



## DAPSSM01100G000

HP® J9281B Compatible 10GBase-CU SFP+ Direct Attach Cable (Passive Twinax, 1m)

### Product Description

This is an HP® J9281B compatible 10GBase-CU SFP+ to SFP+ direct attach cable that operates over passive copper with a maximum reach of 1.0m (3.3ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. Our direct attach cables are built to comply with MSA (Multi-Source Agreement) standards. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

Skylane's transceivers are RoHS compliant and lead-free.

### Features:

- Operates from 1 to 10.5Gbps
- 360 degree cable braid crimp and enhanced EMI skirt
- Hot Pluggable
- Single 3.3V power supply
- Operating Temperature: 0 to 70 Celsius
- Low insertion loss and low crosstalk
- Compliant with SFP MSA: SFF-8431 Rev4.1
- Compliant with SFF-8472 Rev11.1
- RoHS Compliant and Lead-Free
- Wire Cable Type Twinax



### Applications:

- InfiniBand 1X SDR DDR QDR
- Proprietary Interconnects

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*For your product safety, please read the following information carefully before any manipulation of the transceiver:*



#### **ESD**

This transceiver is specified as ESD threshold 1kV for SFI pins and 2kV for all others electrical input pins, tested per MIL-STD-883G, Method 3015.4 / JESD22-A114-A (HBM). However, normal ESD precautions are still required during the handling of this module.



#### **LASER SAFETY**

This is a Class1 Laser Product according to IEC 60825-1:2007. This product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated (June 24, 2007).

*The optical ports of the module need to be terminated with an optical connector or with a dust plug in order to avoid contamination.*

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### Recommended Operating Conditions

| Parameter                  | Symbol           | Min. | Typ. | Max.              | Unit |
|----------------------------|------------------|------|------|-------------------|------|
| Power Supply Voltage       | V <sub>cc</sub>  | 3.13 | 3.30 | 3.47              | V    |
| Power Supply Current       | I <sub>cc</sub>  |      |      | 30                | mA   |
| Case Operating Temperature | T <sub>c</sub>   | 0    |      | 70                | °C   |
| Storage Temperature        | T <sub>stg</sub> | -40  |      | 85                |      |
| Data Rate Per Lane         |                  |      |      | 10.5              | Gbps |
| Bit Error Rate             | BER              |      |      | 10 <sup>-12</sup> |      |

### Cable Specifications

| Parameter                     | Symbol          | Min. | Typ. | Max. | Unit |
|-------------------------------|-----------------|------|------|------|------|
| Cable Diameter (30AWG)        | DIA             |      | 4.5  |      | mm   |
| Time Delay Skew (Within Pair) | T <sub>ds</sub> |      |      | 10   | ps/m |
| Cable Time Delay              | T <sub>d</sub>  |      | 4.3  |      | ns/m |
| Cable Impedance               | Z               | 90   | 100  | 110  | Ω    |

### Systems

| Parameter                                                                     | Media                                                                                             |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 10Gbps Line Speed, Full Duplex Bit Error Rate: Better Than 10E <sup>-12</sup> | Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP+) copper cable, available at 7m |

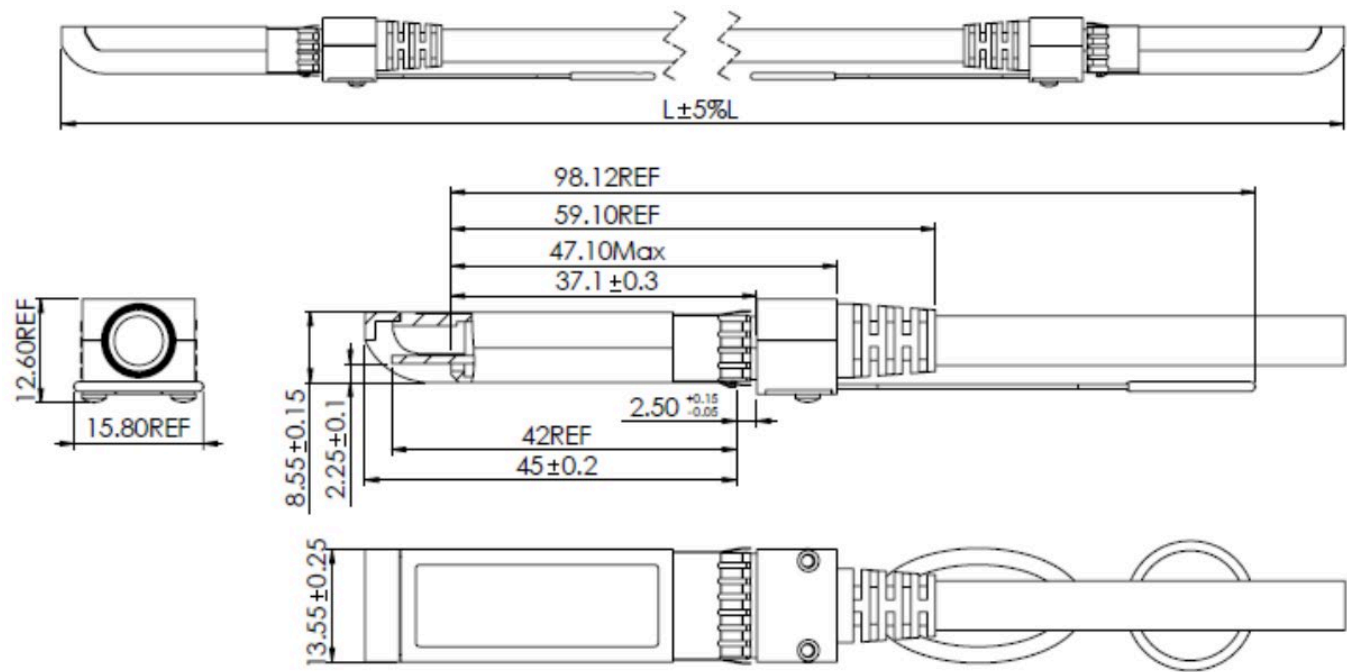
## Pin Descriptions

| Pin | Logic     | Symbol     | Name/Description                       | Notes |
|-----|-----------|------------|----------------------------------------|-------|
| 1   |           | VeeT       | Transmitter Ground.                    |       |
| 2   | LVTTL-O   | Tx_Fault   | N/A.                                   | 1     |
| 3   | LVTTL-I   | Tx_Disable | Transmitter Disable.                   | 2     |
| 4   | LVTTL-I/O | SDA        | 2-Wire Serial Data.                    |       |
| 5   | LVTTL-I   | SCL        | 2-Wire Serial Clock.                   |       |
| 6   |           | MOD_DEF0   | Module Present. Connected to the VeeT. |       |
| 7   | LVTTL-I   | RS0        | N/A.                                   | 1     |
| 8   | LVTTL-O   | LOS        | Loss of Signal.                        | 2     |
| 9   | LVTTL-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       | +3.3V Receiver Power Supply.           |       |
| 16  |           | VccT       | +3.3V Transmitter Power Supply.        |       |
| 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 the VeeT with 30k $\Omega$  resistor.
2. Passive cable assemblies do not support LOS and Tx\_Disable.

Mechanical Specifications



# About Skylane Optics

Skylane is a leading provider of transceivers for optical communication.

We offer an extensive portfolio for the enterprise, access, datacenter and metropolitan fiber optical market as well as for smart home applications and home networks.

We cover the European, South American and North American market with a strong partner network and have offices in Belgium, Brazil, Sweden and USA.

Our offerings are characterized by high quality and performance. In combination with our strong technical support, we enable our customers to build cost optimized network solutions.

We offer an extensive range of high-quality products including transceivers (Optical and copper), Active Optical Cable (AOC), Direct Attach Cable (DAC), Mux/Demux, Coding Box.

