

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>ALDEBORGH JOHN E</u> (Last) (First) (Middle) <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, Customer Operations</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>02/11/2020</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

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	02/11/2020		S		4,791	D	\$29.06 ⁽¹⁾	70,384 ⁽²⁾	D	
Common Stock	02/11/2020		M		42,026	A	\$7.2	112,410 ⁽²⁾	D	
Common Stock	02/11/2020		S		42,026	D	\$28.92 ⁽³⁾	70,384 ⁽²⁾	D	
Common Stock	02/12/2020		M		7,974	A	\$7.2	112,410 ⁽²⁾	D	
Common Stock	02/12/2020		S		7,974	D	\$28.84 ⁽⁴⁾	70,384 ⁽²⁾	D	
Common Stock	02/12/2020		M		2,900	A	\$12.04	73,284 ⁽²⁾	D	
Common Stock	02/12/2020		S		2,900	D	\$28.79 ⁽⁵⁾	70,384 ⁽²⁾	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)	\$7.2	02/11/2020		M			42,026	07/15/2018	07/15/2021	Common Stock	42,026	\$0.00	7,974	D	
Stock Option (right to buy)	\$7.2	02/12/2020		M			7,974	07/15/2018	07/15/2021	Common Stock	7,974	\$0.00	0	D	
Stock option (right to buy)	\$12.04	02/12/2020		M			2,900	07/15/2019	07/15/2022	Common Stock	2,900	\$0.00	47,100	D	

Explanation of Responses:

- The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$29.05 to \$29.08, 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 sold at each separate price.
- Of the shares held as of February 11, 2020, 48,082 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 \$28.90 to \$29.12, 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 sold at each separate price.
- The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$28.84 to \$28.97, 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 sold at each separate price.
- The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$28.75 to \$28.85, 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 sold at each separate price.

Remarks:

Lynette C. Fallon, as attorney 02/12/2020
in fact for John E. Aldeborgh

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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