SFP+ Copper Transceiver

10GBASE-T SFP+ RJ-45 Copper Transceiver,100m

Model: SFP-TG-T100I

PRODUCT OVERVIEW

The SFP-TG-T100I Copper Enhanced Small Form-Factor Pluggable (SFP+) transceiver is a high-performance, cost-effective module compliant with 10G Ethernet and 10GBASE-T standards as specified in IEEE 802.3az. It supports 10 Gbps data rates with a reach of up to 100 meters over unshielded twisted-pair Category 6a or Category 7 cables. The module provides standard serial ID information compliant with the SFP+ MSA, which can be accessed at address A0h via the 2-wire serial EEPROM protocol.

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 distance up to 100m using Cat 6a/7 cable
- RoHS compliant
- Operating case temperature:
    - Industrial: -40°C to 85°C

APPLICATIONS

- 10 Gigabit Ethernet over Cat 6a/7 cable

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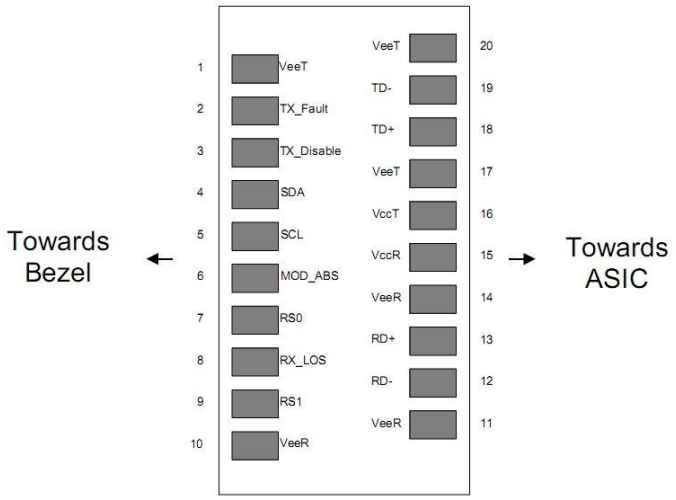
SPECIFICATIONS

Pin Descriptions



Pin	Signal Name	Description	Plug Seq.	Notes
1	VEET	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	RS1	Not Connected	3	
10	VEER	Receiver Ground	1	
11	VEER	Receiver Ground	1	
12	RD-	Inv. Received Data Out	3	
13	RD+	Received Data Out	3	
14	VEER	Receiver Ground	1	
15	VCCR	Receiver Power Supply	2	
16	VCCT	Transmitter Power Supply	2	
17	VEET	Transmitter Ground	1	
18	TD+	Transmit Data In	3	
19	TD-	Inv. Transmit Data In	3	
20	VEET	Transmitter Ground	1	

+3.3V Volt Electrical Power Interface

The SFP-TG-T100I has an input voltage range of +3.3V +/- 5%.

Table 1. +3.3V Volt Electrical Power Interface

+3.3V volt Electrical Power Interface						
Parameter	**Symbol**	**Min**	**Typ.**	**Max**	**Units**	**Notes/Conditions**
Supply Current	Is			900	mA	2.5W max power over full range of voltage and temperature.
Input Voltage	Vcc	3.13	3.3	3.47	V	Referenced to GND
Maximum Voltage	Vmax			3.8	V	
Surge Current	Isurge			30	mA	Hot plug above steady state current.

General Specifications

Table 2. General Specifications

General						
Parameter	**Symbol**	**Min**	**Typ.**	**Max**	**Units**	**Notes/Conditions**
Data Rate	BR		10.3		Gb/sec	IEEE 802.3 compatible.
Cable Length	L			100	m	Category 6a/7 UTP. BER <10^{-12}

Environmental Specifications

Table 3. Environmental specifications

Environmental Specifications						
Parameter	**Symbol**	**Min**	**Typ.**	**Max**	**Units**	**Notes/Conditions**
Operating Temperature	Top	-40		85	℃	Case temperature
Storage Temperature	Tsto	-40		85	℃	Ambient temperature

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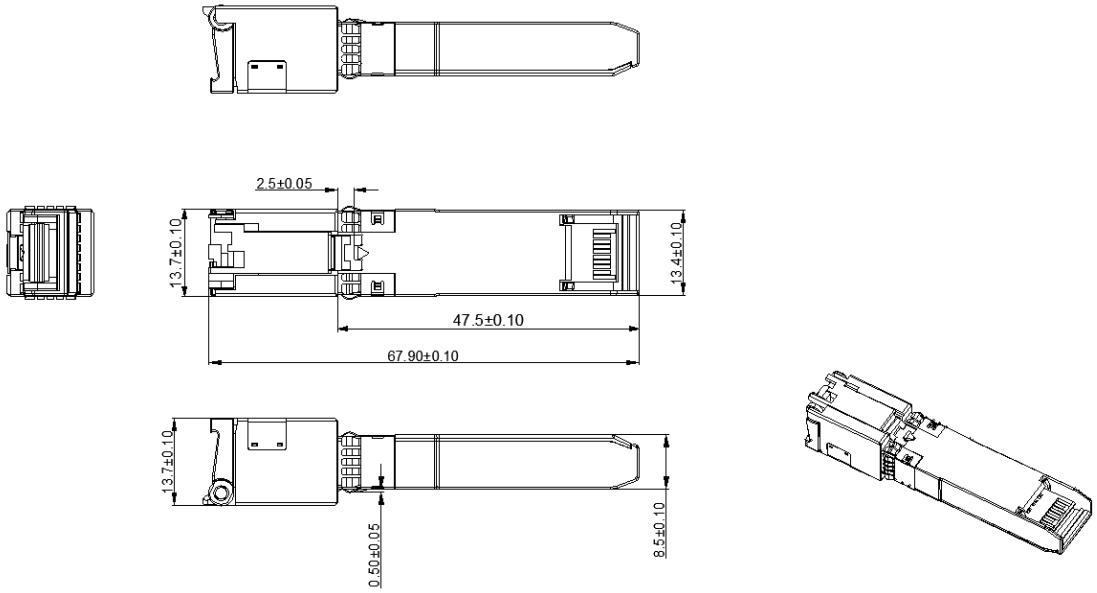
MECHANICAL DIMENSIONS



Part Number	Tx_DIS	Link Indicator on Rx_LOS Pin	Temperature
SFP-TG-T100I	Yes	Yes	-40 ~ 85°C

SFP+ Copper Transceiver

PACKAGE CONTENTS

- 1 × 10G SFP+ Copper Transceiver

WARRANTY

- Standard 1-Year Limited Warranty, unless otherwise specified by Sales.
- Optional Advance Replacement Warranty is available upon request

ORDERING INFORMATION

Part Number	Descriptions
SFP-TG-T100I	10GBASE-T SFP+ RJ-45 Copper Transceiver, 100m, Temperature: -40°C ~ +85°C
(Optional Slim CAT6a Ethernet Patch Cord)	
C6A28-TPE-04BL	CAT6A Patch Cord, 28AWG Stranded, UTP, Snagless, TPE, Blue – 1.2m
C6A28-TPE-05BL	CAT6A Patch Cord, 28AWG Stranded, UTP, Snagless, TPE, Blue – 1.5m
C6A28-TPE-07BL	CAT6A Patch Cord, 28AWG Stranded, UTP, Snagless, TPE, Blue – 2.1m
C6A28-TPE-10BL	CAT6A Patch Cord, 28AWG Stranded, UTP, Snagless, TPE, Blue – 3.0m
C6A28-TPE-15BL	CAT6A Patch Cord, 28AWG Stranded, UTP, Snagless, TPE, Blue – 4.6m

CONTACT INFORMATION

For more information, please visit our website or contact our customer service team:

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