

AXCELIS TECHNOLOGIES INC  
 Form 4  
 September 17, 2013

**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 \*  
**PUMA MARY G**

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

5. Relationship of Reporting Person(s) to Issuer  
 (Check all applicable)  
 Director  10% Owner  
 Officer (give title below)  Other (specify below)  
 Chairman, President and CEO

(Last) (First) (Middle)  
**C/O AXCELIS TECHNOLOGIES, INC., 108 CHERRY HILL DRIVE**  
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)  
**09/17/2013**

**BEVERLY, MA 01915**

(City) (State) (Zip)

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

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

**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 Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price
Common Stock	09/17/2013		S <sup>(1)</sup>		7,411	D	\$ 2.24
Common Stock	09/17/2013		S		5,077	D	\$ 2.25
Common Stock					20,000	I	
							Held by spouse

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

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SEC 1474 (9-02)

displays a currently valid OMB control 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 Owned Beneficially (Instr. 5)
				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
PUMA MARY G C/O AXCELIS TECHNOLOGIES, INC. 108 CHERRY HILL DRIVE BEVERLY, MA 01915	X		Chairman, President and CEO	

## Signatures

Lynnette C. Fallon, as attorney in fact for Mary G. Puma

09/17/2013

\*\*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).

- The sales reported on this Form are pursuant to a prior election by the executive officer to sell shares issued on the vesting of restricted stock units in order to generate funds to pay to the Company to cover the executive's tax liability arising from the vesting event and related commissions. The proceeds of this sale will be paid to the Company and the broker.
- (1) stock units in order to generate funds to pay to the Company to cover the executive's tax liability arising from the vesting event and related commissions. The proceeds of this sale will be paid to the Company and the broker.
  - (2) Of the shares held as of September 17, 2013, 36,910 were issuable on vesting of restricted stock units granted the executive under the 2012 Equity Incentive Plan and are subject to forfeiture.

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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