General Description

The HXR5104B 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

- IEEE 802.3ba Ethernet LR4 transceivers
- InfiniBand QDR & FDR active cables
- Proprietary multi-channel optical modules

Features

- 20 µApp receiver sensitivity for 10⁻¹² BER at 10.3 Gbps; better than 3.0mApp overload
- 66 mW per channel typical 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 the chip
- QSFP MSA compliance

Ordering Information

<table>
<thead>
<tr>
<th>Part</th>
<th>Temp Range</th>
<th>Pin-Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>HXR5104B-DNT</td>
<td>0°C to +95°C</td>
<td>Bare Die 2.05mm x 1.67mm</td>
</tr>
</tbody>
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For price, delivery schedules, and to place orders, please contact IDT: www.IDT.com/go/sales

Device Diagram

![Device Diagram](image)
<table>
<thead>
<tr>
<th>Corporate Headquarters</th>
<th>Sales</th>
<th>Tech Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>6024 Silver Creek Valley Road</td>
<td>1-800-345-7015 or 408-284-8200</td>
<td><a href="http://www.IDT.com/go/support">www.IDT.com/go/support</a></td>
</tr>
<tr>
<td>San Jose, CA 95138</td>
<td>Fax: 408-284-2775</td>
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<tr>
<td><a href="http://www.IDT.com">www.IDT.com</a></td>
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