Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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CS2000

3 mm
3 mm
CS2000
10-pin MSOP dimensions

CS2000 (block diagram)

- 3.3 V
- Frequency Reference Input Clock 50 Hz to 30 MHz
- Reference Clock 8 to 75 MHz
- Hybrid Digital & Analog Fractional-N PLL
- I²C/SPI or Hardware Mode pins
- AUX Output
- PLL Output 6 to 75 MHz
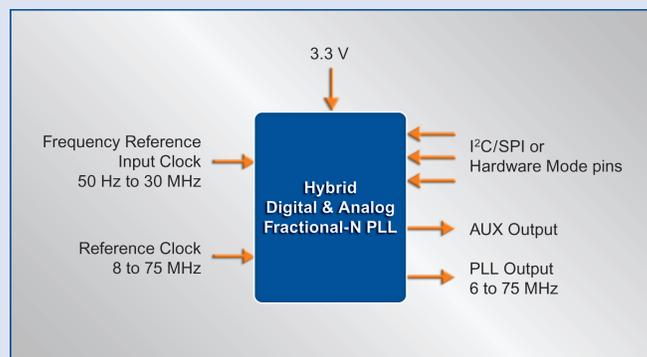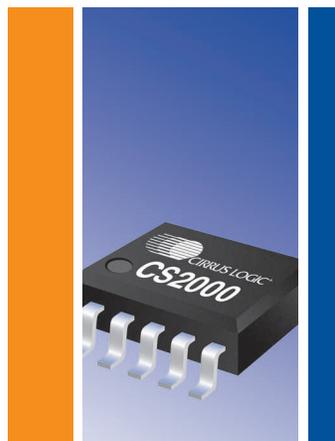
CS2000 Features

- 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
  - I²C®/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 I²C®/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