

**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): **August 1, 2007**

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)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- 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 August 1, 2007, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended June 30, 2007. 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

(c) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release dated August 1, 2007

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: August 1, 2007

Axcelis Technologies, Inc.

By: /s/ STEPHEN G. BASSETT
Stephen G. Bassett
Executive Vice President
and Chief Financial Officer

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Exhibit No.

99.1

Exhibit Index

Press Release dated August 1, 2007

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AXCELIS ANNOUNCES FINANCIAL RESULTS FOR SECOND QUARTER 2007

BEVERLY, Mass. — August 1, 2007 — Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the second quarter ended June 30, 2007. The Company reported revenues of \$110.1 million, compared to \$97.5 million for the first quarter of 2007. Net income for the second quarter was \$4.7 million, or \$0.05 per share, compared to net income for the first quarter of 2007 of \$2.7 million, or \$0.03 per share. In the corresponding quarter for the previous year, the Company reported revenues of \$117.6 million and net income of \$12.1 million, or \$0.12 per share.

Commenting on the Company's performance, Chairman and CEO Mary Puma said, "We continue to receive positive feedback from customers on advanced technology development and production manufacturing being run on our Optima HD, despite the softening industry conditions. We are confident that continued progress will drive growth of our high dose implant business as we secure additional orders through design wins and capacity buys. Additionally, we were able to win another high volume capacity order for our dry strip products, strengthening our position in the cleaning space. We look forward to this trend continuing."

Second Quarter Detail

Shipments and Margins

Shipments before provision for deferred revenue for the second quarter totaled \$116.3 million. Geographically, Axcelis' systems shipments for the quarter were to: Asia, 59%; North America, 29%; and Europe; 12%. The ion implantation business accounted for 76% of total shipments in the second quarter, while other products (dry strip, curing, and RTP) accounted for 24%. Gross margin for the second quarter was 39.6%.

Orders and Backlog

Orders (new systems bookings and service) received for the second quarter totaled \$75.8 million. New systems bookings, excluding service, amounted to \$34.5 million. Backlog plus deferred systems revenue at quarter end was \$93.4 million. Backlog consists of systems only (i.e., excluding service contracts) that are generally scheduled to ship within six months.

SEN Corporation, an SHI and Axcelis Company ("SEN")

Axcelis owns 50% of SEN, a Japanese company that is licensed to make and sell certain Axcelis ion implanters in Japan. SEN's revenue for the second quarter totaled \$55.2 million.

Business Outlook

Axcelis' financial outlook for the third quarter of 2007 includes revenues in the range of \$110 million to \$120 million. Gross margins in the third quarter are expected to be slightly below second quarter levels as a result of revenue recognition on new products. The Company forecasts third quarter earnings per share of approximately \$0.02. Axcelis assumes no responsibility to update guidance. Axcelis will only confirm or update guidance via a press release.

Second Quarter 2007 Conference Call

The Company will be hosting a conference call today, Wednesday, August 1, 2007, beginning at 5:00 pm ET. The purpose of the call is to discuss second quarter results and to provide guidance for the third quarter of 2007.

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 1-800-479-1628 (1-719-457-2729 outside North America). Participants calling into the conference call will be requested to provide the company name: Axcelis Technologies, the conference leader: David Snyder, and pass code: #1476171. A webcast replay will be available from 8:00 pm ET on August 1, 2007 until 5:00 pm ET September 1, 2007.

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 Technologies, Inc.

Axcelis Technologies, Inc., 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, rapid thermal processing, and cleaning and curing systems. Axcelis also licenses its 50% owned joint venture, SEN Corporation, an SHI and Axcelis Company, to manufacture and sell certain implant products in Japan. The company's Internet address is: www.axcelis.com.

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

	<u>June 30,</u> <u>2007</u>	<u>December 31,</u> <u>2006</u>
Assets		
Current assets		
Cash and cash equivalents	\$ 63,782	\$ 140,451
Marketable securities	18,000	63,200
Restricted cash	15,168	11,019
Accounts receivable, net	79,696	73,635
Inventories, net	175,939	160,107
Prepaid expenses and other current assets	36,621	26,639
Total current assets	<u>389,206</u>	<u>475,051</u>
Property, plant & equipment, net	68,468	66,678
Investment in SEN	123,295	126,688
Goodwill	46,773	46,773
Intangible assets	12,237	13,549
Restricted cash, long-term portion	—	1,137
Other assets	30,940	24,117
	<u>\$ 670,919</u>	<u>\$ 753,993</u>
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 24,684	\$ 37,312
Accrued compensation	15,731	26,996
Warranty	5,567	5,229
Income taxes	817	3,906
Deferred revenue	40,642	28,811
Other current liabilities	8,614	13,670
Current portion, convertible subordinated debt	—	74,217
Total current liabilities	<u>96,055</u>	<u>190,141</u>
Convertible subordinated debt	78,375	76,887
Long-term deferred revenue	2,905	5,054
Other long-term liabilities	6,881	4,349
Commitments and contingencies	—	—
Stockholders' equity		
Preferred Stock	—	—
Common stock	102	101
Additional paid-in capital	475,514	469,967
Treasury stock	(1,218)	(1,218)
Retained earnings	17,000	9,583
Accumulated other comprehensive loss	(4,695)	(871)
	<u>486,703</u>	<u>477,562</u>
	<u>\$ 670,919</u>	<u>\$ 753,993</u>

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

	<u>Three months ended</u> <u>June 30,</u>		<u>Six months ended</u> <u>June 30,</u>	
	<u>2007</u>	<u>2006</u>	<u>2007</u>	<u>2006</u>
Revenue				
Systems	\$ 67,361	\$ 67,734	\$ 118,425	\$ 120,138
Services	41,272	46,863	85,674	90,944

Royalties, primarily from SEN	1,440	3,043	3,500	4,479
	110,073	117,640	207,599	215,561
Cost of revenue	66,483	69,698	122,759	128,577
Gross profit	43,590	47,942	84,840	86,984
Operating expenses				
Research & development	17,598	18,191	35,826	36,403
Sales and marketing	13,146	11,569	26,084	22,176
General and administrative	10,194	11,419	20,670	22,272
Amortization of intangible assets	656	627	1,312	1,239
Restructuring charges	—	399	—	94
	41,594	42,205	83,892	82,184
Income from operations	1,996	5,737	948	4,800
Other income (expense)				
Equity income of SEN	1,905	6,146	6,573	8,362
Interest income	1,146	1,915	2,600	3,566
Interest expense	(1,566)	(2,446)	(3,235)	(4,087)
Other-net	275	1,339	251	684
	1,760	6,954	6,189	8,525
Income before income taxes	3,756	12,691	7,137	13,325
Income taxes (credits)	(988)	547	(280)	636
Net income	\$ 4,744	\$ 12,144	\$ 7,417	\$ 12,689
Net income per share				
Basic	\$ 0.05	\$ 0.12	\$ 0.07	\$ 0.13
Diluted	\$ 0.05	\$ 0.12	\$ 0.07	\$ 0.13
Shares used in computing net income per share				
Basic	101,609	100,958	101,551	100,921
Diluted	102,503	101,080	102,463	101,098