

**8-Pin, Stereo A/D Converter for Digital Audio**

**Features**

- Single +3 V or +5 V Power Supply
- 18 Bit Resolution
- 94 dB Dynamic Range
- Linear Phase Digital Anti-Alias Filtering  
0.05dB Passband Ripple  
80dB Stopband Rejection
- Low Power Dissipation: 50 mW  
Power-Down Mode for Portable Applications
- Complete CMOS Stereo A/D System  
Delta-Sigma A/D Converters  
Digital Anti-Alias Filtering  
S/H Circuitry and Voltage Reference
- Adjustable System Sampling Rates  
including 32kHz, 44.1 kHz & 48kHz

**General Description**

The CS5330/CS5331 are a complete stereo analog-to-digital converter which performs anti-alias filtering, sampling and analog-to-digital conversion generating 18-bit values for both left and right inputs in serial form. The output word rate can be up to 50 kHz per channel.

The CS5330/5331 operate from a single +3V or +5V supply and requires only 70 mW for normal operation, making it ideal for battery-powered applications.

The ADC uses delta-sigma modulation with 128X over-sampling, followed by digital filtering and decimation, which removes the need for an external anti-alias filter. The linear-phase digital filter has a passband to 21.7 kHz, 0.05 dB passband ripple and >80 dB stopband rejection. The device also contains a high pass filter to remove DC offsets.

The device is available in a 0.208" wide 8-pin SOIC surface mount package.

**For more information contact your sales representative (Chapter 7)**

