

AXCELIS TECHNOLOGIES INC
 Form 4/A
 May 29, 2012

FORM 4

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

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN 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 *
THOMPSON H BRIAN

2. Issuer Name and Ticker or Trading Symbol
**AXCELIS TECHNOLOGIES INC
 [ACLS]**

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction
 (Month/Day/Year)
05/24/2012

Director 10% Owner
 Officer (give title below) Other (specify below)

**C/O AXCELIS TECHNOLOGIES,
 INC., 108 CHERRY HILL DRIVE**

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)
05/25/2012

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

BEVERLY, MA 01915

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|---|---|--|
| | | | | (A) or (D) | Price | | | | |
| | | | | Code | V | Amount | | | |
| Common Stock | 05/24/2012 | | P | 20,000 | A | \$ 1 | 20,000 | I | Shares purchased by Universal Telecommunications, Inc. |
| Common Stock | | | | | | | 84,185 | D | |

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

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number.

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

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of Derivative Securities Beneficially Owned Following Reported Transaction (Instr. 3 and 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|--|---|
| | | | | Code | V (A) (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares |

Reporting Owners

Reporting Owner Name / Address

Relationships

Director 10% Owner Officer Other

THOMPSON H BRIAN
C/O AXCELIS TECHNOLOGIES, INC.
108 CHERRY HILL DRIVE
BEVERLY, MA 01915

X

Signatures

Lynnette C. Fallon, as attorney in fact for H. Brian Thompson

05/29/2012

__Signature of Reporting Person

Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(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).

Remarks:

Amending to report indirect ownership of shares purchased on May 24, 2012.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.