AXCELIS TECHNOLOGIES INC Form SC 13G/A February 08, 2010

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 3)*

AXCELIS TECHNOLOGIES INC

(Name of Issuer)

Common Stock

(Title of Class of Securities)

054540109

(CUSIP Number)

December 31, 2009

(Date of Event Which Requires Filing of this Statement)

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

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 (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).

CUSIP No. 054540109

1. Names of Reporting Persons.

	I.R.S. Identification Nos. of above persons (entities only).				
2.		mensional Fund Advisors LP (Tax ID: 30-0447847) ppropriate Box if a Member of a Group (See Instructions)			
	(a) "				
3.	(b) x SEC Use On	aly			
4.	. Citizenship or Place of Organization				
		claware Limited Partnership . Sole Voting Power			
Nun	mber of				
Sha	res				
Ben	eficially	3159098 **see Note 1**			
Owi	ned by	. Shared Voting Power			
Eacl	h				
Rep	oorting	0			
Pers	son 7	7. Sole Dispositive Power			
Witl	h				
		3165898 **see Note 1**			
	8	. Shared Dispositive Power			

9. Aggregate Amount Beneficially Owned by Each Reporting Person

3165898 **see Note 1**

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

N/A

11. Percent of Class Represented by Amount in Row (9)

3.05%

12. Type of Reporting Person (See Instructions)

IA

Item 1. (a) Name of Issuer AXCELIS TECHNOLOGIES INC Address of Issuer s Principal Executive Offices 108 Cherry Hill Dr, Beverly, MA 01915-1068 Item 2. Name of Person Filing (a) Dimensional Fund Advisors LP Address of Principal Business Office or, if none, Residence (b) Palisades West, Building One, 6300 Bee Cave Road, Austin, Texas, 78746 Citizenship (c) Delaware Limited Partnership Title of Class of Securities Common Stock **CUSIP** Number 054540109 Item 3. If this statement is filed pursuant to §\$240.13d-1(b) or 240.13d-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 §240.13d-1(b)(1)(ii)(E); X An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F); (f) (g) A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G); A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813); (h) (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);

Group, in accordance with §240.13d-1(b)(1)(ii)(J).

(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:

3165898 **see Note 1**

(b) Percent of class:

3.05%

	(c)	Num	ber of shares as to which the person has:		
		(i)	Sole power to vote or to direct the vote:		
			3159098 **see Note 1**		
		(ii)	Shared power to vote or to direct the vote:		
		(;;;)	0 Sale power to dispose or to direct the disposition of:		
		(111)	Sole power to dispose or to direct the disposition of:		
			3165898 **see Note 1**		
		(iv)	Shared power to dispose or to direct the disposition of:		
			0		
furnishes manager to to as the as investing possess volumer of disclaims reporting	investment to certain of Funds). I nent adviso oting and/or the shares of beneficial of person or a	advice the connection certain, substitute of the council of the co	Fund Advisors LP, an investment adviser registered under Section 203 of the Investment Advisors Act of 1940, are to four investment companies registered under the Investment Company Act of 1940, and serves as investment commingled group trusts and separate accounts (such investment companies, trusts and accounts, collectively referred tain cases, subsidiaries of Dimensional Fund Advisors LP may act as an adviser or sub-adviser to certain Funds. In its role adviser and/or manager, neither Dimensional Fund Advisors LP or its subsidiaries (collectively, Dimensional) estment power over the securities of the Issuer that are owned by the Funds, and may be deemed to be the beneficial Issuer held by the Funds. However, all securities reported in this schedule are owned by the Funds. Dimensional riship of such securities. In addition, the filing of this Schedule 13G shall not be construed as an admission that the its affiliates is the beneficial owner of any securities covered by this Schedule 13G for any other purposes than ities Exchange Act of 1934.		
Item 5.	Ownershi	ip of l	Five Percent or Less of a Class		
	f 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 ive percent of the class of securities, check the following [X].				
Item 6.	Ownership of More than Five Percent on Behalf of Another Person.				
	from the	sale c	cribed in Note 1 above have the right to receive or the power to direct the receipt of dividends from, or the proceeds of the securities held in their respective accounts. To the knowledge of Dimensional, the interest of any one such Fund d 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 or Control Person.				
	N/A				
Item 8.	Identifica	tion a	and Classification of Members of the Group		
	37/4				

Item 9.

Item 10.

N/A

Certification

Notice of Dissolution of Group

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.

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
February 10, 2010
Date
By: Dimensional Holdings Inc., General Partner
/s/ Christopher Crossan
Signature
Global Chief Compliance Officer
Title