

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. 3)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 13, 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 Vertex Opportunities Fund, LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION DELAWARE	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 790,389
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 790,389
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 790,389	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="radio"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) Less than 1%	
14	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSON Vertex Special Opportunities Fund II, LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC, OO	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION DELAWARE	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 5,551,414
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 5,551,414
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,551,414	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="radio"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 4.9%	
14	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSON Vertex GP, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION DELAWARE	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 790,389
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 790,389
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 790,389	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="radio"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) Less than 1%	
14	TYPE OF REPORTING PERSON OO	

1	NAME OF REPORTING PERSON Vertex Special Opportunities GP II, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION DELAWARE	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 5,551,414
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 5,551,414
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,551,414	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="radio"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 4.9%	
14	TYPE OF REPORTING PERSON OO	

1	NAME OF REPORTING PERSON Vertex Capital Advisors, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION DELAWARE	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 6,341,803
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 6,341,803
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 6,341,803	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="radio"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 5.6%	
14	TYPE OF REPORTING PERSON IA	

1	NAME OF REPORTING PERSON Eric Singer	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="radio"/> (b) <input type="radio"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 6,341,803
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 6,341,803
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 6,341,803	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="radio"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 5.6%	
14	TYPE OF REPORTING PERSON IN	

The following constitutes Amendment No. 3 to the Schedule 13D filed by the undersigned (the "Amendment No. 3"). This Amendment No. 3 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 790,389 Shares beneficially owned by Vertex Opportunities is approximately \$1,421,145, excluding brokerage commissions. The aggregate price of the 5,551,414 Shares contributed to and beneficially owned by VSO II is approximately \$10,986,470 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.

A. Vertex Opportunities

- (a) As of the close of business on May 14, 2015, Vertex Opportunities beneficially owned 790,389 Shares.

Percentage: Less than 1%

- (b) 1. Sole power to vote or direct vote: -0-
2. Shared power to vote or direct vote: 790,389
3. Sole power to dispose or direct the disposition: -0-
4. Shared power to dispose or direct the disposition: 790,389

- (c) The transactions in the Shares by Vertex Opportunities during the past sixty days are set forth in Schedule A and are incorporated herein by reference.

B. VSO II

- (a) As of the close of business on May 14, 2015, VSO II beneficially owned 5,551,414 Shares.

Percentage: Approximately 4.9%

- (b) 1. Sole power to vote or direct vote: -0-
2. Shared power to vote or direct vote: 5,551,414
3. Sole power to dispose or direct the disposition: -0-
4. Shared power to dispose or direct the disposition: 5,551,414

(c) The transactions in the Shares by VSO II during the past sixty days 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 790,389 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: 790,389
 3. Sole power to dispose or direct the disposition: -0-
 4. Shared power to dispose or direct the disposition: 790,389

(c) Vertex GP has not entered into any transactions in the Shares during the past sixty days. The transactions in the Shares on behalf of Vertex Opportunities during the past sixty days 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 5,551,414 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: 5,551,414
 3. Sole power to dispose or direct the disposition: -0-
 4. Shared power to dispose or direct the disposition: 5,551,414

(c) VSO GP II has not entered into any transactions in the Shares during the past sixty days. The transactions in the Shares on behalf of VSO II during the past sixty days 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) 790,389 Shares owned by Vertex Opportunities and (ii) 5,551,414 Shares owned by VSO II.

Percentage: Approximately 5.6%

- (b)
1. Sole power to vote or direct vote: -0-
 2. Shared power to vote or direct vote: 6,341,803
 3. Sole power to dispose or direct the disposition: -0-
 4. Shared power to dispose or direct the disposition: 6,341,803

(c) Vertex Capital has not entered into any transactions in the Shares during the past sixty days. The transactions in the Shares on behalf of Vertex Opportunities and VSO II during the past sixty days 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) 790,389 Shares owned by Vertex Opportunities and (ii) 5,551,414 Shares owned by VSO II.

Percentage: Approximately 5.6%

- (b)
1. Sole power to vote or direct vote: -0-
 2. Shared power to vote or direct vote: 6,341,803
 3. Sole power to dispose or direct the disposition: -0-
 4. Shared power to dispose or direct the disposition: 6,341,803
- (c) Mr. Singer has not entered into any transactions in the Shares during the past sixty days. The transactions in the Shares on behalf of Vertex Opportunities and VSO II during the past sixty days 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.

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 15, 2015

Vertex Opportunities Fund, LP

By: Vertex GP, LLC
General Partner

By: /s/ Eric Singer
Name: Eric Singer
Title: Managing Member

Vertex GP, LLC

By: /s/ Eric Singer
Name: Eric Singer
Title: Managing Member

Vertex Special Opportunities Fund II, LP

By: Vertex Special Opportunities GP II, LLC
General Partner

By: /s/ Eric Singer
Name: Eric Singer
Title: Managing Member

Vertex Special Opportunities GP II, LLC

By: /s/ Eric Singer
Name: Eric Singer
Title: Managing Member

Vertex Capital Advisors, LLC

By: /s/ Eric Singer
Name: Eric Singer
Title: Managing Member

/s/ Eric Singer
ERIC SINGER

SCHEDULE A

Transactions in Securities of the Issuer During the Past Sixty Days

<u>Nature of the Transaction</u>	<u>Securities Purchased/(Sold)</u>	<u>Price Per Share(\$)</u>	<u>Date of Purchase / Sale</u>
<u>VERTEX OPPORTUNITIES FUND, LP</u>			
Purchase of Common Stock	9,074	2.3000	3/27/2015
Sale of Common Stock	(1,490)	2.6315	4/1/2015
Sale of Common Stock	(468)	2.6194	4/2/2015
Sale of Common Stock	(689)	2.6206	4/6/2015
Sale of Common Stock	(5,200)	2.6452	4/7/2015
Sale of Common Stock	(2,046)	2.6105	4/8/2015
Sale of Common Stock	(3,939)	2.6454	4/10/2015
Sale of Common Stock	(650)	2.6436	4/14/2015
Sale of Common Stock	(572)	2.6600	4/15/2015
Sale of Common Stock	(2,509)	2.6524	4/21/2015
Sale of Common Stock	(2,051)	2.6500	4/23/2015
Sale of Common Stock	(5,850)	2.6500	4/24/2015
Sale of Common Stock	(26)	2.6500	4/27/2015
Sale of Common Stock	(2,600)	2.6500	4/29/2015
Sale of Common Stock	(13)	2.9000	5/5/2015
Sale of Common Stock	(2,960)	2.9067	5/6/2015
Sale of Common Stock	(9,750)	2.9169	5/6/2015
Sale of Common Stock	(526)	2.9600	5/7/2015
Sale of Common Stock	(6,500)	2.9300	5/7/2015
Sale of Common Stock	(4,124)	2.9403	5/8/2015
Sale of Common Stock	(9,776)	3.0048	5/11/2015
Sale of Common Stock	(7,163)	3.0301	5/11/2015
Sale of Common Stock	(26,547)	3.0681	5/12/2015
Sale of Common Stock	(16,900)	3.1105	5/13/2015
Sale of Common Stock	(28,782)	3.1162	5/13/2015
Sale of Common Stock	(18,353)	3.1464	5/14/2015
Sale of Common Stock	(26,000)	3.1435	5/14/2015

VERTEX SPECIAL OPPORTUNITIES FUND II, LP

Sale of Common Stock	(9,936)	2.6315	04/01/2015
Sale of Common Stock	(3,133)	2.6194	04/02/2015
Sale of Common Stock	(4,611)	2.6206	04/06/2015
Sale of Common Stock	(34,800)	2.6452	04/07/2015
Sale of Common Stock	(13,690)	2.6105	04/08/2015
Sale of Common Stock	(26,364)	2.6454	04/10/2015
Sale of Common Stock	(4,350)	2.6436	04/14/2015

Sale of Common Stock	(3,828)	2.6600	04/15/2015
Sale of Common Stock	(16,791)	2.6524	04/21/2015
Sale of Common Stock	(13,725)	2.6500	04/23/2015
Sale of Common Stock	(39,150)	2.6500	04/24/2015
Sale of Common Stock	(174)	2.6500	04/27/2015
Sale of Common Stock	(17,400)	2.6500	04/29/2015
Sale of Common Stock	(87)	2.9000	05/05/2015
Sale of Common Stock	(19,808)	2.9067	05/06/2015
Sale of Common Stock	(65,250)	2.9169	05/06/2015
Sale of Common Stock	(3,519)	2.9600	05/07/2015
Sale of Common Stock	(43,500)	2.9300	05/07/2015
Sale of Common Stock	(27,598)	2.9403	05/08/2015
Sale of Common Stock	(65,424)	3.0048	05/11/2015
Sale of Common Stock	(47,937)	3.0301	05/11/2015
Sale of Common Stock	(177,662)	3.0681	05/12/2015
Sale of Common Stock	(113,100)	3.1105	05/13/2015
Sale of Common Stock	(192,618)	3.1162	05/13/2015
Sale of Common Stock	(122,827)	3.1464	05/14/2015
Sale of Common Stock	(174,000)	3.1435	05/14/2015