Description
The HXR5112A Transimpedance Limiting Amplifier array is a member of the 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.

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

Features
- 20µApp receiver sensitivity for 10^{-12} BER at 10.3Gbps. Better than 1.0mApp overload
- 66mW 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 of the chip

Ordering Information

<table>
<thead>
<tr>
<th>Part</th>
<th>Temp. Range</th>
<th>Pin-Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>HXR5112A-DNT</td>
<td>0°C to +85°C</td>
<td>Bare Die 2.05mm x 3.65mm</td>
</tr>
<tr>
<td>HXR5112A-BNT</td>
<td>0°C to +85°C</td>
<td>Bare Die with solder bump for flip chip assembly</td>
</tr>
</tbody>
</table>

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

Block Diagram

Figure 1. Block Diagram