Single-Port Long Reach Ethernet over Coaxial Extender

User's Manual

V1.0.2

1.2.51.32.12579-000

Important Safeguards and Warnings

Attention:

Please read the following safeguards and warnings carefully before using the product in order to avoiddamages andlosses.

Note

- Donot expose the device to lampblack, steam or dust Otherwiseit may cause fire or electric shock
- Do not installthe device at position exposed to sunlight or in high temperalure. Temperature rise indevice may cause fire.
- Do notexpose the device to humid environment. Otherwise itmay cause fire.
- Thedevice must be installed on solid and flat surface in orderto 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 indevice 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 shack.

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.
- Ifthere is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.
- The function of the ITE being investigated to IEC 60950-1is considered not likely to require connection to an Ethernet network with outside plant routing, including campus environment.
- The installation instructions clearly state that the ITE is to be connected only to PoE networks without routing to the outside plant.

1 Product Overview

1.1 Product Introduction

Single-Port Long Reach Ethernet over Coaxial Extender is a type of converter from RJ45 to BNC port, whichsupports long range power supply transmission via coaxial cable. It provides one BNC coaxial port andone RJ45 port.

The product is equipped with two transmission modes which are 100Mbps and 10Mbps. It can bemodified according to the transmission distance.

1.2 Product Features

- Supports IEEE802.3,IEEE802.3u and IEEE802.3X standards .
- Supports IEEE802.3af and IEEE802.3at power supply standa.ds.
- Port; 1*RJ45 10/100Mbps, 1*BNC.
- Supports RG59 coaxial cable: 400m/100Mbps, 1000m/10Mbps.
- Supports MDI/MDIX self-adaption.
- Supports long range power supply transmission via coaxial cable.
- Operating temperature: -30~65℃.

1.3 Typical Application

The product is divided into transmitter (ePOE Transmitter) and receiver (ePOE Receiver), which can be used together with EoC passive converter (ePOE Transceiver). It owns three types of networking schemes, which is shown in Figure 1-1. ePoE switch or ePoE IPC means the specific switch or IPC with thefunction of long distance.

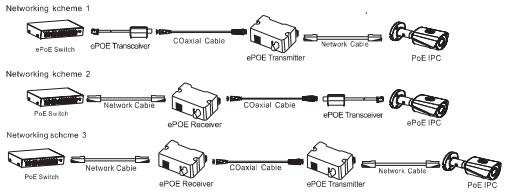

Figure 1-1

2 Device Structure

2.1 Device Panel

The device panelis shown in Figure 2-1 (ePOE Transmitter) and Figure 2-2 (ePOE Receiver).

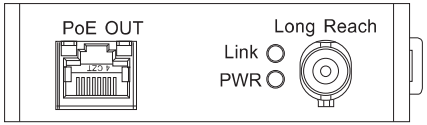

Figure2-1

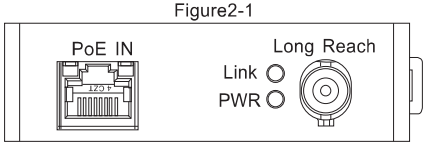

Figure2-2

Please refer to Table 2-1 for more details.

SN	Name	Note
1	PoE OUT	PoE output port
2	PoE IN	PoE input port
3	Link	BNC port Link indicator light E 100 On for 3 seconds. off for 1 second E10: On for 1 second, off for 1 second
4	PWR	Power indicatorlight
5	Long Reach	Coaxial cable port

Table2-1

3 Installation Guide

3.1 Device Installation

Single- Port Long Reach Ethernet over Coaxial Extender supports two installation modes. It can be installed into the junction box or it can support DIN rail mount.

Please refer to Figure 3- 1 for the installation inside junction box.

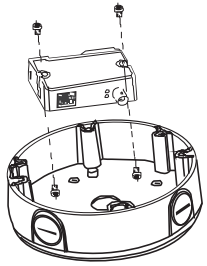

Figure3-1

Please refer to Figure 3-2 for DIN rail mount.

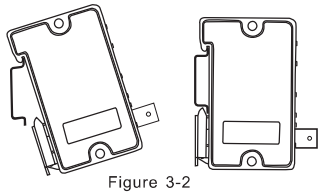

Figure 3-2

Cable Length (m)	Communication Bandwidth (Mbps)	PoE Max Load Capacity (W)	Network Operating Mode
ePoE switch supply voltage 48V. RG-59, max. DC resistance < 5Ω/100m. Caution: The load capacity can be applied to networking scheme 3. Cablele ngth means the total wire length from switch to transmitter (including network cable and coaxial cable). It can use max. 2m network cable to connection transmitter to IPC.			
100	100	25.5	E100
200	100	24	E100
300	100	19	E100
400	100	16	E100
500	10	13	E10
800	10	8	E10
1000	10	6	E10
ePoE switch supply voltage 53V. RG-59, max. DC resistance < 5Ω/100m. Caution: The load capacity can be applied to networking scheme 3. Cable length means the total wire length from switch to transmitter (including network cable and coaxial cable). It can use max 2m network cable to connection transmitter to IPC.			

Note

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4 Appendix Technical Specifications

Model	ePOE Transmitter	ePOE Receiver
Function Port	1*10/100Mbps Base-TX 1*BNC	
Power Consumption	<2W	
Transmission Bandwidth	RGS9 coaxial cable: 400m/100Mbps. 1000m/10Mbps	
PoE Protocol	IEEE8023af. IEEE802. 3at	
Network Standard	IEEE802. 3, IEEE802. 3u, IEEE802. 3x	
Lightning Protection	Common Mode 4KV Differential Mode 2KV	
Operating Temperature	-30°C-65°C	
Operating Humidityl	5%~95%	
Weight	61g	
Dimension (WxDx H)	79mm x 52mm x 23mm	

Table4-1

5 Appendix PoE Power Supply Specifications (RG59 Coaxial Cable)

Cable Length (m)	Communication Bandwidth (Mbps)	PoE Max Load Capacity (W)	Network Operating Mode
100	100	21	E100
200	100	15	E100
300	100	11	E100
400	100	9	E100
500	10	7	E10
800	10	5	E10
1000	10	4	E10