

# VSC3340-31

## 3.5 Gbps 40 × 40 Crosspoint Switch

Microsemi's multichannel 3.5 Gbps crosspoint switch provides a cost-effective solution for high-speed copper interconnects.

The VSC3340-31 is the industry's highest performance signal integrity crosspoint solution. The VSC3340-31 is uniquely capable of addressing a wide array of routing, switching, and signal integrity issues across broadcast video, telecommunications, and Ethernet applications. In video applications, the VSC3340-31 can support HDMI, DVI, DisplayPort, or SDI HDTV protocols. The VSC3340-31 features a 40 × 40 non-blocking, multicasting switch core with ports running at any rate up to 3.5 Gbps. The VSC3340-31 architecture provides protocol-independent operation that allows each channel to run independently.

The VSC3340-31 includes both register and static programming modes. The VSC3340-31 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.

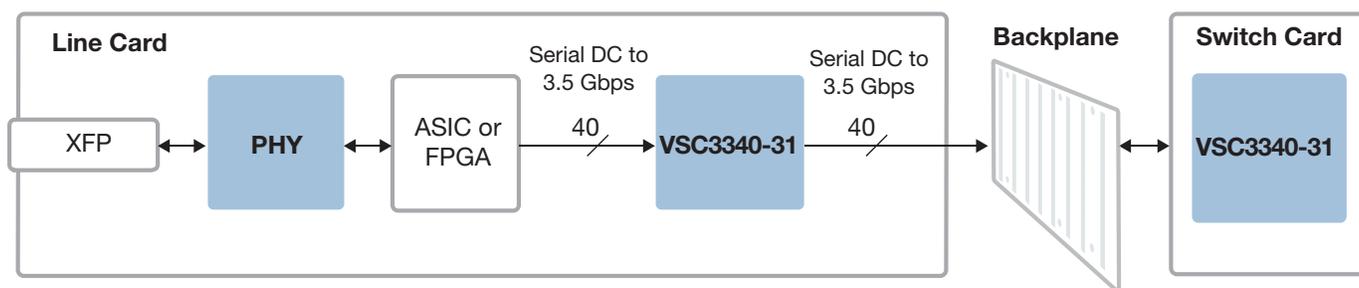
### Highlights

- DC to 3.5 Gbps operation
- 40 × 40 fully non-blocking switch capability
- Protocol-independent operation
- Advanced EQ
- Small 23 mm × 23 mm form factor

### Applications

- HDMI/DVI/DisplayPort switching/routing
- Broadcast video routers
- Broadcast video switchers

### VSC3340-31 Line Card and Central Switch Card Applications



# VSC3340-31

## 3.5 Gbps 40 × 40 Crosspoint Switch

### Speed and Protocol Support

- 3.5 Gbps non-return-to-zero (NRZ) data bandwidth
- Protocol-independent asynchronous operation

### 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
- Pre-emphasis

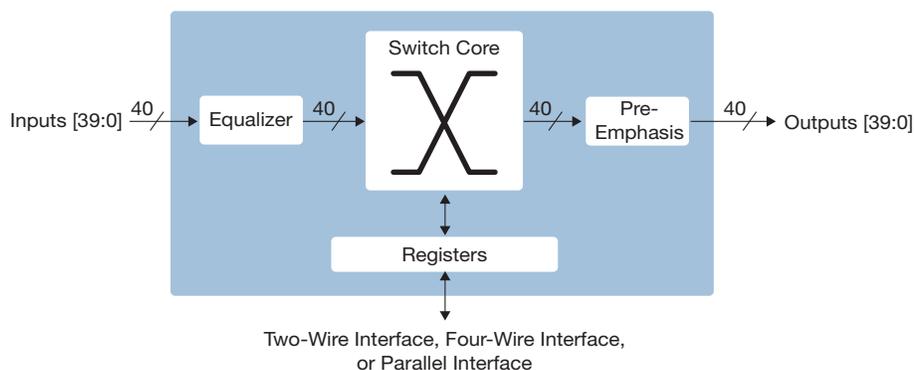
### Key Specifications

- 3.5 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](http://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](mailto:sales.support@microsemi.com)  
[www.microsemi.com](http://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](http://www.microsemi.com).