

# 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.

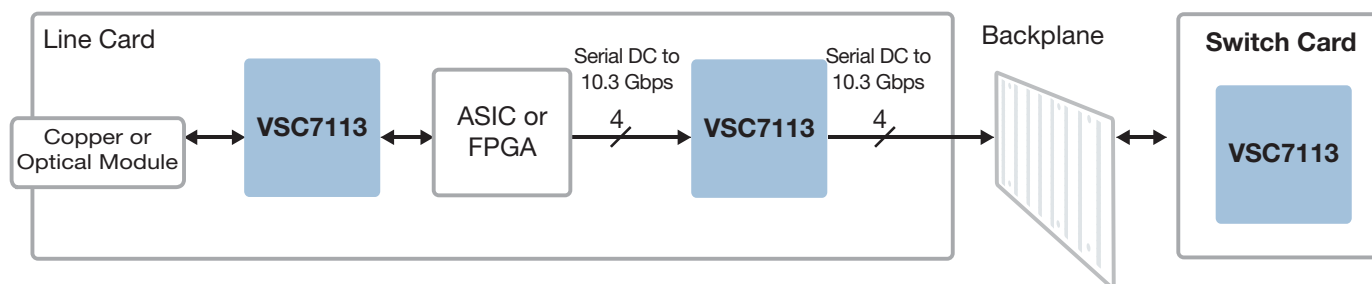
### Highlights

- 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



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## 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

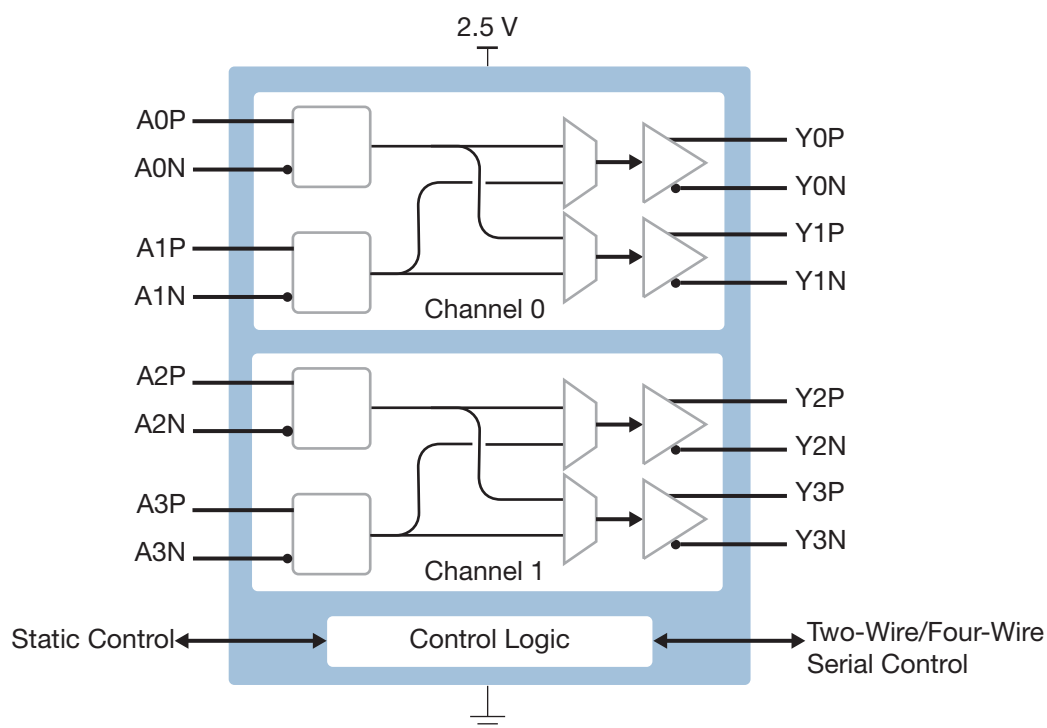
### Key Specifications

- 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

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