

光纤收发器使用说明书

深圳市柏顺智联科技有限公司 BOSUNN

一、产品概述

光纤收发器为以太网光电转换设备，实现双绞线电信号与光纤光信号的双向转换，延长网络传输距离。产品覆盖百兆、千兆、工业级、POE 等全系列，性能稳定、兼容性优异，适用于安防监控、网络工程、智能交通、厂区组网等场景。本设备通常需成对使用才能正常通信。

二、安全注意事项

1. 电源安全：请使用原装配套电源适配器，禁止使用电压、参数不匹配的电源，避免烧毁设备。
2. 防雷防护：设备室外安装或雷雨多发环境使用时，必须做好接地及防雷措施，降低设备损坏风险。
3. 端口防护：光口闲置时务必佩戴防尘帽，灰尘、污渍会导致光衰过大、网络卡顿、断连等问题。
4. 激光安全：光口工作时会发射激光，严禁直视光口，避免造成眼部永久性损伤。
5. 环境要求：请在干燥、通风、无尘环境中使用，避免潮湿、高温、强电磁干扰环境。

三、安装准备

包装清单：光纤收发器主机 ×1、电源适配器 ×1、产品说明书 ×1 或二维码电子版说明书

辅助工具（不属于本机标配）：网线钳、水晶头、网络测线仪、十字螺丝刀

四、设备接线教程

1. 网线连接

将标准 RJ45 网线一端接入交换机、路由器等上游网络设备网口，另一端接入收发器 RJ45 电口。

2. 光纤连接

◆ 双纤收发器（双光口）：需两根光纤对接，严格交叉对接：A 端 TX 发射口对接 B 端 RX 接收口，A 端 RX 接收口对接 B 端 TX 发射口。

◆ 单纤收发器（单光口）：仅需一根光纤，两端设备直接对接，无需区分收发、无需交叉接线。

3. 电源连接

将电源适配器接入设备 DC 供电接口，接通市电，设备自动启动。

五、指示灯状态说明

指示灯	状态	说明
PWR	常亮	设备通电正常
FX Link/Act	常亮	光纤链路连接正常
FX Link/Act	闪烁	光纤正在传输数据
TP Link/Act	常亮	网线链路连接正常
TP Link/Act	闪烁	网线数据传输中
FDX(部分机型有)	常亮	全双工工作模式
FDX(部分机型有)	熄灭	半双工工作模式

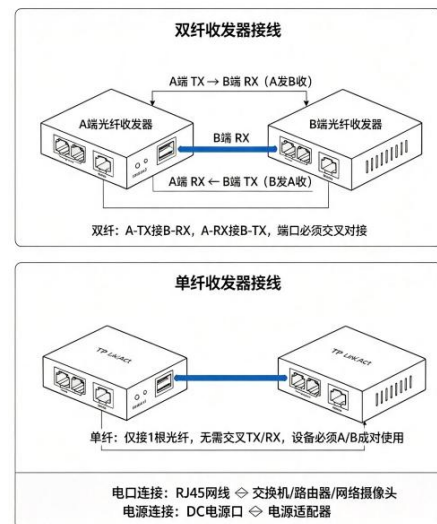
六、常见故障排查

1. PWR 灯不亮：检查电源适配器是否匹配、电源线是否插紧、市电是否正常。
2. FX 光口灯不亮：检查光纤是否破损、弯折过度；核对单模/多模光纤规格匹配；确认对端收发器正常上电工作。
3. TP 网口灯不亮：检查网线是否损坏、水晶头是否压接合格；确认对接交换机端口正常启用。
4. 网络频繁卡顿掉线：检查光口是否积灰、光纤接线是否松动，排查环境电磁干扰及线路破损问题。

七、售后说明

本产品享受正规质保服务，非人为损坏可享受免费保修。如需技术支持、售后维修或产品咨询，请联系我司经销商或官方客服。

深圳市柏顺智联科技有限公司



User Manual of Fiber Media Converter

BOSUNN Technology Co., Ltd.

1. Product Overview

The fiber media converter is a professional Ethernet photoelectric conversion device, which realizes bidirectional conversion between twisted pair electrical signals and optical fiber signals to extend network transmission distance effectively.

This product covers 100Mbps, Gigabit, industrial grade and POE series with stable performance and strong compatibility. It is widely used in security monitoring, network engineering, intelligent transportation and factory network systems.

The device normally needs to be used in pairs for normal communication.

2. Safety Precautions

A. Power Safety: Use only the original matching power adapter. Do not use mismatched power supply to avoid device burnout.

B. Lightning Protection: When installed outdoors or in thunderstorm-prone areas, reliable grounding and lightning protection measures are required.

C. Port Protection: Keep the optical port covered with a dust cap when idle. Dust and dirt will cause excessive optical attenuation, network lag and disconnection.

D. Laser Safety: The optical port emits laser during operation. Do not stare at the port directly to prevent permanent eye damage.

E. Environment Requirement: Use the device in dry, ventilated and dust-free environments. Keep away from humidity, high temperature and strong electromagnetic interference.

3. Installation Preparation

Packing List: Fiber media converter ×1, Power adapter ×1, User manual ×1

Auxiliary Tools: Cable crimping pliers, Crystal heads, Network cable tester, Phillips screwdriver

4. Wiring Instructions

A. Network Cable Connection

Connect one end of the standard RJ45 cable to network devices such as switches or routers, and the other end to the RJ45 electrical port of the converter.

B. Fiber Connection

◆ Dual-fiber Converter: Two optical fibers are required.

Cross connection is mandatory: A-end TX to B-end RX, A-end RX to B-end TX.

◆ Single-fiber Converter: Only one optical fiber is required.

Connect two devices directly without cross wiring.

C. Power Connection

Connect the power adapter to the DC power port of the device, and the device will start automatically after power on.

5. LED Status Description

LED	Status	Description
PWR	On	Power supply normal
FX LINK/ACT	On	Fiber link established
FX LINK/ACT	Blinking	Data transmitting over fiber
TP LINK/ACT	On	Twisted-pair link established
TP LINK/ACT	Blinking	Data transmitting over Ethernet cable
FDX (Available on partial models)	On	Full-duplex working mode
FDX(Available on partial models)	Off	Half-duplex working mode

6. Troubleshooting

A. PWR LED off: Check whether the power adapter is matched, the cable is firmly connected and the mains supply is normal.

B. FX LED off: Check if the optical fiber is damaged or excessively bent; confirm single-mode/multi-mode fiber matching; ensure the opposite converter is powered on normally.

C. TP LED off: Check network cable damage and crystal head crimping quality; confirm the switch port is enabled normally.

D. Frequent network lag & disconnection: Clean dust on optical ports, check loose fiber connections, and eliminate environmental electromagnetic interference and line damage.

7. After-sales Service

This product enjoys official warranty service. Free warranty is available for non-artificial damage. For technical support, after-sales maintenance and product consultation, please contact our dealers or official customer service.

