

FDR, 56Gb/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 FDR, 10GbE and 40GbE adapters and switches. Mellanox QSFP+ cable is an assembly of 4 full-duplex lanes, where each lane is capable of transmitting data at rates up to 14Gb/s per direction, providing an aggregated rate of 56Gb/s. Mellanox Certified cables are 100% tested on Mellanox equipment to ensure interoperability and the best end to end performance. Mellanox active optical cables are designed to create the smallest environmental footprint, and complying with class-1 QSFP+ power consumption requirement.

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.

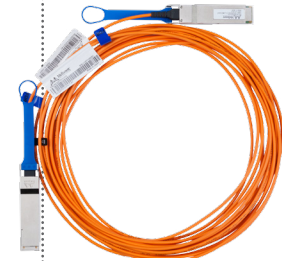


Table 1 - Cable Specifications and Ordering Information

Max. Reach [m] ²	Max Power Consumption [W] ¹	Part Number	Applications
5	1.5	MC2207310-005	IB QDR, FDR, 10GbE, 40GbE
10	1.5	MC2207310-010	IB QDR, FDR, 10GbE, 40GbE
15	1.5	MC2207310-015	IB QDR, FDR, 10GbE, 40GbE
20	1.5	MC2207310-020	IB QDR, FDR, 10GbE, 40GbE
30	1.5	MC2207310-030	IB QDR, FDR, 10GbE, 40GbE
50	1.5	MC2207310-050	IB QDR, FDR, 10GbE, 40GbE
100	1.5	MC2207310-100	IB QDR, FDR, 10GbE, 40GbE

1. Measured at one end with the tested cable transferring data at 56Gb/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
- Compliant with IEEE 802.3ba
- Up to 100m at 56Gb/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 FDR environment
- 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		14.0	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 fiber optic 56G 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>

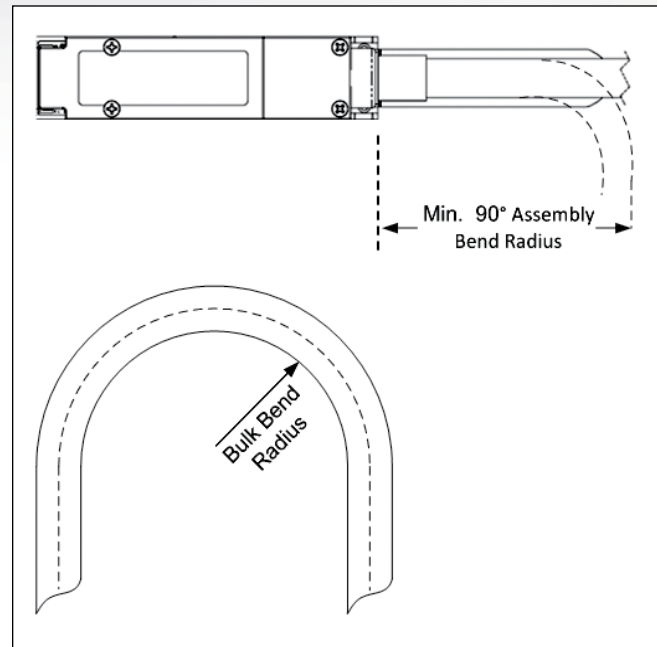


Figure 1. Mechanical Drawings and Information

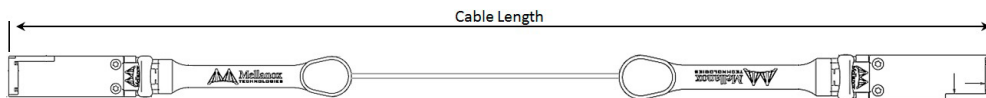


Figure 2. Mechanical Drawings and Information

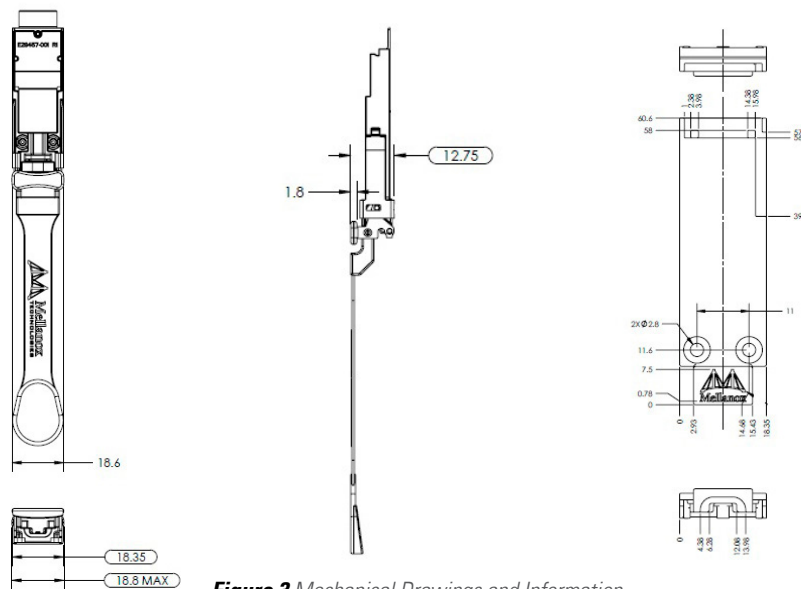


Figure 3 Mechanical Drawings and Information



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