UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-Q		
QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SEC	– URITIES EXCHANGE ACT OF 1	1934
For the quarterly period ended June 30, 2017		
or □ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SEC	HDITIES EVOUANCE ACT OF 1	1034
.,,	URITIES EXCHANGE ACT OF	1934
For the transition period fromto Commission File Number 000-51470		
	_	
Atricure Atricure, Inc. (Exact name of Registrant as specified in its charter	·)	
	_	
Delaware (State or other juvisdiction	34-1940305 (IRS Employer	
(State or other jurisdiction of incorporation)	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 Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registration (2) has been subject to such filing requirements for the past 90 days: YES \boxtimes NO \square		
Indicate by check mark whether the registrant has submitted electronically and posted on it Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T preceding 12 months (or for such shorter period that the registrant was required to submit and posted	(§232.405 of this chapter) during th	e
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated file reporting company, or an emerging growth company. See the definitions of "large accelerated file company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.		
Large Accelerated Filer □	Accelerated Filer	\boxtimes
Non-Accelerated Filer \Box (Do not check if a smaller reporting company)	Smaller reporting company	
Emerging growth company \Box		
If an emerging growth company, indicate by check mark if the registrant has elected not to complying with any new or revised financial accounting standards provided pursuant to Section 1		r
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2	of the Exchange Act): YES \square NO \square	X
Indicate the number of shares outstanding of each of the issuer's classes of common stock,	as of the latest practicable date.	
Class	tanding at July 25, 2017	
Class Outs Common Stock, \$.001 par value	tanding at July 25, 2017 34,334,163	
Common Stocks, whose par value	J .,JJ .,1JJ	

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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)

	 June 30, 2017]	December 31, 2016
Assets			
Current assets:			
Cash and cash equivalents	\$ 21,013	\$	24,208
Short-term investments	13,965		19,801
Accounts receivable, less allowance for doubtful accounts of \$107 and \$246	23,110		21,094
Inventories	19,943		17,660
Other current assets	 3,080		2,954
Total current assets	 81,111		85,717
Property and equipment, net	29,959		29,995
Long-term investments	_		3,000
Intangible assets, net	51,447		52,131
Goodwill	105,257		105,257
Other noncurrent assets	 736		321
Total Assets	\$ 268,510	\$	276,421
Liabilities and Stockholders' Equity			
Current liabilities:			
Accounts payable	\$ 11,697	\$	10,673
Accrued liabilities	14,707		16,467
Other current liabilities and current maturities of capital leases and long-term debt	 5,291		1,688
Total current liabilities	31,695		28,828
Capital leases	13,048		13,319
Long-term debt	20,421		23,886
Other noncurrent liabilities	 41,845		41,946
Total Liabilities	107,009		107,979
Commitments and contingencies (Note 7)			
Stockholders' Equity:			
Common stock, \$0.001 par value, 90,000 shares authorized and 34,326 and 33,342 issued and			
outstanding	34		33
Additional paid-in capital	377,554		367,851
Accumulated other comprehensive loss	(47)		(468)
Accumulated deficit	(216,040)		(198,974)
Total Stockholders' Equity	161,501		168,442
Total Liabilities and Stockholders' Equity	\$ 268,510	\$	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 June 30,					Six Months Ended June 30,			
		2017	c 50,	2016	2017		c 50,	2016	
Revenue	\$	45,231	\$	39,672	\$	86,504	\$	75,612	
Cost of revenue		12,677		10,854		23,942		20,880	
Gross profit		32,554		28,818		62,562		54,732	
Operating expenses:									
Research and development expenses		8,907		9,124		18,457		17,687	
Selling, general and administrative expenses		30,002		27,432		60,102		54,202	
Total operating expenses		38,909		36,556		78,559		71,889	
Loss from operations		(6,355)		(7,738)		(15,997)		(17,157)	
Other income (expense):									
Interest expense		(564)		(477)		(1,118)		(736)	
Interest income		48		60		102		99	
Other		5		(34)		(13)		(114)	
Loss before income tax expense		(6,866)		(8,189)		(17,026)		(17,908)	
Income tax expense		17		17		40		22	
Net loss	\$	(6,883)	\$	(8,206)	\$	(17,066)	\$	(17,930)	
Basic and diluted net loss per share	\$	(0.21)	\$	(0.26)	\$	(0.53)	\$	(0.57)	
Weighted average shares outstanding—basic and diluted		32,288		31,575		32,154		31,466	
Comprehensive loss:									
Unrealized gain on investments	\$	4	\$	13	\$	6	\$	54	
Foreign currency translation adjustment		342		(219)		415		67	
Other comprehensive income (loss)		346		(206)		421		121	
Net loss		(6,883)		(8,206)		(17,066)		(17,930)	
Comprehensive loss, net of tax	\$	(6,537)	\$	(8,412)	\$	(16,645)	\$	(17,809)	

See accompanying notes to condensed consolidated financial statements.

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

	Six Months Ended June 30,			ded
		2017		2016
Cash flows from operating activities:				
Net loss	\$	(17,066)	\$	(17,930)
Adjustments to reconcile net loss to net cash used in operating activities:				
Share-based compensation expense		7,325		5,869
Depreciation		3,906		3,678
Amortization of intangible assets		684		822
Amortization of deferred financing costs		132		86
Loss on disposal of property and equipment		88		117
Realized gain from foreign exchange on intercompany transactions		(10)		(15)
Amortization/accretion on investments		59		74
Change in allowance for doubtful accounts		(134)		(49)
Changes in operating assets and liabilities:		(4 (55))		(1.005)
Accounts receivable		(1,673)		(1,897)
Inventories		(2,094)		(1,595)
Other current assets		(26) 565		(236) 131
Accounts payable Accrued liabilities				(5,673)
Other noncurrent assets and liabilities		(1,891)		(338)
		(468)		<u> </u>
Net cash used in operating activities		(10,603)		(16,956)
Cash flows from investing activities: Purchases of available-for-sale securities		(7.567)		(21.040)
Maturities of available-for-sale securities		(7,567) 16,350		(21,940) 12,404
Purchases of property and equipment				(4,341)
	<u> </u>	(3,488) 5,295	_	
Net cash provided by (used in) investing activities		5,295		(13,877)
Cash flows from financing activities: Proceeds from debt borrowings				25,000
		(241)		
Payments on capital leases Payment of debt fees		()		(218) (120)
Proceeds from stock option exercises		(50) 3,074		2,301
Shares repurchased for payment of taxes on stock awards				(1,033)
Proceeds from issuance of common stock under employee stock purchase plan		(1,901) 1,205		(1,033)
Net cash provided by financing activities		2,087		26,917
Effect of exchange rate changes on cash and cash equivalents		2,067		69
Net decrease in cash and cash equivalents		(3,195)		(3,847)
Cash and cash equivalents—beginning of period		24,208		(3,047)
	<u></u>		\$	19,917
Cash and cash equivalents—end of period	\$	21,013	Þ	19,917
Supplemental cash flow information:	r.	005	ď	F 7 7
Cash paid for interest	\$	985	\$	577
Cash paid for income taxes				_
Non-cash investing and financing activities:		702		200
Accrued purchases of property and equipment		703		306
Assets acquired through capital lease Capital lease asset early termination		_		43
Capital lease asset early termination		_		9

See accompanying 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 surgical 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. The Company 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). The Company recognizes gains and losses when these securities are sold using the specific identification method and includes them 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 \$300 and \$329 for the three months ended June 30, 2017 and 2016 and \$640 and \$625 for the six months ended June 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 markets sold 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 estimates such provision on a quarterly basis based on 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) (Unaudited)

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 inventory allowance is estimated and recorded quarterly for excess, slow moving and obsolete inventory and for specific inventory if carrying value exceeds net realizable value. An increase to the inventory reserve allowance results in a corresponding increase in cost of revenue. Write-offs are recorded when a product is disposed.

Inventories consist of the following:

	June 30,		December 31,
	2017		2016
Raw materials	\$ 5,8	12 \$	5,719
Work in process	1,7	37	1,221
Finished goods	12,3	14	10,720
Inventories	\$ 19,9	4 3 \$	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 the 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 their 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 placed with certain 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. To the extent the Company experiences changes in the usage of this equipment or introduces new technologies, the estimated useful lives of this equipment may change in a future period. Depreciation related to these generators was \$909 and \$879 for the three months ended June 30, 2017 and 2016, and \$1,825 and \$1,715 for the six months ended June 30, 2017 and 2016, and is recorded in cost of revenue in the Condensed Consolidated Statements of Operations and Comprehensive Loss. As of June 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 \$5,331 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 is 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 premarket 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.

ATRICURE, INC. AND SUBSIDIARIES NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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

Other Noncurrent Liabilities—Other noncurrent liabilities are primarily contingent consideration recorded in business combinations, long-term deferred revenues and other contractual obligations.

Other Income (Expense)—Other income (expense) consists of foreign currency transaction gains and losses. The Company recorded net foreign currency transaction gains (losses) of \$5 and \$(34) for the three months ended June 30, 2017 and 2016, and \$(13) and \$(114) for the six months ended June 30, 2017 and 2016 primarily in connection with settlements of its 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 4,349 and 4,471 stock options and restricted stock shares as of June 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.

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

	 Three Mor		Six Months Ended June 30,				
	2017		2016		2017		2016
Total accumulated other comprehensive loss at							
beginning of period	\$ (393)	\$	(284)	\$	(468)	\$	(611)
<u>Unrealized Gains on Investments</u>							
Balance at beginning of period	\$ (19)	\$	2	\$	(21)	\$	(39)
Other comprehensive income before reclassifications	4		13		6		54
Amounts reclassified from accumulated other comprehensive							
income to other income on the statement of operations and							
comprehensive loss	_		_		_		_
Balance at end of period	\$ (15)	\$	15	\$	(15)	\$	15
Foreign Currency Translation Adjustment							
Balance at beginning of period	\$ (374)	\$	(286)	\$	(447)	\$	(572)
Other comprehensive income before reclassifications	373		(229)		425		52
Amounts reclassified from accumulated other comprehensive							
income to other income/expense on the statement of operations							
and comprehensive loss	(31)		10		(10)		15
Balance at end of period	\$ (32)	\$	(505)	\$	(32)	\$	(505)
Total accumulated other comprehensive loss at end of period	\$ (47)	\$	(490)	\$	(47)	\$	(490)

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 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 six months ended June 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 for the three months ended June 30, 2017 and 2016 was \$3,697 and \$3,027, and \$7,325 and \$5,869 for the six months ended June 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 of share-based payment awards on the date of grant using an option-pricing model 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 award 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's determination of fair value is affected by the Company's stock price as well as assumptions regarding the number of shares expected to be granted.

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 and records estimated compensation

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

expense during the period based upon the fair value of the stock at the beginning of the purchase period using the Black-Scholes model. 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 June 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 a final standard on revenue from contracts with customers. The standard, issued as FASB Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers" (ASU 2014-09), outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and 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 and allow early adoption as of the original effective date. 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", and FASB ASU 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients", have been issued in 2016 to further refine the guidance in ASU 2014-09. The Company is evaluating the impact of the provisions of the revenue-related ASUs on its consolidated financial position, results of operations and related disclosures.

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.

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 June 30, 2017:

Assets:	Active Iden	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Other Unobservable Inputs (Level 3)	_	Total
Money market funds	\$	_	\$	12,074	¢	_	\$	12,074
ÿ	ψ		Φ	12,074	Φ	_	Φ	
U.S. government agencies and securities		6,992		_		_		6,992
Corporate bonds		_		1,500		_		1,500
Commercial paper		_		5,473		_		5,473
Total assets	\$	6,992	\$	19,047	\$		\$	26,039
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 six months ended June 30, 2017.

(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:

	Activ Idei	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 December 31, 2016 and currently, such arrangements relate solely to the Company's acquisition of nContact Surgical, Inc. The Company measures such liabilities using unobservable inputs, applying the 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. Acquisitionrelated 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 six months ended June 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 June 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 – June 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

(Unaudited)

4. INTANGIBLE ASSETS

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

	 June 30, 2017				Decen 20	31,	
	Accumulated Cost Amortization			Cost			Accumulated Amortization
Fusion technology	\$ 9,242	\$	3,235	\$	9,242	\$	2,773
Clamp & probe technology	829		829		829		829
SUBTLE access technology	2,179		760		2,179		538
IPR&D	44,021		_		44,021		_
Total	\$ 56,271	\$	4,824	\$	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 June 30, 2017 and 2016, and \$684 and \$822 for the six months ended June 30, 2017 and 2016.

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

2017	\$ 683 July 1, 2017 through December 31, 2017
2018	1,367
2019	1,367
2020	1,235
2021	924
2022 and thereafter	1,850
Total	\$ 7,426

5. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

	June 30, 2017]	December 31, 2016
Accrued commissions	\$ 4,113	\$	5,737
Accrued bonus	3,802		2,871
Accrued payroll and related benefits	3,578		4,326
Sales returns allowance	1,029		834
Other accrued liabilities	836		929
Accrued taxes and value-added taxes	776		1,289
Accrued royalties	573		481
Total	\$ 14,707	\$	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 June 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.

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 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. The Company is accruing the 4.0% fee over the term of the Loan Agreement. As of June 30, 2017, the Company accrued \$237 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 June 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 June 30, 2017, the cost of the leased assets, both building and computer equipment, was \$14,467 and accumulated amortization on the capital lease assets was \$1,747.

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

2017	\$ 1,914	July 1, 2017 through December 31, 2017
2018	8,610	
2019	8,629	
2020	8,645	
2021	4,071	
2022 and thereafter	14,487	
Total payments	\$ 46,356	
Imputed interest	(7,596)	
Net long-term debt and capital lease obligations, of which \$5,291 is		
current and \$33,469 is noncurrent	\$ 38,760	

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 June 30, 2017.

7. COMMITMENTS AND CONTINGENCIES

Lease Commitments. The Company leases certain office, manufacturing and warehouse facilities and equipment 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 \$602 and \$445 was recorded as part of cost of revenue for the three months ended June 30, 2017 and 2016. Royalty expense of \$1,136 and \$886 was recorded as part of cost of revenue for the six months ended June 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 June 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 has meritorious defenses against the suit and intends to vigorously defend against this claim, the ultimate resolution of the matter could result in a loss that may exceed the estimated liability recorded by the Company as of June 30, 2017.

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 June 30, 2017 and 2016 was (0.25%) and (0.20%). The effective tax rate for the six months ended June 30, 2017 and 2016 was (0.23%) and (0.12%).

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 the income tax expense line in the Condensed Consolidated Statements of Operations and Comprehensive Loss and within the related tax liability line 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 power 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 June 30, 2017, 10,249 shares of common stock had been reserved for issuance under the 2014 Plan.

Options granted under the 2014 Plan generally expire ten years from the date of grant. Options granted 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. At June 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 six months ended June 30, 2017 and 2016. This expense was allocated as follows:

		Three Mo	nths e 30,		Six Months Ended June 30,			
	2017 2016			2016		2017		2016
Cost of revenue	\$	138	\$	88	\$	269	\$	227
Research and development expenses		502		443		1,003		922
Selling, general and administrative expenses		3,057		2,496		6,053		4,720
Total	\$	3,697	\$	3,027	\$	7,325	\$	5,869

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 Mo	ded	Six Months Ended					
	 Jun		June 30,					
	 2017		2016		2017	2016		
United States	\$ 35,534	\$	30,872	\$	68,802	\$	59,144	
Europe	5,688		5,408		10,877		10,169	
Asia	3,785		3,262		6,436		5,990	
Other international	224		130		389		309	
Total international	9,697		8,800		17,702		16,468	
Total revenue	\$ 45,231	\$	39,672	\$	86,504	\$	75,612	

United States revenue by product type was as follows:

	 	Three Months Ended June 30,				Six Months Ended June 30,			
	 2017		2016	2017			2016		
Open-heart ablation	\$ 16,790	\$	14,721	\$	32,495	\$	28,689		
Minimally invasive ablation	8,725		7,990		17,007		14,715		
AtriClip	9,463		7,348		18,165		14,196		
Total ablation and AtriClip	 34,978		30,059		67,667		57,600		
Valve tools	556		813		1,135		1,544		
Total United States	\$ 35,534	\$	30,872	\$	68,802	\$	59,144		

International revenue by product type was as follows:

	Three Months Ended				Six Months Ended			
	 Jun	e 30,		June 30,				
	2017		2016	2017		2016		
Open-heart ablation	\$ 5,674	\$	5,438	\$	10,264	\$	9,910	
Minimally invasive ablation	2,135		2,186		4,093		4,350	
AtriClip	1,777		1,024		3,172		1,889	
Total ablation and AtriClip	9,586		8,648		17,529		16,149	
Valve tools	111		152		173		319	
Total international	\$ 9,697	\$	8,800	\$	17,702	\$	16,468	

The Company's long-lived assets are located primarily in the United States, except for \$870 as of June 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® SynergyTM 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 (LAA).

Cardiothoracic surgeons have adopted our radiofrequency (RF) ablation and cryoablation systems to treat Afib in over 236,000 patients since 2004, and we believe that we are currently the market leader in the surgical treatment of Afib. Our products are used by cardiothoracic surgeons during both open-heart and minimally invasive surgical procedures, either on a concomitant or standalone basis. During a concomitant procedure, the surgeon 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 physicians use 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, with the remaining international sales being made through 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

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 subjects at 27 domestic medical centers and three international medical centers. Enrollment began in 2014 and remains ongoing.

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 current standard of care. The study involves treatment arm subjects who will receive intercostal cryoanalgesia in conjunction with standard post-operative pain management and control arm subjects who will 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 subjects at 23 domestic medical centers and two international medical centers. Enrollment has been temporarily suspended since May 2016 while we evaluate changes to the trial protocol with FDA.

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 across twelve sites.

The FDA conducted an inspection in our Cincinnati, Ohio facility from August 3, 2016 through August 29, 2016. This audit resulted in the issuance of a Form FDA 483, Inspectional Observations, which outlined certain nonconformance items within our Medical Device Reporting (MDR) and risk mitigation processes as observed by the FDA inspector. We responded to the observations and have taken corrective actions where appropriate. We take these matters seriously, and we will respond timely and fully to any additional FDA requests. We believe that FDA's concerns will be resolved without a material impact on our financial results.

Net loss

Results of Operations

Three months ended June 30, 2017 compared to three months ended June 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 June 30 2016 2017 % of % of Revenues Amount Revenues Amount 100.0 % 39,672 45,231 100.0 % Revenue 28.0 % 27.4 % Cost of revenue 12,677 10,854 32,554 72.0 % 28,818 72.6 % Gross profit Operating expenses: Research and development expenses 8,907 19.7 % 9,124 23.0 % 30,002 69.1 % Selling, general and administrative expenses 66.3 % 27,432 Total operating expenses 38,909 86.0 % 36,556 92.1 % Loss from operations (6,355)(14.1)%(7,738)(19.5)%Other income (expense): (1.2)% (477)(1.2)%Interest expense (564)Interest income 48 0.1 % 60 0.2 % Other 5 0.0 % (34)(0.1)%Total other expense (511)(1.1)%(451)(1.1)%Loss before income tax expense (6,866)(15.2)% (8,189)(20.6) % Income tax expense 0.0 % 17 0.0 % 17 (6,883)(15.2)% (8,206)(20.7) %

Revenue. Total revenue increased 14.0% (14.3% on a constant currency basis). Revenue from sales to customers in the United States increased \$4,662, or 15.1%, and revenue from sales to international customers increased \$897, or 10.2% (11.6% 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 ablationrelated open-heart products increased \$2,069, primarily due to growth in our cryo products line, including the cryoFORM® product which launched in the second quarter of 2016. Sales of ablation-related minimally invasive (MIS) products increased \$735, influenced solely by our EPi-Sense product line. Sales of the AtriClip system increased \$2,115 due to both pricing increases and the positive impact of the AtriClip PRO2TM device, which launched in the second quarter of 2016. The increase in international revenue was primarily due to increased sales in Asia, France, Italy and the Benelux region, balancing slight decreases in Germany 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 \$1,823 and gross margin decreased 0.6% from 72.6% in 2016 to 72.0% in 2017. The overall decrease in gross margin was driven by product mix. Products sold in 2017 included a higher volume of capital equipment sales than 2016. Additionally, sales to key distributors in international markets in 2017 increased over 2016.

Research and development expenses. Research and development expenses decreased \$217, or 2.4%. The decrease in expense was primarily due to a \$346 decrease in product development project expenses and a \$285 decrease in clinical trial spending largely driven by the suspension of the DEEP AF pivotal trial, offset by increases of \$237 in product development, regulatory and clinical personnel expense and \$100 in compliance-related consulting expenses, along with a slight increase in various operating costs.

Selling, general and administrative expenses. Selling, general and administrative expenses increased \$2,570, or 9.4%. The increase was primarily due to a \$1,613 increase in personnel and related expenses, such as travel costs, a \$316 increase in professional education and tradeshow expenses and a \$561 increase in share-based compensation expense.

Net interest expense. Net interest expense for the three months ended June 30, 2017 and 2016 was \$516 and \$417. 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. 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.

Six months ended June 30, 2017 compared to six months ended June 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:

	 Six Months Ended June 30,							
	 201	6						
	 Amount	% of Revenues		Amount	% of Revenues			
Revenue	\$ 86,504	100.0 %	\$	75,612	100.0 %			
Cost of revenue	23,942	27.7 %		20,880	27.6 %			
Gross profit	62,562	72.3 %		54,732	72.4 %			
Operating expenses:								
Research and development expenses	18,457	21.3 %		17,687	23.4 %			
Selling, general and administrative expenses	60,102	69.5 %		54,202	71.7 %			
Total operating expenses	78,559	90.8 %		71,889	95.1 %			
Loss from operations	(15,997)	(18.5) %		(17,157)	(22.7)%			
Other income (expense):								
Interest expense	(1,118)	(1.3) %		(736)	(1.0)%			
Interest income	102	0.1 %		99	0.1 %			
Other	(13)	(0.0) %		(114)	(0.1)%			
Total other (expense) income	(1,029)	(1.2) %		(751)	(1.0)%			
Loss before income tax expense	(17,026)	(19.7) %		(17,908)	(23.7)%			
Income tax expense	40	0.0 %		22	0.0 %			
Net loss	\$ (17,066)	(19.7) %	\$	(17,930)	(23.7)%			

Revenue. Total revenue increased 14.4% (14.8% on a constant currency basis). Revenue from sales to customers in the United States increased \$9,658, or 16.3%, and revenue from sales to international customers increased \$1,234, or 7.5% (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 \$3,806, 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 \$2,292, 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 \$3,969 due to both pricing and increased volume. AtriClip system revenues also reflect the positive impact of the AtriClip PRO2TM device, which launched in the second quarter of 2016. The increase in international revenue was primarily due to increased sales in Asia, France, Turkey, Austria and the Benelux region, while certain key European markets (Germany and the United Kingdom) were flat to slightly down 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 \$3,062 and gross margin decreased 0.1%, from 72.4% in 2016 to 72.3% in 2017. While 2017 includes heavier capital equipment sales, an increase in volume with distributors in international markets and increased loaner generator depreciation, such factors are offset by favorable product mix and increased sales to customers in the United States.

Research and development expenses. Research and development expenses increased \$770, or 4.4%. The increase in expense was primarily due to a \$539 increase in product development, regulatory and clinical personnel expense, as well as compliance related consulting expenses which increased \$628. These increased costs were partially offset by a \$138 decrease in amortization expense, a \$61 decrease in product development project expense, as well as reductions in various operating costs.

Selling, general and administrative expenses. Selling, general and administrative expenses increased \$5,900, or 10.9%. The increase was primarily due to a \$3,963 increase in personnel and related expenses, such as travel costs, a \$706 increase in professional

education expenses and a \$1,333 increase in share-based compensation expense. Reductions in operating expenses and professional services slightly offset these increases.

Net interest expense. Net interest expense for the six months ended June 30, 2017 and 2016 was \$1,016 and \$637. 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 June 30, 2017 the Company had cash, cash equivalents and investments of \$34,978 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 \$49,416 and an accumulated deficit of \$216,040 as of June 30, 2017.

Cash flows used in operating activities. Net cash used in operating activities for the six months ended June 30, 2017 was \$10,603. The primary net uses of cash for operating activities were as follows:

- the net loss of \$17,066, offset by \$12,050 of non-cash expenses, including \$7,325 in share-based compensation and \$4,590 in depreciation and amortization; and
- a net decrease in cash used related to changes in operating assets and liabilities of \$5,587, due primarily to the following:
 - an increase in accounts receivable of \$1,673 due to increasing sales;
 - an increase in inventory of \$2,094, due primarily to additional products in inventory (AtriClip PRO2™ and cryoFORM) as well as increased inventory levels in support of anticipated revenue growth; and
 - a \$1,326 decrease 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 \$5,295 for the six months ended June 30, 2017. The primary source of cash from investing activities was \$16,350 related to maturities of available-for-sale securities. This source of cash was offset by \$3,488 related to the purchase of property and equipment, which included the placement of our RF and cryo generators with our customers, and \$7,567 related to the purchase of available-for-sale securities.

Cash flows provided by financing activities. Net cash provided by financing activities during the six months ended June 30, 2017 was \$2,087, which was primarily due to proceeds from stock option exercises of \$3,074 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 \$1,901 and capital lease payments of \$241.

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 June 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 June 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 June 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.

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 June 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 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 June 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.

Table of Contents 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: July 28, 2017	/s/ Michael H. Carrel Michael H. Carrel President and Chief Executive Officer
	(Principal Executive Officer)
Date: July 28, 2017	/s/ M. Andrew Wade
	M. Andrew Wade Senior Vice President and Chief Financial Officer (Principal Accounting and Financial Officer)
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EXHIBIT INDEX

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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;
 - 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;
 - 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: July 28, 2017

/s/ Michael H. Carrel

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

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:
 - 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;
 - 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;
 - 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: July 28, 2017

By: /s/ M. Andrew Wade

M. Andrew Wade

Senior Vice President and Chief Financial Officer (Principal Accounting and Financial Officer)

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 June 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:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and 1.
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: July 28, 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.

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 June 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: July 28, 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.