

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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).

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> <hr/> (Last) (First) (Middle) C/O AXCELIS TECHNOLOGIES, INC. 108 CHERRY HILL DRIVE <hr/> (Street) BEVERLY MA 01915 <hr/> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>AXCELIS TECHNOLOGIES INC [ACLS]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>PRESIDENT AND CEO</u>	
	3. Date of Earliest Transaction (Month/Day/Year) <u>05/15/2024</u>		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person
	4. If Amendment, Date of Original Filed (Month/Day/Year)		

Rule 10b5-1(c) Transaction Indication

Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10.

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 Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	05/15/2024		A		14,244	A	\$0 ⁽¹⁾	71,998 ⁽²⁾	D	
Common Stock	05/15/2024		A		14,244	A	\$0 ⁽³⁾	86,242 ⁽⁴⁾	D	
Common Stock	05/15/2024		F		1,399	D ⁽⁵⁾	\$112.94 ⁽⁶⁾	84,843 ⁽⁷⁾	D	
Common Stock	05/15/2024		F		1,333	D ⁽⁸⁾	\$112.94 ⁽⁶⁾	83,510 ⁽⁹⁾	D	
Common Stock	05/16/2024		F		652	D ⁽¹⁰⁾	\$113.57 ⁽⁶⁾	82,858 ⁽¹¹⁾	D	

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 Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date					

Explanation of Responses:

- These shares are issuable on vesting of restricted stock units granted under the Company's 2012 Equity Incentive Plan on May 15, 2024. Assuming continuation of employment, these restricted stock units will vest as to 25% of the shares granted on each of May 15, 2025, May 15, 2026, May 15, 2027, and May 15, 2028.
- Of the shares held following this grant on May 15, 2024, 46,019 were issuable on vesting of restricted stock units granted to the executive under the 2012 Equity Incentive Plan and are subject to forfeiture.
- These shares are issuable on vesting of restricted stock units granted under the Company's 2012 Equity Incentive Plan on May 15, 2024. In this grant, the executive may earn shares of common stock, ranging from zero to 150% of the granted units. The shares are earned based on the achievement of 2024 performance goals. Assuming continuation of employment, 50% of the earned shares will vest on February 28, 2025, and 50% of the earned shares will vest on February 28, 2026. Unearned restricted stock units will forfeit on February 28, 2025.
- Of the shares held after this grant on May 15, 2024, 60,263 shares were issuable on vesting of restricted stock units granted to the executive under the 2012 Equity Incentive Plan and are subject to forfeiture.
- This forfeiture of shares for tax withholding purposes relates to the vesting on May 15, 2024 of service vesting restricted stock units granted to the executive in May 2023. As agreed with the executive, the shares issued to the executive on the vesting were reduced by a number of shares having a value equal to the executive's tax withholding obligation with respect to the vested restricted stock units.
- Represents the closing price of the common stock on the date of the tax withholding.
- Of the shares held after this vesting event on May 15, 2024, 57,109 were issuable on vesting of restricted stock units granted to the reporting person under the 2012 Equity Incentive Plan and are subject to forfeiture.
- This forfeiture of shares for tax withholding purposes relates to the vesting on May 15, 2024 of service vesting restricted stock units granted to the executive in May 2020. As agreed with the executive, the shares issued to the executive on the vesting were reduced by a number of shares having a value equal to the executive's tax withholding obligation with respect to the vested restricted stock units.
- Of the shares held after this vesting event on May 15, 2024, 54,104 were issuable on vesting of restricted stock units granted to the reporting person under the 2012 Equity Incentive Plan and are subject to forfeiture.
- This forfeiture of shares for tax withholding purposes relates to the vesting on May 16, 2024 of service vesting restricted stock units granted to the executive in May 2022. As agreed with the executive, the shares issued to the executive on the vesting were reduced by a number of shares having a value equal to the executive's tax withholding obligation with respect to the vested restricted stock units.
- Of the shares held after this vesting event on May 16, 2024, 52,634 were issuable on vesting of restricted stock units granted to the reporting person under the 2012 Equity Incentive Plan and are subject to forfeiture.

/s/ Lynnette C. Fallon,
Attorney-in-Fact

05/17/2024

** 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 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.

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