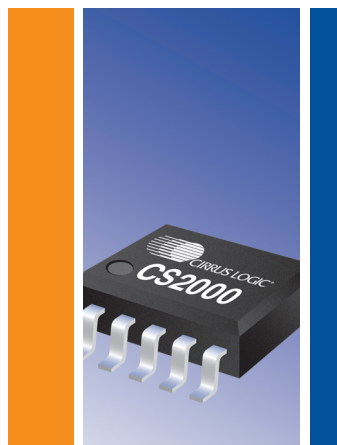


□ 3 mm

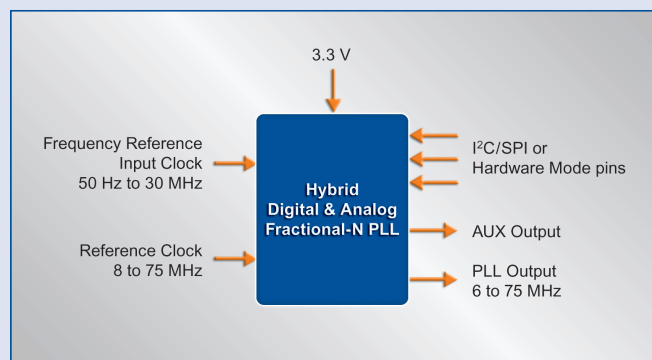
3 mm

CS2000

10-pin MSOP dimensions



CS2000



## CS2000 Features

- High-performance analog/digital phase locked loop
- Clock multiplier/jitter reduction
  - Generates a low-jitter 6 – 75 MHz output clock from a jittery or intermittent 50 Hz to 30 MHz clock source
- Clock generation/frequency synthesis
  - Generates a low-jitter 6 – 75 MHz clock relative to 8 – 75 MHz reference clock
- Highly accurate PLL multiplication factor
  - Less than 1 PPM error
- Flexible control options
  - One-time-programmable configuration for hardware mode
  - I<sup>2</sup>C®/SPI™ control port
- Configurable auxiliary output
  - Buffered reference clock
  - PLL Lock indication
  - Second PLL output
  - Buffered version of CLK\_IN
- Flexible sourcing of reference clock
  - External oscillator or clock source
  - Supports inexpensive local crystal
- Minimal board space required
  - No external analog loop-filter components required
  - Packaged in a 10-pin MSOP
- CS2300 has internal LCO for reference clock
- CS2200 is a subset and consists of clock generation
- CS2100 is a subset and consists of clock multiplication

## New Clocking Family Offers System Flexibility, Lower Cost, and Easier System Design

Featuring both a clock generator and clock multiplier/jitter reduced clock frequency synthesizer (clean up), Cirrus Logic's CS2000 is a strong entrant into the clocking IC market. Based on a unique hybrid analog-to-digital phase lock loop, the CS2000 gives system designers a unique solution for solving the complex challenges of clock generation and multiplication/jitter reduction.

The members of the CS2000 product family are differentiated by the method of control and/or a hardware mode configuration. The CS2000-CP is controlled via an I<sup>2</sup>C®/SPI™ control port and supports the full functionality of the CS2000. The CS2000-OTP is controlled in hardware mode via three mode pins. The functionality of the eight selectable modes is user defined and configured via the one-time-programmable feature.

The CS2xxx is a growing family of products based on the CS2000-OTP and configured by Cirrus Logic to support common system requirements. Please contact Cirrus Logic for factory configuration of the CS2000-OTP to support your unique requirements.

### Applications

- Audio/Video Receivers
- Digital Mixing Consoles
- Outboard A/D and D/A converters
- Digital Effects Processors
- Camcorders
- Satellite Radio Systems

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