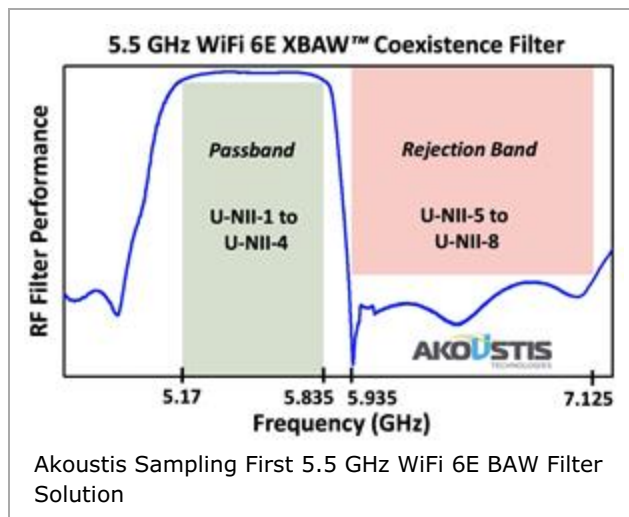


Akoustis Announces First 5.5 GHz XBAW Filter and Sample Shipments for WiFi 6E

- *Company Extends Product Leadership in 5 GHz BAW-Based RF Filters for New WiFi Specification –*
- *XBAW RF Filter Module Covers Full 5 GHz Unlicensed WiFi 6E Spectrum, Rejecting Entire 6 GHz WiFi Band –*
- *665 MHz Passband Performance is the Widest Bandwidth 5 GHz BAW Filter in the Industry –*
- *Shipped Multiple RF Filter Samples to SoC and OEMs supporting Development of New WiFi 6E Platforms –*



Charlotte, N.C., June 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 wideband 5.5 GHz XBAW™ filter module and shipment of multiple samples to WiFi 6E SoC and OEM companies.

The new 5.5 GHz filter module covers the 5.1-5.8 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 665 MHz, it is the widest bandwidth BAW filter product available in the market with fractional bandwidth of 12%. The 5.5 GHz high-performance XBAW™ filter module coexists with the new 6 GHz WiFi band, outperforming the coexistence of traditional LTCC and dielectric resonator filter technologies.

This new XBAW™ filter module is the first of two Akoustis filters that will cover 5.1-5.8 GHz

and 5.9-7.1 GHz, significantly increasing data throughput and reducing interference issues associated with high-band WiFi simultaneous radio operation.

Jeff Shealy, founder and CEO of Akoustis, commented, “Akoustis continues its product leadership in high frequency 5 GHz BAW WiFi filters with the introduction of the first 5.5 GHz XBAW™ filter for the emerging WiFi 6E market. Combining this incredibly wide 665 MHz bandwidth filter module with our existing, first-to-market 5.2 and 5.6 GHz RF filters, Akoustis offers the most comprehensive BAW RF filter solution for the 5 GHz spectrum supporting WiFi 6 and WiFi 6E.” Mr. Shealy continued, “As we continue ramping our products for WiFi 6, we have active engagements with several OEMs and ODMs for a complete WiFi 6E filter solution, which we expect to design lock and deliver by the end of the current calendar year.

WiFi 6E will significantly improve the speed and performance of WiFi enabled devices with an additional 1.2 GHz of allocated spectrum in the 6 GHz spectrum and our production-qualified XBAW technology is uniquely suited to support these new and exciting wide bandwidth, high frequency requirements.”

The FCC announced in late April the approval of 5.925-7.125 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.

In advance of the April FCC approval, Akoustis has been developing filters to support the emerging WiFi 6E market. The Company has been active in developing wide bandwidth piezoelectric materials, device models, RF filter designs and has filed key patents surrounding its approach to WiFi 6E RF filters.

The 5.5 GHz XBAW WiFi RF filter features:

- Fully-integrated, 50-ohm filter module configuration
- Low insertion loss (1 dB min.) passband filter
- Wide bandwidth passband covering entire 665 MHz UNII 1, 2A, 2B, 2C, 3 & 4 bands
- High rejection enables co-existence with adjacent 6 GHz WiFi UNII 5 to 8 bands
- Single-ended Tx/Rx ports
- High power rating, maximum +30 dBm
- Ultra small form factor 3.5mm x 3.5mm x 1.5mm
- Performance over -40C to +85C
- RoHS compliant, Pb-free package

The 5.5 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. The Company has commenced shipment of samples. For sales inquiries please contact: sales@akoustis.com.

Akoustis’ high frequency, high performance XBAW process and filters continue to experience 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 added 13 filters to its product catalog including a [5.6 GHz WiFi filter](#), a [5.2 GHz](#)

[WiFi filter](#), three [small cell 5G network infrastructure filters](#) including two Band n77 filters, 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 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.

Attachment

- [Akoustis 5 GHz Filter Module](#)

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