AXCELIS TECHNOLOGIES INC

Form 4

November 14, 2008

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

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

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

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

(Print or Type Responses)

1(b).

1. Name and Address of Reporting Person * THOMPSON H BRIAN

2. Issuer Name and Ticker or Trading Symbol

5. Relationship of Reporting Person(s) to Issuer

AXCELIS TECHNOLOGIES INC

(Check all applicable)

[ACLS]

11/13/2008

(Last) (First) (Middle) 3. Date of Earliest Transaction (Month/Day/Year)

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

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

> (Street) 4. If Amendment, Date Original

6. Individual or Joint/Group Filing(Check

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

Filed(Month/Day/Year) Applicable Line)

X Form filed by One Reporting Person Form filed by More than One Reporting

BEVERLY, MA 01915

(Instr. 3)

(City) (State) (Zip) 1. Title of 2. Transaction Date 2A. Deemed Security (Month/Day/Year) Execution Date, if

3. 4. Securities Acquired (A) 5. Amount of Transaction Disposed of (D) Code (Instr. 3, 4 and 5) (Month/Day/Year) (Instr. 8)

6. Securities Beneficially Form: Owned **Following** Reported

7. Nature of Ownership Indirect Beneficial Direct (D) Ownership or Indirect (Instr. 4)

or Code V (D) Amount

Price

(A)

Transaction(s) (Instr. 4) (Instr. 3 and 4)

Common P 11/13/2008 82,185 25,000 D Stock 0.5845

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

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

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1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transactic Code (Instr. 8)			ate	7. Title and Amount of Underlying Securities	nt of lying ities	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene
	Derivative Security				Securities Acquired			(Instr.	3 and 4)		Owne Follo
					(A) or Disposed						Repo Trans
					of (D) (Instr. 3, 4, and 5)						(Instr
					4, and 3)				Amount		
						Date Exercisable	Expiration Date	Title	or Number of		
				Code V	(A) (D)				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

11/14/2008

**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).

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.

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