

ES-T6-R

10GBASE Copper SFP Transceiver

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 80m using Cat 6a/7 Cable
- RoHS Compliant
- Operating case temperature: 0°C to 70°C

APPLICATIONS

- 10 Gigabit Ethernet over Cat 6a/7 cable

DESCRIPTIONS

ETU-LINK's ES-T6-R 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 80 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.

Ordering Information

Part number	TX Disable function	Link Indicator on RX_LOS Pin	Temp
ES-T6-R	Yes	Yes	0°C~70°C

+3.3V Volt Electrical Power Interface

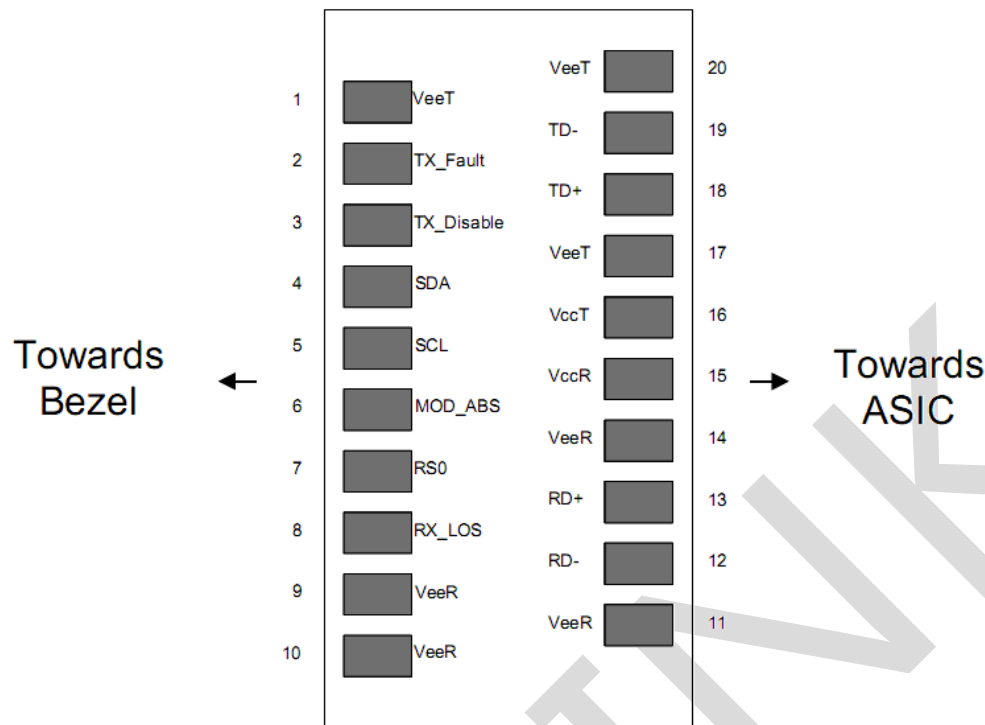
The has an input voltage range of +3.3V +/- 5%.

Parameter	Symbol	Min	Typ	Max	Units	Notes/Conditions
Supply Current	Is			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			3.8	V	

General specifications

Parameter	Symbol	Min	Typical	Max	Unit	Notes/Conditions
Data Rate	BR		10.3		Gb/sec	IEEE 802.3 compatible.
Cable Length	L			80	m	Category 6a/7 UTP. BER <10 ⁻¹²

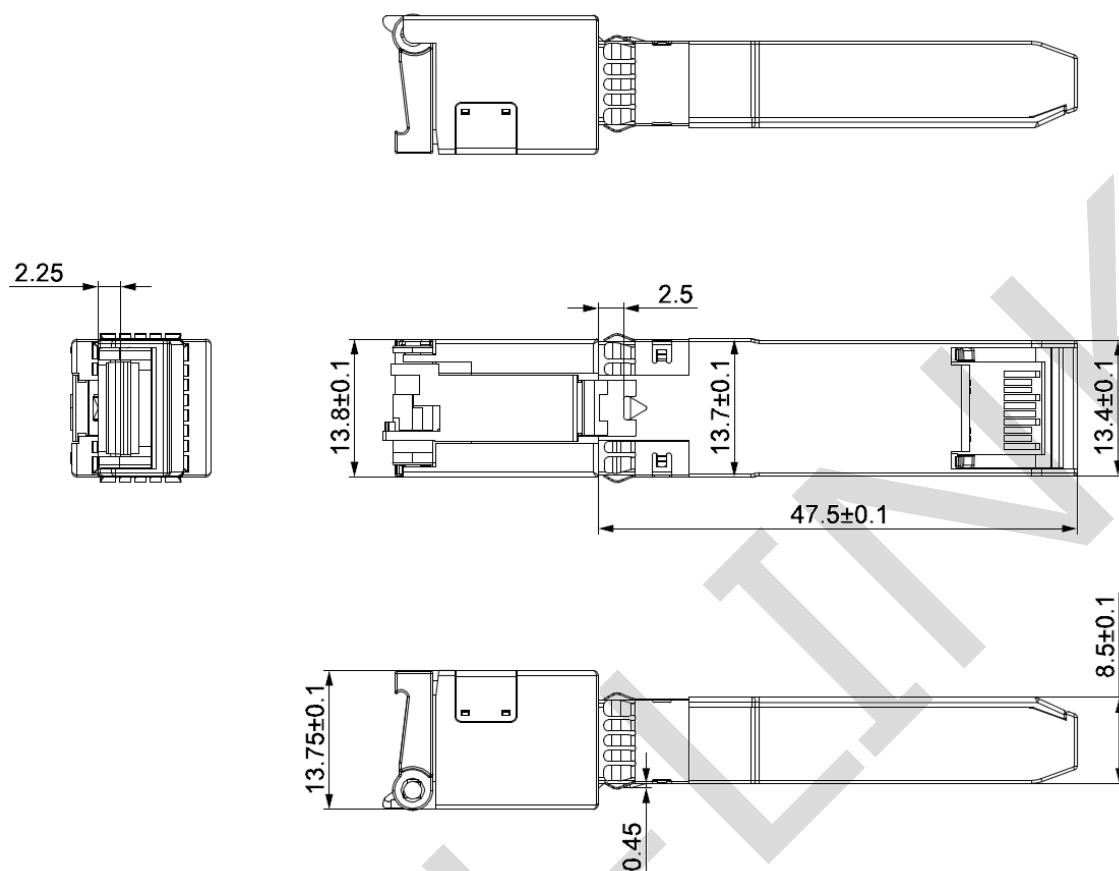
Pin Definitions



Pin Definitions

PIN	NAME	FUNCTION	SEQ.	NOTES
1	V _{EET}	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 _{EER}	Receiver ground	1	
10	V _{EER}	Receiver ground	1	
11	V _{EER}	Receiver ground	1	
12	RD-	Inv. Received Data Out	3	
13	RD+	Received Data Out	3	
14	V _{EER}	Receiver ground	1	
15	V _{CCR}	Receiver Power Supply	2	
16	V _{CCT}	Transmitter Power Supply	2	
17	V _{EET}	Transmitter Ground	1	
18	TD+	Transmit Data In	3	
19	TD-	Inv. Transmit Data In	3	
20	V _{EET}	Transmitter Ground	1	

Mechanical Diagram



Revision History

Version No.	Date	Description
1.0	Oct,15, 2018	Preliminary datasheet
2.0	Aug 11,2024	Product upgrades

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