

DAPSSxxx1000 – SFP+ Passive Direct Attached Cable 50cm to 7m /10x Gigabit Ethernet

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



ESD

This cable 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.



1. Overview

DAPSSxxx1000 is a high performance SFP+ passive direct attached cable for full duplex 10Gbps data links. The device supports communication over up to 7m copper cable.

This Passive Direct Attached Cable is compliant with the Small Form-factor Pluggable (SFP) Multisource Agreement (MSA) and hot pluggable. Always contact Skylane Optics commercial agents for compatibility with different equipment platforms.

2. Features

- SFP+ Multi-Source Agreement compliant (SFF-8431 and SFF-8432)
- Serial ID functionality supported according to SFF-8472
- Lengths up to 7m
- Robust Die Cast Housing
- 24 AWG Cable
- Operating Case Temperature Range 0 to 70°C



Figure 1. Cable
(non-binding illustration)

3. Applications

- 10x Gigabit Ethernet
- 10x Fiber Channel

4. Technical parameters

| 4.1. Recommended Operating Conditions | | | | | |
|---------------------------------------|------|-----|------|------|----------------|
| Parameter | Min | Typ | Max | Unit | Notes |
| Storage temperature | -40 | | 85 | °C | |
| Operating Case Temperature | 0 | | 70 | °C | |
| Relative Humidity | 8 | | 80 | % | Non-condensing |
| Power Supply Voltage | 3.14 | 3.3 | 3.46 | V | |
| Power Supply Current | | | 100 | mA | |

| 4.2. General Specifications | | | | | |
|-----------------------------|-----|-----|-----|------|-------|
| Parameter | Min | Typ | Max | Unit | Notes |
| Data Rate | | 10 | | Gbps | |

| 4.3. High-speed Electrical Interface, Host to SFP+ | | | | | |
|--|-----|-----|------|------------------|--------------|
| Parameter | Min | Typ | Max | Unit | Notes |
| TD+, TD- Differential Input Voltage Swing | 250 | | 1200 | mV _{pp} | PECL |
| RD+, RD- Differential Output Voltage Swing | 185 | | 1000 | mV _{pp} | PECL |
| Tx Input Impedance | 90 | 100 | 110 | Ω | Differential |
| Rx Output Impedance | 90 | 100 | 100 | Ω | Differential |

5. Transceiver Electrical Pad Layout

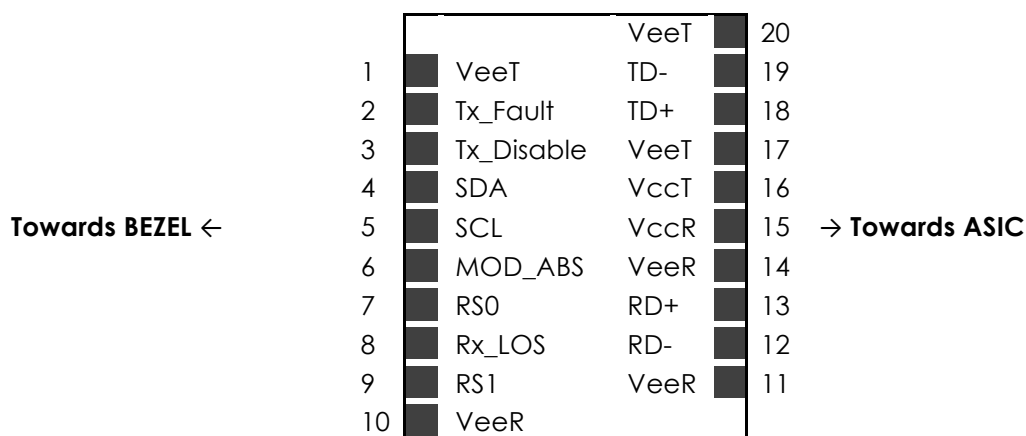


Figure 2. Transceiver Electrical Pad Layout

6. Pin Functions Definitions

| Pin Number | Name | Function |
|------------|------------|-------------------------------------|
| 1 | VeeT | Transmitter Ground |
| 2 | TX_Fault | Transmitter Fault Indication |
| 3 | TX_Disable | Transmitter Disable |
| 4 | SDA | 2-Wire Serial Interface Data (SDA) |
| 5 | SCL | 2-Wire Serial Interface Clock (SCL) |
| 6 | MOD_ABS | Function Not available |
| 7 | RS0 | Rate Select 0 grounded |
| 8 | Rx_LOS | Loss of signal |
| 9 | RS1 | Rate select 1 grounded |
| 10 | VeeR | Receiver Ground |
| 11 | VeeR | Receiver Ground |
| 12 | RD- | Inverted received data output |
| 13 | RD+ | Received data output |
| 14 | VeeR | Receiver Ground |
| 15 | VccR | Receiver Power |
| 16 | VccT | Transmitter Power |
| 17 | VeeT | Transmitter Ground |
| 18 | TD+ | Transmit data input |
| 19 | TD- | Inverted transmit data input |
| 20 | VeeT | Transmitter Ground |

7. EEPROM

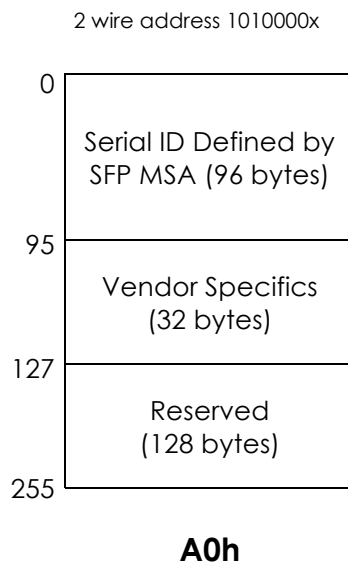


Figure 3. EEPROM of a SFP +

8. Ordering information

| Part Number | Description |
|---------------------|---|
| DAPSSC501000 | SFP+ to SFP+ Passive Attached Cable, Length: 50cm, 0 to 70°C |
| DAPSSM011000 | SFP+ to SFP+ Passive Attached Cable – Length: 1m, 0 to 70°C |
| DAPSSM021000 | SFP+ to SFP+ Passive Attached Cable – Length: 2m, 0 to 70°C |
| DAPSSM031000 | SFP+ to SFP+ Passive Attached Cable – Length: 3m, 0 to 70°C |
| DAPSSM051000 | SFP+ to SFP+ Passive Attached Cable – Length: 5m, 0 to 70°C |
| DAPSSM071000 | SFP+ to SFP+ Passive Attached Cable – Length: 7m, 0 to 70°C |

Skylane Optics® supplies a broad range of optical transceivers. Our engineers work closely with our customers to find the best solutions for every application. We are committed to provide high quality products and services to our customers.

For questions on this product please contact:
support@skylaneoptics.com

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