

Gigabit Fiber Ethernet Converter 10/100/1000Base-T/TX to 1000Base-SX/LX



User's Manual

Overview

Gigabit fiber media converter is a 10/100/1000 auto negotiating media converter. The copper port auto negotiates the connected device's speed and duplex mode: 10/100/1000Mbps half duplex; or 10/100/1000 Mbps full duplex; the fiber port always operates at 1000Mbps. The maximum distance is Multi-mode 0.5 or 2km and single-mode 10/20/40/60/80km or 160km.

There is also 10/100/1000Base-T to SFP (mini-GBIC) media converter available. The SFP slot supports both Multi-Mode (SX) and Single-Mode (LX) fiber standards for transmission distances of up to 80km. Gigabit Ethernet port Auto-Negotiate between 100 and 1000Mbps transmission speeds. Note: DN-82131 support 1000Base-T only.

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

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 the media converter through twisted-pair. The fiber device is connected to fiber interface of the media converter. Then switch on. The corresponding LED is on for correct connection. (See the table below for the LED indicator lamp)

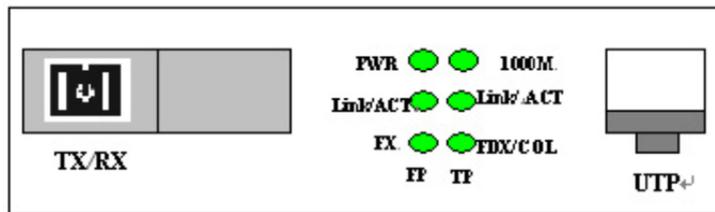


Table 1: Front panel for single fiber media converter

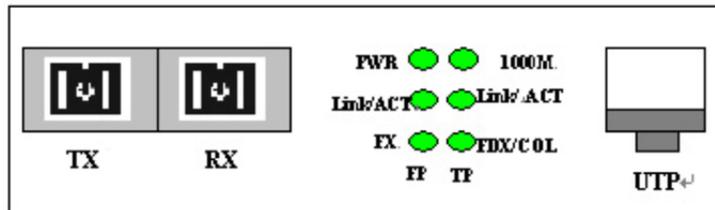


Table 2: Front panel for dual fiber media converter

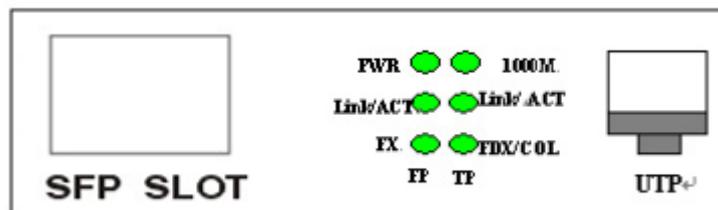


Table 3: Front panel for SFP fiber media converter

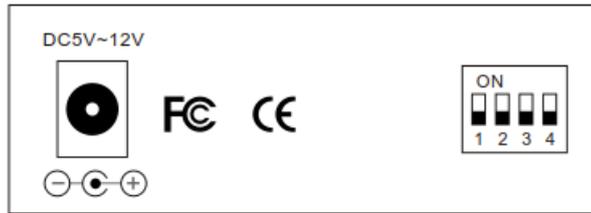


Table 4: Back panel for fiber media converter

DIP Switch settings instruction

| DIP-Bit Number | Switch Status | Function Descriptions |
|----------------|---------------|---|
| I. | ON | LFP function enabled |
| | OFF | LFP function disabled |
| II. | OFF/OFF | |
| | OFF/ON | |
| III. | ON | Electrical port is forced to 10M |
| | OFF | Electrical interface of 10M/100M/1000M adaptive |
| IV. | ON | |
| | OFF | |

Explanation for LED indicator

LED indicator 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 | Fiber port signal detect LED | ON | Laser is receiving. |
| | | OFF | No laser input. |
| FX-LINK/ACT | Fiber port link/action status LED | ON | Fiber link is ok. |
| | | Blink | Data is been received or transmitted. |
| | | OFF | Fiber link is fail. |
| 1000M | UTP port speed LED | ON | 1000M speed |
| | | OFF | 100M speed |
| TX-LINK/ACT | UTP port link/action status LED | ON | Link is ok. |
| | | Blink | Data is been received or transmitted. |
| | | OFF | Fiber link is fail. |
| FDX/COL | UTP port duplex LED | ON | Full duplex |
| | | OFF | Half Duplex |

Technical parameters:

1. Standard Protocol:
IEEE802.3 10 Base-T standard
IEEE 802.3u 100Base-TX/FX standard
IEEE 802.3z 1000Base-TX/FX standard
2. Connector: one UTP RJ-45 connector, one SC/ST/SFP connector
3. Operation mode: full duplex mode or half duplex mode
4. Environmental temperature: 0°C-60°C
5. Relative humidity: 5%-90%
6. TP cable: Cat5 UTP cable
7. Transfer fiber:
multi-mode: 50/125, 62.5/125 or 100/140µm
single mode: 8.3/125, 8.7/125, 9/125 or 10/125µm
8. Max. 2M buffer memory built in chip
9. Automatic identification of MDI/MDI-X cross line
10. High-performance 1.4Gbps memory bandwidth.

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). Example: DN-82122 and DN-82123

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.

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