

VSC3340

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 is the industry's highest performance signal integrity crosspoint solution with low power green modes for optimal reduced power operation. The VSC3340 is uniquely capable of addressing a wide array of routing, switching, and signal integrity issues across storage, blade server, broadcast video, telecommunications, and Ethernet applications. In video applications, the VSC3340 can support HDMI, DVI, DisplayPort, or SDI HDTV protocols. The VSC3340 features a 40 × 40 non-blocking, multicasting switch core with ports running at any rate up to 6.5 Gbps. The VSC3340 architecture provides protocol-independent operation that allows each channel to run independently, and optimizes low power operation when running at lower speeds.

The VSC3340 includes both register and static programming modes. The VSC3340 incorporates Microsemi's fourth-generation input equalization and pre-emphasis I/O capability for the industry's latest generation protocols. The device can perform signal fanout, loopback, and protection switching. It can also regenerate signals severely compromised by transmission losses. Microsemi's industry-proven equalization provides highly effective compensation for deterministic jitter across a wide range of high-speed interconnect applications.

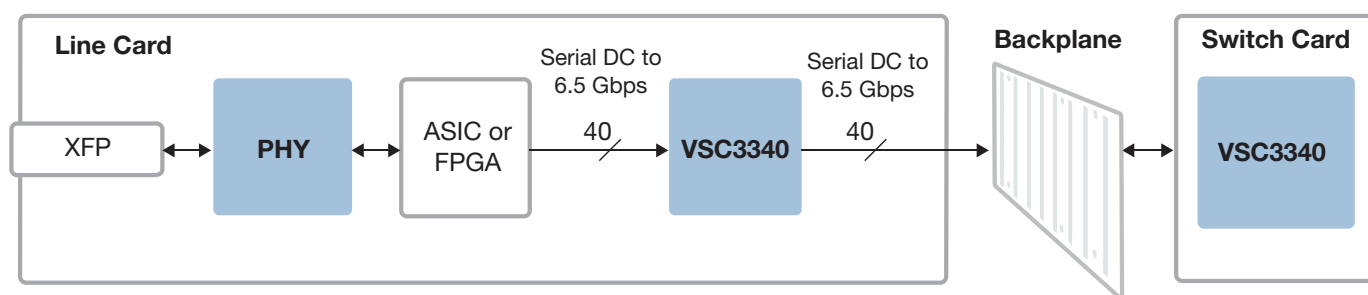
Highlights

- DC to 6.5 Gbps operation
- 40 × 40 fully non-blocking switch capability
- Protocol-independent operation
- Advanced EQ
- Low power green modes
- Small 23 mm × 23 mm form factor

Applications

- HDMI/DVI/DisplayPort switching/routing
- Broadcast video routers
- Broadcast video switchers
- PCIe repeater applications
- Blade servers
- Storage servers
- Telecom

VSC3340 Line Card and Central Switch Card Application



VSC3340

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

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

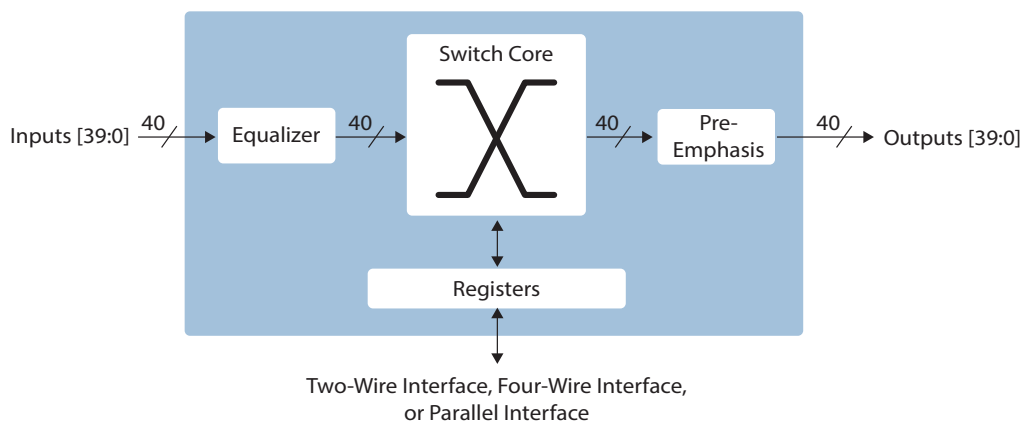
Key Specifications

- 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
 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.