General Description

The HXR8212 Trans-impedance 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 trans-impedance pre-amplifier, the limiting post-amplifier and a versatile CML output stage for four optical channels.

Applications

- Ethernet 100GBASE-SR4 modules
- InfiniBand 300G EDR transceivers
- InfiniBand 300G EDR active cables
- Proprietary multi-channel optical modules

Features

- 60 μApp receiver sensitivity for 10^{-12} BER at 28Gbps
- Better than 2.4 mApp overload
- 141mW per channel power consumption
- Adjustable output swing size and pre-emphasis in limiting 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
- QSFP MSA compliance

Ordering Information

Part	Temp Range	Pin-Package
HXR8212-DNT	0°C to +85°C	Bare Die* 1975 x 3600μm
HXR8212-EVB	Room Temp	Evaluation Board

* Die Design Size; actual die size may be slightly larger

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

Device Diagram

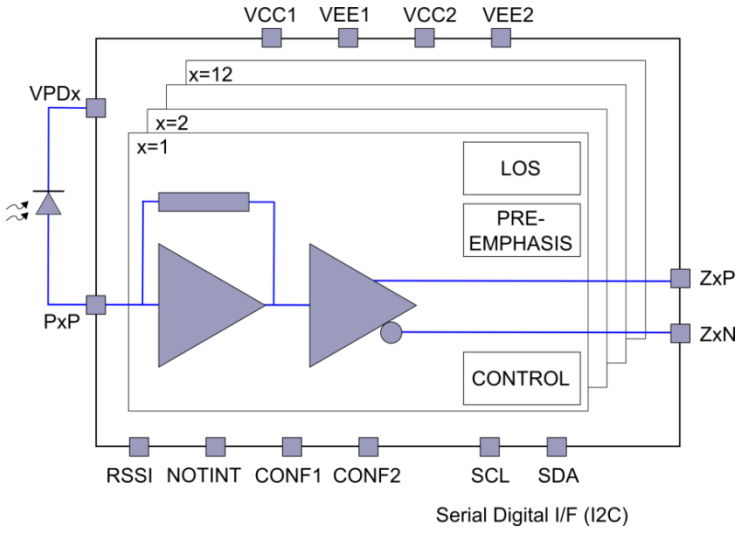

Figure 1: Device diagram

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