

April 8, 2020



# Akoustis Announces First 5G Network Infrastructure Design Win with Tier-1 OEM

- XBAW Filters Qualified and Designed into 5G Small Cell Product by Tier-1 Customer –
- Shipped XBAW Filters for 5G Small Cell Base Station Network Equipment in Q1 CY20 –
- Increasing XBAW Filter Shipments Expected for 5G Small Cell Base Station in Q2 CY20 –
- First of Multiple 5G Small Cell Filters Expected to Enter Production in Calendar 2020 –

Charlotte, N.C., April 08, 2020 (GLOBE NEWSWIRE) -- Akoustis Technologies, Inc. (NASDAQ: [AKTS](#)) (“Akoustis” or the “Company”), an integrated device manufacturer (IDM) of patented bulk acoustic wave (BAW) high-band RF filters for mobile and other wireless applications, announced today its first commercial design win for XBAW™ filters in 5G network infrastructure and first volume shipment to a tier-1 small cell customer in the March quarter.

Akoustis’ XBAW™ filters have been qualified in the initial build of 5G small cell base station systems for characterization and final customer acceptance. Akoustis completed first volume shipments in the March quarter and expects to increase shipments against the current [commercial volume order](#) during the June quarter. Upon expected contract award, this tier-1 OEM plans to ramp volume production in the September quarter. This represents the first design win of XBAW™ filters outside of the military/defense market and the first volume shipment of filters for the 5G small cell network infrastructure market.

In addition to this initial RF filter, Akoustis has completed development for a second 5G filter band and expects to receive a second volume order from the same customer by the end of the June quarter. Both filters operate in the sub-6 GHz, ultra-high frequency bands used for 5G networks and are initially targeting the rapidly growing market in Asia. XBAW™ filters are uniquely suited to serve the 5G network infrastructure market given the ability to handle high frequency, wide bandwidth and high power.

Jeff Shealy, Founder and CEO of Akoustis, stated, “Akoustis benefits from its internal design and manufacturing (IDM) business model during the ongoing Covid-19 pandemic as we control our supply chain to produce our XBAW™ RF filters. Through a combination of remote work authorization, work site isolation from visitors, expanded shift operation and individual discipline, we are supporting social distancing while maintaining a highly productive work environment as we have moved to two shifts in our NY Wafer Fab. Overall, we continue supporting product R&D and customer shipments while managing delays from our component suppliers and offshore packaging supply chain.”

Mr. Shealy continued, “Our first 5G design win and commercial shipment represents an enormous commercial milestone, particularly given the challenging pandemic environment. This initial XBAW™ filter transitioned from design to design-win and first volume shipment in approximately six months, a testament to our team and their tireless efforts. We look forward to expanding our relationship with this customer leveraging our expanding 5G product

portfolio in the coming months as they look to deliver small cell products with additional frequency bands.”

5G small cell base stations are low power, short range cellular transmission devices, capable of providing extended coverage for consumers, enterprises or to augment cellular coverage for 5G mobile service providers. They offer all the standard characteristics of a traditional tower base station and can handle high data throughput. 5G networks are expected to employ small cells in greater quantity than prior networks to help mitigate the shorter wavelengths associated with higher frequencies.

[In a recent report](#), Zion Market Research estimated the global small cell 5G network market was valued at around \$381 million in 2018 and is expected to reach approximately \$3.5 billion by 2025, at a CAGR of approximately 37% between 2019 and 2025.

Akoustis’ high frequency, high performance XBAW process and filters are experiencing growing interest as the Company prepares to enter production in multiple markets in calendar 2020, including 5G network infrastructure, high-band WiFi and the phased-array radar applications

Akoustis has introduced several new filters over the past twelve months including a [5.6 GHz WiFi filter](#), a [5.2 GHz WiFi filter](#), a [4.9 GHz band n79 filter](#) for small cell network infrastructure, a [3.8 GHz filter](#) and [five S-Band filters](#) for defense phased-array radar applications and a [3.6 GHz filter](#) for the CBRS 5G infrastructure market. The Company is also developing several new filters for the sub-7 GHz bands targeting 5G mobile device, network infrastructure, WiFi CPE and defense markets.

### **About Akoustis Technologies, Inc.**

Akoustis® ([www.akoustis.com](http://www.akoustis.com)) is a high-tech BAW RF filter solutions company that is pioneering next-generation materials science and MEMS wafer manufacturing to address the market requirements for improved RF filters - targeting higher bandwidth, higher operating frequencies and higher output power compared to incumbent polycrystalline BAW technology deployed today. The Company utilizes its proprietary [XBAW manufacturing process](#) to produce bulk acoustic wave RF filters for mobile and other wireless markets, which facilitate signal acquisition and accelerate band performance between the antenna and digital back end. Superior performance is driven by the significant advances of high-purity, single-crystal and associated piezoelectric materials and the resonator-filter process technology which drives electro-mechanical coupling and translates to wide filter bandwidth.

Akoustis plans to service the fast growing multi-billion-dollar RF filter market using its integrated device manufacturer (IDM) business model. The Company owns and operates a 120,000 sq. ft. ISO-9001:2015 [certified commercial wafer-manufacturing facility located in Canandaigua, NY](#), which includes a class 100 / class 1000 cleanroom facility - tooled for 150-mm diameter wafers - for the design, development, fabrication and packaging of RF filters, MEMS and other semiconductor devices. Akoustis Technologies, Inc. is headquartered in the Piedmont technology corridor near Charlotte, North Carolina.

### **Forward-Looking Statements**

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 achieve design wins from current and future customers; our ability to raise funding to support operations and the continued development and qualification of our products and the technologies underlying them; our ability to service our outstanding indebtedness; and the effects of a pandemic or epidemic or a natural disaster, including the Covid-19 pandemic. 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.

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