

SFP+ Active Direct Attach Copper Cables

P/N: QT-SFPP-Ax



Product Features

- Support for multi-gigabit data rates up to 10.5Gbps
- Data rates backward compatible to 1Gbps
- Hot-pluggable SFP 20PIN footprint
- I/O Connector designed for high speed differential signal applications
- Improved Pluggable FormFactor(IPF) compliant for enhanced EMI/EMC performance
- Compatible to SFP+ MSA
- Temperature Range: 0~ 70 °C
- Comply with RoHS 2.0

Applications

- High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers
- Switched fabric I/O such as ultra high bandwidth switches and routers
- Data center cabling infrastructure
- High density connections between networking equipment

Description

The SFP+ Active Copper Cable assemblies are high-performance, cost effective I/O solutions for 10Gb Ethernet and 10G Fibre Channel applications. SFP+ Active copper modules allow hardware manufacturers to achieve high port density, configurability and utilization at a very low cost and to reduce power budget. The high-speed cable assemblies meet and exceed the performance and reliability requirements stipulated by Gigabit Ethernet and Fibre Channel industry standard.

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+85	°C
Operating Case Temperature	Tc	0		70	°C

Systems

Performance	Media
10.5 Gpbs line speed, full duplex Bit error rate: better than 10E-12	Hot-pluggable, industry-standard Small Form-Factor Pluggable(SFP+) copper cable, available as 7m or 10m

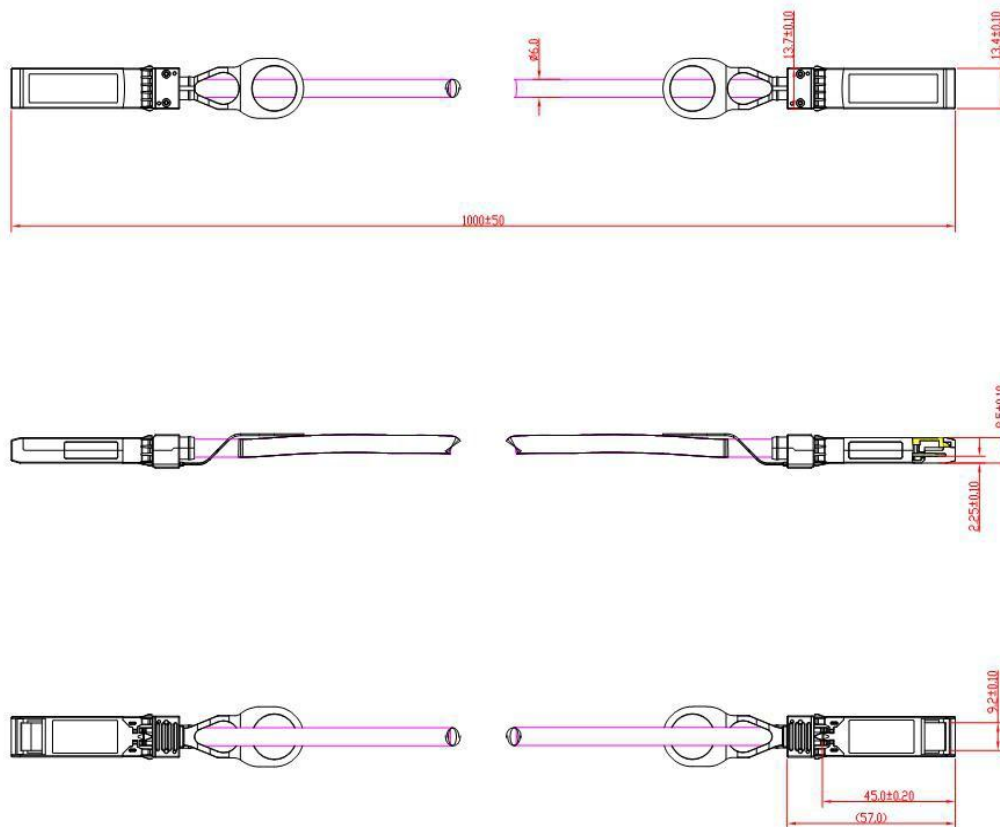
Pin Descriptions

Pin	Logic	Symbol	Name/Description	Notes
1		VeeT	Transmitter Ground	
2	LV-TTL-O	TX_Fault	N/A	1
3	LV-TTL-I	TX_DIS	Transmitter Disable	2
4	LV-TTL-I/O	SDA	Tow Wire Serial Data	
5	LV-TTL-I	SCL	Tow Wire Serial Clock	
6		MOD_DEF0	Module present, connect to VeeT	
7	LV-TTL-I	RS0	N/A	1
8	LV-TTL-O	LOS	LOS of Signal	2
9	LV-TTL-I	RS1	N/A	1
10		VeeR	Reciever Ground	
11		VeeR	Reciever Ground	
12	CML-O	RD-	Reciever Data Inverted	

13	CML-O	RD+	Receiver Data Non-Inverted	
14		VeeR	Receiver Ground	
15		VccR	Receiver Supply 3.3V	
16		VccT	Transmitter Supply 3.3V	
17		VeeT	Transmitter Ground	
18	CML-I	TD+	Transmitter Data Non-Inverted	
19	CML_I	TD-	Transmitter Data Inverted	
20		VeeT	Transmitter Ground	

Notes:

1. Signals not supported in SFP+ Copper pulled-down to VeeT with 30K ohms resistor
2. Active cable assemblies do not support LOS and TX_DIS



Mechanical Dimensions

Ordering Information

Part Number	Product Description
QT-SFPP-A0.5	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 1m (1.6ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A1	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 1m (3ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A2	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 2m (7ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A3	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 3m (10ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A5	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 5m (16ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A7	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 7m (23ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A10	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 10m (33ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A15	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 15m (49ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A20	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 20m (66ft), AWG 30, 0° C ~ +70° C
QT-SFPP-A25	SFP+ Direct Attach Active Cable (10G SFP+ Cu), 10m (82ft), AWG 30, 0° C ~ +70° C