

# Mellanox 40Gb/s Active Copper Cables Datasheet



## Overview

Mellanox active copper cables are 40Gb/s cables assembly. The cables are compliant with InfiniBand Architecture, SFF-8436 specifications and provide connectivity between devices using QSFP ports. The 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. The cables use state-of-the-art signal processing technology to fill the expanding need for cost effective data center interconnects that cannot be served with passive copper solutions. Mellanox unique low power cable solutions consume 50-75% less power than optical interconnects. Optimizing systems to operate with Mellanox's active copper cables significantly reduce power consumption and EMI emission, eliminating the use of EDC hosts. Rigorous cable production testing ensures best out-of-the-box installation experience, performance and durability.



## Cable Specifications and Ordering Information

**Table 1 - Cable Specifications and Ordering Information**

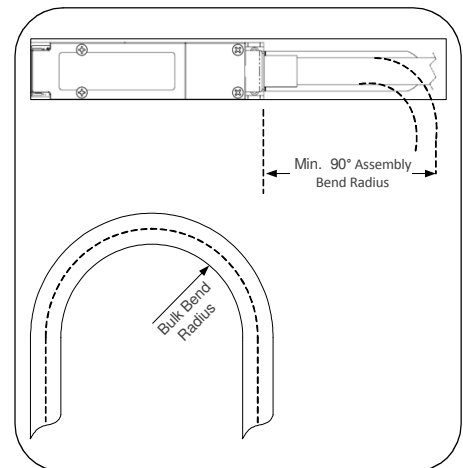
Maximum Reach [m] @ 40Gb/s	AWG	Min. 90° Assembly Bend Radius [mm]	Min. Bulk Bend Radius [mm]	Cable Diameter [mm]	Power Consumption [W] <sup>1</sup>	Part Number
5	32	52	12.7	3.8	1	MCC4R32C-005
8	32	52	12.7	3.8	1	MCC4R32C-008
10	28	65	38.1	6.7	1	MCC4R28C-010
12	28	65	38.1	6.7	1	MCC4R28C-012
15	24	75	63.5	8.9	1	MCC4R24C-015

1. Measured at one end with the tested cable transferring data at 40Gb/s.

## Absolute Maximum Ratings

**Table 2 - Absolute Maximum Ratings**

Parameter	Range
Supply Voltage	3.45 [V]
Operating Case Temperature	0 to 70 [°C]
Storage Ambient Temperature	-55 to 85 [°C]



## Operating Conditions

**Table 3 - Operating Conditions**

Parameter	Minimum	Typical	Maximum	Units
Supply Voltage	3.15	3.3	3.45	V
Data Rate per Lane	1		11.1	Gb/s

## Warranty Information

The Mellanox QSFP cables include a 1 year limited hardware warranty, which covers parts repair or replacement.

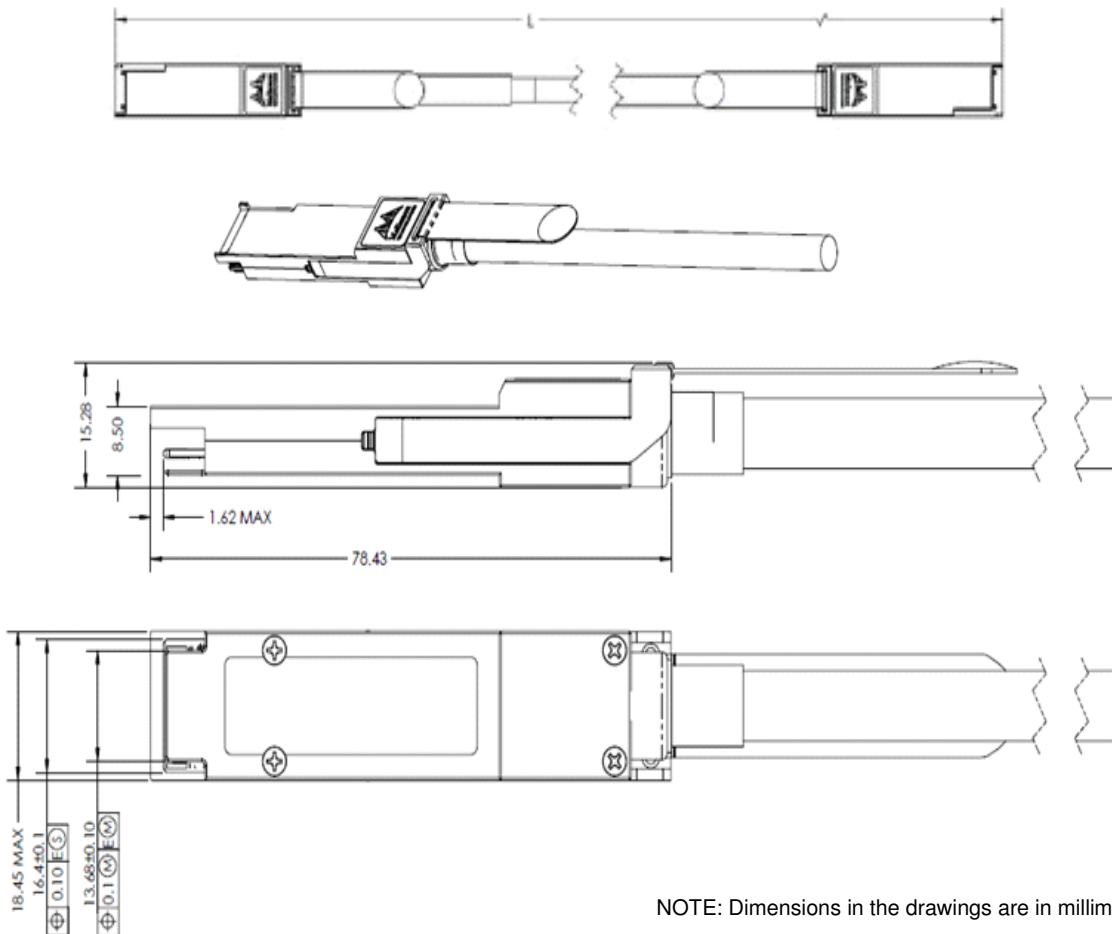
## Additional information

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

## Features and Benefits

- Up to 12m at 40Gb/s data rates
- Low power, low latency analog circuitry
- Compliant with SFF-8436
- BER Better than 10-15
- Ultra low crosstalk for improved performance
- Uses Advanced Analog Signal Processing technology
- Tested in an End-to-End Environment in Mellanox
- RoHS 6 Compliant

## Mechanical Drawings and Information



NOTE: For detailed mechanical drawings, please contact Mellanox Technologies.