



**FOR IMMEDIATE RELEASE**

**AKUSTICA COLLABORATES WITH RICOH ON THE PROMOTION OF  
VOICE AND VIDEO OVER INTERNET APPLICATIONS**

*Integrated solution improves audio capture, video performance for Real-Time-Communications applications*

Taipei/Computex—June 6, 2006—Akustica, a pioneer in microelectromechanical systems (MEMS) technology, today announced a collaboration with Ricoh Company Ltd., a leader in PC Interface Large Scale Integration (LSI), resulting in a new camera module solution for optimized audio and video performance in Universal Serial Bus (USB) Audio/Video applications. The camera module offers a seamless interface between Akustica's newly announced AKU2001 Digital Microphone Chip, which provides interference-free audio capture, and Ricoh's family of USB Audio/Video Controllers, which support USB2.0 standards. The Akustica-Ricoh collaboration simplifies the integration of camera modules and microphone arrays into computer and flat panel displays, webcams and notebook computer platforms, providing unprecedented audio quality. It also speeds time-to-market for display and notebook manufacturers who want to meet customer demand for improved quality of voice input—essential to the performance of video and voice over Internet protocol (VVoIP) applications. Both companies will actively promote a fully integrated Audio/Video USB Camera solution to computer manufacturers.

The Akustica and Ricoh camera module will enable manufacturers to more easily develop next-generation VVoIP applications that support Real-time Communications (RTC). RTC applications integrate audio, video, data collaboration, instant messaging and presence.

**The Voice-Video Connection**

Studies have shown that given the same video performance but different audio systems, consumers perceive a higher quality video experience when accompanied by higher quality audio. Since current-generation PCs and other computing devices are typically designed for audio output (not audio input), they generally contain just a single microphone and do a poor job of sound capture. This is a mediocre solution for recording or transmitting voice because the microphone's performance is hampered by too much ambient and electronic noise, preventing high-quality sound input. As a result, users are typically forced into using headsets to realize better sound capture. Digital microphones, on the other hand, are isolated from the various electronic noise sources such as radio frequency (RF) interference from Wireless-Fidelity (Wi-Fi) and other

sources, electromagnetic (EM) interference from display backlights, and power supply variability. In addition, the use of multiple microphones in conjunction with beamforming, noise suppression and acoustic echo cancellation software algorithms—which are planned for incorporation in Microsoft® Vista—can alleviate sound-capture problems to produce a clear, high-quality voice input signal for RTC applications or recording.

“As evidenced by the number of Real-Time-Communications programs incorporating video features—which include MSN Messenger, AOL Instant Messenger, Apple iChat AV, Yahoo Messenger and Skype—video- and speech- enabled applications are clearly gaining momentum. Together with Ricoh, we will enable consumers to experience higher satisfaction with the video chat experience,” said James Rock, President and CEO of Akustica.

### **Availability**

The AKU2001 is currently sampling with production in Q3. Ricoh plans to ship camera module samples in July.

### **About the AKU2001**

The AKU2001 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 automatic and pick-and-place compatible, this monolithic device is optimal for use in microphone array applications requiring a high degree of noise immunity. The AKU2001 is especially ideal for microphone array applications where multiple microphones will be used together to perform noise cancellation and/or beamforming. Additionally, the AKU2001 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 AKU2001 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 Complementary Metal-Oxide Semiconductor (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 Ricoh Company, Ltd.**

A pioneer in digital office equipment, Ricoh provides state-of-the-art multifunctional printing devices tailored to corporate office customer needs, and offers a broad range of digital, networked products, including copiers, printers, fax machines, semiconductor related products, DVD/CD media, and digital cameras. With 318 consolidated companies worldwide, Ricoh employs 76,100 people with consolidated sales of 1.915 trillion YEN.

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