
10G SFP+ Active Copper Cable

Features

- Support for multi-gigabit data rates up to 10.5Gbps
- Data rates backward compatible to 1Gbps
- Support for 1x, 2x, 4x and 8x Fibre Channel data rates
- Hot-pluggable SFP 20PIN footprint
- I/O Connector designed for high speed differential signal applications
- Improved Pluggable FormFactor(IPF) compliant for enhanced EMI/EMC performance
- Low Power Consumption < 0.5W
- Power Supply :+3.3V
- Compatible to SFP+ MSA
- Temperature Range: 0~ 70 °C
- RoHS Compatible



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+ active 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 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
Power Supply Voltage	Vcc3	3.14	3.3	3.47	V
Power Dissipation	PD			0.5	W

Systems

Performance	Media	Operating parameters
10.5 Gpbs line speed, full duplex Bit error rate: better than 10E-12	Hot-pluggable, industry-standard Small Form-Factor Pluggable(SFP+) copper cable, available max 10m	Supply voltage: 3.3V Power consumption(per end): max 0.5W

Pin Descriptions

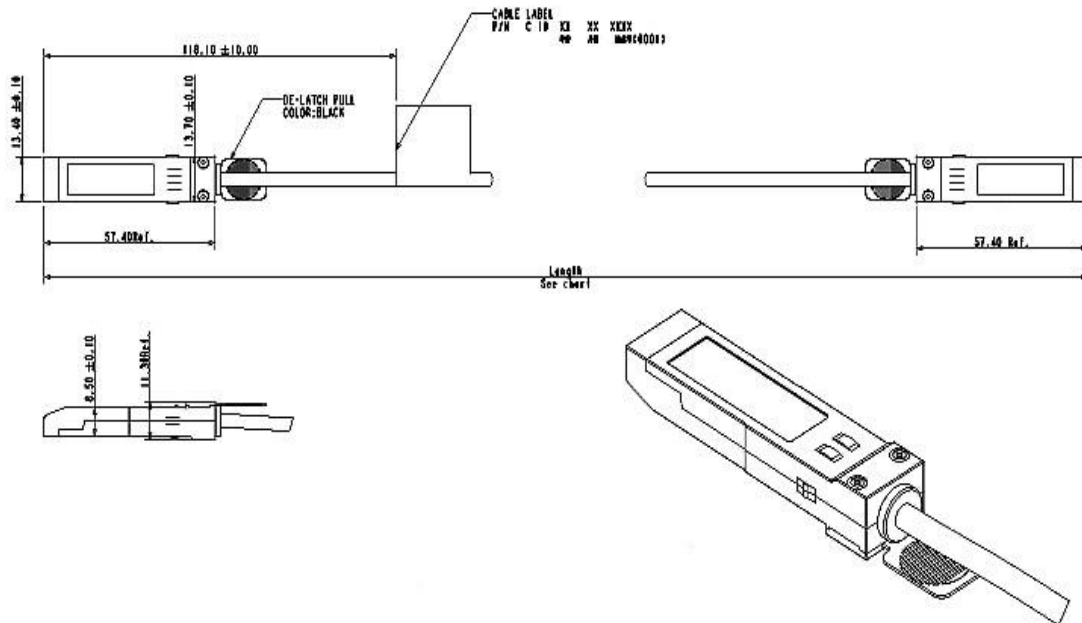
Pin	Logic	Symbol	Name/Description	Notes
1		VeeT	Transmitter Ground	
2	LV-TTL-O	TX_Fault	N/A	1
3	LV-TTL-I	TX_DIS	Transmitter Disable	
4	LV-TTL-I/O	SDA	Tow Wire Serial Data	
5	LV-TTL-I	SCL	Tow Wire Serial Clock	
6		MOD_DEF0	Module present, connect to VeeT	
7	LV-TTL-I	RS0	N/A	1
8	LV-TTL-O	LOS	LOS of Signal	
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

Mechanical Dimensions



Ordering information

Part Number	Product Description
TS-SFP+-DAC-30-A1	1 meter 10G SFP+ Active Copper Cable 30AWG
TS-SFP+-DAC-30-A1.5	1.5 meter 10 GSFP+ Active Copper Cable 30AWG
TS-SFP+-DAC-30-A2	2 meter 10G SFP+ Active Copper Cable 30AWG
TS-SFP+-DAC-30-A3	3 meter 10G SFP+ Active Copper Cable 30AWG
TS-SFP+-DAC-24-A3	3 meter 10G SFP+ Active Copper Cable 24AWG
TS-SFP+-DAC-24-A5	5 meter 10G SFP+ Active Copper Cable 24AWG



DAC Cable Series

TS-SFP+-DAC-24-A7	7 meter 10G SFP+ Active Copper Cable 24AWG
TS-SFP+-DAC-24-A10	10 meter 10G SFP+ Active 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 TONGSION before they become applicable to any particular order or contract. In accordance with the TONGSION policy of continuous improvement specifications may change without notice.

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