



UT-N60FS11SC系列 百兆光纤收发器 说明书

一、概述

本系列是一款百兆自适应快速以太网光纤收发器，支持1个155Mbps光纤接口，1个10/100Base-TX自适应以太网RJ45接口。产品设计符合以太网标准，拥有防雷、防静电保护措施，-20℃~70℃的宽范围工作温度，性能稳定可靠。该设备可广泛应用于智能建筑，智慧城市，智能交通、电信、安防、电力及煤炭等各种行业应用。

二、主要特性

- ◎ 采用优质光电一体化模块提供良好的光学特性和电气特性，保证传输可靠，寿命长。
- ◎ 支持MAC地址自动学习和自动更新功能及数据存储转发的运行机制。
- ◎ 支持流控方式：全双工采用IEEE 802.3X，半双工采用背压方式。
- ◎ 提供状态指示灯，外置电源。
- ◎ 采用独特集成电路解决方案，芯片温升低，摆脱加散热系统，实现流量控制，减少广播风暴。
- ◎ 超低功耗小于2.5W，低发热，能长时间稳定工作。

三、硬件规格

- ◎ 符合IEEE 802.3；IEEE 802.3u；IEEE802.3X；10Base-TX；100Base-TX；100Base-FX标准。
- ◎ 1个RJ45接口，1个SC光纤接口
- ◎ 电源：DC5V 1A，功耗<2.5W
- ◎ 运行环境温度：-20~70℃
- ◎ 运行环境湿度：5%~90%
- ◎ 重量：0.25kg
- ◎ 尺寸：93*70*25mm

四、LED指示灯含义

指示灯	描述
FX Link/Act	常亮：光口连接正常；闪烁：光口通信正常
TX Link/Act	常亮：电口连接正常；闪烁：电口通信正常
FDX	常亮：全双工工作模式；灭：半双工工作模式
PWR	常亮：电源供电正常；灭：未供电或故障
FX	常亮：光口速率100M

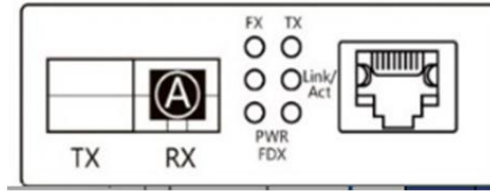
五、安装

1、接口

电口可支持5类双绞线，长度可达100米，支持平行线交叉线自动识别。光口支持SC接口，工作于百兆全双工模式。光口为单模单纤SC接口。

2、连接

用户的网络设备（如工作站、集线器或者交换机）可通过5类双绞线连接收发器的RJ45接口和设备自身的RJ45接口。收发器的光口可通过光纤连接至远端的收发器或交换机的光口。当设备连接正常时，相应的LED指示灯会点亮（参见下列示意图）



六、故障排除

- 1、设备不匹配：如果与本产品相连接的设备（网卡、集线器、交换机）出现不匹配问题，请根据速率选用相适应的产品；
- 2、光纤线损过大：光纤布线、光纤熔接或者光纤跳线插头不合适都有可能造成损耗过大，导致设备工作异常。

七、装箱清单

名称	数量
光纤收发器	1PCS
电源适配器	1PCS
合格证	1PCS
保修卡	1PCS
说明书	1PCS



UT-N60FS11SC Series 100M Fiber optic transceiver User manual

I. Overview

This series is a 100Mbps adaptive fast Ethernet fiber optic transceiver, supporting one 155Mbps fiber optic interface and one 10/100Base-TX adaptive Ethernet RJ45 interface. The product design complies with Ethernet standards, with lightning protection and electrostatic protection measures, a wide operating temperature range of -20°C~70°C, and stable and reliable performance. This equipment can be widely used in various industries such as smart buildings, smart cities, intelligent transportation, telecommunications, security, power, and coal.

II. Main Features

- ◎ Adopting high-quality optoelectronic integrated modules to provide good optical and electrical characteristics, ensuring reliable transmission and long service life.
- ◎ Support MAC address automatic learning and automatic update function and data storage forwarding mechanism.
- ◎ Support flow control mode: full duplex uses IEEE 802.3X, and half duplex uses back pressure method.
- ◎ Provide status indicator lights, external power supply.
- ◎ Using a unique integrated circuit solution, the chip temperature rise is low, avoiding the need for heat dissipation system, realizing flow control, and reducing broadcast storms.
- ◎ Ultra-low power consumption is less than 2.5W, low heat generation, and can work stably for a long time.

III. Hardware Description

- ◎ Compliant with IEEE 802.3; IEEE 802.3u; IEEE 802.3X; 10Base-TX; 100BASE-TX; 100Base-FX standards.
- ◎ One RJ45 interface and one SC fiber optic interface.
- ◎ Power supply DC5V 1A, power consumption <2.5W.
- ◎ Operating environment temperature: -20~70°C
- ◎ Operating environment humidity 5%~90%
- ◎ Weight 0.25kg
- ◎ Size 93*70*25mm.

IV. LED Indicator

Indicator	Description
FX Link/Act	Steady Light: Fiber optic port connection is normal; Blinking: Fiber optic port communication is normal.
TX Link/Act	Steady Light: Ethernet port connection is normal; Blinking: Ethernet port communication is normal.
FDX	Steady Light: Full-duplex mode; Off: Half-duplex mode.
PWR	Steady Light: Power supply is normal; Off: No power supply or malfunction.
FX	Steady Light: Fiber optic port speed 100Mbps.

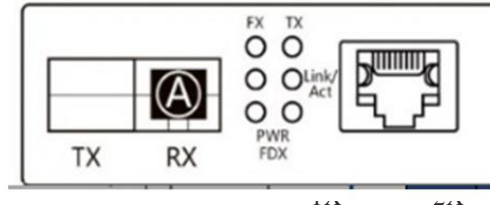
V. Installation

1. Interface

The Ethernet port supports Category 5 twisted pair cable with a length of up to 100 meters and supports automatic recognition of parallel lines and crossover cables. It operates in 100Mbps full-duplex mode. The fiber optic port is a single-mode single-fiber SC interface.

2. Connection

The user's network devices (such as workstations, hubs or switches) can connect to the transceiver's RJ45 interface and the device's own RJ45 interface via a Category 5 twisted pair cable. The transceiver's fiber optic port can be connected to the fiber optic port of a remote transceiver or switch via fiber optic cable. When the equipment is connected normally, the corresponding LED indicator will light up (see the diagram below for details).



VI. Troubleshooting and Solutions

1. Equipment mismatch: If there is an equipment mismatch issue with the device (such as network card, hub or switch) connected to this product, please use a product that matches the speed accordingly.
2. Excessive loss of fiber optic cable: Improper fiber optic cabling, fusion splicing, or fiber optic patch cord connectors may cause excessive loss, resulting in abnormal equipment operation.

VII. Accessories

Name	QTY(Unit)
Fiber Transceiver	1PCS
Power Adapter	1PCS
Product certification	1PCS
Warranty card	1PCS
Chinese & English User manual	1PCS