UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2011

or

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

For the transition period from t

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 x No o.

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 x No o.

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 o

Accelerated filer x

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

Smaller reporting company o

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

As of August 4, 2011 there were 106,423,674 shares of the registrant's common stock outstanding.

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PART 1—FINANCIAL INFORMATION

Item 1. Financial Statements.

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

	Three months ended June 30,				Six months ended June 30,			
_		2011		2010		2011		2010
Revenue	_				_		_	
Product	\$	84,334	\$	50,693	\$	170,937	\$	90,971
Service		9,046		7,510		15,613		15,732
		93,380		58,203		186,550		106,703
Cost of revenue								
Product		52,905		33,690		109,778		64,010
Service		6,337		4,645		11,553		9,818
		59,242		38,335		121,331		73,828
Gross profit		34,138		19,868		65,219		32,875
Operating expenses								
Research and development		11,829		9,477		23,647		18,610
Sales and marketing		7,675		6,606		15,494		13,210
General and administrative		8,416		7,464		17,471		15,164
		27,920		23,547		56,612		46,984
Income (loss) from operations		6,218		(3,679)		8,607		(14,109)
Other income (expense)								
Interest income		11		25		17		54
Other, net		(1,158)		342		(1,608)		(65)
		(1,147)		367		(1,591)		(11)
Income (loss) before income taxes		5,071		(3,312)		7,016		(14,120)
Income taxes		844		1,217		977		1,510
	\$	4,227	\$	(4,529)	\$	6,039	\$	(15,630)
Net income (loss)	Ψ	4,227	Ψ.	(4,329)	Ф	0,033	Ψ	(13,030)
Net income (loss) per share								
Basic	\$	0.04	\$	(0.04)	\$	0.06	\$	(0.15)
Diluted	\$	0.04	\$	(0.04)	\$	0.06	\$	(0.15)
Shares used in computing basic and diluted net income (loss) per share								
Basic weighted average common shares		106,097		104,170		106,017		104,143
Diluted weighted average common shares		108,911		104,170		109,723		104,143
Zauteu werage common onures			_		_		_	

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

	June 30, 2011		D	December 31, 2010	
ASSETS					
Current assets					
Cash and cash equivalents	\$	37,857	\$	45,743	
Accounts receivable, net		57,969		57,888	
Inventories, net		124,273		109,653	
Prepaid expenses and other current assets		11,177		15,346	
Total current assets		231,276		228,630	
Property, plant and equipment, net		38,106		38,594	
Long-term restricted cash		116		107	
Other assets		17,914		13,541	
	\$	287,412	\$	280,872	
LIABILITIES AND STOCKHOLDERS' EQUITY					
Current liabilities					
Accounts payable	\$	30,904	\$	36,709	
Accrued compensation		11,399		10,597	
Warranty		4,131		2,556	
Income taxes		650		_	
Deferred revenue		10,933		13,859	
Other current liabilities		4,518		4,408	
Total current liabilities		62,535		68,129	
Long-term deferred revenue		2,374		2,417	
Other long-term liabilities		5,317		4,759	
Commitments and contingencies (Note 10)					
Stockholders' equity					
Preferred stock		_		_	
Common stock		106		106	
Additional paid-in capital		496,583		493,967	
Treasury stock		(1,218)		(1,218)	
Accumulated deficit		(287,481)		(293,520)	
Accumulated other comprehensive income		9,196		6,232	
		217,186		205,567	
	\$	287,412	\$	280,872	

See accompanying Notes to these Consolidated Financial Statements

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

	Six months ended June 30,			d
		2011		2010
Cash flows from operating activities:				
Net income (loss)	\$	6,039	\$	(15,630)
Adjustments to reconcile net income (loss) to net cash used for operating activities:				
Depreciation and amortization		4,009		3,711
Taxes		16		_
Stock-based compensation expense		2,124		1,568
Provision for excess inventory		536		1,331
Changes in operating assets & liabilities:				
Accounts receivable		571		(16,011)
Inventories		(13,894)		13,844
Prepaid expenses and other current assets		4,442		(5,051)
Accounts payable & other current liabilities		(3,618)		11,502
Deferred revenue		(2,989)		5,366
Income taxes		629		(110)
Other assets and liabilities		(5,920)		1,673
Net cash provided by (used for) operating activities		(8,055)	·	2,193

Cash flows from investing activities:		
Expenditures for property, plant, and equipment	(1,231)	(480)
(Increase) decrease in restricted cash	(9)	3,116
Net cash provided by (used for) investing activities	(1,240)	2,636
Cash flows from financing activities:		
Financing fees and other expenses	(194)	(514)
Proceeds from exercise of stock options	239	55
Proceeds from Employee Stock Purchase Plan	275	206
Net cash provided by (used for) financing activities	320	(253)
Effect of exchange rate changes on cash	1,089	(1,710)
Net increase (decrease) in cash and cash equivalents	(7,886)	2,866
Cash and cash equivalents at beginning of period	45,743	45,020
Cash and cash equivalents at end of period	\$ 37,857	\$ 47,886

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 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 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, 2010 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, 2010.

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 14 to the consolidated financial statements in the Company's 2010 Annual Report on Form 10-K.

The Company recognized stock-based compensation expense of \$0.9 million and \$2.1 million for the three and six months ended June 30, 2011, respectively. For the three and six months ended June 30, 2010, the Company recognized stock-based compensation expense of \$0.8 million and \$1.6 million, respectively. These amounts include compensation expense related to restricted stock units, restricted stock, non-qualified stock options and stock expected to be issued under the ESPP. Included in stock-based compensation expense for the six months ended June 30, 2011 was \$0.3 million related to the accelerated vesting of certain options of a former executive of the Company who retired effective March 31, 2011.

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Note 3. Net Income (Loss) Per Share

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 incremental common shares that would have been outstanding if the potentially dilutive common shares had been issued. Because the Company had net losses for the three and six months period ended June 30, 2010, any potentially diluted common shares related to outstanding stock options, restricted stock, restricted stock units and convertible debt have been excluded from the calculation of net loss per share for that period because the effect would be anti-dilutive.

The components of net income (loss) per share are as follows:

Three months ended
June 30,

2011
2010
(in thousands, except per share data)

Six months ended
June 30,

2010
2011
2010
(in thousands, except per share data)

Income (loss)	\$ 4,227	\$ (4,529)	\$ 6,039	\$ (15,630)
Weighted average common shares outstanding used in			 	
computing basic net income (loss) per share	106,097	104,170	106,017	104,143
Incremental shares	2,814	_	3,706	_
Weighted average common shares outstanding used in				
computing diluted net income (loss) per share	 108,911	 104,170	 109,723	 104,143
Net income (loss) per share:		 		
Basic	\$ 0.04	\$ (0.04)	\$ 0.06	\$ (0.15)
Diluted	\$ 0.04	\$ (0.04)	\$ 0.06	\$ (0.15)

Note 4. Comprehensive Income (Loss)

The components of comprehensive income (loss) are as follows:

0.044			Six months ended June 30,			
2011		2010		2011		2010
(in th	ousands)			(in tho	ısands)	<u> </u>
4,227	\$	(4,529)	\$	6,039	\$	(15,630)
1,639		(3,336)		2,964		(4,103)
5,866	\$	(7,865)	\$	9,003	\$	(19,733)
7						
	4,227 1,639	(in thousands) 4,227 \$ 1,639	(in thousands) 4,227 \$ (4,529) 1,639 (3,336)	(in thousands) 4,227 \$ (4,529) \$ 1,639 (3,336)	(in thousands) (in thousands) 4,227 \$ (4,529) \$ 6,039 1,639 (3,336) 2,964	(in thousands) (in thousands) 4,227 \$ (4,529) \$ 6,039 \$ 1,639 (3,336) 2,964

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Note 5. Inventories

The components of inventories are as follows:

	 June 30, 2011	De	cember 31, 2010
	(in thou	ısands)	
Raw materials	\$ 83,430	\$	74,596
Work in process	35,018		29,848
Finished goods (completed systems)	5,825		5,209
	\$ 124,273	\$	109,653

When recorded, reserves reduce the carrying value of inventories to their net realizable value. The Company establishes inventory reserves when conditions exist that indicate inventories may be in excess of anticipated demand or is obsolete based upon assumptions about future demand for the Company's products or market conditions. The Company regularly evaluates the ability to realize the value of inventories based on a combination of factors including 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 June 30, 2011 and December 31, 2010, inventory is stated net of inventory reserves of \$27.7 million and \$27.5 million, respectively.

Note 6. Product Warranty

The Company generally offers a one 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. 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:

	Six months ended June 30,			
	2011 2010			2010
		(in tho	usands)	
Balance at December 31	\$	2,713	\$	726
Warranties issued during the period		2,711		1,229
Settlements made during the period		(2,214)		(919)
Changes in estimate of liability for pre-existing warranties during the period		1,149		11
Balance at June 30	\$	4,359	\$	1,047
Amount classified as current	\$	4,131	\$	974
Amount classified as long-term		228		73
Total Warranty Liability	\$	4,359	\$	1,047

Bank Credit Facility

On April 25, 2011, the Company amended its existing revolving credit facility with a bank. The amended agreement provides for borrowings up to \$30 million based primarily on accounts receivable. The facility has certain financial covenants requiring us to maintain minimum levels of operating results and liquidity. The agreement will terminate on April 10, 2015. The Company uses the facility to support letters of credit and hedging transactions.

At June 30, 2011, the Company's borrowing capacity under the amended credit facility was \$28.4 million and the Company was compliant with all covenants of the loan agreement.

Note 8. 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, the effective income tax rate is not meaningful.

Note 9. Significant Customers

For the three months ended June 30, 2011, three customers each accounted for approximately 19.2%, 13.0% and 11.4% of revenue. For the six months ended June 30, 2011, three customers each accounted for approximately 19.2%, 13.0% and 13.0% of revenue. For the three months ended June 30, 2010, one customer accounted for approximately 16.8% of revenue. For the six months ended June 30, 2010, two customers each accounted for approximately 12.9% and 11.2% of revenue.

At June 30, 2011, three customers accounted for 14.9%, 12.8% and 10.1% of consolidated accounts receivable. At June 30, 2010, one customer accounted for 17.1% of consolidated accounts receivable.

Note 10. Contingencies

Litigation

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.

Indemnifications

The Company's system sales agreements typically include provisions under which the Company agrees to 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.

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Note 11. Revenue Recognition and New Accounting Guidance Recently Adopted

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

Axcelis' system sales transactions are made up of multiple elements, including the system itself and elements that are not delivered simultaneously with the system. These undelivered elements might include a combination of installation services and an extended warranty for support and spare parts, all of which are covered by a single sales price. Effective January 1, 2011, the Company adopted Accounting Standards Update, or ASU, No. 2009-13, *Multiple Deliverable Revenue Arrangements*, as required, using the prospective method. Accordingly, this guidance is being applied to all system revenue arrangements entered into or materially modified on or after January 1, 2011. The adoption of the amended guidance did not change the accounting for arrangements entered into prior to January 1, 2011. There was no material impact on our financial position, results of operations or cash flows upon adoption and we do not expect adoption will have a material impact on our future reporting periods based on our current practices.

The impact of adopting this amended guidance on our results of operations has been limited to transactions involving the sale of systems. ASU No. 2009-13 amended the previous guidance for multiple-element arrangements. Pursuant to the amended guidance in ASU 2009-13, our system revenue arrangements with multiple elements are divided into separate units of accounting if specified criteria are met, including whether the delivered element has stand-alone value to the customer. If the criteria are met, then the consideration received is allocated among the separate units based on their relative selling price, and the revenue is recognized separately for each of the separate units.

The Company determines selling price for each unit of accounting (element) using vendor specific objective evidence (VSOE) or third-party evidence (TPE), if they exist, otherwise, we use best estimated selling price (BESP). The Company generally expects that it will not be able to establish TPE due to the nature of our products, and, as such, we typically will determine selling price using VSOE or BESP.

Where required, we determine BESP for an individual element based on consideration of both market and Company-specific factors, including the selling price and profit margin for similar products, the cost to produce the deliverable and the anticipated margin on that deliverable and the characteristics of the varying markets in which the deliverable is sold.

The total consideration to be received in the transaction is allocated to each element in the arrangement based upon the relative selling price of each element when compared to the consideration received.

Systems are not sold separately and VSOE or TPE is not available for the systems element. Therefore the selling price associated with systems is based on BESP. The allocated value for installation in the arrangement includes (a) the greater of (i) the relative selling price of the installation or (ii) the portion or the sales price that will not be received until the installation is completed (the "retention"). The selling price of installation is based upon the fair value of the service performed, including labor, which is based upon the estimated time to complete the installation at hourly rates, and material components, both of which are sold separately. The selling price of all other elements (extended warranty for support, spare parts, and labor) is based upon the price charged when these elements are sold separately, or VSOE.

Product revenue for systems which have demonstrated market acceptance is generally recognized upon shipment provided title and risk of loss has passed to the customer, evidence of an arrangement exists, prices are contractually fixed or determinable, collection is reasonably assured through historical collection results and regular credit evaluations, and there are no uncertainties regarding customer acceptance. Revenue from installation services is recognized at the time formal acceptance is received from the customer or, for certain customers, when both the formal acceptance and retention payment have been received. Revenue for other elements is recognized at the time products are shipped or the related services are performed.

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We generally recognize product revenue for systems which have demonstrated market acceptance at the time of shipment because the customer's post-delivery acceptance provisions and installation process have been established to be routine, commercially inconsequential and perfunctory. While some customers accept Axcelis' standard specifications, the majority of Axcelis' systems are designed and tailored to meet the customer's specifications, as outlined in the contract between the customer and Axcelis. To ensure that the customer's specifications are satisfied, some customers request that new systems be tested at Axcelis' facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. We believe the risk of failure to complete a system installation is remote. Should an installation not be completed successfully, the contractual provisions do not provide for forfeiture, refund or other purchase price concession beyond those prescribed by the provisions of the Uniform Commercial Code applicable generally to such transactions.

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

Note 12. Recent Accounting Pronouncements

In June 2011, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2011-05, *Comprehensive Income (Topic 220)*. This newly issued accounting standard (1) eliminates the option to present the components of other comprehensive income as part of the statement of changes in stockholders' equity; (2) requires the consecutive presentation of the statement of net income and other comprehensive income; and (3) requires an entity to present reclassification adjustments on the face of the financial statements from other comprehensive income to net income. This update does not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income nor does it affect how earnings per share is calculated or presented. This update is required to be applied retrospectively and is effective for us for fiscal years and interim periods within those years beginning January 1, 2012. As this update only requires enhanced disclosure, the adoption of this update will not impact our financial position or results of operations.

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

Certain statements in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this Form 10-Q are forward-looking statements that involve risks and uncertainties. Words such as may, will, should, would, anticipates, expects, intends, plans, believes, seeks, estimates and similar expressions identify such forward-looking statements. The forward-looking statements contained herein are based on current expectations and entail various risks and uncertainties that could cause actual results to differ materially from those expressed in such forward-looking statements. Factors that might cause such a difference include, among other things, those set forth or referred to under "Liquidity and Capital Resources" and "Risk Factors" and others discussed elsewhere in this Form 10-Q. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's analysis only as of the date hereof. We assume no obligation to update these forward-looking statements to reflect actual results or changes in factors or assumptions affecting forward-looking statements, except as may be required by law.

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. We typically become more efficient in manufacturing products as they mature. Our operating expense base is largely fixed and does not vary significantly with changes in volume. Therefore, we experience fluctuations in operating results and cash flows depending on our revenue as driven by the level of capital expenditures by semiconductor manufacturers.

The sizable expense of building, upgrading or expanding a semiconductor fabrication facility is increasingly causing semiconductor companies to contract with foundries to manufacture their semiconductors. In addition, consolidation and partnering within the semiconductor manufacturing industry is increasing. We expect these trends to continue to reduce the number of our potential customers. This growing concentration of Axcelis' customers may increase pricing pressure as higher percentages of our total revenue are tied to the buying decisions of a particular customer or a small number of customers.

During 2010, the market for our products steadily improved and we gained market share with our single wafer ion implant systems for high current and high energy applications (the Optima HDx and Optima XEx). In 2011, we expect this market traction to continue. We also expect to gain market share with our dry strip product (Integra). As compared to 2010, the Company's 2011 plan provides for improvement in revenue, generating positive operating cash flow and reduction in working capital. In the event that demand for Axcelis' products declines in future periods, the Company believes it can align manufacturing and operating expense levels to the changing business conditions and provide sufficient liquidity to support operations.

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

Critical Accounting Estimates

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

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There has been no material change in the nature of our critical accounting estimates and judgments as described in Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2010.

Results of Operations

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

	Three montl ended June 30,	1S	Six months ended June 30,		
Devianie	2011	2010	2011	2010	
Revenue Product	90.3%	87.1%	91.6%	85.3%	
Service	9.7	12.9	8.4	14.7	
Total revenue	100.0	100.0	100.0	100.0	
Cost of revenue					
Product	56.6	57.9	58.8	60.0	
Service	6.8	8.0	6.2	9.2	
Total cost of revenue	63.4	65.9	65.0	69.2	
Gross profit	36.6	34.1	35.0	30.8	
Operating expenses					
Research and development	12.7	16.3	12.7	17.4	
Sales and marketing	8.2	11.3	8.3	12.4	
General and administrative	9.0	12.8	9.4	14.2	
Total operating expenses	29.9	40.4	30.4	44.0	
Income (loss) from operations	6.7	(6.3)	4.6	(13.2)	
Other income (expense)					
Interest income	0.0	0.0	0.0	0.1	
Interest expense	0.0	0.0	0.0	0.0	
Other, net	(1.3)	0.6	(0.9)	(0.1)	
Total other income (expense)	(1.3)	0.6	(0.9)	0.0	
Income (loss) before income taxes	5.4	(5.7)	3.7	(13.2)	
Income taxes	0.9	2.1	0.5	1.4	
Net income (loss)	4.5%	(7.8)%	3.2%	(14.6)%	
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Three and six months ended June 30, 2011 in comparison to the three and six months ended June 30, 2010

Revenue

Product revenue, which includes systems sales, sales of spare parts and product upgrades, was \$84.3 million, or 90.3% of revenue, for the three months ended June 30, 2011, compared with \$50.7 million, or 87.1% of revenue for the three months ended June 30, 2010. Product revenue was \$170.9 million, or 91.6% of revenue for the six months ended June 30, 2011, compared with \$91.0 million, or 85.3% of revenue for the six months ended June 30, 2010. System sales were \$53.7 million, or 57.5% of revenue, for the three months ended June 30, 2011, compared with \$22.1 million, or 38.0% of revenue for the three months ended June 30, 2010. System sales were \$108.5 million, or 58.2% of revenue, for the six months ended June 30, 2011, compared with \$38.2 million, or 35.8% of revenue, for the six months ended June 30, 2010. The increase in product revenue in the three and six month period ended June 30, 2011 is attributable to the strengthening of the semiconductor market and a related increase in capital spending by semiconductor manufacturers. In addition, we also believe we are gaining market traction with our single wafer ion implant systems for high current and high energy applications (the Optima HDx and Optima XEx), as customers are showing a higher acceptance for our technology.

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 June 30, 2011 and 2010 was \$13.3 million and \$11.0 million, respectively. The increase was mainly due to the increase in systems sales in 2011.

Service

Service revenue, which includes the labor component of maintenance and service contracts and fees for service hours provided by on-site service personnel, was \$9.0 million, or 9.7% of revenue, for the three months ended June 30, 2010, compared with \$7.5 million, or 12.9% of revenue, for the three months ended June 30, 2010. Service revenue was \$15.6 million, or 8.4% of revenue for the six months ended June 30, 2011, compared with \$15.7 million, or 14.7% of revenue for the six months ended June 30, 2010. Service revenue is effected by the expansion of the installed base of off-warranty systems and can fluctuate from period to period based on capacity utilization at customers' manufacturing facilities.

Ion Implant

Included in total revenue of \$93.4 million for the three month period ended June 30, 2011 is revenue from sales of ion implantation products and service of \$72.1 million, or 77.2% of total revenue, compared with \$47.7 million, or 82.0% of total revenue, for the three months ended June 30, 2010. Revenue from sales of ion implantation products and service accounted for \$136.7 million, or 73.3% of revenue, for the six months ended June 30, 2011, compared to \$89.0 million, or 83.4% of revenue, in the six months ended June 30, 2010. The dollar increase was due to the factors discussed above for product revenue.

Aftermarket

The Company's product revenue includes sales of spare parts and product upgrades as well as complete systems. We refer to the business of selling spare parts and product upgrades, combined with the sale of maintenance labor and service contracts and service hours, as the "aftermarket" business. Included in total revenue of \$93.4 million is revenue from our aftermarket business of \$39.7 million for the three months ended June 30, 2011, compared to \$36.1 million for the three months ended June 30, 2010. The revenue from our aftermarket business was \$78.0 million for the six months ended June 30, 2011, compared to \$68.5 million for the six months ended June 30, 2010. Aftermarket revenue generally increases with expansion of the installed base of systems but can fluctuate period to period based on capacity utilization at customers' manufacturing facilities which affects the sale of spare parts and demand for equipment service. The increase of \$3.6 million and \$9.5 million in aftermarket revenue for the three months and six months ended June 30, 2011, compared to the comparable periods in 2010, was primarily due to a 12.7% and 18.4% increase in spare

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parts and upgrade revenue which is directly related to higher tool utilization at our customers' fabrication facilities and increased upgrade installations which allow our customers to maximize the technological and throughput capabilities of our tools.

Gross Profit

Product

Gross profit from product revenue was 37.3% for the three months ended June 30, 2011, compared to 33.5% for the three months ended June 30, 2010. The increase in gross profit of 3.8% was attributable to higher systems sales volume and the related favorable absorption of fixed overhead costs (18.9%), a lower provision for excess inventory (0.3%) offset by a lower mix of parts and upgrades revenue at lower margins (15.4%).

Gross profit from product revenue was 35.8% for the six months ended June 30, 2011, compared to 29.6% for the six months ended June 30, 2010. The increase in gross profit of 6.2% is attributable to higher systems sales volume and the related favorable absorption of fixed overhead costs (21.2%), a lower provision for excess inventory (0.5%) offset by a lower mix of parts and upgrades revenue at lower margins (15.5%).

Service

Gross profit from service revenue was 29.9% for the three months ended June 30, 2011, compared to 38.2% for the three months ended June 30, 2010. Gross profit from service revenue was 26.0% for the six months ended June 30, 2011, compared to 37.6% for the six months ended June 30, 2010. The decrease in gross profit in both periods was attributable to higher fixed service costs and changes in the mix and timing of service contracts.

Research and Development

Research and development expense was \$11.8 million in the three months ended June 30, 2011, an increase of \$2.3 million, or 24.2%, compared with \$9.5 million in the three months ended June 30, 2010. The increase was due to increased payroll costs (\$1.1 million) due to increased headcount to support new product development activities, increased project materials and consultants expense (\$0.8 million) and increased asset amortization and depreciation costs for assets used as demonstration and/or test systems (\$0.4 million). Research and development expense was \$23.6 million for the six months ended June 30, 2011, an increase of \$5.0 million or 26.9%, compared with \$18.6 million for the six months ended June 30, 2010. The increase was comprised of increased payroll costs (\$2.5 million), increased project materials and consultants expense (\$2.0 million), and increased development asset amortization and depreciation costs (\$0.5 million), substantially all of which are attributable to new product development activities.

Sales and Marketing

Sales and marketing expense was \$7.7 million in the three months ended June 30, 2011, an increase of \$1.1 million, or 16.7%, compared with \$6.6 million for the three months ended June 30, 2010. The increase was primarily due to increased payroll costs due to the increased sales volume experienced by the Company during the quarter (\$0.8 million), increased commission costs (\$0.1 million), increased travel costs (\$0.2 million), and increased freight costs (\$0.2 million) and decreased supplies and marketing services expenses (\$0.2 million) all of which are attributable to increased product shipments as a result of improved industry conditions. Sales and marketing expense was \$15.5 million for the six months ended June 30, 2011, an increase of \$2.3 million, or 17.4%, compared with \$13.2 million for the six months ended June 30, 2011. The increase was primarily due to increased payroll costs (\$1.5 million) due to the increased sales volume and increased customer acceptance of our products experienced by the Company during the year, increased commission costs (\$0.6 million), increased travel costs of (\$0.3 million), increased freight costs (\$0.4 million), and decreased supplies and marketing services expense (\$0.5 million).

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General and Administrative

General and administrative expense was \$8.4 million for the three months ended June 30, 2011, an increase of \$0.9 million or 12.0%, compared with \$7.5 million in the three months ended June 30, 2010. The increase was due to increased compensation expense due to increased incentive compensation accruals and higher headcount (\$0.9 million). General and administrative expense was \$17.5 million for the six months ended June 30, 2011, an increase of \$2.3 million, or 15.1%, compared with \$15.2 million in the six months ended June 30, 2010. The increase was due to increased compensation expense due to increased incentive compensation expense and higher headcount (\$2.0 million) and separation costs associated with the retirement of a former executive of the Company (\$0.3 million).

Other Income (Expense)

Other expense was \$1.1 million for the three months ended June 30, 2011 compared with other income of \$0.4 million for the three months ended June 30, 2010. Other expense for 2011 primarily consisted of foreign exchange losses whereas in 2010 the Company incurred foreign exchange gains as a result of U.S. dollar currency fluctuations against the local currencies of certain of the countries in which we operate.

Income Taxes

We incur income tax expense relating principally to operating results of foreign entities, in Asia and Europe, where we earn taxable income. We have significant net operating loss carryforwards in the United States and certain foreign jurisdictions, and, as a result, we do not currently pay significant income taxes in those jurisdictions and we do not recognize the tax benefit for such losses. Accordingly, our effective income tax rate is not meaningful.

Liquidity and Capital Resources

We believe that based on our current market, revenue and expense forecasts, our existing cash and cash equivalents will be sufficient to satisfy our anticipated cash requirements for the foreseeable future. Our liquidity is affected by many factors. Some of these relate specifically to the operations of our business, for example, the rate of acceptance of our Optima and Integra product lines, and others relate to the uncertainties of global economies, including the availability of credit and the condition of the overall semiconductor equipment industry.

During the six months ended June 30, 2011, \$8.1 million of cash was used, in line with the Company's 2011 plan, to support operating activities, including increased levels of inventories in anticipation of future system sales. The Company expects to generate cash in the third quarter, primarily due to the cash conversion of working capital items, primarily accounts receivable. Cash and cash equivalents at June 30, 2011 were \$37.9 million, compared to \$45.7 million at December 31, 2010. The Company's 2011 plan provides for improvement in revenue, generating positive operating cash flow and reduction in working capital as compared to 2010. In the event that demand for Axcelis' products declines in future periods, the Company believes it can align manufacturing and operating spending levels to the changing business conditions and provide sufficient liquidity to support operations.

On April 25, 2011, the Company amended its existing revolving credit facility with a bank. The amended agreement provides for borrowings up to \$30 million based primarily on accounts receivable. The facility has certain financial covenants requiring us to maintain minimum levels of operating results and liquidity. The agreement will terminate on April 10, 2015. The Company uses the facility to support letters of credit and hedging transactions.

At June 30, 2011 the Company's borrowing capacity under the amended credit facility was \$28.4 million and the Company was compliant with all covenants of the loan agreement.

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Commitments and Contingencies

Significant commitments and contingencies at June 30, 2011 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, 2010.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

As of June 30, 2011, there have been no material changes to the information about market risk disclosed in Item 7A to our annual report on Form 10-K for the year ended December 31, 2010.

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 second quarter of 2011 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

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.

Item 1A. Risk Factors.

As of June 30, 2011, 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, 2010.

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

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. (Removed and Reserved).

Item 5. Other Information.

None.

Item 6. Exhibits.

The following exhibits are filed herewith:

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 Current
		Report on Form 8-K filed with the Commission on May 11, 2009.
	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.
-	10.1	Second Amended and Restated Loan and Security Agreement dated as of April 25, 2011 between the Company and Axcelis Technologies
		CCS Corporation, as borrowers, and Silicon Valley Bank. Incorporated by reference to Exhibit 10.1 of the Company's quarterly report on
		Form 10-Q filed with the Commission on May 6, 2011.
3	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 August X, 2011. Filed herewith.
3	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 August X, 2011. 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 Order, Act). dated August X, 2011. Filed berevith
- the Sarbanes-Oxley Act), dated August X, 2011. 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
- 2.2 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 August X, 2011. Filed herewith.
- The following materials from the Company's Form 10-Q for the quarter ended June 30, 2011, formatted in eXtensible Business Reporting Language (XBRL): (i) Consolidated Statements of Operations, (ii) Consolidated Balance Sheets, (iii) Consolidated Statements of Cash Flows and (iv) Notes to Consolidated Financial Statements.

Exhibit 101 includes:

101.INS	XBRL Instance Document. Filed herewith.
101.SCH	XBRL Taxonomy Extension Schema Document. Filed herewith.
101.DEF	XBRL Taxonomy Definition Linkbase Document. Filed herewith.

10	1.CAL 1.LAB 1.PRE	XBRL Taxonomy Calculation Linkbase Document. XBRL Taxonomy Label Linkbase Document. XBRL Taxonomy Presentation Linkbase Document	Filed herewith.		
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Exhibit 101 to this Quarterly Report on Form 10-Q shall not be deemed "filed" or a part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933 nor "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liabilities of those sections.					
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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.					
	AXCELIS TECHNOLOGIES, INC.				
DATED: August 5, 20	11	By:	/s/ JAY ZA	GER	
Tay 7 ager					

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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: August 5, 2011 /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, Jay Zager, 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: August 5, 2011 /s/ JAY ZAGER

Jay Zager, 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 August 5, 2011.

/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 August 5, 2011.

/s/ JAY ZAGER

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