

HXR8204-DNG

Four-Channel 28Gbps TIA+PA Receiver

The HXR8204 is a four-channel trans-impedance limiting amplifier array with post amplifiers. The device is a member of the Renesas family of Optical Receiver Transmitter Array (ORTA) products. When combined with a PIN photo-detector array, the user can design a high-bandwidth optical receiver for Ethernet, InfiniBand, and Industrial applications.

The HXR8204 operates in a 3.3V supply and with high BW post amplifier and a versatile CML output. Built-in equalization offers superior signal output, and it offers various enhanced analog mode and I²C digital interface with more controls and monitoring functions.

Applications

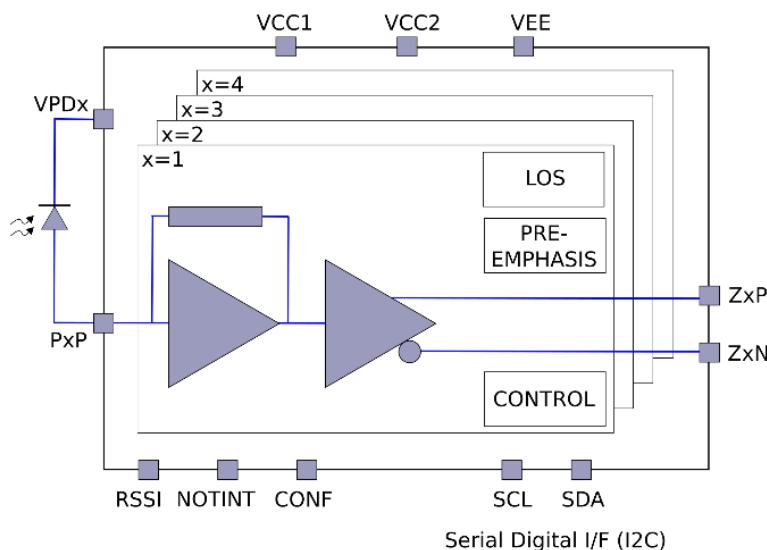
- 100G Ethernet SR4 modules and AOC
- Industrial optical interconnect applications and optical HDMI cables
- InfiniBand EDR transceivers and AOC
- Proprietary multi-channel optical modules

Features

- 50 μ App receiver sensitivity for 10-12 BER at 28Gbps
- Better than 2.4mAPP overload
- Power consumption as low as 84mW per channel
- Adjustable output swing and pre-emphasis
- Programmable signal detect threshold
- Independent RSSI per channel
- Optimized for isolated and common cathode photo-detector arrays from multiple vendors
- Control lines accessible on both sides of chip
- 2-wire interface control and analog control modes

Ordering Information

Part Number	Temp. Range	Die Dimension
HXR8204-DNG	-40°C to +105°C	2.025 x 1.65mm
HXR8204-EVB	Room temp	Evaluation Board

**Figure 1. Block Diagram**

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