

FLYNN MATTHEW P  
Form 4/A  
September 20, 2010

**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 \*  
FLYNN MATTHEW P

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)  
C/O AXCELIS TECHNOLOGIES, INC., 108 CHERRY HILL DRIVE  
  
(Street)

3. Date of Earliest Transaction  
(Month/Day/Year)  
07/01/2010

\_\_\_\_ Director  
 Officer (give title below) \_\_\_\_\_ 10% Owner  
\_\_\_\_\_ Other (specify below)  
EVP, Customer Operations

BEVERLY, MA 01915

4. If Amendment, Date Original Filed(Month/Day/Year)  
07/06/2010

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

(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 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	07/01/2010		F		5,368	D (1)	\$ 1.59 (2)
Common Stock	07/03/2010		F		7,275	D (3)	\$ 1.42 (4)

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

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SEC 1474 (9-02)

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 Reporting Transaction (Instr. 6)
				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
FLYNN MATTHEW P C/O AXCELIS TECHNOLOGIES, INC. 108 CHERRY HILL DRIVE BEVERLY, MA 01915			EVP, Customer Operations	

## Signatures

Lynnette C. Fallon, as attorney in fact for Matthew Flynn  
Date: 09/20/2010

\*\*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).
- (1) Shares withheld by the Company equal to tax liability of the executive officer incident to the vesting of restricted stock units issued in accordance with Rule 16b-3.
- (2) Represents the closing price of the common stock at July 1, 2010.
- (3) Shares withheld by the Company equal to tax liability of the executive officer incident to the vesting of restricted stock units issued in accordance with Rule 16b-3.
- (4) Represents the closing price of the common stock at July 6, 2010 (the first trading day after the vesting date).  
Of the shares held as of July 3, 2010, 55,978 were issuable on vesting of restricted stock units granted the executive under the 2000 Stock Plan and are subject to forfeiture. A portion of these shares will be withheld by the Company on vesting to satisfy tax withholding requirements.

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.