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

**FORM 8-K**

**CURRENT REPORT**

**Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **October 24, 2018**

**Akoustis Technologies, Inc.**  
(Exact name of registrant as specified in its charter)

**Delaware**  
(State or Other Jurisdiction  
of Incorporation)

**001-38029**  
(Commission File  
Number)

**33-1229046**  
(I.R.S. Employer  
Identification Number)

**9805 Northcross Center Court, Suite A**  
**Huntersville, NC 28078**  
(Address of principal executive offices, including zip code)

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

**Not Applicable**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter)

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.

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**Item 7.01 Regulation FD Disclosure.**

On October 24, 2018, Akoustis Technologies, Inc. (the “Company”) posted presentation materials (the “Investor Presentation”) to the investor relations section of the Company’s website at <http://ir.akoustis.com>. The investor relations section of the Company’s website contains additional information that may be of interest to investors. The Investor Presentation is also furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information contained in this Item 7.01 of this report is being furnished and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section. The information in this Item 7.01 shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

**Exhibit  
Number**

**Description**

99.1      [Akoustis Technologies, Inc. October 2018 Investor Presentation, furnished herewith.](#)

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**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 hereunto duly authorized.

**AKOUSTIS TECHNOLOGIES, INC.**

Date: October 26, 2018

By: /s/ John T. Kurtzweil

Name: John T. Kurtzweil

Title: Chief Financial Officer

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# Investor Presentation

OCTOBER 2018

INNOVATION IN SINGLE  
CRYSTAL BULK WAVE  
TECHNOLOGY



## FORWARD-LOOKING STATEMENTS

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This document includes "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the "safe harbor" created by those sections. These forward-looking statements include, but are not limited to, statements about our estimates, expectations, beliefs, intentions, plans or strategies for the future (including our possible future results of operations, business strategies, competitive position, potential growth opportunities, potential market opportunities and the effects of competition), and the assumptions underlying such statements. Forward-looking statements include all statements that are not historical facts and typically are identified by use of terms such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "intend," "forecast," "seek," "potential," "continue" and similar words, although some forward-looking statements are expressed differently. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, these forward-looking statements are based on management's current beliefs, expectations and assumptions and are subject to risks and uncertainties. Factors that could cause actual results to differ materially from those currently anticipated include, without limitation, risks relating to the results of our research and development activities, including uncertainties relating to semiconductor process manufacturing; the development of our XBAW™ technology and products presently under development and the anticipated timing of such development; our ability to protect our intellectual property rights that are valuable to our business, including patent and other intellectual property rights; our ability to successfully manufacture, market and sell products based on our technologies; the ability to achieve qualification of our products for commercial manufacturing in a timely manner and the size and growth of the potential markets for any products so qualified; the rate and degree of market acceptance of any of our products; our ability to raise funding to support operations and the continued development and qualification of our products and the technologies underlying them; and our ability to service our outstanding indebtedness. These and other risks and uncertainties are described in more detail in the Risk Factors and Management's Discussion and Analysis of Financial Condition and Results of Operations sections of the Company's most recent Annual Report on Form 10-K and in subsequently filed Quarterly Reports on Form 10-Q. Considering these risks, uncertainties and assumptions, the forward-looking statements regarding future events and circumstances discussed in this document may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. The forward-looking statements included in this document speak only as of the date hereof and, except as required by law, we undertake no obligation to update publicly or privately any forward-looking statements, whether written or oral, for any reason after the date of this document to conform these statements to new information, actual results or to changes in our expectations.

THESE MATERIALS DO NOT CONSTITUTE AN OFFER TO SELL, OR THE SOLICITATION OF ANY OFFER TO BUY, ANY SECURITIES OF AKOUSTIS TECHNOLOGIES, INC., OR OF ANY OTHER ENTITY WHATSOEVER. ANY REPRESENTATION TO THE CONTRARY SHOULD BE IGNORED.

"Akoustis®", the Akoustis logo, "BulkONE®" and "XBAW™" are trademarks or registered trademarks of Akoustis Technologies, Inc. and/or its subsidiaries.

# AKOUSTIS AT A GLANCE

## Snapshot



Shares Outstanding (09/30/18)	22.4M
Debt (09/30/18)	\$15.0M
Cash (09/30/18)	\$9.1M

- **Ticker:** AKTS (NASDAQ)
- **Corporate HQ:** Huntersville, NC
- **Manufacturing (fully integrated):** Canandaigua, NY
- **Founded:** 2014
- **Employees:** 76

(1) Source: Mobile Experts 2016, March 2017 Update.

## Company Overview

- Akoustis Technologies ("Akoustis" or "the Company") designs and manufactures **patented single crystal radio frequency ("RF") BAW filters** for the 4G/5G, WiFi, infrastructure and military markets
- Product advantages include **power handling, bandwidth, size and speed**
- **First BAW RF manufacturing line** completed and producing RF filters from a **wafer process which is in control and predictable**
- Commercial portfolio includes 5.2 GHz BAW RF filter (WiFi) and 3.8 GHz filter (Radar); **new contracts** to develop **two 5G Mobile Infrastructure filters** (3.5 GHz, 3.6 GHz) and **two 4G/LTE Infrastructure filters** (1.8 GHz)

## Investment Highlights

- **\$2.6 billion addressable market in 2017**, and expected to grow to \$4.8B by 2021 – the fastest growing segment of \$14B RFFE (radio frequency front end)<sup>(1)</sup>
- Positioned to capitalize on **escalating demands for mobile data** requiring higher frequency operation (5G and unlicensed bands/WiFi)
- Customer engagement, testing and pre-production orders from OEM, ODM, SoC and RF module maker partners across target markets
- **Vertically-integrated design and manufacturing (IDM)** business model in premium RF filter market enables streamlined execution, quality assurance and cost efficiencies
- **Experienced management team** with expertise in radio frequency technologies and microelectromechanical systems ("**MEMS**")

INNOVATION IN SINGLE CRYSTAL  
BULK WAVE TECHNOLOGY



# EXECUTIVE LEADERSHIP & PARTNERS

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**JEFF SHEALY**  
FOUNDER & CEO

Former VP & GM at RFMD (Qorvo)  
Co-founded RF Nitro (sold to RFMD)  
22 YRS Industry Exp., MBA & PhD



**JOHN KURTZWEIL**  
CFO

Former CFO at Wolfspeed CREE, Extreme Networks; 30 YRS Industry Exp., CPA & MBA



**DAVID AICHELE**  
VP BUS DEV

Former Director RFMD (Qorvo) & Exec VP Private Company  
23 YRS Industry Exp., BSEE & MBA



**ROHAN HOULDEN**  
VP ENG

Former GM at Qorvo & Product Line Mgr. at Conexant  
27 YRS Industry Exp., BSEE & MBA



**MARY WINTERS**  
VP WAFER FAB

Former Director MEMS ITC & Sr. Eng. Eastman Kodak  
18 YRS Industry Exp., BSCE & MS

UNIVERSITY PARTNERS



COMMERCIAL PARTNERS



National Science Foundation (NSF)

INNOVATION IN SINGLE CRYSTAL BULK WAVE TECHNOLOGY



# SEASONED BOARD MEMBERS



**JERRY NEAL**  
CO-CHAIRMAN,  
DIRECTOR

Founded RFMD (now Qorvo); 35 YRS+ RF and Wireless Industry Experience



**ART GEISS**  
CO-CHAIRMAN,  
DIRECTOR

Former VP Operations RFMD (now Qorvo); previous Alpha mgmt. (now Skyworks)



**STEVE DENBAARS**  
DIRECTOR

Co-founded Nitres, Soraa, Soraa Laser Diode; UCSB Professor; Expert in III-N Materials



**JEFF MCMAHON**  
DIRECTOR

Director at North Highland, 17 YRS+ Mgmt. Consulting Experience



**SUZANNE RUDY**  
DIRECTOR

Former VP of Tax and Treasurer at Qorvo, UNC, UCSB degrees; Financial Expert



**STEVE MILLER**  
DIRECTOR

Former President/CEO and Chairman at Sawtek; Former Director at TriQuint



INNOVATION IN SINGLE CRYSTAL BULK WAVE TECHNOLOGY





# MOBILE DEVICES REQUIRE RF FILTERS TO CONNECT



## Mobile device RF complexity increasing:

### Multiband

- Today greater than 40 bands
- Next generation up to 100 bands
- More bands drive greater co-existence needs

### Multimode

- Next generation includes 2G, 3G, 4G, 5G
- Expanding high band spectrum

### Multi Connectivity

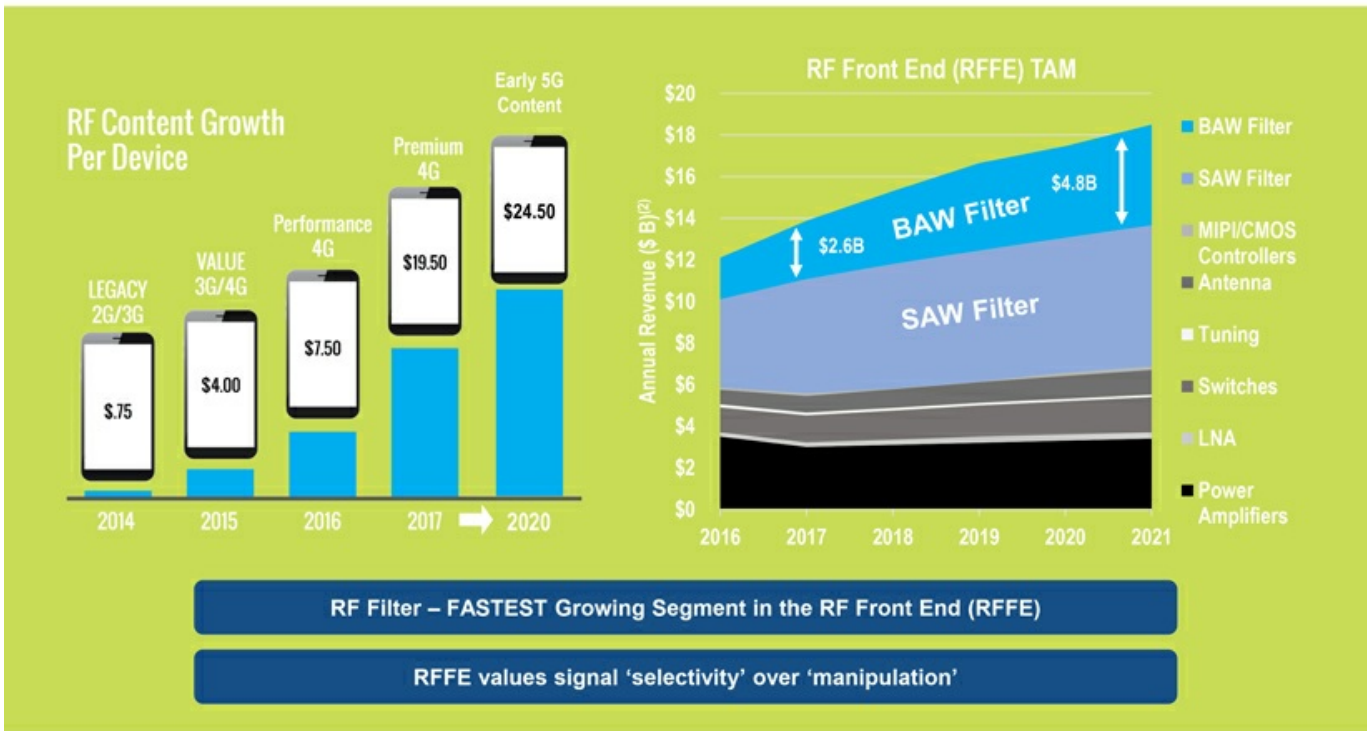
- Data speeds driving architecture
- Utilizing unlicensed 5GHz spectrum

Akoustis' RF filter technology supports high band spectrum in smartphones enabling faster internet speeds

INNOVATION IN SINGLE CRYSTAL  
BULK WAVE TECHNOLOGY

**AKOUSTIS**  
TECHNOLOGIES

# RF MARKET DYNAMICS



(1) Source: Barclays, Semiconductor Market Perspectives, 2017.  
 (2) Source: Mobile Experts 2018.

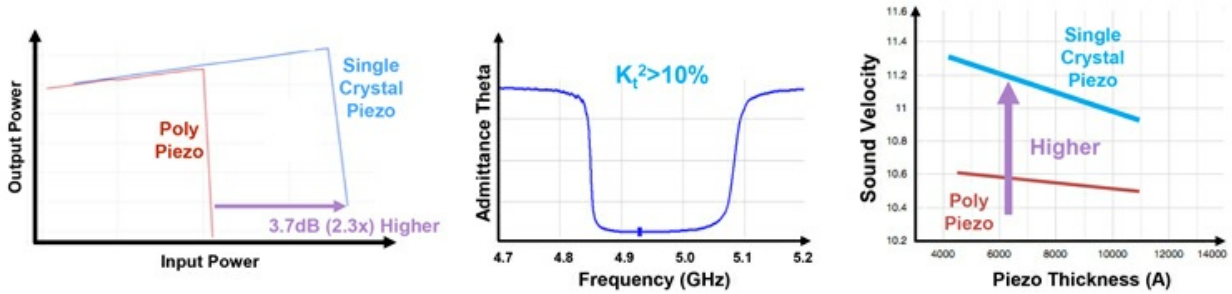
# AKOUSTIS TARGET END MARKETS



	4G LTE MOBILE	5G MOBILE	WiFi	BTS	Military
Application	Smartphones, Tablets, Pucks		Tri-Band Routers, Set-Top Boxes, CPE	FD-MIMO, Small Cells	Radar, Milcom
Akoustis Solutions	1.8-3 GHz BAW Discrete/Multiplex Filter	3-6 GHz BAW Discrete/Multiplex Filter	2.4/5,2/5.7GHz BAW Discrete Filter	1.8-6 GHz BAW Discrete/Multiplex Filter	1-10 GHz Discrete, Multiplexer, Integrated Switch Filters
Value Proposition	Improve battery life & reduce dropped calls	Size reduction, Improve battery life & reduce dropped calls	Size reduction support 5 GHz, multiband simultaneous operation	Size reduction support higher power, improve receive sensitivity	Size reduction support higher power,
2020 Filter Market Size	\$10.6 Billion <sup>(1)</sup>			\$1.0 Billion <sup>(2)</sup>	

(1) Source: Mobile Experts 2018.  
 (2) Source: Mobile Experts 2018, ABI 2017, Akoustis.

# WHY SINGLE CRYSTAL FOR BAW?



High power handling

High mechanical coupling

High sound velocity

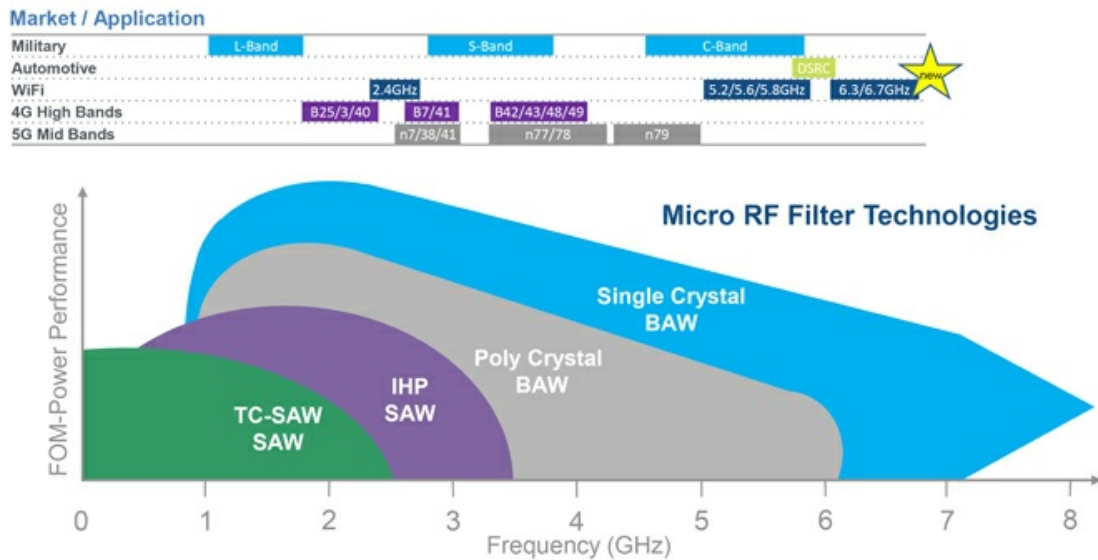
High power, wide bandwidth RF filters operating at high frequency

(1) Source: Akoustis Measured Data, 2018.  
 (2) Source: Akoustis' 2018 IEEE International Ultrasonics Symposium (IUS) Paper.

# COMPETING BAW FILTER TECHNOLOGY



# SINGLE CRYSTAL BAW (XBAW™) TECHNOLOGY: 1 to 7 GHz



- Single crystal XBAW enables **high power performance RF filters** from 1 to 7 GHz
- Akoustis is **first in market** for 5.2 GHz WiFi filters; **2<sup>nd</sup> high-band (5.6GHz) WiFi solution** in development
- Announced **contract to develop 5G Infrastructure** base station filters
- **Pursuing new 5G engagements** for Mobile where higher performance RF filters are required

# EXPANDING INTELLECTUAL PROPERTY (IP) PORTFOLIO



System Application

High Selectivity Filters

Package Technology

Acoustic Devices & Manufacturing

Piezo Materials

Platform Substrates

## Akoustis IP Portfolio

- Foundational single crystal BAW devices and RF filters
- Vertical portfolio from platform substrates to system application
- **18 Patents<sup>(1)</sup>, 38 patents pending plus numerous trade secrets**
- Key University IP from Cornell in materials



<http://www.akoustis.com/patents/>

(1) Includes Akoustis issued patents, Cornell patent under license (see PR 9-7-16), and UCSB patents under agreement (see PR 9-22-15).

## QUALIFIED XBAW WAFER FAB – CANANDAIGUA, NY

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- **Acquired 122,000 sq. ft. Silicon MEMS Wafer Fab Facility** (June 2017), including 30,000 sq. ft. class 100/1000 clean room, 150-mm wafer fab tools, 57-acres of real property and MEMS Operations team
- Consolidated Company's supply chain (piezo materials, wafer fab, selective resonator trimming) into one turn-key facility with **shorter cycle time and scalable manufacturing capacity (estimated up to 150,000 6" wafers starts per year when fully equipped)**
- **ISO 9001:2015** registered quality management system
- **Completed first generation XBAW (XB1) process** (July 2018)
- Company transforming into an **Integrated Design and Manufacturer (IDM)**



## TARGET MILESTONES (BY MARKET)

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### WiFi

- **Q4 CY18:** First 5.2 GHz WiFi pre-production order
- **Q4 CY18:** Deliver 5.6 GHz samples to target customers

### 5G Mobile

- **1H CY19:** Complete wafer-level packaging design
- **2H CY19:** Design win from mobile customer

### 5G Infrastructure

- **1H CY19:** Deliver 5G filter samples to potential customers
- **2H CY19:** Receive 5G infrastructure order

### 4G Infrastructure / Defense

- **Q4 CY18:** Ship 3.8 GHz filter against open production purchase order
- **Q4 CY18:** Deliver two 4G LTE filter product prototypes for open purchase order
- **1H CY19:** Ship production product to current 4G LTE customer

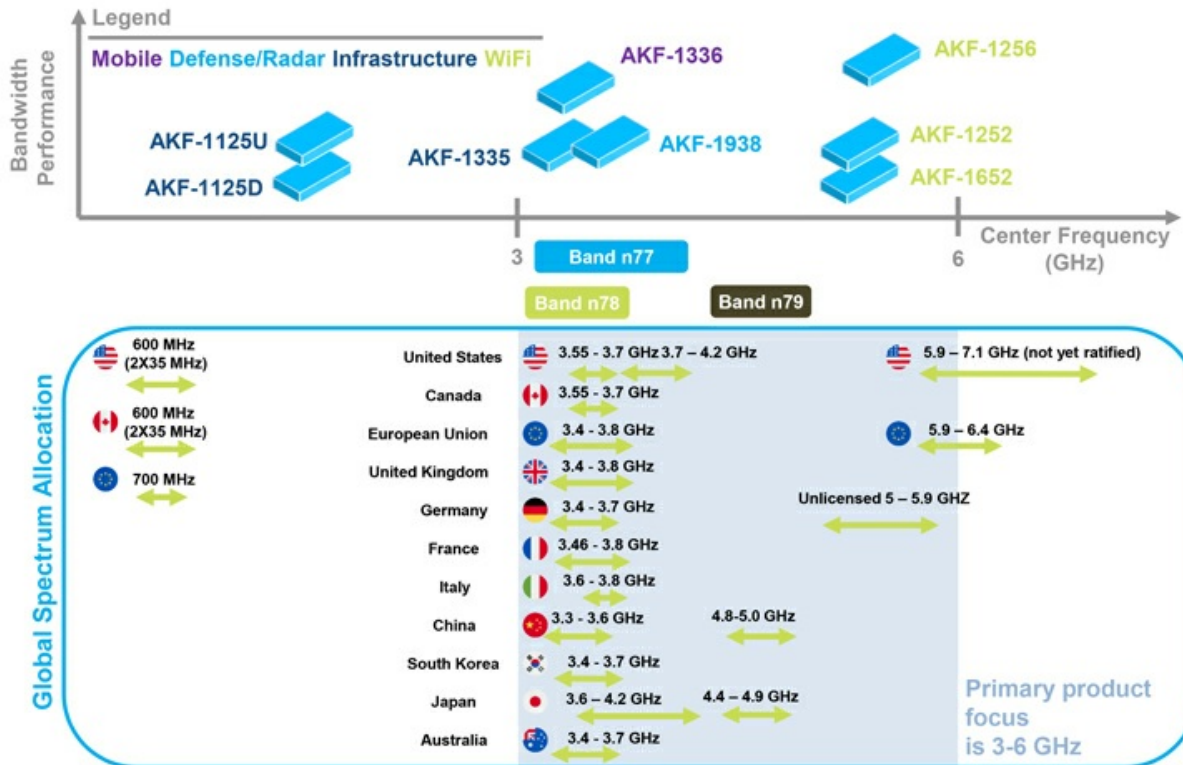
**5x manufacturing capacity expansion planned over next 2 years to support business**

## RECENT DEVELOPMENTS

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- **October 4, 2018** – Recorded **first RF BAW filter product revenue** in September and received second production order for the AKF-1938 (3.8 GHz) from a military OEM specializing in non-mobile communication systems
- **October 1, 2018** – **Announced AKF-1252** (5.2 GHz) filter design has been locked and is in pre-production; received **first order** from a RF distributor and testing with other potential customers, with the first order for WiFi applications expected in Q4 CY18
- **October 1, 2018** – Announced an **order from a 5G mobile infrastructure customer**
- **August 1, 2018** – Added first **CBRS (Citizens Broadband Radio Service) customer with purchase order** of 3.6 GHz BAW RF filters
- **July 16, 2018** – **Announced AKF-1938 (3.8 GHz) BAW RF filter design win and commercial production order** from a military OEM specializing in non-mobile communication systems
- **July 9, 2018** – **Completed wafer technology qualification (XB1)** for single crystal BAW RF filter products
- **June 20, 2018** – Introduced the **industry's first 5.2 GHz BAW RF co-existence filter**, targeted towards future 4G LTE and 5G mobile devices
- **May 11, 2018** – Announced **two new purchase orders for two 4G LTE BAW RF filters from a new tier-one mobile infrastructure OEM customer**

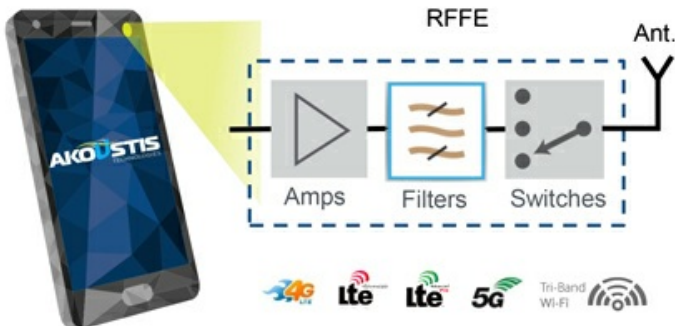
# GROWING, HIGH-FREQUENCY PRODUCT PORTFOLIO



Source: Qualcomm, Oct 2017, Huawei, 2017.

# MOBILE WIRELESS / SMARTPHONE

## Application



## Product Focus / Market Dynamics

- Focus on new 3-6 GHz spectrum for 5G
- 5G mobile design cycles ongoing to support late CY19 handsets launch
- WiFi shift from dual-band to tri-band
- MIMO/MU-MIMO architectures growing; driving radio content including filters
- Value proposition: power, bandwidth, size

## Target Customers

### OEM / Transceiver

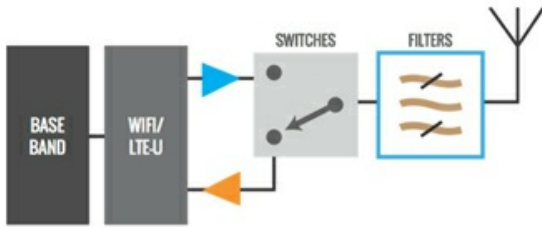


### RFFE Module



# BAW CAN ADDRESS HIGH-FREQUENCY WIFI BANDS

## Application



## Product Focus / Market Dynamics

- First to market with 5.2 GHz RF filter to replace larger dielectric resonator (DR) discrete RF filters
- 5.6 GHz RF filter product samples expected Q4 CY18
- Focus on retail and enterprise models
- Most platforms utilize discrete RF filters
- New retail models every 6 months, new enterprise models every 12-18 months

## Target Customers



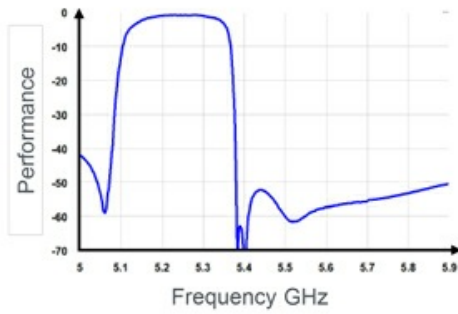
# SPEC COMPLIANT 5.2 GHz BAW RF FILTER PRODUCT AVAILABLE

## AKF-1252 RF Filter solution optimized for Tri-Band WiFi Routers

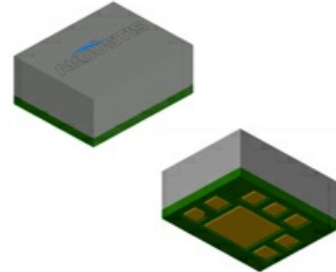
Industry Leading 5 GHz BAW Performance

AKF-1252 RF Product Features

Reduced Size



- ✓ **Wide Bandwidth**  
Solution for U-NII-1+2A Band
- ✓ **Low Loss**  
<1.2dB typical in U-NII-1+2A band
- ✓ **High Rejection**  
>52dB in U-NII-2C+3 band
- ✓ **High Power Rating**  
+30dBm maximum



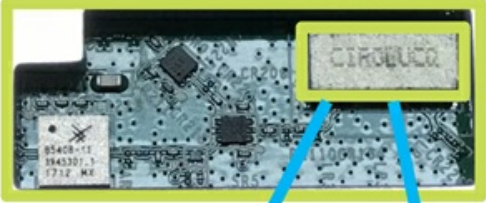
Ultra-small footprint 2.5 x 2 x 0.9 mm  
Laminate module

Addresses 5 GHz co-existence in Tri-Band WiFi routers

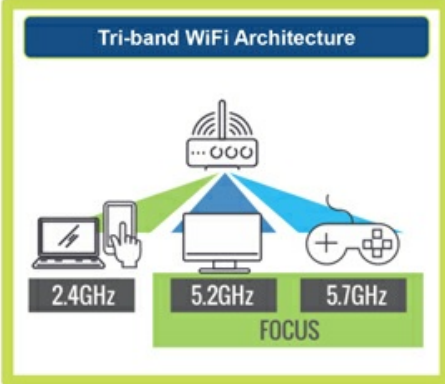
Size reduction supports growing MU-MIMO complexity


# KEY ADVANTAGE FOR WIFI : SIZE REDUCTION

**5.2GHz Radio**

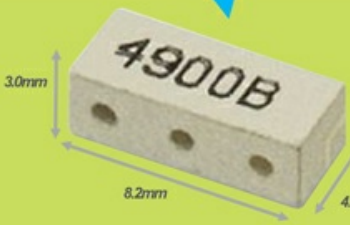


**Tri-band WiFi Architecture**






**Tri-Band 2.4/5.2/5.7 GHz WiFi Router (2x2 MIMO)**



**Akoustis 5 GHz BAW filter is 23x smaller:**  
103 mm<sup>3</sup> vs. 4.5 mm<sup>3</sup>

**AKF-1252 Akoustis**



2.5mm x 2.0mm x 0.9mm

Source: Link-Sys AC2200 MU-MIMO Tri-Band Router.

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# HISTORICAL FINANCIALS



# INCOME STATEMENT

	Fiscal Year Ended	
	June 30,	
	2018	2017
<i>(\$ in thousands, except per share data)</i>		
<b>Revenue</b>	<b>\$1,208</b>	<b>\$486</b>
Cost of revenue	1,019	-
<b>Gross profit</b>	<b>\$188</b>	<b>\$486</b>
<b>Operating expenses</b>		
Research and development	\$13,267	\$5,013
General and administrative expenses	8,804	6,157
Loss on disposal of fixed assets	45	-
Impairment of assets held for sale	350	-
<b>Total operating expenses</b>	<b>\$22,466</b>	<b>\$11,170</b>
<b>Loss from operations</b>	<b>(\$22,278)</b>	<b>(\$10,684)</b>
<b>Other (expense) income</b>		
Other income	\$0	-
Interest income	(329)	2
Bargain purchase	-	1,726
Rental income	313	-
Change in FV of contingent real estate liability	501	-
Change in FV of derivative liabilities	54	(877)
<b>Total other income</b>	<b>\$539</b>	<b>\$850</b>
<b>Net loss</b>	<b>(\$21,739)</b>	<b>(\$9,833)</b>
<b>Basic and diluted net loss per share</b>	<b>(\$1.04)</b>	<b>(\$0.58)</b>

Source: Company's FY2018 10-K.

# BALANCE SHEET

<i>(\$ in thousands)</i>	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
<b>Assets</b>				
Cash and cash equivalents	\$14,817	\$9,632		
Accounts receivable	215	-		
Inventory	58	188		
Prepaid expenses	306	158		
Deposits	484	43		
<b>Total current assets</b>	<b>\$15,879</b>	<b>\$10,021</b>		
Property and equipment, net	12,820	7,854		
Intangibles, net	264	207		
Assets held for sale, net	333	-		
Other assets	11	11		
<b>Total assets</b>	<b>\$29,308</b>	<b>\$18,092</b>		
<b>Liabilities</b>				
Accounts payable and accrued expenses			\$2,593	\$1,336
Deferred revenue			53	15
<b>Total current liabilities</b>			<b>\$2,646</b>	<b>\$1,351</b>
<b>Long-term Liabilities</b>				
Contingent real estate liability			\$1,230	\$1,731
Convertible notes payable, net			11,465	-
Other long term liabilities			117	-
<b>Total long-term liabilities</b>			<b>\$12,812</b>	<b>\$1,731</b>
<b>Total Liabilities</b>			<b>\$15,458</b>	<b>\$3,081</b>
<b>Stockholders' equity</b>				
Preferred stock			-	-
Common stock			22	19
Additional paid in capital			52,074	31,500
Accumulated deficit			(38,247)	(16,508)
<b>Total stockholders' equity</b>			<b>\$13,850</b>	<b>\$15,011</b>
<b>Total liabilities and stockholders' equity</b>			<b>\$29,308</b>	<b>\$18,092</b>

Source: Company's FY2018 10-K.



A leading, fully-integrated designer & manufacturer of patented, single crystal BAW RF filters for large, rapidly growing markets.

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