

## General Description

The HXR8204 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.

## Features

- 60  $\mu$ App receiver sensitivity for  $10^{-12}$  BER at 28Gbps
- Better than 2.4 mA<sub>pp</sub> overload
- 126 mW per channel power consumption
- Adjustable output swing size and pre-emphasis in limiting mode and signal detect threshold
- Independent, per channel RSSI
- Optimized for isolated and common cathode photo-detector arrays from multiple vendors
- Control lines accessible on both sides of chip
- QSFP MSA compliance

## Applications

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

## Ordering Information

Part	Temp Range	Pin-Package
HXR8204-DNT	0°C to +85°C	Bare Die* 1.975mm x 1.6mm
HXR8204-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](http://www.IDT.com/go/sales)

## Device Diagram

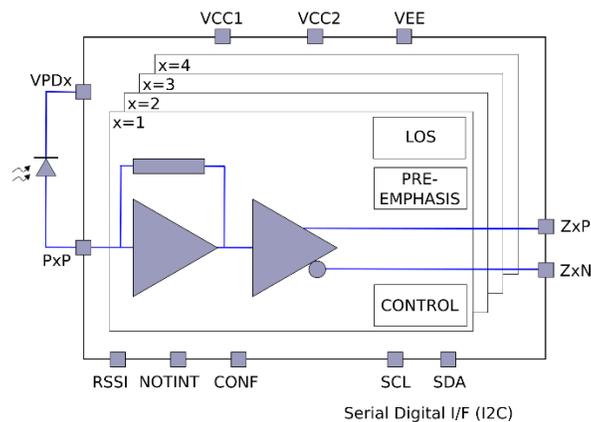


Figure 1: Device diagram

**Corporate Headquarters**

6024 Silver Creek Valley Road  
San Jose, CA 95138

[www.IDT.com](http://www.IDT.com)

**Sales**

1-800-345-7015 or 408-284-8200  
Fax: 408-284-2775

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