

50G SFP56 to 50G SFP56 Passive Direct-Attached Copper Cables

FSD-50G-xxxM

Features

- Up to 56Gb/s (Support 28GBaud/s PAM4)
- Up to 3 meter transmission
- Hot-pluggable SFP 20PIN footprint
- Improved Pluggable Form Factor(IPF) compliant
- for enhanced EMI/EMC performance
- Compatible to SFP28 MSA and SFF-8432
- Compatible to IEEE802.3cd
- Power consumption <0.1 W
- Temperature Range: 0~ 70°C
- RoHS Compatible



Applications

- 50G/25G Ethernet
- Infiniband QDR/FDR/EDR/HDR
- Data storage and communication industry
- Switch / router / HBA
- Enterprise network
- SAN
- Data Center Network

Product Description

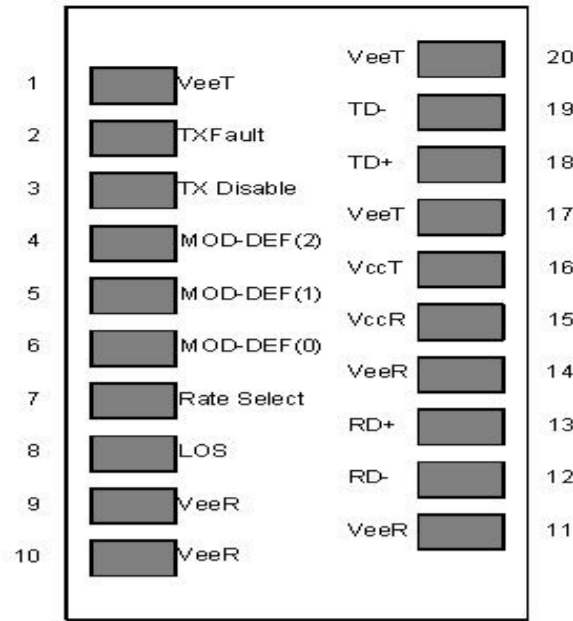
The SFP56 passive cable assemblies are high performance, cost effective I/O solutions for 50G Ethernet. SFP56 copper cables allow hardware manufactures to achieve high port density, configurability and utilization at a very low cast and reduced power budget.

Recommended Operating Conditions

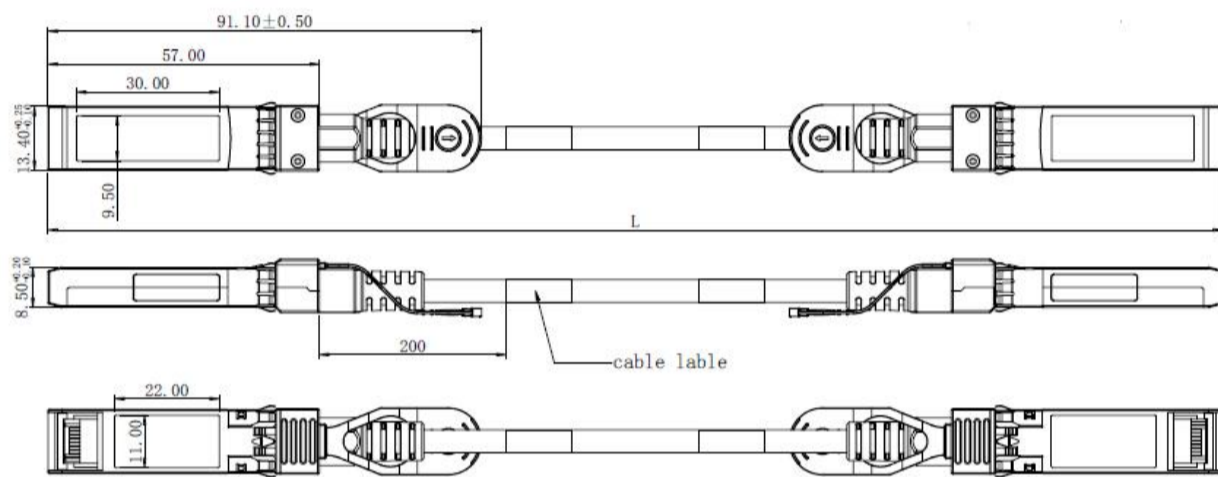
Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+85	°C
Operating Case Temperature	Tc	0		+70	°C
Power Supply Voltage	VCC3	3.14	3.3	3.47	V
Power consumption				0.1	W
Data Rate Per Lane		1		28	GBaud/s



PCB Contact Configure (SFF-MSA Compliance)



Mechanical Dimensions



PERFORMANCE AND TEST DESCRIPTION

A	Time domain parameter	Test condition	Spec		Equipment
1	Differential Impedance(bulk cable)	TDR Tr:25ps	100+10/-5 ohms		E5071C
2	Differential Impedance (Mated connector)		100+/-10 ohms		
3	Differential Impedance(cable termination)		100+10/-15 ohms		
4	Intra-skew		L*15+20	L: length(m) SPEC: ps	
B	Frequency domain parameter	Test condition	Test spec(dB)	f(GHz)	
1	SDD11/SD D22	Freq:50MHz ~20GHz Points:1601	-22+20/25.78*f*10 ⁽⁻³⁾	0.05≤f<4.1	E5071C
			-10.66+14*log((f*10 ⁽⁻³⁾)/5.5) ≤5.3dB@13.26GHz	4.1≤f≤19	
2	SCC11/SC C22	Freq:50MHz ~20GHz Points:1601	≤-2dB	0.2≤f≤19	
3	SDC11/SD C22	Freq:50MHz ~20GHz Points:1601	-16+2*f/3	0.05≤f≤2	
5	SCD21- SDD21	Freq:50MHz ~20GHz Points:1601	10 as 0.01≤f < 12.89 -27+29/22*f*0.001 as 12.89≤f < 15.7 6.3 as 15.7≤f≤19	0.01≤f≤19	
6	MDNEXT	Freq:50MHz ~20GHz Points:1601	≤-26dB@12.89GHz	0.01≤f≤19	
7	SDD21	Freq:50MHz ~20GHz Points:1601 IF: 1KHz	-0.7*(f*10 ⁽⁻³⁾) ^{0.5} -0.3*(f*10 ⁽⁻³⁾)-0.01 *(f*10 ⁽⁻³⁾) ² <17.16dB@13.26GHz	0.01≤f≤19	



Test Requirements and Methods

Test Items	Specification	Test Method
Thermal shock	5 cycles of a) -10°C for 30 minutes b) +70°C for 30 minutes	EIA-364-32C.Test condition I
Temperature Life	Subject mated Specimens to +70°C for 500 hours	EIA-364-17 method A, Test condition II, Test time condition C.
Humidity and Temperature cycling	Subject unmated specimens to 10 cycles (10 days) between 25 and 65oC at 80 to 100% RH	EIA-364-31 Method III,Test condition A
Mixed Flowing Gas	Subject specimens to environmental Class IIA for 7 days unmated, and 7 days mated.	EIA-364-65, Class IIA

Regulatory Compliance

FIBERSTAMP FSD-50G-xxxM passive cable assemblies meet the requirements of the following standards:

Feature	Standard
Electrical Safety	EN 62368-1: 2014 IEC 62368-1:2014 UL 62368-1:2014
Environmental protection	Directive 2011/65/EU with amendment(EU)2015/863
CE EMC	EN55032: 2015 EN55035: 2017 EN61000-3-2:2014 EN61000-3-3:2013
FCC	FCC Part 15, Subpart B; ANSI C63.4-2014

Ordering information

Note: You can be customized diameter and distance.

Part Number	FSD-50G-xxxM		
Length (meter)	1	2	3
Wire gauge (AWG)	30	30	26

Important Notice

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