

INFORMATION:  
AKM Semiconductor  
(888) 256-7364  
e-mail: [icinfo@akm.com](mailto:icinfo@akm.com)



### **AK7742 Press Release**

#### **Audio DSP with Integrated CODEC Ideal for Audio Processing and Hands-Free Applications**

San Jose, CA November 5, 2008 — AKM Semiconductor (AKM), the world's premier supplier of audio ICs for professional and consumer markets, today launched the AK7742, an audio digital signal processor (DSP) with a 4-channel 24-bit DAC and a 2-channel 24-bit ADC. The integrated DAC has dynamic range of 106dB and the ADC has 96dB, providing high quality sound for audio and hands-free voice applications. The AK7742 is a RAM based DSP with an open core that can be programmed for a wide variety of user applications. In addition, a GUI-based programming tool is available.

The audio DSP features 24-bit floating point arithmetic, and it has a parallel operation capability of 1536 step/fs (at 48kHz sampling). A 74-kbit delay RAM enables time-alignment effects for surround sound. Other audio program blocks include EQ, compression, filtering, and ALC. In addition to the analog I/O of the integrated CODEC, a flexible serial digital audio interface is available with four input and six output channels. The AK7742 is capable of outputting signals to a class-D amplifier and receiving input data from external digital sources.

A hands-free voice algorithm is available that enables full-duplex telephone calls in high noise environments such as an automobile. Both echo and noise cancellation algorithms are included in the hands-free program. Parameters are fully tunable for a variety of operating conditions.

The AK7742 operates off of a single +3.3V supply. The internal core 1.8V supply is generated by an internal regulator, simplifying system design. The AK7742 is housed in a 48-pin LQFP package or a small 48-pin QFN package for portable devices such as Personal Navigation Devices (PND) and powered speakers. Evaluation boards and samples are available now. A GUI-based graphical design tool is also available for the AK7742. For more information or editorial contacts about this product, call AKM toll-free at (888) 256-7364.