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# Akoustis Receives First High-Volume 5G Mobile XBAW Filter Order from Tier-1 RF Component Company

- **Filter Solution to be Incorporated in Multiplexer for 5G Mobile Handsets and Other Portable Devices**
- **Multiplexer Supports Major Mobile Chipset Reference Design, Planned for Introduction in the First Half of CY2023**
- **XBAW RF Filter Solution Will Ship with Company's New Wafer-Level-Package (WLP) Manufactured in its New York Fab**

Charlotte, N.C., Jan. 18, 2023 (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 that it has received its first high-volume 5G mobile filter purchase order from its leading multi-billion-dollar Tier-1 RF component company customer. The filter is manufactured using the Akoustis XBAW<sup>®</sup> process and is designed into the customer's new multiplexer product that is expected to ship in the first half of calendar 2023 as part of a major chipset OEM reference design.

The filter solution leverages one of Akoustis' new wafer-level-packages (WLP), developed and manufactured in its Canandaigua, New York fab. The new XBAW<sup>®</sup>-based design is being used to address difficult coexistence issues between 5G mid-bands and Wi-Fi 6E 5 to 7 GHz bands. The customer is considering additional applications for filters using the XBAW<sup>®</sup> process in future modules for 5G smartphones and other mobile devices after the successful completion of this first solution.

Jeff Shealy, founder and CEO of Akoustis, stated, "We are thrilled to start our first production ramp in 5G mobile, the largest market by unit volume and revenue that our technology addresses." Mr. Shealy continued, "With the recent qualification of our internally developed advanced CSP and WLP packages, we are now able to address our customers' challenges in high-frequency 5G mobile and high-frequency Wi-Fi in handsets and other mobile devices. We expect to support this initial 5G mobile customer through its planned high-volume ramps beginning in the current quarter."

Akoustis began shipping initial pre-production chips against customer purchase orders for development, sampling, and qualification during the quarter ending December 31, 2022. This new order will be used by the Tier-1 RF component customer to support large volume deliveries to multiple mobile device manufacturers that will utilize a major chipset OEM reference design.

The new filter solution is the first product to ship with the Company's internally developed and manufactured WLP. In response to global supply chain challenges, Akoustis has been

developing proprietary chip-scale packaging (CSP) and WLP technology in its New York facility for the past year and is rapidly growing its manufacturing capacity to target the 5G mobile device market with filter products using the XBAW<sup>®</sup> process. The new CSP and WLP technologies offer significantly reduced size relative to Akoustis' current generation packages and superior in back-end manufacturing cost.

Akoustis continues to experience strong demand and a growing sales funnel for its Wi-Fi, 5G mobile, and 5G infrastructure products, including CBRS XBAW<sup>®</sup> filters, as well as its new XBAW<sup>®</sup> and RFMi resonator and oscillator products. During the December quarter, the Company shipped multiple samples of its new 5G XBAW<sup>®</sup> wafers complete with its new, advanced wafer-level packaging (WLP) technology. Akoustis continues to add new Wi-Fi design wins, many of which are expected to ramp into production in calendar 2023.

Akoustis is actively delivering volume production of its Wi-Fi 6 tandem filter solutions, shipping multiple 5G small cell XBAW<sup>®</sup> filter solutions, and delivering initial designs of its new 5G mobile filter solutions to multiple customers and has entered the market with its new Wi-Fi 6E coexistence XBAW<sup>®</sup> filter solutions. To date, Akoustis has received more than 20 customer design wins for its patented XBAW<sup>®</sup> filter solutions.

Given the rapidly growing sales funnel activity, as well as ongoing interaction with customers regarding expected ramps in 5G mobile, Wi-Fi 6, and Wi-Fi 6E in calendar 2023, the Company is completing the annual production capacity increase at its New York fab to approximately 0.5 billion filters per year.

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

Akoustis<sup>®</sup> (<http://www.akoustis.com/>) is a high-tech BAW RF filter solutions company that is pioneering next-generation materials science and MEMS wafer semiconductor manufacturing to address the market requirements for improved RF filters - targeting higher bandwidth, higher operating frequencies and higher output power compared to legacy polycrystalline BAW technology. The Company utilizes its proprietary and patented [XBAW<sup>®</sup> 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 poly-crystal, single-crystal and other high purity piezoelectric materials and the resonator-filter process technology which enables optimal trade-offs between critical power, frequency and bandwidth performance specifications.

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 registered commercial wafer-manufacturing facility located in Canandaigua, NY, which includes a class 100 / class 1000 cleanroom facility - tooled for 6-inch 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, each 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, profitability, business strategies, competitive position, potential growth opportunities, potential market opportunities and the effects of competition), the anticipated benefits of the acquisition of Grinding and Dicing Services, Inc., future cash flow and forecasts of breakeven point and expectations regarding funding under the CHIPS and Science Act, 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,” “might,” “would,” “will,” “should,” “could,” “project,” “expect,” “plan,” “strategy,” “anticipate,” “attempt,” “develop,” “help,” “believe,” “think,” “estimate,” “predict,” “intend,” “forecast,” “seek,” “potential,” “possible,” “continue,” “future,” and similar words (including the negative of any of the foregoing), although some forward-looking statements are expressed differently. Forward-looking statements are neither historical facts nor assurances of future results, performance, events or circumstances. 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 our inability to obtain adequate financing and sustain our status as a going concern; our limited operating history; our inability to generate revenues or achieve profitability; the results of our research and development activities; our inability to achieve acceptance of our products in the market; the possibility that the anticipated benefits from business acquisitions (including the acquisition of Grinding and Dicing Services, Inc.) will not be realized in full or at all or may take longer to realize than expected; the possibility that costs or difficulties related to the integration of acquired businesses’ operations will be greater than expected and the possibility of disruptions to our business during integration efforts and strain on management time and resources; the impact of a pandemic or epidemic or a natural disaster, including the COVID-19 pandemic, the Russian-Ukrainian conflict and other sources of volatility on our operations, financial condition and the worldwide economy, including its impact on our ability to access the capital markets; increases in prices for raw materials, labor, and fuel caused by rising inflation; general economic conditions, including upturns and downturns in the industry; shortages in supplies needed to manufacture our products, or needed by our customers to manufacture devices incorporating our products; our limited number of patents; failure to obtain, maintain, and enforce our intellectual property rights; claims of infringement, misappropriation or misuse of third party intellectual property, including the lawsuit filed by Qorvo, Inc. in October 2021, that, regardless of merit, could result in significant expense and negatively impact our business results; our inability to attract and retain qualified personnel; our reliance on third parties to complete certain processes in connection with the manufacture of our products; product quality and defects; existing or increased competition; our ability to successfully manufacture, market and sell products based on our technologies; our ability to meet the required specifications of customers and achieve qualification of our products for commercial manufacturing in a timely manner; our inability to successfully scale our New York wafer fabrication facility and related operations while maintaining quality control and assurance and avoiding delays in output; the rate and degree of market acceptance of any of our products; our ability to achieve design wins from current and future customers; contracting with customers and other parties with greater bargaining power and agreeing to terms and conditions that may adversely affect our business; risks related to doing business in foreign countries, including

China; any security breaches, cyber-attacks or other disruptions compromising our proprietary information and exposing us to liability; our failure to innovate or adapt to new or emerging technologies, including in relation to our competitors; our failure to comply with regulatory requirements; results of any arbitration or litigation that may arise; stock volatility and illiquidity; dilution caused by any future issuance of common stock or securities that are convertible into or exercisable for common stock; our failure to implement our business plans or strategies; and our ability to maintain effective internal control over financial reporting. 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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