VSC3340-01

6.5 Gbps 40 × 40 Crosspoint Switch with Low-Power Green Modes

Microsemi's multichannel 6.5 Gbps crosspoint switch provides a cost-effective solution for high-speed copper interconnects.

The VSC3340-01 is an advanced signal conditioning crosspoint switch solution uniquely capable of addressing a wide array of asynchronous, physical layer switching and routing applications across storage, server, video, communications and other industries. Featuring a 40 × 40 non-blocking, multicasting switch core with ports running at any rate up to 6.5 Gbps, the VSC3340-01 architecture provides protocol-transparent operation, allowing each channel to run independently and optimize low power operation when running at lower speeds. VSC3340-01 supports virtually all standard and proprietary data protocols up to the maximum data rate.

The device incorporates Microsemi's fourth-generation input equalization and pre-emphasis I/O capability engineered to overcome channel impairments experienced in today's high-density systems at multi-gigabit data rates. It can perform signal fanout, loopback, and protection switching. It can also regenerate signals compromised by losses in the transmission medium. Microsemi's equalization provides highly effective compensation for deterministic jitter across a wide range of high-speed interconnect applications.

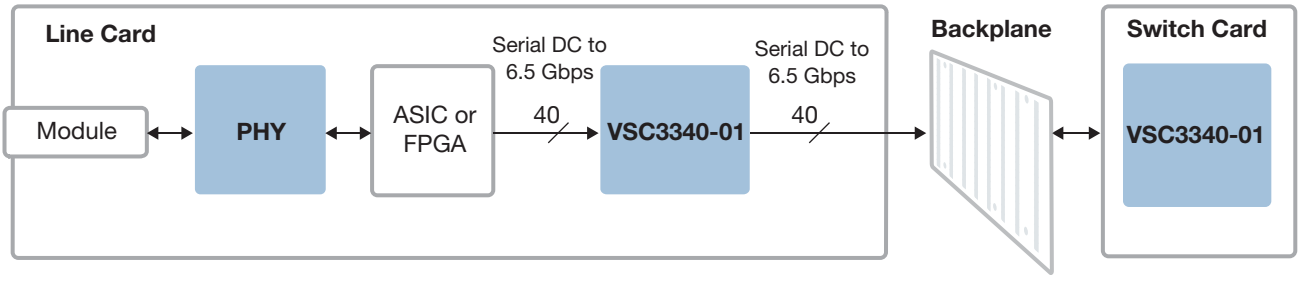
Highlights

- DC to 6.5 Gbps operation
- 40 × 40 fully non-blocking switch capability
- Protocol-independent operation
- Advanced input equalization and output pre-emphasis
- Low power green modes
- Small 23 mm × 23 mm form factor

Applications

- HDMI/DVI/DisplayPort switching/routing
- Broadcast video switching/routing
- PCIe repeater applications
- Servers
- Storage
- Telecom

VSC3340-01 Line Card and Central Switch Card Application



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Speed and Protocol Support

- 6.5 Gbps non-return-to-zero (NRZ) data bandwidth
- Protocol-independent low power green modes when used at lower data rates

Architecture

- Fully non-blocking and multicasting switch core
- Loss of signal (LOS) detection and forwarding (supports out-of-band signaling)
- Fully asynchronous operation with <1 ns latency
- 40 × 40 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 6.5 Gbps
- 9 dB of pre-emphasis

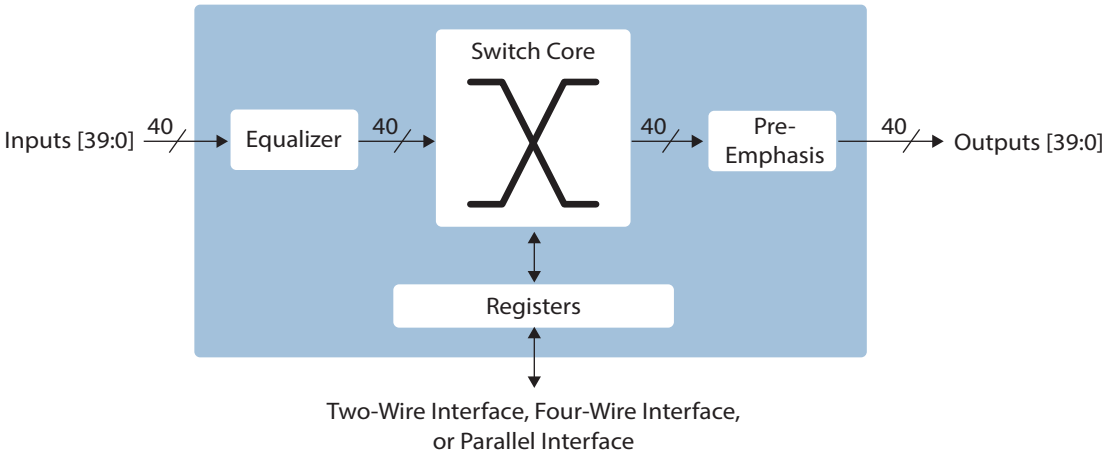
Key Specifications

- 6.5 Gbps NRZ per channel data rate
- 2.5 V power supply
- 23 mm × 23 mm flip chip ball grid array package

Related Products

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

- Crosspoint switches
- Ethernet MACs
- Mux, demux, and transceivers
- Electronic dispersion compensation CDRs



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

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