



Cortina Systems® CS1331 Octal GE MAC and OC-48/12/3 Framer

Product Description

The Cortina Systems® CS1331 is an eight-port Gigabit Ethernet MAC and OC-48/12/OC-3 Framer combining Ethernet and POS, GFP, LAPS and ATM functionalities with integrated serial interfaces. It is a versatile solution for high port count line cards in routers, switches and MSPPs.

Features

SONET/SDH Framer

- STS-48c, STS-12c and STS-3c
- STM-16, STM-4 and STM-1
- Each port is configured individually
- Max uplink is 10 Gb/s so up to four ports can be in OC-48/STM-16 mode
- Section, Line and Path processing, compliant with SONET/SDH standards (GR-253-CORE and G.707)
- Integrated multi-rate SerDes and CDR
- DCC and APS processing and access to TOH/POH bytes via serial interfaces and micro-processor interface
- Port payload mirroring for 1+1 protection
- Local or loop timing

Mappers provided for

- GFP – frame mapped
- POS / LAPS
- ATM
- 9.6K jumbo frames supported with internal length detection for GFP

Ethernet MAC and PHY

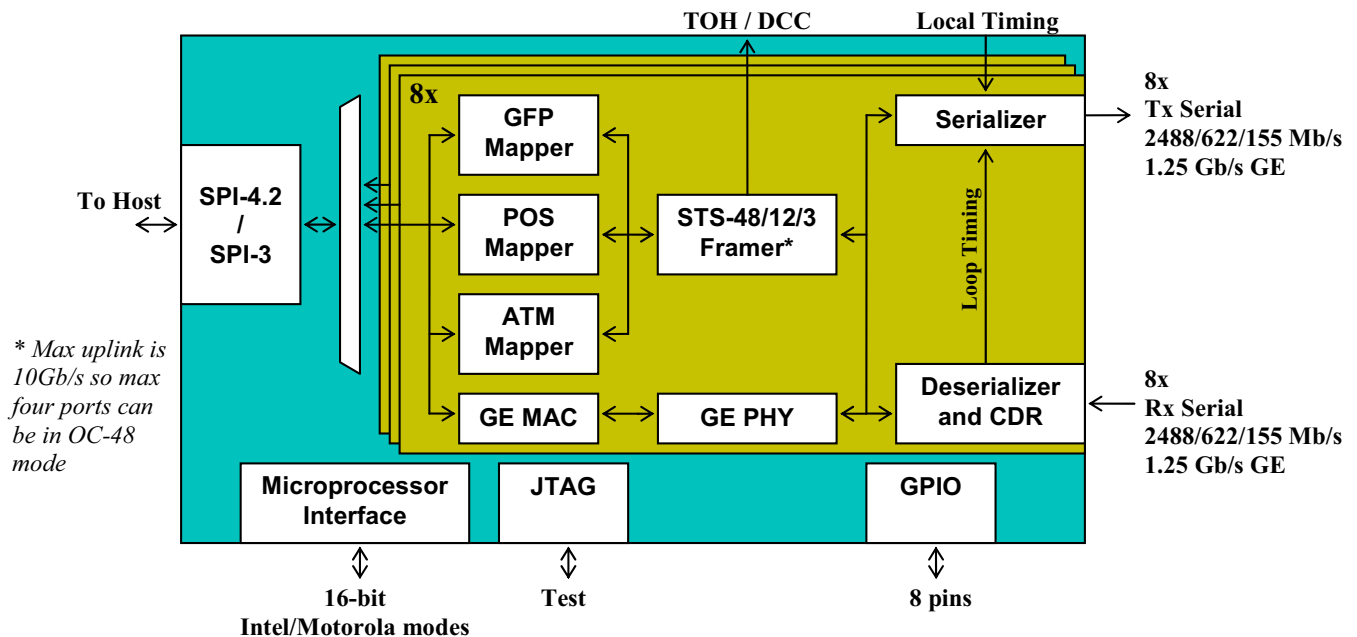
- 1000BASE-X PHY
- Full duplex IEEE 802.3 MAC
- Auto-Negotiation
- Pause frame support

Interfaces

- SPI-4.2 compliant with OIF-SPI4-02.0
- Dynamic alignment for relaxed board layout
- Store-and-forward and cutthrough operation
- SPI-4.2 quarter rate
- SPI-3 (pin shared with SPI-4.2)
- Eight serial 2.488 Gb/s, 1.25 Gb/s, 622 Mb/s or 155 Mb/s directly to SFP optics
- 16-bit Intel/Motorola microprocessor
- Eight GPIO pins
- JTAG for test

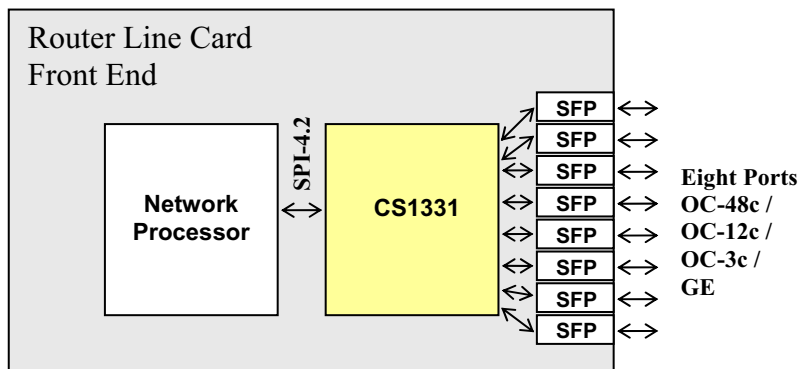
Other

- .13 μ m CMOS technology
- Power supplies of 2.5 V and 1.2 V

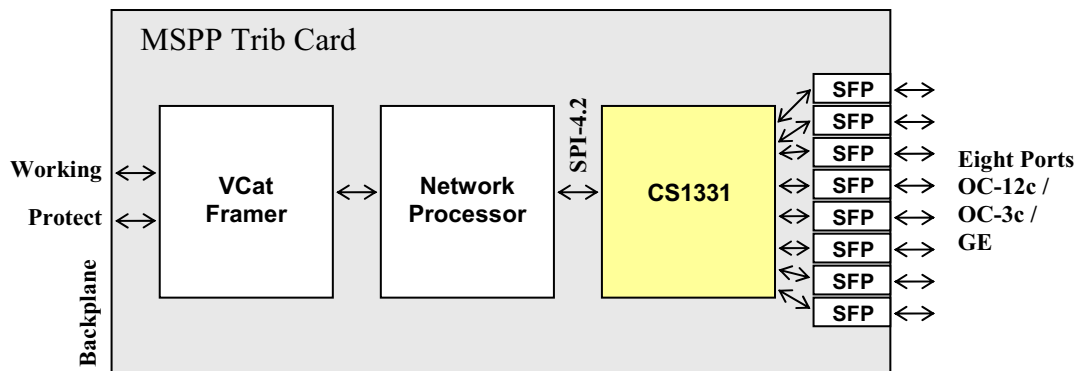


CS1331 Block Diagram

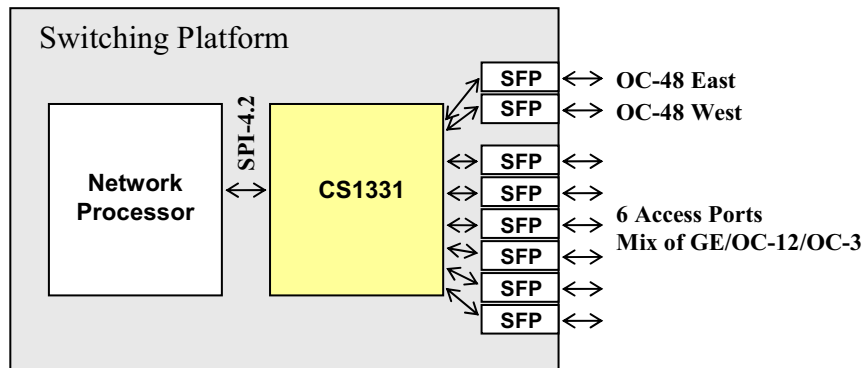
Switch/Router Line Card



MSPP Line Card



Stand-Alone L2 Switching Platform



Cortina in Communications

Cortina is a leading supplier of intelligent communication solutions through continuous innovations in advanced port processing and intelligent port connectivity to the Core, Metro, Access and Enterprise Market Segments. With our state-of-the-art high speed analog digital integration, we deliver a wide suite of products that address our customers'

performance, density and flexibility needs enabling faster time-to-market, longer time-in-market, and increased revenue opportunities. Working closely with our customers to understand their system requirements and anticipate their needs, we are creating the foundation ingredients for new generations of services.



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