**FEATURES :**

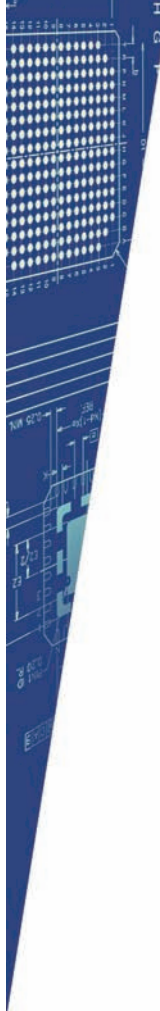
- ▶ 6.5 Gbps 72 × 72 strictly nonblocking switch matrix with multicast and output striping programming modes
- ▶ Fourth-generation input signal equalization (ISE) with programmable control globally or on a per-channel basis
- ▶ Adjustable output pre-emphasis EQ
- ▶ Differential current mode logic (CML) data output driver
- ▶ Protocol-independent switching and data transmission
- ▶ 10-W typical power dissipation
- ▶ 33 mm × 33 mm, 1.27 mm pin pitch, 613-pin FCBGA package
- ▶ Parallel and serial programming modes for configuration and monitoring
- ▶ Software control to optimize power dissipation

BENEFITS :

- ▶ 468-Gbps aggregate bandwidth in a single chip for storage, FC, blade server, and Ethernet systems
- ▶ Addresses system-level and board-level signal integrity intersymbol interface (ISI) jitter issues
- ▶ EQ and drive flexibility for driving boards, cables, and connectors
- ▶ Convenient I/O flexibility for interfacing with multiple protocols
- ▶ Can be used with latest storage, Ethernet, and networking equipment
- ▶ Low 140-mW per-channel power dissipation
- ▶ Layout-friendly package and pinout for easier PCB design
- ▶ Programming and control convenience
- ▶ Controlled power reduction for unused ports

APPLICATIONS :

- ▶ Core and metro transport
- ▶ Enterprise
- ▶ Blade servers
- ▶ High-speed automated test equipment
- ▶ Broadcast video systems
- ▶ Storage, Ethernet, and networking equipment



VSC3172

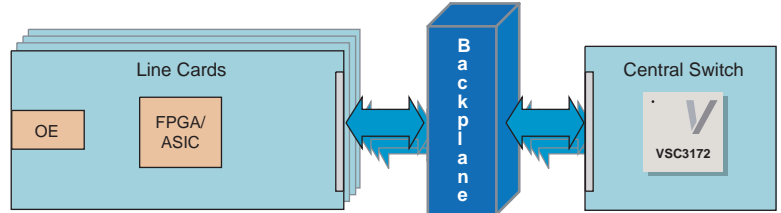
through a multimode port interface that allows random access programming of each input and output port.

A high degree of signal integrity is maintained throughout the device by fully differential signal paths. Programmable input EQ and output pre-emphasis settings enable maximum customization for the application. Each data output can be programmed to connect to one of the inputs. The signal path is unregistered and fully asynchronous, so there are no restrictions on the phase, frequency, or signal pattern on any input.

multiplexed parallel data. Core programming is done on a port-by-port basis, or multiple program assignments can be issued simultaneously.

Unused channels may be powered down to save power. Power-down is enabled in software by programming the outputs with a power-down code.

BACKPLANE APPLICATION:



SPECIFICATIONS:

- ▶ 6.5-Gbps NRZ per-channel data rate
- ▶ 2.5-V power supply (2.5-V or 3.3-V program port power supply)
- ▶ 2.5-V or 3.3-V CMOS TTL-compatible I/O
- ▶ Differential CML I/O with integrated termination impedance
- ▶ 0 °C to 85 °C operating temperature range

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