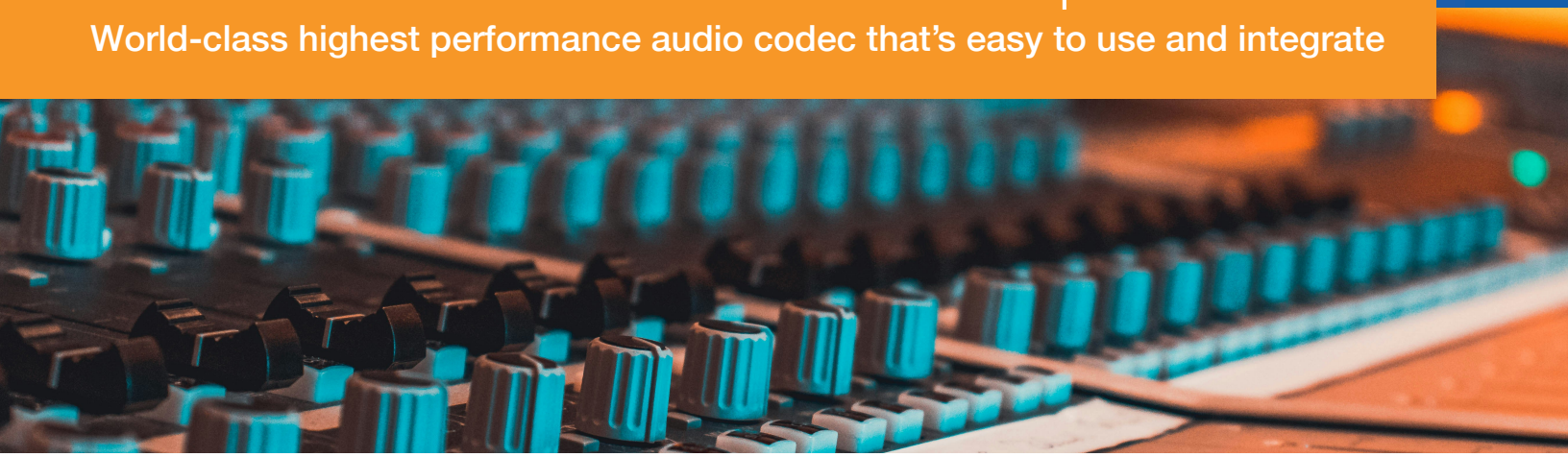
CS4282P

Pro Audio Codec Delivers True Transparent Audio

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



Leading performance
with 123 dB, -110 THD +N In & 129 dB DNR, -115 dB THD+N Out

Uncompromising digital
providing 32-bit audio at a sample rate up to 768 kHz

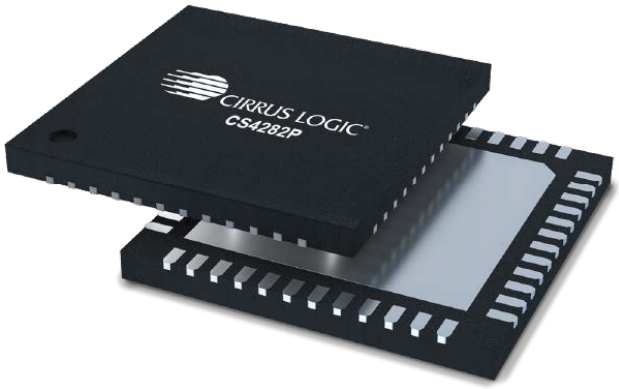
Hybrid gain control
simplifies complex microphone front-end gain design

Simple to integrate
using one rail with power supply reject, and hardware mode

Configurable digital filters
help our customers personalize the audio experience

Cirrus Logic CS4282P

32-bit
Transparent Codec



The **Cirrus Logic CS4282P** is 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 **CS4282P** is the highest performing, 32-bit resolution codec on the market. The device support stereo differential analog inputs/outputs and 32-bit digital out/in via the audio serial port (ASP) at sample rates up to 768 kHz. The **ADC** 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 **DAC** in the **CS4282P** uses a proprietary analog FIR architecture to reduce out-of-band noise and minimize the external component requirements. This provides a dynamic range of 129 dB and THD+N below -115 dB. The device 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 makes the **CS4282P** ideal for USB audio interfaces, home audio and audio video receivers, as well as musical instruments such as synthesizers, DJ mixers and amplifiers.

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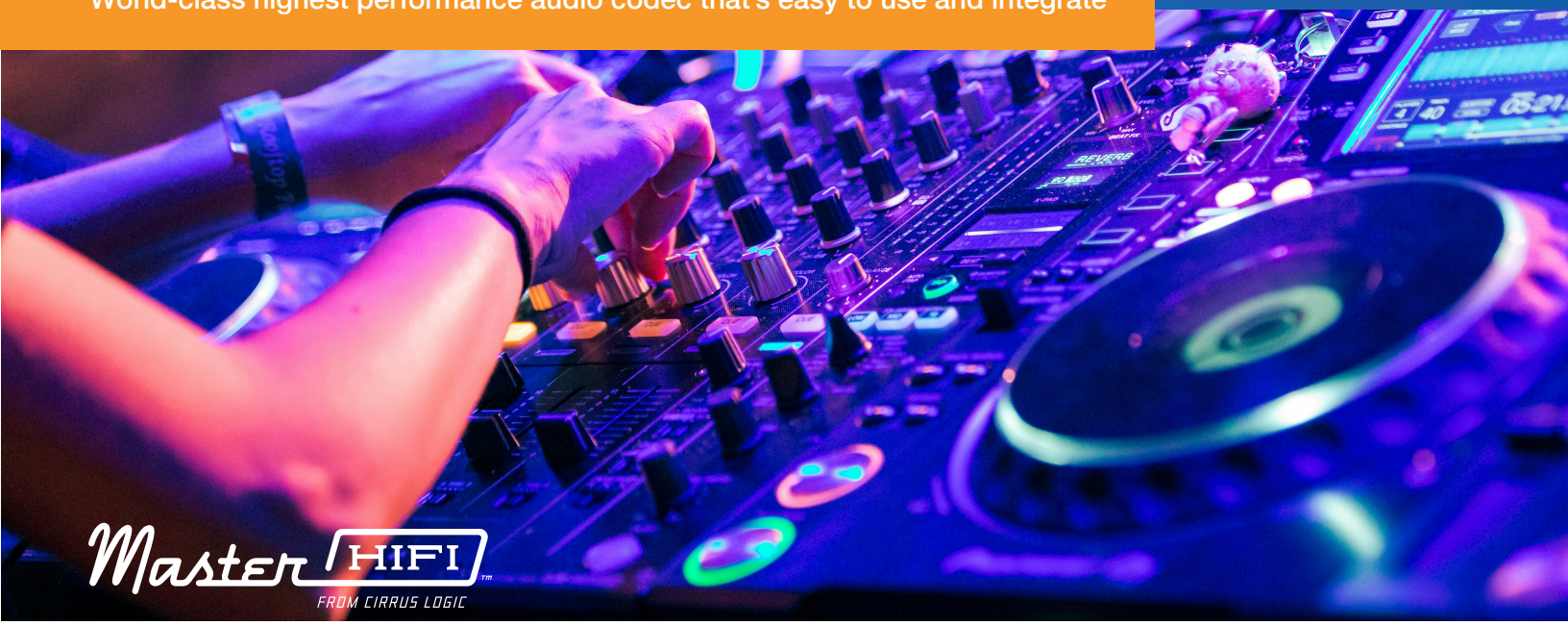
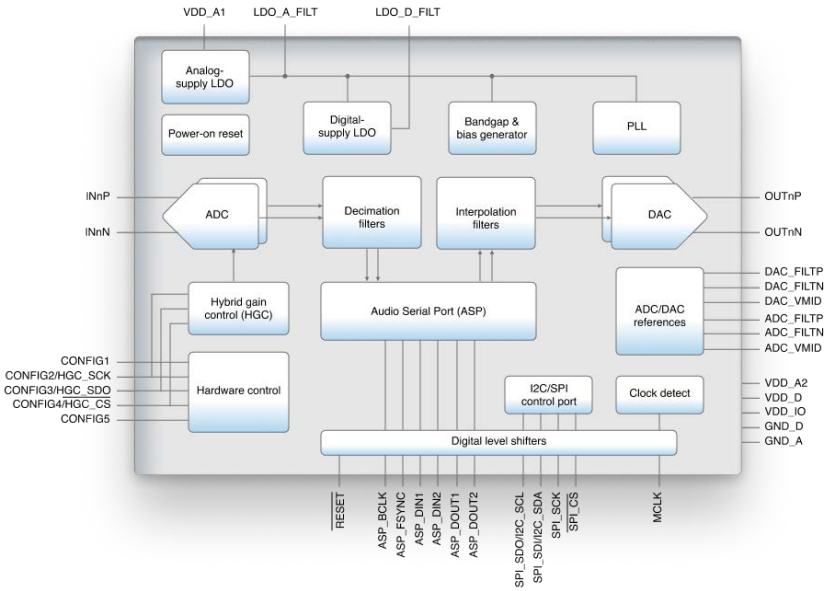


Product Overview

- High-performance Stereo Codec
  - Differential analog inputs/outputs
  - 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
- Audio serial port (ASP) sample rates up to 768 kHz
  - I2S, left-justified and TDM data formats
  - DSD up to 512xfs
- Hybrid Gain Control
- 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

CS4282P Block Diagram



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