

VSC7113

10.3 Gbps Quad Signal Conditioner

The VSC7113 device is a quad-channel asynchronous buffer that simplifies high-speed signal path designs (up to 10.3 Gbps) by providing dual 2 × 2 crosspoint functionality along with input and output equalization capabilities. Low power modes allow the device to scale power depending on data rate, and unused ports can be completely powered down.

Programmable and static equalization settings provide a comprehensive solution for countering signal degradation over a wide variety of interconnect transmission paths, including copper and optical media.

The device can be configured for pass-through 4-channel buffer, dual 2 × 2 matrix, dual 1:2 duocast, or dual 2:1 selector configurations. All signal inputs and outputs are fully differential.

VSC7113 operates from a single 2.5 V supply and supports an extended temperature range of -40 °C to 110 °C. It is offered in a compact, 32-pin, 5 mm × 5 mm QFN package.

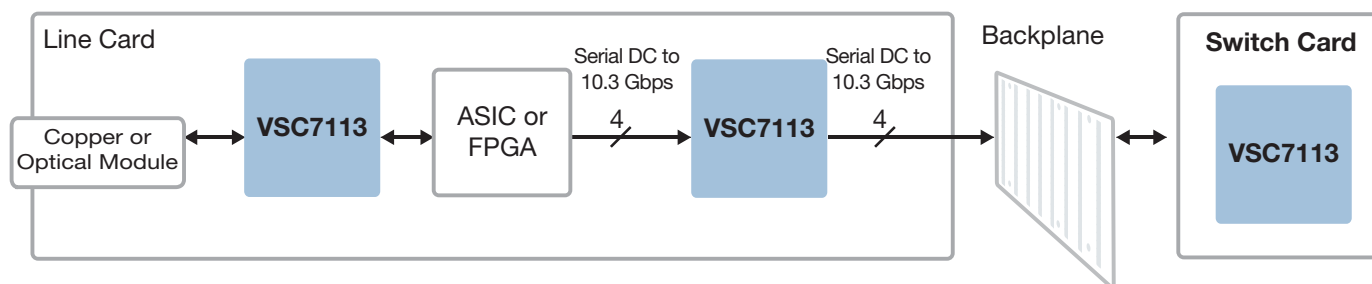
Highlights

- Up to 10.3 Gbps asynchronous operation
- Low power modes
- Static and programmable input equalization
- Programmable transmit output

Applications

- 10 GbE high-speed cable and backplane equalization

VSC7113 Line Card and Central Switch Card Applications



VSC7113

10.3 Gbps Quad Signal Conditioner

Flexible Architecture

- 0 Gbps to 10.3 Gbps asynchronous operation
- 4-channel buffer, dual 2 × 2 matrix, dual 1:2 duocast, or dual 2:1 selector configurations
- Optimized for ease of use and customer cost

Broad Input/Output Capabilities

- Input EQ of 20 dB at 10.3 Gbps
- Static or programmable transmit pre-emphasis up to 5 dB
- Input sensitivity 100 mV differential peak-to-peak

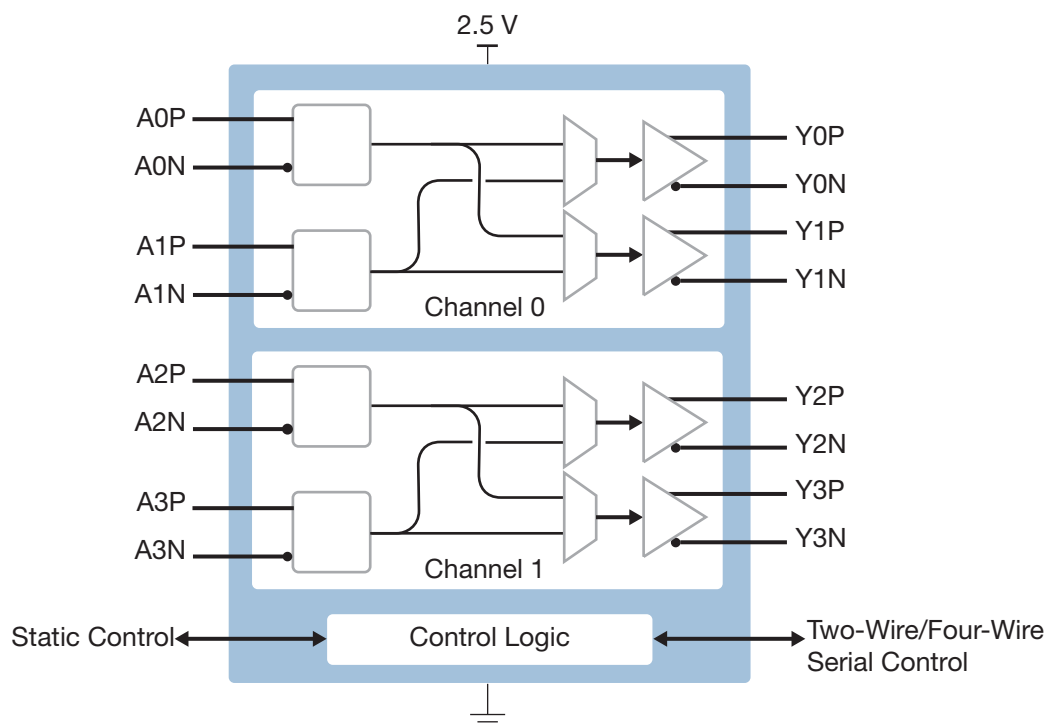
Key Specifications

- 2.5 V power supply
- 118 mW typical power consumption per channel in Green mode
- 32-pin, 5 mm × 5 mm QFN package
- Extended temperature range of -40 °C ambient to 110 °C junction

Related Products

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

- Ethernet Switches
- Crosspoint Switches
- 1G and 10G PHYs



Microsemi

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.