

**Brief introduction**

Many thanks for purchasing Fast Ethernet optical transceiver! This product supports IEEE802.3U 100Base-Tx/Fx protocol, as well as full duplex and half duplex mode. This manual is for adaptive 100M, 10M/100M transceivers. It also support 802.3af(POE function). The following purchasing guide is for customer's reference.

**Purchasing guide for optical transceivers**

Model	Specifications	
UTP-MM	10/100M adaptive, multi-mode 2km, SC	<input type="checkbox"/>
UTP-SM 25	10/100M adaptive, single mode 25km, SC	<input type="checkbox"/>
UTP-SM 40	10/100M adaptive, single mode 40km, SC	<input type="checkbox"/>
UTP-SM 60	10/100M adaptive, single mode 60km, SC	<input type="checkbox"/>
UTP-SM 80	10/100M adaptive, single mode 80km, SC	<input type="checkbox"/>

**Packing list**

Please check the following items in the package before installing the transceiver.

- Fast Ethernet optical transceiver 1set
- AC/DC adapter (external) 1pc
- Power line (built-in) 1pc
- User manual 1copy
- Warranty card 1pc

Please contact the dealer immediately for any loss or damage to the above items.

**Installation**

**1. Interface**

**RJ-45 interface**

The transmission media adopts CAT5 twisted-pair with typical length of 100 meter. It features the function of

automatically identifying the through line and cross wire (10/100M).

**Fiber interface**

SC/ST fiber interface is of duplex mode type, including two interfaces, namely TX and RX. When the two sets of optical transceiver are interfaced or connected to switch with fiber interface, the fiber is in cross connection, namely "TX-RX", "RX-TX" (direct butting for single optical fiber).

**2. Connection**

The network device (work station, hub or switch) with RJ-45 interface is connected to RJ-45 jack of optical transceiver through twisted-pair. And the multi/single mode fiber is connected to SC/ST fiber interface of the optical transceiver. Then switch on. The corresponding LED is on for correct connection. (See the table below for the LED indicator lamp)

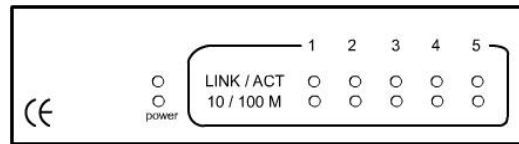
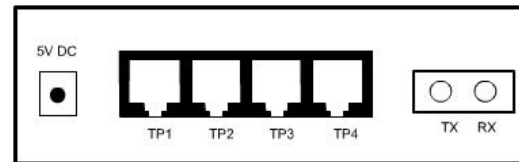


Figure 1 Schematic drawing of connection



**Explanation for DIP Switch**

The following is the explanation for DIP Switch.




Functional Setting.


SWITCH	Functional Descriptions
S1	Class of service enable OFF:disable(default) ON:enable
S2	Port of FX1 is set to be high priority port OFF:disable(default) ON:enable
S3	Address aging enable OFF:enable, aging time 300s(default) ON:disable
S4	Chang capability enable OFF:disable(default) ON:enable
S5	IEEE802. 3X enable OFF:enabled(default) ON:disable
S6	Backpressure enable OFF:enable(default) ON:disable
S7	Broadcast storm protection enable OFF:disable(default) ON:enable
S8	Filter packets witch reserved DA enable OFF:disable(default) ON:enable

**Transmission characteristics of single fiber transceiver**


Product model	Optical wavelength (m)	Transmitting optical power	Receiving sensitivity	Transmission distance (km)
UTP-SM (25km)	1310/1550 1550/1310	-12-6	-12	25
UTP-SM (40km)	1310/1550 1550/1330	-3-5	<-31	40
UTP-SM (60km)	1310/1550 1550/1330	-5-9	<-44	60

 Fiber transmission features:

Product model	Optical wavelength (nm)	Optical power (dbm)	Sensibility (dbm)	Saturability (dbm)
UTP-MM	850	-6 ~ -12	<-16	-12
UTP-MM	1310	-19 ~ -14	-31	-12
UTP-SM 25	1310	-14 ~ -7	-34	-3
UTP-SM 40	1310	-9 ~ -5	-38	-3
UTP-SM 60	1310	-5 ~ -0	-38	-3
UTP-SM 100	1550DFB	-5 ~ -0	-38	-3

 Main features

1. In conformity to IEEE 802.3 10 Base-T standard.  
In conformity to IEEE 802.3u 100 Base-TX/FX standard.
2. Max. 2M buffer memory built in chip.
3. Back pressure flow control for full duplex IEEE802.3 X and half duplex.
4. Automatic identification of MDI/MDI-X cross line.
5. High-performance 1.4Gbps memory bandwidth.
6. In conformity to safety code of FCC and 15 CLASS A and CE MARK.


 Technical parameters:

1. Standard Protocol:  
IEEE802.3 10 Base-T standard  
IEEE 802.3u 100Base-TX/FX standard
2. Connector: four UTP RJ-45 connector, one SC/ST connector
3. Operation mode: full duplex mode or half duplex mode

4. Power supply parameter: outside: 5V DC 1A
5. Environmental temperature: 0°C-60 °C
6. Relative humidity: 5%-90%
8. TP cable: Cat5 UTP cable
9. Transfer fiber:  
multi-mode: 50/125, 62.5/125 or 100/140 μm  
single mode:: 8.3/125, 8.7/125, 9/125 or 10/125 μm
- 10 Dimensions: External power supply:  
158mmx 100mm x 27mm

 Cautions:

1. This product is suitable for indoor application.
2. Put on the dust cover of fiber interface when not used.
3. It is forbidden to stare at the TX fiber-transfer end with naked eyes.
4. Single optical fiber transceiver must be used in pair (See the attachment description in delivery).

 Trouble shooting:

1. Device is not matched. Please select the corresponding network device according to the transfer rate of the product (10Mbps or 100Mbps) when connected to other network devices (network card, hub, switch).
2. Line loss is excessive during the fiber wiring. Excessive loss in connector plug-in and fiber soldering welding, and excessive intermediate nodes may cause excessive loss rate or abnormal operation.

**10/100M**  
**One Fiber and Four RJ45**  
**Fiber Swtich**

user manual

(Do not use until you read this manual carefully)