

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

OMB APPROVAL	
OMB Number:	3235-0287
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1. Name and Address of Reporting Person * <u>FALLON LYNNETTE C</u> (Last) (First) (Middle) <u>C/O AXCELIS TECHNOLOGIES, INC.</u> <u>108 CHERRY HILL DRIVE</u> (Street) <u>BEVERLY MA 01915</u> (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) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Executive VP, HR/Legal</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>02/06/2017</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

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	02/06/2017		M		32,504	A	\$3.72	80,780 ⁽¹⁾	D	
Common Stock	02/06/2017		S		178	D	\$16.6	80,602	D	
Common Stock	02/06/2017		S		1,138	D	\$16.55	79,464	D	
Common Stock	02/06/2017		S		13,500	D	\$16.5	65,964	D	
Common Stock	02/06/2017		S		500	D	\$16.525	65,464	D	
Common Stock	02/06/2017		S		7,400	D	\$16.45	58,064	D	
Common Stock	02/06/2017		S		1,700	D	\$16.48	56,364	D	
Common Stock	02/06/2017		S		8,088	D	\$16.4	48,276	D	
Common Stock	02/07/2017		M		4,996	A	\$3.72	53,272	D	
Common Stock	02/07/2017		S		4,996	D	\$16.35	48,276 ⁽¹⁾	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	(A)	(D)	Date Exercisable	Expiration Date						Title
Stock Option (right to buy)	\$3.72	02/06/2017		M		32,504		07/16/2016	07/16/2019	Common Stock	32,504	\$0.00	4,996	D	
Stock option (right to buy)	\$3.72	02/07/2017		M		4,996		07/16/2016	07/16/2019	Common Stock	4,996	\$0.00	0	D	

Explanation of Responses:

1. Of the shares held as of February 6, 2017 and February 7, 2017, 25,455 were issuable on vesting of restricted stock units granted under the 2012 Equity Incentive Plan and are subject to forfeiture.

Remarks:

Lynnette C. Fallon

02/07/2017

** 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.

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.