

November 19, 2018



# Akoustis Announces First 5.2 GHz WiFi Pre-Production Order from Tier-1 SoC Customer

**– AKF-1252 XBAW Filter Selected for 5.2 GHz Reference Design for WiFi CPE –  
– 4X4 and 8X8 MU-MIMO to Drive Significant BAW Filter Growth in WiFi –**

**Charlotte, N.C., Nov. 19, 2018 (GLOBE NEWSWIRE) --** Akoustis Technologies, Inc. (NASDAQ: [AKTS](#)) (“Akoustis” or the “Company”), a manufacturer of patented bulk acoustic wave (BAW) high-band RF filters for mobile and other wireless applications, announced that it has received its first pre-production order from a multi-billion dollar Tier-1 system-on-chip (SoC) vendor to supply 5.2 GHz XBAW filters for a reference design targeting tri-band WiFi customer premise equipment (CPE).

The reference design is expected to be compatible with both 4X4 and 8X8 multi-user multiple-in, multiple-out (MU-MIMO) architectures for the 802.11ax WiFi radio standard. Regarding filter content for tri-band architectures, a 4X4 MU-MIMO CPE requires four 5.2 GHz filters and an 8X8 requires eight 5.2 GHz filters. The AKF-1252 was chosen for this reference design due to its high performance and significantly smaller size relative to incumbent dielectric resonator filters. Akoustis expects to ship pre-production filters to this customer in the current quarter for evaluation and approval, which is expected by the end of Q1 CY19.

Jeff Shealy, Founder and CEO of Akoustis, commented, “We have achieved another key milestone as momentum for our 5.2 GHz WiFi filter product continues to build with this first reference design and pre-production order from a Tier-1 WiFi SoC leader.” Mr. Shealy continued, “Given the small size and high performance of our XBAW RF filters, we believe there is significant opportunity for Akoustis to gain market share in the WiFi CPE segment.”

The AKF-1252 is a high performance, ultra-small passband 5.2 GHz BAW RF filter designed for use in tri-band WiFi router applications. The filters are produced using Akoustis’ [proprietary XB1 single-crystal BAW manufacturing process](#), which delivers high-performance RF filter solutions for frequencies up to 7 GHz to address critical RF filter requirements for existing and next generation communications applications, including the emerging 5G mobile network. The filter is 23 times smaller than existing solutions in the market, which is increasingly compelling given the introduction of MIMO and MU-MIMO architectures as well as the rapid adoption of small form-factor end user devices.

The AKF-1252 Filter Product Features:

- Ultra small form factor 2mm x 2.5mm x 0.9mm
- Single ended Tx/Rx ports
- High rejection enables co-existence with adjacent WiFi UNII bands
- High power rating, maximum +30dBm

- Low insertion loss passband filter
- Performance over -40 C to +85 C
- RoHS compliant, Pb-free package

On October 31, 2018, Akoustis management hosted a business update call. To listen to a replay, please click [here](#).

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

Akoustis® (<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 design and manufacturing (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 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.

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