

(Check One):

- Form 10-K
- Form 20-F
- Form 11-K
- Form 10-Q
- Form N-SAR
- Form N-CSR

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

**FORM 12b-25
NOTIFICATION OF LATE FILING**

OMB APPROVAL

OMB Number: 3235-0058

Expires: March 31, 2006

Estimated average burden
hours per response . . . 2.50

SEC FILE NUMBER
000-51470

CUSIP NUMBER
04963C 20 9

For Period Ended: **September 30, 2005**

- Transition Report on Form 10-K
- Transition Report on Form 20-F
- Transition Report on Form 11-K
- Transition Report on Form 10-Q
- Transition Report on Form N-SAR

For the Transition Period Ended: _____

Read Instruction (on back page) Before Preparing Form. Please Print or Type.

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates: _____

PART I — REGISTRANT INFORMATION

AtriCure, Inc.

Full Name of Registrant

Former Name if Applicable

6033 Schumacher Park Drive

Address of Principal Executive Office (Street and Number)

West Chester, Ohio 45069

City, State and Zip Code

PART II — RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III — NARRATIVE

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

Due to an unforeseen delay, the registrant requires additional time to finalize its third quarter financial statements as it reviews with its auditors the proper accounting treatment for certain matters relating to the conversion of its outstanding preferred stock into common stock in connection with the closing earlier this year of its initial public offering. The registrant expects to file the Form 10-Q on or before the fifth calendar day following its prescribed due date, and no material change to the registrant's previously disclosed results of operations is anticipated.

SEC 1344 (07-03) **Persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

PART IV — OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification

Thomas J. Etergino

513

755-4561

(Name)

(Area Code)

(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s). Yes No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? Yes No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

It is anticipated that the registrant's net loss will be \$8,673,452 for the nine months ended September 30, 2005, as compared to a net loss of \$5,966,038 for the nine months ended September 30, 2004.

AtriCure, Inc.

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date **November 15, 2005**

By **/s/ Thomas J. Etergino**

Thomas J. Etergino, CFO & Vice President

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be filed with the form.

ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).

GENERAL INSTRUCTIONS

1. This form is required by Rule 12b-25 (17 CFR 240.12b-25) of the General Rules and Regulations under the Securities Exchange Act of 1934.
2. One signed original and four conformed copies of this form and amendments thereto must be completed and filed with the Securities and Exchange Commission, Washington, D.C. 20549, in accordance with Rule 0-3 of the General Rules and Regulations under the Act. The information contained in or filed with the form will be made a matter of public record in the Commission files.
3. A manually signed copy of the form and amendments thereto shall be filed with each national securities exchange on which any class of securities of the registrant is registered.
4. Amendments to the notifications must also be filed on Form 12b-25 but need not restate information that has been correctly furnished. The form shall be clearly identified as an amended notification.
5. Electronic Filers: This form shall not be used by electronic filers unable to timely file a report solely due to electronic difficulties. Filers unable to submit reports within the time period prescribed due to difficulties in electronic filing should comply with either Rule 201 or Rule 202 of Regulation S-T (§232.201 or §232.202 of this chapter) or apply for an adjustment in filing date pursuant to Rule 13(b) of Regulation S-T (§232.13(b) of this chapter).