



# 40Gb/s and 56Gb/s QSFP+ Direct Attach Copper Cables



MC22061xx-00x | MC22071xx-00x | MCP170L-F0xx | MCP1700-Bxxxx



Mellanox® QSFP+ direct attach copper (DAC) cables provide robust connections for leading edge 56Gb/s InfiniBand or Ethernet systems. The cables consist of four lanes each operating at data rates of up to 14.0625Gb/s.

Passive copper cables require no additional power to ensure quality connectivity. The cables are compliant with SFF-8685 specifications and provide connectivity between devices using QSFP+ ports. This integrated cable solution provides reliable transport for aggregate data rates of up to 56Gb/s Virtual Protocol Interconnect (VPI).

Mellanox unique, quality, passive, copper, cable solutions provide power efficient replacement for active power connectivity such as fiber optic cables. Rigorous cable production testing ensures best out-of-the-box installation experience, performance and durability. Optimizing systems to operate with Mellanox's 56Gb/s passive copper cables significantly reduces power consumption and EMI emission, eliminating the use of enterprise data center (EDC) hosts.

Table 1 - Ordering Information

Part Number	Description
MC2206128-004	Mellanox® passive copper cable, VPI, up to 40Gb/s, QSFP, 4m
MC2206128-005	Mellanox® passive copper cable, VPI, up to 40Gb/s, QSFP, 5m
MC2206126-006	Mellanox® passive copper cable, IB QDR, 40Gb/s, QSFP, 6m
MC2206125-007	Mellanox® passive copper cable, IB QDR, 40Gb/s, QSFP, 7m
MC2206130-00A	Mellanox® passive copper cable, VPI, up to 40Gb/s, QSFP, 0.5m
MC2206130-001	Mellanox® passive copper cable, VPI, up to 40Gb/s, QSFP, 1m
MC2206130-002	Mellanox® passive copper cable, VPI, up to 40Gb/s, QSFP, 2m
MC2206130-003	Mellanox® passive copper cable, VPI, up to 40Gb/s, QSFP, 3m
MCP1700-B001E	Mellanox® passive copper cable, ETH 40GbE, 40Gb/s, QSFP, 1m, Black Pulltab
MCP1700-B01AE	Mellanox® passive copper cable, ETH 40GbE, 40Gb/s, QSFP, 1.5m, Black Pulltab
MCP1700-B002E	Mellanox® passive copper cable, ETH 40GbE, 40Gb/s, QSFP, 2m, Black Pulltab
MCP1700-B02AE	Mellanox® passive copper cable, ETH 40GbE, 40Gb/s, QSFP, 2.5m, Black Pulltab
MCP1700-B003E	Mellanox® passive copper cable, ETH 40GbE, 40Gb/s, QSFP, 3m, Black Pulltab
MC2207130-00A	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, 0.5m
MC2207130-001	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, 1m
MC2207130-0A1	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, 1.5m
MC2207130-002	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, 2m
MC2207128-0A2	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, 2.5m
MC2207128-003	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, 3m
MC2207126-004	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, 4m

Note 1. See Figure 1 for the cable length definition. Note 2. VPI works for both InfiniBand and Ethernet in end-to-end Mellanox applications. Note 3. LSZH = Low Smoke, Zero Halogen jacket.

## HIGHLIGHTS

- Up to 56Gb/s data rate for MC22071xx, MCP170L
- Up to 40Gb/s data rate for MC22061xx, MCP1700
- SFF-8685 compliant
- Operating case temperature of 0-70°C
- 3.3V power supply
- BER better than 1E-15
- Hot pluggable
- RoHS6 compliant

Table 1 - Ordering Information (cont.)

Part Number	Description
MCP170L-F00A	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, LSZH, 0.5m
MCP170L-F001	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, LSZH, 1m
MCP170L-F01A	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, LSZH, 1.5m
MCP170L-F002	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, LSZH, 2m
MCP170L-F004	Mellanox® passive copper cable, VPI, up to 56Gb/s, QSFP, LSZH, 4m

Note 1. See Figure 1 for the cable length definition.

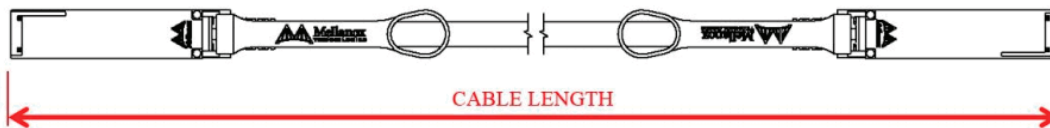
Table 2 - Absolute Maximum Ratings

Parameter	Minimum	Maximum	Units
Supply voltage	-0.3	V <sub>cc</sub> +0.3	V
Input voltage	-0.3	V <sub>cc</sub> +0.3	V
Storage temperature	-10	75	°C

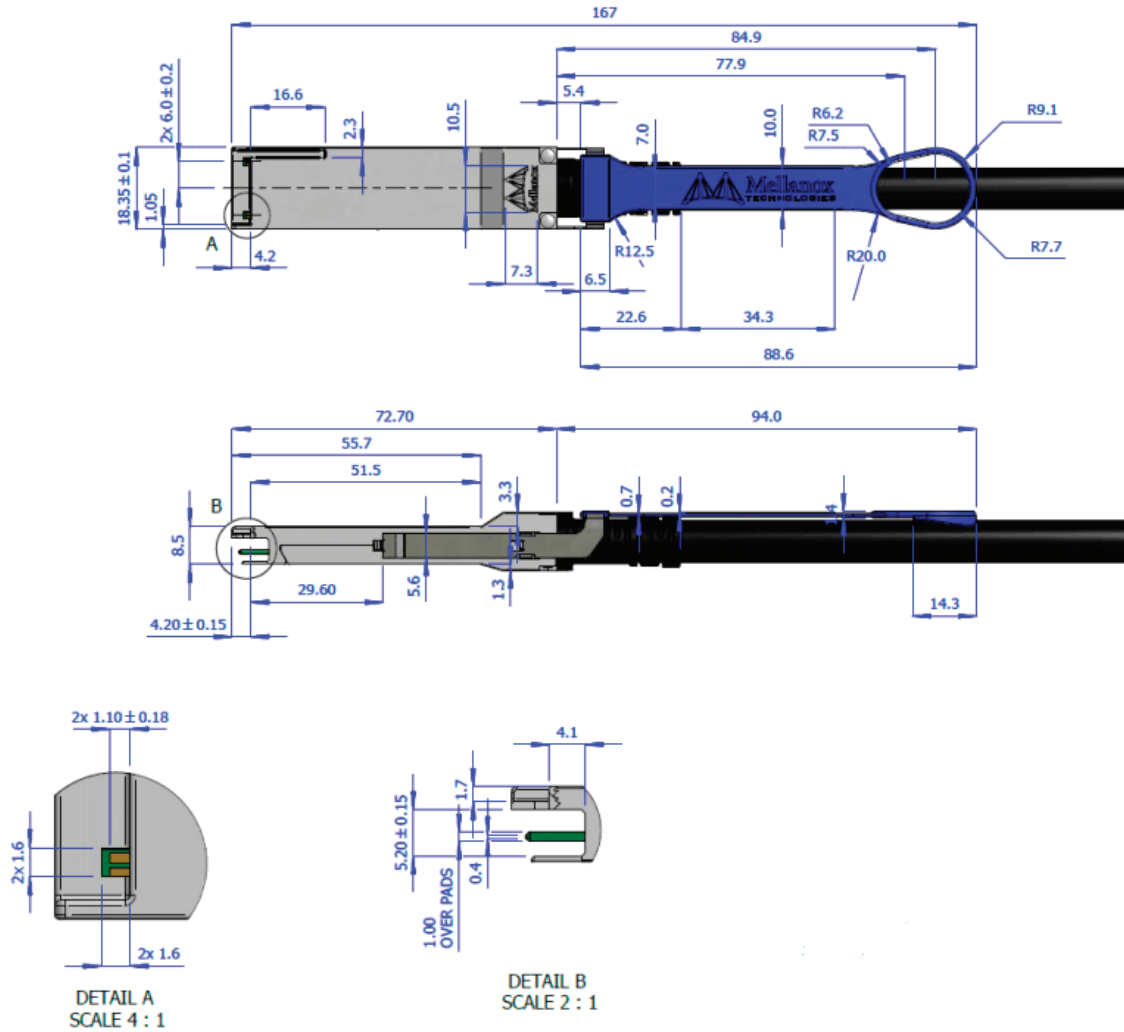
Table 3 - Operational Information

Parameter	Minimum	Typical	Maximum	Units
Supply voltage (V <sub>cc</sub> )	3.135	3.3	3.465	V
Operating case temperature	0	---	70	°C
Operating relative humidity	5	---	85	%

Figure 1. Cable Length Definition



# Mechanical Schematics



## Warranty Information

Mellanox LinkX direct attach copper cables include a 1 year limited hardware warranty, which covers parts repair or replacement.