VSC8491

WAN/LAN/Backplane RXAUI/XAUI to SFP+/KR 10 GbE SerDes PHY with VeriTime™ and MACsec

Range of Support

- IEEE 1588v2/Y.1731 OAM precision timing support to within 4 ns accuracy at 1.25 Gbps and 10.3 Gbps
- Compliant to IEEE 802.1AE specifications for 128/256-bit MACsec support
- Compliant to IEEE 802.3ae and SFF-8431 electrical (SFI) specifications
- 9.95 Gbps WAN and 10.3 Gbps LAN operation, as well as 1.25 Gbps Ethernet support
- Supports all standard SFP+ applications
- Support for 10GBASE-KR (IEEE 802.3ap) for 10G backplanes, including 1.25 Gbps and 10.3 Gbps auto-negotiation
- Adaptive equalization receiver and programmable, multitap transmitter pre-emphasis
- Synchronous Ethernet support
- MDIO/SPI and two-wire serial slave management interfaces

Key Specifications

- 1.15 W typical for each bidirectional channel
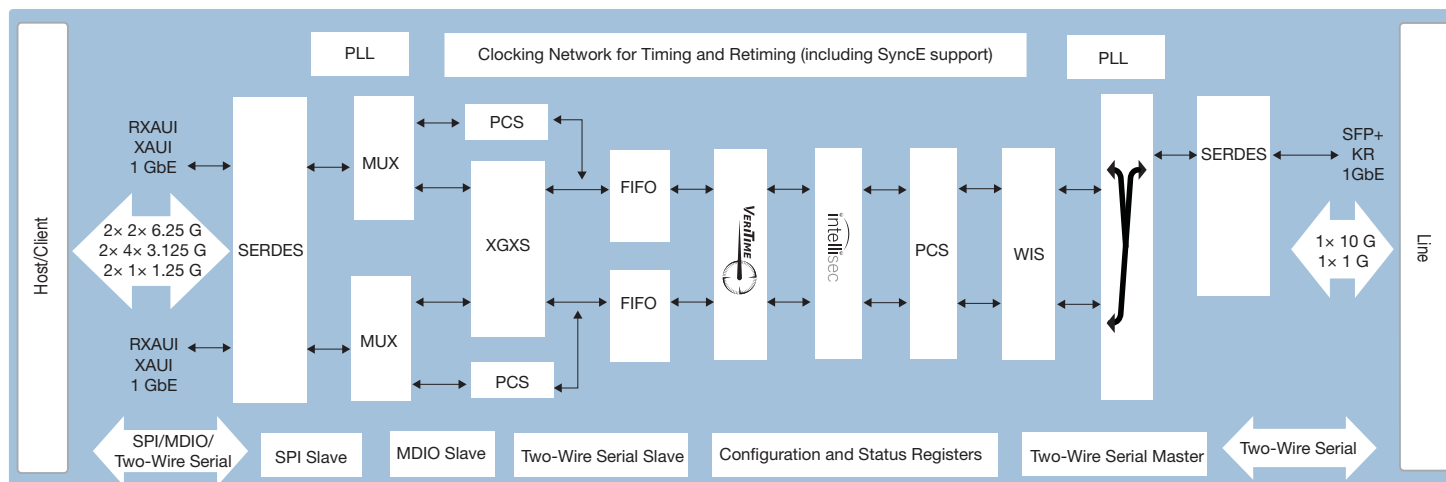- 1.2 V and 1.0 V core power supplies (2.5 V TTL supply)

Flexibility

- Failover switching and lane ordering
- VScope input signal monitoring integrated circuit
- Host-side and line-side loopbacks with BIST functions
- I/O programmability for lane swap, invert, amplitude, slew, pre-emphasis, and equalization
- Optional forward error correction (FEC)
- Flexible clocking options enable Layer 1 support for Synchronous Ethernet
- Passive copper cable support for minimum transmission cost

Related Products

Visit www.microsemi.com for information about these related products:

- VSC8487-15
- VSC8488-15
- VSC8489
- VSC8490
- VSC8572/VSC8574
- VSC8584

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