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, 2019

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)	(IRS Employer Identification No.)
9805 Northcross Center Court, Suite A Huntersville, NC	**28078**
(Address of principal executive offices)	(Postal Code)

Registrant's telephone number, including area code: **1-704-997-5735**

Securities registered under Section 12(b) of the Act:

Title of Each Class:	Trading Symbol	Name of each exchange on which registered:
Common Stock, $0.001 par value	**AKTS**	**The Nasdaq Stock Market LLC (Nasdaq Capital Market)**

Securities registered under Section 12(g) of the Act:
None

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 24, 2020, there were 36,212,386 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, 2019

TABLE OF CONTENTS

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS.

Akoustis Technologies, Inc.
Condensed Consolidated Balance Sheets
(In thousands, except share data)
(Unaudited)

	December 31, 2019	June 30, 2019
Assets		
Assets:		
Cash and cash equivalents	$ 46,253	$ 30,054
Accounts receivable	1,126	285
Inventory	94	94
Other current assets	874	1,289
Total current assets	48,347	31,722
Property and equipment, net	19,382	15,178
Intangibles, net	463	388
Assets held for sale, net	21	300
Operating lease right-of-use asset	608	—
Restricted cash	100	100
Other assets	386	261
Total Assets	**$ 69,307**	**$ 47,949**
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable and accrued expenses	$ 3,480	$ 3,211
Deferred revenue	48	5
Contingent real estate liability	480	445
Operating lease liability-current	112	—
Total current liabilities	4,120	3,661
Long-term Liabilities:		
Convertible notes payable, net	20,375	18,215
Operating lease liability - non current	500	—
Other long-term liabilities	118	118
Total long-term liabilities	20,993	18,333
Total Liabilities	25,113	21,994
Stockholders' Equity		
Preferred Stock, par value $0.001: 5,000,000 shares authorized; none issued and outstanding	—	—
Common stock, $0.001 par value; 100,000,000 shares authorized; 36,212,386 and 30,140,955 shares issued and outstanding at December 31, 2019 and June 30, 2019, respectively	36	30
Additional paid in capital	129,922	93,399
Accumulated deficit	(85,764)	(67,474)
Total Stockholders' Equity	44,194	25,955
Total Liabilities and Stockholders' Equity	**$ 69,307**	**$ 47,949**

See accompanying notes to the condensed consolidated financial statements

Akoustis Technologies, Inc.

Condensed Consolidated Statements of Operations
(In thousands, except per share data)
(Unaudited)

	For the Three Months Ended December 31, 2019	For the Three Months Ended December 31, 2018	For the Six Months Ended December 31, 2019	For the Six Months Ended December 31, 2018
Revenue				
Revenue with customers	$ 518	$ 323	$ 1,061	$ 527
Grant revenue	—	—	—	109
Total revenue	**518**	**323**	**1,061**	**636**
Cost of revenue	787	370	1,123	514
Gross profit (loss)	**(269)**	**(47)**	**(62)**	**122**
Operating expenses				
Research and development	4,897	4,474	9,967	8,836
General and administrative expenses	2,759	1,834	5,569	4,338
Total operating expenses	**7,656**	**6,308**	**15,536**	**13,174**
Loss from operations	**(7,925)**	**(6,355)**	**(15,598)**	**(13,052)**
Other (expense) income				
Interest (expense) income	(1,102)	(744)	(2,096)	(1,225)
Rental income	55	70	109	137
Change in fair value of contingent real estate liability	(16)	(54)	(34)	(100)
Change in fair value of derivative liabilities	(326)	338	(670)	187
Total other (expense) income	**(1,389)**	**(390)**	**(2,691)**	**(1,001)**
Net loss	**$ (9,314)**	**$ (6,745)**	**$ (18,289)**	**$ (14,053)**
Net loss per common share - basic and diluted	$ (0.30)	$ (0.24)	$ (0.59)	$ (0.56)
Weighted average common shares outstanding - basic and diluted	31,428,233	27,853,225	30,876,709	25,045,913

See accompanying notes to the condensed consolidated financial statements

A koustis Technologies, Inc.

Condensed Consolidated Statements of Changes in Stockholders' Equity
(In thousands)
(Unaudited)

	Common Stock				Additional Paid In		Accumulated		Stockholders'
	Shares	Par Value			Capital		Deficit		Equity
Balance, June 30, 2019	30,141	$	30	$	93,399	$	(67,474)	$	25,955
Common stock issued for services	283		—		1,703		—		1,703
Common stock issued for exercise of warrants	6		—		—		—		—
Vesting of restricted shares	—		—		303		—		303
Common stock issued in payment of note interest	38		—		244		—		244
Net loss	—		—		—		(8,975)		(8,975)
Balance, September 30, 2019	30,468	$	30	$	95,649	$	(76,450)	$	19,229

	Common Stock				Additional Paid In		Accumulated		Stockholders'
	Shares	Par Value			Capital		Deficit		Equity
Balance, September 30, 2019	30,468	$	30	$	95,649	$	(76,450)	$	19,229
Common stock issued for cash, net of issuance costs	5,520		6		32,165		—		32,170
Common stock issued for services	178		—		1,602		—		1,602
Common stock issued for exercise of warrants	68		—		—		—		—
Common stock issued for exercise of options	10		—		55		—		55
Common stock issued for equipment purchase	5		—		40		—		40
ESPP purchase	28		—		168		—		168
Common stock issued in payment of note interest	34		—		244		—		244
Repurchase and retirement of common shares	(99)		—		—		—		—
Net loss	—		—		—		(9,314)		(9,314)
Balance, December 31, 2019	36,212	$	36	$	129,922	$	(85,764)	$	44,194

	Common Stock		Additional Paid In	Accumulated	Stockholders’
	Shares	Par Value	Capital	Deficit	Equity
Balance, June 30, 2018	22,203	$ 22	$ 52,074	$ (38,246)	$ 13,850
Cumulative-effect adjustment from adoption of ASC 60	—	—	—	20	20
Common stock issued for cash, net of issuance costs	—	—	(81)	—	(81)
Common stock issued for services	112	—	1,947	—	1,947
Common stock issued for exercise of warrants	19	—	71	—	71
Vesting of restricted shares	—	—	351	—	351
Common stock issued in payment of note interest	40	—	290	—	290
Net loss	—	—	—	(7,308)	(7,308)
Balance, September 30, 2018	22,374	$ 22	$ 54,652	$ (45,534)	$ 9,140

	Common Stock		Additional Paid In	Accumulated	Stockholders’
	Shares	Par Value	Capital	Deficit	Equity
Balance, September 30, 2018	22,374	$ 22	$ 54,652	$ (45,534)	$ 9,140
Common stock issued for cash, net of issuance costs	7,362	8	28,733	—	28,740
Common stock issued for services	121	—	1,044	—	1,044
Intrinsic value of beneficial conversion feature	—	—	3,951	—	3,951
Vesting of restricted shares	—	—	177	—	177
Common stock issued in payment of note interest	53	—	244	—	244
Net loss	—	—	—	(6,745)	(6,745)
Balance, December 31, 2018	29,910	$ 30	$ 88,801	$ (52,279)	$ 36,551

See accompanying notes to the condensed consolidated financial statements.

Akoustis Technologies, Inc.

Condensed Consolidated Statements of Cash Flows
(In thousands, except per share data)
(Unaudited)

	Six Months ended December 31, 2019	Six Months ended December 31, 2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (18,289)	$ (14,053)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,419	1,187
Common stock issued for services	3,305	3,267
Amortization of debt discount	1,490	771
Amortization of operating lease right of use asset	55	—
Change in fair value of derivative liabilities	670	(187)
Change in fair value of contingent real estate liability	34	100
Changes in operating assets and liabilities:		
Accounts receivable	(841)	(98)
Inventory	—	(49)
Other current assets	415	(92)
Other assets	(125)	(125)
Accounts payable and accrued expenses	(175)	737
Lease liabilities	(51)	—
Change in other long-term liabilities	—	13
Deferred revenue	43	(28)
Net Cash Used in Operating Activities	**(12,050)**	**(8,557)**
CASH FLOWS FROM INVESTING ACTIVITIES:		
Cash paid for machinery and equipment	(4,171)	(1,749)
Cash received from sale of assets held for sale	28	33
Cash paid for intangibles	(108)	(57)
Net Cash Used in Investing Activities	**(4,251)**	**(1,773)**
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock	32,277	28,659
Proceeds from stock option exercises	55	—
Proceeds from employee stock purchase plan	168	—
Proceeds from the exercise of warrants	—	71
Proceeds received from convertible note, net of issuance costs	—	8,867
Net Cash Provided by Financing Activities	**32,500**	**37,597**
Net Increase (Decrease) in Cash, Cash Equivalents and Restricted Cash	16,199	27,267
Cash, Cash Equivalents and Restricted Cash - Beginning of Period	30,154	14,817
Cash, Cash Equivalents and Restricted Cash - End of Period	$ 46,353	$ 42,084
SUPPLEMENTARY CASH FLOW INFORMATION:		
Cash Paid During the Period for:		
Interest	325	—
SUPPLEMENTARY DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Accrued interest paid in common shares	488	534
Stock compensation payable	303	—
Stock issuance costs in accounts payable and accrued expenses	107	—
ASC 606 transition adjustment	—	20
Convertible Notes – Beneficial Conversion Feature	—	3,951
Reclass from assets held for sale	(251)	—
Assets purchase using common stock	40	—
Fixed assets in accounts payable	1,128	—

See accompanying notes to the condensed consolidated financial statements

Notes to the Condensed Consolidated Financial Statements
(Unaudited)

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, 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 microelectromechanical system ("MEMS") wafer process, collectively referred to as XBAW™ technology. The Company leverages its integrated device manufacturing ("IDM") business model to develop and sell high performance RF filters using its XBAW™ 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, 2019, the Company had cash and cash equivalents of $46.3 million and working capital of $44.7 million. The Company has historically incurred recurring operating losses and has experienced net cash used in operating activities of $11.9 million for the six months ended December 31, 2019 which raises substantial doubt about the Company's ability to continue as a going concern within one year after the issuance date.

As of January 24, 2020, the Company had $44.4 million of cash and cash equivalents. 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. The Company expects that these funds will be sufficient to fund its 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, 2019 are not necessarily indicative of the results that may be expected for the year ending June 30, 2020 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 September 13, 2019 (the "2019 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. 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 2019 Annual Report. Since the date of the 2019 Annual Report, other than adopting ASC 842 "Leases" 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.

Shares Outstanding

Shares outstanding include shares of restricted stock with respect to which restrictions have not lapsed. Shares of restricted stock are included in the calculation of weighted average shares outstanding. Restricted stock included in reportable shares outstanding were as follows as of December 31, 2019 and 2018.

	December 31, 2019	December 31, 2018
Shares of restricted stock included in reportable shares outstanding	144,750	357,406

Reclassification

Certain prior period amounts have been reclassified to conform to current period presentation. The reclassifications did not have an impact on net loss as previously reported

Restricted Cash

Restricted cash at December 31, 2019 and June 30, 2019 represents a retained balance obligation included in a deposit account control agreement required by the Company's 6.5% Convertible Senior Secured Notes due 2023 issued in May 2018. The restriction on the cash will lapse in conjunction with the extinguishment of the debt.

Recently Issued Accounting Pronouncements

Accounting Pronouncements Recently Adopted

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, "Leases (Topic 842)," with multiple amendments subsequently issued. The new guidance requires that lease arrangements be presented on the lessee's balance sheet by recording a right-of-use asset and a lease liability equal to the present value of the related future minimum lease payments. The Company adopted the standard in the first quarter of fiscal 2020, using the modified retrospective approach which permits lessees to recognize a cumulative-effect adjustment to the opening balance of accumulated deficit in the period of adoption. Upon adoption, the Company recorded a right-of-use asset of $0.7 million and a lease liability of $0.7 million.

The Company elected the transition package of practical expedients, under which the Company does not have to reassess (1) whether any expired or existing contracts are leases, or contain leases, (2) the lease classification for any expired or existing leases, and (3) initial direct costs for any existing leases. Further, the Company elected the practical expedient not to separate lease and non-lease components for substantially all of its classes of leases and to account for the combined lease and non-lease components as a single lease component. In addition, the Company made an accounting policy election to exclude leases with an initial term of 12 months or less from the balance sheet. This standard did not have a material impact on the Condensed Consolidated Statement of Operations or Condensed Consolidated Statement of Cash Flows. See Note 12 for further disclosures resulting from the adoption of this new standard.

In June 2018, the FASB issued ASU No. 2018-07, *Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*. Under the new standard, companies are no longer required to value non-employee awards differently from employee awards. Companies value all equity classified awards on their grant date under ASC718 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. The Company adopted the standard during the first quarter of fiscal year 2020. This standard did not have a material impact on the Company's condensed consolidated financial statements. Approximately $0.3 million of accrued expenses associated with share-based compensation was reclassified to equity.

In May 2017, the FASB issued ASU 2017-09, "*Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting,"* which provides guidance about which changes to the terms or conditions of a stock-based payment award require an entity to apply modification accounting in Topic 718. The Company adopted the standard during the first quarter of fiscal year 2020 and there was no material impact on its condensed 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. Revenue Recognition from Contracts with Customers

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 as well as transfer of title. 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, 2019 (in thousands):

	Foundry Fabrication Services Revenue	Product Sales Revenue	Total Revenue with Customers
MEMS	$ 12	$ —	$ 12
NRE - RF Filters	311	—	311
Filters/Amps	—	195	195
Total	**$ 323**	**$ 195**	**$ 518**

The following table summarizes the revenues of the Company's reportable segments for the six months ended December 31, 2019 (in thousands):

	Foundry Fabrication Services Revenue	Product Sales Revenue	Total Revenue with Customers
MEMS	$ 257	$ —	$ 257
NRE - RF Filters	427	—	427
Filters/Amps	—	377	377
Total	**$ 684**	**$ 377**	**$ 1,061**

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

	Foundry Fabrication Services Revenue	Product Sales Revenue	Total Revenue with Customers
MEMS	$ 26	$ —	$ 26
NRE - RF Filters	233	—	233
Filters/Amps	—	64	64
Total	**$ 259**	**$ 64**	**$ 323**

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

	Foundry Fabrication Services Revenue	Product Sales Revenue	Total Revenue with Customers
MEMS	$ 145	$ —	$ 145
NRE - RF Filters	263	—	263
Filters/Amps	—	119	119
Total	**$ 408**	**$ 119**	**$ 527**

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 the opening and closing balances of the Company's contract asset and liability for the six months ended December 31, 2019 and 2018 (in thousands):

	Contract Assets	Contract Liabilities
Balance, June 30, 2019	$ 140	$ 5
Closing, December 31, 2019	44	48
Increase/(Decrease)	(96)	43
Balance, June 30, 2018	$ 7	$ 53
Closing, December 31, 2018	32	42
Increase/(Decrease)	25	(11)

The amount of revenue recognized in the six months ended December 31, 2019 that was included in the opening contract liability balance was $5 thousand that related to filter sales. The amount of revenue recognized in the six months ended December 31, 2018 that was included in the opening contract liability balance was $28 thousand that related to non-recurring engineering sales and $25 thousand that related to MEMS business.

Contract assets are recorded when revenue recognized exceeds the amount invoiced. The difference between the opening and closing balances of the Company's contract assets and contract liabilities primarily results from the timing difference between the Company's performance and the customer's payment. The amount of contract assets invoiced in the six months ended December 31, 2019 that was included in the opening contract asset balance was $117 thousand which primarily related to MEMS business.

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 $0.5 million at December 31, 2019.

Grant Revenue

From time to time the Company applies for 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 given 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.

Note 5. Common Stock Equivalents

The Company had the following common stock equivalents at December 31, 2019 and 2018. These are excluded from the loss per share calculation as they are considered anti-dilutive.

	December 31, 2019	**December 31, 2018**
Convertible Notes	4,960,800	4,960,800
Options	2,242,665	2,087,064
Warrants	541,999	728,493
Total	**7,745,464**	**7,776,357**

Note 6. Property and Equipment, net

Property and equipment, net consisted of the following as of December 31, 2019 and June 30, 2019 (in thousands):

	Estimated Useful Life	December 31, 2019	June 30, 2019
Land	n/a	$ 1,000	$ 1,000
Building	11 years	3,000	3,000
Equipment	2-10 years	19,098	13,611
Leasehold Improvements	*	949	949
Software	3 years	214	161
Furniture & Fixtures	5 years	11	11
Computer Equipment	3 years	212	203
Total		24,484	18,935
Less: Accumulated depreciation		(5,102)	(3,757)
Total		**$ 19,382**	**$ 15,178**

(*) Leasehold improvements 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 $0.7 million and $0.6 million for the three months ended December 31, 2019 and 2018, respectively. The Company recorded depreciation expense of $1.4 million and $1.2 million for the six months ended December 31, 2019 and 2018, respectively.

Note 7. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consisted of the following at December 31, 2019 and June 30, 2019 (in thousands):

	December 31, 2019	June 30, 2019
Accounts payable	$ 1,539	$ 245
Accrued salaries and benefits	855	1,552
Accrued professional fees	137	315
Accrued utilities	159	193
Accrued interest	135	135
Accrued goods received not invoiced	153	69
Other accrued expenses	502	702
Totals	**$ 3,480**	**$ 3,211**

Note 8. Derivative Liabilities

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, 2019 (in thousands):

	Fair Value Measurement Using Level 3 Inputs Total
Balance, June 30, 2019	$ 955
Change in fair value of derivative liabilities (included in other (expense) income)	670
Balance, December 31, 2019 (see footnote 9)	**$ 1,625**

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, 2019	June 30, 2019
Remaining term (years)	3.41-3.92	3.92
Expected volatility	55%	49%
Risk free interest rate	1.63%-1.65%	1.73%
Dividend yield	0.00	0.00%

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 a blend of the Company's own historic volatility and 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.

Note 9. Convertible Notes

The following table summarizes convertible debt as of December 31, 2019 (in thousands):

	Maturity Date	Stated Interested 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	$ (5,508)	$ 1,425	$ 10,917
6.5% convertible senior notes	11/30/2023	6.50%	$ 5.10	$ 10,000	(742)	200	9,458
Ending Balance as of December 31, 2019				**$ 25,000**	**$ (6,250)**	$ **1,625**	**$ 20,375**

The following table summarizes convertible debt as of June 30, 2019 (in thousands):

	Maturity Date	Stated Interested 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	$ (6,825)	$ 955	$ 9,130
6.5% convertible senior notes	11/30/2023	6.50%	$ 5.10	$ 10,000	(915)	—	9,085
Ending Balance as of June 30, 2019				**$ 25,000**	**$ (7,740)**	**$ 955**	**$ 18,215**

Note 10. Concentrations

Vendors

Vendor concentration as a percentage of purchases for the three months ended December 31, 2019 and 2018 are as follows:

	Three Months 12/31/2019	Three Months 12/31/2018
Vendor 1	19%	—
Vendor 2	12%	—
Vendor 3	—	11%
Vendor 4	—	10%

Vendor concentration as a percentage of purchases for the six months ended December 31, 2019 and 2018 are as follows:

	Six Months 12/31/2019	Six Months 12/31/2018
Vendor 1	18%	—
Vendor 3	—	10%

Customers

Customer concentration as a percentage of revenue for the three months ended December 31, 2019 and 2018 are as follows:

	Three Months 12/31/2019	Three Months 12/31/2018
Customer 1	55%	—
Customer 2	29%	23%
Customer 3	—	35%
Customer 4	—	15%
Customer 5	—	12%

Customer concentration as a percentage of revenue (excluding grant revenue) for the six months ended December 31, 2019 and 2018 are as follows:

	Six Months 12/31/2019	Six Months 12/31/2018
Customer 1	30%	—
Customer 2	23%	21%
Customer 3	14%	19%
Customer 4	13%	—
Customer 5	10%	—
Customer 6	—	14%
Customer 7	—	21%

Note 11. Stockholders' Equity

Underwritten Public Offering of Common Stock

During the quarter ended December 31, 2019, the Company sold a total of 5,520,000 shares of its common stock at a price to the public of $6.25 per share for aggregate gross proceeds of $34.5 million before deducting the underwriting discount and offering expenses payable by the Company of approximately $2.3 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.

Equity Incentive Plans

During the six months ended December 31, 2019, the Company granted employees and directors options to purchase an aggregate of 189,000 shares of common stock with a weighted average grant date fair value of $4.38. 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, 2019
Exercise price	$ 7.55 - 8.09
Expected term (years)	4.75 – 5.00
Risk-free interest rate	1.65% – 1.74%
Volatility	66 - 67%
Dividend yield	0%
Weighted Average Grant Date Fair Value of Options granted during the period	$4.38

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, 2019 the Company awarded certain employees and contractors grants of an aggregate of 803,061 restricted stock units ("RSUs") with a weighted average grant date fair value of $7.70. 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 – 5 years.

Compensation expense related to our stock-based awards described above was as follows (in thousands):

	Three Months Ended December 31,		Six Months Ended December 31,	
	2019	2018	2019	2018
Research and Development	$ 790	$ 645	$ 1,746	$ 1,559
General and Administrative	812	524	1,559	1,708
Total	$ 1,602	$ 1,168	$ 3,305	$ 3,267

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

	As of December 31, 2019	
	Unrecognized stock-based compensation	Weighted-average years to be recognized
Options	$ 2,434	2.15
Restricted stock awards/units	$ 8,203	2.21

Note 12. Commitments and Contingencies

Leases

The Company leases office space and office equipment in Huntersville, NC as well as equipment in Canandaigua, NY. Our leases have remaining lease terms of up to five years, some of which include options to extend the leases for up to twenty-four months. Following adoption of ASC 842, lease expense excludes capital area maintenance and property taxes.

The components of lease expense were as follows (in thousands):

	Three Months Ended December 31, 2019	Three Months Ended December 31 2018	Six Months Ended December 31, 2019	Six Months Ended December 31, 2018
Operating Lease Expense	$ 46	$ 54	$ 102	$ 111

Supplemental balance sheet information related to leases was as follows (in thousands):

	Classification on the Condensed Consolidated Balance Sheet	December 31, 2019
Assets		
Operating lease assets	Other non-current assets	$ 608
Liabilities		
Other current liabilities	Current liabilities	112
Operating lease liabilities	Other non-current liabilities	500
Weighted Average Remaining Lease Term:		
Operating leases		4.3 Years
Weighted Average Discount Rate:		
Operating leases		10.97%

The following table outlines the minimum future lease payments for the next five years and thereafter, (in thousands):

For the year ending June 30,	
2020	$ 85
2021	174
2022	178
2023	182
2024	149
Thereafter	—
Total lease payments (Undiscounted cash flows)	**768**
Less imputed interest	(155)
Total	$ 612

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 "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 Agreements, the Company leases 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 Company's New York fabrication facility), and transferred title to certain related equipment and personal property to the OCIDA (collectively, the "Facility"). The OCIDA will lease the Facility 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 subleased, in part, by the Company to various tenants. The Company estimates substantial tax savings during the term of the 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 Agreements upon certain recapture events, including certain events of default.

Real Estate Contingent Liability

On March 23, 2017, we entered into an Asset Purchase Agreement and a Real Property Purchase Agreement (collectively, the "STC-MEMS Agreements") with The Research Foundation for the State University of New York ("RF-SUNY") and Fuller Road Management Corporation ("FRMC"), an affiliate of RF-SUNY (collectively, "Sellers"), respectively, to acquire certain specified assets, including STC-MEMS, a semiconductor wafer-manufacturing and MEMS operation with associated wafer-manufacturing tools, and the associated real estate and improvements located in Canandaigua, NY used in the operation of STC-MEMS (the assets and real estate and improvements referred to together herein as the "STC-MEMS Business").

In connection with the acquisition of the STC-MEMS Business, the Company agreed to pay to FRMC 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 $1.75 million, subject to certain enumerated exceptions. The penalty imposed shall be equivalent to the amount that the sales price of the property exceeds $1.75 million up to the maximum penalty ("Maximum Penalty") defined below, (in thousands):

	Maximum Penalty
Year 3, ending March 23, 2020	$ 480

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 14.8%. The 14.8% discount rate was derived from a weighted average cost of capital, modified to include the effects of the bargain purchase price. As of December 31, 2019, and June 30, 2019, the fair value of the contingent liability was $0.5 million and $0.4 million, respectively. During the three months ended December 31, 2019 and 2018, the Company marked the contingent liability to fair value and recorded a loss of $0.02 million and $0.05 million, respectively, relating to the change in fair value. During the six months ended December 31, 2019 and 2018, the Company marked the contingent liability to fair value and recorded a loss of $0.03 million and $0.1 million, 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. 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.

Effective November 5, 2018, the employment by the Company of its former principal financial officer, John T. Kurtzweil (the "Former CFO"), ended, after which the Former CFO filed for an arbitration hearing pursuant to the terms of his employment agreement and filed a complaint under the whistleblower provisions of the Sarbanes-Oxley Act of 2002 with the Occupational Safety and Health Administration ("OSHA") of the U.S. Department of Labor. On October 28, 2019, the Company and the Former CFO entered into a Settlement Agreement that resolved all pending disputes between the parties with no admission of liability by either party. OSHA approved the Settlement Agreement and closed its investigation of the Former CEO's whistleblower complaint on November 26, 2019. Pursuant to the Settlement Agreement, the Company paid the Former CFO an all-inclusive settlement amount of $375 thousand in cash. As part of the Settlement Agreement, all unvested restricted stock units and stock options were acknowledged as forfeited as of such date. The arbitration was closed on December 30, 2019.

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 as of December 31, 2019 and $0.1 million as of June 30, 2019 and is recorded on the Consolidated Balance Sheet as a long-term liability.

Note 13. Related Party Transactions

Consulting Services

Total stock-based compensation expense related to stock-based awards granted in prior years for consulting services provided by a firm owned by one of the Co-Chairmen of the Company's board of directors was $10 thousand and $(2) thousand for the three months ended December 31, 2019 and 2018, respectively, and $24 thousand and $14 thousand for the six months ended December 31, 2019 and 2018, respectively.

Equipment Purchase

On October 11, 2019, the Company issued 2,500 shares of common stock to the brother of the Company's Chief Executive Officer in exchange for equipment with a fair market value of $20,000.

Note 14. 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 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, 2019 and 2018 are as follows (in thousands):

	Foundry/ Fabrication Services	RF Product	Total
Three months ended December 31, 2019			
Revenue with customers	$ 323	$ 195	$ 518
Total Revenue	323	195	518
Cost of revenue	270	517	787
Gross margin	53	(322)	(269)
Research and development	—	4,897	4,897
General and administrative	—	2,759	2,759
Income (Loss) from Operations	**$ 53**	**(7,978)**	**(7,925)**
Three months ended December 31, 2018			
Revenue with customers	$ 260	$ 64	$ 323
Total Revenue	260	64	323
Cost of revenue	357	14	370
Gross margin	(97)	50	(47)
Research and development	—	4,474	4,474
General and administrative	—	1,834	1,834
Income (Loss) from Operations	**$ (97)**	**$ (6,258)**	**(6,355)**
Six months ended December 31, 2019			
Revenue with customers	$ 684	$ 377	$ 1,061
Total Revenue	684	377	1,061
Cost of revenue	407	716	1,123
Gross margin	277	(339)	(62)
Research and development	—	9,967	9,967
General and administrative	—	5,569	5,569
Income (Loss) from Operations	**$ 277**	**(15,875)**	**(15,598)**
Six months ended December 31, 2018			
Revenue with customers	$ 408	$ 119	$ 527
Grant revenue	—	109	109
Total Revenue	408	228	636
Cost of revenue	489	24	514
Gross margin	(81)	204	122
Research and development	—	8,836	8,836
General and administrative	—	4,338	4,338
Income (Loss) from Operations	**$ (81)**	**$ (12,970)**	**(13,052)**
As of December 31, 2019			
Accounts receivable	$ 337	$ 789	$ 1,126
Property and equipment, net	—	$ 19,382	$ 19,382
As of June 30, 2019			
Accounts receivable	$ 150	$ 135	$ 285
Property and equipment, net	$ 54	$ 15,124	$ 15,178

Note 15. Subsequent Events

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) projections 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 scale our New York wafer fabrication facility and related operations while maintaining quality control and assurance and avoiding delays in output; 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 weaknesses 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 September 13, 2019 (the "2019 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 an emerging commercial company focused on developing, designing, and manufacturing innovative RF filter products for the wireless industry, including for products such as smartphones and tablets, network infrastructure equipment, WiFi Customer Premise Equipment ("CPE") and defense applications. Filters are critical in selecting and rejecting signals, and their performance enables differentiation in the modules defining the RF front-end ("RFFE"). Located between the device's antenna and its digital backend, the "RFFE" is the circuitry that performs the analog signal processing and contains components such as amplifiers, filters and switches. We have developed a proprietary microelectromechanical system ("MEMS") based bulk acoustic wave ("BAW") technology and a unique manufacturing process flow, called "XBAW", for our filters produced for use in RFFE modules. Our XBAW™ filters incorporate optimized high purity piezoelectric materials for high power, high frequency and wide bandwidth operation.

We believe owning the core resonator device technology, manufacturing facility and intellectual property ("IP") to produce our RF filter designs is the most direct and efficient means of delivering our solutions to the market. Furthermore, our technology is based upon bulk-mode acoustic resonance, which we believe is superior to surface-mode resonance for high-band applications that include 4G/LTE, 5G, WiFi, and defense applications. Although some of our target customers utilize or make the RFFE module, they may lack access to critical ultra-high-band (UHB) filter technology needed to compete in high frequency applications. We seek to design, manufacture, and market our RF filter products to mobile phone original equipment manufacturers ("OEMs"), defense OEMs, network infrastructure OEMs, and WiFi CPE OEM's to enable broader competition among the front-end module manufacturers. We operate as a "pure-play" RF filter supplier and align with the front-end module manufacturers who seek to acquire high performance filters to expand their module business.

We currently build high performance RF filter circuits, using our first generation XBAW™ wafer process, in our 120,000-square foot wafer-manufacturing facility located in Canandaigua, New York, which we acquired in June 2017. As of January 17, 2020, our intellectual property (IP) portfolio included 29 patents, including a blocking patent that we have licensed from Cornell University. Additionally, as of January 17, 2020, we have 54 pending patent applications. These patents cover our XBAW ™ RF filter technology from raw materials through the system architectures. 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, 5G, WiFi and defense bands using our proprietary resonator device models and product design kits (PDKs). As we qualify our first RF filter products, we are engaging with target customers to evaluate our filter solutions. Our initial designs target UHB, sub 7 GHz 4G/LTE, 5G, WiFi and defense 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 standardized filters that we design and offer as standard catalog components. Second, we expect to deliver unique filters to customer-supplied specifications, which we will design and fabricate on a customized basis. Finally, we may offer our models and design kits for our customers to design their own filters 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 and production orders, government grants, MEMS foundry and engineering services, and sales of debt and equity securities. We have incurred losses totaling approximately $85.8 million from inception through December 31, 2019. 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 design solutions.

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, 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.

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.

We plan to pursue RF filter design and R&D development agreements and potentially joint ventures with target customers and other strategic partners, although 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 24, 2020, the Company had $44.4 million 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. 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 between $8 million and $10 million 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 and changes in or revisions to our marketing strategies.

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.

Recent Developments

On November 19, 2019 Akoustis shipped 60,000 5.6 GHz filters to an existing distributor partner. In early December 2019, the Company received its first 5G network infrastructure filter order for small cell base stations.

On December 16, 2019 the Company shipped two new XBAW filters to its 5G mobile customer, bringing the total number of mobile filters shipped to the customer to three. In December 2019, Akoustis also shipped the first sample of its wafer level package (WLP), with the small form factor designed to penetrate the mobile device market.

At the end of December 2019, Akoustis shipped five new S-band filters in the 2-4 GHz range to a defense customer for phased array radar applications. The Company also shipped its tandem 5.2/5.6 GHz WiFi filter solutions to a tier-1 OEM and received a second 5G massive MIMO network infrastructure development order from a tier-1 customer.

Underwritten Public Offering of Common Stock

During the quarter ended December 31, 2019, the Company sold a total of 5,520,000 shares of its common stock at a price to the public of $6.25 per share for aggregate gross proceeds of $34.5 million before deducting the underwriting discount and offering expenses payable by the Company of approximately $2.3 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.

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 2019 Annual Report.

Results of Operations

Three Months Ended December 31, 2019 and 2018

Revenue

The Company recorded revenue of $0.5 million during the three months ended December 31, 2019 as compared to $0.3 million for the three months ended December 31, 2018. Revenue recorded during the three months ended December 31, 2019 included $0.2 million of RF filter and amplifier sales and $0.3 million of non-recurring engineering services. The RF filters sales were primarily sales of infrastructure filters as well as WiFi filters. Revenue for the three months ended December 31, 2018 consisted of $0.2 million of non-recurring engineering services and $0.1 million of RF filter and amplifier sales.

Cost of Revenue

The Company recorded cost of revenue of $0.8 million in the three months ended December 31, 2019 and $0.4 million in the three months ended December 31, 2018, which included direct labor, direct materials and facility costs. The increase in cost of sales was primarily related to sales of infrastructure and WiFi filters.

Research and Development Expenses

R&D expenses were $4.9 million for the three months ended December 31, 2019 and were $0.4 million, or 9%, higher than the prior year amount for the same period of $4.5 million. The period-over-period increase was primarily in the areas of R&D personnel costs. Personnel costs, including stock-based compensation, were $2.7 million compared to $2.4 million in the prior year period, an increase of $0.3 million or 15%. The higher personnel cost was due to additional R&D headcount at both the Huntersville, NC location and the Company's Canandaigua NY wafer-manufacturing facility (the "NY Facility") as well as an increase in stock-based compensation.

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, 2019 were $2.8 million, which is an increase of $1.0 million compared to the three months ended December 31, 2018. Year over year changes within G&A expenses include an increase in employee compensation including stock based compensation of $0.6 million as well as an increase in professional fees of $0.3 million.

Other (Expense)/Income

Other expenses for the three months ended December 31, 2019 were $1.4 million, which included debt discount amortization of $0.8 million, interest expense, net of $0.3 million, and a change in fair value of our derivative liability of $0.3 million. Other expenses for the three months ended December 31, 2018 were $0.4 million, consisting of interest expense of $0.3 million and $0.5 million of debt discount amortization offset by a $0.3 million reduction of our derivative liability and interest income of $0.1 million.

Net Loss

The Company recorded a net loss of $9.3 million for the three months ended December 31, 2019, compared to a net loss of $6.7 million for the three months ended December 31, 2018. The period-over-period incremental loss of $2.6 million, or 38%, was primarily driven by an increase in other expenses of $1.0 million, increases in R&D related compensation of $0.4 million and increases in general expenses, including professional fees and compensation of $0.9 million.

Six Months Ended December 31, 2019 and 2018

Revenue

The Company recorded revenue of $1.1 million during the six months ended December 31, 2019 as compared to $0.6 million for the six months ended December 31, 2018. Revenue recorded during the six months ended December 31, 2019 included $0.4 million of RF filter and amplifier sales, $0.3 million of foundry services, and $0.4 million of revenue for non-recurring engineering services. The revenue for the six months ended December 31, 2018 consisted of $0.3 million of revenue for non-recurring engineering services, $0.1 million of revenue for foundry services, $0.1 million of grant revenue and $0.1 million of RF filter and amplifier sales.

Cost of Revenue

The Company recorded cost of revenue of $1.1 million in the six months ended December 31, 2019 and $0.5 million in the six months ended December 31, 2018, which included direct labor, direct materials and facility costs. The increase in cost of sales was primarily related to sales of infrastructure and WiFi filters.

Research and Development Expenses

R&D expenses were $10.0 million for the six months ended December 31, 2019 and were $1.2 million, or 14%, higher than the prior year amount for the same period of $8.8 million. The period-over-period increase was primarily in the areas of R&D personnel costs and R&D equipment depreciation. Personnel costs, including stock-based compensation, were $5.8 million compared to $5.1 million in the prior year period, an increase of $0.7 million or 14%. The higher personnel cost was due to additional R&D headcount at both the Huntersville, NC location and the NY Facility. Depreciation expense was $0.2 million higher than the prior year at $1.4 million.

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 six months ended December 31, 2019 were $5.6 million, which is an increase of $1.2 million compared to the six months ended December 31, 2018. Year over year changes within G&A expenses include an increase in employee compensation including stock compensation, of $0.5 million, an increase in professional fees of $0.5 million and an increase in other administrative expenses of $0.2 million.

Other (Expense)/Income

Other expenses for the six months ended December 31, 2019 were $2.7 million, which included debt discount amortization of $1.5 million, interest expense of $0.8 million, and a change in fair value of our derivative liability of $0.7 million. These expenses were partially offset by interest income of $0.2 million. Other expenses for the six months ended December 31, 2018 were $1.0 million, consisting of $0.8 million of debt discount amortization and interest expense of $0.6 million. These were partially offset by interest income of $0.1 million and a reduction to our derivative liability of $0.2 million.

Net Loss

The Company recorded a net loss of $18.3 million for the six months ended December 31, 2019, compared to a net loss of $14.1 million for the six months ended December 31, 2018. The period-over-period incremental loss of $4.2 million, or 30%, was primarily driven by an increase in other expenses of $1.7 million, increases in R&D related expenses of $1.1 million and increases in general expenses, including professional fees and compensation of $1.2 million.

Liquidity and Capital Resources

Financing Activities

The Company had $46.4 million of cash and cash equivalents on hand as of December 31, 2019, which reflects an increase of $16.2 million compared to $30.2 million as of June 30, 2019. The $16.2 million increase is primarily due to $32.3 million in net cash proceeds from issuance of common stock from the recent equity raise. The Company used $11.9 million for operating activities and $4.1 million in capital expenditures for the six months ended December 31, 2019. The Company estimates that cash on hand will fund its operations, including current capital expense commitments beyond the next twelve months from the date of filing of this Form 10-Q.

Balance Sheet and Working Capital

December 31, 2019 compared to June 30, 2019

As of December 31, 2019, the Company had current assets of $48.3 million made up primarily of total cash on hand of $46.3 million. As of June 30, 2019, current assets were $31.7 million comprised primarily of total cash on hand of $30.2 million.

Property, Plant and Equipment was $19.4 million as of December 31, 2019 as compared to a balance of $15.2 million as of June 30, 2019. The approximate $4.2 million increase is primarily due to the purchase of R&D and manufacturing equipment of $5.6 million, offset by depreciation of $1.4 million.

Total assets as of December 31, 2019 and June 30, 2019 were $69.3 million and $47.9 million, respectively.

Current liabilities as of December 31, 2019 and June 30, 2019 were $3.6 million and $3.2 million, respectively.

Long-term liabilities totaled $21.5 million as of December 31, 2019, compared to $18.8 million as of June 30, 2019. The increase of $2.7 million was due to the increase in convertible notes, net of debt discount and issuance costs as well as the establishment of a right of use liability upon adoption of ASC 842 which totaled $0.6 million.

Stockholders' equity was $44.2 million as of December 31, 2019, compared to $26.0 million as of June 30, 2019, an increase of $18.2 million, or 70%. This increase was primarily due to common stock issued for cash, net of issuance costs of $32.2 million, common stock issued for services of $3.3 million, vesting of restricted shares of $0.3 million, employee stock purchases of $0.2 million and common stock issued for payment of note interest of $0.5 million. These were offset by the net loss for the six months ended December 31, 2019 of $18.3 million.

Cash Flow Analysis

Operating activities used cash of $12.0 million during the six months ended December 31, 2019 and $8.6 million during the 2018 comparative period. The $3.4 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).

Investing activities used cash of $4.3 million for the six months ended December 31, 2019 compared to $1.8 million for the comparative period ended December 31, 2018. The $2.5 million period-over-period increase was primarily due to increased spend on R&D equipment.

Cash provided by financing activities was $32.5 million for the six months ended December 31, 2019 compared to $37.6 million for the comparative period ended December 31, 2018 due a reduction in cash received from equity and convertible note issuances in the comparative period.

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, 2019. Based on that evaluation, our Chief Executive Officer and Interim Chief Financial Officer concluded that our disclosure controls and procedures were not effective as of such date due to the material weaknesses described below with respect to our internal control over financial reporting.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. As previously disclosed in our annual report on Form 10K for the fiscal year ended June 30, 2019, we identified the following material weaknesses in the Company's internal controls over financial reporting:

1. The Company did not design and implement effective Information Technology General Controls ("ITGC") for certain information systems that are relevant to the preparation of the Company's financial statements. Specifically, applications supporting the processes of payroll, cash management, fixed assets and financial close included deficiencies related to user access controls, change management, information technology operations and third-party service providers. These ITGC deficiencies, combined with inadequate compensating review controls, create a reasonable possibility that a material misstatement to the consolidated financial statements will not be prevented or detected on a timely basis.

2. Management review controls designed to address risks associated with complex accounting matters that arise from significant routine and non-routine transactions – related to revenue, share-based compensation, research and development expense, and debt – to ensure that those transactions are properly accounted for in accordance with U.S. GAAP did not operate effectively.

Remediation Plan

IT General Controls: During the first quarter of fiscal year 2020, key mitigating controls were designed and implemented to mitigate risks in the absence of full year coverage of SSAE-18 (SOC1) reports. These controls will be tested for design and operating effectiveness during fiscal year 2020.

Non-Routine Transaction Review: During the first quarter of fiscal year 2020, controls were designed and implemented to mitigate risks related to review of all non-routing, material transactions specifically around revenue, share-based compensation, research and development expense and debt. These controls will be tested for design and operating effectiveness during fiscal year 2020.

Changes in Internal Control over Financial Reporting

Other than the mitigating controls referenced above, 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.

Except as noted below, 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.

Effective November 5, 2018, the employment by the Company of its former principal financial officer, John T. Kurtzweil (the "Former CFO"), ended, after which the Former CFO filed for an arbitration hearing pursuant to the terms of his employment agreement and filed a complaint under the whistleblower provisions of the Sarbanes-Oxley Act of 2002 with the Occupational Safety and Health Administration ("OSHA") of the U.S. Department of Labor. On October 28, 2019, the Company and the Former CFO entered into a Settlement Agreement that resolved all pending disputes between the parties with no admission of liability by either party. OSHA approved the Settlement Agreement and closed its investigation of the Former CEO's whistleblower complaint on November 26, 2019. Pursuant to the Settlement Agreement, the Company paid the Former CFO an all-inclusive settlement amount of $375 thousand in cash. As part of the Settlement Agreement, all unvested restricted stock units and stock options were acknowledged as forfeited as of such date. The arbitration was closed on December 30, 2019.

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 fiscal year ended June 30, 2019. 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. There have been no material changes to the risk factors described in Part I, Item 1A, "*Risk Factors*," included in our 2019 Annual Report.

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

Unregistered Sales of Equity Securities

On October 11, 2019, the Company issued 2,500 shares of common stock to the brother of the Company's Chief Executive Officer in exchange for equipment with a fair market value of $20,000. The shares were issued in a transaction exempt from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(a)(2) thereof as a transaction by an issuer not involving any public offering.

Other than the issuance described above and any sales 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)
3.5	Certificate of Amendment to the Certificate of Incorporation of the Company, as filed with the Delaware Secretary of State on November 4, 2019 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on November 6, 2019)
10.1†	Purchase Order and Agreement of Sale, dated October 25, 2019, by and between the Company and EV Group, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the SEC on November 7, 2019)
10.2††	Amendment to 2018 Stock Incentive Plan (incorporated by reference to Appendix B of the Company's definitive proxy statement for its 2019 Annual Meeting of Stockholders, filed September 24, 2019)
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

† Confidential portions of this exhibit have been omitted

†† Management contract or compensatory plan or 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: January 31, 2020	**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: January 31, 2020

/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:

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: January 31, 2020

/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, 2019, 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: January 31, 2020

/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, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Kenneth E. Boller, Interim 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: January 31, 2020

/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.