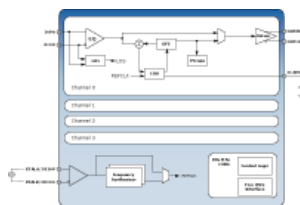


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Multirate 14.5 Gbps or 11.5 Gbps 4-Channel Adaptive Channel Extender with All-Rate CRU



The Vitesse VSC7224 device is a quad unidirectional lane adaptive channel extender with a CRU. It incorporates input equalization, clock and data recovery, and output de-emphasis. It operates at data rates from 155 Mbps to 14.1 Gbps. The VSC7224 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 30 inches of FR-4 at 10 Gbps and greater than 10 m of 24AWG of SFP+ copper direct-attached cable at 10 Gbps. The VSC7224 device can be used either on its own or with an external microcontroller to control, monitor, and enhance system performance. The VSC7224 device uses advanced technology to equalize deteriorated input signals while dissipating the lowest possible power. A

low-cost 25 MHz 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 20 dB of de-emphasis. The VSC7224 device includes Vitesse's patented VScope input signal monitoring integrated circuit signal monitoring and waveform viewing technology. The device operates on a single supply of 1.2 volts.

Product Variants	Description
VSC7224XJV	14.5 Gbps operation, 48-pin 5 x 9 mm QFN lead-free second-level interconnect
VSC7224XJV-01	11.5 Gbps operation, 48-pin 5 x 9 mm QFN lead-free second-level interconnect

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Key Features

- World-class adaptive equalization
- Wide retiming range from 155Mbps to 14.1Gbps
- 18 dB programmable output de-emphasis
- Retimer and re-driver modes
- Built-in VScope
- On-chip frequency synthesizers

Applications

- Optical module retimer and receiver
- PCB signal enhancement
- Line, backplane, and copper cable driver, receiver, and retimer
- Wideband signal switching, clean-up, and retimer

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