

# 10Gbps SFP+ Passive Copper Cable

## SFP+-DAC

#### **Features**

- · Support for multi-gigabit data rates up to 10.5Gbps
- Data rates backward compatible to 1Gbps
- Hot-pluggable SFP 20PIN footprint
- I/O Connector designed for high speed differential signal applications
- Improved Pluggable Form Factor(IPF) compliant for enhanced EMI/EMC performance
- · Compatible to SFP+ MSA
- Temperature Range: 0~ 70 °C
- · Comply with RoHS



### **Applications**

- 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

#### **Description**

The SFP+ passive cable assemblies are high performance, cost effective I/O solutions for 10G Ethernet and 10G Fiber Channel applications. SFP+ copper modules allow hardware manufactures to achieve high port density, configurability and utilization at a very low cast and reduced power budget. The high speed cable assemblies meet and exceed Gigabit Ethernet and Fiber Channel industry standard requirements for performance and reliability.



**Recommended Operating Conditions** 

Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+85	°C
Operating Case Temperature	Tc	0		+70	°C

**Systems** 

Performance	Media	
10.5 Gbps line speed, full duplex Bit error	Hot-pluggable, industry-standard Small Form-Factor Pluggable(SFP+)	
rate: better than 10E-12	copper cable, available as 1m,3m or 5m.	

**Pin Descriptions** 

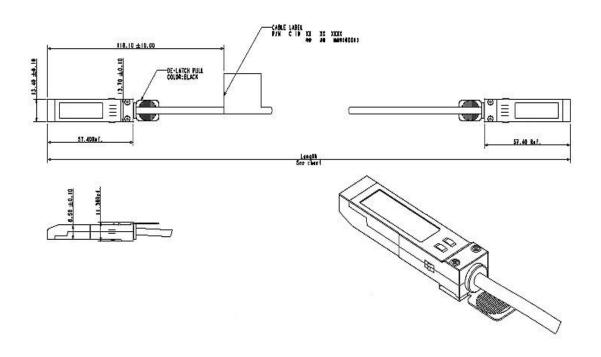
Pin	Logic	Symbol	Name/Description	Notes
1		VeeT	Transmitter Ground	
2	LV-TTL-O	TX_Fault	N/A	
3	LV-TTL-I	TX_DIS	Transmitter Disable	2
4	LV-TTL-I/O	SDA	Tow Wire Serial Data	
5	LV-TTL-I	SCL	Tow Wire Serial Clock	
6		MOD_DEF0	Module present, connect to VeeT	
7	LV-TTL-I	RS0	N/A	1
8	LV-TTL-O	LOS	LOS of Signal	2
9	LV-TTL-I	RS1	N/A	1
10		VeeR	Reciever Ground	
11		VeeR	Reciever Ground	
12	CML-O	RD-	Reciever Data Inverted	
13	CML-O	RD+	Reciever Data Non-Inverted	
14		VeeR	Reciever Ground	
15		VccR	Reciever 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	

#### Note:

- 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 Dimensions**



## **Ordering information**

Part Number	Product Description	
OPT-SFP+-DAC-30-P1	1 meter 10G SFP+ Passive Copper Cable 30AWG	
OPT-SFP+-DAC-30-P1.5	1.5 meter 10 GSFP+ Passive Copper Cable 30AWG	
OPT-SFP+-DAC-30-P2	2 meter 10G SFP+ Passive Copper Cable 30AWG	
OPT-SFP+-DAC-30-P3	3 meter 10G SFP+ Passive Copper Cable 30AWG	
OPT-SFP+-DAC-24-P3	3 meter 10G SFP+ Passive Copper Cable 24AWG	
OPT-SFP+-DAC-24-P5	5 meter 10G SFP+ Passive Copper Cable 24AWG	
OPT-SFP+-DAC-24-P7	7 meter 10G SFP+ Passive Copper Cable 24AWG	
OPT-SFP+-DAC-24-P10	10 meter 10G SFP+ Passive Copper Cable 24AWG	



### **Important Notice**

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by OPTONE before they become applicable to any particular order or contract. In accordance with the OPTONE policy of continuous improvement specifications may change without notice.

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