

News Release

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TI Introduces Three Stereo Audio Codecs with Digital Microphone Support for Portable Consumer Devices

Noise Immunity Enhances Performance and Provides Design Flexibility

DALLAS (Nov. 5, 2007) –Texas Instruments Incorporated (TI) (NYSE: TXN) today introduced three new audio codecs featuring low power consumption and noise filtering capabilities to maximize battery life and enhance performance in portable consumer applications, such as wireless handsets, personal navigation devices, digital still cameras and portable media players. The devices are the industry's first I2S codecs capable of interfacing directly to digital or analog microphones. (For more information, please see www.ti.com/tlv320aic3106-pr).

Flexible Codecs Support Trend Toward Digital Microphones

The four-channel TLV320AIC34, and TLV320AIC33 and TLV320AIC3106 stereo codecs can accept either a digital bit stream from a digital microphone or differential or single-

ended inputs from a traditional analog microphone. The new codecs, in conjunction with digital microphones such as those offered by Akustica, provide designers with a premium quality audio solution.

“Electromagnetic and radio frequency interference can compromise audio quality on portable devices and cellular phones, resulting in 'static-noise' and 'drop-outs' in voice conversations,” said Davin Yuknis, vice president marketing and product management, Akustica. “The combination of TI’s advanced, high-performance codecs and Akustica’s robust, digital microphones ensures that the audio quality is crystal clear throughout the acoustic signal chain.”

Digital microphones are becoming more prevalent in various audio applications due to their ability to generate a digital audio signal that is less susceptible to electrical noise than an analog signal. With digital microphones, designers have greater freedom in the placement of the codec relative to the microphone. This flexibility is essential in portable applications where the circuit board is densely populated with chips and codec proximity to the microphone can be a mechanical challenge.

In addition to direct interface to digital microphones, the new codecs include the following key benefits:

- Support for 8-96 kilosamples per second (ksps) sampling rate
- High signal-to-noise ratio (SNR) of 102 dB for digital-to-analog conversion and 92 dB for analog-to-digital conversion
- Integrated phase-locked loops (PLLs) supporting a wide range of audio clocks
- Low-power headphone, speaker and playback modes for portable systems

- Programmable digital audio effects including 3D sound, bass, treble, EQ and de-emphasis

These devices are part of a complete family of versatile, software compatible, low-power codecs for portable applications from TI that also includes the TLV320AIC3101, TLV320AIC3104 and TLV320AIC3105.

Availability, Packaging and Pricing

The TLV320AIC33 and TLV320AIC3106 are available today and the TLV320AIC34 is sampling now. The TLV320AIC34 is available in a 6mm x 6 mm BGA package and the TLV320AIC33 and TLV320AIC3106 are available in a 5 mm x 5 mm BGA and 7mm x 7mm QFN package. Suggested resale pricing in quantities of 1,000 is \$6.00 for the TLV320AIC34, \$3.95 for the TLV320AIC33 and \$3.85 for the TLV320AIC3106.

Support for Designing with Digital Microphones

TI's technical support and documentation for the new TLV320AIC34, TLV320AIC33 and TLV320AIC3106 audio codecs includes a detailed application note with a step-by-step example for how to set up the evaluation module and how to connect the codec to a digital microphone. For more information, see www.ti.com/audiocodecdigmic-appnote.

Latest Offering Broadens Solutions for Portable Audio Signal Chain

TI's latest codec offering complements the company's extensive portfolio of analog and DSP products for the portable audio signal chain, including high-performance DSPs, low jitter

clocks, Class-D audio power amplifiers and DirectPath™ headphone amplifiers. For more information see the Audio Solutions Guide at ti.com/audio. In addition, see TI's power management products for portable consumer applications at power.ti.com.

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Texas Instruments

Texas Instruments Incorporated provides innovative DSP and analog technologies to meet our customers' real world signal processing requirements. In addition to Semiconductor, the company includes the Education Technology business. TI is headquartered in Dallas, Texas, and has manufacturing, design or sales operations in more than 25 countries.

Texas Instruments is traded on the New York Stock Exchange under the symbol TXN. More information is located on the World Wide Web at www.ti.com.

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