

### X66240A-5-PRO

NetAPP<sup>®</sup> X66240A-5 Compatible TAA 25GBase-CU SFP28 to SFP28 Direct Attach Cable (Passive Twinax, 5m)

#### Features

- Up to 25Gbps bi-directional data links
- Hot-pluggable
- Compliant with SFF-8402
- 100 Ohm differential impedance
- Enhanced EMI design
- AC coupled inputs and outputs
- Operating Temperature: 0 to 70 Celsius
- Single power supply 3.3V
- RoHS Compliant and Lead-Free



Applications:

25GBase Ethernet

### **Product Description**

This is a NetAPP<sup>®</sup> X66240A-5 Compatible 25GBase-CU SFP28 to SFP28 direct attach cable that operates over passive copper 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.



Rev. 111423

## **General Specifications**

| Parameter             | Symbol | Min. | Тур. | Max.  | Unit  | Notes |
|-----------------------|--------|------|------|-------|-------|-------|
| Data Rate             | DR     |      | 25   |       | Gbps  | 1     |
| Bit Error Rate        | BER    |      |      | 10-12 |       |       |
| Operating Temperature | Тс     | 0    |      | 70    | °C    | 2     |
| Storage Temperature   | Tstg   | -40  |      | 85    | °C    | 3     |
| Supply Current        | Icc    |      |      | 4     | mA    | 4     |
| Input Voltage         | Vcc    | 3.14 | 3.3  | 3.46  | V     | 4     |
| Cable Impedance       | Z      | 90   | 100  | 110   | Ω     |       |
| Product Weight        | GD     |      | 90   |       | g/PCS | 5     |
| Cable Weight          | GC     |      | 44   |       | G/M   |       |
| Dust Cap Weight       | GS     |      | 0.80 |       | g/PCS |       |

### Notes:

- 1. IEEE 802.3by.
- 2. Case temperature.
- 3. Ambient temperature.
- 4. For electrical power interface.

## **Cable Dimensions and Insertion Loss Level**

| Length | Standard Wire | Cable Diameter OD | Minimum Bending | Insertion Loss Level | Tolerance Range |
|--------|---------------|-------------------|-----------------|----------------------|-----------------|
|        | Gauge AWG     | (mm)              | Radius R (mm)   | (Note 1)             | (±cm)           |
| 5m     | 26AWG         | 5.6               | 30              | CA-25G-L             | 6               |

## Notes:

1. Cable insertion loss classification standard IEEE 802.3by 110-10.

# **Pin Descriptions**

| Pin Symbol Name/Description |            | Name/Description   | Notes |  |  |
|-----------------------------|------------|--|-------|--|--|
| 1                           | VeeT       | Transmitter Ground (Common with Receiver Ground).                                  |       |  |  |
| 2                           | Tx_Fault   | Transmitter Failure Alarm. Not Used.   |       |  |  |
| 3                           | Tx_Disable | Not Used. The signal turns off the module transmitter when it is "high" or "open." |       |  |  |
| 4                           | SDA        | Data Line for Serial ID.   |       |  |  |
| 5                           | SCL        | Clock Line for Serial ID.  |       |  |  |
| 6                           | MOD_ABS    | Module Absent. Grounded within the module.   |       |  |  |
| 7                           | RSO        | No Connection Required.  |       |  |  |
| 8                           | LOS        | Loss of Signal Indication. "Logic 0" indicates normal operation.                   |       |  |  |
| 9                           | RS1        | No Connection Required.  |       |  |  |
| 10                          | VeeR       | Receiver Ground (Common with Transmitter Ground).                                  |       |  |  |
| 11                          | VeeR       | Receiver Ground (Common with Transmitter Ground).                                  |       |  |  |
| 12                          | RD-        | Receiver Inverted Data Out. AC Coupled.  |       |  |  |
| 13                          | RD+        | Receiver Non-Inverted Data Out. AC Coupled.  |       |  |  |
| 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.                                      |       |  |  |
| 19                          | TD-        | Transmitter Inverted Data In. AC Coupled.  |       |  |  |
| 20                          | VeeT       | Transmitter Ground (Common with Receiver Ground).                                  | 1     |  |  |

### Notes:

- 1. The circuit ground is isolated from the chassis ground.
- 2. Should be pulled up with  $4.7k\Omega$  to  $10k\Omega$  on the host board to a voltage between 2V and 3.6V.

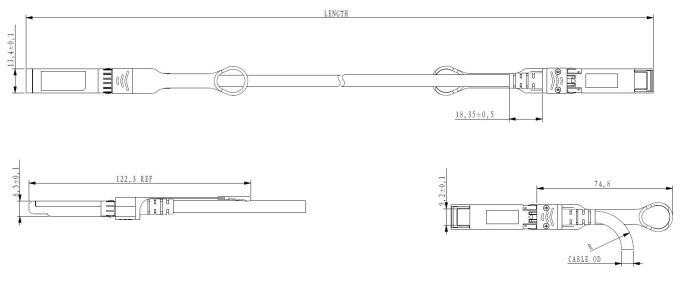
#### **Electrical Pad Layout**



## **Block Diagram of Transceiver**



# **Mechanical Specifications**



Unmarked Tolerance <u>+</u>0.2 Unit: mm

### 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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