Akoustis Achieves Design Lock and Ships Its Drone XBAW Filter

– Company’s 12th Commercially Available XBAW Filter –
– New Drone Filter was Designed and Shipped to Customer Within Three Months –
– Company Rapidly Expanding Its Filter Product Portfolio for Multiple Wireless Markets –

Charlotte, N.C., April 29, 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 has achieved design lock and shipped its C-band filter for the drone market supporting unmanned aircraft systems (UAS). The filters will be used for control and non-payload communication (CNPC) links.

This announcement marks the 12th design locked XBAW™ filter that Akoustis has produced, a six-fold increase in catalog filters in the last year. The catalog now includes three 5G network infrastructure filters, two high-band WiFi filters and seven defense filters including the drone/UAS filter.

Jeff Shealy, founder and CEO of Akoustis, stated, “As we continue to leverage our proprietary and patented XBAW™ process for new high frequency RF filter applications, we are shortening our modeling and design times, which has led to a rapidly expanding product catalog. We expect to continue growing our product portfolio as we push into new frequency bands and new markets. We are excited to add the cutting-edge drone market as a new business vertical.”

Originally expected to be delivered in the September quarter, the new drone filter was designed, developed and delivered by Akoustis in under three months. The Company expects to deliver a qualified XBAW™ drone filter and expects to receive commercial orders by the end of March 2021.

The new filter will operate in a key C-band frequency (within the 4-8 GHz frequency spectrum), that is under consideration for licensing by the FCC, where Akoustis has historically focused its development efforts and has delivered its first designs for high-band WiFi, 5G infrastructure, 5G mobile devices and defense applications. The filter is expected to use the same supply chain and packaging as the current 5 GHz WiFi filters and 5G infrastructure filters.

CNPC is Command and Control (C2) frequency modulated radio intended for point-to-point or networked UAS operations for Beyond Line of Sight Operation (BLOS). The shipments were to a new defense customer, but the filter is expected to have wider market applications for commercial and consumer drones and other aircraft.
The XBAW UAS filter features:

- Low insertion loss passband filter
- High frequency C-Band operation
- High rejection
- Single ended Tx/Rx ports
- High power rating, maximum +30dBm
- Ultra small form factor 2.5mm x 2.0mm x 0.9mm
- Performance over -40C to +85C
- RoHS compliant, Pb-free package

The UAS filter is manufactured using the Company's patented XBAW process housed within the Company's Si-MEMS Wafer Fab located in Canandaigua, NY.

Akoustis has introduced several new filters over the past twelve months including a 5.6 GHz WiFi filter, a 5.2 GHz WiFi filter, two small cell network infrastructure filters including a 4.9 GHz 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 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® (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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