

ZAGER JAY
Form 3/A
January 18, 2011

FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
Section 17(a) of the Public Utility Holding Company Act of 1935 or Section
30(h) of the Investment Company Act of 1940

(Print or Type Responses)

| | | | | |
|---|---------|--|--|---|
| 1. Name and Address of Reporting Person * | | 2. Date of Event Requiring Statement | 3. Issuer Name and Ticker or Trading Symbol | |
| Â ZAGER JAY | | (Month/Day/Year) | AXCELIS TECHNOLOGIES INC [ACLS] | |
| (Last) | (First) | (Middle) | 01/15/2011 | |
| 108 CHERRY HILL DRIVE | | 4. Relationship of Reporting Person(s) to Issuer | | |
| (Street) | | (Check all applicable) | | |
| BEVERLY, MA 01915 | | <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer <input type="checkbox"/> Other (give title below) (specify below) CFO and EVP | | |
| (City) | (State) | (Zip) | 5. If Amendment, Date Original Filed(Month/Day/Year) | |
| | | | 01/18/2011 | |
| 1. Title of Security (Instr. 4) | | 2. Amount of Securities Beneficially Owned (Instr. 4) | 3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5) | 4. Nature of Indirect Beneficial Ownership (Instr. 5) |

Table I - Non-Derivative Securities Beneficially Owned

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| | | | | | |
|--|--|---|--|---|---|
| 1. Title of Derivative Security (Instr. 4) | 2. Date Exercisable and Expiration Date (Month/Day/Year) | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5) | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
| | Date Exercisable Expiration Date | Title Amount or Number of Shares | | | |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|---------------|-------|
| | Director | 10% Owner | Officer | Other |
| ZAGER JAY 108 CHERRY HILL DRIVE BEVERLY, MA 01915 | Â | Â | Â CFO and EVP | Â |

Signatures

Lynnette C. Fallon, as attorney in fact for Jay Zager 01/18/2011

__Signature of Reporting Person

Date

Explanation of Responses:

No securities are beneficially owned

- * If the form is filed by more than one reporting person, *see* Instruction 5(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

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Remarks:

As of the date of this form, Mr. Zager did not own any Axcelis Technologies, Inc. securities directly.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure.

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