

AtriCure, Inc.
7555 Innovation Way
Mason, Ohio 45040

June 23, 2016

Via Edgar

1933 Act Filing Desk
Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549

Re: Registration Statement on Form S-3
Filed June 17, 2016
File No. 333-212088

Ladies and Gentlemen:

Pursuant to Rule 461 of the Securities Act of 1933, the registrant named below hereby requests that the effective date of the Registration Statement on Form S-3, File No. 333-212088, be accelerated to, and that the Registration Statement be declared effective at, 10:00 a.m. (Washington D.C. time) on June 24, 2016 or as soon as practical thereafter. In this connection, the registrant confirms that it is aware of its obligations under the Securities Act of 1933 and the Securities Exchange Act of 1934 as such obligations relate to the proposed offering of securities.

In addition, the registrant acknowledges that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the registrant from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- the registrant may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Very truly yours,

AtriCure, Inc.

By: /s/ M Andrew Wade
M. Andrew Wade,
Senior Vice President
and Chief Financial Officer

cc: Mr. Mark Reuter (Keating Muething & Klekamp PLL)