

## Akustica Leaps into High-Volume Mobile Device Market with New Analog MEMS Mic

- AKU340, the first multi-chip MEMS microphone from Akustica, delivers high performance for smartphones
- Bosch, the world's leading MEMS sensor supplier, further expands portfolio for consumer electronics applications

SAN JOSE, CA—March 28, 2012—[Akustica, Inc.](#), inventor of the first single-chip complementary metal oxide semiconductor (CMOS) micro-electromechanical systems (MEMS) microphone, today announced the expansion of its microphone product portfolio with the addition of a new analog MEMS microphone.

Designed specifically to meet the requirements of mobile handset manufacturers, the AKU340 is a high-performance analog microphone that utilizes established surface-micromachining MEMS technology developed by Bosch. The AKU340 measures 2.5 x 3.35 x 1.0 mm and offers excellent acoustic performance with 63 dB signal-to-noise ratio (SNR) and superior low frequency recording with a reduction in sensitivity of less than 5 dB at 50 Hz. In addition, with its tight sensitivity matching of just +/-2 dB between microphones, the AKU340 is ideal for use in microphone array applications where more uniform microphones lead to increased performance of noise suppression algorithms.

### **A Growing Market**

The MEMS microphone market is growing quickly, both in overall size and in product variety, since some consumer electronics device manufacturers require smaller microphones while others prioritize higher acoustic performance. Akustica is uniquely positioned with two different MEMS technologies that can address both ends of the spectrum.

The MEMS microphone market is expected to reach US\$493.5 million in 2012, up more than 30% from 2011, according to Jérémie Bouchaud, director and principal analyst, MEMS and Sensors, IHS. “Driven by Apple, Samsung, LG Electronics, Motorola and Nokia for use in handsets, headsets and tablets, the MEMS microphone market is very robust and also very diverse,” said Bouchaud. “End-user applications are not ‘one-size-fits-all’, and microphone

suppliers need to offer a range of products to meet varying customer requirements.”

### **In-House Design and Manufacturing and a Bigger Technology Toolbox**

In addition to in-house MEMS design, Akustica has always maintained an in-house ASIC and package design team. This is unlike other MEMS microphone manufacturers who may buy any or all of their MEMS, ASIC and package design from a third party. With its acquisition by Bosch in 2009, Akustica has also added in-house MEMS process development and manufacturing to its list of capabilities.

The introduction of the AKU340 within three years of joining the Bosch Group is a testament to the strength achieved when Akustica and Bosch focus their collective horsepower on product development. The combination of Akustica’s microphone expertise and CMOS MEMS technology with Bosch’s 25 years of MEMS IP, process development and manufacturing experience brings a new level of product innovation that allows Akustica to rapidly develop both tailored solutions for customers and compelling features for new products.

“With the addition of Akustica’s analog MEMS microphone to the Bosch consumer MEMS sensor portfolio, we are ensuring that Bosch can be a ‘one-stop-shop’ for MEMS sensors for all aspects of the human machine interface in mobile devices,” said Stefan Finkbeiner, president and CEO, Akustica, Inc. “As part of Bosch, with its broad consumer MEMS sensor portfolio made up of MEMS components that are fully designed and manufactured in-house, along with its proven ability to consistently deliver MEMS sensors in high volume with high quality, we will further expand our microphone product line as we continue to be a valued and reliable partner to our customers.”

### **AKU340 – Facts and Figures**

The AKU340 is a high-quality, wideband analog microphone designed for smartphones, tablets and other mobile devices. It features:

- 2.5 x 3.35 x 1.00 mm bottom port design
- High SNR of 63 dB
- Tightly matched sensitivity of -38 dBV/Pa +/- 2 dB for optimal microphone array performance
- Extended flat frequency response down to 50Hz for superior low frequency recording

- Shielded package for radio frequency (RF) and electromagnetic (EM) immunity, which is especially important in GSM applications

### **AKU340 – Price and Availability**

The AKU340 is sampling to lead customers now and will be ramping to mass production in Q3 2012. The AKU340 is available at \$1.34 per unit in 1K-unit quantities. For ordering or technical information on the AKU340, please visit [www.akustica.com](http://www.akustica.com) or contact: sales@akustica.com.

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#### **About Akustica**

*Akustica is a wholly owned subsidiary of [the Bosch Group](#) and a top supplier of silicon microphone products that are improving voice-input quality in a host of voice-enabled applications, from mobile handsets and headsets to Internet telephony on notebooks and PC camera modules. The company offers worldwide customer support services, from design-in services to post-production quality assurance. Akustica is a global organization with corporate headquarters in Pittsburgh, PA; regional offices in Taiwan and Shanghai; and a worldwide team of distributors. More information about Akustica is available at [www.akustica.com](http://www.akustica.com) or by calling +412.390.1730.*

#### **About The Bosch Group**

*The Bosch Group is a leading global supplier of technology and services. According to preliminary figures, more than 300,000 associates generated sales of 51.4 billion euros (\$71.5 billion) in the areas of automotive and industrial technology, consumer goods, and building technology in fiscal year 2011. The Bosch Group comprises Robert Bosch GmbH and its more than 350 subsidiaries and regional companies in some 60 countries. If its sales and service partners are included, then Bosch is*

*represented in roughly 150 countries. This worldwide development, manufacturing, and sales network is the foundation for further growth. Bosch spent more than 4 billion euros (\$5.5 billion) for research and development in 2011, and applied for over 4,100 patents worldwide. With all its products and services, Bosch enhances the quality of life by providing solutions which are both innovative and beneficial. Further information is available online at [www.bosch.com](http://www.bosch.com).*