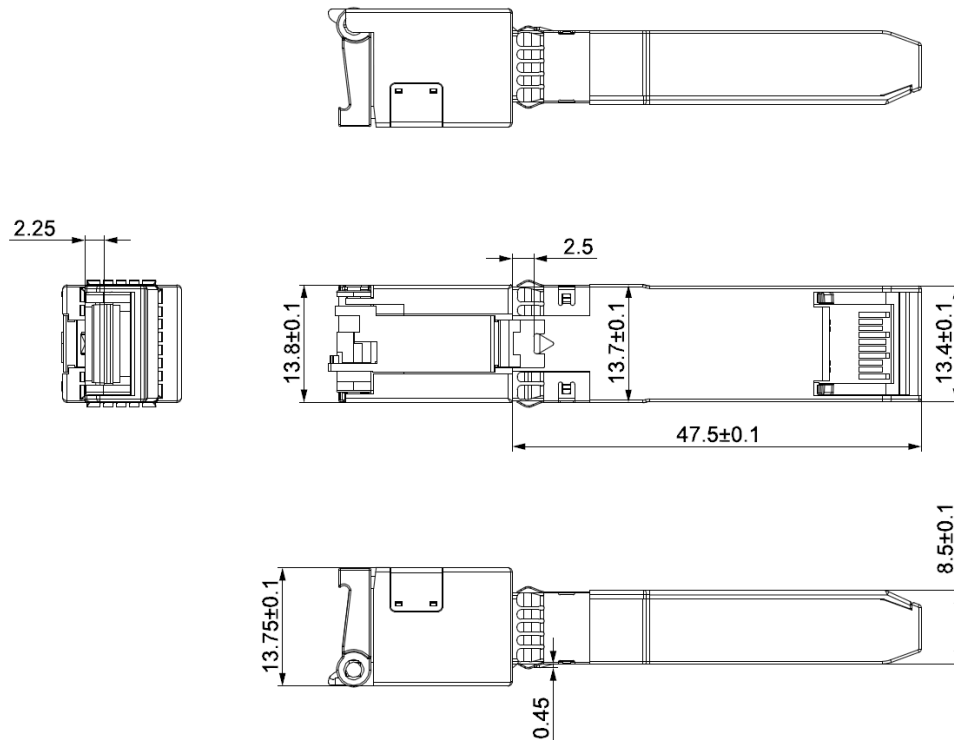


# Transceiver Module

Spec Sheet

10GBase-T Copper SFP+ Transceiver

## CTPD-SFP-10GF



Application: 10 Gigabit Ethernet over Cat 6A/7 Cable.

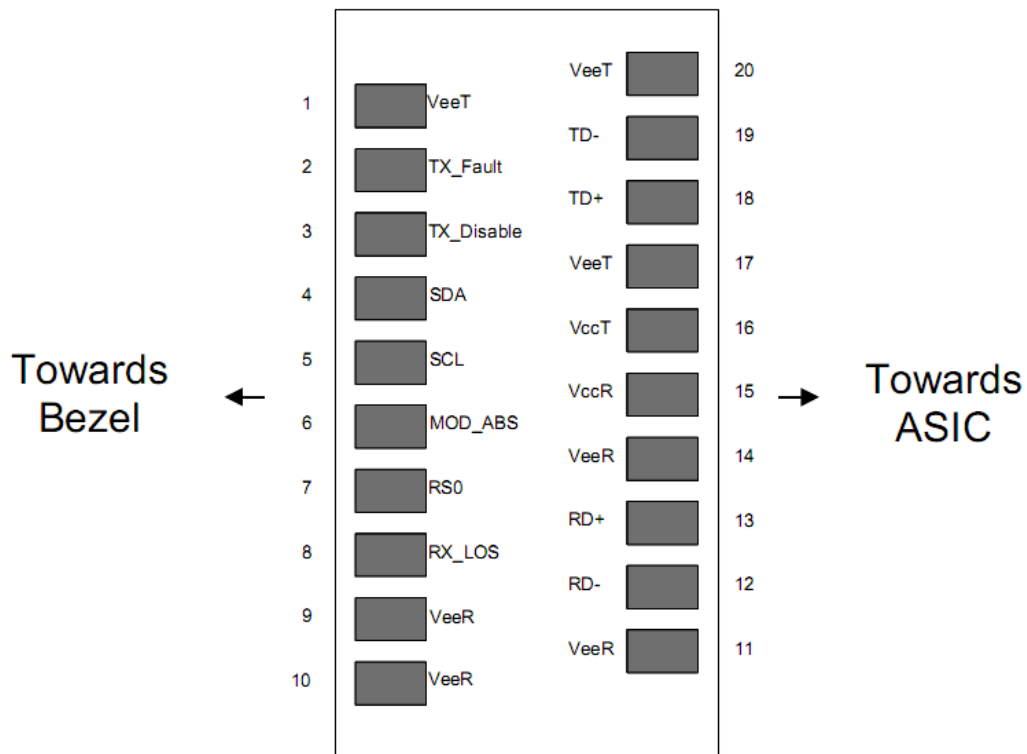
### Description

HD-SFP+/10G-T Copper Small Form Pluggable (SFP) transceivers are high performance, cost effective module compliant with the 10G Ethernet and 10GBASE-T standards as specified in IEEE 802.3az, which supporting 10Gbps data- rate up to 30 meters reach over unshielded twisted-pair category 6a/7 cables. The module provides standard serial ID information compliant with SFP+ MSA, which can be accessed with address of A0h via the 2wire serial EEPROM protocol. The physical IC can also be accessed via 2wire serial bus at address.

### Product Features

- | Up to 10Gb/s bi-directional data links
- | Hot-pluggable SFP+ footprint
- | Fully metallic enclosure for low EMI
- | Low power dissipation
- | Compact RJ-45 connector assembly
- | Access to physical layer IC via 2-wire serial bus
- | Supports Links up to 30m using Cat 6a/7 Cable
- | RoHS Compliant
- | Operating case temperature: 0°C to 70°C

# Pin Descriptions



Pin	Signal Name	Description	Plug Seq.	Notes
1	V <sub>EET</sub>	Transmitter Ground	1	
2	TX_FAULT	Transmitter Fault Indication	3	Not supported
3	TX_DISABLE	Transmitter Disable	3	
4	SDA	SDA Serial Data Signal	3	
5	SCL	SCL Serial Clock Signal	3	
6	MOD_ABS	Module Absent. Grounded within the module	3	
7	RS0	Not Connected	3	
8	LOS	Loss of Signal	3	
9	V <sub>EER</sub>	Receiver ground	1	
10	V <sub>EER</sub>	Receiver ground	1	
11	V <sub>EER</sub>	Receiver ground	1	
12	RD-	Inv. Received Data Out	3	
13	RD+	Received Data Out	3	
14	V <sub>EER</sub>	Receiver ground	1	
15	V <sub>CCR</sub>	Receiver Power Supply	2	
16	V <sub>CCT</sub>	Transmitter Power Supply	2	
17	V <sub>EET</sub>	Transmitter Ground	1	
18	TD+	Transmit Data In	3	
19	TD-	Inv. Transmit Data In	3	
20	V <sub>EET</sub>	Transmitter Ground	1	

# Transceiver Module

## +3.3V volt Electrical Power Interface

Parameter	Symbol	Min	Typ	Max	Units	Notes/Conditions
Supply Current	Is		700	750	mA	2.5W max power over full range of voltage and temperature. See caution note below
Input Voltage	Vcc	3.13	3.3	3.47	V	Referenced to GND
Maximum Voltage	Vmax			4	V	
Surge Current	Isurge			30	mA	Hot plug above steady state current. See caution note below

## General Specifications

Parameter	Symbol	Min	Typ	Max	Units	Notes/Conditions
Data Rate	BR		10.3		Gb/sec	IEEE 802.3 compatible.
Cable Length	L			30	m	Category 6a/7 UTP. BER <10 <sup>-12</sup>

## Environmental Specifications

Parameter	Symbol	Min	Typ	Max	Units	Notes/Conditions
Operating Temperature	Top	0		70	°C	Case temperature
Storage Temperature	Tsto	-40		85	°C	Ambient temperature