

10GbE SFP+ Direct Attach Copper Cables



MC33091xx-xxx | MCP210x-XxxxB

Mellanox® SFP+ direct attached copper (DAC) cables provide robust connections for leading edge 10GbE systems. Passive copper cables require no additional power to ensure quality connectivity. The cables are compliant with SFF-8418 and SFF-8419 specifications and provide connectivity between devices using SFP+ ports. The cables use state-of-the-art signal processing technology to fill the expanding need for cost effective data center interconnects.

Mellanox unique, quality, passive, copper, cable solutions provide a 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 10GbE passive copper cables significantly reduces power consumption and EMI emission, eliminating the use of enterprise data center (EDC) hosts.

Table 1 - Cable Specifications and Ordering Information

Max Reach (m)	Gauge (AWG)	Max Cable Diameter (mm)	Min Bulk Bend Radius (mm)	Min Assembly Bend Radius (mm)	Length Tolerance (mm)	Part Number
0.5	30	4.4	25	44	±15	MC3309130-00A
1					±25	MC3309130-001
1.5					±50	MC3309130-0A1
2					±50	MC3309130-002
3					±80	MC3309130-003
5	24	6.3	31	63	±80	MC3309124-005
7					±170	MC3309124-007

Notes: Both the bending radius and the assembly bending radius are for a single time bending. See Figure 1 for the cable length definition. See Table 4 for the part number descriptions.

Table 2 - Operational Specifications

Parameter	Minimum	Typical	Maximum	Units
Supply voltage (VccR/VccT)	3.15	3.3	3.45	V
Operating case temperature	0	---	70	°C
Operating relative humidity	10	---	90	%
Storage temperature	-40	---	85	°C

HIGHLIGHTS

- Compliant with SFF-8418 and SFF-8419
- Up to 7m 10Gb/s data rates
- Ultra-low crosstalk for improved performance
- Low insertion loss
- BER better than 1E-15
- Serial numbers printed on each SFP+ connector
- Tested in an end-to-end system
- RoHS-6 compliant

Mechanical Schematics

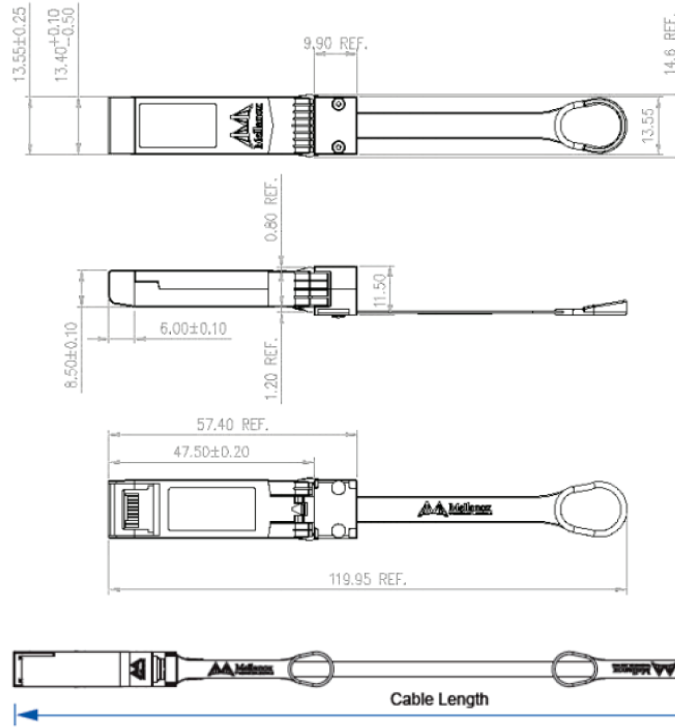


Figure 1. Cable Length Definition

Table 3 - Part Numbers and Descriptions

OPN	Description
MC3309130-00A	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 0.5m, 30AWG
MC3309130-001	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1m, 30AWG
MC3309130-0A1	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1.5m, 30AWG
MC3309130-002	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2m, 30AWG
MC3309130-003	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3m, 30AWG
MC3309124-005	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 5m, 24AWG
MC3309124-007	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 7m, 24AWG
MCP2100-X00AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 0.5m, Blue Pulltab, Connector Label
MCP2100-X001B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1m, Blue Pulltab, Connector Label
MCP2100-X01AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1.5m, Blue Pulltab, Connector Label
MCP2100-X002B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2m, Blue Pulltab, Connector Label
MCP2100-X02AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2.5m, Blue Pulltab, Connector Label
MCP2100-X003B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3m, Blue Pulltab, Connector Label
MCP2100-X03AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3.5m, Blue Pulltab, Connector Label
MCP2100-X004B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4m, Blue Pulltab, Connector Label
MCP2100-X04AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4.5m, Blue Pulltab, Connector Label
MCP2100-X005B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 5m, Blue Pulltab, Connector Label
MCP2101-X00AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 0.5m, Green Pulltab, Connector Label
MCP2101-X001B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1m, Green Pulltab, Connector Label
MCP2101-X01AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1.5m, Green Pulltab, Connector Label
MCP2101-X002B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2m, Green Pulltab, Connector Label
MCP2101-X02AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2.5m, Green Pulltab, Connector Label

Table 3 - Part Numbers and Descriptions (cont.)

OPN	Description
MCP2101-X003B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3m, Green Pulltab, Connector Label
MCP2101-X03AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3.5m, Green Pulltab, Connector Label
MCP2101-X004B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4m, Green Pulltab, Connector Label
MCP2101-X04AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4.5m, Green Pulltab, Connector Label
MCP2101-X005B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 5m, Green Pulltab, Connector Label
MCP2102-X00AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 0.5m, Red Pulltab, Connector Label
MCP2102-X001B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1m, Red Pulltab, Connector Label
MCP2102-X01AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1.5m, Red Pulltab, Connector Label
MCP2102-X002B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2m, Red Pulltab, Connector Label
MCP2102-X02AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2.5m, Red Pulltab, Connector Label
MCP2102-X003B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3m, Red Pulltab, Connector Label
MCP2102-X03AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3.5m, Red Pulltab, Connector Label
MCP2102-X004B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4m, Red Pulltab, Connector Label
MCP2102-X04AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4.5m, Red Pulltab, Connector Label
MCP2102-X005B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 5m, Red Pulltab, Connector Label
MCP2103-X00AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 0.5m, Yellow Pulltab, Connector Label
MCP2103-X001B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1m, Yellow Pulltab, Connector Label
MCP2103-X01AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1.5m, Yellow Pulltab, Connector Label
MCP2103-X002B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2m, Yellow Pulltab, Connector Label
MCP2103-X02AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2.5m, Yellow Pulltab, Connector Label
MCP2103-X003B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3m, Yellow Pulltab, Connector Label
MCP2103-X03AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3.5m, Yellow Pulltab, Connector Label
MCP2103-X004B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4m, Yellow Pulltab, Connector Label
MCP2103-X04AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4.5m, Yellow Pulltab, Connector Label
MCP2103-X005B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 5m, Yellow Pulltab, Connector Label
MCP2104-X00AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 0.5m, Black Pulltab, Connector Label
MCP2104-X001B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1m, Black Pulltab, Connector Label
MCP2104-X01AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 1.5m, Black Pulltab, Connector Label
MCP2104-X002B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2m, Black Pulltab, Connector Label
MCP2104-X02AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 2.5m, Black Pulltab, Connector Label
MCP2104-X003B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3m, Black Pulltab, Connector Label
MCP2104-X03AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 3.5m, Black Pulltab, Connector Label
MCP2104-X004B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4m, Black Pulltab, Connector Label
MCP2104-X04AB	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 4.5m, Black Pulltab, Connector Label
MCP2104-X005B	Mellanox® passive copper cable, ETH 10GbE, 10Gb/s, SFP+, 5m, Black Pulltab, Connector Label

Warranty Information

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



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