

PRODUCT PREVIEW

Zarlink's ZL60625 ZLynx Hybrid Active Optical Cable (AOC) assembly incorporates an integrated QSFP (quad small-form factor pluggable) termination at one end and an integrated CX-4 termination at the other end.

ZLynx ZL60625 hybrid cables enable connections between a new generation of equipment with QSFP interfaces and equipment with traditional CX-4 interfaces. The QSFP interface is a cage-based solution, defined by an industry-wide MSA. The QSFP interface is rapidly being adopted by the latest generation of High Performance Computing (HPC)/InfiniBand switches for its high-speed characteristics and smaller form-factor which enables greater connection density. The ZLynx ZL60625 hybrid cable and the ZL60620 ZLynx-Q cable with QSFP terminations follow the first generation of successful Zarlink AOCs with CX-4 terminations.

The Zarlink ZLynx Hybrid cable operates at multiple rates of 2.5Gbps (SDR), 3.25 Gbps (XAUI) and 5 Gbps (DDR) for a maximum aggregate capacity of 20 Gbps in each direction. The ZL60625 ZLynx Hybrid cable supports a clear technology path for future InfiniBand QDR requirements operating at 10 Gbps/channel.



ZLynx-Hybrid Cable Assembly

- ➔ Compact, single-cable solution with an integrated QSFP termination at one end and an integrated CX-4 termination at the other
- ➔ Supports InfiniBand DDR and XAUI 10 GbE applications
- ➔ Tested and accepted by the IBTA as compliant with the InfiniBand architecture specification
- ➔ Supports up to 100-meter reach
- ➔ Opto-electrical conversion integrated into cable
- ➔ Electrically hot-pluggable
- ➔ Latch mechanisms for ease-of-insertion
- ➔ Operating temperature of 0°C to 70°C
- ➔ Clear technology path for future InfiniBand QDR requirements
- ➔ Four independently addressable differential transmit and receive channels
- ➔ Data rates up to 5 Gbps/channel
- ➔ Typical power consumption of 1 W
- ➔ Digital Diagnostic Monitoring Interface allows customer
- ➔ Management and monitoring of key module parameters

Applications

- ➔ Connections between CX-4-based equipment and new QSFP-based equipment
- ➔ I/O electrical high-speed connectors for a range of applications:
 - InfiniBand SDR and DDR
 - XAUI 10 GbE extender
 - Proprietary CX-4 connectivity
- ➔ Zarlink also offers ZLynx cables with standard 4-wide I/O electrical high-speed connectors

ZL60625 ZLYNX HYBRID CX-4-TO-QSFP ACTIVE OPTICAL CABLE

APPLICATION

Data Center and Computer Cluster Interconnect

The ZL60625 ZLynx Hybrid cable is part of the Zarlink's family of Active Optical Cables (AOC). AOCs provide unbeatable advantages in terms of reach, weight, and flexibility when compared to copper cable assemblies. The extended reach of AOCs enables larger and scalable clusters to be built in data centers, while their compact size and increased flexibility simplifies installation and maintenance while allowing more efficient cooling.

The ZL60625 ZLynx Hybrid cable is built on Zarlink's proven arrayed photonics and IC components and proprietary optical alignment technology. The arrayed lasers detectors and ICs are packaged in integrated electrical-optical QSFP modules at one end of the cable and integrated electrical-optical CX-4 modules at the other end. From a functional perspective the cable is like a copper cable but it has the reach, weight and flexibility advantages of fiber.

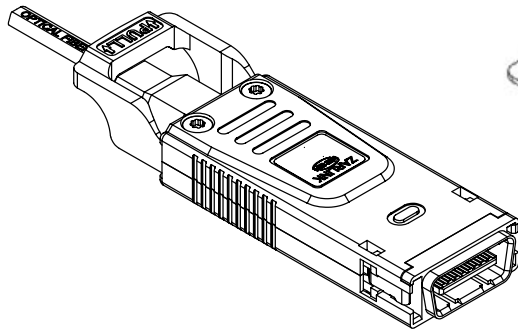
The ZLynx Hybrid cable supports four channels operating at speeds of up to 5 Gbits/channel in each direction for an

aggregate transmission capacity of 20Gbps in each direction. The cable product provides high-performance, bit error rate (BER) of better than 1×10^{-15} . Typical power consumption is a low 1-watt per port.

ZLynx Hybrid cable is a true plug-and-play solutions that require no configuration. Both ends incorporate robust latch mechanisms which allows easy installation in equipment chassis designed for the QSFP and CX-4 interfaces. The ZL60625 ZLynx Hybrid cable is available in different jacket types and lengths to meet a variety of customer applications.

Zarlink's ZLynx Hybrid cable follows the standard ZLynx product which was the industry's first optical cable to be tested and accepted by the InfiniBand Trade Association (IBTA) as compliant with the InfiniBand architecture specification. The ZL60625 ZLynx Hybrid cable reliability assurance is based on Telecordia GR-468-CORE. The product is CE and FCC Part 15 Class B certified and is compliant to the EU directive 2002/95/EC issued January 27, 2004 (RoHS).

CX-4 Connector



QSFP Connector

