

50G SFP56 Active Direct Attach Copper Twinax Cable

SFP-50G-ACxxx



Application

- Adapter Card
- Wireless BBU
- Data Center
- Router
- Server
- Storage
- Switch

Features

- Fully compliant to the latest SFP56 MSA
- Maximum link length: up to 7m
- Optimized PCB with auto soldering process
- Stamped EMI Ground Finger
- EEPROM in cable assembly
- Enables 53.125Gb/s per channel transmission
- 30AWG, 28AWG and 26AWG cable sizes
- Active capability
- RoHS compliant

Description

The 50G SFP56 Active Direct Attach Copper Twinax Cable is designed for use in 50GBASE Ethernet. This cable is compliant with IEEE 802.3 by Ethernet standard and SFP56 MSA Compliant. Each SFP56 connector comprises an EEPROM providing product information which can be read by the host system. With these features, this easy to install, high speed, cost-effective direct attach copper twinax cable is suitable for short-distance connectivity within a rack or between adjacent racks in data centers.

Product Specifications

I. Absolute Maximum Ratings

Parameter	Unit	Min.	Typical	Max.	Notes
Storage Temperature Range	°C	-40	-	85	-
Operating Case Temperature	°C	0	-	70	-
Operating Relative Humidity	%	-	-	85	-
Power Supply Working Voltage	V	3.135	3.3	3.465	-
Bit Rate	Gbps	-	53.125	-	-

II. Characteristics

All performance is specified at whole working temperature and conditions

Item		Parameter	
Parameter	Length	-	
	Cable Colour	Black	
Electrical	Resistance	2 ohm Max	
	Insulation Resistance	10M ohm Min	

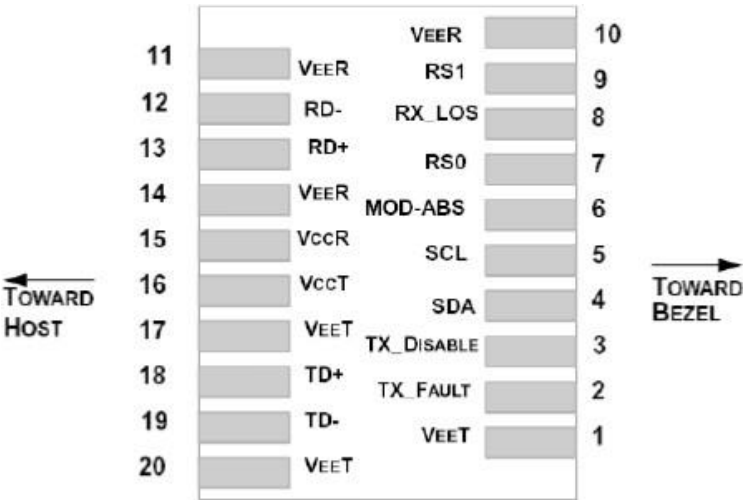
Item		Parameter
SI Performance	SDD21	-17.16dB Min. @13.28GHz no suck-out < 30GHz
	SDD11/SDD22	cc
	SCD22	-22+(20/25.78)*f dB Max@0.01GHz~12.89GHz -15+(6/25.78)*f dB Max@12.89GHz~19GHz
	SCC11	-2dB Max
	SCD21-SDD21	-10dB Max @0.01GHz~12.89GHz
		-27+(29/22)*f dB Max @12.89GHz~15.7GHz -6.3dB Max @15.7GHz~19GHz
	COM	3 dB Min

III.PIN Function Definitions

Pin No.	Symbol	Level / Logic	Description
1	VeeT	-	Module Transmitter Ground
2	Tx_Fault	LVTTL-O	Module Transmitter Fault Indication
3	Tx_DIS	LVTTL-I	Transmitter Disable; Active High Disable Transmitter Output
4	SDA	LVTTL-I	2-Wire Serial Interface Data Line
5	SCL	LVTTL-I/O	2-Wire Serial Interface Clock
6	MOD_ABS	LVTTL-O	Module Absent, connected to ground in the module
7	RS0	-	Rate Select 0, optionally controls SFP28 module receiver
8	RX_LOS	LVTTL-O	Loss of Receiver Signal Indication

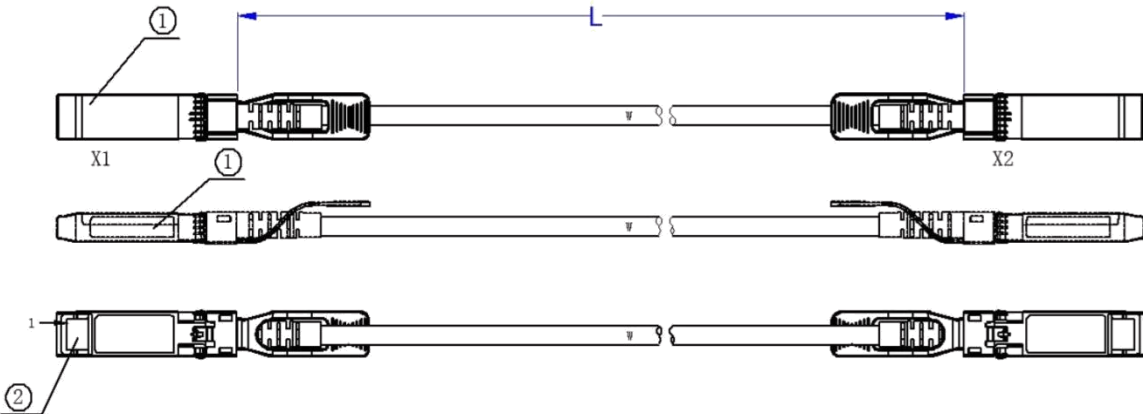
Parameter	Symbol	Unit	Min.
9	RS1	-	Rate Select 1, optionally controls SFP28 module transmitter
10	VeeR	-	Module Receiver Ground
11	VeeR	-	Module Receiver Ground
12	RD-	CML-O	Receiver Inverted Data Output
13	RD+	CML-O	Receiver Non-Inverted Data Output
14	VeeR	-	Module Receiver Ground
15	VccR	-	Module Receiver 3.3V Supply
16	VccT	-	Module Transmitter 3.3V Supply
17	VeeT	-	Module Transmitter Ground
18	TD+	CML-I	Transmitter Non-Inverted Data Input
19	TD-	CML-I	Transmitter Inverted Data Input
20	VeeT	-	Module Transmitter Ground

IV. SFP28 Transceiver Electrical Pad Layout



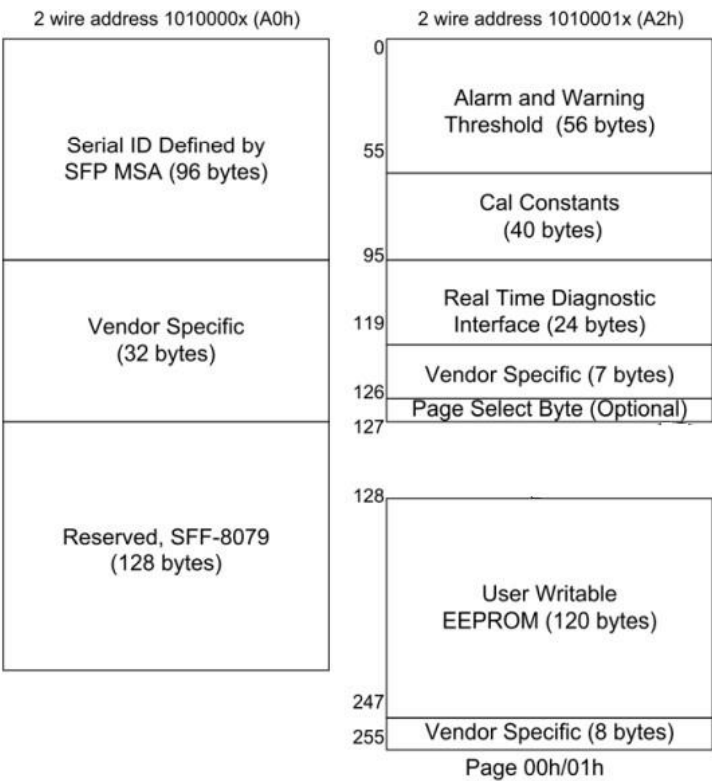
V. Mechanical Specifications

For detail mechanical information, please refer to the related document of SFF-8432.



VI. Transceiver Pin Description

The digital diagnostic memory map specific data field defined as following. For detail EEPROM information, please refer to the related document of SFF 8472 Rev 12.0.



VII. ESD

The SFP+ module and host SFI contacts (High Speed Contacts) shall withstand 1kV electrostatic discharge based on Human Body Model and all host contacts with exception of the SFI contacts (High Speed Contacts) shall withstand 2kV electrostatic discharge based on Human Body Model. The SFP+ module shall meet ESD requirements given in EN61000-4-2, criterion B test specification such that units are subjected to 15kV air discharges during operation and 8kV direct contact. However, normal ESD precautions are still required during the handling of this module. This transceiver is shipped in ESD protective packaging. It should be removed from the packaging and handled only in an ESD protected environment.

VIII. Mechanical Specifications

Part Number	Description
SFP-50G-ACxxx	Up to 7m 50G SFP56 ACC, SFP56 form-factor, 0~70°C commercial temperature