

### 10G-SFPP-TWX-0508-C

Ruckus Brocade® Compatible 10Gb/s SFP+ Direct Attach
Cable Copper, Active, 5m

#### **FEATURES**

- Available lengths 1m to 15m
- Supports multi-gigabit data rates up to 10.5Gb/s
- Supports 1x, 2x, 4x and 8x Fibre Channel data rates
- Hot-pluggable SFP 20PIN footprint
- I/O Connector designed for high-speed differential signal applications
- EMI/EMC performance
- Low Power Consumption < 0.5W
- Power Supply: +3.3V
- Compliant to SFP+ MSA
- Temperature Range: 0~ 70 °C
- ROHS

#### **APPLICATIONS**

- Storage Area Networks (SAN), Network Attached Storage and Storage Servers
- 1G/2G/4G/8G Fibre Channel
- High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers
- Switched fabric I/O such as ultra-high bandwidth switches and routers
- Data centre cabling infrastructure
- High density connections between networking equipment

#### **DESCRIPTION**

ATGBICS® Compatible 10G-SFPP-TWX-0508-C SFP+ Active Copper Cable assemblies are high-performance, cost effective I/O solutions for 10Gb/s Ethernet and 10G Fiber Channel applications. SFP+ Active copper modules allow hardware manufacturers to achieve high port density, configurability and utilization at a very low cost and to reduce power budget. The high-speed cable assemblies meet and exceed the performance and reliability requirements stipulated by Gigabit Ethernet and Fiber Channel industry standard.



#### **Recommended Operating Environment:**

Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+85	0
Operating Case Temperature	Tc	0		+70	0
Power Supply Voltage	VCC	3.14	3.3	3.47	V
Power Dissipation	PD			0.5	W

#### **Systems**

Performance	Media
10.5 Gb/s line speed, full duplex	Hot-pluggable, industry-standard Small Form-Factor
Bit error rate: better than 10E-12	

#### Specifications (Tested under recommended operating conditions, unless otherwise noted)

Parameter	Symbol	Min	Туре	Max	Units	Notes
Electrical characteristics						
Supply Current	Icc	-	-	100	mA	1
Transmitter Differential Input Voltage (PECL)	VIN	250	-	1200	mVpp	
Receiver Differential Output Voltage (PECL)	VO	185	-	1000	mVpp	
Impedance	Zcable	90	100	110	Ohms	
MOD-DEF1, 2	VIH	2.0	-	Vcc	V	

#### Note:

1. The supply current includes SFP Module's supply current and test board working current.



#### **Physical Data**

Parameter	Description	30AWG	24AWG	Units
Cable Diameter	OD	4.5	6.5	mm
Bend Radius	Minimum Sustained Bend	25	35	mm

#### **AWG Information**

Reach @ 10Gb/s (m)	AWG
7	28
10	28
12	24
15	24



#### **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	2
4	LV-TTL-I/O	SDA	Tow Wire Serial Data	
5	LV-TTL-I	SCL	Tow 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	2
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	



#### **Mechanical Information**

