

Schedule 13G

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1 (b),  
(c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO 13d-2 (b)  
(Amendment No. \_\_\_\_\_)\*

AtriCure, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

04963C209

(CUSIP Number)

December 31, 2005

(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 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).

(Continued on following pages)

Page 1 of 22 Pages  
Exhibit Index Contained on Page 20

CUSIP NO. 04963C209

13 G

Page 2 of 22

1 NAME OF REPORTING  
SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON  
U.S. Venture Partners VIII, L.P. ("USVP VIII")  
Tax ID Number:

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5  
NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH REPORTING  
PERSON

SOLE VOTING POWER  
2,286,924 shares, of which 2,194,151 are outstanding shares and 92,773 are issuable upon the conversion of warrants; except that Presidio Management Group VIII, L.L.C. ("PMG VIII"), the general partner of USVP VIII, may be deemed to have sole power to vote these shares, and Timothy Connors ("Connors"), Irwin Federman ("Federman"), Winston Fu

WITH

("Fu"), Steven M. Krausz ("Krausz"), David Liddle ("Liddle"), Jonathan D. Root ("Root"), Christopher Rust ("Rust") and Philip M. Young ("Young") the managing members of PMG VIII, may be deemed to have shared power to vote these shares.

-----  
6 SHARED VOTING POWER  
See response to row 5.  
-----

7 SOLE DISPOSITIVE POWER  
2,286,924 shares, of which 2,194,151 are outstanding shares and 92,773 are issuable upon the conversion of warrants; except that PMG VIII, the general partner of USVP VIII, may be deemed to have the sole power to dispose of these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to dispose of these shares.  
-----

8 SHARED DISPOSITIVE POWER  
See response to row 7.  
-----

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,286,924  
-----

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*  
-----

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 19.0%  
-----

12 TYPE OF REPORTING PERSON\* PN  
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1	NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON USVP VIII Affiliates Fund, L.P. ("USVP VIII AF") Tax ID Number:	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a)                      (b) X
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
	5	SOLE VOTING POWER 17,653 shares, of which 16,970 are outstanding and 683 are issuable upon the conversion of warrants; except that PMG VIII, the general partner of USVP VIII AF, may be deemed to have sole power to vote these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to vote these shares.
	6	SHARED VOTING POWER See response to row 5.
	7	SOLE DISPOSITIVE POWER 17,653 shares, of which 16,970 are outstanding and 683 are issuable upon the conversion of warrants; except that PMG VIII, the general partner of USVP VIII AF, may be deemed to have sole power to dispose of these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to dispose of these shares.
	8	SHARED DISPOSITIVE POWER See response to row 7.
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	17,653
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9	0.1%
12	TYPE OF REPORTING PERSON*	PN

1	NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON USVP Entrepreneur Partners VIII-A, L.P. ("USVP EP VIII-A") Tax ID Number:	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a) (b) X
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
	5	SOLE VOTING POWER 22,444 shares, of which 21,575 are outstanding and 869 are issuable upon conversion of warrants; except that PMG VIII, the general partner of USVP EP VIII-A, may be deemed to have sole power to vote these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to vote these shares.
	6	SHARED VOTING POWER See response to row 5.
	7	SOLE DISPOSITIVE POWER 22,444 shares, of which 21,575 are outstanding and 869 are issuable upon conversion of warrants; except that PMG VIII, the general partner of USVP EP VIII-A, may be deemed to have sole power to dispose of these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to dispose of these shares.
	8	SHARED DISPOSITIVE POWER See response to row 7.
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	22,444
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9	0.2%
12	TYPE OF REPORTING PERSON*	PN

1	NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON USVP Entrepreneur Partners VIII-B, L.P. ("USVP EP VIII-B") Tax ID Number:	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a) (b) X
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
	5	SOLE VOTING POWER 12,041 shares, of which 11,575 are outstanding and 466 are issuable upon conversion of warrants; except that PMG VIII, the general partner of USVP EP VIII-B, may be deemed to have sole power to vote these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to vote these shares.
	6	SHARED VOTING POWER See response to row 5.
	7	SOLE DISPOSITIVE POWER 12,041 shares, of which 11,575 are outstanding and 466 are issuable upon conversion of warrants; except that PMG VIII, the general partner of USVP EP VIII-B, may be deemed to have sole power to dispose of these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to dispose of these shares.
	8	SHARED DISPOSITIVE POWER See response to row 7.
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	12,041
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9	0.1%
12	TYPE OF REPORTING PERSON*	PN

1	NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Presidio Management Group VIII, L.L.C. Tax ID Number:	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a)                      (b) X
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
	5	SOLE VOTING POWER 2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII, 17,653 are directly owned by USVP VIII AF, 22,444 are directly owned by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B. PMG VIII, the general partner of USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B, may be deemed to have sole power to vote these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to vote these shares.
	6	SHARED VOTING POWER See response to row 5.
	7	SOLE DISPOSITIVE POWER 2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII, 17,653 are directly owned by USVP VIII AF, 22,444 are directly owned by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B. PMG VIII, the general partner of USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B, may be deemed to have sole power to dispose of these shares, and Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young, the managing members of PMG VIII, may be deemed to have shared power to dispose of these shares.
	8	SHARED DISPOSITIVE POWER See response to row 7.
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	2,339,062
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9	19.4%
12	TYPE OF REPORTING PERSON*	00

1 NAME OF REPORTING PERSON

Timothy Connors

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH REPORTING  
PERSON  
WITH

5 SOLE VOTING POWER  
0 Shares

6 SHARED VOTING POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Connors, a managing member of PMG VIII, may  
be deemed to have shared power to vote these shares.

7 SOLE DISPOSITIVE POWER  
0 Shares

8 SHARED DISPOSITIVE POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Connors, a managing member of PMG VIII, may  
be deemed to have shared power to dispose of these shares.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH  
REPORTING PERSON

2,339,062

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES\*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

19.4%

12 TYPE OF REPORTING PERSON\*

IN

1 NAME OF REPORTING PERSON

Irwin Federman

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH  
REPORTING  
PERSON  
WITH

5 SOLE VOTING POWER  
0 Shares

6 SHARED VOTING POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Federman, a managing member of PMG VIII,  
may be deemed to have shared power to vote these shares.

7 SOLE DISPOSITIVE POWER  
0 Shares

8 SHARED DISPOSITIVE POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Federman, a managing member of PMG VIII,  
may be deemed to have shared power to dispose of these shares.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH  
REPORTING PERSON

2,339,062

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES\*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

19.4%

12 TYPE OF REPORTING PERSON\*

IN



1 NAME OF REPORTING PERSON

Winston Fu

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

5 SOLE VOTING POWER  
0 SharesNUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH REPORTING  
PERSON  
WITH6 SHARED VOTING POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Fu, a managing member of PMG VIII, may be  
deemed to have shared power to vote these shares.7 SOLE DISPOSITIVE POWER  
0 Shares8 SHARED DISPOSITIVE POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Fu, a managing member of PMG VIII, may be  
deemed to have shared power to dispose of these shares.9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH  
REPORTING PERSON

2,339,062

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES\*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

19.4%

12 TYPE OF REPORTING PERSON\*

IN

1	NAME OF REPORTING PERSON	
	Steven M. Krausz	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a) (b) X
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION	
	U.S. Citizen	
	5	SOLE VOTING POWER 0 Shares
	6	SHARED VOTING POWER 2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII, 17,653 are directly owned by USVP VIII AF, 22,444 are directly owned by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B. PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B. Krausz, a managing member of PMG VIII, may be deemed to have shared power to vote these shares.
	7	SOLE DISPOSITIVE POWER 0 Shares
	8	SHARED DISPOSITIVE POWER 2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII, 17,653 are directly owned by USVP VIII AF, 22,444 are directly owned by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B. PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B. Krausz, a managing member of PMG VIII, may be deemed to have shared power to dispose of these shares.
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	2,339,062
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9	19.4%
12	TYPE OF REPORTING PERSON*	IN

1 NAME OF REPORTING PERSON

David Liddle

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

5 SOLE VOTING POWER

0 Shares

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH REPORTING  
PERSON  
WITH

6 SHARED VOTING POWER

2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Liddle, a managing member of PMG VIII, may  
be deemed to have shared power to vote these shares.

7 SOLE DISPOSITIVE POWER

0 Shares

8 SHARED DISPOSITIVE POWER

2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Liddle, a managing member of PMG VIII, may  
be deemed to have shared power to dispose of these shares.9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH  
REPORTING PERSON

2,339,062

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES\*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

19.4%

12 TYPE OF REPORTING PERSON\*

IN

1 NAME OF REPORTING PERSON

Jonathan D. Root

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

5 SOLE VOTING POWER  
0 Shares

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH REPORTING  
PERSON  
WITH

6 SHARED VOTING POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Root, a managing member of PMG VIII, may  
be deemed to have shared power to vote these shares.

7 SOLE DISPOSITIVE POWER  
0 Shares

8 SHARED DISPOSITIVE POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Root, a managing member of PMG VIII, may  
be deemed to have shared power to dispose of these shares.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH  
REPORTING PERSON

2,339,062

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES\*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

19.4%

12 TYPE OF REPORTING PERSON\*

IN

1 NAME OF REPORTING PERSON

Christopher Rust

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

5 SOLE VOTING POWER  
0 Shares

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH REPORTING  
PERSON  
WITH

6 SHARED VOTING POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Rust, a managing member of PMG VIII, may  
be deemed to have shared power to vote these shares.

7 SOLE DISPOSITIVE POWER  
0 Shares

8 SHARED DISPOSITIVE POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Rust, a managing member of PMG VIII, may  
be deemed to have shared power to dispose of these shares.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH  
REPORTING PERSON

2,339,062

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES\*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

19.4%

12 TYPE OF REPORTING PERSON\*

IN

1 NAME OF REPORTING PERSON

Philip M. Young

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

(a)

(b) X

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

5 SOLE VOTING POWER  
0 Shares

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY EACH REPORTING  
PERSON  
WITH

6 SHARED VOTING POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Young, a managing member of PMG VIII, may  
be deemed to have shared power to vote these shares.

7 SOLE DISPOSITIVE POWER  
0 Shares

8 SHARED DISPOSITIVE POWER  
2,339,062 shares, of which 2,286,924 are directly owned by USVP VIII,  
17,653 are directly owned by USVP VIII AF, 22,444 are directly owned  
by USVP EP VIII-A and 12,041 are directly owned by USVP EP VIII-B.  
PMG VIII is the general partner of USVP VIII, USVP VIII AF, USVP EP  
VIII-A and USVP EP VIII-B. Young, a managing member of PMG VIII, may  
be deemed to have shared power to dispose of these shares.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH  
REPORTING PERSON

2,339,062

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)  
EXCLUDES CERTAIN SHARES\*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

19.4%

12 TYPE OF REPORTING PERSON\*

IN

ITEM 1(A). NAME OF ISSUER  
-----

AtriCure, Inc.

ITEM 1(B). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES  
-----6033 Schumacher Park Drive  
Cincinnati, OH 45069ITEM 2(A). NAME OF PERSONS FILING  
-----

This Statement is filed by Presidio Management Group VIII, L.L.C., a Delaware limited liability company ("PMG VIII"), U.S. Venture Partners VIII, L.P., a Delaware limited partnership ("USVP VIII"), USVP VIII Affiliates Fund, L.P., a Delaware limited partnership ("USVP VIII AF"), USVP Entrepreneur Partners VIII-A, L.P., a Delaware limited partnership ("USVP EP VIII-A"), U.S. Entrepreneur Partners VIII-B, a Delaware limited partnership ("USVP EP VIII-B"), Timothy Connors ("Connors"), Irwin Federman ("Federman"), Winston Fu ("Fu"), Steven M. Krausz ("Krausz"), David Liddle ("Liddle"), Jonathan D. Root ("Root") Christopher Rust ("Rust") and Philip M. Young ("Young"). The foregoing entities and individuals are collectively referred to as the "Reporting Persons."

PMG VIII, the general partner of USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B, may be deemed to have sole power to vote and sole power to dispose of shares of the issuer directly owned by USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B. Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young are managing members of PMG VIII and may be deemed to have shared power to vote and shared power to dispose of shares of the issuer directly owned by USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B.

ITEM 2(B). ADDRESS OF PRINCIPAL OFFICE  
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The address for each of the Reporting Persons is:

U.S. Venture Partners  
2735 Sand Hill Road  
Menlo Park, California 94025ITEM 2(C). CITIZENSHIP  
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USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B are Delaware limited partnerships. PMG VIII is a Delaware limited liability company. Connors, Federman, Fu, Krausz, Liddle, Root, Rust and Young are United States citizens.

ITEM 2(D) AND (E). TITLE OF CLASS OF SECURITIES AND CUSIP NUMBER  
-----Common Stock  
CUSIP # 04963C209ITEM 3. Not Applicable.  
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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:  
-----

See Row 9 of cover page for each Reporting Person.

(b) Percent of Class:  
-----

See Row 11 of cover page for each Reporting Person.

(c) Number of shares as to which such person has:  
-----

(i) Sole power to vote or to direct the vote:  
-----

See Row 5 of cover page for each Reporting Person.

(ii) Shared power to vote or to direct the vote:  
-----

See Row 6 of cover page for each Reporting Person.

(iii) Sole power to dispose or to direct the disposition of:  
-----

See Row 7 of cover page for each Reporting Person.

(iv) Shared power to dispose or to direct the disposition of:  
-----

See Row 8 of cover page for each Reporting Person.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS  
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Not applicable.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.  
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Under certain circumstances set forth in the limited partnership agreements of USVP VIII, USVP VIII AF, USVP EP VIII-A and USVP EP VIII-B, and the limited liability company agreement of PMG VIII, the general and limited partners or members, as the case may be, of each of such entities may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the issuer owned by each such entity of which they are a partner or member, as the case may be.

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.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP.  
-----

Not applicable.

ITEM 10. CERTIFICATION.  
-----

Not applicable.

SIGNATURES  
-----

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.

Dated: February 10, 2006

U.S. VENTURE PARTNERS VIII, L.P.  
By Presidio Management Group VIII, L.L.C.  
Its General Partner

/s/ Michael Maher  
-----  
Signature

Michael Maher  
-----  
Chief Financial Officer/  
Attorney-In-Fact\*

USVP VIII Affiliates Fund, L.P.  
By Presidio Management Group VIII, L.L.C.  
Its General Partner

/s/ Michael Maher  
-----  
Signature

Michael Maher  
-----  
Chief Financial Officer/  
Attorney-In-Fact\*

USVP Entrepreneur Partners VIII-A, L.P.,  
By Presidio Management Group VIII, L.L.C.  
Its General Partner

/s/ Michael Maher  
-----  
Signature

Michael Maher  
-----  
Chief Financial Officer/  
Attorney-In-Fact\*

USVP Entrepreneur Partners VIII-B- L.P.,  
By Presidio Management Group VIII, L.L.C.  
Its General Partner

/s/ Michael Maher  
-----  
Signature

Michael Maher  
-----  
Chief Financial Officer/  
Attorney-In-Fact\*

PRESIDIO MANAGEMENT GROUP VIII, L.L.C.  
A Delaware Limited Liability Company

/s/ Michael Maher  
-----  
Signature

Michael Maher  
-----  
Chief Financial Officer/  
Attorney-In-Fact\*

Timothy Connors

/s/ Michael Maher  
-----  
Michael Maher  
Attorney-In-Fact\*

Irwin Federman

/s/ Michael Maher  
-----  
Michael Maher  
Attorney-In-Fact\*

Winston Fu	/s/ Michael Maher ----- Michael Maher Attorney-In-Fact*
Steven M. Krausz	/s/ Michael Maher ----- Michael Maher Attorney-In-Fact*
David Liddle	/s/ Michael Maher ----- Michael Maher Attorney-In-Fact*
Jonathan D. Root	/s/ Michael Maher ----- Michael Maher Attorney-In-Fact*
Christopher Rust	/s/ Michael Maher ----- Michael Maher Attorney-In-Fact*
Philip M. Young	/s/ Michael Maher ----- Michael Maher Attorney-In-Fact*

\*Signed pursuant to a Power of Attorney already on file with the appropriate agencies.

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

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

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001)

EXHIBIT INDEX  
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Exhibit  
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Found on  
Sequentially  
Numbered Page  
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Exhibit A: Agreement of Joint Filing

22

EXHIBIT A  
-----

Agreement of Joint Filing  
-----

The undersigned hereby agree that a single Schedule 13G (or any amendment thereto) relating to the Common Stock of Atricare, Inc. shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13G.

Dated: February 10, 2006

U.S. VENTURE PARTNERS VIII, L.P.  
By Presidio Management Group VIII, L.L.C.  
Its General Partner

/s/ Michael Maher  
-----  
Signature

Michael Maher  
-----  
Chief Financial Officer/  
Attorney-In-Fact\*

USVP VIII Affiliates Fund, L.P.  
By Presidio Management Group VIII, L.L.C.  
Its General Partner

/s/ Michael Maher  
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Signature

Michael Maher  
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Chief Financial Officer/  
Attorney-In-Fact\*

USVP Entrepreneur Partners VIII-A, L.P.,  
By Presidio Management Group VIII, L.L.C.  
Its General Partner

/s/ Michael Maher  
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Signature

Michael Maher  
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Chief Financial Officer/  
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USVP Entrepreneur Partners VIII-B- L.P.,  
By Presidio Management Group VIII, L.L.C.  
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Irwin Federman

/s/ Michael Maher  
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Michael Maher



Winston Fu

/s/ Michael Maher  
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Michael Maher  
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/s/ Michael Maher  
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Michael Maher  
Attorney-In-Fact\*

Philip M. Young

/s/ Michael Maher  
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Michael Maher  
Attorney-In-Fact\*

\*Signed pursuant to a Power of Attorney already on file with the appropriate agencies.