

40Gb/s Active Optical Cables

Overview

Mellanox active optical cables are a cost-effective solution for high bandwidth fabrics, extending the benefits of Mellanox’s high-performance InfiniBand and 10 Gigabit Ethernet adapters throughout the network. Mellanox QSFP+ cable is an assembly of 4 full-duplex lanes, where each lane is capable of transmitting data at rates up to 10Gb/s per direction, providing an aggregated rate of 40Gb/s. In addition to meeting or exceeding IBTA and IEEE standards, Mellanox Certified cables are 100% tested on Mellanox equipment to ensure optimal signal integrity and the best end to end performance. With Mellanox cables you will experience trouble-free installation and long-term operation.

Mellanox optical solutions provide short, medium and long range scalability for all topologies, utilizing innovative optical technologies to enable extremely high signal integrity and reliability. Rigorous cable production testing ensures best out-of-the-box installation experience, performance and durability.

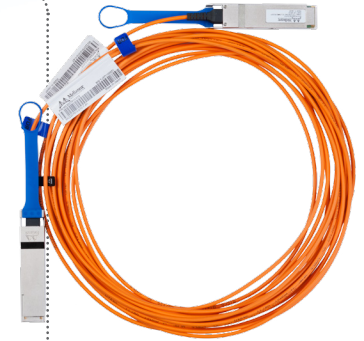


Table 1 - Cable Specifications and Ordering Information

| Max. Reach [m] ² | Max Power Consumption [W] ¹ | Part Number | Applications |
|-----------------------------|--|---------------|--------------------------------|
| 3 | 1.5 | MC2206310-003 | IB SDR, DDR, QDR, FDR10, 10GbE |
| 5 | 1.5 | MC2206310-005 | IB SDR, DDR, QDR, FDR10, 10GbE |
| 10 | 1.5 | MC2206310-010 | IB SDR, DDR, QDR, FDR10, 10GbE |
| 15 | 1.5 | MC2206310-015 | IB SDR, DDR, QDR, FDR10, 10GbE |
| 20 | 1.5 | MC2206310-020 | IB SDR, DDR, QDR, FDR10, 10GbE |
| 30 | 1.5 | MC2206310-030 | IB SDR, DDR, QDR, FDR10, 10GbE |
| 50 | 1.5 | MC2206310-050 | IB SDR, DDR, QDR, FDR10, 10GbE |
| 100 | 1.5 | MC2206310-100 | IB SDR, DDR, QDR, FDR10, 10GbE |

1. Measured at one end with the tested cable transferring data at 40Gb/s rate
 2. The length tolerance will be ± 10% of cable length or 1 meter, whichever is smaller

Table 2 - Absolute Maximum Ratings

| Parameter | Range |
|-----------------------------|---------------|
| Supply Voltage | 3.6V |
| Operating Case Temperature | 0°C to 70°C |
| Storage Ambient Temperature | -10°C to 75°C |

HIGHLIGHTS

- Low power consumption
- Compliant with SFF-8436
- Up to 100m at 40Gb/s data rate
- Low weight
- Ultra low crosstalk for improved performance
- Low insertion loss
- BER Better than 10⁻¹⁵
- Serial numbers printed on each end
- Tested in an end-to-end environment in Mellanox
- RoHS 6 Compliant

Table 3 - Operating Conditions

| Parameter | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|---------|---------|-------|
| Supply Voltage | 3.15 | 3.3 | 3.45 | V |
| Data Rate per Lane | 2.5 | | 10.5 | Gb/s |
| Input Voltage | -0.3 | | 3.6 | V |
| Humidity (RH) | 5 | | 85 | % |
| Assembly 90° Bend Radii ¹ | 30 | | | mm |
| Bulk Bend Radii ² | 30 | | | mm |

1. See figure 1 for Assembly Bend Radii details
2. See figure 1 for Bulk Bend Radii details

Warranty Information

The Mellanox fibre optic 40Gb/s QSFP+ cables include a 1 year limited hardware warranty, which covers parts repair or replacement.

Additional Information

For more information about Mellanox QSFP+ cable solutions, please contact your Mellanox Technologies sales representative or visit: <http://www.mellanox.com=>Products=>Cables=>Cables Overview>

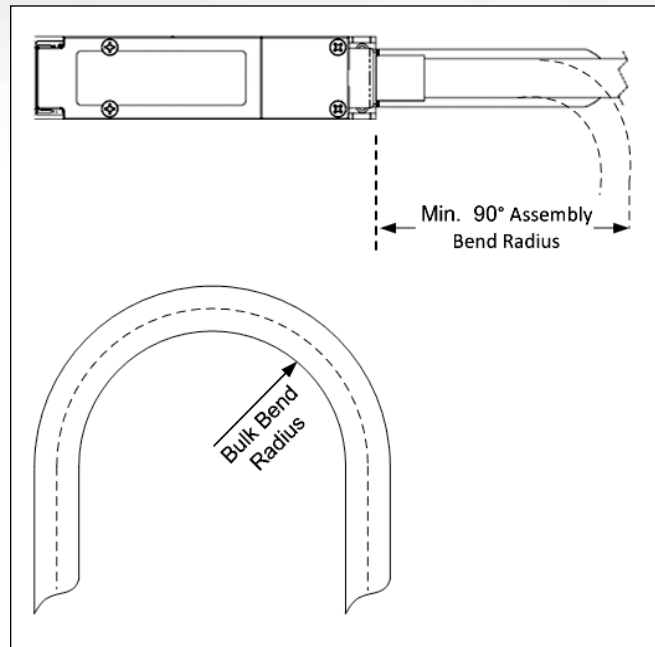


Figure 1. Mechanical Drawings and Information

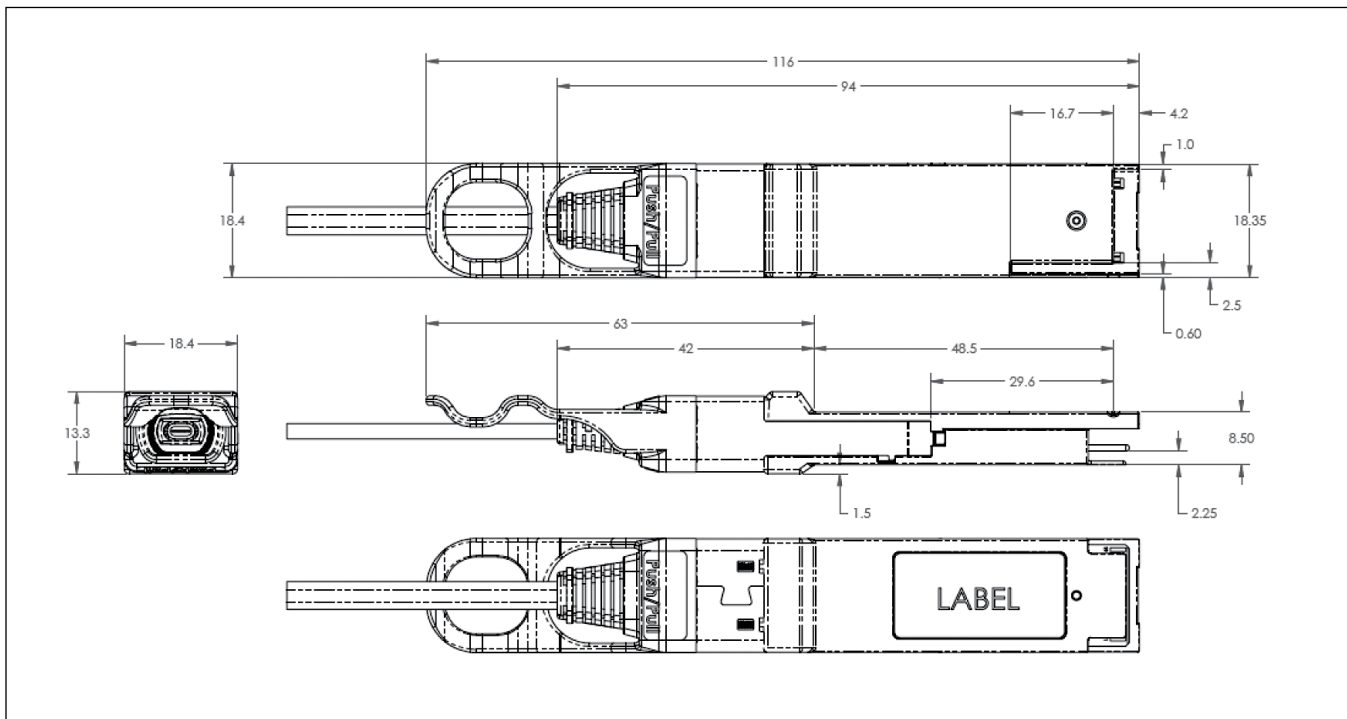


Figure 2. Mechanical Drawings and Information



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