

## SFP28 25G DAC 5M PassiveSFP28 25G DAC Passive Copper Cable

SFP28-CA-P5M-T

(For Cisco, HP, Aruba, Juniper, PaloAlto, Fortigate and others brand compatible)

**TCONNECT**



### Features

- ◆ Up to 25.78125 Gbps data rate
- ◆ Up to 5 meter transmission
- ◆ Hot-pluggable SFP 20PIN footprint
- ◆ Improved Pluggable Form Factor (IPF) compliant for enhanced EMI/EMC performance
- ◆ Compatible to SFP28 MSA
- ◆ Compatible to SFF-8402 and SFF-8432
- ◆ Temperature Range: 0°C to 70°C
- ◆ RoHS Compatible

### Applications

- ◆ 25GBASE Ethernet

### Overview

The SFP28 passive cable assemblies are high performance, cost effective I/O solutions for 25G Ethernet. SFP28 copper cables allow hardware manufactures to achieve high port density, configurability and utilization at a very low cost and reduced power budget.

### Ordering information

Part Number	Product Description
SFP28-CA-P1M-T	SFP28 25G DAC 1M PassiveSFP28 25G DAC 1M 25GDAC1MSFP28 to SFP280~70°C30AWG
SFP28-CA-P2M-T	SFP28 25G DAC 2M PassiveSFP28 25G DAC 2M 25GDAC2MSFP28 to SFP280~70°C30AWG
SFP28-CA-P3M-T	SFP28 25G DAC 3M PassiveSFP28 25G DAC 3M 25GDAC3MSFP28 to SFP280~70°C30AWG
SFP28-CA28-P1M-T	SFP28 25G DAC 1M PassiveSFP28 25G DAC 1M 25GDAC1MSFP28 to SFP280~70°C28AWG
SFP28-CA28-P2M-T	SFP28 25G DAC 2M PassiveSFP28 25G DAC 2M 25GDAC2MSFP28 to SFP280~70°C28AWG
SFP28-CA28-P3M-T	SFP28 25G DAC 3M PassiveSFP28 25G DAC 3M25GDAC3MSFP28 to SFP280~70°C28AWG
SFP28-CA-P5M-T	SFP28 25G DAC 5M PassiveSFP28 25G DAC 5M 25GDAC5MSFP28 to SFP280~70°C26AWG

## Datasheet

### Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Tc	0		+70	°C
Storage Ambient Temperature		-40		+85	°C
Power Supply Voltage	Vcc	3.14	3.3	3.47	V
Data Rate Per Lane		1		25.78	Gb/s

### High Speed Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Note
Differential Impedance	R <sub>IN,P-P</sub>	90		110	Ω	
Insertion loss	SDD21			22.48	dB	At 12.8906 GHz
Differential Return Loss	SDD11			See 1	dB	At 0.05 to 4.1 GHz
	SDD22			See 2	dB	At 4.1 to 19 GHz
Common-mode to common-mode output return loss	SCC11	2			dB	At 0.2 to 19 GHz
	SCC22					
Differential to common-mode return loss	SCD11			See 3	dB	At 0.01 to 12.89 GHz
	SCD22			See 4		At 12.89 to 19 GHz
Differential to common Mode Conversion Loss	SCD21			10	dB	At 0.01 to 12.89 GHz
				See 5		At 12.89 to 15.7 GHz
				6.3		At 15.7 to 19 GHz
Channel Operating Margin	COM	3			dB	

#### Notes:

1. Reflection Coefficient given by equation  $SDD11(dB) < 16.5 - 2 \times \sqrt{f}$ , with f in GHz
2. Reflection Coefficient given by equation  $SDD11(dB) < 10.66 - 14 \times \log_{10}(f/5.5)$ , with f in GHz
3. Reflection Coefficient given by equation  $SCD11(dB) < 22 - (20/25.78) \times f$ , with f in GHz
4. Reflection Coefficient given by equation  $SCD11(dB) < 15 - (6/25.78) \times f$ , with f in GHz
5. Reflection Coefficient given by equation  $SCD21(dB) < 27 - (29/22) \times f$ , with f in GHz

### Pin Descriptions

PIN	Logic	Symbol	Name / Description	Note
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

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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

## Mechanical Dimensions

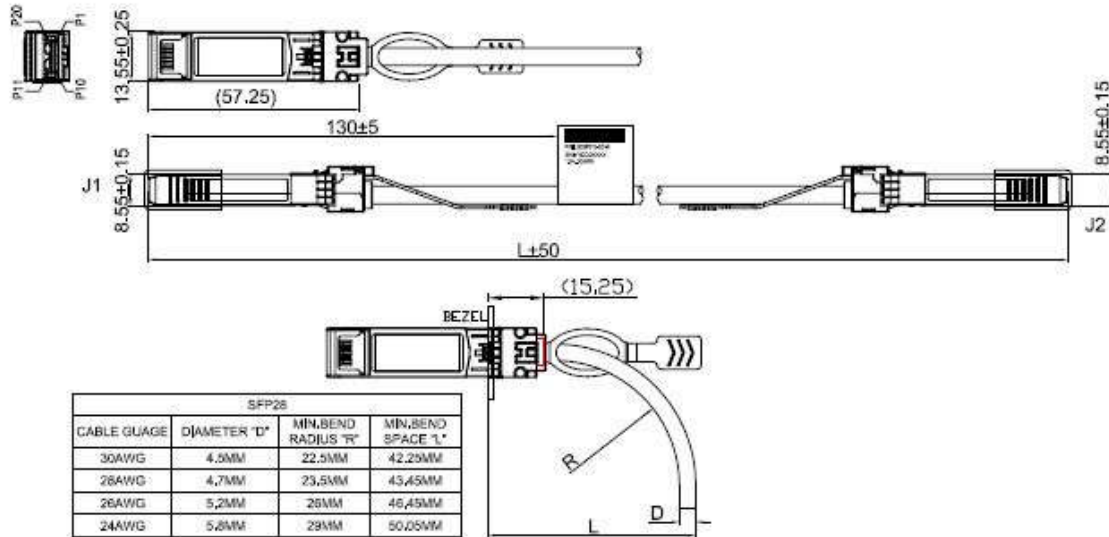


Figure1. Mechanical Specifications

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