
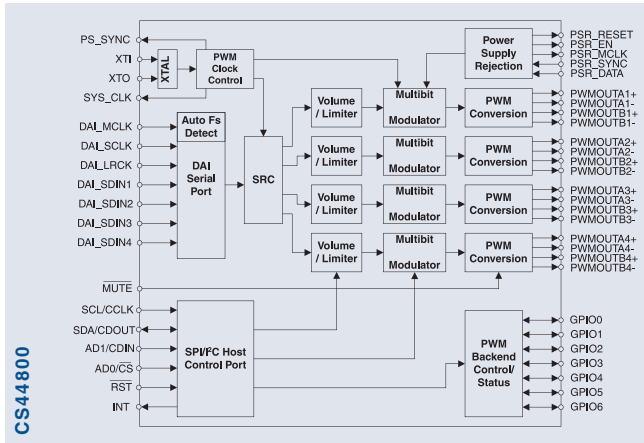


CS44600/800



12 mm
12 mm
IC dimensions
(pin-to-pin nominal)



New Multichannel Class-D Digital Amplifiers Provide Premium Audio Performance

INTEGRATED SAMPLE-RATE CONVERTER AND PATENTED POWER-SUPPLY REJECTION TECHNOLOGY IMPROVE AUDIO QUALITY

- Integrated sample-rate converter
 - Minimizes effects of clock jitter
- Patented power-supply feedback capability
 - Minimizes effects of power-supply noise on audio quality
- Six- or eight-channel PWM outputs
 - 32 kHz to 192 kHz sample rates
- 100 dB dynamic range — system level
- Single-ended or differential operation
 - Popguard® to minimize clicks and pops in single-ended mode
- System clock generation
- AM frequency compatible
- Digital volume control with soft ramp
 - +24 to -127 dB in 0.25 dB steps
- Peak detect and volume limiter with programmable attack and release rates
- SPI and I²C host control interfaces
- 64-pin LQFP
- CS44600 price: \$2.79 (10K)
- CS44800 price: \$2.98 (10K)

CS44600/800

The new CS44600 and CS44800 pin-compatible Class-D digital amplifier controllers further advance the Cirrus Logic® mixed-signal audio IC portfolio. These ICs provide a simple, small, and cost-effective solution — enabling designers to deliver precisely what manufacturers need to get premium audio products to market fast.

The six-channel CS44600 and the eight-channel CS44800 improve upon previous generation digital amplifier products through technology enhancements that will help enable system designers to lower costs while improving audio quality. For example, BOM costs can be reduced through the purchase of lower-cost power supplies since each chip incorporates Cirrus Logic's patented power-supply rejection technology to compensate for the inherent power-supply noise that can harm audio quality. This technology also offers the added benefit of enabling single-ended outputs, which further reduces component count. Each chip also

features an integrated sample-rate converter that minimizes the effects of clock jitter, enabling improved audio quality with system dynamic range of greater than 100 dB.

These amplifiers also feature Cirrus Logic's Popguard® technology to eliminate power cycling clicks and pops. Engineered for performance, these new amplifiers deliver professional audio quality at breakthrough price points.

Applications

- Audio/video receivers
- Home theater systems
- Networked audio
- DVD receivers
- Automotive entertainment systems
- Professional audio products
- Musical instruments

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