User's Manual

SUN-IE100 Series

Industrial fiber optic transceiver

English

Content

1.   Description

This series of switch products, is my company specifically for electric power, transportation, petroleum and petrochemical, factory automation, justice system, outdoor applications such as monitoring, outdoor equipment box environment a industrial-grade fiber optic transceiver product development;

The product provides a 100Base SC fiber optic interface, single mode single fiber/single-mode fiber, SC/LC connector, single-mode standard 20 km optical fiber transmission distance, could also provide single-mode 40 km / 60 km / 80 km and 80 km or multimode optical fiber transmission distance of 2 km optional; At the same time provide a 10/100 Base-T(X) RJ45 port, support 10 MBPS and 100 MBPS, full duplex/half duplex and MDI/MDIX adaptive polarity; This product adopts high performance network exchange chip, all port supports non-blocking, full speed packet forwarding, ensure the optical transceiver packet forwarding any additional delay.

This product adopts metal shell, beautiful and sturdy, achieve IP30 protection grade, working temperature and -40 °C ~ 85 °C; And the product of the average trouble-free working time to over 400, 000 hours;
Non network switches, the products meet the CCC, CE/FCC, EN 61000, such as standard target of the performance of high stability, high reliability is the ideal choice for industrial application.

2. Features

- The Mini type industrial fiber optic transceivers

- 1 100 Base-Fx SC optical port, 1 10/100 Base T(X) electricity

- Follow the IEEE 802.3 standard

- 10/100 MBPS, full duplex/half duplex, MDI/MIDX adaptive polarity

- Support the broadcast storm inhibition function

- Ac/dc power supply adaptive

- Power supply voltage 12V~24V DC

- 6KV lightning protection power supply interface

- Aluminum frame, IP30 protection grade

The average trouble-free working time > 400000 hours

3. Technical parameters

Interface	
Combo Interfaces	10/100Base-T(X)adaptive RJ45 Ethernet interface
Fiber Interfaces	1000Base-FX,Singlemode
Environment	
MTBF	>400,000 hours
Operating Temp.	-40℃～85℃
Storage Temp.	-50℃～100℃
Relative Humidity	5～95%（non-condensing）
Switch Parameters	
Packet Buffer	0.5M
MAC Table	1K
Processing Type	The full speed forward

Transmission Distance	
Electricity	Reach to 100m（CAT5 or CAT5e）
Optical Fiber	Singlemode 20KM
Mechanical structure	
Chassis	Aluminum chassis
Protection grade	IP30
Weight	380g
Installation	Independent installation
Size	83 x 50.2 x 25.8mm
ELECTRICAL	
Input Power	12V DC
Power Consumption	3W @ 12V DC
Overload Circuitry	Support
Installation	Independent installation
Power Terminal	5.08 mm distance between terminals
Optical Parameters	
Wavelength	Double fiber1310nm/1310nm / single fiber1310nm/1550nm
Fiber Type (um)	Singlemode9/125 /Multimode 62.5/125 or Multimode 50/125

4. Power Supply

Use 5.08 mm spacing between the power input terminals to connect the power cord.
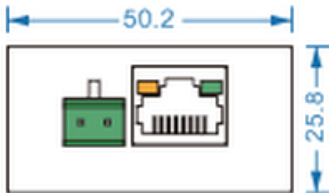
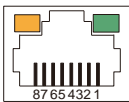## 5. Connection method

Electrical wiring instructions

Ethernet port and terminal equipment and network equipment can use direct or cross line connecting terminal are RJ45 interface

Gigabit RJ45 interface and serial number as shown on the right

MB RJ45 interface pin definition as shown in the figure below

| MDI/MDI-X Port Pinouts		
Pin	MDI-X signal	MDI signal
1	Receive data+(RD+)	Output data+(TD+)
2	Receive data-(RD-)	Output data-(TD-)
3	Output data+(TD+)	Receive data+(RD+)
6	Output data-(TD-)	Receive data-(RD-)
4、5、7、8	unused	
instructions	"+" "-" represents the level of polarity	

Opital Fiber
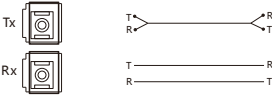
⚠ notice   This equipment use laser signal on optical cable transmission, accord with the requirement of grade 1 laser product normal operation is harmless to the eyes. When equipment is working, do not look directly into light port and fiber end face.

RJ45 ports Status LEDs		
Each RJ45 port has two lights, yellow lights for port rate indicators, a green light for port connection status indicator		
Speed (Yellow)	on	1000M working status
	off	10M working status or no connection
Link/ACT(Green)	on	Link-up
	blink	Working
	off	Link-down
Fiber Status LEDs		
Link	on	Link-up
	blink	Working
Power	on	Normal power supply
	off	No power supply

Panel shows
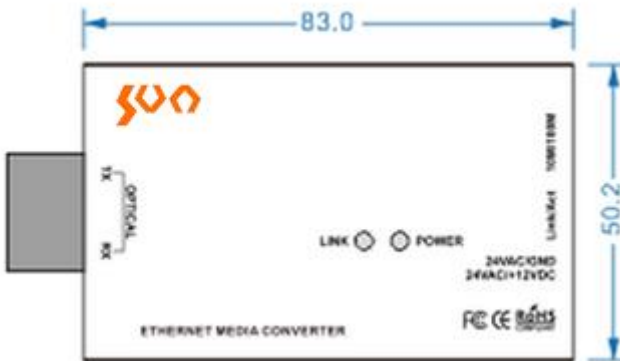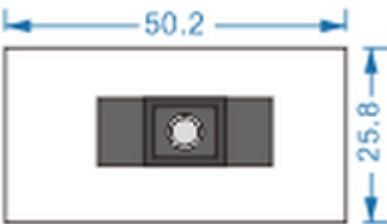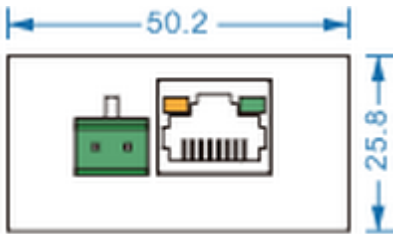
6. Detailed List

Accessories	Quantity	Description
Switch	1	Industrial-grade transceiver
Product information	1	Manual, certificate of approval
Power	1	12V 1A DC

7. Device test method

Two computers, each with a 10/100M adaptive, half/full-duplex Ethernet card, buy this series of products by the customer (single/mould, 10/100M), if it is double fiber with two root and light port corresponding fiber optic jumper wire connection, if it is the use of a single fiber is that with light port corresponding fiber optic jumper wire connection, direct or cross twisted-pair cable. Set the network card installed on the computer, a fixed IP address, special power supply connected to the purchased equipment, use twisted-pair cable to connect computers and transceiver. With fiber optic jumper wire connects the two buying equipment, such as buying products for single mode, jump line and the application of single mode. With fiber optic jumper wire connection, the RX side, the other end to TX, so cross connection; Using a computer to do the following operations "start - run - ping the IP address of another computer". Received another computer communication the information returned to normal, not yet received complete communication is not normal.

8. Fault judgment

1. The POWER light not on:

The power part of the fault, can test the power of the output voltage is normal.

2. The LINK: wouldn't light may develop any of the following:

(a) check whether optical fiber links open circuit;

(b) check whether optical fiber line loss is too big, range of equipment receiving;

(c) check whether the optical fiber interface is connected correctly, TX and RX connection on the far side, at the bottom of far side at the bottom of the TX and RX connection;

(d) check optical fiber connector   insertion device interface, if jump line type and device interface matching, whether the device type and fiber optic matching, matching equipment whether transmission distance and the actual distance.

3. Electricity port LINK the light not bright, may develop any of the following:

(a) check whether cable short circuit or open circuit;

(b) check wiring type matches; Divided into twisted-pair and parallel lines;

(c) check whether the equipment transmission rate is matching.

4. Network packet loss serious: may develop any of the following:

(a) the purchase equipment of electric port and network device interface, or duplex mismatch of the device interface;

(b) twisted pair with RJ-45 head has a problem, check;

(c) fiber optic connection issue, whether the jumper wire alignment device interface, tail fiber and jumper wire and coupler types match, etc.;

(d) check the power converter is working correctly.

An important message from Sun Telecom

We guarantee that any information you supply will remain confidential.

By returning this card, you will automatically be notified about updates, modifications, and recalibration.

Warranty Registration Card

Serial Number: _____

Model Number: _____

Date of Purchase:_____

Company Name:_____

Company Address:_____

TEL: _____   FAX:_____

E-mail:_____

Note: Please fax this note within one month from the date of receiving units.

YOUR OPINION:

Do you have any comments on the quality of this product or the service from us?

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