



FOR IMMEDIATE RELEASE

**AKUSTICA AND SIGMATEL DEVELOP NEW DIGITAL MICROPHONE ARRAY  
SOLUTION FOR NOTEBOOK PCs**

*--Integrated Platform Enables Microsoft Vista-ready Microphone Arrays*

Seattle, Wash./WinHEC—May 22, 2006—Akustica, a pioneer in microelectromechanical systems (MEMS) technology, and SigmaTel (NASDAQ:SGTL), a leader in mixed-signal multimedia semiconductors, today announced a new reference design solution for digital microphone array applications. The reference design offers a seamless interface between Akustica's newly announced AKU2001 Digital Microphone Chip, which supports multiple microphones on a single-wire interface for arrays, and SigmaTel's new family of 4-channel HD Audio codecs, which support multiple microphones on a single input/output (I/O). The Akustica-SigmaTel reference design simplifies the integration of multiple microphone chips into notebook computer platforms providing unprecedented audio quality. This speeds time-to-market for notebook manufacturers who want to meet customer demand for improved quality of voice input—essential to the performance of voice over Internet protocol (VoIP) and other voice-enabled applications.

“Akustica and SigmaTel have rallied the industry to embrace digital microphones on the PC platform,” said Davin Yuknis, Vice President, Akustica, Inc. “Our collaboration allows notebook manufacturers to optimize their designs for enhanced voice input while meeting Microsoft Vista hardware requirements. Akustica's microphone arrays are the natural choice for notebooks, offering significant advantages in voice input quality, including being less prone to RF interference and power supply variation than analog microphones. They also do not require shielded cabling like analog microphones, so they can be embedded directly in the bezel of the notebook, which is more efficient in a space-constrained application.”

Jim Rock, CEO, Akustica, Inc. added: “Through our relationship with SigmaTel, we offer seamless integration at the audio codec level, ensuring compatibility with the microphone array and significantly speeding development time—which is critical in an industry in which the first-to-market with new technology can have a significant competitive advantage.”

“Akustica is at the forefront of digital microphone design, making them an ideal partner for us,” said Steve Beatty, Senior Vice President, Integrated Components Group, SigmaTel.

“Interoperability between our products removes the barriers that designers have historically faced in integrating microphone arrays and audio codecs.”

Mr. Beatty added: “Through our reference design with Akustica, we expedite development of new notebook platforms that offer a superior user experience for voice-enabled applications. In addition, manufacturers integrating our products are market-ready for Microsoft Vista, another important competitive advantage.”

### **About the Akustica-SigmaTel Reference Design**

The new reference design features two new products, announced today: Akustica’s newest Complementary Metal Oxide Semiconductor (CMOS) MEMS Microphone Chip, the AKU2001, and SigmaTel’s new SigmaTel STAC9205 and STAC9255 4-Channel codecs.

The AKU2001 is a surface-mountable digital output microphone which integrates an acoustic transducer, output amplifier and 4th order sigma-delta modulator in a single chip. The output of the microphone is Pulse Density Modulated (PDM), or a single-bit digital output stream that is insensitive to radio frequency (RF) and electromagnetic interference (EM); it therefore saves significant time and expense in system design and eliminates the dependence on shielded cabling for signal routing. The AKU2001 is ideal for microphone array applications where the two microphones will be used together to perform noise cancellation and/or beam steering. Additionally, the AKU2001 is suited for other portable applications requiring radio frequency/electro-mechanical (RF/EM) noise immunity and low power, such as cell phones and digital cameras. The AKU2001 is footprint- and pin-compatible with the AKU2000, Akustica’s first digital CMOS MEMS Microphone Chip.

The AKU2001 comes in a 4mm x 4mm footprint, making it the smallest footprint available for undermount, surface-mountable microphones, and is lead-free surface-mount compatible.

The SigmaTel STAC9205 and STAC9255 4-Channel codecs enable exceptional stereo audio simultaneous with another stereo audio stream such as VoIP. These new codecs continue SigmaTel’s audio fidelity leadership by fully supporting the upcoming Microsoft® Vista

premium logo program. Additionally, a direct on-chip interface allows notebook manufacturers to integrate up to four digital microphones within the LCD bezel to significantly improve voice input quality of VoIP, instant messaging and speech recognition applications.

SigmaTel's offering now includes a broad array of HD Audio codecs with digital microphone support that includes 2-channel, 4-channel, 8-channel and 10-channel codec families.

### **Price and Availability**

The AKU2001 is sampling now and will be in production in Q3 2006. Per unit-pricing for the AKU2001 is below \$1 in high volume. The SigmaTel STAC9205 and STAC9255 4-Channel codecs are sampling now and will be in production in Q4 2006. The Akustica-SigmaTel reference design is available now from Akustica and SigmaTel.

### **About Akustica**

Founded in 2001, Akustica, Inc. is a privately held company based in Pittsburgh, PA. Through a revolutionary technology known as Sensory Silicon™, Akustica products enable electronic devices to sense and respond to the world around them. By leveraging standard CMOS processes and MEMS technology, Akustica acoustic system-on-chip solutions combine the functionality of microphones with microelectronics and software onto a single chip. Only Akustica's CMOS MEMS Microphone Chips—which were pioneered by Akustica co-founder and CTO Dr. Ken Gabriel during his tenure at Carnegie Mellon University—enable single-chip solutions with arrays of transducers and integrated signal processing that disrupt both conventional microphone and speaker technologies. Smaller and more reliable than the current crop of ECMs, silicon microphones can be customized with advanced sound capture features and noise reduction capabilities. For more information on Akustica, please contact us via phone: (412) 390-1730, Fax (412) 390-1737, email: [contact@akustica.com](mailto:contact@akustica.com) or web: [www.akustica.com](http://www.akustica.com).

### **About SigmaTel**

SigmaTel, Inc., a fabless semiconductor company headquartered in Austin, Texas, designs, develops, and markets proprietary, analog-intensive, mixed-signal ICs for a variety of digital multimedia products in the consumer electronics and computing markets, including portable compressed audio players, such as MP3 players, notebook and desktop PCs, digital video cameras, multi-function peripheral products, digital televisions, and set-top boxes. SigmaTel provides complete, system-level solutions that include highly-integrated ICs, customizable

firmware and software, software development tools, reference designs, and applications support. The Company's focus is on providing system-level solutions that enable customers to rapidly introduce and offer electronic products that are small, light-weight, power-efficient, reliable, and cost-effective. SigmaTel is ISO 9001:2000 certified and is committed to providing customers with high performance, quality products along with superior customer service. For more information on SigmaTel, please visit: [www.sigmatel.com](http://www.sigmatel.com).

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