

Dahua Single-Port Long Reach Ethernet over Coaxial Extender

User's Manual



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Important Safeguards and Warnings

Attention:

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.
- The function of the ITE being investigated to EN 62368-1 is 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.



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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, which supports long range power supply transmission via coaxial cable. It provides one BNC coaxial port and one RJ45 port.

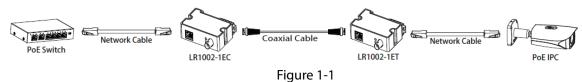
The product is equipped with two transmission modes which are 100Mbps and 10Mbps. It can be modified according to the transmission distance.

1.2 Product Features

- Supports IEEE802.3, IEEE802.3u and IEEE802.3X standards.
- Supports charging the switch with data cable (1, 2, 3, and 6) through PoE.
- Port: 1×RJ45 10/100Mbps, 1×BNC.
- Supports RG59 coaxial cable: 400 m/100 Mbps, 1000 m/10 Mbps.
- Supports MDI/MDIX self-adaption.
- Supports long range power supply transmission via coaxial cable.
- Operating temperature: -30 °C to +65 °C.

1.3 Typical Application

The product is divided into transmitter (DH-LR1002-1ET) and receiver (DH-LR1002-1EC). The number of LR1002-1EC connected to the same PoE switch or PoE NVR cannot exceed 8. The typical application is shown in Figure 1-1.





2 Device Structure

2.1 Device Panel

The device panel is shown in Figure 2-1 (DH-LR1002-1ET) and Figure 2-2 (DH-LR1002-1EC).





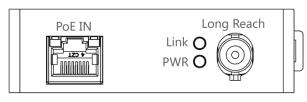


Figure 2-2

Please refer to Table 2-1 for more details.

SN	Name	Note	
1	PoE OUT	PoE output port	
2	PoE IN	PoE input port	
		BNC port Link indicator light	
3	Link	E100: On for 3 seconds, off for 1 second	
		E10: On for 1 second, off for 1 second	
4	PWR Power indicator light		
5	Long Reach	Coaxial cable port	

Table 2-1



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.

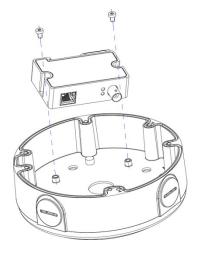


Figure 3-1

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

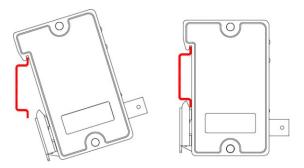


Figure 3-2



4 Appendix 1 PoE Power Supply Specifications (RG59 Coaxial Cable)

Cable Length	Communication	PoE Max Load	Network Operating
(m)	Bandwidth (Mbps)	Capacity (W)	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

ePoE switch supply voltage 48 V.

RG-59, max. DC resistance < 5 Ω /100 m.

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.

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 53 V.

RG-59, max. DC resistance $< 5 \Omega/100$ m.

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

- This accessory might not be compatible with products belonging to other brands. We recommend you use Dahua products.
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