25GE SFP28 Direct Attach Passive Copper Cables
GPP-PC250-XXXXC

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
- Power consumption <0.1 W
- Temperature Range: 0~ 70 °C
- RoHS Compatible

Applications

- 25GE Ethernet

Product Description

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 cast and reduced power budget.

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+85	°C
Operating Case Temperature	Tc	0		+70	°C
Power Supply Voltage	V_{CC3}	3.14	3.3	3.47	V
Power consumption				0.1	W

Data Rate Per Lane		1		25.78	Gb/s

High Speed Characteristics

Parameter	Symbol	Min	Typical	Max	Unit	Note
Differential Impedance	$R_{IN,P-P}$	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 × SQRT(f), with f in GHz
2. Reflection Coefficient given by equation SDD11(dB) < 10.66 - 14 × log10(f/5.5), with f in GHz
3. Reflection Coefficient given by equation SCD11(dB) < 22 - (20/25.78)*f, with f in GHz
4. Reflection Coefficient given by equation SCD11(dB) < 15 - (6/25.78)*f, with f in GHz
5. Reflection Coefficient given by equation SCD21(dB) < 27 - (29/22)*f, with f in GHz

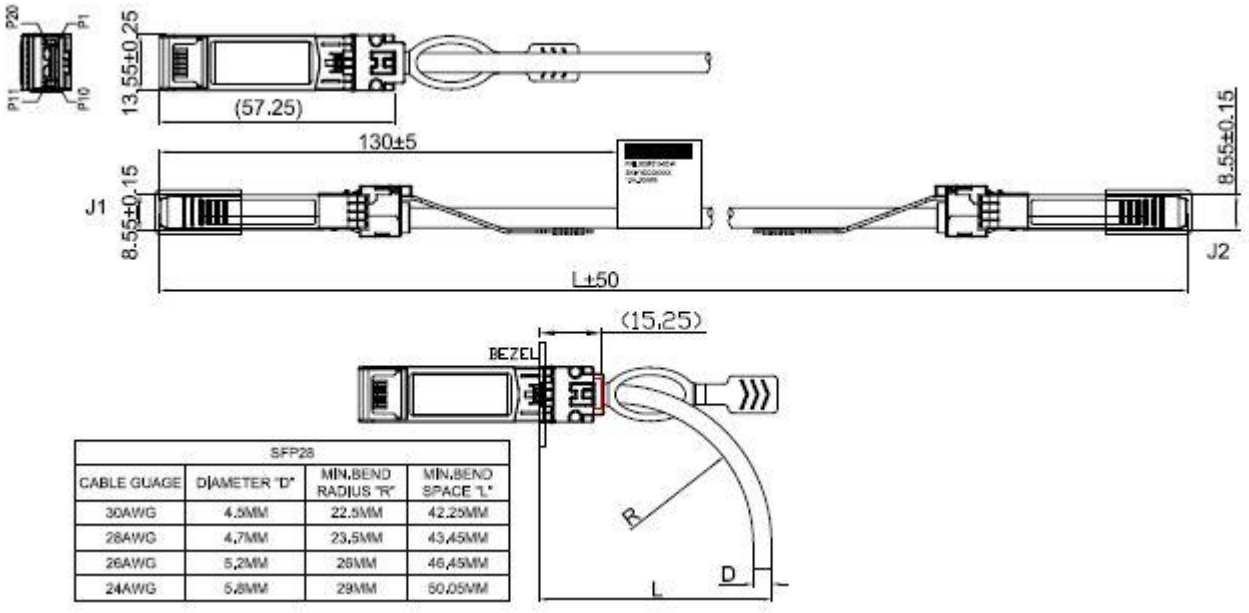
Pin Descriptions

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+	Reciever Data Non-Inverted	
14		VeeR	Reciever Ground	
15		VccR	Reciever 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	

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

Mechanical Dimensions



SFP28			
CABLE GUAGE	DIAMETER "D"	MIN.BEND RADIUS "R"	MIN.BEND SPACE "L"
30AWG	4.5MM	22.5MM	42.25MM
28AWG	4.7MM	23.5MM	43.45MM
26AWG	5.2MM	26MM	46.45MM
24AWG	5.8MM	29MM	50.05MM

Ordering information

Note: You can be customized diameter and distance.

Part Number	GPP-PC250-XXXXC				
Length（meter）	1	2	3	4	5
Wire gauge（AWG）	30	30	26	26	26

Example:

GPP-PC250-3001C AWG 30, 1 meter;
GPP-PC250-2603C AWG 26, 3 meter;
GPP-PC250-2605C AWG 26, 5 meter;

Important Notice

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