CS5304P
CS5308P

Pro Audio ADCs Deliver True Transparent Audio

World-class performance that's easy to use and integrate

Class-leading performance with 123 dB DNR and better than -110 dB THD+N

Uncompromising digital providing 32-bit audio at a sample rate up to 768 kHz and all FIR digital filters

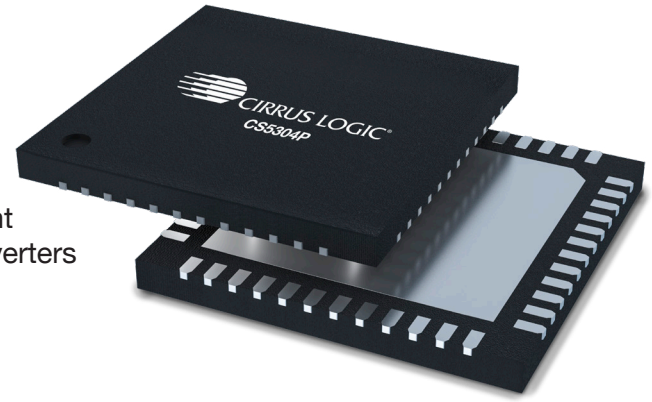
Industry-leading low power consumption at 25 mW/ch

Simple to integrate using only one power rail and hardware mode control

Hybrid gain control simplifies complex microphone front-end gain design

Cirrus Logic
CS5304P
CS5308P

32-bit Transparent
Analog-to-Digital Converters



The **Cirrus Logic CS5304P and CS5308P** are part of a new series of pro audio converters aimed at providing the most transparent audio conversion. This transparency allows manufacturers to customize their end products.

The **CS5304/8P** are high-performance, 32-bit resolution 4/8-channel ADCs. The devices support differential analog input and 32-bit digital output via the audio serial port (ASP) at sample rates up to 768 kHz. The **CS5304/8P** both use a 5th-order, multibit sigma-delta modulator followed by digital filtering and decimation. This provides a dynamic range of over 123 dB and THD+N below -110 dB, all within a 25 mW/ch power budget. .

The devices can be powered from a single rail and controlled by either hardware pins, I2C or SPI, making the devices both flexible and easy to integrate. This, together with Cirrus Logic's new hybrid gain control feature, makes both the **CS5304/8P** ideal for digital mixers, USB audio interfaces, home audio and audio video receivers, plus musical instruments such as synthesizers, DJ mixers and amplifiers, video recording and automotive applications.

CS5304P
CS5308P

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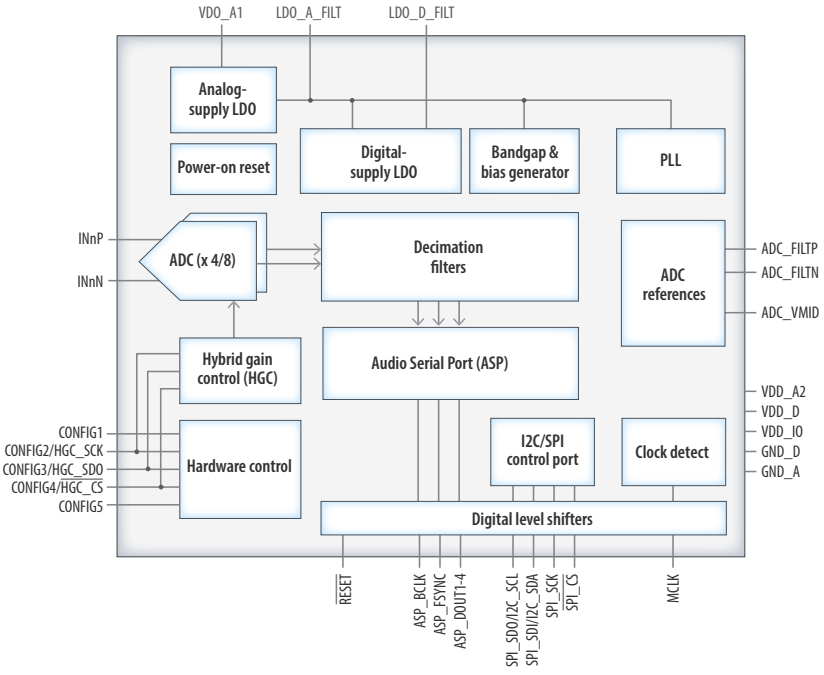
World-class performance that's easy to use and integrate

Features:

- **High-performance 4/8-channel ADC**
  - Differential analog inputs
  - High-resolution 32-bit digital architecture
  - Low-latency digital filters and digital volume control
- **PLL supports range of external system-clock references**
- **Synchronous operation across multiple devices**
- **Hybrid gain control**
- **Audio serial port (ASP) sample rates up to 768 kHz**
  - I2S, left-justified and TDM data formats
- **Hardware and software control modes**
  - Hardware control with no host processor required
  - I2C control port up to 1 MHz
  - SPI control port up to 24 MHz
- **Single supply operation at 3.3 V**
  - Support for 1.8 V–3.3 V digital input/output

CS5304P and CS5308P Block Diagram:



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