EX-SFP-10GE-DAC-4M-C JUNIPER NETWORKS 10GBASE-CU SFP+ DAC PASSIVE TWINAX, 4M



#### EX-SFP-10GE-DAC-4M-C

Juniper Networks® Compatible TAA Compliant 10GBase-CU SFP+ Direct Attach Cable (Passive Twinax, 4m)

### **Features**

- Support for multi-gigabit data rates up to 10 Gb/s
- Data rates backward compatible to 1 Gb/s
- Hot-Pluggable SFP 20PIN footprint
- Wire Gauge: 30AWG
- Improved Pluggable Form Factor (IPF)
   compliant for enhanced EMI/EMC performance
- Compatible to SFP+ MSA
- Compatible to SFF-8431, SFF-8432
- Temperature Range: 0~70°C
- RoHS Compatible



- 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 center cabling infrastructure
- High density connections between networking equipment

### **Product Description**

This is a Juniper Networks® compatible 10GBase-CU SFP+ to SFP+ direct attach cable that operates over passive copper with a maximum reach of 4.0m (13.1ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This direct attach cable is TAA (Trade Agreements Act) compliant, and is built to comply with MSA (Multi-Source Agreement) standards. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

ProLabs' direct attach cables 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.





# **Regulatory Compliance**

- ESD to the Electrical PINs: compatible with MIL-STD-883 Method 3015.
- ESD to the Duplex LC Receptacle: compatible with IEC 61000-4-2.
- Immunity compatible with IEC 61000-4-3.
- EMI compatible with FCC Part 15 Class B EN55022 Class B (CISPR 22B) VCCI Class B.
- Laser Eye Safety compatible with FDA 21CFR 1040.10 and 1040.11 EN60950, EN (IEC) 60825-1,2.
- RoHs compliant with 2002/95/EC 4.1&4.2 2005/747/EC.

## **Recommended Operating Conditions**

Parameter	Symbol	Min	Тур.	Max.	Unit
Storage Temperature		-40		85	°C
Operating Case Temperature	Тс	0		70	°C

### **Systems**

Parameter	Media
10 Gb/s line speed, full duplex Bit error rate: better than 10E-12	Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP+) copper cable, available as 7m.

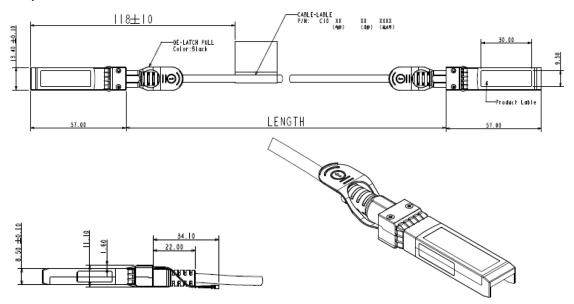
# **Pin Descriptions**

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	

## Notes:

- 1. Signals not supported in SFP+ Copper pulled-down to VeeT with 30K ohms resistor
- 2. Passive Cable assemblies do not support LOS and TX\_DIS

# **Mechanical Specification**



### **About ProLabs**

Our experience comes as standard; for over 15 years ProLabs has delivered optical connectivity solutions that give our customers freedom and choice through our ability to provide seamless interoperability. At the heart of our company is the ability to provide state-of-the-art optical transport and connectivity solutions that are compatible with over 90 optical switching and transport platforms.

### **Complete Portfolio of Network Solutions**

ProLabs is focused on innovations in optical transport and connectivity. The combination of our knowledge of optics and networking equipment enables ProLabs to be your single source for optical transport and connectivity solutions from 100Mb to 400G while providing innovative solutions that increase network efficiency. We provide the optical connectivity expertise that is compatible with and enhances your switching and transport equipment.

#### **Trusted Partner**

Customer service is our number one value. ProLabs has invested in people, labs and manufacturing capacity to ensure that you get immediate answers to your questions and compatible product when needed. With Engineering and Manufacturing offices in the U.K. and U.S. augmented by field offices throughout the U.S., U.K. and Asia, ProLabs is able to be our customers best advocate 24 hours a day.

#### **Contact Information**

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