
 Brief introduction

Many thanks for purchasing Gigabit Ethernet media converter!

This product supports 10/100/1000Base-T, 1000Base-X protocol, as well as full duplex and half duplex mode. This manual is for 10/100/1000M transceivers. The following purchasing guide is for customer's reference.

Purchasing guide for optical transceivers

Model	Specifications
UTP-MM	10/100/1000M adaptive, multi mode 2km, SC
UTP-SM	10/100//1000M adaptive, single mode 20km, SC
UTP-SM	10/100/1000M adaptive, single mode 40km, SC
UTP-SM	10/100/1000M adaptive, single mode 60km, SC
UTP-SM	10/100/1000M adaptive, single mode 80km, SC

 Packing list

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

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

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.

Fiber interface

All of two fiber interface is SFP fiber module. It is easy to change fiber module according to custom's requirement, such as link length, fiber type etc.

2. Connection

The network device (work station, hub or switch) with RJ-45 interface is connected to RJ-45 jack of Media Converter through twisted-pair. And the multi/single mode fiber is connected to SFP fixed in SFP slots.

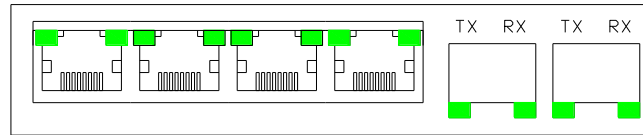


Figure 1 Front Panel of Media Converter

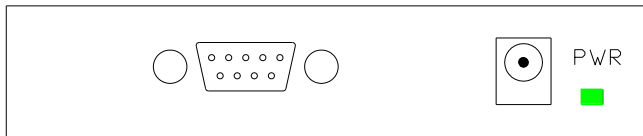


Figure 2 Back Panel of Media Converter

 Explanation for LED indicator lamp

LED indicator lamps serve as device monitoring and trouble display. The following is the explanation for each LED indicator lamp.

LED	function	status	Describing
PWR	Power LED	ON	Power is ON.
		OFF	Power is Fail.
FX-SD (RIGHT-DOWN)	Fiber port signal detect LED	ON	Optical Signal Detected
		OFF	No laser input.
FX-LINK/ACT (LEFT-DOWN)	Fiber port link/action status LED	ON	Fiber link is ok.
		Blink	Acted
		OFF	Fiber link is fail.
TX-SPEED (RIGHT-UP)	UTP port speed LED	3 Blinks	1000M speed
		2 Blinks	100M speed
		1 Blinks	10M speed
TX-LINK/ACT (LEFT-UP)	UTP port link/action status LED	ON	Link is ok.
		Blink	Data is been received or transmitted

Transmission characteristics of single fiber transceiver

Product model	Optical wavelength (m)	optical power (dBm)	Receiving sensitivity (dBm)	Transmission distance (km)
UTP-SM (20km)	1310/1550 1550/1310	-3~-8	<-22	20
UTP-SM (40km)	1310/1550 1550/1330	0~-5	<-24	40
UTP-SM (60km)	1310/1550 1550/1330	0~-3	<-25	60



Fiber transmission features:

Product model	Optical wavelength (nm)	Optical power (dBm)	Sensibility (dBm)	Transmission distance (km)
UTP-MM	850	-12~-15	<-20	0.55
UTP-SM 20	1310	-3~-8	<-22	20
UTP-SM 40	1310	0~-5	<-24	40
UTP-SM 60	1310	0~-3	<-25	60
UTP-SM 80	1550DFB	0~-1	<-25	80



Main features

1. Supports 10/100/1000Base-T, 1000Base-X protocol.
2. Flow control for full duplex and half duplex.
3. Supports up to 10k byte JUMBO frame.
4. Supports Fiber Port Trunking, Increasing Fiber Channel Bandwidth and Supply Fiber Channel Redundancy.
5. Supports Ports Based VLANS and TAG Based VLANS (reserved for future releases).
6. In conformity to safety code of FCC and CE MARK.



Technical parameters:

1. Standard Protocol: 10/100/1000Base-T, 1000Base-X protocol
2. Connector: Four UTP RJ-45 connector, Two SFP SLOTS
3. Operation mode: full duplex mode or half duplex mode
4. Power supply parameter: outside: 5V DC 3A
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: 40mm x 110mm x 140mm



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.

Gigabit Ethernet Media Converter

(Two Fiber Ports and Four UTP Ports)

user manual

(Do not use until you read this manual carefully)