

## P R E S S   R E L E A S E

### **X-FAB PARTNERS WITH AKUSTICA TO DELIVER WORLD'S FIRST CMOS MEMS SINGLE-CHIP MICROPHONES**

*X-FAB to provide foundry services for Akustica's family of CMOS MEMS silicon microphone chips*

**Erfurt, Germany and Pittsburgh, PA—May 31, 2006**—Akustica, Inc., a pioneer in acoustic system-on-chip solutions, and X-FAB Semiconductor Foundries AG, one of the world's leading analog mixed-signal semiconductor foundries, today announced a strategic supplier partnership to focus on wafer processing of Akustica's AKU2000 Microphone Chip.

The world's first Complementary Metal-Oxide Semiconductor (CMOS) micro-electromechanical Systems (MEMS) microphone, Akustica's AKU2000 Microphone Chip is also the world's only single-chip silicon microphone. The combination of Akustica's expertise in patented CMOS MEMS semiconductor design and X-FAB's device manufacturing technologies is expected to deliver dramatic improvements in manufacturing cost and time-to-market, as well as new classes of CMOS MEMS chips.

"X-FAB is a leading pure-play analog and mixed-signal semiconductor foundry," said Jim Rock, co-founder and CEO of Akustica, "making them an ideal high-volume CMOS foundry for the delivery of our single-chip products."

Akustica's technology is revolutionary in both the new products it enables and the fabrication methods by which those products are manufactured. CMOS MEMS structures are composed of the metal-dielectric structures within a standard CMOS wafer and fabricated using the industry-standard CMOS process flow and equipment currently used to make integrated circuits. The result is a technology which can be mass-produced in extremely high volumes with the accompanying high yields and repeatability associated with semiconductor manufacturing.

"The Akustica/X-FAB partnership offers a unique opportunity because it's the first semiconductor technology application to produce MEMS microphone chips using a CMOS process flow," said Manfred Riemer, Chief Operating Officer of X-FAB. "By working together, Akustica and X-FAB achieve the potential of this technology, resulting in cost-effective new microphone solutions for the marketplace."

Akustica is pursuing a segment of the semiconductor industry, silicon microphones, that is poised for significant growth. MEMS industry analysts Wicht Technologie Consulting (WTC) commented on that expected growth: “The market for MEMS microphones will explode from around \$55 million in 2005 to \$680 million in 2010, mainly for mobile phone applications, laptops, and digital media electronics,” said Richard Dixon of Munich-based analyst company Wicht Technologie Consulting. “Digital MEMS microphones in particular are well suited to space-constrained and RF-rich environments such as cell phones; they are also ideal for directionality and noise cancellation applications in laptops. Akustica’s CMOS MEMS manufacturing processes may contribute further to the growth of silicon microphones by allowing MEMS devices to meet the challenging price points dictated by established electret condenser microphones.”

### **Availability**

X-FAB is currently manufacturing Akustica’s AKU2000 Microphone Chips.

### **About the AKU2000**

The AKU2000 is a digital output microphone chip that provides high-quality voice input for PC laptops, digital video and still cameras, and other portable computing devices. Surface-mountable and automatic pick-and-place compatible, this monolithic device is optimal for use in microphone array applications requiring a high degree of noise immunity. The AKU2000 is especially ideal for microphone array applications where multiple microphones will be used together to perform noise cancellation and/or beamforming. Additionally, the AKU2000 is suited for other portable applications requiring RF/EM noise immunity and low power, including cell phones and digital cameras. The small form factor and surface-mount capability of the AKU2000 allows placement of the microphone in very thin profile end-user devices.

### **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 X-FAB**

X-FAB Semiconductor Foundries AG, headquartered in Erfurt, Germany, is a leading analog mixed-signal foundry manufacturing silicon wafers for analog-digital integrated circuits (mixed-signal ICs) on customer order. The company maintains wafer production facilities in Erfurt (Germany), Plymouth (UK) and Lubbock, Texas (US), and employs approximately 1,100 people worldwide. Wafers are manufactured based on ultra-modern modular CMOS and BiCMOS processes with technologies ranging from 1.0 down to 0.35 micrometers. Main application areas are the automotive, communications, consumer and industrial sectors.

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