Model: UT-2601

Product Name: 100Mbps Network Fiber Optic Transceiver

1-port 100Mbps Network Fiber Optic Transceiver

Datasheet

1.Overview

This series is a 100Mbps network fiber optic transceiver that provides 1 10/100Base-TX Ethernet port and 1 100Base-FX optical port. It is used for data communication between Ethernet ports and optical cables, making it the most suitable connector for intelligent communities or fiber-to-the-desktop. This series of products support -40~85℃ working temperature and good EMC electromagnetic compatibility performance, ensuring normal operation in harsh environments. This series greatly extends the distance of network transmission and can easily realize interconnection between motherboard servers, repeaters, hubs, terminals, etc. It provides an economic, effective, safe, and reliable solution for building networks in industries such as video surveillance, finance, education, etc.

2. Major Functions & Features

- Uses high-quality optoelectronic integration modules to provide good optical and electrical characteristics, ensuring reliable data transmission and long service life.
- Supports full-duplex or half-duplex mode with automatic negotiation capability.
- 10Mbps and 100Mbps auto-adaptation.
- Auto-MDI/MDIX for all ports.
- Plug-and-play, easy to use.
- Ultra-wide operating temperature: -40℃ ~ 85℃.
- Ultra-wide voltage input: 12/24/48VDC (10.8~52.8VDC), supports reverse connection protection.
- Flexibly supports various fiber interfaces (SC, ST, FC, SFP interfaces).

3. Hardware specification

Standards

IEEE 802.3 10Base-T

IEEE 802.3u 100Base-TX and 100Base-FX

Interfaces

Fiber port: 1 100Base-FX port (optional SC, ST, FC, SFP interface)

RJ45 port: 1 10/100Base-TX port, auto-sensing, full/half duplex MDI/MDI-X adaptive.

DIP switch: 10M/100M rate selection switch, DPX2 optical port working status selection switch, DPX1 electrical port working status selection switch, LFP optical port and electrical port connection status detection switch.

LED indicators: PWR power indicator, FDX fiber indicator, DPX2 optical port full/half duplex indicator, DPX1 electrical port full/half duplex indicator, RJ network indicator.

Fiber Core Diameter

Multimode: 50/125, 62.5/125

Single mode: 8.3/125, 9/125, 10/125

Switching Performance

Forwarding Rate: 148810pps

Transmission Mode: Direct forwarding

MAC Address Space: 1K

Buffer Space: 288Kb
Maximum Frame Length: 9K

Power Requirements

Input Voltage: 12/24/48VDC (10.8~52.8VDC)
Power Consumption: 100mA@24Vmax
Interface Terminal: 1 pluggable 3-pin terminal block
Overload Protection: Provided
Reverse Connection Protection: Provided

Mechanical Characteristics

Enclosure: IP40 protection level.
Installation Method: DIN-rail mounting.
Mechanical Dimensions: 100mm x 80mm x 35mm.
Package Dimensions: 180mm x 140mm x 45mm.

Operating Environment

Operating Temperature: -40℃ ~ 85℃.
Storage Temperature: -40℃ ~ 85℃.
Relative Humidity: 0% ~ 95%.

Industry Standards

EMI: FCC Part 15 Subpart B class A, EN55022 class A.
EMS:
IEC(EN)61000-4-2 (ESD)
IEC(EN)61000-4-3 (RS)
IEC(EN)61000-4-4 (EFT)
IEC(EN)61000-4-5 (Surge)
IEC(EN)61000-4-6 (CS)
IEC(EN)61000-4-8
IEC 60068-2-27 (Shock).

Index parameter		100Base-FX			
		Multi-	Singal-mode		
Dual fiber transmitting and		1310	1310	1310	1550
Send signal fiber (T type)	Send the	1310	1310	1310	1490
	Receive the	1550	1550	1550	1550
Receive signal fiber (R type)	Send the	1550	1550	1550	1550
	Receive the	1310	1310	1310	1490
Transmission distance Km		2	20	40	80
Transmit power dBm		-15~-8	-15~-8	-5~0	-5~0
Receive sensitivity dBm(≤)		-32	-34	-34	-34
Optical saturation dBm		-3	-3	-3	-3
Optical loss dBm/Km		0.5	0.5	0.3	0.25
Electrical port data trasmission		10/100Mbps			

4. Appearance

5. Structure dimensions