

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934
(Amendment No. 1)*

Axcelis Technologies Inc.
(Name of Issuer)

COMMON STOCK
(Title of Class of Securities)

054540109
(CUSIP Number)

December 31, 2010
(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1 (b)
- Rule 13d-1 (c)
- Rule 13d-1 (d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1. NAME OF REPORTING PERSON
S.S. or I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

EIN 23-2856392
Schneider Capital Management Corporation

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

(a)
(b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION
PENNSYLVANIA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

5. SOLE VOTING POWER
4,103,940

6. SHARED VOTING POWER
None

7. SOLE DISPOSITIVE POWER
4,972,154

8. SHARED DISPOSITIVE POWER
None

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
4,972,154

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9
4.75%

12. TYPE OF REPORTING PERSON
IA

GENERAL INSTRUCTIONS

Item 1.

(a) Name of Issuer
Axcelis Technologies Inc.

(b) Address of Issuer's Principal Executive Offices

108 Cherry Hill Drive
Beverly, MA 01915

Item 2.

(a) Name of Person Filing
SCHNEIDER CAPITAL MANAGEMENT CORPORATION

(b) Address of Principal Business Office or, if none, Residence
460 E. Swedesford Rd., Suite 2000
Wayne, PA 19087

(c) Citizenship
UNITED STATES

(d) Title of Class of Securities
COMMON STOCK

(e) CUSIP Number
054540109

Item 3. If this statement is filed pursuant to §§240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) Broker or dealer registered under Section 15 of the Act
- (b) Bank as defined in section 3(a)(6) of the Act
- (c) Insurance company as defined in section 3(a)(19) of the Act
- (d) Investment company registered under section 8 of the Investment Company Act of 1940
- (e) An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E)
- (f) An employee benefit plan or endowment fund in accordance with §§240.13d-1(b)(1)(ii)(F)

- (g) o A parent holding company, in accordance with §§240.13d-1(b)(1)(ii)(G)
- (h) o A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act
- (i) o A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940
- (j) o Group, in accordance with §§240.13d-1(b)(1)(ii)(H)

Item 4. Ownership.

(a) Amount Beneficially Owned
4,972,154

(b) Percent of Class
4.75%

(c) Number of shares as to which such person has:

- (i) sole power to vote or to direct the vote
4,103,940
- (ii) shared power to vote or to direct the vote
None
- (iii) sole power to dispose or to direct the disposition of
4,972,154
- (iv) shared power to dispose or to direct the disposition of
None

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following

Item 6. Ownership of More than Five Percent on Behalf of Another Person.
None

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.
N/A

Item 8. Identification and Classification of Members of the Group.
N/A

Item 9. Notice of Dissolution of Group.
N/A

Item 10. Certification.
By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 14, 2011
Date

/s/ Gary P. Soura, Jr.
Signature

GARY P. SOURA, JR.
SR. VICE PRESIDENT
Name/Title

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001)

AMENDED ITEMS

Number of Shares Beneficially Owned by Each Reporting Person With:

5. Sole Voting Power

4,103,940

7. Sole Dispositive Power

4,972,154

9. Aggregate Amount Beneficially Owned by Each Reporting Person

4,972,154

11. Percent of Class Representing the Aggregate Amount Beneficially Owned by Each Reporting Person

4.75%

DRINKER BIDDLE & REATH LLP
One Logan Square, Ste. 2000
Philadelphia, PA 19103-6996

February 14, 2011

VIA EDGAR

Filing Desk
U.S. Securities and Exchange Commission
Washington, D.C.

Re: Schneider Capital Management Corporation 801-55439
Axcelis Technologies Inc.

Dear Sir/Madam:

Enclosed for filing is a Schedule 13G on behalf of Schneider Capital Management Corporation ("SCM"), which is an investment adviser registered under the Investment Advisers Act of 1940. This filing relates to SCM's holding of common shares issued by Axcelis Technologies Inc. This is Amendment No. 1 to the 13G filing regarding SCM's holding of common shares issued by Axcelis Technologies Inc. (CUSIP No. 054540109).

Please contact me at (215) 988-2719 if you have any questions.

Sincerely,

/s/ Audrey C. Talley
Audrey C. Talley, Esq.

cc: VIA CERTIFIED OR REGISTERED MAIL

Axcelis Technologies Inc.
108 Cherry Hill Drive
Beverly, MA 01915