 Brief introduction

Many thanks for purchasing Gigabit optical converter! This product supports IEEE802.3Z/AB 1000Base-SX/LX protocol, the working mode of duplex full mode and half mode. The electric outlet is adaptive to the rate of 10/100/1000M Gigabit optical converter. This manual is for various models of adaptive 10Base-T, 100Base-T, and 1000Base-T optical converters. The following purchasing guide is for customer to refer to.

Purchasing guide for Gigabit optical converters

Model	Specifications
TP ← → SC/FC/ST MM	10/100/1000M, multi-mode 500 meter, SC/FC/ST
TP ← → SC/FC/ST SM	10/100/1000M, single mode 0-80 Km, SC/FC/ST
TP ← → LC SM/MM	10/100/1000M, SFP slot

 Packing list

Please check the following items in the package before the installation of converter.

- Gigabit optical converter 1 piece
- Power line (build-in) 1 piece
- User manual 1 copy

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 and CAT 6 twisted-pair. It is recommended to use quality RJ-45 and well made jumper. It features the function of automatically identifying the through line and cross wire.

Fiber interface

The SC fiber interface is of duplex mode type, including two interfaces, namely TX and RX. When the two sets of optical converter are interfaced or connected to switchboard with fiber interface, the fiber is in cross connection, namely "TX-RX" "RX-TX".

2. Connection

Connect the network device (work station, hub or switch) to the RJ-45 jack of the optical converter through twisted-pair CAT5. Connect the multi-mode/single-mode fiber to SC/ST/LC fiber interface of the optical transceiver. Turn the power on. The corresponding LED is on for a correct connection. (See the table below for the LED indicator lamp)

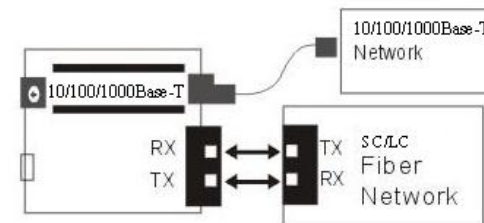


Figure 1 Schematic drawing of connection

 Explanation for LED indicator lamp

The LED indicator lamps serve as device monitoring and error display. The following explains each LED indicator.

LED	Status	Explanation
FDX	On	Converter works in the full duplex mode.
	Off	Converter works in the half duplex mode.
FXLINK/ACT	Blink	Active status display of fiber interface link "Blink" indicates packet goes through FX
1000	On	Rate of electrical interface is 1000Mbps
100	On	Rate of electrical interface is 100Mbps
TPLINK/ACT	Blink	Active status display of electrical interface link "Blink" indicates packet goes through TP
PWR	On	Power is on and normal.

When both 1000 and 100 are Off, Rate of electrical interface is 10Mbps.



Fiber transmission features:

Product model	Optical wavelength (nm)	Optical power (dbm)	Sensibility (dbm)	Transmission distance
TP- MM	850nm	-3~-10.5	≤-20	62.5 μ m:220meter 50 μ m:550meter
TP- SM	1310nm	0~-8	≤-21	20Km
TP- SM	1550nm DFB	-3~-10	≤-24	40Km
TP- SM	1550nm DFB	1~-6	≤-26	60Km
TP- SM	1550nm DFB	4~-2	≤-26	80Km



Technical parameters:

- Standard Protocol:
IEEE802.3Z/AB 1000Base-T/SX/LX
- Transfer rate: Electrical interface: 10/100/1000Mbps
Fiber interface: 1.25Gbps
- Interface: One UTP RJ-45 interface
One SC interface
- Operation mode: full duplex mode or half duplex mode
- Power supply parameter:
Build in: 90-264V AC 48VDC
External: 5V DC 2A
- Environmental temperature: -20°C-70 °C
- Relative humidity: 5%-90%
- TP cable: 5E, CAT 6

- Transfer fiber: multi-mode: 50/125, 62.5/125μ m
single mode:: 8.3/125, 8.7/125, 9/125 or 10/125μ m

10 Dimensions:

Built-in power supply: 32mm x 127mm x 156mm

External power supply: 26mm x 71mm x 94mm



DIP-Switch:

*Toggle ON pin 1 to LFP is enable; OFF is disable

*PIN2 and PIN3 are set the MC operation mode

pin3 \ Pin2	ON	OFF
ON	Pass through	Smart pass through
OFF	Modified cut through	Store and forward(default)



Cautions:

- This product is suitable for indoor application.
- Put on the dust cover of fiber interface when not used.
- It is forbidden to stare at the TX fiber-transfer end with naked eyes.
- Single optical fiber transceiver must be used in pair



Trouble shooting:

- Line loss is excessive during the fiber wiring
Excessive loss in adaptor connector plug-in and fiber soldering welding and excessive intermediate nodes may cause excessive loss rate or abnormal operation.
- If power loss is excessive in the fiber, please check and clean the fiber patch cord connectors.

Gigabit Optical Converter

10/100/1000Base-Tx to 1000Base-X

User manual

(Please read before using the Media Converter)