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

FORM 10-Q

(Mark One)

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

For the quarterly period ended December 31, 2018

or

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

For the transition period from ____________ to ____________

Commission File Number: **001-38029**

AKOUSTIS TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)

Delaware	**33-1229046**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

9805 Northcross Center Court, Suite A
Huntersville, North Carolina 28078
(Address of principal executive offices) (Zip Code)

704-997-5735
(Registrant's telephone number, including area code)

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

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

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

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

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☒
		Emerging growth company	☒

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

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

As of January 28, 2019, there were 29,913,203 shares of the registrant's common stock, $0.001 par value per share, issued and outstanding.

AKOUSTIS TECHNOLOGIES, INC.
FORM 10-Q
FOR THE QUARTERLY PERIOD ENDED DECEMBER 31, 2018

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS.

Akoustis Technologies, Inc.
Condensed Consolidated Balance Sheets

	December 31, 2018 (Unaudited)	June 30, 2018
Assets		
Assets:		
Cash and cash equivalents	$ 42,083,681	$ 14,816,717
Accounts receivable	312,623	214,659
Inventory	106,847	57,556
Prepaid expenses	337,233	305,942
Other current assets	582,277	484,173
Total current assets	43,422,661	15,879,047
Property and equipment, net	13,382,557	12,820,169
Intangibles, net	320,518	264,295
Assets held for sale, net	300,000	333,250
Other assets	136,156	11,155
Total Assets	**$ 57,561,892**	**$ 29,307,916**
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable and accrued expenses	$ 2,543,745	$ 2,593,432
Deferred revenue	41,558	52,938
Total current liabilities	2,585,303	2,646,370
Long-term Liabilities:		
Contingent real estate liability	1,330,411	1,229,966
Convertible notes payable, net	16,965,200	11,464,632
Other long-term liabilities	129,586	117,086
Total long-term liabilities	18,425,197	12,811,684
Total Liabilities	21,010,500	15,458,054
Stockholders' Equity		
Preferred Stock, par value $0.001: 5,000,000 shares authorized; none issued and outstanding	—	—
Common stock, $0.001 par value; 45,000,000 shares authorized; 29,910,453 and 22,203,437 shares issued and outstanding at December 31, 2018 and June 30, 2018, respectively	29,910	22,203
Additional paid in capital	88,800,774	52,074,343
Accumulated deficit	(52,279,292)	(38,246,684)
Total Stockholders' Equity	36,551,392	13,849,862
Total Liabilities and Stockholders' Equity	**$ 57,561,892**	**$ 29,307,916**

See accompanying notes to the condensed consolidated financial statements

Akoustis Technologies, Inc.
Condensed Consolidated Statements of Operations
(unaudited)

	For the Three Months Ended December 31, 2018	For the Three Months Ended December 31, 2017	For the Six Months Ended December 31, 2018	For the Six Months Ended December 31, 2017
Revenue				
Revenue with customers	$ 323,276	$ 297,321	$ 526,825	$ 598,261
Grant revenue	—	147,232	109,472	147,232
Total revenue	323,276	444,553	636,297	745,493
Cost of revenue	369,946	329,836	513,790	523,065
Gross profit	(46,670)	114,717	122,507	222,428
Operating expenses				
Research and development	4,522,247	3,473,031	8,928,429	6,477,396
General and administrative expenses	1,785,758	2,189,904	4,245,298	4,022,526
Total operating expenses	**6,308,005**	**5,662,935**	**13,173,727**	**10,499,922**
Loss from operations	**(6,354,675)**	**(5,548,218)**	**(13,051,220)**	**(10,277,494)**
Other (expense) income				
Interest (expense) income	(743,799)	263	(1,225,401)	997
Rental income	68,670	86,844	137,341	172,188
Change in fair value of contingent real estate liability	(53,521)	(79,305)	(100,445)	(79,305)
Change in fair value of derivative liabilities	338,000	—	186,701	—
Total other (expense) income	**(390,650)**	**7,802**	**(1,001,804)**	**93,880**
Net loss	**$ (6,745,325)**	**$ (5,540,416)**	**$ (14,053,024)**	**$ (10,183,614)**
Net loss per common share - basic and diluted	$ (0.24)	$ (0.27)	$ (0.56)	$ (0.52)
Weighted average common shares outstanding - basic and diluted	27,853,225	20,167,681	25,045,913	19,667,770

See accompanying notes to the condensed consolidated financial statements

Akoustis Technologies, Inc.
Condensed Consolidated Statements of Cash Flows
(unaudited)

	For the Six Months Ended December 31, 2018	For the Six Months Ended December 31, 2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (14,053,024)	$ (10,183,614)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,187,319	478,495
Share-based compensation	3,266,679	2,076,829
Amortization of debt discount	770,835	—
Change in fair value of derivative liabilities	(186,701)	—
Change in fair value of contingent real estate liability	100,445	79,305
Changes in operating assets and liabilities:		
Accounts receivable	(97,964)	(298,797)
Inventory	(49,291)	113,497
Prepaid expenses	(31,291)	(23,850)
Other current asset	(60,552)	259
Other assets	(125,001)	(22,146)
Accounts payable and accrued expenses	737,246	982,729
Change in other long-term liabilities	12,500	—
Deferred revenue	(28,516)	62,947
Net Cash Used In Operating Activities	(8,557,316)	(6,734,346)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Cash paid for machinery and equipment	(1,749,249)	(4,471,121)
Cash received from sale of assets held for sale	33,250	—
Cash paid for intangibles	(56,681)	(33,250)
Net Cash Used In Investing Activities	(1,772,680)	(4,504,371)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from the issuance of common stock	28,659,168	13,258,063
Proceeds from exercise of warrants	70,520	47,665
Proceeds received from convertible notes, net	8,867,272	—
Net Cash Provided By Financing Activities	37,596,960	13,305,728
Net Increase (Decrease) in Cash	27,266,964	2,067,011
Cash - Beginning of Period	14,816,717	9,631,520
Cash - End of Period	$ 42,083,681	$ 11,698,531
SUPPLEMENTARY CASH FLOW INFORMATION:		
Cash Paid During the Period for:		
Income taxes	$ —	$ —
Interest	$ —	$ 199
SUPPLEMENTARY DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Accrued interest paid in common shares	$ 533,539	$ —
ASC 606 transition adjustment	20,416	—
Warrants issued for stock issuance costs	—	645,757
Convertible Notes – Beneficial Conversion Feature	3,950,839	—
Accrued capital expenditures	—	428,691

See accompanying notes to the condensed consolidated financial statements

Note 1. Organization

Akoustis Technologies, Inc. ("the Company") was incorporated under the laws of the State of Nevada on April 10, 2013. Effective December 15, 2016, the Company changed its state of incorporation from the State of Nevada to the State of Delaware. Through its subsidiary, Akoustis, Inc. (a Delaware corporation), the Company, headquartered in Huntersville, North Carolina, is focused on developing, designing, and manufacturing innovative radio frequency ("RF") filter products for the wireless industry, including for products such as smartphones and tablets, cellular infrastructure equipment, and WiFi Customer Premise Equipment ("CPE"), and, military and defense communication applications. Located between the device's antenna and its digital backend, the RF front-end ("RFFE") is the circuitry that performs the analog signal processing and contains components such as amplifiers, filters and switches. To construct the resonator devices that are the building blocks for its RF filters, the Company has developed a family of novel, high purity acoustic piezoelectric materials as well as a unique MEMS wafer process, collectively referred to as XBAW™ technology. The Company leverages its internal designs and manufacturing (IDM) business model to develop and sell high performance RF filters using its XBAW^{TM} technology. Filters are critical in selecting and rejecting signals, and their performance enables differentiation in the modules defining the RFFE.

Note 2. Liquidity

At December 31, 2018, the Company had cash and cash equivalents of $42.1 million and working capital of $40.8 million. The Company has historically incurred recurring operating losses, and has experienced net cash used in operating activities of $8.6 million for the six months ended December 31, 2018 which raise substantial doubt about the Company's ability to continue as a going concern within one year after the issuance date. However, as of January 28, 2019, the Company had $40.7 million of cash and cash equivalents which alleviated any substantial doubt about the Company's ability to continue as a going concern. These funds will be used to fund the Company's operations, including capital expenditures, R&D, commercialization of our technology, development of our patent strategy and expansion of our patent portfolio, as well as to provide working capital and funds for other general corporate purposes. These funds are expected to be sufficient to fund our operations beyond the next twelve months from the date of filing of this Form 10-Q.

Note 3. Summary of Significant Accounting Policies

Basis of Presentation

The Company's unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information and the instructions to Form 10-Q. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP. In the opinion of management, all adjustments (consisting of normal accruals) considered necessary for a fair presentation have been included. The Company has evaluated subsequent events through the filing of this Form 10-Q. Operating results for the quarter ended December 31, 2018 are not necessarily indicative of the results that may be expected for the year ending June 30, 2019 or any future interim period. The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements and notes thereto included in the Company's Form 10-K filed with the SEC on August 29, 2018 (the "2018 Annual Report").

Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, Akoustis, Inc. On February 22, 2018, Akoustis Manufacturing New York, Inc. was merged into Akoustis, Inc., with Akoustis, Inc. as the surviving entity. All significant intercompany accounts and transactions have been eliminated in consolidation.

Significant Accounting Policies and Estimates

The Company's significant accounting policies are disclosed in Note 3-Summary of Significant Accounting Policies in the 2018 Annual Report. Since the date of the 2018 Annual Report, other than adopting ASC 606 "Revenue From Contracts With Customers" discussed in the footnote below, there have been no material changes to the Company's significant accounting policies. The preparation of the unaudited condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the unaudited condensed consolidated financial statements and the accompanying notes thereto. The policies, estimates and assumptions include valuing equity securities and derivative financial instruments issued in financing transactions, deferred taxes and related valuation allowances, revenue recognition, contingent real estate liability and the fair values of long-lived assets. Actual results could differ from the estimates.

Revenue Recognition from Contracts with Customers

Effective as of July 1, 2018, the Company adopted Accounting Standards Codification ("ASC") Topic 606, "Revenue from Contracts with Customers" ("ASC 606"). The core principle of ASC 606 requires that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. ASC 606 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under existing accounting principles generally accepted in the U.S. GAAP including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation.

The Company adopted this guidance and related amendments as of the first quarter of fiscal 2019, applying the modified retrospective transition method. The Company has determined that there was a $20,416 adjustment needed to retained earnings due to the application of the standard on contracts not completed at the date of initial application.

To achieve this core principle, the Company applies the following five steps:

Step l - Identify the Contract with the Customer - A contract exists when (a) the parties to the contract have approved the contract and are committed to perform their respective obligations, (b) the entity can identify each party's rights regarding the goods or services to be transferred, (c) the entity can identify the payment terms for the goods or services to be transferred, (d) the contract has commercial substance and (e) it is probable that the entity will collect substantially all of the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer.

Step 2 - Identify Performance Obligations in the Contract - Upon execution of a contract, the Company identifies as performance obligations each promise to transfer to the customer either (a) goods or services that are distinct or (b) a series of distinct goods or services that are substantially the same and have the same pattern of transfer to the customer. To the extent a contract includes multiple promised goods or services, the Company must apply judgement to determine whether the goods or services are capable of being distinct within the context of the contract. If these criteria are not met, the goods or services are accounted for as a combined performance obligation. The Company considers the performance obligation in a product sale to be title transfer of the specified product to the customer. The transfer of title occurs according to the purchase order (contract) specification. The Company considers performance obligations related to foundry fabrication services to be title transfer of the specified product or prototype to the customer. The transfer of title occurs according to the purchase order (contract) specification. In the absence of title transfer language, transfer occurs at the time of shipment.

Step 3 - Determine the Transaction Price - The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring products or services to the customer. Generally, all contracts include fixed consideration. If a contract did include variable consideration, the Company would determine the amount of variable consideration that should be included in the transaction price based on the expected value method. Variable consideration would be included in the transaction price, if in the Company's judgement, it is probable that a significant future reversal of cumulative revenue under the contract would not occur.

Step 4 - Allocate the Transaction Price - After the transaction price has been determined, the next step is to allocate the transaction price to each performance obligation in the contract. If the contract only has one performance obligation, the entire transaction price will be applied to that obligation. If the contract has multiple performance obligations, the transaction price is allocated to the performance obligations based on the relative standalone selling price (SSP) at contract inception.

Step 5 - Satisfaction of the Performance Obligations (and Recognition of Revenue) - When an asset is transferred, and the customer obtains control of the asset (or the services are rendered), the Company recognizes revenue. At contract inception, the Company determines if each performance obligation is satisfied at a point in time or over time. The Company will recognize sales of its product in the period that title of the product is transferred to the customer. The Company will evaluate foundry fabrication services contracts on a case by case basis as they vary with regards to enforceable right and alternative use. If an unrestricted, enforceable right and no alternative use exists, the Company will recognize revenue over time utilizing the input method which the Company considers to be the best method of measuring progress toward complete satisfaction of the performance obligation. However, if either of these does not exist, the Company will recognize revenue at a point in time based on title transfer of the final prototype or specified product.

Disaggregation of Revenue

The Company's primary revenue streams include foundry fabrication services and product sales.

Foundry Fabrication Services

Foundry fabrication services revenue includes microelectromechanical systems ("MEMS") foundry services and Non-Recurring Engineering ("NRE"). Under these contracts, products are delivered to the customer at the completion of the service which represents satisfaction of the performance obligation. Depending on language with regards to enforceable right to payment for performance completed to date, related revenue will either be recognized over time or at a point in time.

Product Sales

Product sales revenue consists of sales of RF filters and amps which are sold with contract terms stating that title passes, and the customer takes control at the time of shipment. Revenue is then recognized when the devices are shipped, and the performance obligation has been satisfied. If devices are sold under contract terms that specify that the customer does not take ownership until the goods are received, revenue is recognized when the customer receives the goods.

The following table summarizes the revenues of the Company's reportable segments for the three months ended December 31, 2018:

	Foundry Services Revenue	RF Product Revenue	Total Revenue with Customers
MEMS	$ 26,803	$ —	$ 26,803
NRE - RF Filters	232,967	—	232,967
Filters/Amps	—	63,506	63,506
Total	$ 259,770	$ 63,506	$ 323,276

The following table summarizes the revenues of the Company's reportable segments for the six months ended December 31, 2018:

	Foundry Services Revenue	RF Product Revenue	Total Revenue with Customers
MEMS	$ 144,410	$ —	$ 144,410
NRE – RF Filters	263,442	—	263,442
Filters/Amps	—	118,973	118,973
Total	$ 407,852	$ 118,973	$ 526,825

Performance Obligations

The Company has determined that contracts for product sales revenue and foundry fabrication services revenue involve one performance obligation, which is delivery of the final product.

Contract Balances

The Company records a receivable when the title for goods has transferred. Generally, all sales are contract sales (with either an underlying contract or purchase order), resulting in all receivables being contract receivables. When invoicing occurs prior to revenue recognition a contract liability is recorded (as deferred revenue on the Condensed Consolidated Balance Sheet).

The following table summarizes the changes in revenue recognition for the six months ended December 31, 2018:

	Deferred Revenue
Balance, June 30, 2018	$ 52,938
Revenue recognized from prior year	(52,938)
Year to date invoicing in excess of revenue recognition	41,558
Balance, December 31, 2018	$ 41,558

Additionally, when revenue recognition occurs prior to invoicing, a contract asset is recognized.

The following table summarizes the changes in contract assets for the six months ended December 31, 2018:

	Contract assets
Balance, June 30, 2018	$ 6,612
YTD revenue recognition in excess of billings	25,348
Balance, December 31, 2018	$ 31,960

Backlog of Remaining Customer Performance Obligations

Revenue expected to be recognized and recorded as sales during this fiscal year from the backlog of performance obligations that are unsatisfied (or partially unsatisfied) was $0.2 million at December 31, 2018.

Grant Revenue

From time to time the Company applies for the grants from various government bodies (state & federal), such as the National Science Foundation ("NSF"), to support research and development. In addition, the Company is eligible for "matching awards" from state boards to provide additional funds to the Company to supplement the funds awarded under the federal grant program. The Company records grant revenue as a part of revenue from operations due to the fact that grant revenue is viewed as an ongoing function of its intended operations. The revenue from grants is not viewed as "incidental" or "peripheral" which would result in the presentation of grant revenue as "Other income". The Company recognizes nonrefundable grant revenue when the performance obligations have been met, application has been submitted and approval is reasonably assured.

Loss Per Share

Basic net loss per common share is computed by dividing net loss attributable to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted net loss per common share is determined using the weighted-average number of common shares outstanding during the period, adjusted for the dilutive effect of common stock equivalents. In periods when losses are reported, which is the case for the three and six months ended December 31, 2018 and 2017 presented in these condensed consolidated financial statements, the weighted-average number of common shares outstanding excludes common stock equivalents because their inclusion would be anti-dilutive.

The Company had the following common stock equivalents at December 31, 2018 and 2017:

	December 31, 2018	December 31, 2017
Convertible Notes	4,960,800	—
Options	2,087,064	1,166,859
Warrants	728,493	756,809
Total	7,776,357	1,923,668

Shares Outstanding

Shares outstanding include shares of restricted stock with respect to which restrictions have not lapsed. Restricted stock included in reportable shares outstanding was 357,406 shares and 1,023,506 as of December 31, 2018 and 2017, respectively. Shares of restricted stock are included in the calculation of weighted average shares outstanding.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, and in May 2016, the FASB issued ASU No. 2016-12, *Revenue from Contracts with Customers (Topic 606)—Narrow-Scope Improvements and Practical Expedients* . These standards and their effect on the Company's consolidated financial statements and related disclosures are discussed above under "Revenue Recognition."

In February 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-02, " *Leases*" *(Topic 842)*. The FASB issued this update to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The updated guidance is effective for annual periods beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption of the update is permitted, and entities may also elect the optional transition method provided under ASU 2018-11, *Leases, Topic 842: Targeted Improvement,* issued in July 2018, allowing for application of the standard at the adoption date, with recognition of a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The Company does not expect the new standard will have a material effect on the consolidated financial statements and related disclosures

In July 2017, the FASB issued ASU 2017-11, "*Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception"*. Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, Distinguishing Liabilities from Equity, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable noncontrolling interests. The amendments in Part II of this update do not have an accounting effect. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. The Company elected to early adopt ASU 2017-11 in May 2018, in the recording of the $15.0 million convertible notes.

In June 2018, the FASB issued Accounting Standards Update (ASU) No. 2018-07, *Compensation – Stock Compensation (Topic718): Improvements to Nonemployee Share-Based Payment Accounting*. Under the new standard, companies will no longer be required to value non-employee awards differently from employee awards. Companies will value all equity classified awards at their grant-date under ASC 718 and forgo revaluing the award after the grant date. ASU 2018-07 is effective for annual reporting periods beginning after December 15, 2018, including interim reporting periods within that reporting period. Early adoption is permitted, but no earlier than the Company's adoption date of Topic 606, *Revenue from Contracts with Customers* (as described above under "Revenue Recognition"). The Company does not believe the new standard will have a significant impact on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement". This update is to improve the effectiveness of disclosures in the notes to the financial statements by facilitating clear communication of the information required by U.S. GAAP that is most important to users of each entity's financial statements. The amendments in this update apply to all entities that are required, under existing U.S. GAAP, to make disclosures about recurring or nonrecurring fair value measurements. The amendments in this update are effective for all entities for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. The Company is currently evaluating this guidance and the impact of this update on its consolidated financial statements.

Management does not believe that any other recently issued, but not yet effective accounting pronouncements, when adopted, will have a material effect on the accompanying condensed consolidated financial statements.

Note 4. Property and Equipment

Property and equipment consisted of the following as of December 31, 2018 and June 30, 2018:

	Estimated Useful Life	December 31, 2018	June 30, 2018
Land	n/a	$ 1,000,000	$ 1,000,000
Building	11 years	3,000,000	3,000,000
Equipment	2-10 years	10,383,556	9,126,755
Other	*	1,550,302	1,057,854
		15,933,858	14,184,609
Less: Accumulated depreciation		(2,551,301)	(1,364,440)
Total		**$ 13,382,557**	**$ 12,820,169**

(*) Useful lives vary from 3-10 years, as well as leasehold improvements which are amortized on a straight-line basis over the term of the lease or the estimated useful lives, whichever is shorter.

The Company recorded depreciation expense of $608,677 and $237,109 for the three months ended December 31, 2018 and 2017, respectively.

The Company recorded depreciation expense of $1,186,861 and $470,419 for the six months ended December 31, 2018 and 2017, respectively.

Note 5. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consisted of the following at December 31, 2018 and June 30, 2018:

	December 31, 2018	June 30, 2018
Accounts payable	$ 844,796	$ 139,152
Accrued salaries and benefits	301,651	505,463
Accrued bonuses	641,803	750,442
Accrued stock-based compensation	142,144	395,539
Accrued professional fees	153,525	293,024
Accrued utilities	119,266	103,277
Accrued interest	204,028	127,292
Accrued goods received not invoiced	86,654	160,199
Other accrued expenses	49,878	119,044
Totals	**$ 2,543,745**	**$ 2,593,432**

Note 6. Derivative Liabilities

The Company's 6.5% Convertible Senior Secured Notes due 2023 issued in May 2018 contain certain derivative features, as described in Note 7 - Convertible Notes. The table below provides a summary of the changes in fair value, including net transfers in and/or out, of all financial assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the six months ended December 31, 2018:

	Fair Value Measurement Using Level 3 Inputs Total
Balance, July 1, 2018	$ 1,104,701
Change in fair value of derivative liabilities	(186,701)
Balance, December 31, 2018	$ 918,000

The fair value of the derivative features of the convertible note at the balance sheet dates were calculated using the with-and-without method, a form of the income approach, valued with the following weighted average assumptions:

	December 31, 2018	June 30, 2018
Risk free interest rate	2.50%	2.73%
Dividend yield	0.00%	0.00%
Expected volatility	46.0%	42.0%
Remaining term (years)	4.41	4.92

Risk-free interest rate: The Company uses the risk-free interest rate of a U.S. Treasury Bill with a similar term on the date of the issuance.

Dividend yield: The Company uses a 0% expected dividend yield as the Company has not paid dividends to date and does not anticipate declaring dividends in the near future.

Volatility: The Company estimated the expected volatility of the stock price based on the corresponding volatility of the Company's peer group stock price for a period consistent with the convertible notes' expected term.

Remaining term: The Company's remaining term is based on the remaining contractual term of the convertible notes.

The Company's 6.5% Convertible Senior Notes due 2023 issued in October 2018 contain certain derivative features, as described in Note 7 - Convertible Notes; however, as of December 31, 2018 the fair value of these components recorded as a debt discount was $0.

Note 7. Convertible Notes

Convertible Notes Issued October 2018

On October 23, 2018 the Company completed the offering of $10.0 million principal amount of the Company's 6.5% Convertible Senior Notes due 2023. The notes are unsecured and rank pari passu with the Company's outstanding unsubordinated liabilities. The net proceeds of the offering after payment of offering costs were approximately $8.9 million. The notes will mature on November 30, 2023, unless earlier converted, redeemed or repurchased. Interest on the notes accrues at the rate of 6.5% per year and is payable in cash on each February 28, May 31, August 31 and November 30, beginning February 28, 2019. The notes are convertible into common stock at the option of the holder at any time prior to maturity at an initial conversion price of $5.10 per share, subject to adjustment under certain circumstances.

The Company analyzed the components of the convertible notes for embedded derivatives and the application of the corresponding accounting treatment. This analysis determined that certain features of the notes represented derivatives that require bifurcation from the host contract. The fair value of these components of $0 was recorded as a debt discount and will be adjusted to fair value at the end of each future reporting period.

As a result of the Company issuing new shares of Common Stock for a price to the public of $4.25 per share, the Company adjusted the conversion price of the convertible notes issued on May 14, 2018 from $6.55 per share to $5.00 per share pursuant to the terms of the Indenture. As a result of this adjustment, the associated beneficial conversion feature was increased by $3,950,839 and recorded as a debt discount with a corresponding credit to additional paid in capital.

The following table summarizes convertible debt as of December 31, 2018:

	Maturity Date	State Interest Rate	Conversion Price	Face Value	Remaining Debt (Discount)	Fair Value of Embedded Conversion Option	Carrying Value
Long Term convertible notes payable							
6.5% convertible senior secured notes	5/31/2023	6.50%	$ 5.00	$15,000,000	$ (7,876,770)	$ 909,000	$ 8,032,230
6.5% convertible senior notes	11/30/2023	6.50%	$ 5.10	$10,000,000	$ (1,076,030)	$ —	$ 8,923,970
Ending Balance as of December 31, 2018				**$25,000,000**	**$ (8,952,800)**	**$ 909,000**	**$16,956,200**

Note 8. Concentrations

Vendors

Vendor concentration for three and six months ended December 31, 2018 are as follows:

	Six Months 12/31/2018	Six Months 12/31/2017	Three Months 12/31/2018	Three Months 12/31/2017
Vendor 1	10%	—	11%	—
Vendor 2	—	—	10%	—

Customers

Customer concentration for three and six months ended December 31, 2018 are as follows:

	Six Months 12/31/2018	Six Months 12/31/2017	Three Months 12/31/2018	Three Months 12/31/2017
Customer 1	21%	61%	35%	66%
Customer 2	21%	13%	23%	15%
Customer 3	19%	13%	15%	14%
Customer 4	14%	—	12%	—

Note 9. Stockholders' Equity

Underwritten Public Offering of Common Stock

During the quarter ended December 31, 2018, the Company sold a total of 7,250,000 shares of its common stock at a price to the public of $4.25 per share for aggregate gross proceeds of $30.8 million before deducting the underwriting discount and offering expenses payable by the Company of approximately $2.1 million. The Company expects to use the proceeds of the offering to fund the Company's operations and growth of its business, including for capital expenditures, working capital, research and development, the commercialization of its technology and other general corporate purposes.

During the quarter ended December 31, 2018, the Company also issued 112,365 shares of its common stock to investors in the Company's private placement that closed in May 2017. These issuances were made pursuant to the price-protection provisions granted to such investors in their subscription agreements.

Equity incentive plans

During the six months ended December 31, 2018, the Company granted employees and directors options to purchase an aggregate of 836,955 shares of common stock with a weighted average grant date fair value of $2.68. The fair values of the Company's options were estimated at the dates of grant using a Black-Scholes option pricing model with the following weighted average assumptions:

	Six Months Ended December 31, 2018
Exercise price	$3.78 – $8.18
Expected term (years)	4.00 – 7.00
Risk-free interest rate	2.62 – 3.01%
Volatility	66 – 69%
Dividend yield	0%
Weighted Average Grant Date Fair Value of Options granted during the period	$2.68

Expected term: The Company's expected term is based on the period the options are expected to remain outstanding. The Company estimated this amount utilizing the "Simplified Method" in that the Company does not have sufficient historical experience to provide a reasonable basis to estimate an expected term.

Risk-free interest rate: The Company uses the risk-free interest rate of a U.S. Treasury Note with a similar term on the date of the grant.

Volatility: The Company calculates the expected volatility of the stock price using the historical volatilities of the Company's common stock traded on the Nasdaq Capital Market.

Dividend yield: The Company uses a 0% expected dividend yield as the Company has not paid dividends to date and does not anticipate declaring dividends in the near future.

During the six months ended December 31, 2018 the Company awarded certain employees and contractors grants of an aggregate of 494,880 restricted stock units ("RSUs") with a weighted average grant date fair value of $5.95. The RSUs will be expensed over the requisite service period. The terms of the RSUs include vesting provisions based solely on continued service. If the service criteria are satisfied, the RSUs will generally vest over 4 years.

During the six months ended December 31, 2018 the Company granted 119,500 performance-based restricted stock units ("PBRSU") to employees with a weighted average grant date fair value per share of $8.30. The PBRSU awards contain performance and service conditions which must be satisfied for an employee to earn the award.

Any portion of grants awarded to consultants and other service providers as to which the repurchase option for restricted stock awards has not lapsed or for which an option or restricted stock unit has not vested is accrued on the Condensed Consolidated Balance Sheet as a component of accounts payable and accrued expenses. As of December 31, 2018, and June 30, 2018, the accrued stock-based compensation was $142,144 and $395,539, respectively.

Compensation expense related to our stock-based awards described above was as follows:

	Three Months Ended December 31,	
	2018	**2017**
Share based compensation expense	$ 1,168,367	$ 1,478,951

	Six Months Ended December 31,	
	2018	**2017**
Share based compensation expense	$ 3,266,679	$ 2,076,831

Unrecognized stock-based compensation expense and weighted-average years to be recognized are as follows:

	As of December 31, 2018	
	Unrecognized stock-based compensation	Weighted-average years to be recognized
Options	$ 3,531,756	2.98
Restricted stock awards/units	$ 4,992,592	1.59
Performance based units	$ 15,693	0.17

Note 10. Grant Agreement

On July 24, 2018 the Company executed a grant agreement with the Town of Canandaigua, through the Community Development Block Grant. The purpose of the grant is to provide financing in support of the purchase and installation of new machinery and equipment at the Company's fabrication facility in Canandaigua, New York (the "NY Facility") made between June 27, 2017 and June 27, 2019. The grant is subject to certain terms and conditions and allows for disbursement of up to $734,000 in grants. As of December 31, 2018, the Company had utilized $0 in grants to support the purchase and installation of new machinery and equipment.

Note 11. Commitments and Contingencies

Operating Leases

The Company leased three office locations in Huntersville, NC pursuant to three- and five-year lease agreements, and one month-to-month lease. The three-year lease agreement expired in April 2018 in connection with a move in corporate office location, the month to month lease expired in January 2018, and the five-year lease agreement expires in November 2022. The operating leases provide for annual real estate tax and cost of living increases and contain predetermined increases in the rentals payable during the terms of the leases. The aggregate rent expense is recognized on a straight-line basis over the lease term. The total lease rental expense was $36,898 and $34,611 for the three months ended December 31, 2018 and 2017, respectively. The total lease rental expense was $73,701 and $51,718 for the six months ended December 31, 2018 and 2017, respectively.

The aggregate rent expense on various equipment for the Company's Huntersville, NC location and the NY Facility is recognized on a straight-line basis over the lease term. The total lease rental expense was $17,130 and $67,611 for the three months ended December 31, 2018 and 2017, respectively. The total lease rental expense was $36,842 and $127,010 for the six months ended December 31, 2018 and 2017, respectively.

Ontario County Industrial Development Authority Agreement

On February 27, 2018, the Company entered into a Lease and Project Agreement (the "Lease and Project Agreement") and a Company Lease Agreement (the "Company Lease Agreement" and together with the Lease and Project Agreement, the "OCIDA Agreements"), each dated as of February 1, 2018, with the Ontario County Industrial Development Agency, a public benefit corporation of the State of New York (the "OCIDA"). Pursuant to the OCIDA Agreements, the Company will lease for $1.00 annually to the OCIDA an approximately 9.995-acre parcel of land in Canandaigua, New York, together with the improvements thereon (including the NY Facility), and transfer title to certain related equipment and personal property to the OCIDA. The OCIDA will lease such land and improvements back to the Company for annual rent payments specified in the Lease and Project Agreement for the Company's primary use as research and development, manufacturing, warehouse and professional office space in its business, and to be subleased, in part, by the Company to various existing tenants. The Company expects substantial tax savings during the term of the OCIDA Agreements, which expire on December 31, 2028. In addition, subject to the terms of the Lease and Project Agreement, certain purchases and leases of eligible items will be exempt from the imposition of sales and use taxes. Subject to the terms of the Lease and Project Agreement, the OCIDA has also granted to the Company an exemption from certain mortgage recording taxes for one or more mortgages securing an aggregate principal amount not to exceed $12.0 million, or such greater amount as approved by the OCIDA in its sole and absolute discretion. The benefits provided to the Company pursuant to the terms of the Lease and Project Agreement are subject to claw back over the life of the OCIDA Agreements upon certain recapture events, including certain events of default.

Real Estate Contingent Liability

In connection with the acquisition of the NY Facility and related assets, including STC-MEMS, a semiconductor wafer-manufacturing and MEMS operation with associated wafer-manufacturing tools, the Company agreed to pay to Fuller Road Management Corporation, an affiliate of The Research Foundation for the State University of New York, a penalty, as set forth below, if the Company sells the property subject to the related Definitive Real Property Purchase Agreement within three (3) years after the date of such agreement for an amount in excess of $1,750,000, subject to certain enumerated exceptions. The penalty imposed shall be equivalent to the amount that the sales price of the property exceeds $1,750,000 up to the maximum penalty ("Maximum Penalty") defined below:

		Maximum Penalty
Year 2, ending March 23, 2019	$	3,973,333
Year 3, ending March 23, 2020	$	1,986,667

The fair value of the contingent liability was calculated by an independent third-party appraisal firm, utilizing a present value calculation based on the probability the Company sells the property triggering the contingent penalty and a discount rate of 17.0%. The discount rate was derived from a weighted average cost of capital, modified to include the effects of the bargain purchase price, and assumes a percentage chance of real estate sale of 25% - 35% between years two and three. As of December 31, 2018, and June 30, 2018, the fair value of the contingent liability was $1,330,411 and $1,229,966 respectively. During the three months ended December 31, 2018 and 2017, the Company marked the contingent liability to fair value and recorded a loss of ($53,521) and ($79,305), respectively, relating to the change in fair value. During the six months ended December 31, 2018 and 2017, the Company marked the contingent liability to fair value and recorded a loss of ($100,445) and ($79,305), respectively, relating to the change in fair value.

Litigation, Claims and Assessments

From time to time, the Company may become involved in lawsuits, investigations and claims that arise in the ordinary course of business, including the matter described below. The Company believes it has meritorious defenses against all pending claims and intends to vigorously pursue them. While it is not possible to predict or determine the outcomes of any pending actions, the Company believes the amount of liability, if any, with respect to such actions, would not materially affect its financial position, results of operations or cash flows.

On November 5, 2018 the Company filed a Form 8-K reporting the end of employment of its principal financial officer, John T. Kurtzweil (the "Former CFO"). Mr. Kurtzweil's employment was terminated for cause unanimously by the Company's Board of Directors pursuant to the terms of his employment agreement, and not due to any disagreement concerning the Company's financial statements, accounting policies or accounting practices. The Former CFO disputes the termination for cause and has since filed for an arbitration hearing pursuant to the terms of his employment agreement. The Company has not recorded a loss contingency associated with the Former CFO's termination. In accordance with the Former CFO's employment agreement, if it is determined that grounds for termination were for cause then the expense to the Company would be $0. If it is determined that grounds were without cause then it would result in the cash expenditure of approximately $208,000 representing 1 years' salary, COBRA and cost of living expense, and prorated bonus up to the date of termination. Additionally, the Company would record a non-cash expense of approximately $883,000 representing the immediate full vesting of restricted stock units and stock options on the date of termination.

Tax Credit Contingency

The Company accrues a liability for indirect tax contingencies when it believes that it is both probable that a liability has been incurred and that it can reasonably estimate the amount of the loss. The Company reviews these accruals and adjusts them to reflect ongoing negotiations, settlements, rulings, advice of legal counsel and other relevant information. To the extent new information is obtained and the Company's views on the probable outcomes of claims, suits, assessments, investigations or legal proceedings change, changes in the Company's accrued liabilities would be recorded in the period in which such determination is made.

The Company's gross unrecognized indirect tax credits totaled $0.1 million and $0.1 million as of December 31, 2018 and June 30, 2018, respectively, and is recorded on the Condensed Consolidated Balance Sheet as a long-term liability.

Note 12. Related Party Transactions

AEG Consulting, a firm owned by one of the Co-Chairmen of the Company's Board of Directors, received $0 and $10,245 cash compensation for consulting fees for the six months ended December 31, 2018 and 2017, respectively. On November 2, 2018, the Company granted the Co-Chairman 5,000 RSUs with a fair value on the grant date of $18,900 and stock options to purchase 10,000 shares of the Company's common stock with a fair value on the grant date of $25,278 for consulting services provided by AEG Consulting. Both awards vest in four equal installments on each of the first four anniversaries of the grant date. The options carry an exercise price of $3.78 and have a term of 7 years. Total share-based compensation expense related to stock-based awards granted for the Co-Chairman's consulting services was $14,119 and $10,496 for the six months ended December 31, 2018 and 2017, respectively.

On September 27, 2017, the Company granted a restricted stock award to a director for board advisory services provided from January 2017 to June 2017, prior to the director's appointment to the Board of Directors on July 14, 2017. Share based compensation expense related to this award was $15,467 and $10,617 for the six months ended December 31, 2018 and 2017, respectively.

Note 13. Segment Information

Operating segments are defined as components of an enterprise about which separate financial information is available and evaluated regularly by the chief operating decision maker, or decision–making group, in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker is its Chief Executive Officer. The Company operates in two segments, Foundry Fabrication Services which consists of engineering review services and STC-MEMS foundry services, and RF Product which consists of amplifier and filter product sales, and grant revenue. The Company records all of its general and administrative costs in the RF Product segment.

The Company evaluates performance of its operating segments based on revenue and operating profit (loss). Segment information for the three and six months ended December 31, 2018 and 2017 are as follows:

	Foundry Fabrication Services	RF Product	Total
Three months ended December 31, 2018			
Revenue	$ 259,770	$ 63,506	$ 323,276
Grant revenue	—	—	—
Total Revenue	259,770	63,506	323,276
Cost of revenue	356,353	13,593	369,946
Gross margin	(96,583)	49,913	(46,670)
Research and development	—	4,522,247	4,522,247
General and administrative	—	1,785,758	1,785,758
Income (Loss) from Operations	$ (96,583)	$ (6,258,092)	$ (6,354,675)
Three months ended December 31, 2017			
Revenue	$ 291,833	$ 5,488	$ 297,321
Grant revenue	—	147,232	147,232
Total Revenue	291,833	152,720	444,553
Cost of revenue	329,556	280	329,836
Gross margin	(37,723)	152,440	114,717
Research and development	—	3,473,031	3,473,031
General and administrative	—	2,189,904	2,189,904
Income (Loss) from Operations	$ (37,723)	$ (5,510,495)	$ (5,548,218)
Six months ended December 31, 2018			
Revenue	$ 407,851	$ 118,974	$ 526,825
Grant revenue	—	109,472	109,472
Total Revenue	407,851	228,446	636,297
Cost of revenue	489,380	24,410	513,790
Gross margin	(81,529)	204,036	122,507
Research and development	—	8,928,429	8,928,429
General and administrative	—	4,245,298	4,245,298
Income (Loss) from Operations	$ (81,529)	$ (12,969,691)	$ (13,051,220)
Six months ended December 31, 2017			
Revenue	$ 589,733	$ 8,528	$ 598,261
Grant revenue	—	147,232	147,232
Total Revenue	589,733	155,760	745,493
Cost of revenue	522,585	480	523,065
Gross margin	67,148	155,280	222,428
Research and development	—	6,477,396	6,477,396

General and administrative		4,022,526	4,022,526
Income (Loss) from Operations	$ 67,148	$ (10,344,642)	$ (10,277,494)
As of December 31, 2018			
Accounts receivable	$ 252,870	$ 59,753	$ 312,623
Property and equipment, net	320,489	13,062,068	13,382,557
As of June 30, 2018			
Accounts receivable	$ 191,846	$ 22,813	$ 214,659
Property and equipment, net	465,360	12,354,809	12,820,169

Note 14. Subsequent Events

Purchase Order

On January 14, 2019, the Company executed a price quotation (the "Purchase Order") pursuant to which it purchased a semiconductor lithography system (the "System"), which will be used to pattern wafers for use in the production of the Company's RF filter products, from ASML US, LLC ("ASML"), for an undisclosed purchase price (the "Purchase Price"). Upon execution of a valid purchase order the Company will remit 50% of the Purchase Price, as required by the terms and conditions of the Purchase Order, and the Company expects to satisfy the remainder of the Purchase Price with either cash on hand and/or through debt financing. An additional 40% of the Purchase Price will be due upon shipment of the System, but no later than 30 days after the scheduled shipment, which is expected to occur in the fourth quarter of 2019. The final 10% of the Purchase Price will be due upon acceptance of the System, but no later than 30 days after acceptance or 90 days after shipment, whichever occurs first. Failure by the Company to timely make payments under the Purchase Order will cause interest to accrue on overdue amounts at a rate equal to 1.5% per month and entitle ASML to repossess the System.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

References in this report to "Akoustis," the "Company," "we," "us," and "our" refer to Akoustis Technologies, Inc. and its consolidated subsidiary, Akoustis, Inc. each of which are Delaware corporations.

Cautionary Note Regarding Forward-Looking Statements

This quarterly report on Form 10-Q contains forward-looking statements that relate to our plans, objectives, estimates, and goals. Any and all statements contained in this report that are not statements of historical fact may be deemed to be forward-looking statements. Terms such as "may," "might," "would," "should," "could," "project," "estimate," "predict," "potential," "strategy," "anticipate," "attempt," "develop," "plan," "help," "believe," "continue," "intend," "expect," "future," and terms of similar import (including the negative of any of the foregoing) may be intended to identify forward-looking statements. However, not all forward-looking statements may contain one or more of these identifying terms. Forward-looking statements in this report may include, without limitation, statements regarding (i) the plans and objectives of management for future operations, including plans or objectives relating to the development of commercially viable radio frequency ("RF") filters, (ii) a projection of income (including income/loss), earnings (including earnings/loss) per share, capital expenditures, dividends, capital structure or other financial items, (iii) our future financial performance, including any such statement contained in this management's discussion and analysis of financial condition or in the results of operations included pursuant to the rules and regulations of the Securities and Exchange Commission (the "SEC"), (iv) our ability to efficiently utilize cash and cash equivalents to support our operations for a given period of time, (v) our ability to engage customers while maintaining ownership of our intellectual property, and (vi) the assumptions underlying or relating to any statement described in (i), (ii) or (iii) above.

The forward-looking statements are not meant to predict or guarantee actual results, performance, events or circumstances and may not be realized because they are based upon our current projections, plans, objectives, beliefs, expectations, estimates, and assumptions and are subject to a number of risks and uncertainties and other influences, many of which are beyond our control. Actual results and the timing of certain events and circumstances may differ materially from those described by the forward-looking statements as a result of these risks and uncertainties. Factors that may influence or contribute to the inaccuracy of the forward-looking statements or cause actual results to differ materially from expected or desired results may include, without limitation, our ability to continue as a going concern; our inability to obtain adequate financing; our limited operating history; our inability to generate revenues or achieve profitability; the results of our research and development ("R&D") activities; our inability to achieve acceptance of our products in the market; general economic conditions, including upturns and downturns in the industry; our limited number of patents; failure to obtain, maintain, and enforce our intellectual property rights; our inability to attract and retain qualified personnel; our reliance on third parties to complete certain processes in connection with the manufacture of our products; product quality and defects; existing or increased competition; our ability to market and sell our products; our inability to successfully integrate our New York wafer fabrication facility and related operations into our business; our failure to innovate or adapt to new or emerging technologies; our failure to comply with regulatory requirements; results of any arbitration or litigation that may arise; stock volatility and illiquidity; our failure to implement our business plans or strategies; our failure to remediate the material weakness in our internal control over financial reporting; and our failure to maintain the Trusted Foundry accreditation of our New York wafer fabrication facility.

These and other risks and uncertainties, which are described in more detail in our Annual Report on Form 10-K, filed with the SEC on August 29, 2018 (the "2018 Annual Report"), could cause our actual results to differ materially from those expressed or implied by the forward-looking statements in this report. Readers are cautioned not to place undue reliance on forward-looking statements because of the risks and uncertainties related to them. Except as may be required by law, we do not undertake any obligation to update the forward-looking statements contained in this report to reflect any new information or future events or circumstances or otherwise.

Overview

Akoustis® is a development-stage company focused on developing, designing, and manufacturing innovative RF filter products for the wireless industry, including for products such as smartphones and tablets, cellular infrastructure equipment, WiFi Customer Premise Equipment ("CPE") and military and defense communications applications. Located between the device's antenna and its digital backend, the RF front-end ("RFFE") is the circuitry that performs the analog signal processing and contains components such as amplifiers, filters and switches. We have developed a new and proprietary microelectromechanical systems ("MEMS")-based bulk acoustic wave ("BAW") technology and unique manufacturing flow, called "XBAW". Our XBAW ™ process incorporates high purity piezoelectric materials for high power, high frequency and wide bandwidth applications. Filters are critical in selecting and rejecting signals, and their performance enables differentiation in the modules defining the RFFE.

We believe owning the core resonator technology and manufacturing our designs is the most direct and efficient means of delivering our solutions to the market. Furthermore, our technology is based upon bulk-mode resonance, which we believe is superior to surface-mode resonance for high-band applications that include 4G/LTE, emerging 5G, WiFi, and military applications. Some of our target customers utilize or make the RFFE module, they may lack access to critical high-band filter technology to compete in high-band applications and other traditional surface-mode solutions where higher power performance is required. We intend to design, manufacture, and market our RF filter products to mobile phone original equipment manufacturers ("OEMs"), military and defense OEMs, cellular infrastructure OEMs, and WiFi CPE OEM's and to enable broader competition among the front-end module manufacturers. We plan to operate as a "pure-play" RF filter supplier and align with the front-end module manufacturers who seek to acquire high performance filters to grow their module business.

We currently build pre-production RF filter circuits, using our first generation XBAW TM wafer process, in our 122,000-square foot wafer-manufacturing plant located in Canandaigua, New York, which we acquired in June 2017. As of December 31, 2018, we have been awarded 21 patents including three blocking patents that we have licensed from Cornell University and the University of California, Santa Barbara and we have 36 additional patent applications active and pending. These patents cover our XBAWTM RF filter technology from the substrate level through the system application layer. Where possible, we leverage both federal and state level R&D grants to support development and commercialization of our technology.

We are developing RF filters for 4G/LTE, emerging 5G, WiFi and military bands and the associated proprietary models and design kits required to design our RF filters. As we qualify our first RF filter products, we are engaging with target customers to evaluate our filter solutions. Our initial designs target high-band 4G/LTE, sub 6-GHz emerging 5G, and WiFi frequency bands. Since Akoustis owns its core technology and controls access to its intellectual property, we expect to offer several ways to engage with potential customers. First, we intend to engage with multiple wireless markets, providing filters that we design and offer as standard catalog components. Second, we expect to deliver filters to customer-supplied specifications, which we will design and fabricate for a specific customer. Finally, we will offer our models and design kits for our customers to design their own filter utilizing our proprietary technology.

We have earned minimal revenue from operations since inception, and we have funded our operations primarily with development contracts, RF filter prototype orders, government grants, MEMS foundry and engineering services, sales of our equity securities, and issuance of debt. We have incurred losses totaling approximately $52.3 million from inception through December 31, 2018. These losses are primarily the result of material and processing costs associated with developing and commercializing our technology, as well as personnel costs, professional fees (primarily accounting and legal), and other general and administrative ("G&A") expenses. We expect to continue to incur substantial costs for commercialization of our technology on a continuous basis because our business model involves materials and solid-state device technology development and engineering of catalog and custom filter designs.

Plan of Operation

We plan to commercialize our technology by designing and manufacturing single-band and multi-band BAW RF filter solutions in our New York wafer fabrication facility. We expect our filter solutions will address problems (such as loss, bandwidth, power handling, and isolation) created by the growing number of frequency bands in the RFFE of mobile devices, infrastructure and premise equipment to support 4G/LTE, emerging 5G, and WiFi. We have prototyped our first single-band low-loss BAW filter designs for 4G/LTE frequency bands, which are dominated by competitive BAW solutions and historically cannot be addressed with low-band, lower power handling surface acoustic wave ("SAW") technology. During the second half of calendar 2017 we sampled filter product prototypes to prospective customers that cover LTE, Radar and WiFi applications. In March and April of 2018, we announced our first two commercial products, the AKF-1252 and the AKF-1938, which we are currently sampling with customers involved in the WiFi market and military market, respectively. In May 2018 we announced a Non-Recurring Engineering ("NRE") contract and purchase order for a 4G/LTE infrastructure customer and provided initial samples of two Band 25 filters to this customer in October 2018. In June 2018 we announced a 5.2 GHz BAW WiFi filter for the handset market, the AKF-1652. We added our first 5G cellular infrastructure customer for the Citizen's Broadband Radio Service in August 2018. We announced a second 5G cellular infrastructure customer in October 2018, with initial samples expected by June 2019. In September 2018, we recorded our first XBAWTM filter revenue from our military customer for pre-production units and received a follow-on order in addition to the original purchase order for production units scheduled to ship before March 31, 2019. In December 2018, we introduced the AKF-1256, a 5.6 GHz BAW filter for the WiFi market and shipped samples to select partners for evaluation and testing. As we receive customer evaluations for our growing portfolio, we will do further iterations on the designs and provide next generation samples for evaluation and characterization.

To succeed, we must convince mobile phone OEMs, RFFE module manufacturers, cellular infrastructure OEMs, WiFi CPE OEMs and military customers to use our XBAW™ filter technology in their systems and modules. However, since there are two dominant BAW filter suppliers in the industry that have high-band technology, and both utilize such technology as a competitive advantage at the module level, we expect customers that lack access to high-band filter technology will be open to engage with our pure-play filter company.

In June 2018, we completed the qualification of our high purity piezoelectric materials process and our XBAW ™ manufacturing process to support an initial product family of 4G/LTE, emerging 5G mobile, WiFi and military filter solutions. Now that we have stabilized our process technology in a manufacturing environment, we intend to complete a production release of our high-band filter products in the frequency range from 1 GHz to 7 GHz. The target frequency bands will be prioritized based upon customer priority. We expect this will require recruiting and hiring additional personnel and capital investments.

We plan to pursue RF filter design and R&D development agreements and potentially joint ventures with target customers and other strategic partners, but we cannot guarantee we will be successful in these efforts. These types of arrangements may subsidize technology development costs and qualification, filter design costs, and offer complementary technology and market intelligence and other avenues to revenue. However, we intend to retain ownership of our core technology, intellectual property, designs, and related improvements. We expect to pursue development of catalog designs for multiple customers and to offer such catalog products in multiple sales channels.

As of January 28, 2019, the Company had $40.7 of cash and cash equivalents to fund our operations, including capital expenditures, R&D, commercialization of our technology, development of our patent strategy and expansion of our patent portfolio, as well as to provide working capital and funds for other general corporate purposes. These funds are expected to be sufficient to fund our operations beyond the next twelve months from the date of filing of this Form 10-Q. Our anticipated expenses include employee salaries and benefits, compensation paid to consultants, capital costs for research and other equipment, costs associated with development activities (including travel and administration), costs associated with the integration and operation of our New York wafer fabrication facility and related operations, legal expenses, sales and marketing costs, G&A expenses, and other costs associated with an early stage, public technology company. We anticipate increasing the number of employees; however, this is highly dependent on the nature of our development efforts, and our success in commercialization. We anticipate adding employees for R&D in both our New York and North Carolina facilities, as well as G&A functions, to support our efforts. We expect capital expenditures to be approximately $12.0 for the purchase of equipment and software during the next 12 months.

The amounts we actually spend for any specific purpose may vary significantly and will depend on a number of factors, including, but not limited to, the pace of progress of our commercialization and development efforts, actual needs with respect to product testing, R&D, market conditions, changes in or revisions to our marketing strategies, and the integration of our New York wafer fabrication facility and related operations into our business.

Commercial development of new technology, by its nature, is unpredictable. Although we will undertake development efforts with commercially reasonable diligence, there can be no assurance that our current cash position will be sufficient to enable us to commercialize our technology to the extent needed to create future sales to sustain operations. If our current cash is insufficient for these purposes, we are unable to source additional funds on terms acceptable to the Company (or at all), or we experience costs in excess of estimates to continue our R&D plan, it is possible that we would not have sufficient resources to continue as a going concern and we may be required to curtail or suspend our operations. Even if we are able to source sufficient funds to continue as a going concern, our technology may not be accepted, we may never earn revenues sufficient to support our operations, and we may never be profitable.

Critical Accounting Policies

There have been no material changes to our critical accounting policies and estimates from the information provided in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," included in our 2018 Annual Report.

Results of Operations

Three Months Ended December 31, 2018 and 2017

Revenue

The Company recorded revenue of $323,000 during the three months ended December 31, 2018 as compared to $445,000 for the three months ended December 31, 2017. Revenue recorded during the three months ended December 31, 2018 included $260,000 of revenue for foundry services provided at the NY Facility, and $64,000 in RF filter and amplifier sales. The revenue for the three months ended December 31, 2017 included $292,000 of revenue for foundry services provided at the NY Facility, $5,000 in RF filter and amplifier sales, and $147,000 in grant revenue.

Cost of Revenue

The Company recorded cost of revenue of $370,000 in the three months ended December 31, 2018 which includes direct labor, material, and facility costs primarily associated with the foundry services revenue, as compared to $330,000 in the three months ended December 31, 2017.

Research and Development Expenses

R&D expenses were $4.5 million for the three months ended December 31, 2018 and were $1.0 million, or 30%, higher than the prior year amount for the same period of $3.5 million. The period-over-period increase was primarily in the areas of R&D personnel, stock-based compensation, depreciation, and facility costs. Personnel costs were $1.7 million compared to $1.1 million in the comparative period in the prior year, an increase of $610,000 or 55%. The higher spend was due to additional R&D personnel at both the Huntersville, NC location and NY Facility. Stock-based compensation of $0.6 million for the three months ended December 31, 2018 was $186,000, or 22%, lower than the three months ended December 31, 2017 due to a change in the fair value of awards from prior periods. Facility and material costs of $1.2 million primarily associated with the NY Facility include utilities of $378,000, facility costs of $401,000, and supplies, materials and parts costs of $454,000. In addition, depreciation costs were $0.6 million as compared to $0.2 million in the comparative period ended December 31, 2017, which was an increase of $437,000, or 267%, attributed primarily to additional capital expenditures made during the year.

General and Administrative Expense

General and administrative ("G&A") expenses include salaries and wages for executive and administrative staff, stock-based compensation, professional fees, insurance costs and other general costs associated with the administration of our business. G&A expenses for the three months ended December 31, 2018 were $1.8 million versus $2.2 million for the comparative period in the prior year. The decrease of $0.4 million, or 18%, was associated mainly with increases in personnel costs, offset by decreases in professional fees, depreciation, relocation and recruiting expense, and stock-based compensation. Personnel costs of $0.7 million were higher by $154,000, or 29%, compared to the same period in the prior year due to the increase in the number of administrative personnel, while professional fees of $0.3 million, associated with legal, accounting and investor relations, were lower by $74,000, or 19%. Stock-based compensation for the three months ended December 31, 2018 was $0.5 million and lower by $125,000, or 19%, compared to the same period in the prior year as a result of the recording of the change in the fair value of stock grants. Additionally, G&A costs for the three months ended December 31, 2018 included lower recruiting and relocation costs of $134,000 and lower depreciation costs of $60,000.

Other (Expense)/Income

Other expense for the three months ended December 31, 2018 was $391,000 and included rental income of $69,000, offset by $744,000 in interest expense related to the amortization of debt issuance costs and interest on the convertible notes, a $54,000 loss on change in fair value of our contingent real estate liability, and a $338,000 gain on the change in the fair value of our derivative liability. Other income for the three months ended December 31, 2017 was $8,000 and included rental income of $87,000, offset by a $79,000 loss on change in fair value of our contingent real estate liability.

Net Loss

The Company recorded a net loss of $6.7 million for the three months ended December 31, 2018, compared to a net loss of $5.5 million for the three months ended December 31, 2017. The period-over-period incremental loss of $1,205,000, or 22%, was driven by higher personnel costs of $764,000, decreased other income (net) of $399,000, and increased depreciation of $377,000, offset by decreased stock compensation costs of $311,000.

Six Months Ended December 31, 2018 and 2017

Revenue

The Company recorded revenue of $636,000 during the six months ended December 31, 2018 as compared to $745,000 for the six months ended December 31, 2017. Revenue recorded during the six months ended December 31, 2018 included $408,000 of revenue for foundry services provided at the NY Facility, $119,000 in RF filter and amplifier sales, and $109,000 in grant revenue. The revenue for the six months ended December 31, 2017 included $590,000 of revenue for foundry services provided at the NY Facility, $9,000 in RF filter and amplifier sales, and $147,000 in grant revenue.

Cost of Revenue

The Company recorded cost of revenue of $514,000 for the six months ended December 31, 2018, which included direct labor, direct materials and facility costs associated with the foundry services revenue. The Company recorded $523,000 in cost of revenue for the comparative six-month period of 2017.

Research and Development Expenses

R&D expenses were $8.9 million for the six months ended December 31, 2018 and were $2.4 million, or 38%, higher than the prior year amount for the same period of $6.5 million. The period-over-period increase was primarily in the areas of R&D personnel, stock-based compensation, and depreciation. Personnel costs were $3.4 million compared to $2.4 million in the comparative period in the prior year, an increase of $1,035,000 or 44%. The higher spend was due to additional R&D personnel at both the Huntersville, NC location and NY Facility. Stock-based compensation of $1.6 million for the six months ended December 31, 2018 was $447,000, or 40%, higher than the six months ended December 31, 2017 due to change in the fair value of awards from prior periods. In addition, depreciation costs were $1.2 million as compared to $0.3 million in the comparative period ended December 31, 2017 which was an increase of $849,000, or 264%, attributed primarily to additional capital expenditures made during the year.

General and Administrative Expense

G&A expenses include salaries and wages for executive and administrative staff, stock-based compensation, professional fees, insurance costs and other general costs associated with the administration of our business. G&A expenses for the six months ended December 31, 2018 were $4.3 million versus $4.0 million for the comparative period in the prior year. The increase of $228,000, or 6%, was associated mainly with increases in personnel costs and stock-based compensation, offset by decreases in professional fees, depreciation, and relocation and recruiting expense. Personnel costs of $1.5 million were higher by $585,000, or 63%, compared to the same period in the prior year due to the increase in the number of administrative personnel. Stock-based compensation for the six months ended December 31, 2018 was $1.7 million and higher by $743,000, or 77%, compared to the same period in the prior year as a result of the recording of the change in the fair value of stock grants issued. Professional fees of $0.6 million, associated with legal, accounting and investor relations, were lower by $370,000, or 40%. Additionally, G&A costs for the six months ended December 31, 2018 included $288,000 of lower recruiting and relocation costs, and $132,000 of lower depreciation costs.

Liquidity and Capital Resources

Financing Activities

Since inception, the Company has recorded approximately $1.1 million of revenue from contract research and government grants, and $1.5 million of foundry services revenue. Our operations thus far have been funded primarily with contract research and government grants, foundry services, sales of our equity securities, and debt.

The Company had $42.1 million of cash on hand as of December 31, 2018, which reflects an increase of $27.3 million compared to $14.8 million as of June 30, 2018. The $27.3 million increase is primarily due to $8.5 million in net cash used in operating activities and $1.8 million in capital expenditures for the six months ended December 31, 2018, offset by the receipt of $37.6 million in net proceeds from sales of our common stock and issuance of convertible notes. These funds are expected to be sufficient to fund our operations beyond the next twelve months from the date of filing of this Form 10-Q.

Balance Sheet and Working Capital

December 31, 2018 compared to June 30, 2018

As of December 31, 2018, the Company had current assets of $43.4 million made up primarily of cash on hand of $42.1 million. As of June 30, 2018, current assets were $15.9 million comprised primarily of cash on hand of $14.8 million. The $27.3 million increase in cash was due to $8.6 million of cash expended for operations and investment in machinery and equipment of $1.8 million, offset by the receipt of $37.6 million in net proceeds from sales of our common stock and issuance of convertible notes.

Property, Plant and Equipment was $13.4 million as of December 31, 2018 as compared to a balance of $12.8 million as of June 30, 2018. The approximate $0.6 million increase is primarily due to the purchase of equipment and leasehold improvements of $1.8 million, offset by depreciation of $1.2 million.

Total assets as of December 31, 2018 and June 30, 2018 were $57.6 million and $29.3 million, respectively.

Current liabilities as of December 31, 2018 and June 30, 2018 were $2.6 million and $2.6 million, respectively.

Long-term liabilities totaled $18.4 million as of December 31, 2018, compared to $12.8 million for the prior year end. The increase of $5.6 million was mainly due to the increase in convertible notes, net of debt discount and issuance costs of $5.5 million.

Stockholders' equity was $36.6 million as of December 31, 2018, compared to $13.9 million as of June 30, 2018, an increase of $22.7 million. Additional paid-in-capital ("APIC") was $88.8 million as of December 31, 2018 and increased by $36.7 million from June 30, 2018. The increase was due to an increase of $28.7 million in common stock issued for cash, $4.1 million of APIC recorded due to the vesting of restricted stock agreements granted to employees and contractors in lieu of cash compensation and common stock issued in payment of note interest and for the exercise of warrants, and $3.9 million from the change in the intrinsic value of the beneficial conversion feature of the $15.0 million principal amount of convertible notes issued in May 2018. The $22.7 million increase in stockholders' equity consisted of the $36.7 million increase in APIC reduced by the $14.1 million net loss recorded for the six months ended December 31, 2018.

Cash Flow Analysis

Operating activities used cash of $8.5 million during the six months ended December 31, 2018 and $6.7 million for the 2017 comparative period. The $1.8 million period-over-period increase in cash used was attributable to higher operating expenses associated with the ramp up of development and commercialization activities (primarily R&D personnel and material costs), higher spend on G&A costs for support personnel and professional fees and increase in depreciation expense.

Investing activities used cash of $1.8 million for the six months ended December 31, 2018 compared to $4.5 million for the comparative period ended December 31, 2017. The $2.7 million period-over-period decrease was primarily due to decreased spend on R&D equipment and leasehold improvements.

Financing activities provided cash of $37.6 million for the six months ended December 31, 2018 versus $13.3 million for the 2017 comparative period. Proceeds from the issuance of common stock were $28.7 million in the six month period ended December 31, 2018 versus $13.3 million in the 2017 comparative period. Additionally, the company received $8.9 million in proceeds from convertible notes in the six months ended December 31, 2018.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Not applicable to smaller reporting companies.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management is responsible for establishing and maintaining a system of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) that is designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

We conducted an evaluation under the supervision and with the participation of our Chief Executive Officer and our Interim Chief Financial Officer (our principal executive officer and principal financial officer) of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2018. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of such date.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the quarterly period covered by this report 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.

From time to time, we may become involved in various lawsuits and legal proceedings that arise in the ordinary course of business. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may have an adverse effect on our business, financial condition or results of operations and prospects.

We are currently not aware of any material pending legal proceedings to which we are a party or of which any of our property is the subject, nor are we aware of any such proceedings that are contemplated by any governmental authority.

ITEM 1A. RISK FACTORS.

In addition to the other information set forth in this report, you should carefully consider the factors discussed under Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the year ended June 30, 2018. These factors could materially adversely affect our business, financial condition, liquidity, results of operations and capital position, and could cause our actual results to differ materially from our historical results or the results contemplated by the forward-looking statements contained in this report. Other than as set forth below, there have been no material changes to the risk factors described in Part I, Item 1A, "*Risk Factors*," included in our 2018 Annual Report.

Problems in scaling our manufacturing operations could have a material adverse effect on our business.

Future customer demand may require us to significantly increase our manufacturing capacity. There are substantial technical challenges to increasing manufacturing capacity, including equipment acquisition lead times, materials procurement, scaling our manufacturing process, manufacturing site expansion, and the need to significantly increase production yields while maintaining or improving quality control and assurance. Developing commercial-scale manufacturing facilities will require the investment of substantial additional funds and the hiring and retention of additional management, quality assurance, quality control and technical personnel who have the necessary manufacturing experience. The scaling of manufacturing capacity is subject to numerous risks and uncertainties, and may lead to variability in product quality or reliability, increased construction timelines, as well as resources required to acquire, install and maintain manufacturing equipment, among others, all of which can lead to unexpected delays in manufacturing output. Additionally, the production of our products must occur in a highly controlled and clean environment to minimize particles and other yield- and quality-limiting contaminants. Weaknesses in process control or minute impurities in materials may cause a substantial percentage of defective products. We may not be able to maintain stringent quality controls and contamination problems could arise. Material defects in our products could result in loss or delay of revenues, delayed market acceptance, damage to our reputation, lost customers, legal claims, increased insurance costs or increased service and warranty costs. If we are unable to successfully scale up our manufacturing operations to meet customer demand, our business growth could be materially adversely affected.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

Repurchases

None.

Unregistered Sales of Equity Securities

Other than as previously reported in the Company's Current Reports on Form 8-K, the Company did not sell any unregistered securities during the period covered by this report.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

None.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

ITEM 5. OTHER INFORMATION.

None.

ITEM 6. EXHIBITS.

The exhibits in the Exhibit Index below are filed or furnished, as applicable, as part of this report.

EXHIBIT INDEX

Exhibit Number	Description
3.1	Articles of Conversion of the Company, as filed with the Nevada Secretary of State on December 15, 2016 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on December 16, 2016)
3.2	Certificate of Conversion of the Company, as filed with the Delaware Secretary of State on December 15, 2016 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed with the SEC on December 16, 2016)
3.3	Certificate of Incorporation, as filed with the Delaware Secretary of State on December 15, 2016 (incorporated by reference to Exhibit 3.3 to the Company's Current Report on Form 8-K filed with the SEC on December 16, 2016)
3.4	Bylaws of the Company (incorporated by reference to Exhibit 3.4 to the Company's Current Report on Form 8-K filed with the SEC on December 16, 2016)
4.1	Indenture, dated as of October 23, 2018, by and between Akoustis Technologies, Inc. and The Bank of New York Mellon Trust Company, N.A. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed with the SEC on October 23, 2018)
4.2	First Supplemental Indenture, dated as of October 23, 2018, by and between Akoustis Technologies, Inc. and The Bank of New York Mellon Trust Company, N.A. (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed with the SEC on October 23, 2018)
4.3	Form of 6.5% Convertible Senior Note due November 30, 2023 (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form 8-K filed with the SEC on October 23, 2018)
31.1*	Rule 13(a)-14(a)/15(d)-14(a) Certification of Principal Executive Officer
31.2*	Rule 13(a)-14(a)/15(d)-14(a) Certification of Principal Financial Officer
32.1*	Section 1350 Certification of Principal Executive Officer
32.2*	Section 1350 Certification of Principal Financial Officer
101*	Interactive Data Files of Financial Statements and Notes
101.INS*	Instant Document
101.SCH*	XBRL Taxonomy Schema Document
101.CAL*	XBRL Taxonomy Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Definition Linkbase Document
101.LAB*	XBRL Taxonomy Label Linkbase Document
101.PRE*	XBRL Taxonomy Presentation Linkbase Document

* Filed herewith

† Management contract or compensatory arrangement

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.

Dated: February 4, 2019	**Akoustis Technologies, Inc.**
	By: /s/ Kenneth E. Boller
	Kenneth E. Boller
	Interim Chief Financial Officer
	(Principal Financial and Accounting Officer)

Exhibit 31.1

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934**

I, Jeffrey B. Shealy, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Akoustis Technologies, 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

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

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

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

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

5. The registrant's other certifying officer(s) 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: February 4, 2019

/s/ *Jeffrey B. Shealy*
Jeffrey B. Shealy
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934

I, Kenneth E. Boller, certify that:

6. I have reviewed this Quarterly Report on Form 10-Q of Akoustis Technologies, Inc.;

7. 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;

8. 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;

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

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

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

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

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

10. The registrant's other certifying officer(s) 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: February 4, 2019

/s/ *Kenneth E. Boller*
Kenneth E. Boller
Interim Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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

In connection with the Quarterly Report of Akoustis Technologies, Inc. (the “Company”) on Form 10-Q for the quarterly period ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Jeffrey B. Shealy, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, 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, as amended; 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: February 4, 2019

/s/ Jeffrey B. Shealy
Jeffrey B. Shealy
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

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

In connection with the Quarterly Report of Akoustis Technologies, Inc. (the "Company") on Form 10-Q for the quarterly period ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John T. Kurtzweil, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, 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, as amended; 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: February 4, 2019

/s/ Kenneth E. Boller
Kenneth E. Boller
Interim Chief Financial Officer
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.