# PRODUCT SPECIFICATION

| **Part No.:** | **SFP-10G-CU**xM | |
|---|---|---|
| **Description:** | 10G SFP+ Direct Attach Cable ,DAC 1-7m | |
| **Release Date** | **Rev.** | **Revision Change Description** |
| 2017/09/07 | A0 | New Release |
| 2020/12/29 | A1 | Template Update |
| 2025/09/01 | A2 | Part No. From XF to SF |

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## Features

- ✧ Up to 10.3125Gbps data rate per channel
- ✧ Up to 7m transmission
- ✧ Operating case temperature: 0℃~70℃
- ✧ Single +3.3V power supply
- ✧ RoHS compliant
- ✧ Power Consumption <0.1W

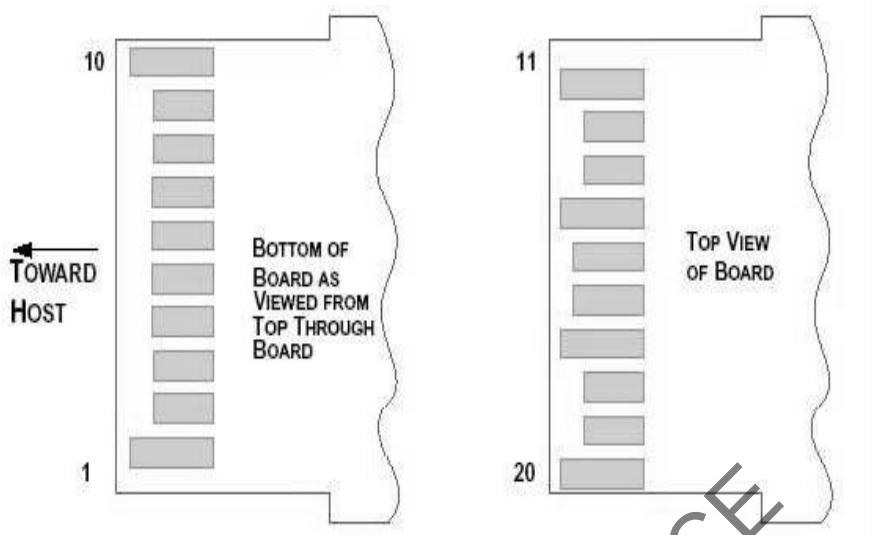
## Application

- ✧ 10G Ethernet

## Standard

- ✧ Compliant with SFP+ MSA specification(SFF-8432)

## Pin Assignment




| Pin | Logic | Symbol | Description |
|---|---|---|---|
| 1 | | VeeT | Module Transmitter Ground |
| 2 | LVTTL-O | TX_Fault | Module Transmitter Fault |
| 3 | LVTTL-I | TX_Disable | Transmitter disable; Turns off transmitter laser output |
| 4 | LVTTL-I/O | SDA | 2-wire Serial Interface Data Line (Same as MOD-DEF2 in INF-8074i) |
| 5 | LVTTL-I/O | SCL | 2-wire Serial Interface Clock (Same as MOD-DEF1 in INF-8074i) |
| 6 | | Mod_ABS | Module Absent, connected to VeeT or VeeR in the module |
| 7 | LVTTL-I | RS0 | Rate Select 0, optionally controls SFP+ module receiver |
| 8 | LVTTL-O | RX_LOS | Receiver Loss of Signal Indication (In FC designated as Rx_LOS and in Ethernet designated as Signal Detect) |
| 9 | LVTTL-I | RS1 | Rate Select 1, optionally controls SFP+ module transmitter |
| 10 | | VeeR | Module Receiver Ground |
| 11 | | VeeR | Module Receiver Ground |
| 12 | CML-O | RD- | Receiver Inverted Data Output |
| 13 | CML-O | RD+ | Receiver Non-Inverted Data Output |
| 14 | | VeeR | Module Receiver Ground |
| 15 | | VccR | Module Receiver 3.3 V Supply |
| 16 | | VccT | Module Transmitter 3.3 V Supply |
| 17 | | VeeT | Module Transmitter Ground |
| 18 | CML-I | TD+ | Transmitter Non-Inverted Data Input |
| 19 | CML-I | TD- | Transmitter Inverted Data Input |

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| | | | |
|---|---|---|---|
| 20 | | SDA | Module Transmitter Ground |

## General Product Characteristics

| SFP+ DAC Specifications | |
|---|---|
| Number of Lanes | Tx & Rx |
| Channel Data Rate | 10.3125 Gbps |
| Operating Temperature | 0 to + 70°C |
| Storage Temperature | -40 to + 85°C |
| Supply Voltage | 3.3 V nominal |
| Electrical Interface | 20 pins edge connector |
| Management Interface | Serial, $I^2C$ |

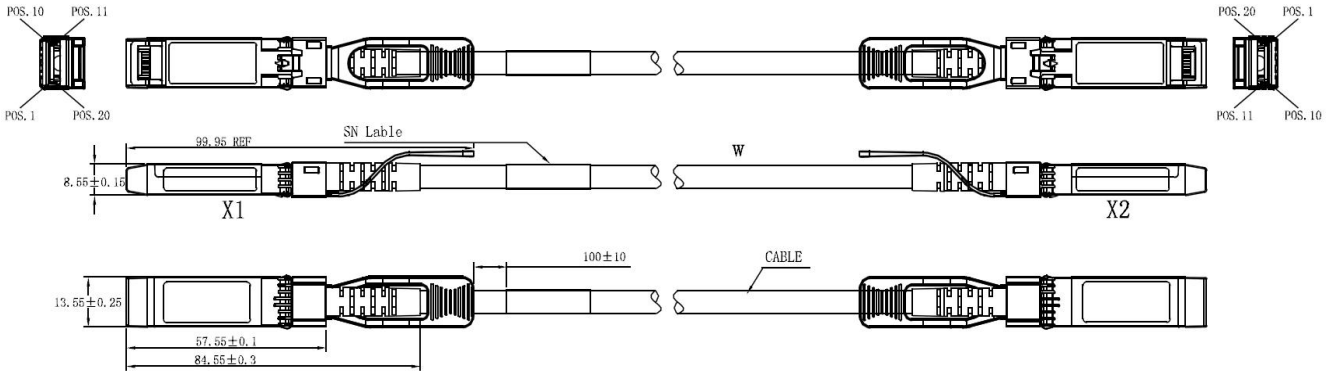
## High Speed Characteristics

| Parameter | Symbol | Min | Typ | Max | Units | Notes |
|---|---|---|---|---|---|---|
| Differential Impedance | Zd | 90 | 100 | 110 | Ω | |
| Differential Input Return Loss | SDDXX | <-12+2* SQRT (f) with f in GHz | | | dB | 0.01~4.1GHz |
| | | <-6.3+13* Log10/(f/5.5) with f in GHz | | | dB | 4.1~11.1GHz |
| Common Mode Output Return Loss | SCCXX | < -7+1.6*f with f in GHz | | | dB | 0.01~2.5GHz |
| | | | | -3 | dB | 2.5~11.1GHz |
| Difference Waveform Distortion Penalty | dWDPc | | | 6.75 | dB | |
| VMA Loss | L | | | 4.4 | dB | |
| VMA Loss to Crosstalk Ratio | VCR | 32.5 | | | dB | |

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## Mechanical Specifications

The connector is compatible with the SFF-8432 specification.




| Length (m) | Cable AWG |
|---|---|
| 1 | 30 |
| 2 | 30 |
| 3 | 30 |
| 5 | 24/26 |
| 7 | 24 |

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## Ordering Information

| Part Number | Product Description |
|---|---|
| SFP-10G-CUxM | 10G SFP+ DAC 1-7meters |

**Notes:**

X=01,02,03,05,07meters, please contact LONTE for any specific length.