

SFP-28G-AOC5M-PRO

MSA and TAA 25GBase-AOC SFP28 to SFP28 Active Optical Cable (850nm, MMF, 5m)

Features

- Hot-pluggable SFP28 form factor
- 850nm VCSEL laser and PIN photo-detector
- Supports 25Gbps data rate
- Single 3.3V power supply
- Power dissipation < 1W
- Internal CDR on both Transmitter and receiver channel
- Operating Case temperature: 0 to 70 Celsius
- Digital diagnostics functions are available via the I2C interface
- RoHS Compliant and Lead-Free



Applications:

- 25Gbase-SR Ethernet

Product Description

This is a MSA Compliant 25GBase-AOC SFP28 to SFP28 active optical cable that operates over active fiber with a maximum reach of 5m. It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. We stand behind the quality of our products and proudly offer a limited lifetime warranty. This cable is TAA (Trade Agreements Act) compliant and is built to comply with MSA (Multi-Source Agreement) standards.

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

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products.



General Specifications

| Parameter | Symbol | Min | Typ. | Max. | Unit |
|----------------------------|------------------|------|------|------|------|
| Storage Temperature | | -40 | | 85 | °C |
| Operating Case Temperature | T _c | 0 | | 70 | °C |
| Power Supply Voltage | V _{cc} | 3.13 | 3.3 | 3.47 | V |
| Supply Voltage | V _{cc} | 0 | | 3.6 | V |
| Storage Temperature | T _{stg} | -40 | | 85 | °C |
| Operating Humidity | | 5 | | 85 | % |

Optical Characteristics

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Notes |
|--------------------------------|---------------------|------|-------|------|-----------------|-------|
| Transmitter | | | | | | |
| Data Rate | BR | | 25.78 | | Gbps | |
| Centre Wavelength | λ _c | 840 | 850 | 860 | nm | |
| Spectral Width (-20dB) | σ | | | 0.6 | nm | |
| Average Output Power | P _{avg} | -8.4 | | 2.4 | dBm | |
| Optical Power OMA | P _{OMA} | -6.4 | | 3 | dBm | |
| Extinction Ratio | ER | 2 | | | dB | |
| Differential data input swing | V _{IN,PP} | 40 | | 1000 | mV | |
| Input Differential Impedance | Z _{IN} | 90 | 100 | 110 | Ω | |
| TX Disable | Disable | | 2.0 | | V _{cc} | V |
| | Enable | | 0 | | 0.8 | V |
| TX Fault | Fault | | 2.0 | | V _{cc} | V |
| | Normal | | 0 | | 0.8 | V |
| Receiver | | | | | | |
| Data Rate | BR | | 25.78 | | Gbps | |
| Centre Wavelength | λ _c | 840 | 850 | 860 | nm | |
| Receiver Sensitivity (OMA) | P _{sens} | | | -10 | dBm | |
| Stressed Sensitivity (OMA) | | | | -5.2 | dBm | |
| Receiver Power (OMA) | | | | 3 | dBm | |
| LOS De-Assert | LOS _D | | | -13 | dBm | |
| LOS Assert | LOS _A | -30 | | | dBm | |
| LOS Hysteresis | | 0.5 | | | dB | |
| Differential data output swing | V _{out,PP} | 500 | | 1130 | mV | |
| LOS | High | | 2.0 | | V _{cc} | V |
| | Low | | | 0.8 | V | V |

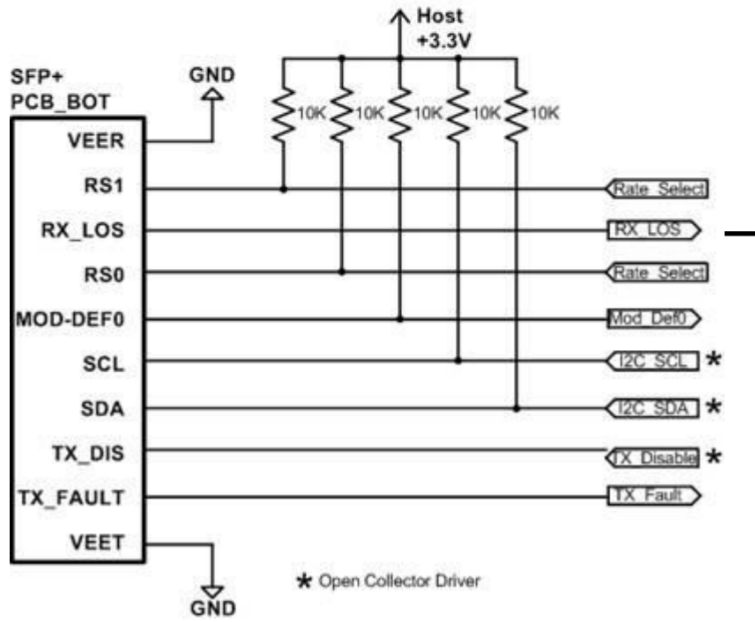
Pin Descriptions

| Pin | Logic | Symbol | Name/Description | Notes |
|-----|------------|----------|----------------------------------|-------|
| 1 | | VeeT | Transmitter Ground. | |
| 2 | LV-TTL-O | TX_Fault | N/A | 1 |
| 3 | LV-TTL-I | TX_DIS | Transmitter Disable. | |
| 4 | LV-TTL-I/O | SDA | 2-Wire Serial Data. | |
| 5 | LV-TTL-I | SCL | 2-Wire Serial Clock. | |
| 6 | | MOD_DEF0 | Module present, connect to VeeT. | |
| 7 | LV-TTL-I | RS0 | N/A | 1 |
| 8 | LV-TTL-O | LOS | LOS of Signal. | |
| 9 | LV-TTL-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 | Receiver Supply +3.3V. | |
| 16 | | VccT | Transmitter Supply +3.3V. | |
| 17 | | VeeT | Transmitter Ground. | |
| 18 | CML-I | TD+ | Transmitter Data Non-Inverted. | |
| 19 | CML_I | TD- | Transmitter Data Inverted. | |
| 20 | | VeeT | Transmitter Ground. | |

Note:

1. Signals not supported in SFP28 Copper pulled-down to VeeT with 30kΩ resistor.

Host Board



Mechanical Specification



About Us:

Proline Options is one of North America's leading providers of transceivers and high speed cabling. With a reputation for quality, tested products that cover the connectivity spectrum, Proline Options has a solution for you regardless of the specification.

At Proline Options, every product is tested in its intended application - never batch or spec tested only. We run bandwidth, distance and IOS network tests. We have documented an impressive 0.03% failure rate over the last 10 years. To continue this rate of success we invest millions annually in our own on-site testing lab.



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