

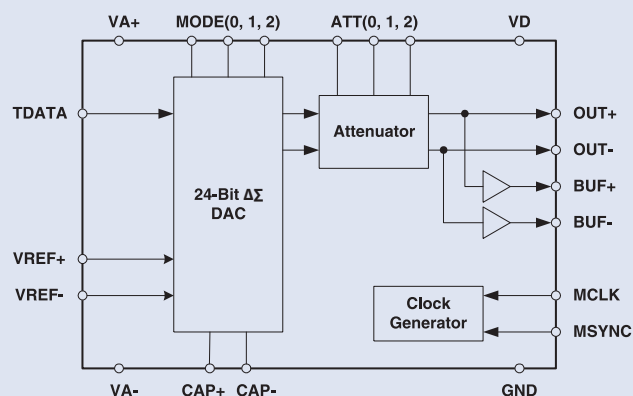
28-pin SSOP



9.9 mm

7.4 mm

IC dimensions



CS4373A

## CS4373A FEATURES

- Digital Delta-Sigma input, differential analog output
- Selectable differential outputs (OUT $\pm$ , BUF $\pm$ )
- Selectable output attenuation
  - 1, 1/2, 1/4, 1/8, 1/16, 1/32, 1/64
- User programmable test modes
  - AC differential/common mode output
  - DC pulse/calibration output
- AC output voltage: 5 Vp-p differential
- DC output voltage: 2.5 Vdc differential
- Outstanding noise performance
  - 114 dB SNR @ 430 Hz bandwidth
- Low total harmonic distortion
  - OUT $\pm$ : -115 dB THD typical, -112 dB THD max
  - BUF $\pm$ : -105 dB THD typical, -95 dB THD max
- Low-power consumption
  - Normal mode: 8 mA
  - Sleep mode: 500  $\mu$ A
  - Power down: 120  $\mu$ A
- Dual power supply configuration
  - VA+ = +2.5 V; VA- = -2.5 V; VD = +3.3 V

## Low-Power, High-Performance Delta-Sigma Test DAC for Testing Seismic Acquisition Systems and Geophysical Instruments

### CS4373A

The CS4373A is a highly integrated differential output digital-to-analog converter intended to test high-resolution, low-frequency measurement systems. Its small footprint, low-power consumption, selectable attenuation, multiple outputs and programmable test modes make this device ideal for testing seismic acquisition systems and geophysical instruments.

The CS4373A muxed outputs provide a precision output (OUT $\pm$ ) for testing the electronics channel and a buffered output (BUF $\pm$ ) for in-circuit sensor testing. DAC distortion performance (THD) of the precision output is typically -115 dB from the precision output and -105 dB from the buffered output.

Noise performance is 114 dB SNR over a 430 Hz bandwidth. Driven with a digital Delta-Sigma bit stream from the digital filter, the maximum AC analog output voltage is a differential 5 V peak-to-peak signal.

Designed for use with Cirrus Logic's CS5376A or CS5378 digital filters, CS3301 or CS3302 high-precision amplifiers, and CS5371 or CS5372 high-performance Delta-Sigma modulators, the CS4373A offers a complete solution for testing single or multichannel seismic system performance.

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