10/100/1000 Base TX to 1000 Base SX/LX/ZX

Overview

Many thanks for purchasing Gigabit Ethernet optical transceiver!

This product supports IEEE802.3UI100Base-Tx/Fx ，IEEE802.3Z protocol, as well as full duplex and half duplex mode. This manual is for 1000M transceivers.

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/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)
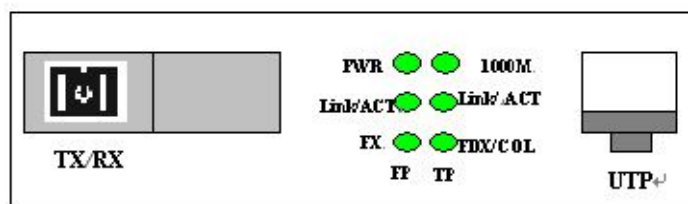
SHENZHEN TONGSION TECHNOLOGY CO., LTD
Tel: (+86) 0755-22678831
E-mail: sales@tongsion.com
http://www.tongsion.com

Page 1 of 5
Nov 01 / 2014
Rev. 2.0

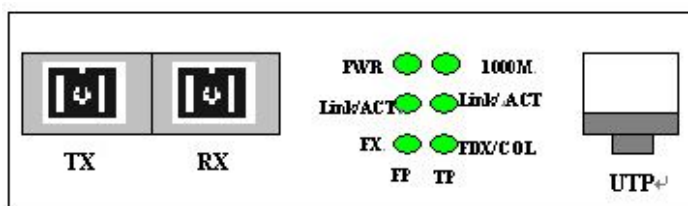Table 1 : Front panel for single fiber media converter

Table 2 : Front panel for dual fiber 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	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	Link is fail.
FDX/COL	UTP port duplex LED	ON	Full duplex
		OFF	Half duplex

SHENZHEN TONGSION TECHNOLOGY CO., LTD
Tel: (+86) 0755-22678831
E-mail: sales@tongsion.com
http://www.tongsion.com

Page 2 of 5
Nov 01 / 2014
Rev. 2.0

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-performance1.4Gbps memory bandwidth.

6. In conformity to safety code of FCC and 15 CLASS B and CE MARK.

Technical parameters:

1. Standard Protocol: IEEE802.3 10 Base-T standard

   IEEE 802.3u 100Base-TX/FX standard

   IEEE802.3Z1000Base-TX/FX standard

2. Connector: oneUTPRJ-45connector,oneSC/ST connector

3. Operation mode: full duplex mode or half duplex mode

4. Power supply parameter: outside:　5V DC 1A

   Built-in: 110-265V AC　48VDC

5. Environmental temperature: 0℃-60 ℃

6. Relative humidity: 5%-90%

8. TP cable: Cat5 UTP cable

9. 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

10 Dimensions:

External power supply: 26mmx 70mm x 95mm

Built-in power supply: 30mm 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).

SHENZHEN TONGSION TECHNOLOGY CO., LTD
Tel: (+86) 0755-22678831
E-mail: sales@tongsion.com
http://www.tongsion.com

Page 3 of 5
Nov 01 / 2014
Rev. 2.0

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.

ORDERING INFORMATION

PN	Fiber mode	Connector	Wavelength	Distance	TX power (dbm)	RX power (dhm)
TS-2200	Multi-mode dual fiber	SC	850nm	550m	-17~-12	≤-20.0
TS-2200S02	Multi-mode dual fiber	SC	1310nm	2 Km	-17~-12	≤-20.0
TS-2200S10	Single-mode dual fiber	SC	1310nm	10 Km	-6~-12	≤-21.0
TS-2200S20	Single-mode dual fiber	SC	1310nm	20 Km	-3~-8	≤-23.0
TS-2200S40	Single-mode dual fiber	SC	1550nm	40 Km	-3~-0	≤-25.0
TS-2200S60	Single-mode dual fiber	SC	1550nm	60 Km		
TS-2200S80	Single-mode dual fiber	SC	1550nm	80 Km	≥1	≤-27.0
TS-3200S10	Single-mode single fiber	SC	A side:Tx1310nm /Rx1550nm B side:Tx1550nm /Rx1310nm	10 Km	-10~-5	≤-20.0
TS-3200S20	Single-mode single fiber	SC	A side:Tx1310nm /Rx1550nm B side:Tx1550nm /Rx1310nm	20 Km	-8~-3	≤-23.0
TS-3200S40	Single-mode single fiber	SC	A side:Tx1310nm /Rx1550nm B side:Tx1550nm /Rx1310nm	40 Km	-3~0	≤-23.0
TS-3200S60	Single-mode single fiber	SC	A side:Tx1310nm	60 Km	-3~0	≤-23.0

SHENZHEN TONGSION TECHNOLOGY CO., LTD
Tel: (+86) 0755-22678831
E-mail: sales@tongsion.com
http://www.tongsion.com

Page 4 of 5
Nov 01 / 2014
Rev. 2.0

			/Rx1550nm B			
			side:Tx1550nm			
			/Rx1310nm			

IMPORTANT NOTICE

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by TONGSION before they become applicable to any particular order or contract. In accordance with the TONGSION policy of continuous improvement specifications may change without notice.

The publication of information in this data sheet does not imply freedom from patent or other protective rights of TONGSION or others. Further details are available from any TONGSION sales representative.

CONTACT

sales@tongsion.com

http://www.tongsion.com

SHENZHEN TONGSION TECHNOLOGY CO., LTD
Tel: (+86) 0755-22678831
E-mail: sales@tongsion.com
http://www.tongsion.com

Page 5 of 5
Nov 01 / 2014
Rev. 2.0