

# CS4385/65

48-pin LQFP

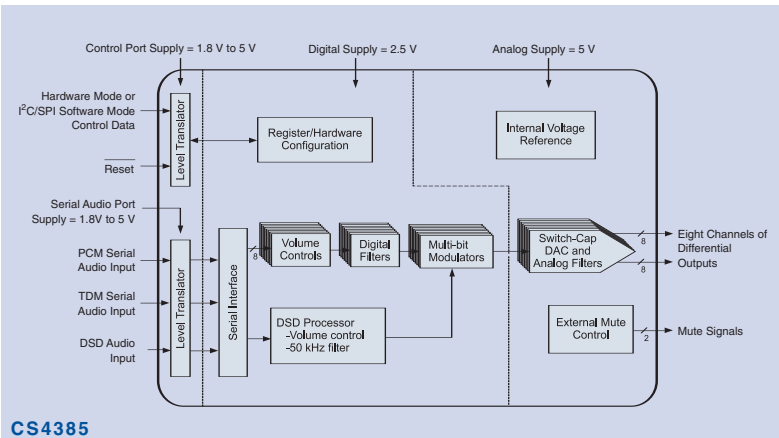
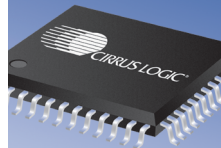


8.7 mm

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IC dimensions

(pin-to-pin nominal)



## OUTSTANDING AUDIO FIDELITY

- 8-channel (CS4385)
- 6-channel (CS4365)
- 24-bit conversion
- 114 dB dynamic range
- -100 dB THD+N
- Advanced multi-bit Delta-Sigma architecture
- Up to 192 kHz sample rates for DVD-Audio equipment
- Direct Stream Digital mode (SACD)
  - Non-decimating volume control
  - On-chip 50 kHz filter
  - Dedicated inputs
- Supports industry-standard TDM interface
- Selectable low-latency digital filters
- Volume control with soft ramp
  - 0.5 dB step size
  - Zero crossing click-free transitions
- Low clock jitter sensitivity
- $\mu$ C or stand-alone operation
- 6 mute output pins (CS4365)
- 2 mute output pins (CS4385)
- Pin-compatible devices for easy upgrade path
- Available in a 48-Pin LQFP
- CS4385 Price: \$5.48 (10K)
- CS4365 Price: \$4.29 (10K)

## New High-performance D/A Converters are Ideal for SACD & DVD-Audio Systems

### DESIGNED FOR MULTICHANNEL APPLICATIONS

#### CS4385/65

These new Cirrus Logic® 8 and 6-channel digital-to-analog converters provide precisely what designers need in today's multichannel audio applications. They deliver premium analog performance and sound quality by utilizing low-latency digital filtering, fifth-order, multi-bit, Delta-Sigma digital-to-analog conversion, logarithmic digital-volume control and switched-capacitor analog filtering. Both ICs use patented automatic mode selection based on sample rate detection to support PCM data at sample rates from 4 kHz to 192 kHz, and a dedicated interface is included for DSD audio data. Design the CS4385 (8-channel), and CS4365 (6-channel) into your next-generation home theater systems, high-performance sound cards, SACD and DVD players, A/V receivers, automotive audio systems, mixing consoles, and effects processors.

For SACD applications, these D/A converters include a patented Direct Stream Digital processor, which includes a volume-control engine that does not decimate the data stream, thereby maintaining the native sampling rate of 2.8224 MHz and preserving the integrity of the SACD data format. Also included is an on-chip 50 kHz filter that complies with recommendations in the SACD standards. Cirrus Logic's techniques for providing SACD volume control and filtering offers manufacturers the ability to add SACD at no additional cost in the analog section of their products.

Ease of design, a high level of integration, and a flexible feature set allows manufacturers to minimize time to market while maximizing performance and consumer affordability.