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Akoustis Announces Industry's First 6.5 GHz XBAW Filter for Emerging WiFi 6E

- First Tandem WiFi 6E Micro Filter Coexistence Solution with 5.5 GHz and 6.5 GHz Filter Products –**
- With Its Ultra-Wideband 1.2 GHz Passband, XBAW Filter Covers Entire 5.9 to 7.1 GHz Unlicensed WiFi 6E Spectrum, Rejecting 5 GHz Unlicensed Bands –**
- Company Extends Product Leadership in Ultra-High Band WiFi 6 and WiFi 6E with Full Suite of 5 GHz and 6 GHz Solutions –**

Charlotte, N.C., Aug. 19, 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 it introduced the industry's first ultra-wideband 6.5 GHz XBAW™ filter that covers the entire U-NII-5 to U-NII-8 bands of the new WiFi 6E unlicensed spectrum.

When paired with the Company's [5.5 GHz XBAW™ filter](#) announced in early June, Akoustis can now provide the industry's first complete BAW-based micro filter solution for the emerging WiFi 6E standard. The Company expects to announce sampling later this quarter and to have fully qualified 5.5 and 6.5 GHz XBAW™ filters by early calendar 2021. The potential market for the Company's WiFi 6E filter solutions include dual-band to quad-band CPE WiFi routers as well as mobile handsets, laptops, tablets, and gaming devices as our wafer-level-packaging is completed later this year.

Jeff Shealy, Founder and CEO of Akoustis, stated, "In anticipation of the next generation WiFi standard which promises to deliver higher data rates, we invested in the development of the industry's first tandem ultra-wideband 5.5 and 6.5 GHz BAW-based coexistence filter solution covering the two WiFi 6E bands within the 5.1 to 7.1 GHz unlicensed spectrum. The engineering challenges in delivering these new filters include high frequency operation, ultra-wide bandwidth and high adjacent band rejection - leveraging key performance features of our XBAW™ filter technology." Mr. Shealy continued, "The interest in WiFi 6E, and particularly in our new WiFi 6E filters, has grown dramatically over the past few months. By having the industry's only 5.5 and 6.5 GHz tandem BAW-based filter solution, we expect that WiFi 6E will become one of our primary revenue growth drivers moving forward."

The new 6.5 GHz filter module announced today covers the 5.9 to 7.1 GHz spectrum with low power loss in the passband. This new RF filter solution will be offered as a standard catalog product, available to all potential customers. With ultra-wide bandwidth coverage of 1.2 GHz, it is the widest bandwidth BAW-based micro filter product available in the market for the 5.9 to 7.1 GHz unlicensed WiFi spectrum with fractional bandwidth of 18.2%. The 6.5 GHz high-performance XBAW™ filter module coexists with the existing 5 GHz WiFi band,

outperforming the coexistence of all traditional LTCC and dielectric resonator filter technologies.

The 6.5 GHz filter is designed and manufactured using the Company's patented XBAW™ process and manufactured in the Company's Si-MEMS Wafer Fab located in Canandaigua, NY. For sample and sales inquiries please contact: sales@akoustis.com.

The FCC announced in April 2020 the approval of 5.9 to 7.1 GHz for unlicensed use, which is the largest spectrum addition since the FCC allocated unlicensed spectrum for WiFi in 1989. The next generation of WiFi that is expected to use these new frequency bands is called WiFi 6E. This approval will create another significant new band, or combination of bands, over the next several years.

Akoustis has added 14 filters to its product catalog including a [5.6 GHz WiFi filter](#), a [5.2 GHz WiFi filter](#), a [5.5 GHz WiFi-6E filter](#), three [small cell 5G network infrastructure filters](#) including two Band n77 filters and one Band n79 filter, a [3.8 GHz filter](#) and [five S-Band filters](#) for defense phased-array radar applications, a [3.6 GHz filter](#) for the CBRS 5G infrastructure market and a C-Band filter for the [unmanned aircraft systems](#) (UAS) 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® (<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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