DIREKTRONIK

## 100Mbps/Gigabit Fiber Media Converter User Manual

Many thanks for purchasing our fiber media converter! This product supports IEEE802.3U, IEEE802.3z ethernet communication protocol. It contains 100Base−Tx/Fx, 1000Base−Tx/Fx interface, as well as full duplex and half duplex mode. The following purchasing guide is for customer's reference.

Purchasing guide for optical transceivers

| Model	Specifications
20114856	10/100/1000M adaptive, 1310nm, single mode 25km, SC

Application
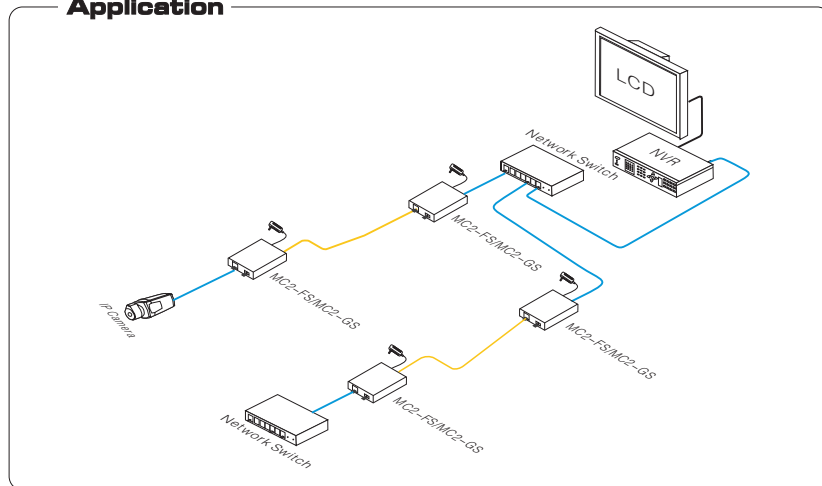
■ Feature

1. In conformity to IEEE 802.3 10 Base−T standard. In conformity to IEEE 802.3u 100 Base−TX, IEEE802.3z, IEEE802.3ab standard.
2. Built in high efficiency SRAM for packet buffer.
3. Half duplex: back pressure flow control
   Full duplex: IEEE802.3x flow control
4. Automatic identification of MDI/MDI−X cross line.
5. In conformity to safety code of FCC and 15 CLASS A and CE MARK.

⚠ Caution

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 de livery).

■ Board Diagram

Front Board

Front Board

5VDC

This device complies with Part 15 ofthe FCC rules
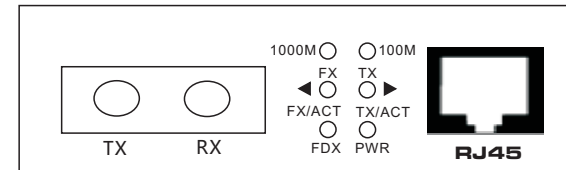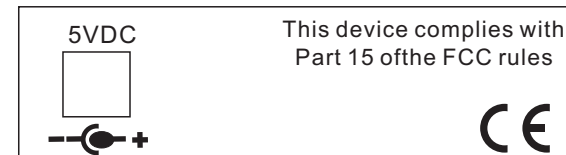
■ Packing list

Please check the following items in the package before installing the transceiver.
- Fiber Media Converter 1set
- Power Adaptor 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 SC 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 single mode fiber is connected to SC fiber interface of the optical transceiver. Then optical converter on. The corresponding LED is on for correct connection. (See the table below for the LED indicator lamp)

■ Technical parameters

● Standard Protocol: IEEE802.3 10 Base–T standard
   IEEE 802.3u 100Base–TX and IEEE802.3z standard
● Connector: one UTP RJ–45 connector, one SC connector
● Operation mode: full duplex mode or half duplex mode
● Power supply parameter:
   Adapter(External): 100–240V AC input, 5V0.6A DC output
● Environmental temperature: –20℃ – 60 ℃
● Relative humidity: 5%–90%
● TP cable: Cat5 UTP cable
● 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
● Dimensions:
   Power external: 94mm(L)x 71mm(W) x 26mm(H)

■ 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 indicator lamp	Status	Explanation
1000M 100M	On	Current RJ–45 rate is Gigabit
	Off	Current RJ–45 rate is 100 megabits
FX Link/Act	On	"ON" indicates that fiber port is in correct connection.
	Blink	"Blink" indicates packet goes through media converter
TX Link/Act	On	"ON" indicates that RJ45 port is in correct connection.
	Blink	"Blink" indicates packet goes through media converter
FDX	On	Transceiver works in the full duplex mode.
	Off	Transceiver works in the half duplex mode.
PWR	On	Power is on and normal.

■ Transmission characteristics of single fiber transceiver

Product model	Optical wavelength (nm)	Transmitting optical power (dBm)	Receiving sensitivity (dBm)	Saturability (dBm)
20114856	1310/1550 1550/1310	–6–10	–23	≥–3

■ Trouble shooting

1. Device is not matched. Please select the corresponding network device according to the transfer rate of the product (10Mbps or 100Mbps, 1000Mbps) 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.

PRODUCT WARRANTY CARD

Fiber Data Communication Products

QUALIFIED CERTIFICTE

MODEL: _____

MODEL: _____

MODEL: _____

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