

VSC8479

9.95 Gbps to 11.3 Gbps 16-bit Transceiver

Features

- 16:1 Mux/Demux Transceiver With Integrated Clock Multiplier Unit, and Clock and Data Recovery Unit with Limiting Amplifier
- 0.13 μ m CMOS Process Technology
- XFI Output Compliance Mode for XFP Modules
- Programmable Input Signal Bandwidth Equalization (EQ): Enhanced Optical Performance, Enhanced XFI Stressed Eye Performance
- Built-in Self-test Generation and Error Detection: Industry Standard PRBS Generation and Detection, User Defined Patterns
- Full Support for 300-Pin MSA Transponder Modules: Multiple Reference Clock Source Inputs and Selectable Frequencies, Facility and Equipment Loopback Modes, Support for Line Timing Mode with Clock Clean-up, Loss of Lock (LOL) and FIFO Alarm Outputs, Adjustable Loss of Signal (LOS) Alarm
- Two-wire or SPI Micro-controller Serial Interface Port (selectable): Programmable Registers for Access to All Control/Status Signals
- TxRef Clock, RxRef Clock and ExRef Clock Sources: Flexible Reference Clock Routing, Reference Clock "Clean-up" Phase Detector
- Selectable Duobinary Modulation Pre-Coder
- Programmable High-speed Input Voltage Offset Adjust
- High-speed Data Inversion and Low-Speed Bit Order Swap
- High-speed CML Clock Output with Power Down Mode

Key Specifications

- Continuous Frequency of Operation: 9.95 Gbps to 11.3 Gbps
- Exceeds SONET Band Jitter Generation Performance (35 mUI)
- Better than 2x Margin to the OC-192 Jitter Tolerance SONET Mask
- Excellent Crosstalk Immunity and Asynchronous Tx and Rx Operation
- 10 mV Input Data Sensitivity (differential)
- OIF 99.102.8 LVDS Compatible Parallel Data Inputs and Outputs
- 1.8 V Single Power Supply with Optional 3.3 V LVTTTL I/O
- 1.15 Watt Typical Power
- -5 °C Ambient to 90 °C Case Temperature
- 17 mm x 17 mm, 244-Ball, CBGA Package
- 12 x 12, 195 pin FCBGA Package

Benefits

- Proven XFP/SFP+ Module Inter-operability
- Low Power, Full Featured CMOS Transceiver
- Single Chip Mux/Demux Solution: Provides Complete Set of 300 Pin MSA Transponder Functions Including all Loopback and Clocking Modes
- Robust Asynchronous Operation and High Immunity to Cross-talk
- Multiple Reference Clock Source and Clean up Schemes

Applications

- SFP+ SR/LR Module to Host SERDES Applications
- XFP Module XFI to Host SERDES Applications
- 300 Pin MSA Transponder Modules
- 10GE and Fibre Channel to SFI-4 SERDES Applications
- SONET/SDH and DWDM Systems



Microsemi Corporate Headquarters
 One Enterprise, Aliso Viejo, CA 92656 USA
 Within the USA: +1 (800) 713-4113
 Outside the USA: +1 (949) 380-6100
 Sales: +1 (949) 380-6136
 Fax: +1 (949) 215-4996
 email: sales.support@microsemi.com
 www.microsemi.com

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for communications, defense and security, aerospace, and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs, and ASICs; power management products; timing and synchronization devices and precise time solutions; voice processing devices; RF solutions; discrete components; enterprise storage and communications solutions, security technologies, and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California, and has approximately 4,800 employees worldwide. Learn more at www.microsemi.com.

©2005–2016 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

VPPD-00416. 1.1. 4/16