
**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 **June 30, 2012**

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 July 31, 2012 there were 107,843,885 shares of the registrant's common stock outstanding.

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

	Three months ended June 30,		Six months ended June 30,	
	2012	2011	2012	2011
Revenue				
Product	\$ 51,465	\$ 84,334	\$ 99,003	\$ 170,937
Service	7,649	9,046	15,117	15,613
Total revenue	<u>59,114</u>	<u>93,380</u>	<u>114,120</u>	<u>186,550</u>
Cost of revenue				
Product	30,599	52,905	59,883	109,778
Service	5,727	6,337	10,913	11,553
Total cost of revenue	<u>36,326</u>	<u>59,242</u>	<u>70,796</u>	<u>121,331</u>
Gross profit	22,788	34,138	43,324	65,219
Operating expenses				
Research and development	10,478	11,829	22,147	23,647
Sales and marketing	6,231	7,675	12,814	15,494
General and administrative	6,488	8,416	14,287	17,471
Restructuring charges	153	—	3,034	—
Total operating expense	<u>23,350</u>	<u>27,920</u>	<u>52,282</u>	<u>56,612</u>
Income (loss) from operations	(562)	6,218	(8,958)	8,607
Other income (expense)				
Interest income	9	11	18	17
Other, net	551	(1,158)	(373)	(1,608)
Total other income (expense)	<u>560</u>	<u>(1,147)</u>	<u>(355)</u>	<u>(1,591)</u>
Income (loss) before income taxes	(2)	5,071	(9,313)	7,016
Income taxes	469	844	1,186	977
Net income (loss)	<u>\$ (471)</u>	<u>\$ 4,227</u>	<u>\$ (10,499)</u>	<u>\$ 6,039</u>
Net income (loss) per share				
Basic and diluted net income (loss) per share	<u>\$ (0.00)</u>	<u>\$ 0.04</u>	<u>\$ (0.10)</u>	<u>\$ 0.06</u>
Shares used in computing basic and diluted net income (loss) per share				
Basic weighted average common shares	<u>107,639</u>	<u>106,097</u>	<u>107,353</u>	<u>106,017</u>
Diluted weighted average common shares	<u>107,639</u>	<u>108,911</u>	<u>107,353</u>	<u>109,723</u>

See accompanying Notes to these Consolidated Financial Statements

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

	Three months ended June 30,		Six months ended June 30,	
	2012	2011	2012	2011
Net income (loss)	\$ (471)	\$ 4,227	\$ (10,499)	\$ 6,039
Other comprehensive income:				
Foreign currency translation adjustments	(1,469)	1,639	(1,413)	2,964
Comprehensive income (loss)	<u>\$ (1,940)</u>	<u>\$ 5,866</u>	<u>\$ (11,912)</u>	<u>\$ 9,003</u>

See accompanying Notes to these Consolidated Financial Statements

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

	June 30, 2012	December 31, 2011
ASSETS		
Current assets		
Cash and cash equivalents	\$ 33,797	\$ 46,877
Accounts receivable, net	34,978	35,071
Inventories, net	126,647	120,023
Prepaid expenses and other current assets	10,203	10,062
Total current assets	<u>205,625</u>	<u>212,033</u>
Property, plant and equipment, net	35,779	37,204
Long-term restricted cash	101	104
Other assets	11,515	19,904
Total assets	<u>\$ 253,020</u>	<u>\$ 269,245</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	\$ 17,642	\$ 19,551
Accrued compensation	7,916	8,285
Warranty	2,589	3,556
Income taxes	210	495
Deferred revenue	8,398	10,786
Other current liabilities	4,070	4,799
Total current liabilities	<u>40,825</u>	<u>47,472</u>
Long-term deferred revenue	761	1,488
Other long-term liabilities	5,771	5,730
Total liabilities	<u>47,357</u>	<u>54,690</u>
Commitments and contingencies (Note 10)		
Stockholders' equity		
Preferred stock	—	—
Common stock	108	107
Additional paid-in capital	502,351	499,332
Treasury stock	(1,218)	(1,218)
Accumulated deficit	(298,942)	(288,443)
Accumulated other comprehensive income	3,364	4,777
Total stockholders' equity	<u>205,663</u>	<u>214,555</u>
Total liabilities and stockholders' equity	<u>\$ 253,020</u>	<u>\$ 269,245</u>

See accompanying Notes to these Consolidated Financial Statements

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

	Six months ended June 30,	
	2012	2011
Cash flows from operating activities:		
Net income (loss)	\$ (10,499)	\$ 6,039
Adjustments to reconcile net income (loss) to net cash used for operating activities:		
Depreciation and amortization	3,625	4,009
Deferred taxes	995	16
Stock-based compensation expense	2,010	2,124
Provision for excess inventory	406	536
Changes in operating assets and liabilities:		
Accounts receivable	16	571
Inventories	(7,213)	(13,894)
Prepaid expenses and other current assets	(808)	4,442
Accounts payable and other current liabilities	(3,928)	(3,618)
Deferred revenue	(3,109)	(2,989)
Income taxes	(286)	629
Other assets and liabilities	6,226	(5,920)
Net cash used for operating activities	<u>(12,565)</u>	<u>(8,055)</u>
Cash flows from investing activities:		
Expenditures for property, plant, and equipment	(385)	(1,231)
(Increase) decrease in restricted cash	3	(9)
Net cash used for investing activities	<u>(382)</u>	<u>(1,240)</u>
Cash flows from financing activities:		
Financing fees and other expenses	—	(194)
Proceeds from exercise of stock options	847	239
Proceeds from Employee Stock Purchase Plan	179	275
Net cash provided by financing activities	<u>1,026</u>	<u>320</u>
Effect of exchange rate changes on cash	(1,159)	1,089
Net decrease in cash and cash equivalents	<u>(13,080)</u>	<u>(7,886)</u>
Cash and cash equivalents at beginning of period	46,877	45,743
Cash and cash equivalents at end of period	<u>\$ 33,797</u>	<u>\$ 37,857</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 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, 2011 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, 2011.

Note 2. Stock-Based Compensation

The Company maintains the Axcelis Technologies, Inc. 2000 Stock Plan and the 2012 Equity Incentive Plan, stock award and incentive plans which permit 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 Stock Plan and the ESPP are more fully described in Note 12 to the consolidated financial statements in the Company’s 2011 Annual Report on Form 10-K. The 2012 Equity Incentive Plan became effective on May 2, 2012.

The Company recognized stock-based compensation expense of \$0.9 million and \$2.0 million for the three and six months ended June 30, 2012, respectively. For the three and six months ended June 30, 2011, the Company recognized stock-based compensation expense of \$0.9 million and \$2.1 million, 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.

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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 month period ended June 30, 2012, any potentially diluted common shares related to outstanding stock options and restricted stock units 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,		Six months ended June 30,	
	2012	2011	2012	2011
	(in thousands, except per share data)		(in thousands, except per share data)	
Income (loss)	\$ (471)	\$ 4,227	\$ (10,499)	\$ 6,039
Weighted average common shares outstanding used in computing basic net income (loss) per share	107,639	106,097	107,353	106,017
Incremental shares	—	2,814	—	3,706
Weighted average common shares outstanding used in computing diluted net income (loss) per share	107,639	108,911	107,353	109,723
Net income (loss) per share:				
Basic	\$ (0.00)	\$ 0.04	\$ (0.10)	\$ 0.06
Diluted	\$ (0.00)	\$ 0.04	\$ (0.10)	\$ 0.06

Note 4. Inventories

The components of inventories are as follows:

	June 30, 2012	December 31, 2011
	(in thousands)	
Raw materials	\$ 85,576	\$ 85,829
Work in process	28,712	25,639
Finished goods (completed systems)	12,359	8,555
	\$ 126,647	\$ 120,023

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 are 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, 2012 and December 31, 2011, inventories are stated net of inventory reserves of \$21.5 million and \$22.8 million, respectively.

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Note 5. Restructuring Charges

The Company recorded restructuring charges of \$0.1 million and \$3.0 million for the three and six months ended June 30, 2012, respectively. These charges represent severance and related costs in connection with a reduction in force implemented by the Company related to actions taken by management to control costs and improve the focus of its operations in order to sustain future profitability and conserve cash. The liability at June 30, 2012 of \$0.6 million is expected to be paid in the periods extending through the remainder of 2012.

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, 2011	\$ 171
Severance and related costs	3,034
Cash payments	(2,358)

Noncash payments (accelerated vesting of certain stock options)	(279)
Balance at June 30, 2012	<u>\$ 568</u>

Note 6. 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.

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

	Six months ended June 30,	
	2012	2011
	(in thousands)	
Balance at December 31	\$ 3,697	\$ 2,713
Warranties issued during the period	1,657	2,711
Settlements made during the period	(1,873)	(2,214)
Changes in estimate of liability for pre-existing warranties during the period	(770)	1,149
Balance at June 30	<u>\$ 2,711</u>	<u>\$ 4,359</u>
Amount classified as current	\$ 2,589	\$ 4,131
Amount classified as other long-term liabilities	122	228
Total warranty liability	<u>\$ 2,711</u>	<u>\$ 4,359</u>

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Note 7. Financial Arrangements

Bank Credit Facility

The Company has a revolving credit facility with a bank pursuant to an Amended and Restated Loan and Security Agreement dated April 25, 2011. The facility provides for borrowings up to \$30 million, based primarily on accounts receivable, and is subject to certain financial covenants requiring the Company 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 for short term borrowing as needed.

On March 5, 2012, the Company entered into a modification agreement relating to this facility which revised the covenants to set minimum quarterly ratios of current assets to current liabilities and minimum trailing six month adjusted net income to conform to the Company's current forecasts. The calculation of these covenants are set forth in the Amended and Restated Loan and Security Agreement dated as of April 25, 2011 filed as Exhibit 10.1 to the Company's report on Form 10-Q for the quarter ended March 31, 2011, as modified by the First Loan Modification Agreement dated as of December 27, 2011 filed as Exhibit 10.16 to the Company's report on Form 10-K for the year ended December 31, 2011 and by the Second Loan Modification Agreement dated as of March 5, 2012 filed as Exhibit 10.1 to the Company's report on Form 10-Q for the quarter ended March 31, 2012.

At June 30, 2012, the Company's available borrowing capacity under the credit facility was \$25.2 million and the Company was compliant with all covenants of the loan agreement. There were no borrowings against this facility during the three or six month periods ended June 30, 2012.

Note 8. 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 jurisdictions and, as a result, does not pay significant income taxes in those jurisdictions.

Note 9. Significant Customers

For the three months ended June 30, 2012, three customers accounted for approximately 23.4%, 15.7%, and 10.2% of consolidated revenue, respectively. For the six months ended June 30, 2012, two customers accounted for approximately 24.0% and 15.0% of consolidated revenue. For the three months ended June 30, 2011, three customers accounted for approximately 19.2%, 13.0% and 11.4% of consolidated revenue. For the six months ended June 30, 2011, three customers accounted for approximately 19.2%, 13.0% and 13.0% of consolidated revenue.

At June 30, 2012, two customers each accounted for 29.4% and 13.4% of consolidated accounts receivable. At June 30, 2011, three customers each accounted for 14.9%, 12.8% and 10.1% 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.

Note 11. New Accounting Guidance Recently Adopted — Comprehensive Income

Effective January 1, 2012 the Company adopted Accounting Standards Update, or ASU, No. 2011-05, *Comprehensive Income (Topic 220)*. This newly issued accounting standard requires the Company to report comprehensive income either in a single continuous statement or in two separate but consecutive financial statements.

As this update only required enhanced disclosure, the adoption of this update did not impact our financial position or results of operations.

Note 12. Subsequent Events

In order to continue to align operating expense levels to changing business conditions, the Company implemented cost out initiatives including a small headcount reduction in the third quarter of 2012. These actions are expected to generate savings in the range of \$4 million to \$8 million annually. The Company anticipates recording employee termination benefits and other related costs of approximately \$0.5 million during the third and fourth quarters of 2012.

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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. 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.

Weak industry conditions continued through the first half of 2012, resulting in a decline in our 2012 revenues as compared with the first half of 2011. Although future market conditions are difficult to predict, we anticipate the industry will continue to experience similar conditions for the remainder of 2012.

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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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, 2011.

Results of Operations

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

Axcelis Technologies, Inc.
Consolidated Statements of Operations
Percentage of Revenue
(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2012	2011	2012	2011
Revenue				
Product	87.1%	90.3%	86.8%	91.6%
Service	12.9	9.7	13.2	8.4
Total revenue	100.0	100.0	100.0	100.0
Cost of revenue				
Product	51.8	56.6	52.4	58.8
Service	9.7	6.8	9.6	6.2
Total cost of revenue	61.5	63.4	62.0	65.0
Gross profit	38.5	36.6	38.0	35.0
Operating expenses				
Research and development	17.7	12.7	19.4	12.7
Sales and marketing	10.5	8.2	11.2	8.3
General and administrative	11.0	9.0	12.5	9.4
Restructuring charges	0.3	—	2.7	—
Total operating expense	39.5	29.9	45.8	30.4
Income (loss) from operations	(1.0)	6.7	(7.8)	4.6
Other income (expense)				
Other, net	1.0	(1.3)	(0.3)	(0.9)
Total other income (expense)	1.0	(1.3)	(0.3)	(0.9)
Income (loss) before income taxes	0.0	5.4	(8.1)	3.7
Income taxes	0.8	0.9	1.1	0.5
Net income (loss)	(0.8)%	4.5%	(9.2)%	3.2%

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Three and six months ended June 30, 2012 in comparison to the three and six months ended June 30, 2011

Revenue

Product

Product revenue, which includes systems sales, sales of spare parts and product upgrades, was \$51.5 million, or 87.1% of revenue, for the three months ended June 30, 2012, compared with \$84.3 million, or 90.3% of revenue for the three months ended June 30, 2011. Product revenue was \$99.0 million, or 86.8% of revenue for the six months ended June 30, 2012, compared with \$170.9 million, or 91.6% of revenue for the six months ended June 30, 2011. System sales were \$26.2 million, or 44.3% of revenue, for the three months ended June 30, 2012, compared with \$53.7 million, or 57.5% of revenue for the three months ended June 30, 2011. System sales were \$49.2 million, or 43.1 % of revenue, for the six months ended June 30, 2012, compared with \$108.5 million, or 58.2% of revenue, for the six months ended June 30, 2011. The decrease in product revenue in the three and six months ended June 30, 2012 is attributable to the weakening of the semiconductor market and a related decrease in capital spending by semiconductor manufacturers.

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, 2012 and 2011 was \$9.2 million and \$13.3 million, respectively. The decrease was mainly due to the decline in systems sales during the second half of 2011 and the first half of 2012, as well as the timing of acceptance of the tools shipped.

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 \$7.6 million, or 12.9% of revenue, for the three months ended June 30, 2012, compared with \$9.0 million, or 9.7% of revenue, for the three months ended June 30, 2011. Service revenue was \$15.1 million, or 13.2% of revenue for the six months ended June 30, 2012, compared with \$15.6 million, or 8.4% of revenue for the six months ended June 30, 2011. Service revenue is affected 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. The decrease in service revenue for the three and six months ended June 30, 2012 compared to the comparable period one year ago was due to lower service contracts and time and material engagements.

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 product line (the most significant of which is ion implant) and by aftermarket, as described below.

Ion Implant

Included in total revenue of \$59.1 million for the three month period ended June 30, 2012 is revenue from sales of ion implantation products and service of \$50.6 million, or 85.6% of total revenue, compared with \$72.1 million, or 77.2% of total revenue, for the three months ended June 30, 2011. Revenue from sales of ion implantation products and service accounted for \$90.9 million, or 79.7% of total revenue, for the six months ended June 30, 2012, compared to \$136.7 million, or 73.3% of revenue, in the six months ended June 30, 2011. The dollar decrease was due to the factors discussed above for product revenues.

Aftermarket

The Company's product revenues include 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, service contracts and service hours, as the "aftermarket" business. Included in total revenue of \$59.1 million is revenue from our aftermarket business of \$32.9 million for the three months ended June 30, 2012, compared to \$39.7 million for the three months ended June 30, 2011. The revenue from our aftermarket business was \$65 million for the six months ended June 30, 2012, compared to \$78 million for the six months ended June 30, 2011. 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 decrease in aftermarket revenue for the three and six months ended June 30, 2012 compared to June 30, 2011 was primarily due to a decrease in spare parts and upgrade revenue which is directly related to lower tool utilization at our customers' fabrication facilities and decreased demand for upgrade installations which allow our customers to maximize the technological and throughput capabilities of our tools.

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Gross Profit

Product

Gross profit from product revenue was 40.5% for the three months ended June 30, 2012, compared to 37.3% for the three months ended June 30, 2011. The increase in gross profit of 3.2 percentage points is due to a 10.1 percentage point increase in gross profit resulting from the favorable impact of an increased mix of parts and upgrade revenue at higher margins, offset by lower systems sales volumes which reduced gross profit by 6.9 percentage points.

Gross profit from product revenue was 39.5% for the six months ended June 30, 2012, compared to 35.8% for the six months ended June 30, 2011. The increase in gross profit of 3.7 percentage points is due to a 10.1 percentage point increase in gross profit resulting from the favorable impact of an increased mix of parts and upgrade revenue at higher margins, offset by lower systems sales volumes which reduced gross profit by 6.4 percentage points.

Service

Gross profit from service revenue was 25.1% for the three months ended June 30, 2012, compared to 29.9% for the three months ended June 30, 2011. The decrease in gross profit is due to changes in the mix of service contracts. Gross profit from service revenue was 27.8% for the six months ended June 30, 2012, compared to 26.0% for the six months ended June 30, 2011. The increase in gross profit is attributable to favorable absorption of fixed service costs.

Research and Development

Research and development expense was \$10.5 million in the three months ended June 30, 2012, a decrease of \$1.3 million, or 11.0%, compared with \$11.8 million in the three months ended June 30, 2011. The decrease was primarily the result of decreased payroll related costs (\$0.3 million) due to decreased headcount, decreased project materials, supplies and consultants expense (\$0.5 million) and decreased asset amortization for assets used as demonstration and/or test systems (\$0.4 million). Research and development expense was \$22.1 million for the six months ended June 30, 2012, a decrease of \$1.5 million or 6.4%, compared with \$23.6 million for the six months ended June 30, 2011. The decrease was comprised primarily of decreased payroll related costs (\$0.2 million) due to headcount reductions, decreased project materials, supplies and consultants expense (\$.9 million) and decreased development asset amortization costs (\$0.4 million).

Sales and Marketing

Sales and marketing expense was \$6.2 million in the three months ended June 30, 2012, a decrease of \$1.5 million, or 19.5%, compared with \$7.7 million for the three months ended June 30, 2011. The decrease was primarily due to decreased payroll related costs (\$1.2 million), with significant reductions in commission costs (\$0.4 million) due to lower system sales, bonuses (\$0.2 million), and salary costs (\$0.3 million). Additionally, there was a significant decrease in travel costs (\$0.3 million). Sales and marketing expense was \$12.8 million for the six months ended June 30, 2012, a decrease of \$2.7 million, or 17.4%, compared with \$15.5 million for the six months ended June 30, 2011. The decrease was primarily due to decreased payroll related costs (\$2.3 million), with significant reductions in salary costs (\$0.3 million), bonuses (\$0.4 million), and commission costs (\$1.0 million) due to lower system sales. Additionally, there was a significant decrease in travel costs (\$0.3 million), as well as utilities charges (\$0.1 million).

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General and Administrative

General and administrative expense was \$6.5 million for the three months ended June 30, 2012, a decrease of \$1.9 million or 22.6%, compared with \$8.4 million in the three months ended June 30, 2011. The decrease was primarily due to decreased compensation expense (\$1.6 million), which was driven by decreased incentive compensation (\$1.3 million). Additionally, project material and consulting fees, including professional service fees, decreased by (\$0.2 million). General and administrative expense was \$14.3 million for the six months ended June 30, 2012, a decrease of \$3.2 million, or 18.3%, compared with \$17.5 million in the six months ended June 30, 2011. The decrease was primarily due to decreased compensation expense (\$2.6 million), which was driven

by decreased incentive compensation (\$1.7 million). Additionally, project material and consulting fees, including professional service fees, decreased by (\$0.2 million).

Restructuring Charges

In the first quarter of 2012, the Company implemented a reduction in force related to actions taken by management to control costs and improve the focus of its operations in order to sustain future profitability and conserve cash. This reduction in force resulted in a total charge to restructuring expense of \$3.0 million related to severance and related costs. The Company recorded restructuring charges of \$0.1 million and \$3.0 million for the three and six months ended June 30, 2012, respectively.

Other Income (Expense)

Other income was \$0.6 million for the three months ended June 30, 2012 compared with other expense of \$1.1 million for the three months ended June 30, 2011. Other expense was \$0.4 million for the six months ended June 30, 2012 compared with other expense of \$1.6 million for the six months ended June 30, 2011. Other income (expense) for both periods primarily consisted of foreign exchange gains and losses attributed to fluctuations of the U.S. dollar against the local currencies of certain of the countries in which we operate and bank fees associated with maintaining our credit facility.

Income Taxes

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 losses in the United States and certain European tax jurisdictions.

Liquidity and Capital Resources

We believe that based on our current market, revenue, expense and cash flow forecasts, our existing cash and cash equivalents will be sufficient to satisfy our anticipated cash requirements in the short and long-term. Our liquidity is affected by many factors. Some of these factors relate specifically to the operations of our business, for example, the rate of sale of our Optima and Integra products, 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, 2012, \$12.6 million of cash was used to support operating activities. Cash and cash equivalents at June 30, 2012 were \$33.8 million, compared to \$46.9 million at December 31, 2011. 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.

The Company's revolving credit facility with a bank 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 for short term borrowing as needed.

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This facility is subject to covenants establishing minimum quarterly ratios of current assets to current liabilities and minimum trailing six month adjusted net income. The calculation of these covenants are set forth in the Amended and Restated Loan and Security Agreement dated as of April 25, 2011 filed as Exhibit 10.1 to the Company's report on Form 10-Q for the quarter ended March 31, 2011, as modified by the First Loan Modification Agreement dated as of December 27, 2011 filed as Exhibit 10.16 to the Company's report on Form 10-K for the year ended December 31, 2011 and by the Second Loan Modification Agreement dated as of March 5, 2012 filed as Exhibit 10.1 to the Company's report on Form 10-Q for the quarter ended March 31, 2012.

At June 30, 2012, the Company's available borrowing capacity under the credit facility was \$25.2 million and the Company was compliant with all covenants of the loan agreement. There were no borrowings against this facility during the three or six month periods ended June 30, 2012.

Commitments and Contingencies

Significant commitments and contingencies at June 30, 2012 are consistent with those discussed in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and Note 14 to the consolidated financial statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

As of June 30, 2012, 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, 2011.

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 2012 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, 2012, 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, 2011.

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.

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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 August 8, 2007. Incorporated by reference to Exhibit 3.2 of the Company's Form 10-Q for the quarterly period ended June 30, 2007, filed with the Commission on August 9, 2007.
10.1	Axcelis Technologies, Inc. 2012 Equity Incentive Plan, as adopted on May 2, 2012. Incorporated by reference to Exhibit 99 to the Company's registration statement on Form S-8 filed with the Commission on June 30, 2012 (SEC File No. 333-181750).
10.2	Form of Employee Non-Qualified Stock Option Certificate under the 2012 Equity Incentive Plan, adopted June 18, 2012. Filed herewith.
10.3	Form of Non-Employee Director Non-Qualified Stock Option Certificate under the 2012 Equity Incentive Plan, adopted June 18, 2012. Filed herewith.
10.4	Form of Restricted Stock Unit Award Agreement under the 2012 Equity Incentive Plan, adopted June 18, 2012. Filed herewith.
10.5	Form of Change in Control Agreement, as approved by the Board of Directors on April 27, 2012 between the Company and each of its executive officers. Filed herewith.
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 7, 2012. 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 August 7, 2012. 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 August 7, 2012. 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 August 7, 2012. Filed herewith.
- 101 The following materials from the Company's Form 10-Q for the quarter ended June 30, 2012, formatted in eXtensible Business Reporting Language (XBRL): (i) Consolidated Statements of Operations, (ii) Consolidated Statements of Comprehensive Income, (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: August 7, 2012

AXCELIS TECHNOLOGIES, INC.

By: /s/ JAY ZAGER

Jay Zager
Executive Vice President and Chief Financial Officer
Duly Authorized Officer and Principal Financial Officer

AXCELIS TECHNOLOGIES, INC.
2012 Equity Incentive Plan
Non-Qualified Stock Option Certificate
Employee Grant Form

Axcelis Technologies, Inc. (the "Company"), a Delaware corporation, hereby grants to the person named below an option to purchase shares of Common Stock, \$0.001 par value, of the Company (the "Option") under and subject to the Company's 2012 Equity Incentive Plan (the "Plan") exercisable on the following terms and conditions and those set forth on the reverse side of this certificate:

Name of Optionholder:
Address:

Number of Shares:
Option Price:
Date of Grant:

\$
, 20

Exercisability
Schedule:

Subject to the terms on the reverse side, this option shall be exercisable(1):
after , 20 , as to % of the Number of Shares above,
after , 20 , as to an additional % of the Number of Shares above,
after , 20 , as to an additional % of the Number of Shares above, and
after , 20 , as to an additional % of the Number of Shares above.

Expiration Date: , 20 (not later than the 7th anniversary of the date of grant)

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

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

AXCELIS TECHNOLOGIES, INC.

ACCEPTED:

By: _____
Title: _____

Name: _____

(1) For executive officer grants, note the provisions of Section 5(b)(iv) of the Plan.
Form approved June 18, 2012

AXCELIS TECHNOLOGIES, INC. 2012 EQUITY INCENTIVE PLAN
Non-Qualified Stock Option Terms and Conditions for Employees

1. **Plan Incorporated by Reference.** This Option is issued pursuant to the terms of the 2012 Equity Incentive Plan (the "Plan") and may be amended as provided in the Plan. Terms used and not otherwise defined in this certificate have the meanings given to them in the Plan. This certificate does not set forth all of the terms and conditions of the Plan, which are incorporated herein by reference. The Board administers the Plan and its determinations regarding the operation of the Plan are final and binding. Copies of the Plan may be obtained upon written request without charge from the Legal Department of the Company.

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

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

4. **Method of Exercise.** To exercise this Option, the Optionholder shall deliver notice to the Company specifying the number of shares being exercised accompanied by payment of the Option Price for such shares in cash or in such other form as the Board may approve, including shares of Common Stock of the Company valued at their Fair Market Value on the date of delivery, or a payment commitment of a financial or brokerage institution. Upon exercise, the Company may issue a certificate representing the shares purchased under this Option or instruct the Company's transfer agent to record a book entry relating to such shares

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

6. **Recapitalization, Mergers, Etc.** In the event of a merger or consolidation in which the Company is the surviving corporation or a recapitalization (including a stock split, stock combination or stock dividend) of the Company, the Board in its discretion may adjust the exercise price and number and kind of shares subject to the Option and other terms of the Option in a manner determined by the Committee to equitably reflect such merger, consolidation or recapitalization. In the case of any recapitalization, stock acquisition, merger, consolidation or other form of corporate transaction in which a company other

than the Company is the surviving, continuing, successor or purchasing entity (a "Transaction"), the Board may provide that another party to the Transaction will assume the Award or substitute for any Award a substantially equivalent award. Awards that are not so assumed or substituted for shall terminate upon the consummation of such Transaction. In the case of a Transaction in which the stockholders of the Company receive consideration that is all or predominantly cash, the Plan provides for acceleration of exercisability so that the Optionholder may participate in the Transaction or for the payment of the value of the Option to the Optionholder in connection with the consummation of the Transaction.

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

8. Exercise of Option after Termination of Employment. In the event of the Optionholder's termination of employment for any reason other than cause death, Disability or Retirement (as such terms are defined below), the right of the Optionholder to exercise this Option shall terminate on the 90th day following the date of termination of employment. In the event of a termination of employment for cause, as determined in the reasonable discretion of the Board, this Option shall terminate on the date of termination of employment. In the event of a termination of employment by reason of death, Disability or Retirement, the right of the Optionholder to exercise this Option will terminate on the first anniversary of the date of the termination of employment. Disability means a total and permanent disability such that, due to physical or mental illness, injury or disease, the Optionholder is unable to perform any services for the Company and, in the opinion of a qualified physician designated by the Company, such disability will be permanent and continuous during the remainder of the Optionholder's life. Retirement means a not-for-cause separation when the Optionholder is at least 55 years old and is an employee in good standing with at least 5 years service. Such post termination exercise periods are all subject to earlier termination in accordance with Sections 6 or 11 or upon the Expiration Date and may be extended by the Board. In all events, options that were not exercisable at the time employment terminated will terminate on the date of termination of employment.

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

10. Payment of Taxes. The Company shall be entitled to withhold (or secure payment from the Optionholder in lieu of withholding) the amount of any withholding or other tax required by law to be withheld or paid by the Company with respect to any amount payable and/or shares issuable under this Option, and the Company may defer payment of cash or issuance of shares upon exercise of this Option unless indemnified to its satisfaction against any liability for any such tax.

11. Cancellation and Clawback. The Board may cancel this Option if (A) the Optionholder violates any agreement between the Company and the Optionholder, or (B) the Optionholder voluntarily leaves employment of the Company and within one year of such termination of employment enters into an activity as employee, agent, officer, director or proprietor in competition with the Company as reasonably determined by the Board. The Company may also demand reimbursement of any profits received by the Optionholder on exercise of this Option during the twelve (12) month period prior to such non-compliance or competition. In such case, the Optionholder shall return to the Company in cash within ten (10) days after notice from the Company an amount equal to the difference between the Fair Market Value on the date of exercise of the shares acquired and the Option Price paid. In the case of executive officers, profits received on exercise of this Option may also be subject to a clawback required under (i) Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or any law of similar effect for recovery of incentive-based compensation previously paid, and (ii) any regulations promulgated pursuant to any such law.

AXCELIS TECHNOLOGIES, INC.
 2012 Equity Incentive Plan
 Non-Qualified Stock Option Certificate
 Non-Employee Director Grant Form

Axcelis Technologies, Inc. (the "Company"), a Delaware corporation, hereby grants to the person named below an option to purchase shares of Common Stock, \$0.001 par value, of the Company (the "Option") under and subject to the Company's 2012 Equity Incentive Plan (the "Plan") exercisable on the following terms and conditions and those set forth on the reverse side of this certificate:

Name of Optionholder:
 Address:

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

Exercisability
 Schedule: Subject to the terms on the reverse side, this option shall be exercisable:

after , 20 , as to % of the Number of Shares above,
 after , 20 , as to an additional % of the Number of Shares above,
 after , 20 , as to an additional % of the Number of Shares above, and
 after , 20 , as to an additional % of the Number of Shares above.

Expiration Date: , 20 (not later than the 7th anniversary of the Date of Grant)

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

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

AXCELIS TECHNOLOGIES, INC.

ACCEPTED:

By: _____
 Title: _____

Name: _____

Form approved June 18, 2012

AXCELIS TECHNOLOGIES, INC. 2012 EQUITY INCENTIVE PLAN

Non-Qualified Stock Option Terms and Conditions for Non-Employee Directors

1. Plan Incorporated by Reference. This Option is issued pursuant to the terms of the 2012 Equity Incentive Plan (the "Plan") and may be amended as provided in the Plan. Terms used and not otherwise defined in this certificate have the meanings given to them in the Plan. This certificate does not set forth all of the terms and conditions of the Plan, which are incorporated herein by reference. The Board administers the Plan and its determinations regarding the operation of the Plan are final and binding. Copies of the Plan may be obtained upon written request without charge from the Legal Department of the Company.

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

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

4. Method of Exercise. To exercise this Option, the Optionholder shall deliver notice to the Company specifying the number of shares being exercised accompanied by payment of the Option Price for such shares in cash or in such other form as the Board may approve, including shares of Common Stock of the Company valued at their Fair Market Value on the date of delivery, or a payment commitment of a financial or brokerage institution. Upon exercise, the Company may issue a certificate representing the shares purchased under this Option or instruct the Company's transfer agent to record a book entry relating to such shares

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

6. Recapitalization, Mergers, Etc. In the event of a merger or consolidation in which the Company is the surviving corporation or a recapitalization (including a stock split, stock combination or stock dividend) of the Company, the Board in its discretion may adjust the exercise price and number and kind of shares subject to the Option and other terms of the Option in a manner determined by the Committee to equitably reflect such merger, consolidation or recapitalization. In the case of any recapitalization, stock acquisition, merger, consolidation or other form of corporate transaction in which a company other

than the Company is the surviving, continuing, successor or purchasing entity (a "Transaction"), the Board may provide that another party to the Transaction will assume the Award or substitute for any Award a substantially equivalent award. Awards that are not so assumed or substituted for shall terminate upon the consummation of such Transaction. In the case of a Transaction in which the stockholders of the Company receive consideration that is all or predominantly cash, the Plan provides for acceleration of exercisability so that the Optionholder may participate in the Transaction or for the payment of the value of the Option to the Optionholder in connection with the consummation of the Transaction.

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

8. Exercise of Option after Termination of Board Services. Termination of the Optionholder's services as a member of the Board of Directors of the Company (except due to death of the Optionholder) will have no effect on the exercisability of this Option, to the extent exercisable on the date of termination. In the event of the death of the Optionholder, the right of the Designated Beneficiary to exercise this Option will terminate on the first anniversary of the date of death. Such post termination exercise period is subject to termination in accordance with Sections 6 or 11 or upon the Expiration Date and may be extended by the Board. In all events, options that were not exercisable at the time of termination of service as a member of the Board of Directors will terminate on the date of termination of such services.

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

10. Payment of Taxes. The Company shall be entitled to withhold (or secure payment from the Optionholder in lieu of withholding) the amount of any withholding or other tax required by law to be withheld or paid by the Company with respect to any amount payable and/or shares issuable under this Option, and the Company may defer payment of cash or issuance of shares upon exercise of this Option unless indemnified to its satisfaction against any liability for any such tax.

11. Cancellation and Clawback. The Board may cancel this Option if the Optionholder violates any agreement between the Company and the Optionholder. The Company may also demand reimbursement of any profits received by the Optionholder on exercise of this Option during the twelve (12) month period prior to such non-compliance. In such case, the Optionholder to return to the Company in cash within ten (10) days after notice from the Company an amount equal to the difference between the Fair Market Value on the date of exercise of the shares acquired and the Option Price paid.

RESTRICTED STOCK UNIT AWARD AGREEMENT

UNDER AXCELIS TECHNOLOGIES, INC. 2012 EQUITY INCENTIVE PLAN

1. **Grant of Restricted Stock Units.** Axcelis Technologies, Inc. (hereinafter the "Company"), in the exercise of its sole discretion pursuant to the Axcelis Technologies, Inc. 2012 Equity Incentive Plan (the "Plan"), does on the grant date set forth below (the "Award Date") hereby award to the recipient set forth below (the "Recipient"), the number of Restricted Stock Units ("RSUs") upon the terms and subject to the conditions hereinafter contained:

Award Date:

Name of Recipient:

Number of Restricted Stock Units:

Capitalized terms used but not defined herein shall have the meanings assigned to them in the Plan. RSUs represent the Company's unfunded and unsecured promise to issue shares of the Company's common stock, \$0.001 par value ("Common Stock," as defined in the Plan) at a future date, subject to the terms of this Award Agreement and the Plan. Recipient has no rights under the RSUs other than the rights of a general unsecured creditor of the Company.

2. **Vesting Schedule and Conversion of RSUs.** Subject to the terms of this Award Agreement (including but not limited to the provisions on termination set forth in Section 4), the RSUs shall vest and be converted into an equivalent number of shares of Common Stock that will be distributed to the Recipient:

[insert vesting terms per grant resolution, such as:

- i. as to % of the Restricted Stock Units evidenced hereby on , 20 ;
- ii. as to % additional Restricted Stock Units evidenced hereby on , 20 ;
- iii. as to % additional Restricted Stock Units evidenced hereby on , 20 ; and
- iv. as to % additional Restricted Stock Units evidenced hereby on , 20 .

or performance vesting criteria]

3. **Recapitalization, Mergers, Etc.** In the event of a merger or consolidation in which the Company is the surviving corporation or a recapitalization (including a stock split, stock combination or stock dividend) of the Company, the Board in its discretion may adjust the number and kind of shares subject to this Award and other terms of this Award in a manner determined by the Committee to equitably reflect such merger, consolidation or recapitalization. In the case of any recapitalization, stock acquisition, merger, consolidation or other form of corporate transaction in which a company other than the Company is the surviving, continuing, successor or purchasing entity (a "Transaction"), the Board may provide that another party to the Transaction will assume this Award or substitute a substantially equivalent award. Awards that are not so assumed or substituted for shall terminate upon the consummation of such Transaction. In the case of a Transaction in which the stockholders of the Company receive consideration that is all or predominantly cash, the Plan provides for acceleration of vesting so that the Recipient may participate in the Transaction or for the payment of the value of this Award to the Recipient in connection with the consummation of the Transaction.

4. **Termination.** Unless terminated earlier under subsections (a) or (b) below, a Recipient's rights under this Award Agreement with respect to the RSUs issued under this Award Agreement shall terminate at the time such RSUs are converted into Shares of Common Stock.
- a. *Termination of Recipient's Status as a Participant.* In the event of termination of employment or other service of the Recipient (as such phrase is defined in the Plan), Recipient's rights under this Award Agreement in any unvested RSUs shall immediately and irrevocably terminate and unvested RSUs and the underlying shares of Common Stock in respect of such RSUs shall be immediately and irrevocably forfeited. For the avoidance of doubt, a Recipient will have undergone a termination of employment or other service if and when the Recipient's actual employer ceases to be the Company or a subsidiary of the Company, as further described in Section 7(g) of this Award Agreement.
 - b. *Value of Unvested RSUs.* In consideration of the award of these RSUs, Recipient agrees that upon and following termination of employment or other service of the Recipient for any reason (whether or not in breach of applicable laws), and regardless of whether Recipient is terminated with or without cause, notice, or pre-termination procedure or whether Recipient asserts or prevails on a claim that Recipient's employment or engagement was terminable only for cause or only with notice or pre-termination procedure, any unvested RSUs under this Award Agreement shall be deemed to have a value of zero dollars (\$0.00).
5. **Conversion of RSUs to Shares of Common Stock; Responsibility for Taxes.**
- a. *Delivery of Shares.* Provided Recipient has satisfied the requirements of Section 5(b) below, on the vesting of any RSUs, such vested RSUs shall be converted into an equivalent number of Common Stock that will be distributed to Recipient or, in the event of Recipient's death, to Recipient's legal representative, as soon as practicable after the vesting date (but in no event later than the date that is two and one-half (2-1/2) months from the end of the calendar year in which the RSUs vest). The distribution to the Recipient, or in the case of the Recipient's death, to the Recipient's legal representative, of Common Stock in respect of the vested RSUs shall be evidenced by appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company, a stock certificate, or other appropriate means as determined by the Company. In the event ownership or issuance of Common Stock is not feasible due to applicable exchange controls, securities regulations, tax laws or other provisions of applicable law, as determined by the Company in its sole discretion, Recipient, or in the event of Recipient's death, the Recipient's legal representative, shall receive cash proceeds in an amount equal to the value of the Common Stock otherwise distributable to Recipient, net of the satisfaction of the requirements of Section 5(b) below, to be paid as soon as

practicable after the vesting date (but in no event later than the date that is two and one-half (2-1/2) months from the end of the calendar year in which the RSUs vest).

- b. *Responsibility for Income or Employment Taxes.* Regardless of any action the Company or Recipient's actual employer (as the case may be, referred to herein as the "Employer") takes with respect to any or all income tax (including federal, state and local taxes), social insurance, payroll tax or other tax-related withholding ("Tax Related Items"), Recipient acknowledges that the ultimate liability for all Tax Related Items legally due by Recipient is and remains Recipient's responsibility and that the Employer (i) makes no representations or undertakings regarding the treatment of any Tax Related Items in connection with any aspect of the RSUs, including the grant of the RSUs, the vesting of RSUs, the conversion of the RSUs into Common Stock or the receipt of an equivalent cash payment, the subsequent sale of any Common Stock acquired at vesting and the receipt of any dividends; and (ii) does not commit to structure the terms of the

grant or any aspect of the RSUs to reduce or eliminate the Recipient's liability for Tax Related Items.

- c. *Satisfaction of Tax Withholding.* Prior to the issuance of Common Stock upon vesting of RSUs or the receipt of an equivalent cash payment as provided in Section 5(a) above, Recipient shall pay, or make adequate arrangements satisfactory to the Employer, in the Employer's sole discretion, to satisfy all withholding obligations of the Employer. In this regard, Recipient authorizes the Employer to withhold all applicable Tax Related Items legally payable by Recipient from Recipient's wages or other cash compensation payable to Recipient by the Employer. Alternatively, or in addition, if permissible under applicable law, (i) the Recipient may sell or arrange for the sale of Common Stock to be issued on the vesting of RSUs to generate proceeds to be paid to the Employer to satisfy the withholding obligation, and/or (ii) the Employer, at its option, may withhold in shares of Common Stock, provided that the Employer shall withhold only the amount of shares necessary to satisfy the minimum withholding amount. Recipient shall pay to the Employer any amount of Tax Related Items that the Employer may be required to withhold as a result of Recipient's receipt of RSUs, the vesting of RSUs, or the conversion of vested RSUs to Common Stock that cannot be satisfied by the means previously described. The Company may refuse to deliver Common Stock to Recipient if Recipient fails to comply with Recipient's obligation in connection with the Tax Related Items as described herein.
- d. *Fractional Shares.* In lieu of issuing fractional shares of Common Stock, on the vesting of a fraction of an RSU, the Company shall round the shares down to the nearest whole share and any such share that represents a fraction of a RSU will be included in a subsequent vest date, if any. Similarly, in determining the number of shares necessary to withhold under Section 5(c) to satisfy the minimum withholding amount, the Company shall round the shares down to the nearest whole share.
- e. *Rights as a Stockholder.* Until the distribution to Recipient of the Common Stock in respect to the vested RSUs is evidenced by an appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company or other appropriate means, Recipient shall have no right to vote or receive dividends or any other rights as a shareholder with respect to such Common Stock, notwithstanding the vesting of RSUs. No adjustment will be made for a dividend or other right for which the record date is prior to the date Recipient is recorded as the owner of the shares of Common Stock, except as provided in the Plan.
- f. *Compliance with Trading Restrictions.* By accepting the Award of RSUs evidenced by this Award Agreement, Recipient agrees not to sell any of the Common Stock received on account of vested RSUs at a time when applicable laws or Company policies prohibit a sale. This restriction shall apply so long as Recipient is an employee, consultant or outside director of the Company or a subsidiary of the Company, or otherwise has access to material non-public information acquired from the Company.
6. **Non-Transferability of RSUs.** Recipient's right in the RSUs awarded under this Award Agreement and any interest therein may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner, other than by will or by the laws of descent or distribution, prior to the distribution of the Common Stock in respect of such RSUs. These RSUs shall not be subject to execution, attachment or other process.
7. **Acknowledgment of Nature of Plan and RSUs.** In accepting the Award, Recipient acknowledges that:
- a. the Plan is established voluntarily by the Company, it is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, as provided in the Plan;

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- b. the Award of RSUs is voluntary and occasional and does not create any contractual or other right to receive future awards of RSUs, or benefits in lieu of RSUs even if RSUs have been awarded repeatedly in the past;
- c. all decisions with respect to future awards, if any, will be at the sole discretion of the Company;
- d. Recipient's participation in the Plan is voluntary;
- e. the future value of the underlying Common Stock is unknown and cannot be predicted with certainty;
- f. if Recipient receives Common Stock, the value of such Common Stock acquired on vesting of RSUs may increase or decrease in value;
- g. notwithstanding any terms or conditions of this Award Agreement to the contrary and consistent with Section 5, above, in the event of termination of employment or other service of the Recipient (whether or not in breach of applicable laws), Recipient's right to receive shares that are not yet vested pursuant to this RSU, if any, will terminate effective as of the date that Recipient is no longer actively employed or engaged and will not be extended by any notice period mandated under applicable law; furthermore, in the event of

termination of employment or other service of the Recipient (whether or not in breach of applicable laws), Recipient's right to receive Common Stock pursuant to RSUs that were vested as of the date of termination of employment or other service of the Recipient, if any, will be measured by the date of termination of Recipient's active employment or service and will not be extended by any notice period

mandated under applicable law; the Committee shall have the exclusive discretion to determine when Recipient is no longer actively employed or engaged for purposes of the award of RSUs; and

- h. Recipient acknowledges and agrees that, regardless of whether Recipient is terminated with or without cause, notice or pre-termination procedure or whether Recipient asserts or prevails on a claim that Recipient's employment or engagement was terminable only for cause or only with notice or pre-termination procedure, Recipient has no right to, and will not bring any legal claim or action for, (i) any damages for any portion of the RSUs that have been vested and converted into shares of Common Stock, or (ii) termination of any unvested RSUs under this Award Agreement.

8. Miscellaneous.

- a. *No Employment Right.* Recipient acknowledges that neither the fact of this Award of RSUs nor any provision of this Award Agreement or the Plan or the policies adopted pursuant to the Plan shall confer upon Recipient any right with respect to employment or continuation of current employment with the Employer (as defined in Section 5(b)), or to employment that is not terminable at will (except as may be required by law). Recipient further acknowledges and agrees that neither the Plan nor this Award of RSUs makes Recipient's employment with the Employer for any minimum or fixed period, and that such employment is subject to the mutual consent of Recipient and the Employer, and may be terminated by either Recipient or the Employer at any time, for any reason or no reason, with or without cause or notice or any kind of pre- or post-termination warning, discipline or procedure (except as may be required by law).
- b. *Administration.* The authority to manage and control the operation and administration of this Award Agreement shall be vested in the Board (as such term is defined in the Plan), and the

Board shall have all powers and discretion with respect to this Award Agreement as it has with respect to the Plan. Any interpretation of the Award Agreement by the Board and any decision made by the Board with respect to the Award Agreement shall be final and binding on all parties.

- c. *Plan Governs.* Notwithstanding anything in this Award Agreement to the contrary, the terms of this Award Agreement shall be subject to the terms of the Plan, and this Award Agreement is subject to all interpretations, amendments, rules and regulations promulgated by the Board from time to time pursuant to the Plan.
- d. *Notices.* Any written notices provided for in this Award Agreement that are sent by mail shall be deemed received three business days after mailing, but not later than the date of actual receipt. Notices shall be directed, if to Recipient, at the Recipient's address indicated by the Company's records and, if to the Company, at the Company's principal executive office.
- e. *Electronic Delivery.* The Company may, in its sole discretion, decide to deliver any documents related to RSUs awarded under the Plan or future RSUs that may be awarded under the Plan by electronic means or request Recipient's consent to participate in the Plan by electronic means. Recipient hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.
- f. *Acknowledgment.* By Recipient's acceptance as evidenced below, Recipient acknowledges that Recipient has received and has read, understood and accepted all the terms, conditions and restrictions of this Award Agreement and the Plan. Recipient understands and agrees that this Award Agreement is subject to all the terms, conditions, and restrictions stated in this Award Agreement and in the other documents referenced in the preceding sentence, as the latter may be amended from time to time in the Company's sole discretion. Recipient further acknowledges that Recipient must accept this Award Agreement in the manner prescribed by the Company no later than the earlier of the first anniversary of Award Date or the first vesting date specified in Section 2 of this Award Agreement. If such acceptance is not obtained prior to such date, this award is null and void.
- g. *Board Approval.* These RSUs have been awarded pursuant to the Plan and accordingly this Award of RSUs is subject to approval by an authorized committee of the Board of Directors. If this Award of RSUs has not already been approved, the Company agrees to submit this Award for approval as soon as practical. If such approval is not obtained, this award is null and void.
- h. *Compliance with Securities Laws.* It shall be a condition to the Recipient's right to receive shares of Common Stock hereunder that the Company may, in its discretion, require (a) that the shares of Common Stock reserved for issue upon the exercise of this Award shall have been duly listed, upon official notice of issuance, upon any national securities exchange or automated quotation system on which the Company's Common Stock may then be listed or quoted, (b) that either (i) a registration statement under the Securities Act of 1933 with respect to the shares shall be in effect, or (ii) in the opinion of counsel for the Company, the proposed purchase shall be exempt from registration under that Act and the Recipient shall have made such undertakings and agreements with the Company as the Company may reasonably require, and (c) that such other steps, if any, as counsel for the Company shall consider necessary to comply with any law applicable to the issue of such shares by the Company shall have been taken by the Company or the Recipient, or both. The certificates representing the shares issued under this Award or book entries relating to such shares may contain such legends as counsel for the Company shall consider necessary to comply with any applicable law.

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- i. *Cancellation and Clawback.* The Board may cancel this Award if (A) the Recipient violates any agreement between the Company and the Recipient, or (B) the Recipient voluntarily leaves employment of the Company and, within one year of such termination of employment or other service of the Recipient, enters into an activity as employee, agent, officer, director or proprietor in competition with the Company as reasonably determined by the Board. The Company may also demand reimbursement of any profits received by the Recipient on vesting of this Award during the twelve (12) month period prior to such non-compliance or competition. In such case, the Recipient shall return to the Company in cash within ten (10) days after notice from the Company an amount equal to the Fair Market Value on the date of issuance of the shares acquired. In the case of executive officers, profits received on vesting of this Award may also be subject to a clawback required

under (i) Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or any law of similar effect for recovery of incentive-based compensation previously paid, and (ii) any regulations promulgated pursuant to any such law.

- j. *Governing Law.* This Award Agreement shall be governed by the laws of the State of Delaware, U.S.A., without regard to Delaware laws that might cause other law to govern under applicable principles of conflicts of law.
- k. *Severability.* If one or more of the provisions of this Award Agreement shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and the invalid, illegal or unenforceable provisions shall be deemed null and void; however, to the extent permissible by law, any provisions which could be deemed null and void shall first be construed, interpreted or revised retroactively to permit this Award Agreement to be construed so as to foster the intent of this Award Agreement and the Plan.
- l. *Complete Award Agreement and Amendment.* This Award Agreement and the Plan constitute the entire agreement between Recipient and the Company regarding RSUs. Any prior agreements, commitments or negotiations concerning these RSUs are superseded. This Award Agreement may be amended only by written agreement of Recipient and the Company, without consent of any other person. Recipient agrees not to rely on any oral information regarding this Award of RSUs or any written materials not identified in

this Section 8(l), other than required disclosures in compliance with securities laws provided by the Company to the Recipient.

EXECUTED as of the Award Date set forth above.

AXCELIS TECHNOLOGIES, INC.

By: _____

Name:

Title:

RECIPIENT'S ACCEPTANCE:

I have read and fully understood this Award Agreement and, as referenced in Section 8(f) above, I accept and agree to be bound by all of the terms, conditions and restrictions contained in this Award Agreement and the other documents referenced in it. I intend to express my acceptance of the Award and this Award Agreement by signing a copy of this Award Agreement in the space provided below.

Date of Acceptance

CHANGE OF CONTROL AGREEMENT

AGREEMENT by and between AXCELIS TECHNOLOGIES, INC., a Delaware corporation (the “Company”), and (the “Executive”), dated as of the day of , 20 .

The Board of Directors of the Company (the “Board”) has determined that it is in the best interests of the Company and its shareholders to assure that the Company will have the continued dedication of the Executive, notwithstanding the possibility, threat or occurrence of a Change of Control (as defined below) of the Company. The Board believes it is imperative to diminish the inevitable distraction of the Executive by virtue of the personal uncertainties and risks created by a pending or threatened Change of Control and to encourage the Executive’s full attention and dedication to the Company currently and in the event of any threatened or pending Change of Control, and to provide the Executive with compensation and benefits arrangements upon a Change of Control which ensure that the compensation and benefits expectations of the Executive will be satisfied and which are competitive with those of other corporations. Therefore, in order to accomplish these objectives, the Board has caused the Company to enter into this Agreement.

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

1. **Certain Definitions.**

1.1. The “Effective Date” shall mean the first date during the Change of Control Period (as defined in Section 1.2) on which a Change of Control (as defined in Section 2) occurs. Anything in this Agreement to the contrary notwithstanding, if a Change of Control occurs and if the Executive’s employment with the Company is terminated prior to the date on which the Change of Control occurs, and if it is reasonably demonstrated by the Executive that such termination of employment (i) was at the request of a third party who has taken steps reasonably calculated to effect a Change of Control or (ii) otherwise arose in connection with or anticipation of a Change of Control, then for all purposes of this Agreement the “Effective Date” shall mean the date immediately prior to the date of such termination of employment.

1.2. The “Change of Control Period” shall mean the period commencing on the date hereof and ending on the third anniversary of the date hereof; provided, however, that commencing on the date one year after the date hereof, and on each annual anniversary of such date (such date and each annual anniversary thereof shall be hereinafter referred to as the “Renewal Date”), unless previously terminated, the Change of Control Period shall be automatically extended so as to terminate three years from such Renewal Date, unless at least 60 days prior to the Renewal Date the Company shall give notice to the Executive that the Change of Control Period shall not be so extended.

2. **Change of Control.** For the purpose of this Agreement, a “Change of Control” shall mean:

2.1. The acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) (a “Person”) of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 25% or more of either (i) the then outstanding shares of common stock of the Company (the “Outstanding Company Common Stock”) or (ii) the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors (the “Outstanding Company Voting Securities”); provided, however, that for purposes of this subsection 2.1, the following acquisitions shall not constitute a Change of Control: (i) any acquisition directly from the Company, (ii) any acquisition by the Company, or (iii) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any corporation controlled by the Company; or

2.2. Individuals who, as of the date hereof, constitute the Board (the “Incumbent Board”) cease for any reason to constitute at least a majority of the Board; provided, however, that any individual becoming a director subsequent to the date hereof whose election, or nomination for election by the Company’s shareholders, was approved by a vote of at least two-thirds of the directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board; or

2.3. Consummation by the Company of a reorganization, merger or consolidation or sale or other disposition of all or substantially all of the assets of the Company or the acquisition of assets of another corporation (a “Business Combination”), in each case, unless, following such Business Combination, (i) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the Outstanding Company Common Stock and Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 75% of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation which as a result of such transaction owns the Company or all or substantially all of the Company’s assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination of the Outstanding Company Common Stock and Outstanding Company Voting Securities, as the case may be, (ii) no Person (excluding any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 25% or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination and (iii) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board, providing for such Business Combination; or

2.4. Approval by the shareholders of the Company of a complete liquidation or dissolution of the Company.

Notwithstanding the foregoing, a “Change of Control” shall not be deemed to have occurred as a result of any transaction or series of transactions (i) which the Executive, or any entity in which the Executive is a partner, officer or more than 50% owner initiates, if immediately following the transaction or series of transactions that would otherwise constitute a Change in Control, the Executive, either alone or together with other individuals who are executive officers of the Company immediately prior thereto, beneficially owns, directly or indirectly, more than 10% of the then outstanding shares of common stock of the

Company or the corporation resulting from the transaction or series of transactions, as applicable, or of the combined voting power of the then outstanding Voting Securities of the Company or such resulting corporation; or (ii) an offering of Company Voting Securities to the public directly by the Company, or any subsidiary or affiliate.

3. **Non-Compete and Non-Solicitation.** The Executive hereby agrees with the Company that for a period of 12 months following any termination of employment of the Executive, for any reason, and whether occurring before or after the Effective Date:

3.1. **Non-Compete.** The Executive shall not, without the prior written consent of the Chief Executive Officer of the Company, directly or indirectly, engage in, be employed by, act as a consultant or advisor to, be a director, officer, owner or partner of, or acquire an interest in, any business competing with any of the businesses conducted by the Company or any of its subsidiaries or affiliates, nor directly or indirectly have any interest in, own, manage, operate, control, be connected with as a stockholder, lender, joint venturer, officer, employee, partner or consultant, or otherwise engage, invest or participate in any business that is competitive with any of the businesses conducted by the Company or by any subsidiary or affiliate of the Company; provided, however, that nothing contained in this Section 3 shall prevent the Executive from investing or trading in publicly traded stocks, bonds, commodities or securities or in real estate or other forms of investment for Executive's own account and benefit (directly or indirectly);

3.2. **Non-Solicitation of Employees.** The Executive shall not actively solicit any employee of the Company or any of its subsidiaries or affiliates to leave the employment thereof; and the Executive shall not enter onto Company property without prior written consent from the Chief Executive Officer of the Company or other executive officer of the Company; and

3.3. **Non-Solicitation of Customers.** The Executive shall not induce or attempt to induce any customer, supplier, licensor, licensee or other individual, corporation or business organization having a business relationship with the Company or its subsidiaries or affiliates to cease doing business with the Company or its subsidiaries or affiliates or in any way interfere with the relationship between any such customer, supplier, licensor, licensee or other individual, corporation or business organization and the Company or its subsidiaries or affiliates. Solicitation of customers for the purposes of this obligation refers to existing and/or contemplated products as of the time of Executive's termination of employment.

3.4. **Extension of Time.** The applicable time periods set forth in this Section 3 shall be extended by the time of any (1) breach by the Executive of any terms of this Agreement, or (2) litigation involving the Executive and the Company in respect of any of the provisions of this Agreement (whether by the Executive seeking relief from the terms hereof or by the Company seeking to enforce the terms hereof or otherwise).

4. **Employment Period.** The Company hereby agrees to continue the Executive in its employ, and the Executive hereby agrees to remain in the employ of the Company subject to the terms and conditions of this Agreement, as such may be supplemented or modified by an employment agreement, if any, between the Company and the Executive, for the period commencing on the Effective Date and ending on the third anniversary of such date (the "**Employment Period**").

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5. **Terms of Employment.**

5.1. **Position and Duties.**

(a) During the Employment Period, (i) the Executive's position (including status, offices, titles and reporting requirements), authority, duties and responsibilities shall be at least commensurate in all material respects with the most significant of those held, exercised and assigned to the Executive at any time during the 120-day period immediately preceding the Effective Date and (ii) the Executive's services shall be performed at the location where the Executive was employed immediately preceding the Effective Date or any office or location less than 35 miles from such location.

(b) During the Employment Period, and excluding any periods of vacation and sick leave to which the Executive is entitled, the Executive agrees to devote reasonable attention and time during normal business hours to the business and affairs of the Company and, to the extent necessary to discharge the responsibilities assigned to the Executive hereunder, to use the Executive's reasonable best efforts to perform faithfully and efficiently such responsibilities. During the Employment Period it shall not be a violation of this Agreement for the Executive to (A) serve on corporate, civic or charitable boards or committees, (B) fulfill speaking engagements and (C) manage personal investments, so long as such activities do not significantly interfere with the performance of the Executive's responsibilities as an employee of the Company in accordance with this Agreement. It is expressly understood and agreed that to the extent that any such activities have been conducted by the Executive prior to the Effective Date, the continued conduct of such activities (or the conduct of activities similar in nature and scope thereto) subsequent to the Effective Date shall not thereafter be deemed to interfere with the performance of the Executive's responsibilities to the Company.

5.2. **Compensation.**

(a) **Base Salary.** During the Employment Period, the Executive shall receive an annual base salary ("**Annual Base Salary**"), which shall be paid at a monthly rate, at least equal to twelve times the highest monthly base salary paid or payable, including any base salary which has been earned but deferred, to the Executive by the Company and its affiliated companies in respect of the twelve-month period immediately preceding the month in which the Effective Date occurs. During the Employment Period, the Annual Base Salary shall be increased no more than 12 months after the last salary increase awarded to the Executive prior to the Effective Date, and thereafter at least annually, in each case by a percentage not less than the average annual percentage merit increase in the Executive's base salary during the five (5) full calendar years immediately preceding the Effective Date. Any increase in Annual Base Salary shall not serve to limit or reduce any other obligation to the Executive under this Agreement. Annual Base Salary shall not be reduced after any such increase and the term Annual Base Salary as utilized in this Agreement shall refer to Annual Base Salary as so increased. As used in this Agreement, the term "**affiliated companies**" shall include any company controlled by, controlling or under common control with the Company.

(b) **Annual Bonus.** In addition to Annual Base Salary, the Executive shall be awarded, for each fiscal year ending during the Employment Period, an annual bonus (the "**Annual Bonus**") in cash in an amount (the "**Annual Bonus Amount**") at least equal to the Executive's Annual Bonus opportunity for the most recent year for which an annual Bonus opportunity was established before the Effective Date under the Company's then annual incentive plan or program, adjusted by the average of the Executive's individual performance rating for each of the three most recent years ended

before the Effective Date, but eliminating any corporate performance measure. Each such Annual Bonus shall be paid no later than the end of the third month of the fiscal year next following the fiscal year for which the Annual Bonus is awarded, unless the Executive shall elect to defer the receipt of such Annual Bonus.

(c) **Incentive, Savings and Retirement Plans.** During the Employment Period, the Executive shall be entitled to participate in all incentive, employee stock purchase, savings and retirement plans, practices, policies and programs applicable generally to other peer executives of the Company and its affiliated companies, but in no event shall such plans, practices, policies and programs provide the Executive with incentive opportunities (measured with respect to both regular and special incentive opportunities, to the extent, if any, that such distinction is applicable), savings opportunities and retirement benefit opportunities, in each case, less favorable, in the aggregate, than the most favorable of those provided by the Company and its affiliated companies for the Executive under such plans, practices, policies and programs as in effect at any time during the 120-day period immediately preceding the Effective Date or if more favorable to the Executive, those provided generally at any time after the Effective Date to other peer executives of the Company and its affiliated companies.

(d) **Welfare Benefit Plans.** During the Employment Period, the Executive and/or the Executive's family, as the case may be, shall be eligible for participation in and shall receive all benefits under welfare benefit plans, practices, policies and programs provided by the

Company and its affiliated companies (including, without limitation, medical, prescription, dental, disability, salary continuance, employee life, group life, accidental death and travel accident insurance plans and programs) to the extent applicable generally to other peer executives of the Company and its affiliated companies, but in no event shall such plans, practices, policies and programs provide the Executive with benefits which are less favorable, in the aggregate, than the most favorable of such plans, practices, policies and programs in effect for the Executive at any time during the 120-day period immediately preceding the Effective Date or, if more favorable to the Executive, those provided generally at any time after the Effective Date to other peer executives of the Company and its affiliated companies.

(e) **Expenses.** During the Employment Period, the Executive shall be entitled to receive prompt reimbursement for all reasonable expenses incurred by the Executive in accordance with the most favorable policies, practices and procedures of the Company and its affiliated companies in effect for the Executive at any time during the 120-day period immediately preceding the Effective Date or, if more favorable to the Executive, as in effect generally at any time thereafter with respect to other peer executives of the Company and its affiliated companies.

(f) **Fringe Benefits.** During the Employment Period, the Executive shall be entitled to fringe benefits in accordance with the most favorable plans, practices, programs and policies of the Company and its affiliated companies in effect for the Executive at any time during the 120-day period immediately preceding the Effective Date or, if more favorable to the Executive, as in effect generally at any time thereafter with respect to other peer executives of the Company and its affiliated companies.

(g) **Office and Support Staff.** During the Employment Period, the Executive shall be entitled to an office or offices of a size and with furnishings and other appointments, and to personal secretarial and other assistance, at least equal to the most favorable of the foregoing provided to the Executive by the Company and its affiliated companies at any time during the 120-day period immediately preceding the Effective Date or, if more favorable to the Executive, as provided generally at any time thereafter with respect to other peer executives of the Company and its affiliated companies.

(h) **Vacation.** During the Employment Period, the Executive shall be entitled to paid vacation in accordance with the most favorable plans, policies, programs and practices of the Company and its affiliated companies as in effect for the Executive at any time during the 120-day period immediately preceding the Effective Date or, if more favorable to the Executive, as in effect generally at any time thereafter with respect to other peer executives of the Company and its affiliated companies.

6. **Termination of Employment.**

6.1. **Death or Disability.** The Executive's employment shall terminate automatically upon the Executive's death during the Employment Period. If the Company determines in good faith that the Disability of the Executive has occurred during the Employment Period (pursuant to the definition of Disability set forth below), it may give to the Executive written notice in accordance with Section 14.2 of this Agreement of its intention to terminate the Executive's employment. In such event, the Executive's employment with the Company shall terminate effective on the 30th day after receipt of such notice by the Executive (the "**Disability Effective Date**"), provided that, within the 30 days after such receipt, the Executive shall not have returned to full-time performance of the Executive's duties. For purposes of this Agreement, "**Disability**" shall mean the absence of the Executive from the Executive's duties with the Company on a full-time basis for 180 consecutive business days as a result of incapacity due to mental or physical illness or injury which is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to the Executive or the Executive's legal representative.

6.2. **Cause.** The Company may terminate the Executive's employment during the Employment Period for Cause. For purposes of this Agreement, "**Cause**" shall mean:

(a) the willful and continued failure of the Executive to perform substantially the Executive's duties with the Company or one of its affiliates (other than any such failure resulting from incapacity due to physical or mental illness), after a written demand for substantial performance is delivered to the Executive by the Board or the Chief Executive Officer of the Company which specifically identifies the manner in which the Board or Chief Executive Officer believes that the Executive has not substantially performed the Executive's duties, or

(b) the willful engaging by the Executive in illegal conduct or gross misconduct which is materially and demonstrably injurious to the Company.

For purposes of this provision, no act or failure to act, on the part of the Executive, shall be considered "willful" unless it is done, or omitted to be done, by the Executive in bad faith or without reasonable belief that the Executive's action or omission was in the best interests of the Company. Any act, or failure to act, based upon authority given pursuant to a resolution duly adopted by the Board or upon the instructions of the Chief Executive Officer or a senior officer of the Company or based upon the advice of counsel for the Company shall be conclusively presumed to be done, or omitted to be done, by the Executive in

good faith and in the best interests of the Company. The cessation of employment of the Executive shall not be deemed to be for Cause unless and until there shall have been delivered to the Executive a copy of a resolution duly adopted by the affirmative vote of not less than three-quarters of the entire membership of the Board at a meeting of the Board called and held for such purpose (after reasonable notice is provided to the Executive and the Executive is given an opportunity, together with counsel, to be heard before the Board), finding that, in the good faith opinion of the Board, the Executive is guilty of the conduct described in subparagraph (a) or (b) above, and specifying the particulars thereof in detail.

6.3. **Good Reason.** The Executive's employment may be terminated by the Executive for Good Reason during the Employment Period. For purposes of this Agreement, "**Good Reason**" shall mean, subject to the notice and cure requirements below, a voluntary termination by the Executive within one year following the initial existence of one or more of the following conditions occurring during the Employment Period, without the consent of the Executive:

- (a) Material diminution of Annual Base Salary;
- (b) Material diminution of the Executive's authority, duties or responsibilities from those applicable to the Executive immediately prior to the Effective Date;
- (c) Material change in the geographic location in which the Executive provides services from the location where the Executive was principally employed immediately prior to the Effective Date; and
- (d) Any other action or inaction by the Company that constitutes a material breach of the terms of this Agreement.

The Executive must provide notice to the Company of the existence of the Good Reason condition not later than 90 days of its initial existence. The Company shall have a period of 60 days to cure the condition giving rise to such notice. In the event the Company cures or corrects the specific Good Reason condition within the time period specified above and the Executive is satisfied that the Company has cured the specific condition set forth in the Notice of Termination, Good Reason termination shall not be deemed to exist with respect to the specific condition set forth in the Notice of Termination.

6.4. **Notice of Termination.** Any termination by the Company for Cause, or by the Executive for Good Reason, shall be communicated by Notice of Termination to the other party hereto given in accordance with Section 14.2 of this Agreement. For purposes of this Agreement, a "**Notice of Termination**" means a written notice which (i) indicates the specific termination provision in this Agreement relied upon, (ii) to the extent applicable, sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated and (iii) if the Date of Termination (as defined below) is other than the date of receipt of such notice, specifies the termination date (which date shall be not more than thirty days after the giving of such notice). The failure by the Executive or the Company to set forth in the Notice of Termination any fact or circumstance which contributes to a showing of Good Reason or Cause shall not waive any right of the Executive or the Company, respectively, hereunder or preclude the Executive or the Company, respectively, from asserting such fact or circumstance in enforcing the Executive's or the Company's rights hereunder.

6.5. **Date of Termination.** "**Date of Termination**" means (i) if the Executive's employment is terminated by the Company for Cause, or by the Executive for Good Reason, the date of receipt of the Notice of Termination or any later date specified therein, as the case may be, (ii) if the Executive's employment is terminated by the Company other than for Cause or

Disability, the date on which the Company notifies the Executive of such termination and (iii) if the Executive's employment is terminated by reason of death or Disability, the date of death of the Executive or the Disability Effective Date, as the case may be.

7. **Obligations of the Company upon Termination.**

7.1. **Good Reason; Other Than for Cause, Death or Disability.** If, during the Employment Period, the Company shall terminate the Executive's employment other than for Cause or Disability or the Executive shall terminate employment for Good Reason:

- (a) the Company shall pay to the Executive the aggregate of the following amounts:

- (i) in a lump sum in cash within 30 days after the Date of Termination the sum of (1) the Executive's Annual Base Salary through the Date of Termination, to the extent not theretofore paid to the Executive, (2) the amount, if any, which has been earned by the Executive with respect to any completed Incentive Year under the Company's Incentive Compensation Plan or any successor thereto, and any completed Award Period under the Company's Axcelis Team Incentive Plan or any successor thereto, in each case to the extent not theretofore paid to the Executive, and (3) with respect to each Award Period under the Company's Axcelis Team Incentive Plan or any successor thereto which begins before and ends after the Date of Termination, an amount equal to (x) 100% of the Executive's Individual Incentive Target (as defined in such plan) for such Award Period times (y) a fraction, the numerator of which is the number of days in such Award Period before the Date of Termination, and the denominator of which is the total number of days in such Award Period (the sum of the amounts described in clauses (1), (2) and (3) shall be hereinafter referred to as the "**Accrued Obligations**"); and

- (ii) in a lump sum in cash within 30 days after the Date of Termination, the product of (1) the Multiple (as defined below) and (2) the sum of (x) the Executive's Annual Base Salary and (y) the Annual Bonus Amount (hereinafter referred to as the "**Severance Obligations**");

- (b) for a number of years after the Executive's Date of Termination equal to the lesser of two and the Multiple, or such longer period as may be provided by the terms of the appropriate plan, program, practice or policy, the Company shall continue benefits to the Executive and/or the Executive's family at least equal to those which would have been provided to them in accordance with the plans, programs, practices and policies described in Section 5.2(d) of this Agreement if the Executive's employment had not been terminated or, if more favorable to the Executive, as in effect generally at any time thereafter with respect to other peer executives of the Company and its affiliated companies and their families, provided, however, that (1) if the Executive becomes re-employed with another employer and is eligible to receive medical or other welfare benefits under another employer-provided plan, the medical and other welfare benefits described herein shall be secondary to those provided under such other plan during such applicable period of eligibility, and for purposes of determining eligibility (but not the time of commencement of benefits) of the Executive for retiree benefits pursuant to such

plans, practices, programs and policies, the Executive shall be considered to have remained employed for a number of years after the Date of Termination equal to the lesser of two and the Multiple and to have retired on the last day of such period; (2) the Company shall not be obligated to continue benefits under this Section 7.1(b) to the extent such benefits cannot be continued in accordance with the plan or policy under which such benefits are being provided to employees generally at the Date of Termination; (3) to the extent any benefits continued under this Section 7.1(b) are taxable to the Executive, any reimbursement made by the Company to or on behalf of the Executive (including the payment of any portion of the cost or premium for such benefit) shall be made on a monthly basis; and (4) in any event, under the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA), Executive may continue Executive's then current medical and/or dental coverage and Executive's dependents' then current medical and/or dental coverage for up to eighteen (18) months from the Date of Termination upon payment of monthly premiums and administrative fees;

(c) to the extent not theretofore paid or provided, the Company shall timely pay or provide to the Executive any other amounts or benefits required to be paid or provided or which the Executive is eligible to receive under any plan, program, policy or practice or contract or agreement of the Company and its affiliated companies, excluding any amounts or benefits which are subject to the discretion of the Board of Directors, such as future equity grants (such other amounts and benefits shall be hereinafter referred to as the "Other Benefits"); and

(d) all stock options, restricted stock, restricted stock units and other stock interests or stock-based rights awarded to the Executive by the Company on or before the Date of Termination shall become fully vested as of the Date of Termination, subject to their early termination or expiration (if applicable) in accordance with the terms of each such stock option or other award.

The "Multiple" means three.

7.2. Death. If the Executive's employment is terminated by reason of the Executive's death during the Employment Period, this Agreement shall terminate without further obligations to the Executive's legal representatives under this Agreement, other than for payment of Accrued Obligations and the timely payment or provision of Other Benefits. Accrued Obligations shall be paid to the Executive's estate or beneficiary, as applicable, in a lump sum in cash within 30 days of the Date of Termination. With respect to the provision of Other Benefits, the term Other Benefits as utilized in this Section 7.2 shall include, without limitation, and the Executive's estate and/or beneficiaries shall be entitled to receive, benefits at least equal to the most favorable benefits provided by the Company and affiliated companies to the estates and beneficiaries of peer executives of the Company and such affiliated companies under such plans, programs, practices and policies relating to death benefits, if any, as in effect with respect to other peer executives and their beneficiaries at any time during the 120-day period immediately preceding the Effective Date or, if more favorable to the Executive's estate and/or the Executive's beneficiaries, as in effect on the date of the Executive's death with respect to other peer executives of the Company and its affiliated companies and their beneficiaries.

7.3. Disability. If the Executive's employment is terminated by reason of the Executive's Disability during the Employment Period, this Agreement shall terminate without further obligations to the Executive, other than for payment of Accrued Obligations and the timely payment or provision of Other Benefits. Accrued Obligations shall be paid to the Executive in a lump sum in cash within 30 days of the Date of Termination. With respect to the provision of Other Benefits, the term Other Benefits as utilized in this Section 7.3 shall include, and the Executive shall be entitled after the Disability Effective Date to receive, disability and other benefits at least equal to the most favorable of those generally provided by the Company and its affiliated companies to disabled executives and/or their families in accordance with such plans, programs, practices and policies relating to disability, if any, as in effect generally with respect to other peer executives and their families at any time during the 120-day period immediately preceding the Effective Date or, if more favorable to the Executive and/or the Executive's family, as in effect at any time thereafter generally with respect to other peer executives of the Company and its affiliated companies and their families.

7.4. Cause; Other than for Good Reason. If the Executive's employment shall be terminated for Cause during the Employment Period, this Agreement shall terminate without further obligations to the Executive other than the obligation to pay to the Executive (x) the Annual Base Salary through the Date of Termination and (y) Other Benefits, in each case to the extent theretofore unpaid. If the Executive voluntarily terminates employment during the Employment Period, excluding a termination for Good Reason, this Agreement shall terminate without further obligations to the Executive, other than for Accrued Obligations and the timely payment or provision of Other Benefits. In such case, all Accrued Obligations shall be paid to the Executive in a lump sum in cash within 30 days of the Date of Termination.

8. Non-exclusivity of Rights. Nothing in this Agreement shall prevent or limit the Executive's continuing or future participation in any plan, program, policy or practice provided by the Company or any of its affiliated companies and for which the Executive may qualify, nor, subject to the last sentence of this Section 8 and to Section 14.6, shall anything herein limit or otherwise affect such rights as the Executive may have under any contract or agreement with the Company or any of its affiliated companies. Without limiting the generality of the foregoing, the Company and the Executive may, but shall not be required to, enter into an employment agreement setting forth certain terms and conditions of the Executive's employment and, if an employment agreement is in effect, the terms and conditions of this Agreement shall be and remain in full force and effect and the terms and conditions of that employment agreement shall be deemed to supplement but not supersede the terms and conditions of this Agreement; provided, however, the Executive shall be entitled to receive the greater of the amounts and benefits due under this Agreement or such employment agreement but not the aggregate of the amounts and benefits under both such agreements. If amounts and benefits are due under this Agreement and under an employment agreement, the amounts due under this Agreement shall be paid and the Company will be obligated under the employment agreement only to the extent the amounts and benefits under the employment agreement exceed the amounts actually paid under this Agreement. Amounts which are vested benefits or which the Executive is otherwise entitled to receive under any plan, policy, practice or program of or any contract or agreement with the Company or any of its affiliated companies at or subsequent to the Date of Termination shall be payable in accordance with such plan, policy, practice or program or contract or agreement except as explicitly modified by this Agreement. Notwithstanding the foregoing, if the

Executive becomes entitled to receive severance benefits under Section 7.1 hereof, such severance benefits shall be in lieu of any benefits under any severance or separation plan, program or policy of the Company or any of its affiliated companies to which the Executive would otherwise have been entitled.

9. **Full Settlement; Legal Fees.** The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any set-off, counterclaim, recoupment, defense or other claim, right or action which the Company may have against the Executive or others. In no event shall the Executive be obligated to seek other employment or take any other action by way of mitigation of the amounts payable to the Executive under any of the provisions of this Agreement and except as specifically provided in Section 7.1(b), such amounts shall not be reduced whether or not the Executive obtains other employment. The Company agrees to pay as incurred, to the full extent permitted by law, all legal fees and expenses which the Executive may reasonably incur as a result of any contest (regardless of the outcome thereof) by the Company, the Executive or others of the validity or enforceability of, or liability under, any provision of this Agreement or any guarantee of performance thereof (whether such contest is between the Company and the Executive or between either of them and any third party, and including as a result of any contest by the Executive about the amount of any payment pursuant to this Agreement), plus in each case interest on any delayed payment at the applicable Federal rate provided for in Section 7872(f)(2)(A) of the Internal Revenue Code of 1986, as amended (the "Code").

10. **Certain Additional Payments by the Company.**

10.1. Anything in this Agreement to the contrary notwithstanding, in the event it shall be determined that any payment or distribution by the Company to or for the benefit of the Executive (whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise, but determined without regard to any additional payments required under this Section 10) (a "Payment") would be subject to the excise tax imposed by Section 4999 of the Code or any interest or penalties are incurred by the Executive with respect to such excise tax (such excise tax, together with any such interest and penalties, being hereinafter collectively referred to as the "Excise Tax"), then the Executive shall be entitled to receive an additional payment (a "Gross-Up Payment") in an amount such that after payment by the Executive of all taxes (including any interest or penalties imposed with respect to such taxes), including, without limitation, any income taxes (and any interest and penalties imposed with respect thereto) and Excise Tax imposed upon the Gross-Up Payment, the Executive retains an amount of the Gross-Up Payment equal to the Excise Tax imposed upon the Payments.

10.2. Subject to the provisions of Section 10.3, all determinations required to be made under this Section 10, including whether and when a Gross-Up Payment is required and the amount of such Gross-Up Payment and the assumptions to be utilized in arriving at such determination, shall be made by a nationally recognized certified public accounting firm as may be designated by the Executive (the "Accounting Firm"), which shall provide detailed supporting calculations both to the Company and to the Executive within 15 business days of the receipt of notice from the Executive that there has been a Payment, or such earlier time as is requested by the Company. In the event that the Accounting Firm is serving as accountant or auditor for the

individual, entity or group effecting the Change of Control, the Executive shall appoint another nationally recognized accounting firm to make the determinations required hereunder (which accounting firm shall then be referred to as the Accounting Firm hereunder). All fees and expenses of the Accounting Firm shall be borne solely by the Company. Any Gross-Up Payment, as determined pursuant to this Section 10, shall be paid by the Company to the Executive within five days of the receipt of the Accounting Firm's determination, but not later than the end of the year following the year in which the Executive remits the Excise Tax for which such Gross-Up Payment is due. Any determination by the Accounting Firm shall be binding upon the Company and the Executive. As a result of the uncertainty in the application of Section 4999 of the Code at the time of the initial determination by the Accounting Firm hereunder, it is possible that Gross-Up Payments which will not have been made by the Company should have been made ("Underpayment"), consistent with the calculations required to be made hereunder. In the event that the Company exhausts its remedies pursuant to Section 10.3 and the Executive thereafter is required to make a payment of any Excise Tax, the Accounting Firm shall determine the amount of the Underpayment that has occurred and any such Underpayment shall be promptly paid by the Company to or for the benefit of the Executive but not later than the end of the year following the year in which the Executive remits the Excise Tax for which such Underpayment is due.

10.3. The Executive shall notify the Company in writing of any claim by the Internal Revenue Service that, if successful, would require the payment by the Company of the Gross-Up Payment. Such notification shall be given as soon as practicable but no later than ten business days after the Executive is informed in writing of such claim and shall apprise the Company of the nature of such claim and the date on which such claim is requested to be paid. The Executive shall not pay such claim prior to the expiration of the 30-day period following the date on which he gives such notice to the Company (or such shorter period ending on the date that any payment of taxes with respect to such claim is due). If the Company notifies the Executive in writing prior to the expiration of such period that it desires to contest such claim, the Executive shall:

- (a) give the Company any information reasonably requested by the Company relating to such claim,
- (b) take such action in connection with contesting such claim as the Company shall reasonably request in writing from time to time, including, without limitation, accepting legal representation with respect to such claim by an attorney reasonably selected by the Company,
- (c) cooperate with the Company in good faith in order effectively to contest such claim, and
- (d) permit the Company to participate in any proceedings relating to such claim;

provided, however, that the Company shall bear and pay directly all costs and expenses (including additional interest and penalties) incurred in connection with such contest and shall indemnify and hold the Executive harmless, on an after-tax basis, for any Excise Tax or income tax (including interest and penalties with respect thereto) imposed as a result of such

representation and payment of costs and expenses. Without limitation on the foregoing provisions of this Section 10.3, the Company shall control all proceedings taken in connection with such contest and, at its sole option, may pursue or forgo any and all administrative appeals, proceedings, hearings and conferences with the taxing authority in respect of such claim and may, at its sole option, either direct the Executive to pay the tax claimed and sue for a refund or contest the claim in any permissible manner, and the Executive agrees to prosecute such contest to a determination before any administrative tribunal, in a court of initial jurisdiction and in one or more appellate courts, as the Company shall determine; provided, however, that if the Company directs the Executive to pay such claim and sue for a refund, the Company shall advance the amount of such payment to the Executive, on an interest-free basis and shall indemnify and hold the Executive harmless, on an after-tax basis, from any Excise Tax or income tax (including interest or penalties with respect

thereto) imposed with respect to such advance or with respect to any imputed income with respect to such advance; and further provided that any extension of the statute of limitations relating to payment of taxes for the taxable year of the Executive with respect to which such contested amount is claimed to be due is limited solely to such contested amount. Furthermore, the Company's control of the contest shall be limited to issues with respect to which a Gross-Up Payment would be payable hereunder and the Executive shall be entitled to settle or contest, as the case may be, any other issue raised by the Internal Revenue Service or any other taxing authority.

10.4. If, after the receipt by the Executive of an amount advanced by the Company pursuant to Section 10.3, the Executive becomes entitled to receive any refund with respect to such claim, the Executive shall (subject to the Company's complying with the requirements of Section 10.3) promptly pay to the Company the amount of such refund (together with any interest paid or credited thereon after taxes applicable thereto). If, after the receipt by the Executive of an amount advanced by the Company pursuant to Section 10.3, a determination is made that the Executive shall not be entitled to any refund with respect to such claim and the Company does not notify the Executive in writing of its intent to contest such denial of refund prior to the expiration of 30 days after such determination, then such advance shall be forgiven and shall not be required to be repaid and the amount of such advance shall offset, to the extent thereof, the amount of Gross-Up Payment required to be paid.

11. **Confidential Information.** The Executive shall hold in a fiduciary capacity for the benefit of the Company all secret or confidential information, knowledge or data relating to the Company or any of its affiliated companies, and their respective businesses, which shall have been obtained by the Executive during the Executive's employment by the Company or any of its affiliated companies and which shall not be or become public knowledge (other than by acts by the Executive or representatives of the Executive in violation of this Agreement). After termination of the Executive's employment with the Company, the Executive shall not, without the prior written consent of the Company or as may otherwise be required by law or legal process, communicate or divulge any such information, knowledge or data to anyone other than the Company and those designated by it. In no event shall an asserted violation of the provisions of this Section 11 constitute a basis for deferring or withholding any amounts otherwise payable to the Executive under this Agreement.

12. **Successors.**

12.1. This Agreement is personal to the Executive and without the prior written consent of the Company shall not be assignable by the Executive otherwise than by will or the laws of descent and distribution. This Agreement shall inure to the benefit of and be enforceable by the Executive's legal representatives.

12.2. This Agreement shall inure to the benefit of and be binding upon the Company and its successors and assigns.

12.3. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company to assume expressly and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. As used in this Agreement, "Company" shall mean the Company as hereinbefore defined and any successor to its business and/or assets as aforesaid which assumes and agrees to perform this Agreement by operation of law, or otherwise.

13. **Trust Deposit.**

13.1. Upon the occurrence of a Proposed Change of Control (as defined below) during the Change of Control Period, the Company shall deposit in trust or escrow with a third party cash in an amount sufficient to provide all of the benefits and other payments to which the Executive would be entitled hereunder if a Change of Control occurred on the date of the Proposed Change of Control and the Executive's employment were terminated by the Executive for Good Reason immediately thereafter. Upon such deposit, references hereunder to any payment by the Company shall be deemed to refer to a payment from such trust or escrow; provided, however, that nothing contained herein shall relieve the Company of its obligation to make the payments required of it hereunder in the event any such payment is not made from the trust or escrow.

13.2. "Proposed Change of Control" means:

- (a) the commencement of a tender or exchange offer by any third person (other than a tender or exchange offer which, if consummated, would not result in a Change of Control) for 25% or more of the Outstanding Company Common Stock or combined voting power of the Outstanding Company Voting Securities;
- (b) the execution of an agreement by the Company, the consummation of which would result in the occurrence of a Change of Control;
- (c) the public announcement by any person (including the Company) of an intention to take or to consider taking actions which if consummated would constitute a Change of Control other than through a contested election for directors of the Company; or
- (d) the adoption by the Board, as a result of other circumstances, including circumstances similar or related to the foregoing, of a resolution to the effect that, for purposes of this Agreement, a Proposed Change of Control has occurred.

14. **Miscellaneous.**

14.1. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without reference to principles of conflict of laws. The captions of this Agreement are not part of the provisions hereof and shall have no force or effect. This Agreement may not be amended or modified otherwise than by a written agreement executed by the parties hereto or their respective successors and legal representatives.

14.2. All notices and other communications hereunder shall be in writing and shall be given by hand delivery to the other party or by registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to the Executive:

108 Cherry Hill Drive
Beverly, MA 01915

If to the Company:

Axcelis Technologies, Inc.
108 Cherry Hill Drive
Beverly, MA 01915
Attention: Corporate Secretary

or to such other address as either party shall have furnished to the other in writing in accordance herewith. Notice and communications shall be effective when actually received by the addressee.

14.3. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

14.4. The Company may withhold from any amounts payable under this Agreement such Federal, state, local or foreign taxes as shall be required to be withheld pursuant to any applicable law or regulation.

14.5. The Executive's or the Company's failure to insist upon strict compliance with any provision hereof or any other provision of this Agreement or the failure to assert any right the Executive or the Company may have hereunder, including, without limitation, the right of the Executive to terminate employment for Good Reason pursuant to Section 6.3 (a) —(e) of this Agreement, shall not be deemed to be a waiver of such provision or right or any other provision or right of this Agreement.

14.6. The Executive and the Company acknowledge that, except as may otherwise be provided under any other written agreement between the Executive and the Company, the employment of the Executive by the Company is "at will" and, prior to the Effective Date, the Executive's employment may be terminated by either the Executive or the Company at any time prior to the Effective Date, in which case the Executive shall have no further rights under this Agreement. From and after the Effective Date, this Agreement shall supersede any other agreement between the parties with respect to the subject matter hereof.

IN WITNESS WHEREOF, the Executive has hereunto set the Executive's hand and, pursuant to the authorization from its Board of Directors, the Company has caused this Agreement to be executed in its name on its behalf, all as of the day and year first above written.

EXECUTIVE:

[Name]

AXCELIS TECHNOLOGIES, INC.

By: _____

Title: _____

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 7, 2012

/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 7, 2012

/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 7, 2012.

/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 7, 2012.

/s/ JAY ZAGER

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