

**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): November 3, 2004

Axcelis Technologies, Inc.
(Exact name of registrant as specified in 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 November 3, 2004, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended September 30, 2004. The Company's press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

The information in this Current Report on Form 8-K and the Exhibit attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, regardless of any general incorporation language in such filing.

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: November 3, 2004

Axcelis Technologies, Inc.

By: /S/ STEPHEN G. BASSETT
Stephen G. Bassett
Senior Vice President and Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
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FOR IMMEDIATE RELEASE

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**AXCELIS ANNOUNCES FINANCIAL RESULTS FOR THE
THIRD QUARTER 2004**

BEVERLY, MA, November 3, 2004 – Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for its third quarter ended September 30, 2004. The Company reported net revenues of \$127.9 million, compared to \$151.3 million for the second quarter of 2004. Worldwide revenues for the third quarter, including revenues of the Company's 50% owned joint venture in Japan, Sumitomo Eaton Nova Corporation ("SEN"), were \$219 million, essentially flat when compared to the second quarter of 2004. Net income for the quarter was \$19.1 million (\$0.19 per diluted share) compared to \$34.5 million (\$0.33 per diluted share) in the second quarter of 2004. Gross margin for the third quarter was 42.3%.

Mary Puma, president and Chief Executive Officer stated, "Although business was slower than we had expected in the third quarter, Axcelis continued to deliver strong financial performance at current revenue levels. During the last two weeks of the third quarter we saw an acceleration of softness in our markets, represented by customer requirements being pushed out to the first half of 2005. Despite this, we continue to see solid growth in Japan through our joint venture partner SEN."

Puma continued, "Our focus throughout any change in the market is managing the business to sustain profitability. We controlled headcount growth during the earlier part of 2004 and are responding to the current environment. We will continue to take actions that will realign our organization with market conditions, without disrupting key product initiatives. Our operating leverage remains strong at our current revenue levels. We are very pleased with the tremendous growth and financial performance Axcelis has delivered this year."

Axcelis believes that the information regarding the aggregate quarterly revenues of SEN, a 50% owned unconsolidated subsidiary of Axcelis, combined with Axcelis' own revenues for the quarter, is useful to investors. SEN's ion implant products are covered by a license from Axcelis and therefore the combined revenue of the two companies indicates the full market penetration of Axcelis' technology.

Fourth Quarter Outlook

Net revenues (excluding SEN) in the fourth quarter are expected to decrease to \$95 million to \$105 million. Gross margins will be in the low 40's. Net income will be in the range of \$5 million to \$9 million (\$0.05 to \$0.09 per diluted share). The Company expects to generate approximately \$10 million of cash during the fourth quarter.

Third Quarter Detail

Shipments

Shipments for the third quarter on a worldwide basis, including SEN, totaled \$224.1 million with net shipments, excluding SEN, totaling \$129.6 million. Worldwide shipments were down 7.4% from the second quarter of 2004 and net shipments were down 17.2%.

Service revenue (service labor, spare parts and consumables) was \$44.8 million for the quarter, up 9% from the second quarter of 2004. Geographically, systems shipments were to: Asia 58%, Europe 26% and North America 16%.

The ion implantation business (excluding SEN) accounted for 77.8% of total shipments in the third quarter while the complementary products (RTP, Dry Strip and Curing) accounted for 22.2%.

Orders and Backlog

Net orders (systems and service excluding SEN) received for the third quarter totaled \$126.3 million, down 22.7% from the second quarter of 2004. System bookings amounted to \$81.5 million, down 33.3% from second quarter of 2004. Worldwide orders, including SEN, were \$234.3 million, down 6.0% compared with the second quarter of 2004.

Geographically, net system orders without SEN were split as follows: Asia 62%, Europe 21% and North America 17%. Logic manufacturers (integrated device manufacturers and foundries) accounted for 41% of systems orders while memory manufacturers made up 59%. The book to bill ratio for the quarter was 0.96.

Backlog plus deferred systems revenue for the quarter ended at \$146.7 million, an increase of 1.0% since the end of the second quarter of 2004. Reported backlog consists of systems only (i.e., excluding service contracts) that are generally scheduled to ship within six months.

Balance Sheet

Axcelis ended the third quarter with \$167.5 million in cash, cash equivalents and short-term investments compared with \$163.7 million at the end of the second quarter of 2004. The Company generated \$3.8 million in cash during the quarter.

Third Quarter 2004 Conference Call

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 1-800-500-0177 (1-719-457-2679 outside North America). Participants calling into the conference call will be requested to provide the company name: Axcelis Technologies, the conference leader: Jim Kowski, and pass code: Axcelis

Q3. A telephone replay will be available from 8:00 pm EST on November 3, 2004 until 11.59 pm EST on November 10, 2004. Dial 1-888-203-1112 (1-719-457-0820 outside North America), and enter conference ID code #350309. A Webcast replay will be available from 8:00 pm EST on November 3, 2004 until 5:00 pm EST December 1, 2004.

Safe Harbor Statement

This document contains forward-looking statements under the SEC safe harbor provisions. These statements 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 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 Technologies has key technology centers in Beverly, Massachusetts, and Rockville, Maryland as well as in Toyo, Japan through its joint venture, SEN. The company's Internet address is: www.axcelis.com.



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

	September 30, 2004	December 31, 2003
Assets		
Current assets		
Cash and cash equivalents	\$ 138,004	\$ 93,249
Restricted cash	3,370	3,800
Short-term investments	23,549	14,972
Accounts receivable, net	110,259	73,751
Inventories	117,619	123,985
Other current assets	20,208	20,102
Total current assets	413,009	329,859
Property, plant & equipment, net	76,163	80,927
Investment in Sumitomo Eaton Nova Corporation	93,628	73,327
Goodwill	46,773	46,774
Intangible assets	18,283	20,119
Restricted cash, long-term portion	2,616	2,616
Other assets	28,470	31,973
	\$ 678,942	\$ 585,595
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 28,280	\$ 36,335
Accrued compensation	25,499	15,061
Warranty	14,642	17,000
Income taxes	5,919	7,109
Deferred revenue	28,425	14,441
Other current liabilities	15,977	11,925
Total current liabilities	118,742	101,871
Long-term debt	125,000	125,000
Other long-term liabilities	10,505	5,474
Stockholders' equity		

Common stock	100	99
Additional paid-in capital	457,177	451,389
Deferred compensation	(527)	(811)
Treasury stock - at cost	(1,218)	(1,218)
Retained earnings deficit	(34,373)	(101,507)
Accumulated other comprehensive income	3,536	5,298
	<u>424,695</u>	<u>353,250</u>
	<u>\$ 678,942</u>	<u>\$ 585,595</u>

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

	Three months ended September 30,		Nine months ended September 30,	
	2004	2003	2004	2003
Revenue				
Systems	\$ 79,402	\$ 28,225	\$ 277,992	\$ 134,702
Services	44,827	30,782	125,097	91,381
Royalties	3,667	265	10,380	3,288
	<u>127,896</u>	<u>59,272</u>	<u>413,469</u>	<u>229,371</u>
Cost of Revenue	<u>73,817</u>	<u>45,108</u>	<u>240,814</u>	<u>157,493</u>
Gross profit	54,079	14,164	172,655	71,878
Operating expenses				
Research & development	16,645	16,273	48,009	48,376
Selling	12,248	11,983	36,683	35,590
General and administrative	11,943	10,841	34,645	30,383
Amortization of intangible assets	612	563	1,836	1,293
Restructuring charges	—	4,745	—	4,745
	<u>41,448</u>	<u>44,405</u>	<u>121,173</u>	<u>120,387</u>
Income (loss) from operations	12,631	(30,241)	51,482	(48,509)
Other income (expense)				
Equity income of Sumitomo Eaton Nova Corporation	9,065	41	22,212	4,534
Interest income	571	431	1,205	1,485
Interest expense	(1,643)	(1,552)	(5,017)	(4,663)
Other-net	(445)	(267)	(1,091)	(945)
	<u>7,548</u>	<u>(1,347)</u>	<u>17,309</u>	<u>411</u>
Income (loss) before income taxes	20,179	(31,588)	68,791	(48,098)
Income taxes	<u>1,097</u>	<u>354</u>	<u>1,657</u>	<u>69,048</u>
Net income (loss)	<u>\$ 19,082</u>	<u>\$ (31,942)</u>	<u>\$ 67,134</u>	<u>\$ (117,146)</u>
Basic net income (loss) per share	\$ 0.19	\$ (0.32)	\$ 0.68	\$ (1.19)
Diluted net income (loss) per share	\$ 0.19	\$ (0.32)	\$ 0.66	\$ (1.19)
Shares used in computing:				
Basic net income (loss) per share	99,797	98,697	99,432	98,423
Diluted net income (loss) per share	101,007	98,697	101,271	98,423

Note: Income taxes for the nine months ended September 30, 2003 include a non-cash charge of \$69.7 million (\$0.70 per diluted share) to reduce the carrying value of deferred tax assets to zero.