SFP-10G-PDACXM-C 10GBase-CU SFP+ DAC PASSIVE TWINAX, UP TO 7M



#### SFP-10G-PDACXM-C

MSA and TAA Compliant 10GBase-CU SFP+ Direct Attach Cable (Passive Twinax, Up to 7m)

#### **Features**

- Support for multi-gigabit data rates up to 10 Gb/s
- Data rates backward compatible to 1 Gb/s
- Hot-Pluggable SFP 20PIN footprint
- Wire Gauge: 30AWG-24AWG
- Improved Pluggable Form Factor (IPF)
  compliant for enhanced EMI/EMC performance
- Compatible to SFP+ MSA
- Compatible to SFF-8431, SFF-8432
- Temperature Range: 0~70°C
- RoHS Compatible



#### **Applications**

- High Capacity I/O in Storage Area Networks, Network
  Attached Storage, and Storage Servers
- Switched fabric I/O such as ultra-high bandwidth switches and routers
- Data center cabling infrastructure
- High density connections between networking equipment

#### **Product Description**

This is an MSA compliant 10GBase-CU SFP+ to SFP+ direct attach cable that operates over passive copper with a maximum reach up to 7.0m (23.0ft). 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.

ProLabs' 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**

- ESD to the Electrical PINs: compatible with MIL-STD-883 Method 3015.
- ESD to the Duplex LC Receptacle: compatible with IEC 61000-4-2.
- Immunity compatible with IEC 61000-4-3.
- EMI compatible with FCC Part 15 Class B EN55022 Class B (CISPR 22B) VCCI Class B.
- Laser Eye Safety compatible with FDA 21CFR 1040.10 and 1040.11 EN60950, EN (IEC) 60825-1,2.
- RoHs compliant with 2002/95/EC 4.1&4.2 2005/747/EC.

#### **Recommended Operating Conditions**

| Parameter                  | Symbol | Min | Тур. | Max. | Unit |
|----------------------------|--------|-----|------|------|------|
| Storage Temperature        |        | -40 |      | 85   | °C   |
| Operating Case Temperature | Тс     | 0   |      | 70   | °C   |

#### **Systems**

| Parameter  | Media  |
|--|--|
| 10 Gb/s line speed, full duplex Bit error rate: better than 10E-12 | Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP+) copper cable, available as 7m. |

## **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     | 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 Specification**

