

VSC3316

11.5 Gbps 16 × 16 Crosspoint Switch

Microsemi's multichannel 11.5 Gbps crosspoint switch provides a cost-effective solution for high-speed copper interconnects.

The VSC3316 is the industry's highest performance signal integrity crosspoint solution. The VSC3316 is uniquely capable of addressing a wide array of routing, switching, and signal integrity issues across storage, blade server, video distribution, telecommunications, and Ethernet applications. Featuring a 16 × 16 non-blocking, multicasting switch core with ports running at any rate up to 11.5 Gbps, the VSC3316 architecture provides protocol-transparent operation, allowing each channel to run independently. The VSC3316 supports a wide frequency range and virtually all data protocols.

The VSC3316 incorporates Microsemi's fourth-generation input equalization and pre-emphasis I/O capability for the industry's highest speed and protocol requirements. The device can perform signal fanout, loopback, and protection switching. It can also regenerate signals severely compromised by transmission losses. Microsemi's equalization works independently of the data rate, providing highly effective compensation for deterministic jitter across a wide range of high-speed interconnect applications.

Highlights

- DC to 11.5 Gbps operation
- 16 × 16 fully non-blocking switch capability
- Protocol-transparent operation
- Advanced EQ

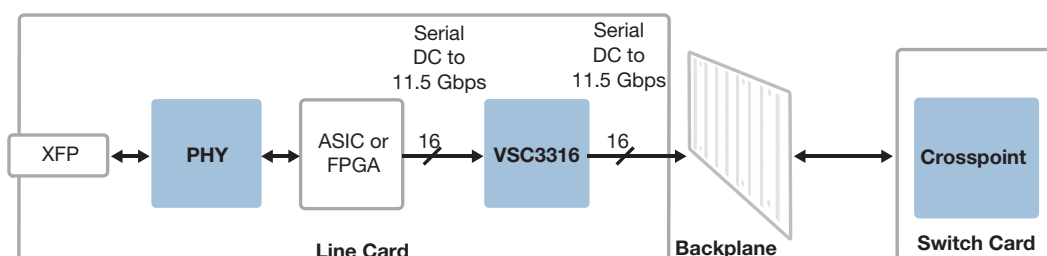
Applications

- Blade servers
- Storage servers
- Telecom
- Video distribution
- Test and measurement equipment

Specifications

- 11.5 Gbps NRZ per channel data rate
- 2.5 V power supply
- 15 mm × 15 mm flip chip ball grid array package

VSC3316 Line Card Application



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Speed and Protocol Support

- 11.5 Gbps non-return-to-zero (NRZ) data bandwidth
- Protocol-transparent

Architecture

- Fully non-blocking and multicasting switch core
- LOS detection and forwarding (supports out-of-band signaling)
- Fully asynchronous operation with <1 ns latency
- 16 × 16 switch core enables signal fanout, loopback, and protection switching

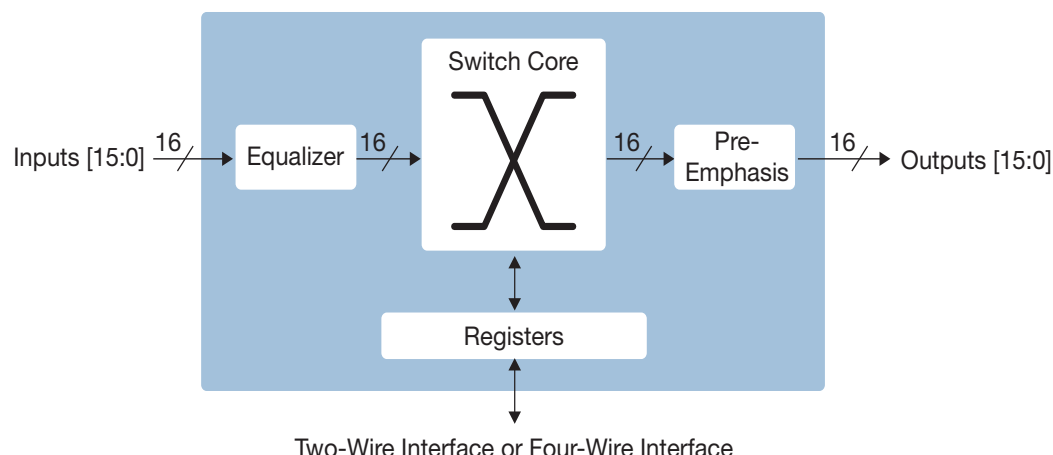
Signal Integrity

- Multiple time-constant programmable input and output equalization
- Wide equalization adjustment range
- Input EQ of 26 dB at 11.5 Gbps
- 9 dB of pre-emphasis
- Embedded post-EQ eye opening monitor per channel

Related Products

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

- Crosspoint Switches
- Ethernet MACs
- Mux, Demux, and Transceivers
- Electronic Dispersion Compensation CDRs



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