General Description

The HXR5004A Transimpedance Limiting Amplifier array is a member of IDT's family of Optical Receiver Transmitter Array (ORTA) products targeted at the parallel optical links market. Together with a PIN detector array or discrete detectors, high-capacity, high-availability optical links can be designed for telecom and datacom applications.

The 3.3V SiGe device integrates the transimpedance pre-amplifier, the limiting post-amplifier and a versatile CML output stage for four optical channels.

Applications

- IEEE 802.3ba Ethernet transceivers
- InfiniBand QDR & FDR active cables
- Proprietary multi-channel optical modules

Device Diagram

Features

- 20 μApp receiver sensitivity for 10^{-12} BER at 10.3 Gbps. Better than 1.5 mApp overload
- 66 mW per channel power consumption with low power setting
- Adjustable output swing size and pre-emphasis mode and signal detect threshold
- Independent RSSI
- Optimized for isolated and common cathode photo-detector arrays from multiple vendors
- Control lines accessible on both sides of chip
- QSFP MSA compliance

Ordering Information

Part	Temp Range	Pin-Package
HXR5004A-DNT	0°C to +85°C	Bare Die 2.05mm x 1.67mm
HXR5004A-DNT-F8	0°C to +85°C	Bare Die on Tape 2.05mm x 1.67mm

For price, delivery schedules, and to place orders, please contact IDT: www.IDT.com/go/sales

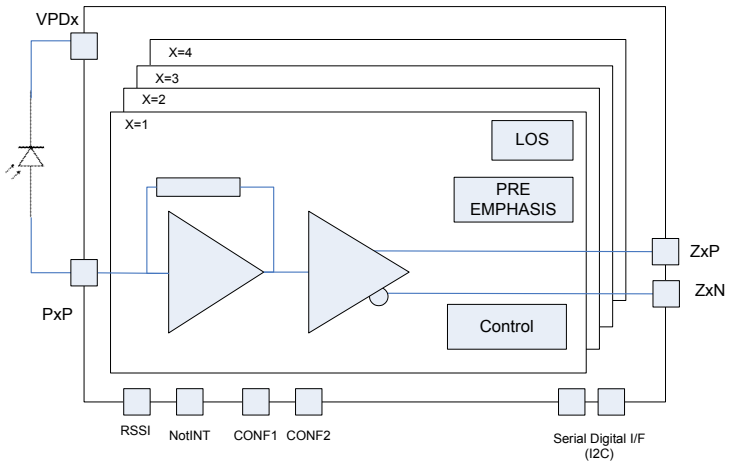


Figure 1: Device diagram

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