UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2017

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from_____to_____

Commission File Number 000-51470

AtriCure, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**34-1940305**
(State or other jurisdiction of incorporation)	**(IRS Employer Identification No.)**

7555 Innovation Way
Mason, OH 45040
(Address of principal executive offices)

(513) 755-4100
(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days: YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☐	Accelerated Filer	☒
Non-Accelerated Filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act: ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): YES ☐ NO ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	**Outstanding at October 30, 2017**
Common Stock, $.001 par value	34,474,119

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PART I. FINANCIAL INFORMATION
Item 1. Financial Statements

ATRICURE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(In Thousands, Except Per Share Amounts)
(Unaudited)

	September 30, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 19,444	$ 24,208
Short-term investments	14,942	19,801
Accounts receivable, less allowance for doubtful accounts of $82 and $246	22,580	21,094
Inventories	22,565	17,660
Other current assets	2,615	2,954
Total current assets	82,146	85,717
Property and equipment, net	29,267	29,995
Long-term investments	—	3,000
Intangible assets, net	51,105	52,131
Goodwill	105,257	105,257
Other noncurrent assets	676	321
Total Assets	$ 268,451	$ 276,421
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 10,791	$ 10,673
Accrued liabilities	18,188	16,467
Other current liabilities and current maturities of capital leases and long-term debt	7,093	1,688
Total current liabilities	36,072	28,828
Capital leases	12,910	13,319
Long-term debt	18,689	23,886
Other noncurrent liabilities	41,861	41,946
Total Liabilities	109,532	107,979
Commitments and contingencies (Note 7)		
Stockholders' Equity:		
Common stock, $0.001 par value, 90,000 shares authorized and 34,474 and 33,342 issued and outstanding	34	33
Additional paid-in capital	382,181	367,851
Accumulated other comprehensive loss	(10)	(468)
Accumulated deficit	(223,286)	(198,974)
Total Stockholders' Equity	158,919	168,442
Total Liabilities and Stockholders' Equity	$ 268,451	$ 276,421

See accompanying notes to condensed consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In Thousands, Except Per Share Amounts)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenue	$ 42,150	$ 38,340	$ 128,654	$ 113,952
Cost of revenue	11,232	10,868	35,174	31,748
Gross profit	30,918	27,472	93,480	82,204
Operating expenses:				
Research and development expenses	7,966	8,271	26,423	25,958
Selling, general and administrative expenses	29,799	25,487	89,901	79,689
Total operating expenses	37,765	33,758	116,324	105,647
Loss from operations	(6,847)	(6,286)	(22,844)	(23,443)
Other income (expense):				
Interest expense	(576)	(530)	(1,694)	(1,266)
Interest income	58	67	160	166
Other	145	(32)	132	(146)
Loss before income tax expense	(7,220)	(6,781)	(24,246)	(24,689)
Income tax expense	26	2	66	24
Net loss	$ (7,246)	$ (6,783)	$ (24,312)	$ (24,713)
Basic and diluted net loss per share	$ (0.22)	$ (0.21)	$ (0.75)	$ (0.78)
Weighted average shares outstanding—basic and diluted	32,576	31,706	32,297	31,547
Comprehensive loss:				
Unrealized gain (loss) on investments	$ 8	$ (19)	$ 14	$ 35
Foreign currency translation adjustment	29	60	444	127
Other comprehensive income	37	41	458	162
Net loss	(7,246)	(6,783)	(24,312)	(24,713)
Comprehensive loss, net of tax	$ (7,209)	$ (6,742)	$ (23,854)	$ (24,551)

See accompanying notes to condensed consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2017	2016
Cash flows from operating activities:		
Net loss	$ (24,312)	$ (24,713)
Adjustments to reconcile net loss to net cash used in operating activities:		
Share-based compensation expense	10,947	8,796
Depreciation	5,831	5,625
Amortization of intangible assets	1,026	1,233
Amortization of deferred financing costs	198	152
Loss on disposal of property and equipment	95	107
Realized gain from foreign exchange on intercompany transactions	(163)	(23)
Amortization/accretion on investments	42	96
Change in allowance for doubtful accounts	(149)	142
Changes in operating assets and liabilities:		
Accounts receivable	(1,030)	(1,777)
Inventories	(4,632)	(1,234)
Other current assets	477	136
Accounts payable	55	(756)
Accrued liabilities	1,532	(3,472)
Other noncurrent assets and liabilities	(389)	(192)
Net cash used in operating activities	(10,472)	(15,880)
Cash flows from investing activities:		
Purchases of available-for-sale securities	(12,769)	(27,395)
Maturities of available-for-sale securities	20,600	14,602
Purchases of property and equipment	(5,135)	(6,102)
Proceeds from sale of property and equipment	—	3
Net cash provided by (used in) investing activities	2,696	(18,892)
Cash flows from financing activities:		
Proceeds from debt borrowings	—	25,000
Payments on capital leases	(365)	(343)
Payment of debt fees	(50)	(120)
Proceeds from stock option exercises	4,170	2,595
Shares repurchased for payment of taxes on stock awards	(1,991)	(1,078)
Proceeds from issuance of common stock under employee stock purchase plan	1,205	987
Net cash provided by financing activities	2,969	27,041
Effect of exchange rate changes on cash and cash equivalents	43	74
Net decrease in cash and cash equivalents	(4,764)	(7,657)
Cash and cash equivalents—beginning of period	24,208	23,764
Cash and cash equivalents—end of period	$ 19,444	$ 16,107
Supplemental cash flow information:		
Cash paid for interest	$ 1,497	$ 1,043
Cash paid for income taxes	37	30
Non-cash investing and financing activities:		
Accrued purchases of property and equipment	263	243
Assets acquired through capital lease	2	125
Capital lease asset early termination	—	28

See accompanying notes to condensed consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except per share amounts)
(Unaudited)

1. DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of the Business—The "Company" or "AtriCure" consists of AtriCure, Inc. and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The Company is a leading innovator in treatments for atrial fibrillation (Afib) and left atrial appendage (LAA) management, and it sells its products to medical centers globally through its direct sales force and distributors.

Basis of Presentation—The accompanying interim financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission (SEC). The accompanying interim financial statements are unaudited, but in the opinion of the Company's management, contain all of the normal, recurring adjustments considered necessary to present fairly the financial position, results of operations and cash flows for the periods presented in conformity with accounting principles generally accepted in the United States of America (GAAP) applicable to interim periods. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with GAAP have been omitted or condensed. The Company believes the disclosures herein are adequate to make the information presented not misleading. Results of operations are not necessarily indicative of the results expected for the full year or for any future period.

The accompanying Condensed Consolidated Financial Statements should be read in conjunction with the audited financial statements of the Company included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016 filed with the SEC.

Cash and Cash Equivalents—The Company considers highly liquid investments with maturities of three months or less at the date of acquisition as cash equivalents in the accompanying Condensed Consolidated Financial Statements.

Investments—The Company places its investments primarily in U.S. Government agencies and securities, corporate bonds and commercial paper and classifies all investments as available-for-sale. Investments with maturities of less than one year are classified as short-term investments. Investments are recorded at fair value, with unrealized gains and losses recorded as accumulated other comprehensive income (loss). Gains and losses are recognized using the specific identification method when securities are sold and are included in interest income or expense in the Condensed Consolidated Statements of Operations and Comprehensive Loss.

Revenue Recognition—The Company accounts for revenue in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 605, "Revenue Recognition" (ASC 605). The Company recognizes revenue when all of the following criteria are met: (i) there is persuasive evidence that an arrangement exists; (ii) delivery of the products and/or services has occurred; (iii) the selling price is fixed or determinable; and (iv) collectability is reasonably assured.

Pursuant to the Company's standard terms of sale, revenue is recognized when title to the goods and risk of loss transfers to customers and there are no remaining obligations that will affect the customers' final acceptance of the sale. Generally, the Company's standard terms of sale define the transfer of title and risk of loss to occur upon shipment to the respective customer. The Company does not normally maintain any post-shipping obligations to the recipients of products. No installation, calibration or testing of products is performed by the Company subsequent to shipment to the customer in order to render it operational.

Revenue includes shipping and handling revenue of $170 and $306 for the three months ended September 30, 2017 and 2016 and $810 and $931 for the nine months ended September 30, 2017 and 2016. Cost of freight for shipments made to customers is included in cost of revenue. Sales and other value-added taxes collected from customers and remitted to governmental authorities are excluded from revenue. The Company sells its products primarily through its direct sales force, with certain international market product sales made through distributors. Terms of sale are generally consistent for both end-users and distributors except that payment terms are generally net 30 days for end-users and net 60 days for distributors, with limited exceptions.

Sales Returns and Allowances—The Company maintains a provision for sales returns and allowances to account for potential returns of defective or damaged products, products shipped in error and invoice adjustments, as well as current deferrals of revenue. The Company adjusts the provision quarterly using a combination of specific identification and an estimated general reserve based on historical experience. Increases to the provision result in a reduction of revenue. The provision is included in accrued liabilities in the Condensed Consolidated Balance Sheets.

Allowance for Doubtful Accounts Receivable—The Company evaluates the collectability of accounts receivable to determine the appropriate reserve for doubtful accounts. In determining the amount of the reserve, the Company considers aging of account balances, historical credit losses, customer-specific information and other relevant factors. An increase to the allowance for doubtful accounts results in a corresponding increase in selling, general and administrative expenses. The Company reviews accounts receivable and adjusts the allowance based on current circumstances and charges off uncollectible receivables against the allowance

(In thousands, except per share amounts)

when all attempts to collect the receivable have failed. The Company's history of write-offs against the allowance has not been significant.

Inventories—Inventories are stated at the lower of cost or net realizable value based on the first-in, first-out cost method (FIFO). The Company's industry is characterized by rapid product development and frequent new product introductions. Uncertain timing of product approvals, variability in product launch strategies and variation in product use all impact inventory reserves for excess and obsolete products. An estimated inventory reserve for excess, slow moving and obsolete inventory and for specific inventory, if carrying value exceeds net realizable value, is recorded quarterly. An increase to the inventory reserve results in a corresponding increase in cost of revenue. Products are written off against the reserve when they are physically disposed.

Inventories consist of the following:

	September 30, 2017	December 31, 2016
Raw materials	$ 6,455	$ 5,719
Work in process	1,381	1,221
Finished goods	14,729	10,720
Inventories	$ 22,565	$ 17,660

Property and Equipment—Property and equipment is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of assets. The estimated useful life by major asset category is the following: generators and other capital equipment - one to three years; machinery, equipment and vehicles - three to seven years; computer and other office equipment - three years; furniture and fixtures - three to seven years; and leasehold improvements, buildings and equipment under capital leases - the shorter of the useful life or remaining lease term. The Company reassesses the useful lives of property and equipment annually and retires assets no longer in service. Maintenance and repair costs are expensed as incurred.

Generators and other capital equipment (such as the Company's switchbox units and cryosurgical consoles) are generally placed with customers that use the Company's disposable products. The estimated useful lives of this equipment are based on anticipated usage by customers and the timing and impact of expected new technology rollouts by the Company and may change in a future period if the Company experiences changes in the usage of the equipment or introduces new technologies. Depreciation related to generators and other capital equipment, which is recorded in cost of revenue in the Condensed Consolidated Statements of Operations and Comprehensive Loss, was $877 and $914 for the three months ended September 30, 2017 and 2016 and $2,702 and $2,629 for the nine months ended September 30, 2017 and 2016. As of September 30, 2017 and December 31, 2016, the net carrying amount of loaned equipment included in net property and equipment in the Condensed Consolidated Balance Sheets was $5,064 and $5,692.

The Company reviews property and equipment for impairment using its best estimates based on reasonable and supportable assumptions and projections of expected cash flows. Property and equipment impairments recorded by the Company have not been significant.

Intangible Assets—Intangible assets with determinable useful lives are amortized on a straight-line basis over the estimated periods benefited.

Included in intangible assets is In Process Research and Development (IPR&D). The Company defines IPR&D as the value of acquired technology which has not yet reached technological feasibility. The primary basis for determining the technological feasibility is obtaining specific regulatory approvals. IPR&D is accounted for as an indefinite-lived intangible asset until completion or abandonment of the IPR&D project. Upon completion of the development project, the IPR&D will be amortized over its estimated useful life. If the IPR&D project is abandoned, the related IPR&D asset would be written off. The IPR&D asset represents an estimate of the fair value of the pre-market approval (PMA) that could result from the CONVERGE IDE clinical trial.

The Company reviews intangible assets for impairment using its best estimates based on reasonable and supportable assumptions and projections.

Goodwill—Goodwill represents the excess of purchase price over the fair value of the net assets acquired in business combinations. The Company tests goodwill for impairment annually on November 30, or more often if impairment indicators are present. The Company's goodwill is accounted for in a single reporting unit representing the Company as a whole.

Other Noncurrent Liabilities—Other noncurrent liabilities are primarily contingent consideration recorded in business combinations, long-term deferred revenues and other contractual obligations. Although the Company expects to settle a portion of the

contingent consideration liability within the following year, the balance is included in noncurrent as such settlement is required and expected to be made in shares of the Company's common stock pursuant to the nContact Surgical, Inc. (nContact) merger agreement.

Other Income (Expense)—Other income (expense) consists of foreign currency transaction gains and losses generated by settlements of intercompany balances denominated in Euros and invoices transacted in British Pounds.

Taxes—Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities from a change in tax rates is recognized in the period that includes the enactment date.

The Company's estimate of the valuation allowance for deferred income tax assets requires it to make significant estimates and judgments about its future operating results. Deferred income tax assets are reduced by valuation allowances if, based on the consideration of all available evidence, it is more-likely-than-not that some portion of the deferred income tax asset will not be realized. Significant weight is given to evidence that can be objectively verified. The Company evaluates deferred tax income assets on an annual basis to determine if valuation allowances are required by considering all available evidence. Deferred income tax assets are realized by having sufficient future taxable income to allow the related tax benefits to reduce taxes otherwise payable. The sources of taxable income that may be available to realize the benefit of deferred income tax assets are future reversals of existing taxable temporary differences, future taxable income, exclusive of reversing temporary differences and carryforwards, taxable income in carry-back years and tax planning strategies that are both prudent and feasible. In evaluating whether to record a valuation allowance, the applicable accounting standards deem that the existence of cumulative losses in recent years is a significant piece of objectively verifiable negative evidence that must be overcome by objectively verifiable positive evidence to avoid the need to record a valuation allowance. The Company has recorded a full valuation allowance against its net deferred income tax assets as it is more-likely-than-not that the benefit of the deferred income tax assets will not be recognized in future periods.

Net Loss Per Share—Basic and diluted net loss per share is computed in accordance with FASB ASC 260, "Earnings Per Share" (ASC 260) by dividing the net loss by the weighted average number of common shares outstanding during the period. Since the Company has experienced net losses for all periods presented, net loss per share excludes the effect of 4,311 and 4,433 stock options and restricted stock shares as of September 30, 2017 and 2016 because they are anti-dilutive. Therefore, the number of shares calculated for basic net loss per share is also used for the diluted net loss per share calculation.

Comprehensive Loss and Accumulated Other Comprehensive Loss—In addition to net losses, the comprehensive loss includes foreign currency translation adjustments and unrealized gains on investments.

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except per share amounts)
(Unaudited)

Accumulated other comprehensive loss consisted of the following (net of tax):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Total accumulated other comprehensive loss at beginning of period	$ (47)	$ (490)	$ (468)	$ (611)
Unrealized (Losses) Gains on Investments				
Balance at beginning of period	$ (15)	$ 15	$ (21)	$ (39)
Other comprehensive income (loss) before reclassifications	8	(19)	14	35
Amounts reclassified from accumulated other comprehensive income to other income on the statement of operations and comprehensive loss	—	—	—	—
Balance at end of period	$ (7)	$ (4)	$ (7)	$ (4)
Foreign Currency Translation Adjustment				
Balance at beginning of period	$ (32)	$ (505)	$ (447)	$ (572)
Other comprehensive income before reclassifications	182	52	607	104
Amounts reclassified from accumulated other comprehensive income to other income on the statement of operations and comprehensive loss	(153)	8	(163)	23
Balance at end of period	$ (3)	$ (445)	$ (3)	$ (445)
Total accumulated other comprehensive loss at end of period	$ (10)	$ (449)	$ (10)	$ (449)

Research and Development—Research and development costs are expensed as incurred. These costs include compensation and other internal and external costs associated with the development of and research related to new and existing products or concepts, preclinical studies, clinical trials, healthcare compliance and regulatory affairs.

Advertising Costs— The Company expenses advertising costs as incurred. Advertising costs were not significant during the three and nine months ended September 30, 2017 and 2016.

Share-Based Compensation—The Company follows FASB ASC 718, "Compensation-Stock Compensation" (ASC 718) to record share-based compensation for all employee share-based payment awards, including stock options, restricted stock and stock purchases related to an employee stock purchase plan, based on estimated fair values. The Company's share-based compensation expense recognized under ASC 718 was $3,622 and $2,927 for the three months ended September 30, 2017 and 2016 and $10,947 and $8,796 for the nine months ended September 30, 2017 and 2016.

ASC 718 requires companies to estimate the fair value of share-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in the Company's Condensed Consolidated Statement of Operations and Comprehensive Loss. The expense has been reduced for estimated forfeitures. The Company estimates forfeitures at the time of grant and revises them, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

The Company estimates the fair value of time-based options on the date of grant using the Black-Scholes option-pricing model (Black-Scholes model). The Company's determination of fair value is affected by the Company's stock price, as well as assumptions regarding a number of subjective variables. These variables include but are not limited to the Company's expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors. The fair value of market-based performance option grants is estimated at the date of grant using a Monte-Carlo simulation. The value of the portion of the awards that is ultimately expected to vest is recognized as expense over the requisite service periods in the Condensed Consolidated Statement of Operations and Comprehensive Loss.

The Company estimates the fair value of restricted stock based upon the grant date closing market price of the Company's common stock.

The Company also has an employee stock purchase plan (ESPP) which is available to all eligible employees as defined by the plan document. Under the ESPP, shares of the Company's common stock may be purchased at a discount. The Company estimates the number of shares to be purchased under the ESPP at the beginning of each purchase period based upon the fair value of the stock at the beginning of the purchase period using the Black-Scholes model and records estimated compensation expense during the period. Expense is adjusted at the time of stock purchase.

Use of Estimates—The preparation of the financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the reporting period. Actual results could differ from those estimates.

Fair Value Disclosures—The Company classifies and records cash and investments in U.S. government agencies and securities as Level 1 within the fair value hierarchy. Accounts receivable, short-term other assets, accounts payable and accrued liabilities are also classified as Level 1. The carrying amounts of these assets and liabilities approximate their fair value due to their relatively short-term nature. Cash equivalents and investments in corporate bonds and commercial paper are classified as Level 2 within the fair value hierarchy (see Note 3 – Fair Value for further information). Fixed term debt fair value is determined by calculating the net present value of future debt payments at current market interest rates and is classified as Level 2. The recorded value of the Company's fixed term debt approximates its fair value as of September 30, 2017. Significant unobservable inputs with respect to the Level 3 fair value measurement of the contingent consideration liability is developed using Company data. When an input is changed, the corresponding valuation models are updated and the results are analyzed for reasonableness.

2. RECENT ACCOUNTING PRONOUNCEMENTS

In May 2014 the FASB issued Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers" (ASU 2014-09), which requires an entity to recognize revenue for the transfer of goods or services equal to the amount that it expects to be entitled in exchange for those goods or services. ASU 2014-09 supersedes most current revenue recognition guidance. In July 2015 the FASB deferred the effective date of ASU 2014-09 for entities reporting under U.S. GAAP from interim and annual reporting periods beginning after December 15, 2016 to interim and annual reporting periods beginning after December 15, 2017. A full retrospective or modified retrospective approach may be taken to adopt the guidance in the ASU. FASB ASU 2016-08, "Revenue from Contracts with Customers (Topic 606): Principal Versus Agent Considerations (Reporting Revenue Gross Versus Net)", FASB ASU 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing", FASB ASU 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients" and FASB ASU 2017-13, "Revenue Recognition (Topic 605), Revenue from Contracts with Customers (Topic 606), Leases (Topic 840), and Leases (Topic 842)" were issued to further refine the guidance in ASU 2014-09.

The Company has performed a comprehensive review of the requirements of ASU 2014-09. This review identified customer contracts and associated revenue streams within the scope of the new guidance by applying the five-step model of the new standard and comparing the results to current accounting to identify potential differences that would result from applying the requirements of the new standard. Based on the work performed to date, the Company expects revenue recognition related to product sales to remain substantially unchanged since the majority of the Company's revenue arrangements consist of a single performance obligation related to the transfer of a promised good to a customer that allows the Company to recognize revenue at a point in time. The Company continues to assess the impact of ASU 2014-09 on its financial statement disclosures, as well as its current policies, procedures and internal controls related to revenue recognition and disclosure. The Company will adopt the new guidance as of January 1, 2018, using the modified retrospective adoption method, and currently does not expect ASU 2014-09 to have a material impact on the amount and timing of revenue recognized in the consolidated financial statements. The foregoing preliminary assessments and expectations are subject to change pending further analysis throughout the remainder of the 2017 fiscal year.

In February 2016 the FASB issued ASU 2016-02, "Leases" (ASU 2016-02) which requires lessees to record most leases onto their balance sheet but recognize expenses on their income statement in a manner similar to today's accounting. The guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Entities are required to use a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. Full retrospective application is prohibited. The Company is evaluating the provisions of ASU 2016-02 to determine the impact on its consolidated financial position, results of operations and related disclosures.

In May 2017 the FASB issued ASU 2017-09, "Compensation — Stock Compensation (Topic 718), Scope of Modification Accounting" (ASU 2017-09), which amends the scope of modification accounting for share-based payment arrangements. ASU 2017-09 provides guidance on the types of changes to the terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting under ASC 718. Specifically, an entity would not apply modification accounting if the fair value, vesting conditions, and classification of the awards are the same immediately before and after the modification. The new guidance also clarifies that a modification to an award could be significant and therefore require disclosure, even if modification accounting is not required. ASU 2017-09 is effective for annual reporting periods, including interim periods within those annual reporting periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period. The Company will consider the new guidance in its accounting and financial reporting for modifications if and when they occur.

(In thousands, except per share amounts)

3. FAIR VALUE

FASB ASC 820, "Fair Value Measurements and Disclosures" (ASC 820) defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

- Level 1—Quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis. The valuation under this approach does not entail a significant degree of judgment.

- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. The valuation technique for the Company's Level 2 assets is based on quoted market prices for similar assets from observable pricing sources at the reporting date.

- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Unobservable inputs shall be used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The following table represents the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of September 30, 2017:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ —	$ 10,420	$ —	$ 10,420
U.S. government agencies and securities	5,997	—	—	5,997
Corporate bonds	—	1,479	—	1,479
Commercial paper	—	8,215	—	8,215
Total assets	$ 5,997	$ 20,114	$ —	$ 26,111
Liabilities:				
Acquisition-related contingent consideration	—	—	41,176	41,176
Total liabilities	$ —	$ —	$ 41,176	$ 41,176

There were no changes in the levels or methodology of measurement of financial assets and liabilities during the three and nine months ended September 30, 2017.

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(In thousands, except per share amounts)
(Unaudited)

The following table represents the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2016:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ —	$ 17,085	$ —	$ 17,085
Commercial paper	—	5,996	—	5,996
U.S. government agencies and securities	7,000	1,529	—	8,529
Corporate bonds	—	8,276	—	8,276
Total assets	$ 7,000	$ 32,886	$ —	$ 39,886
Liabilities:				
Acquisition-related contingent consideration	—	—	41,176	41,176
Total liabilities	$ —	$ —	$ 41,176	$ 41,176

Acquisition-Related Contingent Consideration. Contingent consideration arrangements obligate the Company to pay former shareholders of an acquired entity if specified future events occur or conditions are met, such as the achievement of certain technological milestones or the achievement of targeted revenue milestones. As of September 30, 2017 and December 31, 2016, such arrangements relate solely to the Company's acquisition of nContact. The Company measures such liabilities using unobservable inputs by applying an income approach, such as the discounted cash flow technique or the probability-weighted scenario method. Various key assumptions, such as the probability of achievement of the agreed milestones, projected revenues from acquisitions and the discount rate, are used in the determination of fair value of contingent consideration arrangements and are not observable in the market, thus representing a Level 3 measurement within the fair value hierarchy. Subsequent revisions to key assumptions, which impact the estimated fair value of contingent consideration liabilities, are reflected in the Condensed Consolidated Statements of Operations and Comprehensive Loss. Acquisition-related contingent consideration is recorded in other noncurrent liabilities in the Condensed Consolidated Balance Sheets. There were no changes in the underlying estimates or discount rate used to calculate the fair value of contingent consideration for the three and nine months ended September 30, 2017.

The following table represents the Company's Level 3 fair value measurements using significant other unobservable inputs for acquisition-related contingent consideration as of September 30, 2017:

Beginning Balance – January 1, 2017	$ 41,176
Amounts acquired	—
Transfers in (out) of Level 3	—
Changes in fair value included in earnings	—
Ending Balance – September 30, 2017	$ 41,176

The following table represents the Company's Level 3 fair value measurements using significant other unobservable inputs for acquisition-related contingent consideration as of December 31, 2016:

Beginning Balance – January 1, 2016	$ 40,207
Amounts acquired	—
Transfers in (out) of Level 3	—
Changes in fair value included in earnings	969
Ending Balance – December 31, 2016	$ 41,176

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4. INTANGIBLE ASSETS

The following table provides a summary of the Company's intangible assets:

	September 30, 2017		December 31, 2016	
	Cost	Accumulated Amortization	Cost	Accumulated Amortization
Fusion technology	$ 9,242	$ 3,466	$ 9,242	$ 2,773
Clamp & probe technology	829	829	829	829
SUBTLE access technology	2,179	871	2,179	538
IPR&D	44,021	—	44,021	—
Total	$ 56,271	$ 5,166	$ 56,271	$ 4,140

Amortization expense related to intangible assets with definite lives, which excludes the IPR&D asset, was $342 and $411 for the three months ended September 30, 2017 and 2016 and $1,026 and $1,233 for the nine months ended September 30, 2017 and 2016.

Future amortization expense related to intangible assets with definite lives is projected as follows:

2017	$ 341	October 1, 2017 through December 31, 2017
2018	1,367	
2019	1,367	
2020	1,235	
2021	924	
2022 and thereafter	1,850	
Total	$ 7,084	

5. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

	September 30, 2017	December 31, 2016
Accrued bonus	$ 5,171	$ 2,871
Accrued commissions	4,749	5,737
Accrued payroll and related benefits	4,499	4,326
Other accrued liabilities	1,319	929
Sales returns allowance	1,066	834
Accrued taxes and value-added taxes	870	1,289
Accrued royalties	514	481
Total	$ 18,188	$ 16,467

6. INDEBTEDNESS

Credit Facility. The Company has a Loan and Security Agreement (Loan Agreement) with Silicon Valley Bank (SVB). The Loan Agreement, as amended, restated and modified, effective April 25, 2016, includes a $25,000 term loan and $15,000 revolving line of credit, both which mature in April 2021. Borrowing availability under the revolving credit facility is based on the lesser of $15,000 or a borrowing base calculation as defined by the Loan Agreement. As of September 30, 2017, the Company had no borrowings under the revolving credit facility and had borrowing availability of $15,000. The revolving line of credit is subject to an annual commitment fee of $50, and any borrowings bear interest at the Prime Rate. Financing costs related to the revolving line of credit are included in other assets in the Condensed Consolidated Balance Sheets and amortized ratably over the term of the Loan Agreement.

(In thousands, except per share amounts)

The term loan has a five-year term, with principal payments to be made ratably commencing eighteen months after the inception of the loan (November 2017) through the loan's maturity date. The term loan accrues interest at the Prime Rate and is subject to an additional 4.0% fee on the original $25,000 principal amount at maturity or prepayment of the term loan. The Company is accruing the 4.0% fee over the term of the Loan Agreement. As of September 30, 2017, the Company has accrued $287 of this fee and included it in the outstanding loan balance in the Condensed Consolidated Balance Sheets. Financing costs related to the term loan are net against the outstanding loan balance in the Condensed Consolidated Balance Sheets and amortized ratably over the term of the Loan Agreement.

The Loan Agreement also provides for certain prepayment and early termination fees, as well as establishes covenants related to liquidity, sales growth and a minimum cash balance, and includes other customary terms and conditions. Specified assets have been pledged as collateral.

Capital Lease Obligations. As of September 30, 2017, the Company had capital leases for its corporate headquarters building and computer equipment that expire at various terms through 2030. The capital lease assets are depreciated over their estimated useful lives. As of September 30, 2017, the cost of the leased assets, both building and computer equipment, was $14,470 and accumulated amortization on the capital lease assets was $1,998.

Future maturities of long-term debt and capital lease obligations are projected as follows:

2017	$	1,556	October 1, 2017 through December 31, 2017
2018		8,611	
2019		8,630	
2020		8,645	
2021		4,124	
2022 and thereafter		14,487	
Total payments	$	46,053	
Imputed interest		(7,361)	
Net long-term debt and capital lease obligations, of which $7,093 is current and $31,599 is noncurrent	$	38,692	

In connection with the terms of the Company's corporate headquarters lease, a letter of credit in the amount of $1,250 was issued to the landlord of the building in October 2015. The letter of credit was renewed in June 2017 and remains outstanding as of September 30, 2017.

7. COMMITMENTS AND CONTINGENCIES

Lease Commitments. The Company leases certain office and warehouse facilities and a vehicle under noncancelable operating leases that expire at various terms through 2022.

Royalty Agreements. The Company has certain royalty agreements in place with terms that include payment of royalties based on product revenue from sales of specified current products. The current royalty agreements have effective dates as early as 2003 and terms ranging from eighteen years to at least twenty years. The royalties range from 3% to 5% of specified product sales. Parties to the royalty agreements have the right at any time to terminate the agreement immediately for cause. Royalty expense of $537 and $499 was recorded as part of cost of revenue for the three months ended September 30, 2017 and 2016. Royalty expense of $1,673 and $1,385 was recorded as part of cost of revenue for the nine months ended September 30, 2017 and 2016.

Purchase Agreements. The Company enters into standard purchase agreements with certain vendors in the ordinary course of business. Outstanding commitments at September 30, 2017 were not significant.

Legal. The Company may, from time to time, become a party to legal proceedings. Such matters are subject to many uncertainties and to outcomes the financial impacts of which are not predictable with assurance and that may not be known for extended periods of time. When management has assessed that a loss is probable and an amount can be reasonably estimated, the Company records a liability in the Condensed Consolidated Financial Statements. Costs associated with legal proceedings that may be

commenced could have a material adverse effect on the Company's future consolidated results of operations, financial position, or cash flows.

The Company has been named the defendant in a lawsuit filed by the Regents of the University of California claiming infringement of patents covering methods of treating atrial fibrillation. While the Company believes it had meritorious defenses against the lawsuit, a settlement was reached in October 2017. The Company recorded a current liability and operating expenses related to the settlement in the Condensed Consolidated Financial Statements.

8. INCOME TAX PROVISION

The Company files federal, state, and foreign income tax returns in jurisdictions with varying statutes of limitations. Income taxes are computed using the asset and liability method in accordance with FASB ASC 740, "Income Taxes". The Company's provision for income taxes for continuing operations in interim periods is computed by applying its estimated annual effective rate against its loss before income tax expense for the period. In addition, non-recurring or discrete items are recorded during the period in which they occur. The effective tax rate for the three months ended September 30, 2017 and 2016 was (0.36%) and (0.03%). The effective tax rate for the nine months ended September 30, 2017 and 2016 was (0.27%) and (0.10%).

The Company has not accrued any interest and penalties related to unrecognized income tax benefits as a result of offsetting net operating losses. However, if the situation occurs, the Company will recognize interest and penalties within income tax expense in the Condensed Consolidated Statements of Operations and Comprehensive Loss and within the related tax liability in the Condensed Consolidated Balance Sheets. Federal, state and local tax returns of the Company are routinely subject to review by various taxing authorities.

9. EQUITY COMPENSATION PLANS

The Company has two share-based incentive plans: the 2014 Stock Incentive Plan (2014 Plan) and the 2008 Employee Stock Purchase Plan (ESPP).

Stock Incentive Plan

Under the 2014 Plan, the Board of Directors may grant incentive stock options to Company employees and may grant nonstatutory stock options, restricted stock or stock appreciation rights to Company employees, directors and consultants. The administrator (currently the Compensation Committee of the Board of Directors) has the authority to determine the terms of any awards, including the number of shares subject to each award, the exercisability of the awards and the form of consideration. As of September 30, 2017, 10,249 shares of common stock had been reserved for issuance under the 2014 Plan and 1,179 shares were available for future grants.

Options granted under the 2014 Plan generally expire ten years from the date of grant and generally vest at a rate of 25% on the first anniversary date of the grant and ratably each month thereafter over the following three years. Restricted stock awards granted under the 2014 Plan generally vest 25% annually over four years from date of grant.

Employee Stock Purchase Plan

The ESPP is available to eligible employees as defined in the plan document. Under the ESPP, shares of the Company's common stock may be purchased at a discount (currently 15%) of the lesser of the closing price of the Company's common stock on the first trading day or the last trading day of the offering period. The offering period (currently six months) and the offering price are subject to change. Participants may not purchase more than $25 of the Company's common stock in a calendar year and may not purchase a value of more than 3 shares during an offering period. On the first day of each fiscal year during the term of the ESPP, the number of shares available for sale under the ESPP may be increased by the lesser of (i) two percent (2%) of the Company's outstanding shares of common stock as of the close of business on the last business day of the prior calendar year, not to exceed 600 shares, or (ii) a lesser amount determined by the Board of Directors. Shares have not been added to the ESPP since 2011. As of September 30, 2017, there were 283 shares available for future issuance under the ESPP.

Expense Information Under FASB ASC 718

The following table summarizes share-based compensation expense related to employees, directors and consultants under FASB ASC 718 for the three and nine months ended September 30, 2017 and 2016. The expense was allocated as follows:

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	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Cost of revenue	$ 179	$ 97	$ 448	$ 325
Research and development expenses	512	458	1,515	1,380
Selling, general and administrative expenses	2,931	2,372	8,984	7,091
Total	$ 3,622	$ 2,927	$ 10,947	$ 8,796

10. SEGMENT AND GEOGRAPHIC INFORMATION

The Company evaluates reporting segments in accordance with FASB ASC 280, “Segment Reporting”. The Company develops, manufactures, and sells devices designed primarily for the surgical ablation of cardiac tissue and systems designed for the exclusion of the left atrial appendage. These devices are developed and marketed to a broad base of medical centers globally. Management considers all such sales to be part of a single reportable segment. Revenue attributed to geographic areas is based on the location of the customers to whom products are sold.

Revenue by geographic area was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
United States	$ 33,394	$ 30,575	$ 102,196	$ 89,719
Europe	5,096	4,379	15,973	14,548
Asia	3,493	3,158	9,929	9,148
Other international	167	228	556	537
Total international	8,756	7,765	26,458	24,233
Total revenue	$ 42,150	$ 38,340	$ 128,654	$ 113,952

United States revenue by product type was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Open-heart ablation	$ 15,351	$ 14,766	$ 47,846	$ 43,455
Minimally invasive ablation	9,049	7,517	26,056	22,232
AtriClip	8,471	7,721	26,636	21,917
Total ablation and AtriClip	32,871	30,004	100,538	87,604
Valve tools	523	571	1,658	2,115
Total United States	$ 33,394	$ 30,575	$ 102,196	$ 89,719

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International revenue by product type was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Open-heart ablation	$ 5,255	$ 5,152	$ 15,519	$ 15,062
Minimally invasive ablation	1,766	1,533	5,859	5,883
AtriClip	1,653	994	4,825	2,883
Total ablation and AtriClip	8,674	7,679	26,203	23,828
Valve tools	82	86	255	405
Total international	$ 8,756	$ 7,765	$ 26,458	$ 24,233

The Company’s long-lived assets are located primarily in the United States, except for $881 as of September 30, 2017 and $931 as of December 31, 2016, which are located primarily in Europe.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

(Dollar amounts referenced in this Item 2 are in thousands, except per share amounts.)

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the accompanying Condensed Consolidated Financial Statements and notes thereto contained in Item 1 of Part I of this Form 10-Q and our audited financial statements and notes thereto as of and for the year ended December 31, 2016 included in our Form 10-K filed with the Securities and Exchange Commission (SEC) to provide an understanding of our results of operations, financial condition and cash flows.

Forward-Looking Statements

This Form 10-Q, including the sections titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors," contains forward-looking statements regarding our future performance. All forward-looking information is inherently uncertain and actual results may differ materially from assumptions, estimates or expectations reflected or contained in the forward-looking statements as a result of various factors, including those set forth under "Risk Factors" and elsewhere in this quarterly report on Form 10-Q, and in our annual report on Form 10-K for the year ended December 31, 2016. Forward-looking statements address our expected future business, financial performance, financial condition and results of operations, and often contain words such as "intends," "estimates," "anticipates," "hopes," "projects," "plans," "expects," "seek," "believes," "see," "should," "will," "would," "target," and similar expressions and the negative versions thereof. Such statements are based only upon current expectations of AtriCure. Any forward-looking statement speaks only as of the date made. Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to differ materially from those expressed or implied. Forward-looking statements include statements that address activities, events or developments that AtriCure expects, believes or anticipates will or may occur in the future. Forward-looking statements are based on AtriCure's experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure's control. With respect to the forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. These forward-looking statements speak only as of the date of this Form 10-Q. We undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise unless required by law.

Overview

We are a leading innovator in treatments for atrial fibrillation (Afib) and left atrial appendage (LAA) management. We have several product lines for the ablation of cardiac tissue, including our Isolator® Synergy™ Ablation System, the first and only surgical device approved by the United States Food and Drug Administration (FDA) for the treatment of persistent and longstanding persistent forms of Afib in patients undergoing certain open concomitant procedures. We also offer a variety of minimally invasive ablation devices and access tools to facilitate the growing trend in less invasive cardiac and thoracic surgery. Our cryoICE® cryosurgery product line offers a variety of cryoablation devices for use in multiple different types of cardiothoracic surgery. Our AtriClip® Left Atrial Appendage Exclusion System is the most widely sold device worldwide specifically designed to occlude the heart's left atrial appendage.

Physicians have adopted our radiofrequency (RF) ablation and cryoablation systems to treat Afib in over 243,000 patients since 2004, and we believe that we are currently the market leader in the surgical treatment of Afib. Our products are used by physicians during both open-heart and minimally invasive surgical procedures, either on a concomitant or standalone basis. During a concomitant procedure, the physician ablates cardiac tissue and/or occludes the LAA, secondary, or concomitant, to a primary structural heart procedure such as a valve repair or replacement or coronary artery bypass graft (CABG). Our Isolator Synergy System is approved by FDA for the treatment of persistent and long-standing persistent Afib concomitant to other open-heart surgical procedures. All of our other ablation devices are cleared for sale under FDA 510(k) clearances, including our other RF and cryoablation products, which are indicated for the ablation of cardiac tissue and/or treatment of cardiac arrhythmias. In addition, our cryoICE probe is cleared for managing pain by temporarily ablating peripheral nerves. Our AtriClip products are 510(k)-cleared with an indication for the occlusion of the heart's LAA, performed under direct visualization and in conjunction with other cardiac surgical procedures. Direct visualization, in this context, requires that the surgeon is able to see the heart directly, with or without assistance from a camera, endoscope or other appropriate viewing technologies. We also have a line of reusable surgical instruments typically used for cardiac valve replacement or repair. We anticipate that substantially all of our revenue for the foreseeable future will relate to products we currently sell, or are in the process of developing, which are used to ablate cardiac tissue, to occlude the left atrial appendage, to perform mitral and aortic valve replacement and repair and/or to ablate peripheral nerves during cardiothoracic surgery.

In the United States, we sell our products to medical centers through our direct sales force. In certain international markets, such as Germany, France, the United Kingdom and the Benelux region, sales are also made directly to medical centers, while other international sales are made to distributors who in turn sell our products to end users. Our business is primarily transacted in U.S. Dollars with the exception of transactions with our European subsidiary, which are transacted in Euros or British Pounds.

Recent Developments

In September 2017 we launched the AtriClip PRO·V™ Left Atrial Appendage (LAA) Exclusion System in the United States. The AtriClip PRO·V LAA Exclusion System is an extension of our AtriClip product line and has identical forces and pressure specifications to the closed-end design of the other AtriClip devices, such as the AtriClip FLEX device and the AtriClip PRO2® device. The new device offers an open-ended design combined with a tip-first closure mechanism to enable easier navigation and placement when operating in minimally-invasive surgery environments.

Clinical trials are required to support a pre-market approval (PMA) and are sometimes required for 510(k) clearance. In the United States, clinical trials for a significant risk device require the prior submission of an application for an Investigational Device Exemption (IDE) to FDA for approval. An IDE application must be submitted before initiating a new clinical trial. Some trials require a feasibility study followed by a pivotal trial. An IDE supplement is utilized as a means of obtaining approval to initiate a pivotal trial following the conclusion of a feasibility trial. We are conducting several clinical trials to validate the long-term results of procedures using our products and to support applications to regulatory agencies for expanded indications. In addition, we also conduct various studies to gather clinical data regarding our products. Key trials and studies are:

CONVERGE. We are conducting the CONVERGE IDE clinical trial to evaluate the safety and efficacy of the EPi-Sense® Guided Coagulation System with VisiTrax® technology to treat symptomatic persistent Afib patients who are refractory or intolerant to at least one Class I and/or III anti-arrhythmic drug. We have FDA approval to enroll up to 153 patients at 27 domestic medical centers and three international medical centers. Enrollment began in 2014 and remains ongoing. We received FDA approval to use a Sub-Xyphoid approach as an alternative surgical approach during the third quarter of 2017.

ATLAS. The ATLAS study is a non-IDE randomized pilot study evaluating outcomes of patients with risk factors for developing postoperative Afib as well as risk of bleeding on oral anticoagulation. There are two types of patients subject to this study: those with a postoperative Afib diagnosis and receiving prophylactic exclusion of the left atrial appendage with the AtriClip device concomitant to cardiac surgery and those with a postoperative Afib diagnosis who are medically managed. Enrollment began in February 2016. At full capacity, we expect to enroll approximately 2,000 patients at up to 40 sites.

FROST. We are conducting a cryoanalgesia study, which is a non-IDE randomized pilot study evaluating whether intraoperative intercostal cryoanalgesia in conjunction with standard of care provides improved analgesic efficacy in patients undergoing unilateral thoracotomy cardiac procedures as compared to the current standard of care. The study involves treatment arm patients who receive intercostal cryoanalgesia in conjunction with standard post-operative pain management and control arm patients who receive standard post-operative pain management only. We began enrollment in June 2016. At full capacity, we expect to enroll up to 100 patients at up to five sites.

DEEP AF Pivotal Study. The DEEP AF pivotal trial evaluates the safety and efficacy of the Isolator Synergy System when used in a staged approach, where a minimally invasive surgical ablation procedure is first performed and the patient undergoes the intracardiac catheter procedure approximately 90-120 days later. We have FDA approval to enroll up to 220 patients at 23 domestic medical centers and two international medical centers. Enrollment was temporarily suspended beginning in May 2016 while we evaluated changes to the trial protocol with FDA. We received FDA approval on the updated trial protocol during the third quarter of 2017 and are working with medical centers to resume patient enrollment.

CEASE AF. We are also pursuing this non-IDE trial in Europe to compare staged hybrid ablation treatment (minimally invasive surgical ablation procedure is first performed and the patient undergoes the intracardiac catheter procedure approximately 91-180 days later) versus catheter ablation alone. We expect the study to have an enrollment of approximately 210 patients at twelve sites.

Results of Operations

Three months ended September 30, 2017 compared to three months ended September 30, 2016

The following table sets forth, for the periods indicated, our results of operations expressed as dollar amounts and as percentages of total revenue:

	Three Months Ended September 30,			
	2017		2016	
	Amount	% of Revenues	Amount	% of Revenues
Revenue	$ 42,150	100.0 %	$ 38,340	100.0 %
Cost of revenue	11,232	26.6 %	10,868	28.3 %
Gross profit	30,918	73.4 %	27,472	71.7 %
Operating expenses:				
Research and development expenses	7,966	18.9 %	8,271	21.6 %
Selling, general and administrative expenses	29,799	70.7 %	25,487	66.5 %
Total operating expenses	37,765	89.6 %	33,758	88.0 %
Loss from operations	(6,847)	(16.2)%	(6,286)	(16.4)%
Other income (expense):				
Interest expense	(576)	(1.4)%	(530)	(1.4)%
Interest income	58	0.1 %	67	0.2 %
Other	145	0.3 %	(32)	(0.1)%
Total other expense	(373)	(0.9)%	(495)	(1.3)%
Loss before income tax expense	(7,220)	(17.1)%	(6,781)	(17.7)%
Income tax expense	26	0.1 %	2	0.0 %
Net loss	$ (7,246)	(17.2)%	$ (6,783)	(17.7)%

Revenue. Total revenue increased 9.9% (9.3% on a constant currency basis). Revenue from sales to customers in the United States increased $2,819, or 9.2%, and revenue from sales to international customers increased $991, or 12.8% (9.5% on a constant currency basis). Sales of ablation-related open-heart products increased $585 in the United States, due to growth in our cryo products line. Sales of ablation-related minimally invasive (MIS) products increased $1,532 in the United States, influenced primarily by our EPi-Sense product line. Finally, sales of the AtriClip system increased $750 in the United States, primarily due to increased volume. Revenue growth in the United States was hindered as a result of hurricanes that impacted our customers as well as our field sales team. The increase in international revenue was primarily due to increased sales in Japan, Germany, the Benelux region and the United Kingdom.

Revenue reported on a constant currency basis is a non-GAAP measure and is calculated by applying previous period foreign currency (Euro) exchange rates to each of the comparable periods. Revenue is analyzed on a constant currency basis to better measure the comparability of results between periods. Because changes in foreign currency exchange rates have a non-operating impact on revenue, the Company believes that evaluating growth in revenue on a constant currency basis provides an additional and meaningful assessment of revenue to both management and the company's investors.

Cost of revenue and gross margin. Cost of revenue increased $364 and gross margin increased 1.7% from 71.7% in 2016 to 73.4% in 2017. The overall increase in gross margin was driven solely by product mix.

Research and development expenses. Research and development expenses decreased $305, or 3.7%. The decrease in expense was primarily due to a $638 decrease in product development project expenses and a $126 decrease in regulatory filing fees, offset by increases of $475 in product development, regulatory and clinical personnel expense, along with a slight increase in various operating costs.

Selling, general and administrative expenses. Selling, general and administrative expenses increased $4,312, or 16.9%. The increase was primarily due to a $2,154 increase in personnel and related expenses, such as travel costs, a $708 increase in legal expenses (including a legal settlement discussed in Note 7 to the condensed consolidated financial statements), a $411 increase in product samples, largely related to the September 2017 launch of the AtriClip PRO·V LAA Exclusion System, a $178 increase in professional education and tradeshow expenses, a $560 increase in share-based compensation expense and increases in other operating expenses.

Net interest expense. Net interest expense for the three months ended September 30, 2017 and 2016 was $518 and $463. Interest expense associated with outstanding amounts on our term loan and capital lease obligations, as well as the amortization of

financing costs, are included in net interest expense. Also included in net interest expense is interest income from investments, including gains and losses on investments sold during the period.

Other income and expense. Other income and expense consists primarily of foreign currency transaction gains and losses.

Nine months ended September 30, 2017 compared to nine months ended September 30, 2016

The following table sets forth, for the periods indicated, our results of operations expressed as dollar amounts and as percentages of total revenue:

	Nine Months Ended September 30,			
	2017		2016	
	Amount	% of Revenues	Amount	% of Revenues
Revenue	$ 128,654	100.0 %	$ 113,952	100.0 %
Cost of revenue	35,174	27.3 %	31,748	27.9 %
Gross profit	93,480	72.7 %	82,204	72.1 %
Operating expenses:				
Research and development expenses	26,423	20.5 %	25,958	22.8 %
Selling, general and administrative expenses	89,901	69.9 %	79,689	69.9 %
Total operating expenses	116,324	90.4 %	105,647	92.7 %
Loss from operations	(22,844)	(17.8) %	(23,443)	(20.6) %
Other income (expense):				
Interest expense	(1,694)	(1.3) %	(1,266)	(1.1) %
Interest income	160	0.1 %	166	0.1 %
Other	132	0.1 %	(146)	(0.1) %
Total other expense	(1,402)	(1.1) %	(1,246)	(1.1) %
Loss before income tax expense	(24,246)	(18.8) %	(24,689)	(21.7) %
Income tax expense	66	0.1 %	24	0.0 %
Net loss	$ (24,312)	(18.9) %	$ (24,713)	(21.7) %

Revenue. Total revenue increased 12.9% (13.0% on a constant currency basis). Revenue from sales to customers in the United States increased $12,477, or 13.9%, and revenue from sales to international customers increased $2,225, or 9.2% (9.4% on a constant currency basis). The increase in sales to customers in the United States resulted from growth across our key product categories. Sales of ablation-related open-heart products increased $4,391, primarily due to growth in our cryo products line, including the impact of the cryoFORM® product which launched in the second quarter of 2016. Sales of ablation-related minimally invasive (MIS) products increased $3,824, reflecting strong growth in our EPi-Sense product line which was offset partially by a decline in legacy MIS product sales. Sales of the AtriClip system increased $4,719 due to both pricing and increased volume. AtriClip system revenues also reflect the positive impact of the AtriClip PRO2® device, which launched in the second quarter of 2016. The increase in international revenue was primarily due to increased sales in Asia, Germany, France, Turkey, Austria and the Benelux region, while the United Kingdom was flat between years.

Revenue reported on a constant currency basis is a non-GAAP measure and is calculated by applying previous period foreign currency (Euro) exchange rates to each of the comparable periods. Revenue is analyzed on a constant currency basis to better measure the comparability of results between periods. Because changes in foreign currency exchange rates have a non-operating impact on revenue, the Company believes that evaluating growth in revenue on a constant currency basis provides an additional and meaningful assessment of revenue to both management and the company's investors.

Cost of revenue and gross margin. Cost of revenue increased $3,426 and gross margin increased 0.6%, from 72.1% in 2016 to 72.7% in 2017. While 2017 includes heavier capital equipment sales and increased loaner generator depreciation, such factors are offset by increased sales to customers in the United States and favorable product mix.

Research and development expenses. Research and development expenses increased $465, or 1.8%. The increase in expense was primarily due to a $1,015 increase in product development, regulatory and clinical personnel expense, a $165 increase in clinical trial spending, as well as compliance-related consulting expenses which increased $572. These increased costs were partially offset by a $207 decrease in amortization expense, a $699 decrease in product development project expense, a $162 decrease in regulatory filing fees, as well as reductions in various operating costs.

Selling, general and administrative expenses. Selling, general and administrative expenses increased $10,212, or 12.8%. The increase was primarily due to a $6,117 increase in personnel and related expenses, such as travel costs, a $1,079 increase in professional education, marketing and tradeshow expenses, a $1,893 increase in share-based compensation expense, a $417 increase in product samples, largely related to the September 2017 launch of the AtriClip PRO·V LAA Exclusion System, a $1,097 increase in legal expenses (including a legal settlement discussed in Note 7 to the condensed consolidated financial statements) and increases in other operating expenses which were slightly offset by a $632 reduction in consulting and professional services.

Net interest expense. Net interest expense for the nine months ended September 30, 2017 and 2016 was $1,534 and $1,100. Interest expense associated with outstanding amounts on our term loan and capital lease obligations, as well as the amortization of financing costs, are included in net interest expense. The increase in interest expense was driven by the addition of the term loan in April 2016. Included in net interest expense is interest income from investments, including gains and losses on investments sold during the period.

Other income and expense. Other income and expense consists primarily of foreign currency transaction gains and losses.

Liquidity and Capital Resources

As of September 30, 2017, the Company had cash, cash equivalents and investments of $34,386 and outstanding debt of $25,000. We had unused borrowing capacity of $15,000 under our revolving credit facility. Most of our cash is held by financial institutions in the United States of America. We had net working capital of $46,074 and an accumulated deficit of $223,286 as of September 30, 2017.

Cash flows used in operating activities. Net cash used in operating activities for the nine months ended September 30, 2017 was $10,472. The primary net uses of cash for operating activities were as follows:

- the net loss of $24,312, offset by $17,827 of non-cash expenses, including $10,947 in share-based compensation and $6,857 in depreciation and amortization; and
- a net decrease in cash used related to changes in operating assets and liabilities of $3,987, due primarily to the following:
  - an increase in accounts receivable of $1,030 due to increasing sales;
  - an increase in inventory of $4,632, due primarily to additional products in inventory, well as increased inventory levels in support of anticipated revenue growth; and
  - a $1,587 increase in accounts payable and accrued liabilities due primarily to the timing of payments, including variable compensation payments.

Cash flows provided by investing activities. Net cash provided by investing activities was $2,696 for the nine months ended September 30, 2017. The primary source of cash from investing activities was $20,600 related to maturities of available-for-sale securities. This source of cash was offset by $5,135 related to the purchase of property and equipment, which included the placement of our RF and cryo generators with our customers, and $12,769 related to the purchase of available-for-sale securities.

Cash flows provided by financing activities. Net cash provided by financing activities during the nine months ended September 30, 2017 was $2,969, which was primarily due to proceeds from stock option exercises of $4,170 and proceeds from the issuance of stock under our employee stock purchase plan of $1,205, partially offset by shares repurchased for payment of taxes on stock awards of $1,991 and capital lease payments of $365.

Credit facility. The Company's Loan and Security Agreement with Silicon Valley Bank (SVB), as amended, restated, and modified effective April 25, 2016 (Loan Agreement) provides for a $25,000 term loan and a revolving credit facility under which we may borrow a maximum of $15,000. The term loan and revolving credit facility both mature in April 2021. According to the Loan Agreement, principal payments on the term loan are to be made ratably commencing eighteen months after the inception of the loan (November 2017) through to the loan's maturity date. The term loan accrues interest at the Prime Rate and is subject to an additional 4.0% fee on the original $25,000 term loan principal amount at maturity or prepayment of the term loan. Borrowing availability under the revolving credit facility is based on the lesser of $15,000 or a borrowing base calculation as defined by the Loan Agreement. As of September 30, 2017 we had no borrowings under the revolving credit facility, and we had borrowing availability of $15,000. The revolving line of credit is subject to an annual commitment fee of $50, and any borrowings bear interest at the Prime Rate. The Loan Agreement also provides for certain prepayment and early termination fees and includes other customary terms and conditions.

The Loan Agreement establishes covenants related to maintaining a minimum liquidity ratio, achieving a minimum sales growth measured over a trailing twelve-month period and maintaining a minimum cash balance. Additional covenants include, among others, covenants that limit our ability to dispose of assets, enter into mergers or acquisitions, incur indebtedness, incur liens, pay dividends or make distributions on our capital stock, make investments or loans and enter into certain affiliate transactions, in each case subject to

customary exceptions for a credit facility of this size and type. Certain covenants apply when we have outstanding borrowings under the revolving credit facility or when we hold less than $20,000 in cash and investments with SVB. Further, a minimum fixed charge ratio applies when specific covenant milestones are achieved. The occurrence of an event of default could result in an increase to the applicable interest rate by 3.0%, an acceleration of all obligations under the Loan Agreement, an obligation to repay all obligations in full and a right by SVB to exercise all remedies available to it under the Loan Agreement and related agreements including the Guaranty and Security Agreement. Specified assets have been pledged as collateral. We are in compliance with the covenants of the Loan Agreement as of September 30, 2017.

In connection with the terms of our corporate headquarters lease agreement, a letter of credit in the amount of $1,250 was issued to the landlord in October 2015. The letter of credit was renewed in June 2017 and remains outstanding as of September 30, 2017.

Uses of liquidity and capital resources. Our future capital requirements depend on a number of factors, including the rate of market acceptance of our current and future products, the resources we devote to developing and supporting our products, future expenses to expand and support our sales and marketing efforts, costs relating to changes in regulatory policies or laws that affect our operations and costs of filings, costs associated with clinical trials and securing regulatory approval for new products, costs associated with acquiring and integrating businesses, costs associated with prosecuting, defending and enforcing our intellectual property rights and possible acquisitions and joint ventures. Global economic turmoil may adversely impact our revenue, access to the capital markets or future demand for our products.

We have on file with the SEC a shelf registration statement which allows us to sell any combination of senior or subordinated debt securities, common stock, preferred stock, warrants, depositary shares and units in one or more offerings should we choose to do so in the future. We expect to maintain the effectiveness of this shelf registration statement for the foreseeable future.

We believe that our current cash, cash equivalents and investments, along with the cash we expect to generate or use for operations or access via our term loan and revolving line of credit, will be sufficient to meet our anticipated cash needs for working capital and capital expenditures for at least the next twelve months. The nContact transaction provides for contingent consideration to be paid upon attaining specified regulatory approvals and clinical and revenue milestones over the next four years. Subject to the terms and conditions of the nContact merger agreement, such contingent consideration will be paid in AtriCure common stock and cash, with a requirement to make payments in AtriCure common stock first, up to a specified maximum number of shares. Over the next twelve months, we do not expect our cash requirements to include significant payments of contingent consideration based on terms of the acquisition agreement and related milestones. However, we do expect to issue shares in the amount of $7,500 as payment of contingent consideration related to the completion of the trial enrollment milestone.

If our sources of cash are insufficient to satisfy our liquidity requirements, we may seek to sell additional equity or debt securities or obtain a revised or additional credit facility. The sale of additional equity or convertible debt securities could result in dilution to our stockholders. If additional funds are raised through the issuance of debt securities, these securities could have rights senior to those associated with our common stock and could contain covenants that would restrict our operations. Finally, our term loan agreement and revolving line of credit require compliance with certain financial and other covenants. If we are unable to maintain these financing arrangements, we may be required to reduce the scope of our planned research and development, clinical activities and selling, training, education and marketing efforts.

Seasonality

During the third quarter, we typically experience a moderate decline in revenue that we attribute primarily to the elective nature of certain procedures in which our products are used. We believe this is due to fewer people choosing to undergo elective procedures during the summer months.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The preparation of financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities, revenue and expenses and disclosures of contingent assets and liabilities at the date of the financial statements. On a periodic basis, we evaluate our estimates, including those related to sales returns and allowances, accounts receivable, inventories, intangible assets including goodwill, contingent liabilities and share-based compensation. We use authoritative pronouncements, historical experience and other assumptions as the basis for making estimates. Actual results could differ from those estimates under different assumptions or conditions. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 includes additional information about the Company, our operations, our financial position and our critical accounting policies and estimates and should be read in conjunction with this Quarterly Report on Form 10-Q.

Recent Accounting Pronouncements

See Note 2 in the Notes to the Condensed Consolidated Financial Statements for a discussion of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

As of September 30, 2017 there were no material changes to the information provided under Item 7A, "Quantitative and Qualitative Disclosures About Market Risk" in the Company's Form 10-K for the year ended December 31, 2016.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We have evaluated the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13(a)-15(e) and 15(d)-15(e) of the Securities Exchange Act of 1934 (Exchange Act), as of the end of the period covered by this report. Our management, including the President and Chief Executive Officer (the Principal Executive Officer) and Senior Vice President and Chief Financial Officer (the Principal Accounting and Financial Officer), supervised and participated in the evaluation. Based on the evaluation, we concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's forms and rules, and the material information relating to the Company is accumulated and communicated to management, including the President and Chief Executive Officer and the Senior Vice President and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Control systems, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that control objectives are met. Because of inherent limitations in all control systems, no evaluation of controls can provide assurance that all control issues and instances of fraud, if any, within a company will be detected. Additionally, controls can be circumvented by individuals, by collusion of two or more people, or by management override. Over time, controls can become inadequate because of changes in conditions or the degree of compliance may deteriorate. Further, the design of any system of controls is based in part upon assumptions about the likelihood of future events. There can be no assurance that any design will succeed in achieving its stated goals under all future conditions. Because of the inherent limitations in any cost-effective control system, misstatements due to errors or fraud may occur and not be detected.

Changes in Internal Control Over Financial Reporting

In the ordinary course of business, we routinely enhance our information systems by either upgrading current systems or implementing new ones. There were no changes in our internal control over financial reporting that occurred during the three months ended September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

Information with respect to legal proceedings can be found under the heading "Legal" in Note 7 – Commitments and Contingencies to the Condensed Consolidated Financial Statements in Part I, Item 1 of this Quarterly Report on Form 10-Q, and is incorporated herein by reference.

Item 1A. Risk Factors

In addition to the other information set forth in this report, careful consideration should be given to the factors discussed in Item 1A, "Risk Factors" in our Form 10-K for the year ended December 31, 2016, all of which could materially affect our business, financial condition or future results. The risks described herein and therein are not the only risks facing us. Additional risks and uncertainties not currently known to us, or that we currently deem to be immaterial, also may adversely affect our business, financial condition and/or operating results. There have been no material changes with respect to the risk factors disclosed in our Annual Report on Form 10-K for the year ended December 31, 2016.

Item 6. Exhibits

Exhibit No.	Description
31.1	Rule 13a-14(a) Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Rule 13a-14(a) Certification of Principal Accounting and Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification pursuant to 18 U.S.C. Section 1350 by the Principal Executive Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification pursuant to 18 U.S.C. Section 1350 by the Principal Accounting and Financial Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AtriCure, Inc.
(REGISTRANT)

Date: November 2, 2017

/s/ Michael H. Carrel

Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 2, 2017

/s/ M. Andrew Wade

M. Andrew Wade
Senior Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO
SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael H. Carrel, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AtriCure, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 2, 2017

By: /s/ Michael H. Carrel
Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL ACCOUNTING AND FINANCIAL OFFICER
PURSUANT TO
SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, M. Andrew Wade, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AtriCure, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 2, 2017

By: /s/ M. Andrew Wade
M. Andrew Wade
Senior Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

Exhibit 32.1

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the quarterly report of AtriCure, Inc. (Company) on Form 10-Q for the quarter ended September 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (Report), I, Michael H. Carrel, President and Chief Executive Officer and Principal Executive Officer of the Company, certify, pursuant to Rule 13a–14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 2, 2017

By: /s/ Michael H. Carrel
Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement has been provided to AtriCure, Inc. and will be retained by AtriCure, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report of AtriCure, Inc. (Company) on Form 10-Q for the quarter ended September 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (Report), I, M. Andrew Wade, Vice President and Chief Financial Officer and Principal Accounting and Financial Officer of the Company, certify, pursuant to Rule 13a–14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 2, 2017

By: /s/ M. Andrew Wade
M. Andrew Wade
Senior Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

A signed original of this written statement or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement has been provided to AtriCure, Inc. and will be retained by AtriCure, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document.