



ESPCAP92-330CXX

10G SFP+ to 10G SFP+ Direct Attach Passive Copper Cables

Features

- Support for multi-gigabit data rates up to 10Gb/s
- Data rates backward compatible to 1Gb/s
- Hot-pluggable SFP 20PIN footprint
- Improved Pluggable Form Factor (IPF) compliant for enhanced EMI/EMC performance
- Low Power Consumption < 0.2W
- Power Supply :+3.3V
- Compatible to SFP+ MSA
- Compatible to SFF-8431, SFF8432
- Temperature Range: 0~ 70 °C
- RoHS Compatible

Applications

- High Passive 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 10Gb Ethernet and 10G Fiber Channel applications. SFP+ copper modules allow hardware manufactures to achieve high port density, configurability and utilization at a very low cost 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
Power Supply Voltage	Vcc3	3.14	3.3	3.47	V
Power Dissipation	PD			0.2	W



Systems

Performance	Media	Operating parameters
10.5Gbps line speed, full duplex Bit error rate: better than 10E-12	Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP+) copper cable, available as 1m,3m or 5m.	Supply voltage: 3.3V Power consumption(per end): max 0.2W

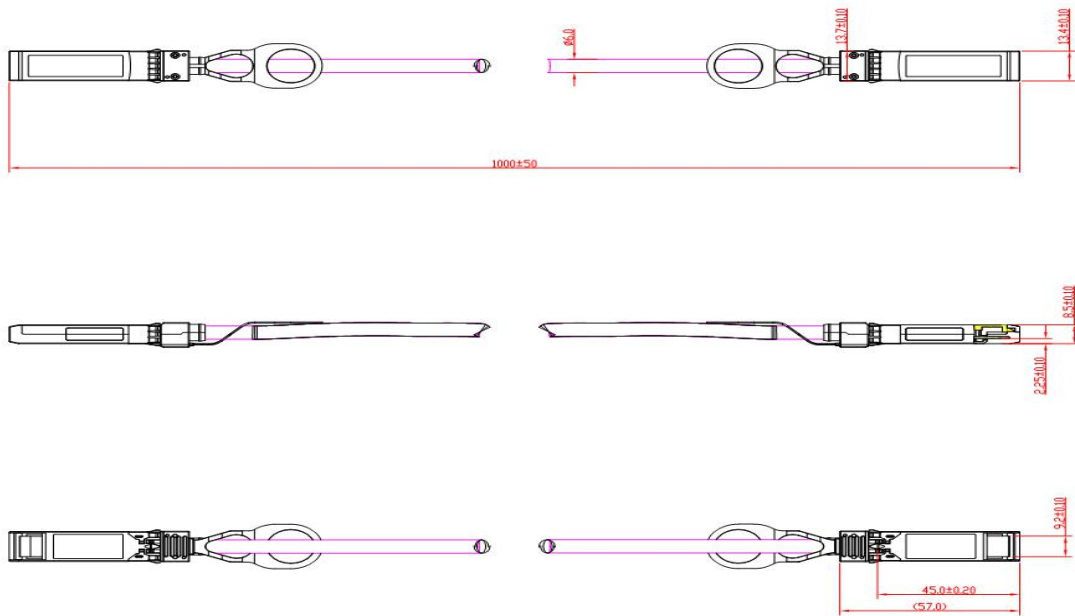
Pin Descriptions

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	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	

- 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



Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by company before they become applicable to any particular order or contract. In accordance with company policy of continuous improvement specifications may change without notice. The publication of information in this data sheet does not imply freedom from patent or other protective rights of company or others. Further details are available from any company sales representative.

Ordering information

Part Number	ESPCAP92-324CXX														
Length (meter)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Wire gauge (AWG)	30	30	30	24	24	24	24	24	24	24	24	24	24	24	24

Regulatory Compliance

Feature	Reference	Performance
Electrostatic discharge (ESD)	IEC/EN 61000-4-2	Compatible with standards
Electromagnetic Interference (EMI)	FCC Part 15 Class B EN 55022 Class B (CISPR 22A)	Compatible with standards
Laser Eye Safety	FDA 21CFR 1040.10, 1040.11 IEC/EN 60825-1, 2	Class 1 laser product
Component Recognition	IEC/EN 60950, UL	Compatible with standards
ROHS	2002/95/EC	Compatible with standards
EMC	EN61000-3	Compatible with standards