**SFP-56G-PDAC2M-PRO**

MSA and TAA Compliant 50GBase-CU SFP56 to SFP56 Direct Attached Cable (Passive Twinax, 2m)

Features

- Compliant with SFP56 MSA Specification
- Electrical interface specifications per SFF-8431
- Management interface specifications per SFF-8472
- Supports 56Gbps
- 30AWG Wire Gauge
- PAM4 modulation
- Cable Color: Black
- Round Jacketed
- I2C for EEPROM communication
- ROHS-6 Compliant
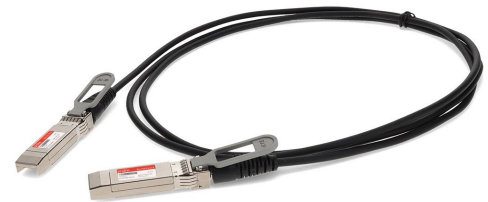
Applications

- Servers
- Switches
- Routers
- Data Centers
- High Performance Computing

Product Description

This is an MSA compliant 50GBase-CU SFP56 to SFP56 direct attach cable that operates over passive copper with a maximum reach of 2.0m (6.6ft). 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.

Proline's direct attach cables are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products."

Regulatory Compliance

Certification	Standard
EU RoHS Directive 2011/65/EU	Compliant
EU ELV Directive 2000/53/EC	Compliant
RoHS 2 Directive MIIT Order No 32, 2016	No Restricted Materials Above Threshold
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUN 2020 (209) Candidate List Declared Against: JAN 2019 (197) SVHC > Threshold
Halogen Content	Not Low Halogen - contains Br or Cl > 900 ppm.

Mechanical Characteristics

Length	Wire Gauge	Wire Size	Overall Outside Cable Diameter	Flammability Rating
2m	30AWG	.051 mm²	4.37 mm	CL2

Characteristics

Parameter	Specification
Impedance	100 Ω
Data Rate	56Gb/s
Assembly Color	Black
Number of Pluggable I/O Cable Assembly Positions	2-Pair
Number of Signal Positions	4
Cable Assembly Category	High Speed

SFP56 Pin Definitions

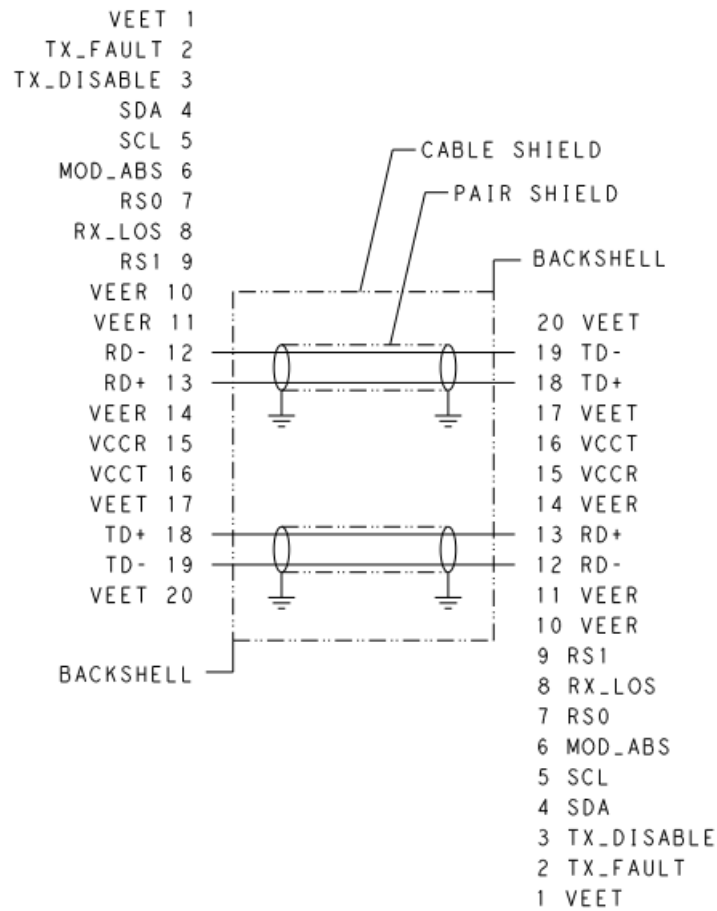| Pin	Symbol	Name/Descriptions	Notes
1	VeeT	Transmitter Ground	1
2	TX_Fault	Transmitter Fault (LVTTL-O) - High indicates a fault condition	2
3	TX_Disable	Transmitter Disable (LVTTL-I) – High or open disables the transmitter	3
4	SDA	Two wire serial interface Data Line (LVCMOS-I/O) (MOD-DEF2)	4
5	SCL	Two wire serial interface Clock Line (LVCMOS-I/O) (MOD-DEF1)	4
6	MOD_ABS	Module Absent (Output), connected to VeeT or VeeR in the module	5
7	RS0	NA	6
8	RX_LOS	Receiver Loss of Signal (LVTTL-O)	2
9	RS1	NA	6
10	VeeR	Receiver Ground	1
11	VeeR	Receiver Ground	1
12	RD-	Inverse Received Data out (CML-O)	
13	RD+	Received Data out (CML-O)	
14	VeeR	Receiver Ground	
15	VccR	Receiver Power - +3.3V	
16	VccT	Transmitter Power - +3.3 V	
17	VeeT	Transmitter Ground	1
18	TD+	Transmitter Data In (CML-I)	
19	TD-	Inverse Transmitter Data In (CML-I)	
20	VeeT	Transmitter Ground	1

Notes:

1. The module signal grounds are isolated from the module case.
2. This is an open collector/drain output that on the host board requires a 4.7KΩ to 10KΩ pull-up resistor to Vcc-Host.
3. This input is internally biased high with a 4.7KΩ to 10KΩ pull-up resistor to VccT.
4. Two-Wire Serial interface clock and data lines require an external pull-up resistor.
5. This is a ground return that on the host board requires a 4.7KΩ to 10KΩ pull-up resistor to Vcc-Host.
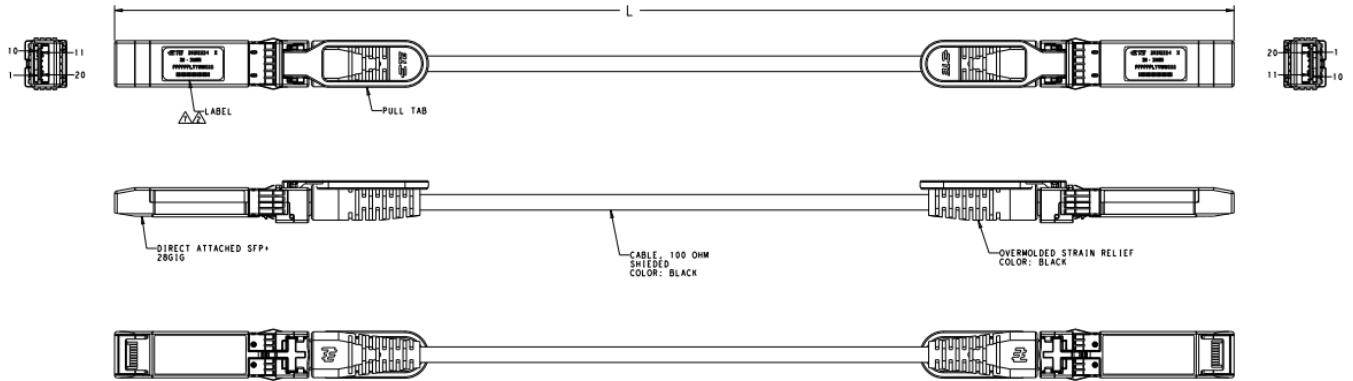6. Rate select not available
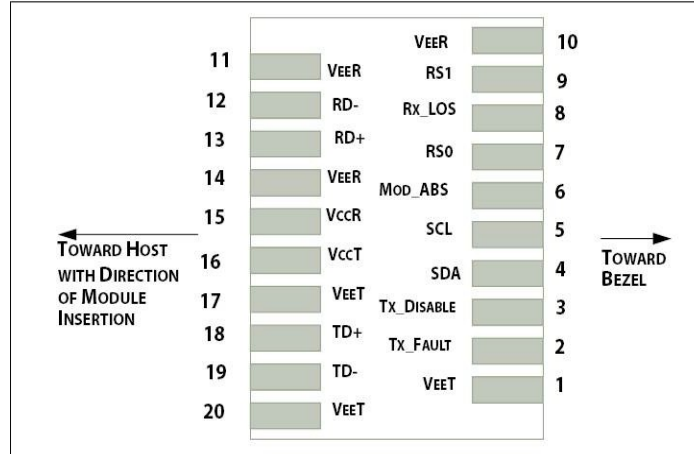
Host PCB SFP56 Pad Assignment Top View

Wiring Schematic

Mechanical Specifications

L

△ LABEL

PULL TAB

DIRECT ATTACHED SFP+
28GIG

CABLE, 100 OHM
SHIELDED
COLOR: BLACK

OVERMOLDED STRAIN RELIEF
COLOR: BLACK

Characteristic Impedance: 100 ± 10 OHMS

About Us:

Proline Options is one of North America's leading providers of transceivers and high-speed cabling. With a reputation for quality, tested products that cover the connectivity spectrum, Proline Options has a solution for you regardless of the specification.

At Proline Options, every product is tested in its intended application - never batch or spec tested only. We run bandwidth, distance and IOS network tests. We have documented an impressive 0.03% failure rate over the last 10 years. To continue this rate of success we invest millions annually in our own on-site testing lab.

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