIN J. BREWER

Kevin J. Brewer,
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 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 May 6, 2015.

/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 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 May 6, 2015.

/s/ KEVIN J. BREWER

Kevin J. Brewer
*Executive Vice President and Chief Financial Officer of Axcelis
Technologies, Inc.*
