General Description

The HXR42100 Trans-impedance Limiting Amplifier array is a member of IDT's family of Optical Receiver Transmitter Array (ORTA) products targeted at the single channel fiber optic links market. Together with a discrete PiN detector array, high-capacity, high-availability optical links can be designed for datacom applications. This product is ideal for 100G to 25G fan-out applications.

The 3.3V SiGe device integrates the trans-impedance pre-amplifier, the limiting post-amplifier and a versatile CML output stage for a single, differential electrical channel.

Applications

- 100G to 25G Ethernet LR ran-out modules
- 32G Fibre Channel modules
- InfiniBand EDR 25G transceivers / AOC
- Proprietary multi-channel optical modules

Features

- 40 μApp receiver sensitivity for 10^{-12} BER at 28Gbps.
- Better than 2.4 mApp overload
- 128 mW per channel power consumption
- Adjustable output swing size, pre-emphasis and signal detect threshold
- Independent, scalable RSSI output
- Optimized for isolated and common cathode photo-detector arrays from multiple vendors
- I^2C Compatible serial interface
- Suitable for TO can applications
- SFP25+ and SFP28+ MSA compatible

Ordering Information

Part	Temp Range	Pin-Package
HXR42100-DNT	0°C to +85°C	Bare Die* 1055 x 850μm
HXR42100-EVB	Room temp	Evaluation Board

* Design Size; Actual die size may be slightly larger/smaller

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

Device Diagram

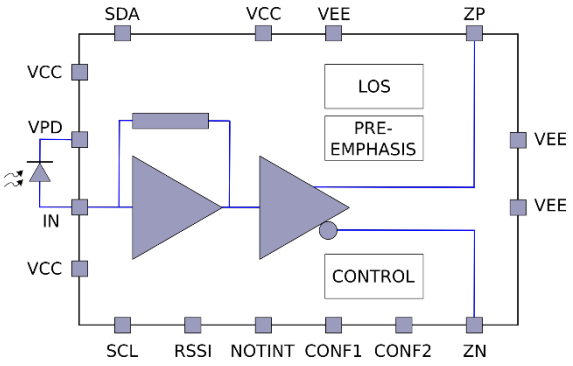


Figure 1: Device Diagram

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