

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

1. Name and Address of Reporting Person* <u>Low Russell</u> (Last) (First) (Middle) AXCELIS TECHNOLOGIES, INC. 108 CHERRY HILL DRIVE (Street) BEVERLY MA 01915 (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 11/10/2016	3. Issuer Name and Ticker or Trading Symbol AXCELIS TECHNOLOGIES INC [ACLS]	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) EVP, Engineering	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			

Explanation of Responses:

Remarks:

No securities are directly or indirectly owned by the executive officer.

No securities are beneficially owned.

Lynnette C. Fallon, as attorney-
in-fact for Russell J. Low, 11/11/2016
Ph.D.

** 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, and Matthew C. Dallett, 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 1st day of November, 2016.

/s/ Russell Low _____
Russell Low