

## SFP-H10GB-CU4M-C

10GBase-CU SFP+ Passive Twinax

### Features

- True broadband – operates from 1 to 10.5Gb/s
- Support hot-pluggable
- 360-degree cable braid crimp and enhanced EMI skirt
- Low insertion loss and low crosstalk
- Single 3.3V power supply
- RoHS Compliant and Lead-Free
- Compliant with SFF-8472 Rev11.1
- Compliant with SFP+ MSA: SFF-8431 Rev4.1
- Wire/Cable Type Twinax

### Applications

- 1/10GbE
- 1/2/4/8x FC
- InfiniBand 1X SDR DDR QDR
- Proprietary Interconnects

### Product Description

This is a 10GBase-CU SFP+ to SFP+ direct attach cable that operates over active copper with a maximum reach of 4.0m (13.1ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This direct attach cable is TAA (Trade Agreements Act) compliant and is built to comply with MSA (Multi-Source Agreement) standards. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

### Systems

Parameter	Media
10 Gb/s line speed, full duplex Bit error rate: better than 10E-12	Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP+) copper cable, available as 4m.

## 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	Receiver Ground	
11		VeeR	Receiver Ground	
12	CML-O	RD-	Receiver 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. Passive Cable assemblies do not support LOS and TX\_DIS

## Recommended Operating conditions

Parameter	Symbol	Min	Typ.	Max.	Unit
Power Supply Voltage	Vcc	3.13	3.30	3.47	V
Power Supply Current	Icc			30	mA
Case Operating Temperature	Tc	-5		+70	°C
Data Rate, each Lane				10.5	Gbps
Bit Error Rate	BER			10 <sup>-12</sup>	

## Cable Specifications

Parameter	Symbol	Min	Typ.	Max.	Unit
Cable Diameter (24AWG)	DIA		6		mm
Cable Diameter (28AWG)	DIA		4.7		mm
Cable Diameter(30AWG)	DIA		4.5		mm
Time Delay Skew (Within Pair)	Tds			10	ps/m
Cable Time Delay	Td		4.3		ns/m
Cable Impedance	Z	90	100	110	$\Omega$

## Mechanical Specification

