

VSC7807, VSC7809, and VSC7810

Gigabit Ethernet and Fibre Channel Optical Receivers

Features:

- ▶ Integrated Photodetector/Transimpedance Amplifier
- ▶ Amplifier Optimized for High-speed Optical Communications Applications
- ▶ Fibre Channel/Gigabit Ethernet Compatible
- ▶ Packages: TO-46, TO-56, Bare Die

VSC7807

- ▶ High Bandwidth: 1300 MHz
- ▶ Low Input Noise Equivalent Power: 2.2 μW
- ▶ Single +3.3 V Power Supply
- ▶ 1.06 Gbps, 1.25 Gbps, 2.12 Gbps, 2.5 Gbps Data Rates
- ▶ 70 μm Optically Active Area

VSC7809

- ▶ High Bandwidth: 1100 MHz (typical)
- ▶ Low Input Noise Equivalent Power: 1.4 μWrms
- ▶ 100 μm Optically Active Area
- ▶ Single +3.3 V or +5 V Power Supply
- ▶ 1.06 Gbps and 1.25 Gbps Data Rate

VSC7810

- ▶ High Bandwidth: 1200 MHz (typical)
- ▶ Low Input Noise Equivalent Power: 0.93 μWrms
- ▶ 100 μm Optically Active Area
- ▶ Single +5 V Power Supply
- ▶ 1.06 Gbps and 1.25 Gbps Data Rate

The VSC7807, VSC7809, and VSC7810 are transimpedance amplifiers with integrated PIN photodetectors that provide a highly integrated solution for converting 850 nm light from a fiber optic communications channel into a differential output voltage. Vitesse's H-GaAs process provides very high bandwidth and low noise in a product with a large optically active area for easy alignment. The sensitivity, duty cycle distortion, and jitter meet or exceed all Fibre Channel and Gigabit Ethernet application requirements. The VSC7807, VSC7809, and VSC7810 are available in die form, flat-windowed packages, or ball-lens packages.

