

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>Lawson Douglas A.</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>EVP, Corporate Mktg & Strategy</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>08/15/2017</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	08/15/2017		M		1,954	A	\$12.04	41,198 ⁽¹⁾	D	
Common Stock	08/15/2017		S		1,954	D	\$21.11	39,244	D	
Common Stock	08/15/2017		M		4,688	A	\$7.96	43,932	D	
Common Stock	08/15/2017		S		4,688	D	\$21.1	39,244	D	
Common Stock	08/15/2017		M		7,812	A	\$7.2	47,056	D	
Common Stock	08/15/2017		S		7,812	D	\$21.14 ⁽²⁾	39,244 ⁽¹⁾	D	
Common Stock								3,125	I	Held by Spouse

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)	\$12.04	08/15/2017		M		1,954		07/15/2017	07/15/2022	Common Stock	1,954	\$0.00	15,625 ⁽³⁾	D	
Stock Option (right to buy)	\$7.96	08/15/2017		M		4,688		07/15/2017	07/15/2020	Common Stock	4,688	\$0.00	0	D	
Stock option (right to buy)	\$7.2	08/15/2017		M		7,812		07/15/2017	07/15/2021	Common Stock	7,812	\$0.00	7,813 ⁽⁴⁾	D	

Explanation of Responses:

- Of the shares held as of August 15, 2017, 25,986 were issuable on vesting of restricted stock units granted under the 2012 Equity Incentive Plan and are subject to forfeiture.
- The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$21.05 to \$21.15, inclusive. The reporting person undertakes to provide to Axcelis Technologies, Inc., any security holder of Axcelis Technologies, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares purchased at each separate price.
- 31,250 options were granted on July 15, 2015 and were vested as to 50% of the options as of August 15, 2017. Of the remaining 15,625 options held by the executive after the sales on that date, 1953/4 options will vest on the 15th of each of October, January, April and July until fully vested on July 15, 2019, if the officer remains in the service of the Company on such vesting dates.
- 31,250 options were granted on July 15, 2014 and were vested as to 75% of the options as of August 15, 2017. The remaining 7,814 options held by the executive after the sales on that date will vest on July 15, 2018, if the officer remains in the service of the Company on such vesting date.

Remarks:

Lynnette C. Fallon, as attorney 08/15/2017
in fact for Douglas A. Lawson

** 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.