



# VSC7223

## 4 Channel Multirate 16 Gbps Retimer/Redriver

Status: In Production

### Device Overview

#### Summary

The VSC7223 device is a 4-channel unidirectional lane adaptive channel extender with a CRU. It incorporates input equalization, clock and data recovery, and output de-emphasis. VSC7223 supports data rates up to 16G. The VSC7223 device is a simple-to-use copper media receiver and driver that provides electrical compensation to cable, copper, and backplane environments to increase system margin and media driving distances. It equalizes greater than 65 inches of FR-4 at 10G and greater than 15 meters of 24AWG of SFP+ copper direct-attached cable at 10G. The VSC7223 device can be used either on its own or with an external microcontroller to control, monitor, and enhance system performance. The VSC7223 device uses advanced technology to equalize deteriorated input signals while dissipating the lowest possible power. A low-cost 25MHz crystal, along with an on-chip frequency synthesizer, allows for CRU operation at any data rate. Its three-tap FIR output driver architecture enables up to 18dB of de-emphasis at 10G. The VSC7223 device includes Microsemi's patented VScope<sup>™</sup> input signal monitoring integrated circuit waveform viewing technology. The VSC7223 device is available in a compact 5mm x 5mm 48-pin QFN package. The device operates on a single supply of 1.2 volts.

## Additional Features

- **GE PHYs**
  - GE PHYs
  - 10GE PHYs
  - Ethernet Software
  - World-class adaptive equalization
  - Up to 16 Gbps operation
  - 18 dB programmable output de-emphasis
  - Greater than 30 dB of input line equalization
  - Retimer and re-driver modes
  - Built-in VScope
  - On-chip frequency synthesizers
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## Parametrics

Name	Value
Product Type	Signal Integrity
Port	4
Signal Path	Unidirectional
Min Temp	-40 °C
Max Temp	90 °C
Max Data Rate	16 Gbps

## RoHS Information

Part Number	Device Weight (g)	Shipping Weight (Kg)	Lead Count	Package Type	Package Width	Solder Composition	JEDEC Indicator	RoHS	China EFUP
VSC7223XJV	0.135200	0.546703	48	VQFN	5x9x0.85mm	NIPdAu	e4		

To see a complete listing of RoHS data for this device, please [Click here](#)  
Shipping Weight = Device Weight + Packing Material weight. Please [contact sales](#) office if device weight is not available.