FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF **SECURITIES**

OMB APPROVAL					
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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Levine Marc S Requiri		. Date of Event Requiring Staten Month/Day/Year 18/08/2005	nent	3. Issuer Name and Ticker or Trading Symbol AXCELIS TECHNOLOGIES INC [ACLS]							
(Last) 108 CHERRY	(First)	(Middle)	_		Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner			- 10	5. If Amendment, Date of Original Filed (Month/Day/Year)		
					X	Officer (give title below)	Other (spe below)		6. Individual or Join Applicable Line)	t/Group Filing (Check	
(Street)					Sr VP Advanced Product Develop				X Form filed by One Reporting Person		
BEVERLY —————	MA	01915							Form filed b Reporting F	y More than One Person	
(City)	(State)	(Zip)									
Table I - Non-Derivative Securities Beneficially Owned											
1. Title of Security (Instr. 4)					unt of Securities ially Owned (Instr. 4)			I. Nature of Indirect Beneficial Ownership Instr. 5)			
Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)											
1. Title of Derivative Security (Instr. 4) 2. Date Exercisable a Expiration Date (Month/Day/Year)		ate	Underlying Derivative Security (Instr. 4) Conv		4. Convers or Exerc Price of	ise Form:	6. Nature of Indirect Beneficial Ownership (Instr. 5)				
			Date Exercisable	Expiration Date	n Title	e	Amount or Number of Shares	Derivativ Security			

Explanation of Responses:

Remarks:

Mr. Levine does not own any reportable securities, directly or indirectly. Power of Attorney filed as an Exhibit 24 hereto.

No securities are beneficially owned.

<u>Lynnette C. Fallon, as attorney-</u> <u>08/08/2005</u> in-fact

** Signature of Reporting Person

Date

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

- * 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).

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

POWER OF ATTORNEY For Executing Reports under Section 16(a) with respect to securities of AXCELIS TECHNOLOGIES INC.

The undersigned hereby constitutes and appoints each of Mary G. Puma, Lynnette C. Fallon, Matthew C. Dallett and Stanley Keller, each acting singly, the undersigned's true and lawful attorney-in-fact, from the date hereof until this Power of Attorney is revoked, to:

- (1) execute, for and on behalf of the undersigned, Forms 3, 4 and 5 with respect to securities of Axcelis Technologies, Inc. in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in his or her discretion; and
- (2) do and perform any and all acts, for and on behalf of the undersigned, that may be necessary or desirable to complete the execution of any such Form 3, 4 or 5 and the timely filing of such form with the United States Securities and Exchange Commission and any other authority.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform all and every act and thing whatsoever requisite, necessary and proper to be done in the exercise of any of the rights and powers herein granted, as fully for all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or his or her substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed this 13th day of July, 2005.

/s/	Marc Levine_	 	
Marc	Levine		

(continued...)
(continued...)