

## General Description

The HXR6112 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 datacom applications.

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

## Applications

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

## Device Diagram

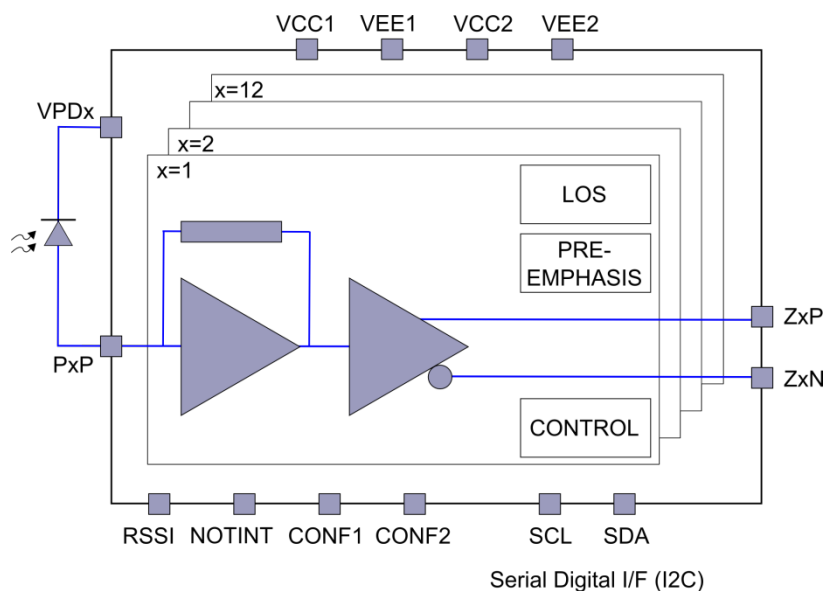


Figure 1: Device diagram

## Features

- 20  $\mu$ App receiver sensitivity for  $10^{-12}$  BER at 16 Gbps. Better than 3 mApp overload
- 60 mW per channel power consumption with low power setting
- Adjustable output swing size and pre-emphasis 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 the chip

## Ordering Information

| Part        | Temp Range   | Pin-Package                 |
|-------------|--------------|-----------------------------|
| HXR6112-DNT | 0°C to +85°C | Bare Die<br>2.05mm x 3.65mm |
| HXR6112-EVB | Room Temp    | Evaluation Board            |

For price, delivery schedules, and to place orders, please contact IDT: [www.IDT.com/go/sales](http://www.IDT.com/go/sales)

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