

## Features

- SFF-8431 Compliant
- Broadband serial data rate up to 10 Gbps
- Power Level I: 15 mW per cable
- 100 Ohm differential impedance
- Retractable pin latch
- EEPROM signature
- Pull to Release latch design
- 360° cable braid crimp
- Enhanced EMI skirt design
- Color options for strain relief and pull tab
- Linear design for use with EDCs
- AC-coupled inputs and outputs
- 30AWG to 24AWG cable available



## Applications

- 10 Gigabit Ethernet and Gigabit Ethernet (IEEE 802.3ae)
- Fiber Channel: 1, 2, 4, 8, and 10GFC
- Infiniband SDR, DDR, and QDR
- Fiber Channel over Ethernet (FCoE)
- Serial data transmission

## 1. Recommended Operation Conditions (Electrical)

| Parameter               | Symbol                                 | Minimum | Typical | Max     | Unit  |
|-------------------------|--|---------|---------|---------|-------|
| Operating Temp.         |  | 0       |         | 70      | °C    |
| Input Voltage           | V <sub>ccT</sub> ,<br>V <sub>ccR</sub> | 1.8     | 3.3     | 5.5     | Volts |
| Clock Frequency         | f <sub>SCL</sub>                       |         |         | 400     | kHz   |
| Maximum Power           |  |         |         | 15      | mW    |
| Maximum Average Current | I <sub>cc</sub>                        |         |         | 4       | mA    |
| Data Rate               |  | 0.010   |         | 10.3125 | Gbps  |

## 2. WDP Specifications

| Cable Gauge | Cable Length | WDPO (dB) | WDPI (dB) | dWDP |
|-------------|--------------|-----------|-----------|------|
| Spec Limit  | --           | --        | --        | 6.75 |
| 30 AWG      | 3 meter      | 6.16      | 2.4       | 3.76 |
| 28 AWG      | 5 meter      | 7.49      | 2.4       | 5.09 |
| 24 AWG      | 7 meter      | 7.44      | 2.4       | 5.04 |

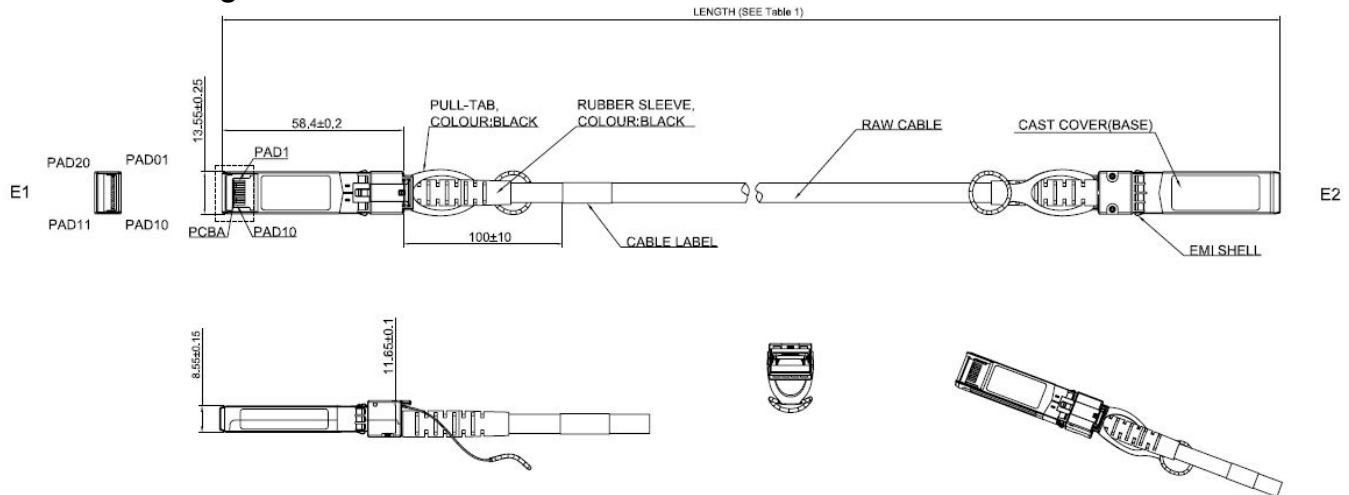
## 3. Time Domain

| Item | Test Parameter             | Specification (Proposal )   |
|------|----------------------------|---|
| 1    | Intra-Skew*                | 30 ps Max   |
| 2    | Impedance                  | 100 +/- 10 Ohm  |
| 3    | Insertion Loss*<br>(SDD21) | a. 0.6GHz : -1.5 dB Max<br>b. 1.25GHz : -2.15 dB Max<br>c. 2.50GHz : -3.22 dB Max<br>d. 3.25GHz : -3.95dB Max<br>e. 5.0GHz : -5.52 dB Max |

## 4. Mechanical Specifications

| Parameter                      | Minimum | Typical | Maximum | Unit   |
|--------------------------------|---------|---------|---------|--------|
| Cable Diameter (24 AWG)        |         | 0.255   |         | Inches |
| Bend Radius (24 AWG)           | 1.25    |         |         | Inches |
| Cable Diameter (28 AWG)        |         | 0.185   |         | Inches |
| Bend Radius (28AWG)            | 0.8     |         |         | Inches |
| Cable Diameter (30 AWG)        |         | 0.175   |         | Inches |
| Bend Radius (30 AWG)           | 0.7     |         |         | Inches |
| Within Pair Skew               |         |         | 120     | ps/10m |
| Cable Insertion Loss           |         | 10 d    |         | B/10m  |
| Bulk Cable Crosstalk           |         |         | 1       | %      |
| Bulk Cable Time Delay          |         |         | 4.3     | ns/m   |
| Cable Capacitance (intra-pair) |         |         | 43      | pF/m   |
| Bulk Cable Impedance           | 95      | 100     | 105     | Ohms   |

## 5. Mechanical Diagram



**Note:** External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.

## 6. Ordering Information

Our 10GBase SFP+ Multi-vendor passive DAC cables come in varying lengths and OEM connection options. To build the perfect fit for you, please view how to create your part number below.

Example:

For a **Brocade** to **Cisco** DAC measuring the length of **1m**, the part number would be as follows:  
SFP10G-**BRCS**-CU-**1M**.

Please note that OEM abbreviations should be listed in alphabetical order.

| Sample                           | OEM      | OEM Abbreviations | Length <L> |
|----------------------------------|----------|-------------------|------------|
| <b>SFP10G-XXXX-CU-&lt;L&gt;M</b> | Arista   | AN                | 0.5m       |
|                                  | Brocade  | BR                | 1m         |
|                                  | Cisco    | CS                | 1.5m       |
|                                  | Dell     | DF                | 2m         |
|                                  | Intel    | IN                | 2.5m       |
|                                  | Juniper  | JN                | 3m         |
|                                  | Mellanox | MX                | 5m         |
|                                  | MSA      | MS                | -          |

## 7. Contact Information

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