

High Speed QSFP+ Copper Cable

- Passive Copper (Paddle cards plus Copper cable)
(Cable Length: 0.5~10m)
- Active Copper (Equipped with chipset as signal repeater)
(Cable Length: 10~15m)

- Compatible with industry standard QSFP cages +Switches
- EEPROM signature can be customized.

APPLICATION

- 40G Ethernet
- Infiniband QDR
- 4G/8G/10G Fiber Channel
- High Performance Computing Clusters
- High End Servers
- Metro Network Switch/Cross Connect

Fiberon's QSFP+ copper cable assemblies are a low cost alternative for short reach 4X applications. They are designed to be fully compatible in form factor and optical/electrical connections according to the QSFP Multi-Source Agreement.

QSFP+ (Quad SFP+) connectors provide four channels of data in one pluggable interface. Each channel is capable of transferring data at 10Gbps and supports a total of aggregate 40Gbps as specified for QSFP+. These interconnects have three times the density of SFP+ interconnects (MSA) and have been designed to meet the harshest external operating conditions including temperature, humidity and EMI interference.

Wire Gauge	Cable Diameter	Mini Outer Radius	Cable Length
	(mm)	(mm)	(m)
30AWG	6.5	32.5	0,5 ~ 3
28AWG	7.5	37.5	4 ~ 5
26AWG	8.8	44	5 ~ 6
24AWG	9.8	49	6 ~ 15

Standard Copper QSFP+ assemblies are offered in different wire gauges (AWG) depending on length.

QSFP+ cable assemblies are hot swappable and the programmed EEPROM signature enables the host to differentiate between a copper cable assembly and a fiber optic module.

Low power consumption assists in making the passive copper cable assembly an economic solution for within rack, or rack-to-rack applications.

HIGH SPEED QSFP+ COPPER CABLE



PRODUCT CHARACTERISTICS

Test Type	Test Item	Target	Reference	
Electrical Characteristics	Differential impedance	100+/-10ohm (Rise time of 50ps (20%- 80%))	IEEE Std.802.3ba	
	Differential Mode RL	Frequency (GHz) 0.1 - 1.0 1.0 - 4.1	SDD11 & SDD22(max) -10 -(12*sqrt(f))	Per table 10 of 1B Cable MOI. v 0.68
	Differential IL	Frequency 100 MHz 200 MHz 625 MHz 1250 MHz 1875 MHz 2500MHz	SDD21 (min) -8 -8 -8.5 -12.1 -14.7 -17	Ref table 43 of Infiniband Architecture Spec, V2
	NEXT	≥26dB @ 10MHz~5.OGHz		
	Intra-Pair Skew	≤100 ps(TDT Method) Rise time of 35 ps		(20%~80 %)
	Inter-Pair Skew	≤400 ps(TDT Method) Rise time of 35 ps		(20%~80 %)
	Environmental Characteristics	Operating Temperature	-40~85°C	Cable operating temp. range
Thermal Shock		No evidence of physical damage	EIA-364-32 Test	
Cyclic Temp. & Humidity		No evidence of physical damage	EIA-364-31 Method III, Test Cond A	
Salt spray		48 hours salt spraying after shell corrosive area less than 5%	EIA-364-26	
Temperature Life		Performance meets the specification requirement	EIA-364-17, Method A, Test Cond 3 at 105±2°C	
Mechanical Characteristics	Mechanical Vibration	Performance meets the specification requirement	EIA-364-28E.11 TCVII, Test Cond D 15minutes in X,Y,Z axis.	
	Cable Flex	Performance meets the specification requirement	EIA-444-1B	
	Mechanical Shock	Performance meets the specification requirement	EIA-364-27B, TG-G. 3 times in 6 directions, 100g, 6ms	
	Cable Plug Insertion	40N Max.	Per QSFP MSA Rev 1.0	
	Cable plug Extraction	30N Max.	Per QSFP MSA Rev 1.0.	
	Latch retention force	50N Min. No evidence of physical damage	EIA-364-13	
	Durability	50 Time. No evidence of physical damage	EIA-364-09; perform plug&unplug cycles	

ORDER CODES

CODE	TYPE	CABLE LENGTH	AWG	CABLE JACKET MATERIAL
F4M-	QSFP-C	QSFP+/Copper	5 5m	30 30AWG 1 PVC
	QSFP-CA	QSFP+/Copper Active	10 10m	28 28AWG 2 Non-Halogen
			15 15m	26 26AWG 3 Other
			S Specify	24 24AWG

Note:

- 1) Copper type maximum length recommended at 15 meters
- 2) Various cable lengths available for all types
- 3) latch/tab available "On top or "Bottom" position

F4M - QSFP-C - S - S - S

Specifications may change without notice. Display Product Photos Shown are samples for viewing, not actual products. Colours and styles may vary.

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