UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 25, 2011

Axcelis Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware(State or other jurisdiction of incorporation)

000-30941 (Commission File Number)

34-1818596 (IRS Employer Identification No.)

108 Cherry Hill Drive, Beverly, Massachusetts

(Address of principal executive offices)

01915 (Zip Code)

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

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition

On October 25, 2011, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended September 30, 2011. The Company's press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

99.1 Press Release dated October 25, 2011. Filed herewith.

2

SIGNATURE

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 hereunto duly authorized.

Date: October 25, 2011 Axcelis Technologies, Inc.

By: /s/ JAY ZAGER

Jay Zager

Executive Vice President and Chief Financial Officer



AXCELIS ANNOUNCES THIRD QUARTER 2011 RESULTS

BEVERLY, Mass — October 25, 2011 — Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the third quarter ended September 30, 2011. Revenue for the third quarter was \$72.5 million, compared with \$93.4 million in Q2, and \$75.1 million for the same period a year ago. Net income for the quarter was \$1.2 million, or \$0.01 per diluted share. Prior quarter net income was \$4.2 million or \$0.04 per diluted share, and in the prior year period, the company reported a net loss of \$6.3 million or \$0.06 cents per share. Cash and cash equivalents were \$44.4 million on September 30, 2011.

Commenting on the Company's performance, Chairman and CEO Mary Puma said, "During the quarter Axcelis improved gross margins, reduced operating expenses, and generated \$6.6M in cash, enhancing our financial position. We're operating very efficiently, despite the fact that it is a less than robust industry environment. Our investments in R&D have resulted in highly differentiated technology, driving enhanced yield and profitability for our customers, which will continue to expand our market position even during this period of soft demand."

Third Quarter 2011 Conference Call

The Company will host a conference call today at 5:00 pm ET to discuss the third quarter of 2011. The call will be available to interested listeners via an audio webcast that can be accessed through Axcelis' home page at www.axcelis.com, or by dialing 1.888.679.8035 (1.617.213.4848 outside North America). Participants calling into the conference call will be requested to provide the company name, Axcelis Technologies, and pass code: 50504209. Webcast replays will be available from 8 pm ET on October 25, 2011 until 11:59 pm on November 24, 2011.

1

Safe Harbor Statement

This document contains forward-looking statements under the SEC safe harbor provisions. These statements, which include our guidance for future financial performance, are based on management's current expectations and should be viewed with caution. They are subject to various risks and uncertainties, many of which are outside the control of the Company, including the timing of orders and shipments, the conversion of orders to revenue in any particular quarter, or at all, our ability to implement successfully our profit plans, the continuing demand for semiconductor equipment, relative market growth, continuity of business relationships with and purchases by major customers, competitive pressure on sales and pricing, increases in material and other production costs that cannot be recouped in product pricing and global economic, political and financial conditions. These risks and other risk factors relating to Axcelis are described more fully in the most recent Form 10-K filed by Axcelis and in other documents filed from time to time with the Securities and Exchange Commission.

About Axcelis

Axcelis Technologies, Inc. (Nasdaq: ACLS), headquartered in Beverly, Massachusetts, provides innovative, high-productivity solutions for the semiconductor industry. Axcelis is dedicated to developing enabling process applications through the design, manufacture and complete life cycle support of ion implantation and cleaning systems. The company's Internet address is: www.axcelis.com.

Company Contacts:

Maureen Hart (editorial/media) 978.787.4266 maureen.hart@axcelis.com

Jay Zager (financial community) 978.787.9408 jay.zager@axcelis.com

2

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

	 Three months ended September 30,			Nine months ended September 30,			
	2011		2010		2011		2010
Revenue							
Product	\$ 64,350	\$	66,162	\$	235,287	\$	157,133
Service	8,105		8,944		23,718		24,676
	 72,455		75,106		259,005		181,809
Cost of revenue							
Product	40,055		47,848		149,833		111,858
Service	5,505		5,788		17,058		15,606
	45,560		53,636		166,891		127,464
Gross profit	26,895		21,470		92,114		54,345
Operating expenses							
Research and development	11,389		9,872		35,036		28,482

		E 22E		7.454		22 524		20.264
Sales and marketing		7,237		7,151		22,731		20,361
General and administrative		8,458		7,885		25,929		23,049
		27,084		24,908		83,696		71,892
Income (loss) from operations		(189)		(3,438)		8,418		(17,547)
Other income (expense)								
Interest income		7		15		24		69
Other, net		1,563		(1,996)		(45)		(2,061)
		1,570		(1,981)		(21)		(1,992)
		_		_				
Income (loss) before income taxes		1,381		(5,419)		8,397		(19,539)
Income taxes		230		854		1,207		2,364
	ф	4.454	ф	(C DED)	ф	E 100	ф	(24,002)
Net income (loss)	\$	1,151	\$	(6,273)	\$	7,190	\$	(21,903)
Net income (loss) per share								
Basic	\$	0.01	\$	(0.06)	\$	0.07	\$	(0.21)
Diluted	\$	0.01	\$	(0.06)	\$	0.07	\$	(0.21)
2 nated			÷	(3.3.3)	È		÷	
Shares used in computing basic and diluted net income (loss) per share								
Basic weighted average common shares		106,417		104,628		106,152		104,307
Diluted weighted average common shares		108,192		104,628		109,452		104,307
		<u> </u>		<u> </u>		<u> </u>		<u> </u>
		3						

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

	September 30, 2011	Ι	December 31, 2010	
ASSETS				
Current assets				
Cash and cash equivalents	\$ 44,41	3 \$	45,743	
Accounts receivable, net	39,88	L	57,888	
Inventories, net	121,91	5	109,653	
Prepaid expenses and other current assets	9,39		15,346	
Total current assets	215,60	<u> </u>	228,630	
Property, plant and equipment, net	37,89	5	38,594	
Long-term restricted cash	10	7	107	
Other assets	19,06	1	13,541	
	\$ 272,66	\$	280,872	
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities				
Accounts payable	\$ 17,70	3 \$	36,709	
Accrued compensation	13,19		10,597	
Warranty	3,63		2,556	
Income taxes	77			
Deferred revenue	9,85	7	13,859	
Other current liabilities	4,45	5	4,408	
Total current liabilities	49,62	3	68,129	
Long-term deferred revenue	2,08	7	2,417	
Other long-term liabilities	5,19		4,759	
Oner long-term natinges		<u> </u>	7,733	
Stockholders' equity				
Preferred stock	_	-	_	
Common stock	10	7	106	
Additional paid-in capital	498,01	2	493,967	
Treasury stock	(1,21		(1,218)	
Accumulated deficit	(286,33)		(293,520)	
Accumulated other comprehensive income	5,19		6,232	
	215,76)	205,567	
	\$ 272,66	\$	280,872	

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

		Nine months ended September 30,		
		2011		2010
Cash flows from operating activities:			_	
Net income (loss)	\$	7,190	\$	(21,903)
Adjustments to reconcile net income (loss) to net cash used for operating activities:		0.100		E 0.65
Depreciation and amortization		6,180		5,367
Taxes		75		-
Stock-based compensation expense		3,644		2,953
Provision for excess inventory		661		1,734
Changes in operating assets & liabilities:				
Accounts receivable		17,994		(21,890)
Inventories		(13,384)		9,282
Prepaid expenses and other current assets		5,910		(2,747)
Accounts payable & other current liabilities		(15,237)		20,386
Deferred revenue		(4,339)		5,852
Income taxes		798		201
Other assets and liabilities	1	(8,640)		2,357
Net cash provided by operating activities		852		1,592
Cash flows from investing activities:				
Expenditures for property, plant, and equipment		(1,950)		(761)
Decrease in restricted cash				3,421
Net cash provided by (used for) investing activities		(1,950)		2,660
Cash flows from financing activities:				
Financing fees and other expenses		(199)		(523)
Proceeds from exercise of stock options		272		104
Proceeds from Employee Stock Purchase Plan		275		206
Net cash provided by (used for) financing activities		348		(213)
Effect of exchange rate changes on cash		(580)		57
Net increase (decrease) in cash and cash equivalents	·	(1,330)		4,096
Cash and cash equivalents at beginning of period		45,743		45,020
Cash and cash equivalents at end of period	\$	44,413	\$	49,116