



DATASHEET

JD096C-C

Product specifications



JD096C-C

10Gb/s SFP+ Passive Copper DAC 1.2m

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

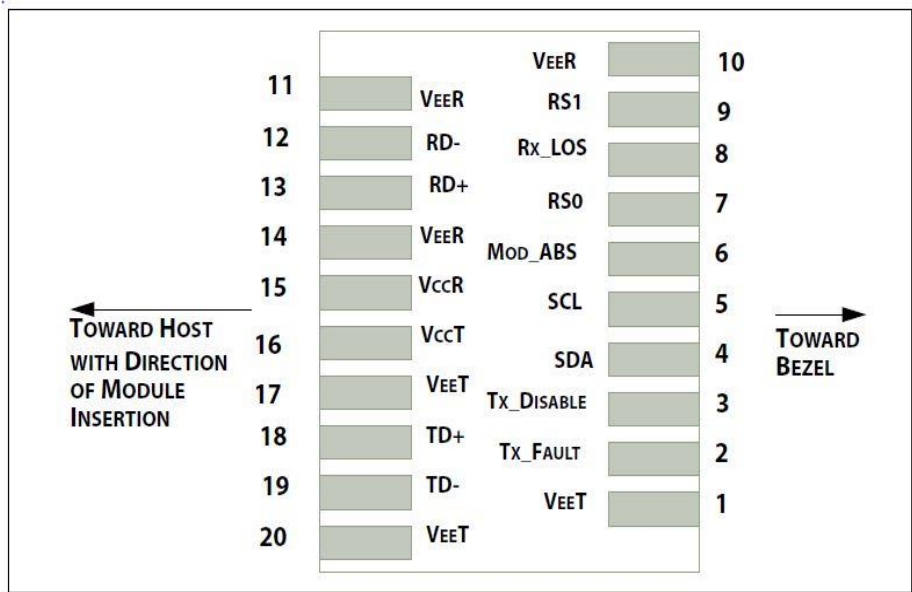
Applications

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

Comments:

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

Pin Assignment



Pin Descriptions

| Pin | Logic | Symbol | Name/Description | Note |
|-----|-----------|------------|---|------|
| 1 | | VeeT | Transmitter Ground ,Common with Receiver Ground in Module | |
| 2 | OC | TX Fault | N/A, pulled to VeeT in Module | |
| 3 | LVTTL-I | TX Disable | N/A, pulled to VccT with 4.7k to 10k ohm in Module | |
| 4 | LVTTL-I/O | SDA | 2-Wire Serial Interface Data Line(Same as MOD-DEF2 in INF-8074i). | |
| 5 | LVTTL-I | SCL | 2-Wire Serial Interface Data Line(Same as MOD-DEF2 in INF-8074i). | |
| 6 | | Mod_ABS | Module Absent, Connect to VeeT or VeeR in Module. | |
| 7 | LVTTL-I | RS0 | N/A | |
| 8 | LVTTL-O | LOS | N/A, pulled to VeeR in Module | |
| 9 | LVTTL-I | RS1 | N/A | |
| 10 | | VeeR | Receiver Ground | |
| 11 | | VeeR | Receiver Ground | |
| 12 | CML-O | RD- | Receiver Inverted DATA out, AC Coupled, | |
| 13 | CML-O | RD+ | Receiver Non-inverted DATA out, AC Coupled, | |
| 14 | | VeeR | Receiver Ground | |
| 15 | | VccR | Receiver Power Supply | |
| 16 | | VccT | Transmitter Power Supply | |
| 17 | | VeeT | Transmitter Ground | |
| 18 | CML-I | TD+ | Transmitter Non-Inverted DATA in. DC Coupled, | |
| 19 | CML-I | TD- | Transmitter Inverted DATA in. DC Coupled, | |
| 20 | | VeeT | Transmitter Ground | |

Absolute Maximum Ratings

| Parameter | Symbol | Min | Typ | Max | Unit | Note |
|------------------------|--------|------|-----|------|------|------|
| Maximum Supply Voltage | Vcc | -0.5 | | +4.0 | V | |
| Storage Temperature | TS | -40 | | +85 | °C | |
| Operating Humidity | RH | 5 | | 95 | % | |

Recommended Operating Conditions

| Parameter | Symbol | Min | Typ | Max | Unit | Note |
|----------------------------|--------|------|------|-------------------|------|------|
| Power Supply Voltage | Vcc | 3.13 | 3.30 | 3.47 | V | |
| Power Supply Current | Icc | | | 30 | mA | 1 |
| Case Operating Temperature | Tc | -5 | | +70 | °C | |
| Data Rate, each Lane | | | | 10.5 | Gbps | |
| Bit Error Rate | BER | | | 10 ⁻¹² | | |

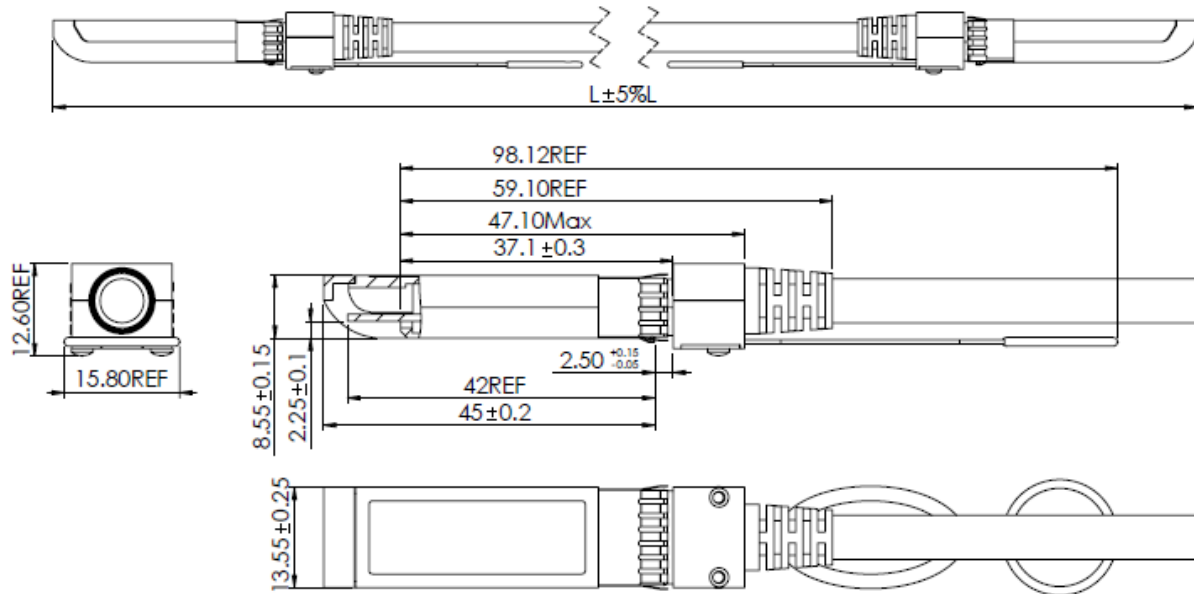
Note:

1, One end of the cable

Cable Specifications

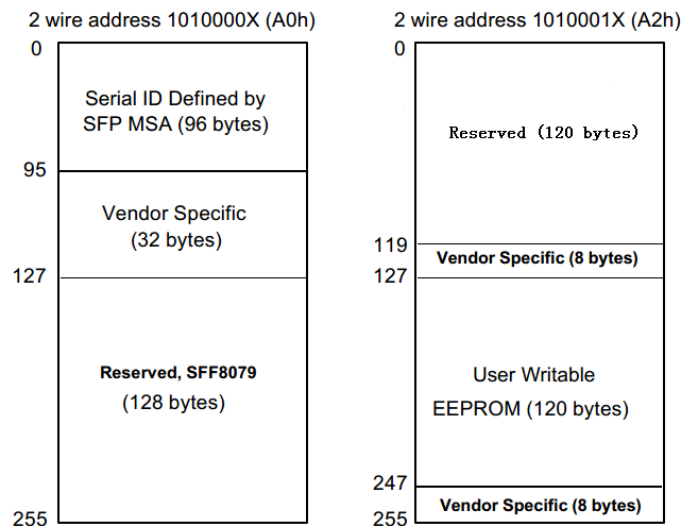
| Parameter | Symbol | Min | Typ | Max | Unit | Note |
|------------------------------|--------|-----|-----|-----|------|------|
| Cable Diameter(24AWG) | DIA | | 6 | | mm | |
| Cable Diameter(28AWG) | DIA | | 4.7 | | mm | |
| Cable Diameter(30AWG) | DIA | | 4.5 | | mm | |
| Time Delay Skew(Within Pair)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

Mechanical Specifications (nm)



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