

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

**SCHEDULE 13G**

**Under the Securities Exchange Act of 1934**

**(Amendment No. 5) \***

Axcelis Technologies Inc

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(Name of Issuer)

Common Stock

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(Title of Class of Securities)

054540208

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(CUSIP Number)

December 31, 2021

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(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\* 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 the disclosures provided in a prior cover page.

The information required in 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 (the "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. NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Dimensional Fund Advisors LP  
30-0447847

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*

(a)   
(b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware Limited Partnership

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5. SOLE VOTING POWER	1,535,007 ** see Note 1 **
	6. SHARED VOTING POWER	0
	7. SOLE DISPOSITIVE POWER	1,575,504 ** see Note 1 **
	8. SHARED DISPOSITIVE POWER	0

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,575,504 \*\* see Note 1 \*\*

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

4.7%

12. TYPE OF REPORTING PERSON

IA

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**Item 1.**

- (a) **Name of Issuer**  
Axcelis Technologies Inc
- (b) **Address of Issuer's Principal Executive Offices**  
108 Cherry Hill Drive, Beverly, MA 01915

**Item 2.**

- (a) **Name of Person Filing**  
Dimensional Fund Advisors LP
- (b) **Address of Principal Business Office or, if None, Residence**  
6300 Bee Cave Road, Building One, Austin, TX 78746
- (c) **Citizenship**  
Delaware Limited Partnership
- (d) **Title of Class of Securities**  
Common Stock
- (e) **CUSIP Number**  
054540208

**Item 3. If This Statement is Filed Pursuant to Rule 13d-1(b), or 13d-2(b) or (c), Check Whether the Person Filing is a:**

- (a)  Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance Company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment Company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e)  An investment adviser in accordance with Rule 240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with Rule 240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with Rule 240.13d-1(b)(1)(ii)(G);
- (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  Group, in accordance with Rule 240.13d-1(b)(1)(ii)(J).

**Item 4. Ownership.**

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount Beneficially Owned:  
1,575,504 \*\* see Note 1 \*\*
- (b) Percent of Class:  
4.7%
- (c) Number of shares as to which such person has:
- |  |                            |
|--|----------------------------|
| (i) sole power to vote or to direct the vote                 | 1,535,007 ** see Note 1 ** |
| (ii) shared power to vote or to direct the vote              | 0                          |
| (iii) sole power to dispose or to direct the disposition of  | 1,575,504 ** see Note 1 ** |
| (iv) shared power to dispose or to direct the disposition of | 0                          |

\*\* Note 1 \*\* Dimensional Fund Advisors LP, an investment adviser registered under Section 203 of the Investment Advisors Act of 1940, furnishes investment advice to four investment companies registered under the Investment Company Act of 1940, and serves as investment manager or sub-adviser to certain other commingled funds, group trusts and separate accounts (such investment companies, trusts and accounts, collectively referred to as the "Funds"). In certain cases, subsidiaries of Dimensional Fund Advisors LP may act as an adviser or sub-adviser to certain Funds. In its role as investment advisor, sub-adviser and/or manager, Dimensional Fund Advisors LP or its subsidiaries (collectively, "Dimensional") may possess voting

and/or investment power over the securities of the Issuer that are owned by the Funds, and may be deemed to be the beneficial owner of the shares of the Issuer held by the Funds. However, all securities reported in this schedule are owned by the Funds. Dimensional disclaims beneficial ownership of such securities. In addition, the filing of this Schedule 13G shall not be construed as an admission that the reporting person or any of its affiliates is the beneficial owner of any securities covered by this Schedule 13G for any other purposes than Section 13(d) of the Securities Exchange Act of 1934.

**Item 5. Ownership of Five Percent or Less of Class.**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following: [ X ]

**Item 6. Ownership of More than Five Percent on Behalf of Another Person.**

The Funds described in Note 1 above have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of the securities held in their respective accounts. To the knowledge of Dimensional, the interest of any one such Fund does not exceed 5% of the class of securities. Dimensional Fund Advisors LP disclaims beneficial ownership of all such securities.

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.**

Not Applicable

**Item 8. Identification and Classification of Members of the Group.**

Not Applicable. This schedule is not being filed pursuant to Rule 13d-1(b)(1)(ii)(J) or Rule 13d-1(d).

**Item 9. Notice of Dissolution of Group.**

Not Applicable

**Item 10. Certification.**

By signing below, I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dimensional Fund Advisors LP

By: Dimensional Holdings Inc., General Partner

By: /s/ Selwyn Notelovitz

Date: February 14, 2022

Name: Selwyn Notelovitz

Title: Global Chief Compliance Officer