AXCELIS TECHNOLOGIES INC Form SC 13D/A May 20, 2015

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13D (Rule 13d-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO § 240.13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO § 240.13d-2(a)

(Amendment No. 4)1

Axcelis Technologies, Inc.

(Name of Issuer)

Common Stock, \$0.001 par value per share (Title of Class of Securities)

054540109

(CUSIP Number)

ERIC SINGER VERTEX CAPITAL ADVISORS, LLC 825 Third Avenue, 33rd Floor New York, New York 10022

STEVE WOLOSKY, ESQ. OLSHAN FROME WOLOSKY LLP Park Avenue Tower 65 East 55th Street New York, New York 10022 (212) 451-2300 (Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

May 18, 2015 (Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box ".

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

1 The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAME OF REPORTING PERSON					
2 3	Vertex Opportunities Fund, LP CHECK THE APPROPRIATE BOX IF A MEMBER OF A (a) o GROUP (b) o SEC USE ONLY					
5	SEC USE ONL	2 I				
4	SOURCE OF F	FUNDS				
5	WC CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS " IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)					
6	CITIZENSHIP	OR PLACE OF	ORGANIZATION			
NUMBER OF SHARES	DELAWARE	7	SOLE VOTING POWER			
BENEFICIALLY OWNED BY EACH		8	-0- SHARED VOTING POWER			
REPORTING PERSON WITH		9	722,515 SOLE DISPOSITIVE POWER			
		10	-0- SHARED DISPOSITIVE POWE	R		
11	AGGREGATE	AMOUNT BEN	722,515 EFICIALLY OWNED BY EACH	REPORTING PERSON		
12		IF THE AGGREO ERTAIN SHARE	GATE AMOUNT IN ROW (11)	0		
13	PERCENT OF	CLASS REPRES	SENTED BY AMOUNT IN ROW	(11)		
14	Less than 1% TYPE OF REPORTING PERSON					
	PN					

1	NAME OF RE	PORTING PERS	ON		
2	Vertex Special CHECK THE A GROUP	(a) o (b) o			
3	SEC USE ONL	LY			
4	SOURCE OF F	FUNDS			
5			E OF LEGAL PROCEEDINGS D ITEM 2(d) OR 2(e)		
6	CITIZENSHIP	OR PLACE OF	ORGANIZATION		
NUMBER OF SHARES	DELAWARE	7	SOLE VOTING POWER		
BENEFICIALLY OWNED BY EACH		8	-0- SHARED VOTING POWER		
REPORTING PERSON WITH		9	4,807,051 SOLE DISPOSITIVE POWER		
		10	-0- SHARED DISPOSITIVE POWE	R	
11	AGGREGATE	AMOUNT BEN	4,807,051 EFICIALLY OWNED BY EACH	REPORTING PERSON	
12		IF THE AGGREO ERTAIN SHARI	GATE AMOUNT IN ROW (11)	0	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
14	4.2% TYPE OF REPORTING PERSON				
	PN				

1	NAME OF RE	PORTING PERS	ON			
2 3	Vertex GP, LLC CHECK THE APPROPRIATE BOX IF A MEMBER OF A (a) o GROUP (b) o SEC USE ONLY					
4	SOURCE OF F	FUNDS				
5	AF CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS " IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)					
6	CITIZENSHIP	OR PLACE OF O	ORGANIZATION			
NUMBER OF SHARES	DELAWARE	7	SOLE VOTING POWER			
BENEFICIALLY OWNED BY EACH		8	-0- SHARED VOTING POWER			
REPORTING PERSON WITH		9	722,515 SOLE DISPOSITIVE POWER			
		10	-0- SHARED DISPOSITIVE POWE	R		
11	AGGREGATE	AMOUNT BEN	722,515 EFICIALLY OWNED BY EACH	REPORTING PERSON		
12		IF THE AGGREC ERTAIN SHARE	GATE AMOUNT IN ROW (11) G	0		
13	PERCENT OF	CLASS REPRES	SENTED BY AMOUNT IN ROW	(11)		
14	Less than 1% TYPE OF REPORTING PERSON					
	00					

1	NAME OF RE	PORTING PERS	ON		
2	Vertex Special Opportunities GP II, LLC CHECK THE APPROPRIATE BOX IF A MEMBER OF A (a) o GROUP (b) o			(a) o (b) o	
3	SEC USE ONL	.Y			
4	SOURCE OF F	FUNDS			
5			E OF LEGAL PROCEEDINGS ITEM 2(d) OR 2(e)		
6	CITIZENSHIP	OR PLACE OF	ORGANIZATION		
NUMBER OF SHARES	DELAWARE	7	SOLE VOTING POWER		
BENEFICIALLY OWNED BY EACH		8	-0- SHARED VOTING POWER		
REPORTING PERSON WITH		9	4,807,051 SOLE DISPOSITIVE POWER		
		10	-0- SHARED DISPOSITIVE POWE	R	
11	AGGREGATE	AMOUNT BEN	4,807,051 EFICIALLY OWNED BY EACH	REPORTING PERSON	
12		IF THE AGGREO ERTAIN SHARI	GATE AMOUNT IN ROW (11)	0	
13	PERCENT OF	CLASS REPRES	SENTED BY AMOUNT IN ROW	(11)	
14	4.2% TYPE OF REPORTING PERSON				
	00				

1	NAME OF REPORTING PERSON				
2 3	Vertex Capital Advisors, LLC CHECK THE APPROPRIATE BOX IF A MEMBER OF A (a) o GROUP (b) o SEC USE ONLY				
5					
4	SOURCE OF F	FUNDS			
5			E OF LEGAL PROCEEDINGS ITEM 2(d) OR 2(e)		
6	CITIZENSHIP	OR PLACE OF	ORGANIZATION		
NUMBER OF SHARES	DELAWARE	7	SOLE VOTING POWER		
BENEFICIALLY OWNED BY EACH		8	-0- SHARED VOTING POWER		
REPORTING PERSON WITH		9	5,529,566 SOLE DISPOSITIVE POWER		
		10	-0- SHARED DISPOSITIVE POWE	R	
11	AGGREGATE	AMOUNT BEN	5,529,566 EFICIALLY OWNED BY EACH	REPORTING PERSON	
12		IF THE AGGREO ERTAIN SHARE	GATE AMOUNT IN ROW (11)	0	
13	PERCENT OF	CLASS REPRES	SENTED BY AMOUNT IN ROW	(11)	
14	4.9% TYPE OF REPORTING PERSON				
	IA				

1	NAME OF REPORTING PERSON				
2 3	Eric Singer CHECK THE APPROPRIATE BOX IF A MEMBER OF A (a) o GROUP (b) o SEC USE ONLY				
4	SOURCE OF FU	UNDS			
5			E OF LEGAL PROCEEDINGS ITEM 2(d) OR 2(e)		
6	CITIZENSHIP	OR PLACE OF (ORGANIZATION		
NUMBER OF SHARES	USA	7	SOLE VOTING POWER		
BENEFICIALLY OWNED BY EACH		8	-0- SHARED VOTING POWER		
REPORTING PERSON WITH		9	5,529,566 SOLE DISPOSITIVE POWER		
	1	0	-0- SHARED DISPOSITIVE POWE	R	
11	AGGREGATE	AMOUNT BENI	5,529,566 EFICIALLY OWNED BY EACH	REPORTING PERSON	
12	5,529,566 CHECK BOX II EXCLUDES CE		GATE AMOUNT IN ROW (11)	0	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
14	4.9% TYPE OF REPORTING PERSON				
	IN				

CUSIP NO. 054540109

The following constitutes Amendment No. 4 to the Schedule 13D filed by the undersigned (the "Amendment No. 4"). This Amendment No. 4 amends the Schedule 13D as specifically set forth herein.

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 is hereby amended and restated to read as follows:

The Shares beneficially owned by each of Vertex Opportunities and VSO II were purchased with working capital in open market purchases, except as otherwise noted, including certain Shares which were acquired as a result of a capital contribution, as set forth in Schedule A to the Schedule 13D. The aggregate purchase price of the 722,515 Shares beneficially owned by Vertex Opportunities is approximately \$1,312,582, excluding brokerage commissions. The aggregate price of the 4,807,051 Shares contributed to and beneficially owned by VSO II is approximately \$9,379,866 excluding brokerage commissions.

Item 5.

Interest in Securities of the Issuer.

Item 5 is hereby amended and restated as follows:

The aggregate percentage of Shares reported owned by each Reporting Person is based upon 113,528,503 Shares outstanding, which is the total number of Shares outstanding as of May 1, 2015, as reported in the Issuer's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on May 6, 2015.

Α.

Vertex Opportunities

(a) As of the close of business on May 19, 2015, Vertex Opportunities beneficially owned 722,515 Shares.

Percentage: Less than 1%

(b) 1. Sole power to vote or direct vote: -0-2. Shared power to vote or direct vote: 722,515
3. Sole power to dispose or direct the disposition: -0-4. Shared power to dispose or direct the disposition: 722,515

(c)The transactions in the Shares by Vertex Opportunities since the filing of Amendment No. 3 are set forth in Schedule A and are incorporated herein by reference.

Β.

VSO II

(a) As of the close of business on May 19, 2015, VSO II beneficially owned 4,807,051 Shares.

Percentage: Approximately 4.2%

(b)

1. Sole power to vote or direct vote: -0-

2. Shared power to vote or direct vote: 4,807,051

3. Sole power to dispose or direct the disposition: -0-

4. Shared power to dispose or direct the disposition: 4,807,051

The transactions in the Shares by VSO II since the filing of Amendment No. 3 are set forth in Schedule A and are incorporated herein by reference.

C.

Vertex GP

(a) Vertex GP, as the general partner of Vertex Opportunities, may be deemed the beneficial owner of the 722,515 shares owned by Vertex Opportunities.

Percentage: Less than 1%

(b) 1. Sole power to vote or direct vote: -0-2. Shared power to vote or direct vote: 722,515

3. Sole power to dispose or direct the disposition: -0-

4. Shared power to dispose or direct the disposition: 722,515

(c) Vertex GP has not entered into any transactions in the Shares since the filing of Amendment No. 3. The transactions in the Shares on behalf of Vertex Opportunities since the filing of Amendment No. 3 are set forth in Schedule A and are incorporated herein by reference.

D.

VSO GP II

(a) VSO GP II, as the general partner of VSO II, may be deemed the beneficial owner of the 4,807,051 shares owned by VSO II.

Percentage: Approximately 4.2%

(b)

1. Sole power to vote or direct vote: -0-

2. Shared power to vote or direct vote: 4,807,051

3. Sole power to dispose or direct the disposition: -0-

- 4. Shared power to dispose or direct the disposition: 4,807,051
- (c)VSO GP II has not entered into any transactions in the Shares since the filing of Amendment No. 3. The transactions in the Shares on behalf of VSO II since the filing of Amendment No. 3 are set forth in Schedule A and are incorporated herein by reference.

E.

Vertex Capital

(a) Vertex Capital, as the investment manager of Vertex Opportunities and VSO II, may be deemed the beneficial owner of the (i) 722,515 Shares owned by Vertex Opportunities and (ii) 4,807,051 Shares owned by VSO II.

Percentage: Approximately 4.9%

(b) 1. Sole power to vote or direct vote: -02. Shared power to vote or direct vote: 5,529,566
3. Sole power to dispose or direct the disposition: -04. Shared power to dispose or direct the disposition: 5,529,566

(c) Vertex Capital has not entered into any transactions in the Shares since the filing of Amendment No. 3. The transactions in the Shares on behalf of Vertex Opportunities and VSO II since the filing of Amendment No. 3 are set forth in Schedule A and are incorporated herein by reference.

F.

Eric Singer

(a)Mr. Singer, as the managing member of Vertex GP, VSO GP II and Vertex Capital, may be deemed the beneficial owner of the (i) 722,515 Shares owned by Vertex Opportunities and (ii) 4,807,051 Shares owned by VSO II.

Percentage: Approximately 4.9%

(b)	1. Sole power to vote or direct vote: -0-
	2. Shared power to vote or direct vote: 5,529,566
	3. Sole power to dispose or direct the disposition: -0-
4.	Shared power to dispose or direct the disposition: 5,529,566

(c)Mr. Singer has not entered into any transactions in the Shares since the filing of Amendment No. 3. The transactions in the Shares on behalf of Vertex Opportunities and VSO II since the filing of Amendment No. 3 are set forth in Schedule A and are incorporated herein by reference.

The filing of this Schedule 13D shall not be construed as an admission that the Reporting Persons are, for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, the beneficial owners of any of the securities reported herein. Each Reporting Person disclaims beneficial ownership of such Shares except to the extent of his or its pecuniary interest therein.

(d) No person other than the Reporting Persons is known to have the right to receive, or the power to direct the receipt of dividends from, or proceeds from the sale of, the Shares.

(e) As of May 18, 2015, the Reporting Persons ceased to be the beneficial owners of more than 5% of the Shares of the Issuer.

SIGNATURES

After reasonable inquiry and to the best of his knowledge and belief, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: May 20, 2015

	Vertex Opportunities Fund, LP				
	By:		GP, LLC l Partner		
	By:	/s/ Eric Name: Title:	Singer		Singer naging Member
	Vertex GP, I	LLC			
	By:	/s/ Eric Name: Title:	Singer		Singer haging Member
Vertex S	Special Oppor	tunities	Fund II, LP		
By:			Vertex Specia General Partn		portunities GP II, LLC
	Ву	<i>'</i> :	/s/ Eric Singer Name: Title:	r	Eric Singer Managing Member
Vertex Sj	pecial Opport	unities C	SP II, LLC		
	By:		/s/ Eric Singe Name: Title:	er	Eric Singer Managing Member
Vertex C	apital Adviso	rs, LLC			
	By:		/s/ Eric Singe Name: Title:	er	Eric Singer Managing Member

/s/ Eric Singer ERIC SINGER

CUSIP NO. 054540109

SCHEDULE A

Transactions in Securities of the Issuer Since the Filing of Amendment No. 3

	Securities	Price Per	Date of
Nature of the Transaction	Purchased/(Sold)	Share(\$)	Purchase / Sale

VERTEX OPPORTUNITIES FUND, LP

Sale of Common Stock	(12,623)	3.1647	5/15/2015
Sale of Common Stock	(13,000)	3.1677	5/15/2015
Sale of Common Stock	(22,327)	3.2171	5/18/2015
Sale of Common Stock	(10,413)	3.2061	5/18/2015
Sale of Common Stock	(8,511)	3.1996	5/19/2015

VERTEX SPECIAL OPPORTUNITIES FUND II, LP

Sale of Common Stock	(84,475)	3.1647	5/15/2015
Sale of Common Stock	(87,000)	3.1677	5/15/2015
Sale of Common Stock	(149,417)	3.2171	5/18/2015
Sale of Common Stock	(69,687)	3.2061	5/18/2015
Sale of Common Stock	(56,957)	3.1996	5/19/2015