Ethernet Fiber Transceiver

User’s Manual

V1.0.0

Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages and losses.

Note:

- Do not expose the device to lampblack, steam or dust. Otherwise it may cause fire or electric shock.
- Do not install the device at position exposed to sunlight or in high temperature. Temperature rise in device may cause fire.
- Do not expose the device to humid environment. Otherwise it may cause fire.
- The device must be installed on solid and flat surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or turnover.
- Do not place the device on carpet or quilt.
- Do not block air vent of the device or ventilation around the device. Otherwise, temperature in device will rise and may cause fire.
- Do not place any object on the device.
- Do not disassemble the device without professional instruction.

Warning:

- Please use battery properly to avoid fire, explosion and other dangers.
- Please replace used battery with battery of the same type.
- Do not use power line other than the one specified. Please use it properly. Otherwise, it may cause fire or electric shock.

Special Announcement

- This manual is for reference only.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.

Table of Contents

1 Product Overview

1.1 Introduction

Ethernet fiber transceiver is an Ethernet transmission media converting unit that switch short-distance twisted-pair electrical signal with long-distance optical signal. It is reliable and applied in public security, traffic and factory.

1.2 Features

- Support 1-ch 100M Ethernet data transmission on single fiber.
- Support DC12V power.
- Support IEEE802.3U, IEEE802.3X network standard.
- Support 10/100Mbps auto-negotiation network signal transmission.
- Support full/half duplex.
- Industrial design, simple installation, UPnP.
- Fiber default distance is 20km, and 40km, 80km are optional.
- LED status indicator displays fiber transceiver's working status.

1.3 Typical Application

Typical application of Ethernet fiber transceiver is shown in Figure 1- 1.

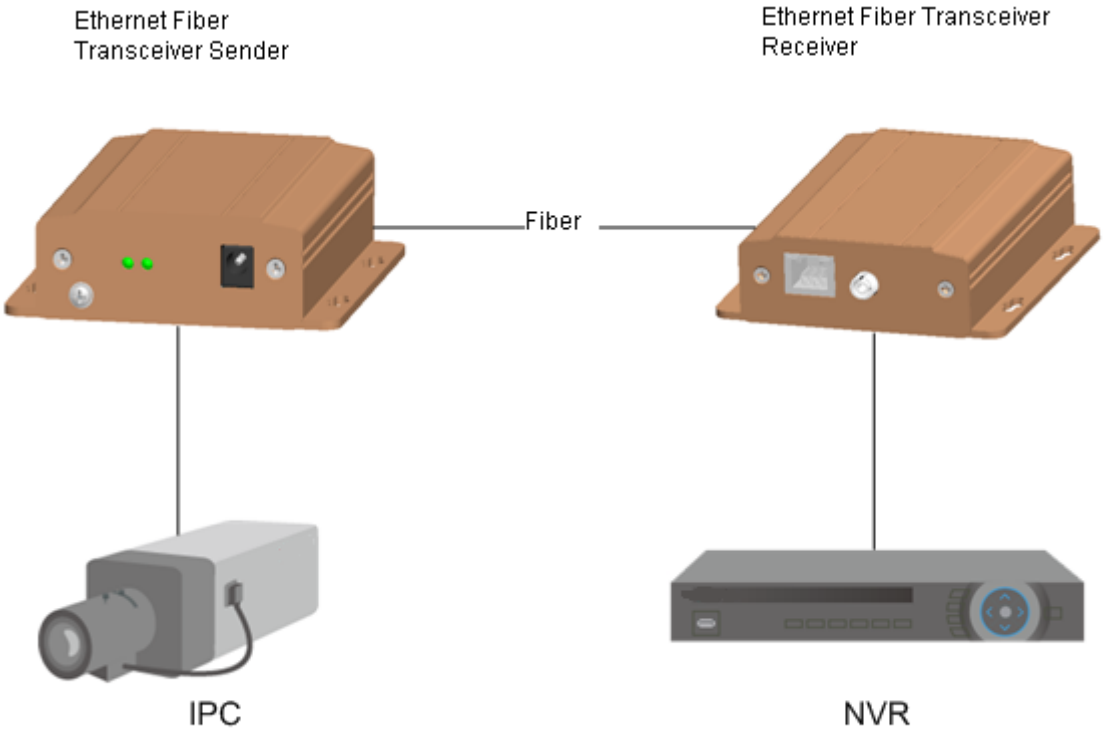
Ethernet Fiber
Transceiver Sender
Ethernet Fiber Transceiver
Receiver
Fiber
IPC
NVR

Figure 1- 1

2 Device Structure

2.1 Front Panel

The front panel is shown in Figure 2- 1.

Figure 2- 1

2.2 Real Panel

The real panel is shown as in Figure 2- 2.

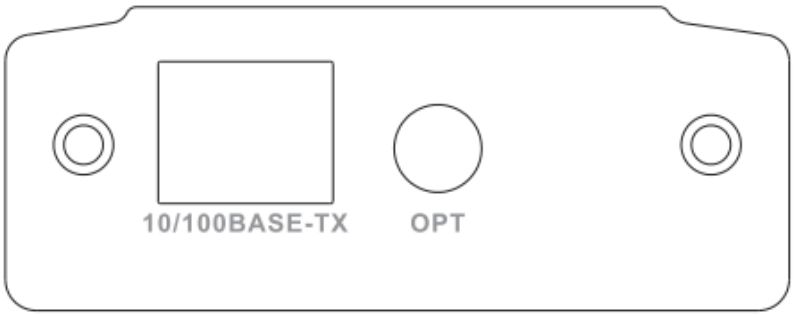

Figure 2- 2

2.3 Indicator and Other Ports

For indicator, please refer to Chart 2- 1. For other ports, please refer to Chart 2- 2.

Indicator	Description	Color	Status
PWR	Power status indicator	Green	Means power connection is normal.
LOS	Fiber status indicator	Green	Means fiber connection is normal.

Chart 2- 1

Port	Description
DC12V	Power port, DC12V 1A
OPT	Fiber port

Chart 2- 2

3 Technical Standard

Parameter		Description
Model		OTE103R OTE103T
Optical Standard	Fiber type	Single fiber
	Fiber port	FC port
	Transmission distance	Single module 0km～20km
	Send/Receive wavelength	Send end(OTE103T)：1310nm send 1550nm receive Receive end (OTE103R)：1550nm send 1310nm receive
Network Standard	Port type	1 RJ45
	Working mode	10M/100M auto-negotiation Ethernet
	Indicator	Optical link indicator, power indicator
	MTBF	>100,000 hours
General	Power supply	DC12V 1A
	Working temperature	－40℃～75℃
	Power consumption	≤6W
	Working humidity	10%～90%
	Dimension	104.6mm×96.2mm×29.5mm

4 FAQ

Problem	Possible Cause	Solution
Network disconnection	Optical port connection error	Re-connect optical port. When LOS indicator is green, the device is normal.
	Sending/receiving devices are not used as pair.	Confirm if send end (OTE103T) and receive end (OTE103R) are correct.
Network disconnection or network packet loss	Cable is too long.	Change to better cable, or add relay to cables.

Appendix A Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Circuit Board Component	○	○	○	○	○	○
Device Case	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes

Note

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