

#### 10G-SFPP-TWX-1001-PRO

Brocade® (Formerly) 10G-SFPP-TWX-1001 Compatible TAA 10GBase-CU SFP+ to SFP+ Direct Attach Cable (Active Twinax, 10m, 28AWG)

#### **Features**

- Up to 10Gbps bi-directional data links
- Industry Standard small form pluggable
- Dual SFP Connectors
- Single Power Supply 3.3V
- Operating Temperature: 0 to 70 Celsius
- Hot Pluggable
- RoHS Compliant and Lead-Free



## **Applications:**

- 10G Ethernet
- 10G Fibre Channel

### **Product Description**

This is a Brocade® (Formerly) 10G-SFPP-TWX-1001 Compatible 10GBase-CU SFP+ to SFP+ direct attach cable that operates over active copper with a maximum reach of 10m. 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	Тур.	Max.	Unit	Notes
Data Rate	DR		10.3125		Gbps	1
Bit Error Rate	BER			10-12		
Operating Case Temperature	Тс	0		70	°C	2
Storage Temperature	Tstg	-40		85	°C	3
Input Voltage	Vcc	3.14	3.3	3.46	V	4
Supply Current	Icc		100	300	mA	4
Cable Impedance	Z	90	100	110	Ω	
Product Weight	GD		88		g/PCS	
Cable Weight	GC		42		G/M	
Dust Cap Weight	GS		0.80		g/PCS	
Wire Gauge			28		AWG	
Tolerance Range			8		±cm	

## Notes:

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

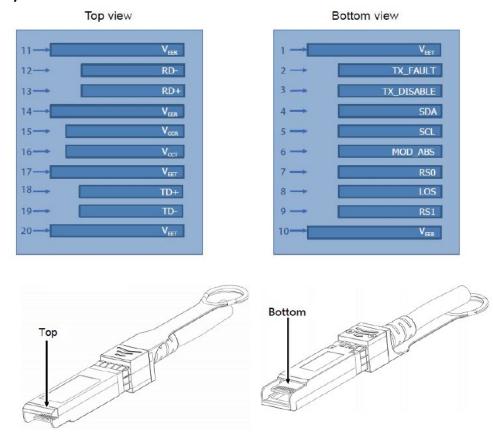
# **Pin Descriptions**

Pin	Symbol	Name/Description	Notes
1	VeeT	Transmitter ground. Common with receiver ground.	1
2	Tx_Fault	Transmitter Fault.	
3	Tx_Disable	Transmitter Disable. Laser output disabled on "high" or "open."	2
4	SDA	Data line for Serial ID.	3
5	SCL	Clock line for Serial ID.	3
6	MOD_ABS	Module absent. Grounded within the module.	3
7	RS0	No connection required.	
8	LOS	Loss of Signal. Logic 0 indicated normal operation.	4
9	RS1	No connection required.	
10	VeeR	Receiver ground. Common with transmitter ground.	1
11	VeeR	Receiver ground. Common with transmitter ground.	1
12	RD-	Receiver Inverted DATA out. AC coupled.	
13	RD+	Receiver Non0inverted DATA out. AC coupled.	
14	VeeR	Receiver ground. Common with transmitter ground.	1
15	VccR	Receiver power supply.	
16	VccT	Transmitter power supply.	
17	VeeT	Transmitter ground. Common with receiver ground.	1
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

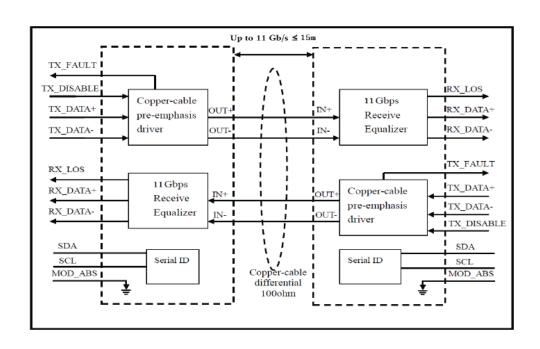
## Notes:

- 1. Circuit ground is isolated from chassis ground.
- 2. Disabled: Tdis>2V or open, Enabled Tdis<0.8V.
- 3. Should be pulled up with  $4.7k\Omega-10k\Omega$  on host board to a voltage between 2V and 3.6V.
- 4. LOS is open collector output.

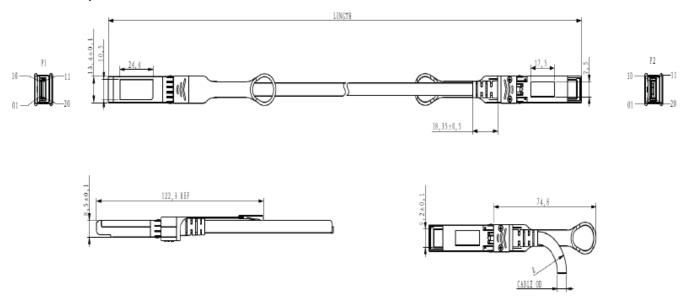
### **Electrical Pad Layout**



# **Block Diagram**



# **Mechanical Specifications**



### **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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