

# ZLynx-Q ACTIVE OPTICAL CABLE ZL60620

## PRODUCT PREVIEW

Zarlink's ZL60620 ZLynx-Q Active Optical Cable assemblies incorporate integrated QSFP (quad small-form factor pluggable) terminations to deliver significant reach, weight, and installation advantages compared to CX-4 based copper solutions.

Targeting InfiniBand DDR and XAUI 10GigE applications, the ZL60620 ZLynx-Q cable combines Zarlink's leading optical cable and QSFP expertise for a new generation of active optical cables. 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 due to its high-speed characteristics and smaller form factor, which enables greater connection density. The Zarlink QSFP AOCs follow the first generation of successful ZLynx AOCs with CX-4 connectors.

The ZL60620 ZLynx-Q operates at multiple rates of 2.5 Gbps (SDR), 3.25 Gbps (XAUI) and 5 Gbps (DDR) for a maximum aggregate capacity of 20 Gbps in each direction. The ZL60620 ZLynx-Q product supports a clear technology path for future Infiniband QDR requirements operating at 10 Gbps/channel.



### ZLynx Cable Assembly with QSFP Terminations

- ➔ Compact, single-cable solution with integrated QSFP terminations supports InfiniBand DDR and XAUI 10 GigE applications
- ➔ Tested and accepted by the IBTA as compliant with the InfiniBand architecture specification
- ➔ Electrical connection to front panel via QSFP termination
- ➔ Supports up to 100-meter reach
- ➔ Opto-electrical conversion integrated into cable
- ➔ Electrically hot-pluggable, with latch mechanism for ease-of-insertion
- ➔ Operating temperature of 0°C to 70°C
- ➔ Clear technology path for future InfiniBand QDR requirements

### Integrated QSFP Module Terminations

- ➔ Four independently addressable differential transmit and receive channels
- ➔ Data rates up to 5 Gbps/channel
- ➔ Typical power consumption of 1 W
- ➔ Electrically hot-pluggable, XFP-like mechanism for ease-of-insertion
- ➔ Digital Diagnostic Monitoring Interface allows customer management and monitoring of key module parameters

### Applications

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

# ZL60620 ZLynx-Q ACTIVE OPTICAL CABLE

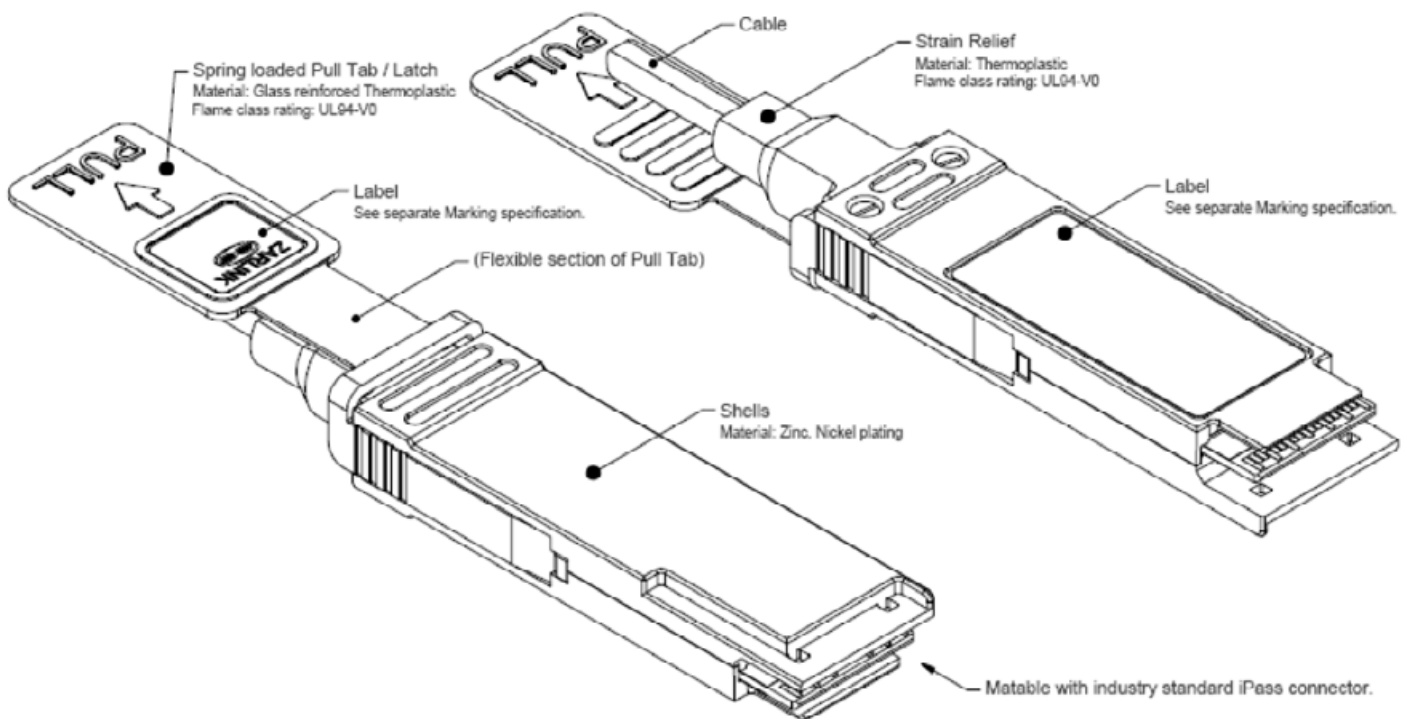
## APPLICATION

The ZL60620 ZLynx-Q 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. Due to their extended range, AOCs enable larger and scalable clusters to be built in data centers. As the cables are much smaller in diameter than copper cables, cooling is more efficient. Their small size and flexibility simplifies installation and maintenance.

The ZL60620 ZLynx-Q is built on Zarlink's proven arrayed photonics and IC components and proprietary optical alignment technology. The arrayed laser detectors and ICs are packaged in integrated electrical-optical QSFP modules at each end of the cable. From a functional perspective the ZLynx-Q is like a copper cable but it delivers the reach, weight and flexibility advantages of fiber.

The ZLynx-Q supports four channels operating at speeds of up to 5 Gbits/channel in each direction for an aggregate transmis-

sion capacity of 20 Gbps in each direction. The cable provides high-performance, bit error rate (BER) of better than  $1 \times 10^{-15}$ . Typical power consumption is a low 1-watt per port. ZLynx-Q cables are true plug-and-play solutions that require no configuration. The standard QSFP interface is compact in size and incorporates a robust latch mechanism which allows easy installation in equipment chassis designed for the QSFP interface. The ZLynx-Q cable is available in different jacket types and lengths to meet a variety of customer applications. Zarlink's ZLynx-Q 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 ZL60620 ZLynx-Q 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).



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