

January 2008


Ordering Information

 ZL60615MxDy
 IB DDR Active Optical Cable

"x" denotes fiber jacket types
 "y" denotes available standard cable lengths
 [Contact Zarlink]

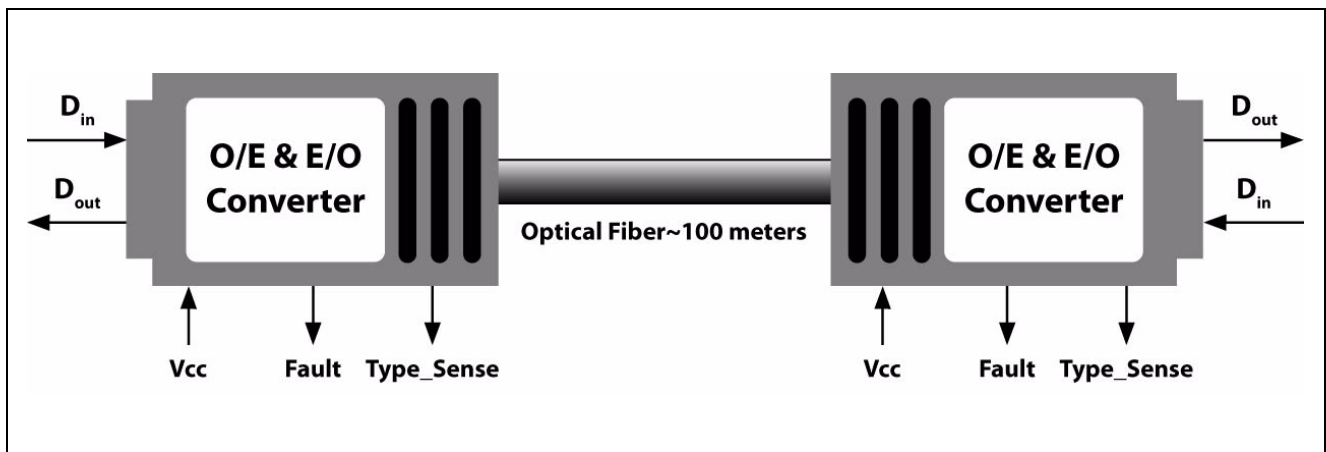
Features

- Single-construction cable solution with integrated optical-electrical conversion
- Four independent differential electrical I/Os
- Plug-and-play with CX4 & InfiniBand powered ports
- Data Rate: up to 5 Gbps per channel (IB DDR)
- Extended Reach: up to 100 m (meters)
- Flexibility: Bend Radius, 25 mm (millimeters)
- Low Weight: 175 g (grams) for a 10 m cable
- Performance: BER 1×10^{-15}
- Low power consumption, 1 W per port
- Single 3.3 volt power supply
- 0°C- 70°C operating case temperature
- Electrical hot-pluggable with latch-based insertion
- Status indicator LEDs for ease-of-installation

Application

General interconnection solution for CX4/InfiniBand based ports.

- InfiniBand based cluster configurations operating at single (2.5 G per channel) and dual (5 G per channel) data rates (SDR and DDR). Connections between:
 - Switch-Switch
 - Switch-HCA
 - HCA-HCA
- XAUI-10 GbE applications
- High Performance Computing and proprietary interconnections up to 5 Gbps per channel


Figure 1 - ZL60615 Optical Cable Block Diagram

Description

The ZLynx CX-4 product is part of the ZLynx family of fully integrated optical active cables, where the optical-electrical conversion is integrated into the end cable connectors. The ZLynx family is built on Zarlink's industry-leading arrayed photonics, IC components and proprietary interconnect optical alignment technology.

The ZLynx CX-4, ZL60615 product is specifically designed for connection to industry-standard 4-wide I/O electrical high-speed powered CX4/IB ports. The product is plug-and-play into these powered ports and eliminates the need for customer re-design work. It provides the customer with all the advantages of an optical fiber solution without the worry of having to deal with the physical optical interconnection, the only connection being electrical.

The ZL60615 has four differential electrical inputs and outputs, each capable of handling data rates up to 5 Gbps per channel, 20 Gbps duplex aggregate. The product is specifically designed to cover XAUI-10 GbE applications as well as Infiniband use at both Single (2.5 G) and Double (5 G) Data Rate, SDR and DDR, respectively.

The ZL60615 optical cable provides a high-performance, Bit-Error-Rate (BER) better than 1×10^{-15} , low power, 1 W per port, interconnect solution. that offers significant advantages to the end-user compared to copper-based cables. These include:

- Extended Reach: reach of up to 100 m. Order of magnitude greater than copper reach of < 10 m
- Flexibility: bend radius of 25-mm. Improvement of 60% compared to 24 AWG copper cable.
- Weight and Size: 175 g (10 m) and 110 cm³ cable volume. An 80% weight and volume saving compare to 24 AWG copper cable.

The order of magnitude increase in reach provides greater flexibility in cluster layout by removing the constraints, and associated costs, imposed by limited copper cable lengths of less than 10 m.

The improvements in flexibility, weight and size provided by the ZL60615 optical cable combine to provide the system installers with reduced installation times, improved air-flow management and reduced system weight-related layout constraints.

Unique Status LEDs also provide a valuable aid during installation and subsequent system maintenance.

Reliability assurance is based on Telcordia GR-468-CORE. The product is CE and FCC Part 15 Class B certified and compliant to the EU directive 2002/95/EC issued 27 January 2003 [RoHS].

ZL60615 is available in a number of standard cable lengths and jacket types [see Ordering Information].



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