SFP Series

® **ETU-LINK**
Optical Communication System

SFP+

ES-T6-R

10GBase-T Copper SFP+ 80M Transceiver

- ➢ 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℃ to 70℃

Applications

- ➢ 10 Gigabit Ethernet over Cat 6a/7 cable

Description

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.

Pin Definitions
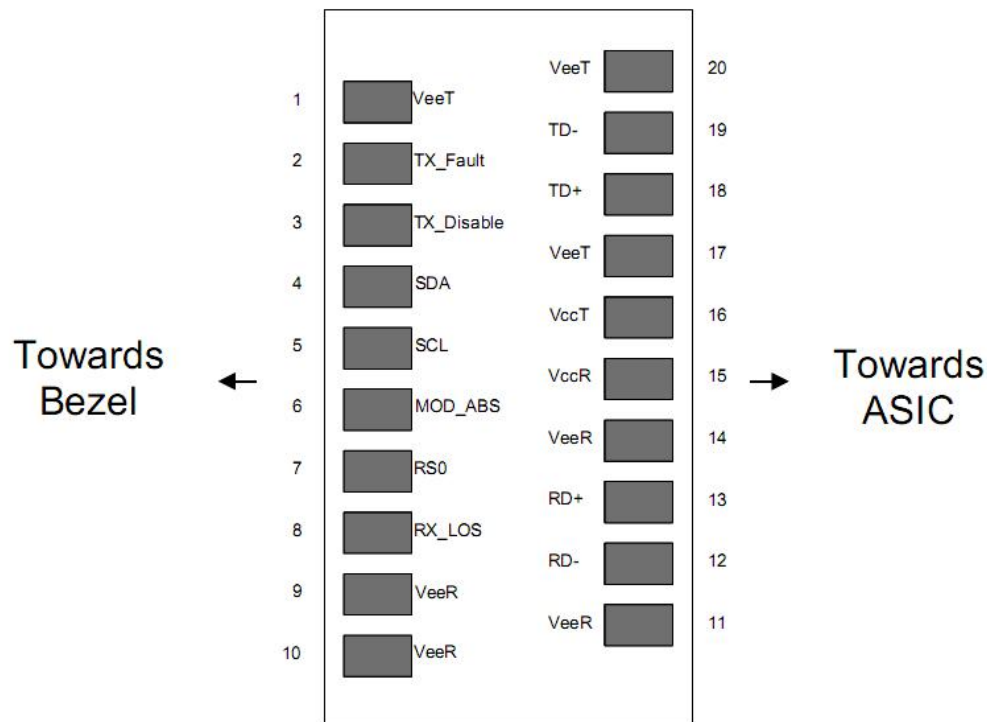
Pin	Signal Name	Description	Plug Seq.	Notes
1	V_{EET}	Transmitter Ground	1	
2	TX FAULT	Transmitter Fault Indication	3	Not supported
3	TX DISABLE	Transmitter Disable	3	
4	SDA	SDA Serial Data Signal	3	
5	SCL	SCL Serial Clock Signal	3	
6	MOD_ABS	Module Absent. Grounded within the module	3	
7	RS0	Not Connected	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	

+3.3V Volt Electrical Power Interface

The   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			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

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			80	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	0		70	°C	Case temperature
Storage Temperature	Tsto	-40		85	°C	Ambient temperature

Mechanical Specifications
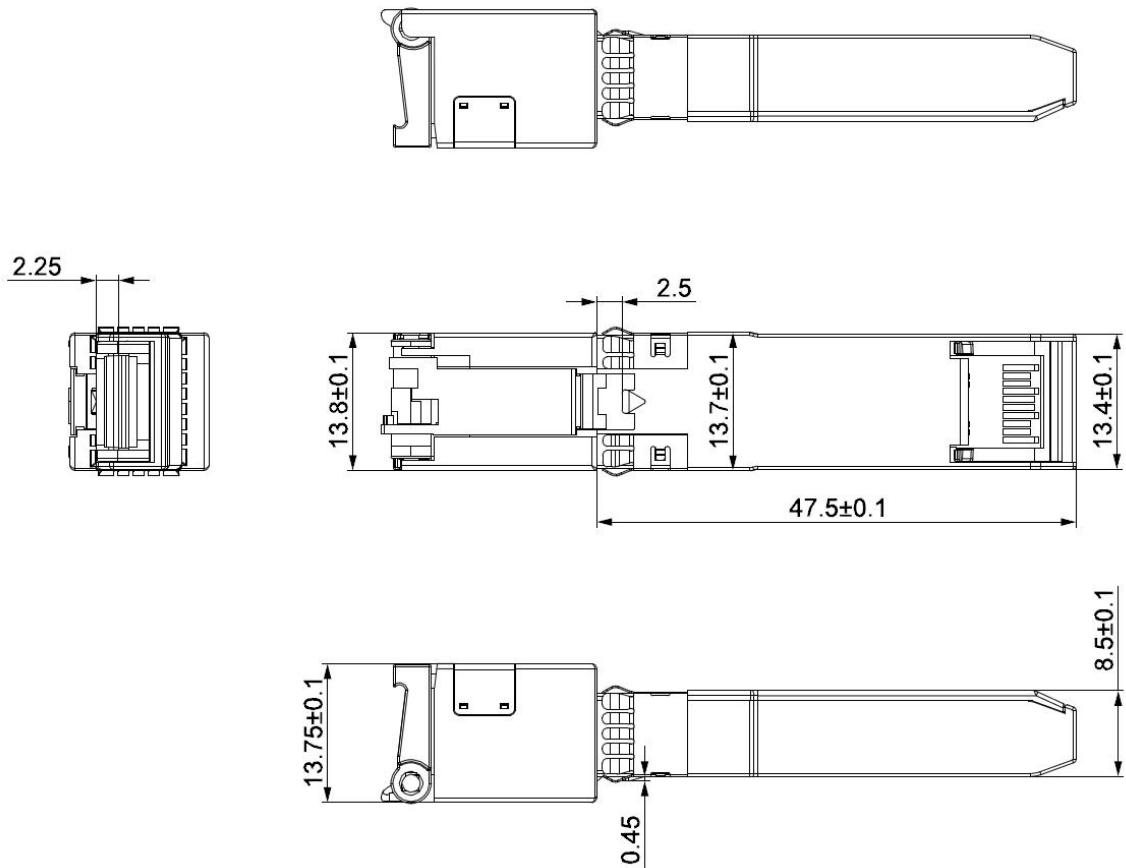
Ordering information

Part Number	Tx_DIS	Link Indicator on Rx_LOS Pin	Temp.
ES-T6-R	Yes	Yes	0~70°C

Compatibility Test

In order to ensure the product compatibility, our products will be tested on the switch before shipment. Our modules can compatible with many mainstream brand switches, such as Cisco, Juniper, Extreme, Brocade, IBM, H3C, HP, Huawei, D-Link, Mikrotik, ZTE, TP-Link...

Our test equipment: VOLKTEK MEN-4110, HP 2530-8G, CRS226-24G-25+RM, Catalyst 2960G Series, Catalyst 3850 XS 10G SFP+, Catalyst 3750-E Series, HUAWEI S5700Series, H3C S3100V2 Series, Juniper-EX4200, etc.

Cisco Catalyst 3850

HUAWEI S5700

H3C S3100V2

HP J9264AR

Juniper EX 4200

Alcatal 6850E-U24X

Mikrotik CR5226-24G-25+RM

Cisco Catalyst 2960G

Volktek MEN-4110

Product Production Process

Quality Assurance

Continuous introduction of new equipment, produced by strict standards, strict quality inspection, to guarantee the high quality standard of each product.
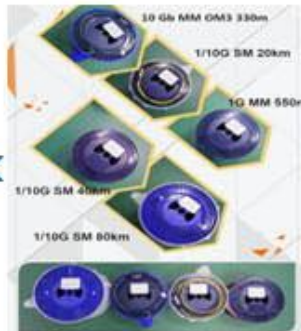
Standardized Production Line → **Professional Welding** → **Assembling**

Aging Testing ← **Distance Testing** ← **Cleaning end face**

Product Initial Test → **Switch Testing** → **Product Final Test**

Packaging

ETU-Link provides two kinds of packaging, 10pcs/Tray and individual package.

Inner Tray

White

10pcs/Tray

Company: ETU-Link Technology Co., LTD

Address: Right side of 3rd floor, No. 102 building, Longguan expressway, Dalang street, Longhua District, Shenzhen city, GuangDongProvince,China 518109

Tel: +86-755 2328 4603

Addresses and phone number also have been listed at www.etulinktechnology.com.

Please e-mail us at sales@etulinktechnology.com or call us for assistance.