



Home » News & Events » Press Releases

Press Releases

Vitesse Crosspoint Switches Set Performance Benchmarks for Datacenter Upgrades and Build-outs

Achieves Industry's Best 1.2 Tbps Switching Capacity for 8G Fibre Channel Applications

CAMARILLO, Calif. - May 27, 2009 -

Vitesse Semiconductor Corporation (Pink Sheets: VTSS.PK) today announced production availability of new crosspoint switch devices that enable a dramatic 2x speed and bandwidth improvement in datacenter switches and network storage equipment. The devices feature Vitesse's industry-leading signal integrity technology which allows transmission and signal recovery of high-speed signals over lossy printed circuit board, backplane, and cable media. As the industry migrates from 4G to 8G Fibre Channel to upgrade communication bandwidth, Vitesse's crosspoint and signal integrity technology is required to enable high-speed switching and signal propagation amongst servers, workstations, and network storage systems. OEMs are supporting 8G Fibre Channel in various switch and blade server card products as a result of the increased demand for remote data storage, network capacity, server-to-storage, and server-to-server networking.

The new products include the 8.5G 144x144 channel [VSC3144-08](#) and the 8.5G 4x4 channel [VSC3303](#) crosspoint switches. The industry's highest-capacity semiconductor device, the VSC3144-08 delivers breakthrough 1.224 Terabit per second (Tbps) switching capacity. The VSC3303 is a new, low-power device ideal for board edge placement to clean up signals transmitted across the system backplane. Each device supports a wide frequency range encompassing virtually all data protocols, including Gigabit Ethernet (GbE), XAUI, Reduced XAUI (RXAUI), SAS/SATA, InfiniBand as well as emerging services such as 8G Fibre Channel. Used together, these advanced crosspoints enable low-latency, fully non-blocking switching capability on line cards and switch cards used in Core, Metro, and Enterprise environments.

"We see tremendous industry migration to 8G Fibre Channel across storage networks with customers running more traffic, at higher speeds, over fewer links, in smaller system footprints. Vitesse's VSC3144-08 and VSC3303 uniquely enable this migration by providing a seamless, pin-compatible speed upgrade up to 8.5 Gbps per channel," said Juan Garza, product marketing manager, at Vitesse. "Vitesse is playing a key role in delivering devices that enable a world-class performance system-level upgrade path for line cards and central switch cards critical to storage and networking equipment."

Newest Members of Industry's Highest-Performance Crosspoint Switch Portfolio

Boasting over a decade of crosspoint switch and signal integrity breakthroughs, the [VSC3144-08](#) is the latest flagship product to be added to Vitesse's crosspoint product line. The device is footprint compatible to Vitesse's previous generation devices, allowing a pin-compatible speed upgrade path for customers using the Vitesse 4.25G VSC3140 or 6.5G VSC3144 products. Other features for the [VSC3144-08](#) include:

- DC-to-8.5 Gbps fully differential signal paths with protocol-independent operation
- Adjustable input signal equalization with per-channel and global control
- Adjustable output pre-emphasis with per-channel and global control
- Lowest power available at this bandwidth level with 21W power consumption

The [VSC3303](#) features Vitesse's exclusive dual time constant, programmable output signal pre-emphasis. This allows the VSC3303 to compensate for multiple impairments and discontinuities in a signal path introduced by connectors and long PCB traces. The smaller form factor of the VSC3303 is designed to route, drive, and restore 8.5G signals on line cards by utilizing Vitesse's [FlexEQ™](#) adaptive equalization and Electronic Dispersion Compensation (EDC) technology. The VSC3303 consumes only 200 mW per channel, dramatically reducing power requirements by up to 50 percent over previous generation devices. Other features of the VSC3303 include:

- DC-to-8.5 Gbps fully differential signal paths with protocol-independent operation
- Loss of signal (LOS) detecting and transmitting for out-of-band (OOB) support of SAS/SATA storage protocols
- Fully non-blocking and multicasting switch core and flexible fourth-generation equalization and pre-emphasis I/O capability
- Input equalization
- Dual-decay pre-emphasis works independently of the data rate and provides compensation for deterministic jitter across a wide range of operating conditions without re-tuning

Both crosspoint switches can be programmed through a flexible, multimode programming interface that allows both per-channel and global configuration, enabling maximum customization for applications. Unused channels may be powered down for efficient use of the switch in applications that require only a subset of the channels.

Product Availability

The [VSC3144-08](#) is offered in a 45 mm x 45 mm, 1.27 mm pin pitch, 1072-pin BGA package. The [VSC3303](#) is available in an ultra-compact 7mm x 7mm, 1mm pin pitch, 36-pin FCBGA package. Evaluation Systems and samples for both devices are available now.

About Vitesse

Vitesse designs, develops and markets a diverse portfolio of high-performance, cost-competitive semiconductor solutions for Carrier and Enterprise Ethernet networks worldwide. Engineering excellence and dedicated customer service distinguish Vitesse as an industry leader in Gigabit Ethernet LAN, Ethernet-over-SONET, Fibre Channel, Serial Attached SCSI, Optical Transport, and other applications. Vitesse innovation empowers customers to deliver superior products for Enterprise, Access, Metro, and Core applications. Additional company and product information is available at www.vitesse.com.

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