DATA SHEET

SFP-10G-T-C-GEN

10GBASE-T SFP (Small Form Pluggable) Copper Transceiver
10 Gigabit Ethernet

SFP-10G-T-C-GEN Overview

SFP-10G-T-C-GEN is a small hot-pluggable RJ45 electrical port module,compliant with 10 Giga- bit Ethernet standards and SFP Multi-Source Agreement (MSA) standards,supporting 10G transmission rate,transfer distances up to 30 meters using Cat 6a/7 network cables,it is also backward compatible with 10/100/1000/2.5G/5GBase-T applications.Low power consumption (2.3W TYP @ 10Gbps 30m), compatible with various brands of hosts, widely used in data centers and enterprise networks. Comply with certification requirements such as RoHS, CE and FCC.
The product is based on a standard RJ45 interface,compatible with traditional networks,the Ethernet transfer rates can be increased without changing existing wiring. It is a low-cost alternative to Ethernet upgrades.

Product Features

- Supports 10GBase-T using 30m Cat 6a/7 Cable
- Supports 5000Base-T using 70m Cat 5e cable or better
- Supports 2500Base-T using 100m Cat 5e cable or better
- Supports 10/100/1000Base-T using 100m Cat 5e cable or better
- Low Power Consumption (2.3W TYP @10Gbps 30m)
- Auto-negotiates with other 10GBase-T PHY
- Auto-sense MDI/MDIX
- Compliant with IEEE 802.3az
- Compliant with SFF-8431 and SFF-8432 MSA
- Compliant with RoHS, CE, FCC standards
- Operating temperature range:0˚C to70˚C

Applications

- 10 Gigabit Ethernet

Ordering Information

Part Number	Description
SFP-10G-T-C-GEN	10/100/1000/2500/5000/10GBase-T SFP+ Copper RJ-45 Connector

For More Information:
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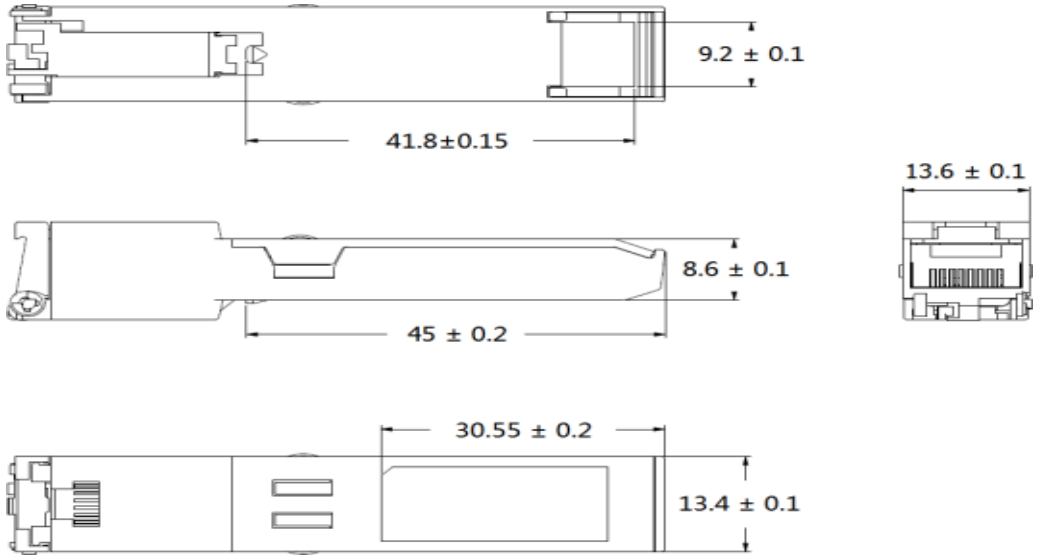
General Specifications

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Data Rate	DR		10		Gb/s	1
Bit Error Rate	BER			10^{-12}		
Operating Temperature	T_C	0		70	℃	2
Storage Temperature	T_{STO}	-40		85	℃	3
Supply Current	I_{CC}		700	750	mA	
Input Voltage	V_{CC}	3.14	3.3	3.46	V	
Maximum Voltage	V_{MAX}			4	V	
Surge Current	I_{surge}			30	mA	

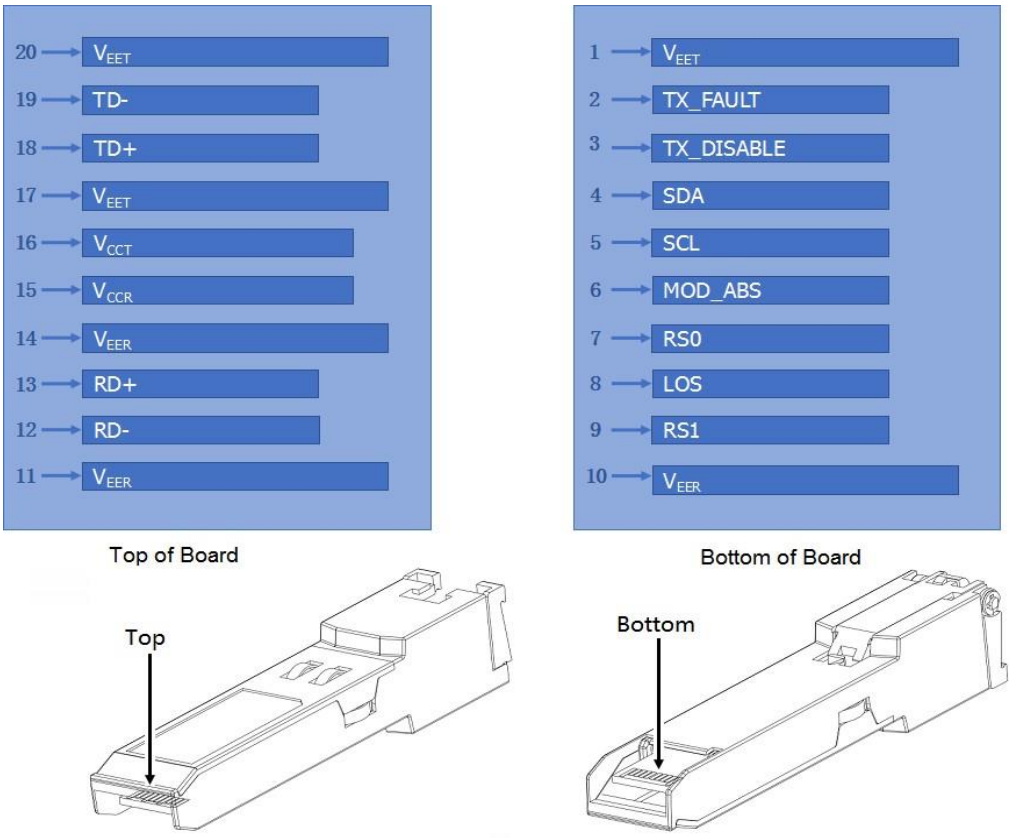
Notes:
1. IEEE 802.3ae
2. Case temperature
3. Ambient temperature

Dimensions



ALL DIMENSIONS ARE ±0.2mm UNLESS OTHERWISE SPECIFIED
UNIT: mm

Electrical Pad Layout



Pin Assignment

PIN #	Symbol	Description	Remarks
1	V_{EET}	Transmitter ground (common with receiver ground)	1
2	TX_FAULT	Transmitter Fault. Not supported	
3	TX_DISABLE	Transmitter Disable. PHY disabled on high or open	2
4	SDA	2-wire Serial Interface Data Line	3
5	SCL	2-wire Serial Interface Clock Line	3
6	MOD_ABS	Module Absent. Grounded within the module	3
7	RS0	No Connection Required	
8	LOS	Loss of Signal indication. Logic 0 indicates normal operation.	
9	RS1	No Connection Required	
10	V_{EER}	Receiver ground (common with transmitter ground)	1
11	V_{EER}	Receiver ground (common with transmitter ground)	1
12	RD–	Receiver Inverted DATA out. AC coupled	
13	RD+	Receiver Non-inverted DATA out. AC coupled	
14	V_{EER}	Receiver ground (common with receiver ground)	1
15	V_{CCR}	Receiver power supply	
16	V_{CCT}	Transmitter power supply	
17	V_{EET}	Transmitter ground (common with receiver ground)	1
18	TD+	Transmitter Non-Inverted DATA in. AC coupled	
19	TD–	Transmitter Inverted DATA in. AC coupled	
20	V_{EET}	Transmitter ground (common with receiver ground)	1

Notes:
1.Circuit ground is connected to chassis ground
2.Disabled: T_{DIS}>2Vor open, Enabled: T_{DIS}<0.8V
3.Should Be pulled up with 4.7k –10k ohm on host board to a voltage between 2V and 3.6V