

## CAB-S-S-P-xxM

### 10.3Gb/s SFP+ Passive Cable

#### ■ Product Features

- ✓ Truly broadband - operates from 1 to 10.5 Gb/s
- ✓ Support hot-pluggable
- ✓ Available in lengths from 1m to 7m
- ✓ 360 degree cable braid crimp and enhanced EMI skirt
- ✓ Low insertion loss and low crosstalk
- ✓ Single 3.3V power supply
- ✓ RoHS Compliant and Lead-Free
- ✓ Compliant with SFF-8472 Rev 11.1
- ✓ Compliant with SFP+ MSA: SFF-8431 Rev4.1
- ✓ Wire/Cable Type Twinax



#### ■ Applications

- ✓ 1/10GbE
- ✓ 1/2/4/8x FC
- ✓ Infiniband 1X SDR DDR QDR
- ✓ Proprietary Interconnects

#### ■ General

Passive cables may require host pre-emphasis and equalization to reach at the longer lengths.

## ■ Product Selection

| Part Number    | Lengths | Conductor Size | Note |
|----------------|---------|----------------|------|
| CAB-S-S-P-01M  | 1m      | 24/28/30 AWG   | 1,2  |
| CAB-S-S-P-1.5M | 1.5m    | 24/28/30 AWG   | 1,2  |
| CAB-S-S-P-02M  | 2m      | 24/28/30 AWG   | 1,2  |
| CAB-S-S-P-2.5M | 2.5m    | 24/28/30 AWG   | 1,2  |
| CAB-S-S-P-03M  | 3m      | 24/28/30 AWG   | 1,2  |
| CAB-S-S-P-05M  | 5m      | 24/28 AWG      | 1,2  |
| CAB-S-S-P-07M  | 7m      | 24 AWG         | 1,2  |

### Note:

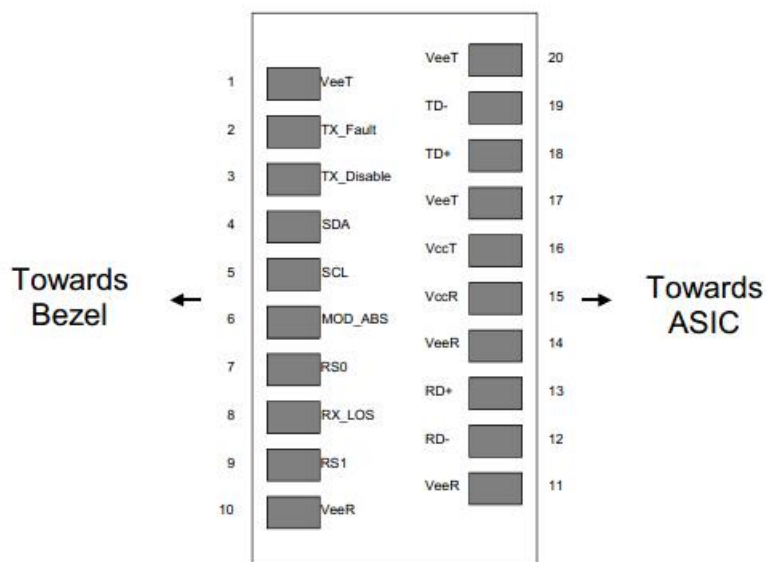
1, yy=30,28,24,present wire size AWG

2, 24 AWG is default

## ■ Pin Descriptions

| Pin | Symbol     | Name/Description   | Ref. |
|-----|------------|--|------|
| 1   | VeeT       | Transmitter Ground (Common with Receiver Ground)                             |      |
| 2   | TX Fault   | Transmitter Fault. LVTTTL-O  |      |
| 3   | TX Disable | Transmitter Disable. Laser output disabled on high or open.<br>LVTTTL-I      |      |
| 4   | SDA        | 2-Wire Serial Interface Data Line(Same as MOD-DEF2 in INF-8074i). LVTTTL-I/O |      |
| 5   | SCL        | 2-Wire Serial Interface Data Line(Same as MOD-DEF2 in INF-8074i). LVTTTL-I   |      |
| 6   | Mod_ABS    | Module Absent, Connect to VeeT or VeeR in Module.                            |      |
| 7   | RS0        | Rate Select 0, optionally controls SFP+ module receiver<br>LVTTTL-I          |      |

|    |      |  |  |
|----|------|--|--|
| 8  | LOS  | Loss of Signal indication. Logic 0 indicates normal operation.<br>LVTTTL-O |  |
| 9  | RS1  | Rate Select 1, optionally controls SFP+ module transmitter.<br>LVTTTL-I    |  |
| 10 | VeeR | Receiver Ground (Common with Transmitter Ground)                           |  |
| 11 | VeeR | Receiver Ground (Common with Transmitter Ground)                           |  |
| 12 | RD-  | Receiver Inverted DATA out. AC Coupled. CML-O                              |  |
| 13 | RD+  | Receiver Non-inverted DATA out. AC Coupled. CML-O                          |  |
| 14 | VeeR | Receiver Ground (Common with Transmitter Ground)                           |  |
| 15 | VccR | Receiver Power Supply  |  |
| 16 | VccT | Transmitter Power Supply   |  |
| 17 | VeeT | Transmitter Ground (Common with Receiver Ground)                           |  |
| 18 | TD+  | Transmitter Non-Inverted DATA in. AC Coupled. CML- I                       |  |
| 19 | TD-  | Transmitter Inverted DATA in. AC Coupled. CML- I                           |  |
| 20 | VeeT | Transmitter Ground (Common with Receiver Ground)                           |  |



## Pin-out of Connector Block on Host Board

### Absolute Maximum Ratings

| Parameter              | Symbol | Min  | Typ | Max  | Unit | Ref. |
|------------------------|--------|------|-----|------|------|------|
| Maximum Supply Voltage | Vcc    | -0.5 |     | +4.0 | V    |      |
| Storage Temperature    | TS     | -40  |     | +85  | °C   |      |
| Operating Humidity     | RH     | 0    |     | 85   | %    |      |

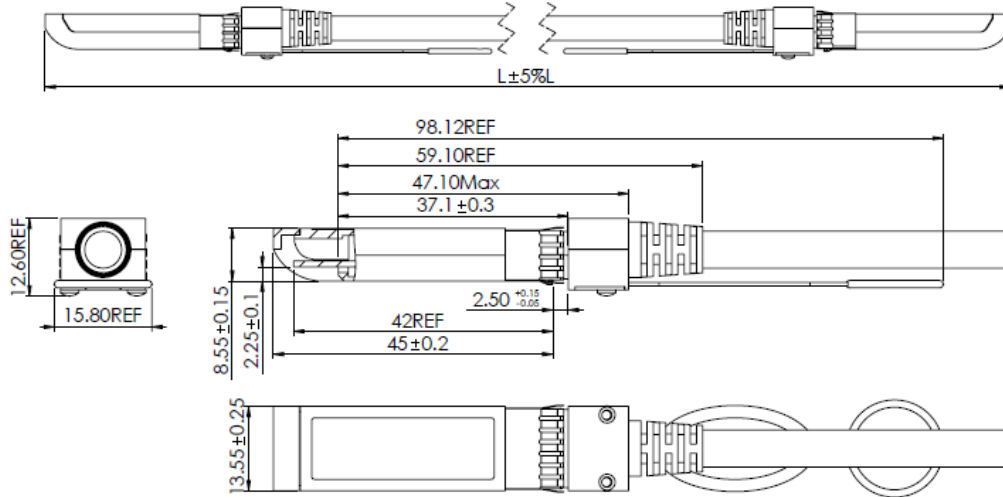
### Recommended Operating Conditions

| Parameter                  | Symbol | Min  | Typ  | Max   | Unit | Ref.     |
|----------------------------|--------|------|------|-------|------|----------|
| Power Supply Voltage       | Vcc    | 3.13 | 3.30 | 3.47  | V    |          |
| Power Supply Current       | Icc    |      |      | 120   | mA   | One side |
| Case Operating Temperature | Tc     | 0    |      | +70   | °C   |          |
| Data Rate, each Lane       |        |      |      | 10.5  | Gbps |          |
| Bit Error Rate             | BER    |      |      | 10-12 |      |          |

### Cable Specifications

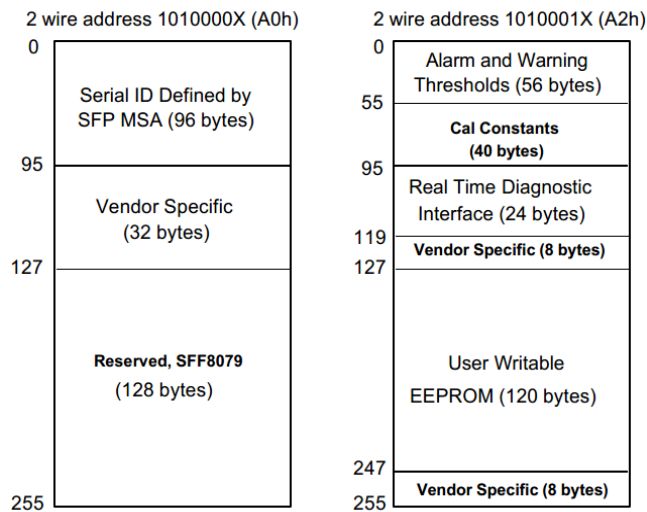
| Parameter                    | Symbol | Min | Typ | Max | Unit | Note |
|------------------------------|--------|-----|-----|-----|------|------|
| Cable Diameter(24AWG)        | DIA    |     | 6   |     | mm   |      |
| Cable Diameter(28AWG)        | DIA    |     | 4.7 |     | mm   |      |
| Cable Diameter(30AWG)        | DIA    |     | 4.5 |     | mm   |      |
| Time Delay Skew(Within Pair) | Tds    |     |     | 10  | ps/m |      |
| Cable Time Delay             | Td     |     | 4.3 |     | ns/m |      |
| Cable Impedance              | Z      | 90  | 100 | 110 | Ω    |      |

## ■ Mechanical Specifications



## ■ EEPROM Information

EEPROM memory map specific data field description is as below:



## ■ Regulatory Compliance

- ESD to the Electrical PINs: compatible with MIL-STD-883E Method 3015.7
- Immunity compatible with IEC 61000-4-3
- EMI compatible with FCC Part 15 Class B EN55022 Class B
- RoHS compliant with 2002/95/EC 4.1&4.2 2005/747/EC