

1. Package Contents

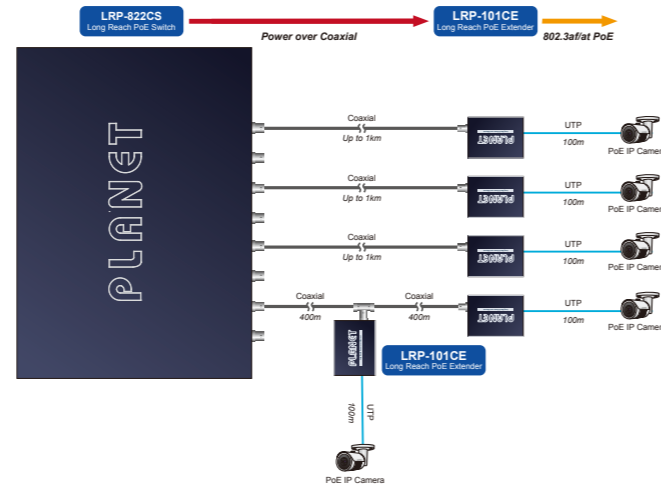
Thank you for purchasing PLANET Long Reach PoE over Coaxial Extender, the LRP-101CE. "Long Reach PoE over Coaxial Extender" mentioned in this manual refers to the LRP-101CE.

Open the box of the Long Reach PoE over Coaxial Extender and carefully unpack it. The box should contain the following items:



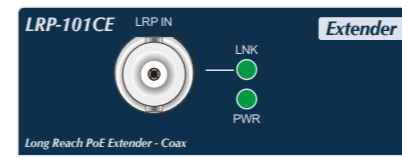
Note If there is any item missing or damaged, please contact the seller immediately.

Point to Multi-point



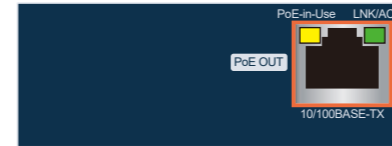
Note It is recommended to use PLANET Long Reach Ethernet coaxial extenders on the LRP Managed Switch (LRP-822CS). If you insert a coaxial extender that is not supported, the LRP Managed Switch may be damaged.

LED Descriptions



System & LRP Coax Interface

LED	Color	Function
PWR	Green	Light: Indicates the power is on.
LNK	Green	Light: Indicates that the coaxial link is established.
		Off: Indicates that the coaxial link is down.

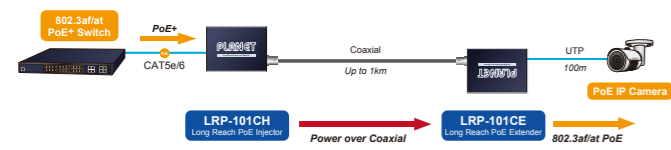


RJ45 10/100BASE-TX Interface

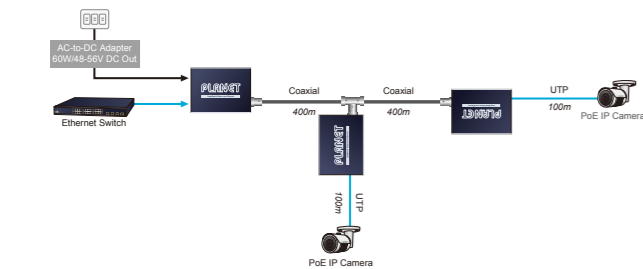
LED	Color	Function
PoE in-Use	Amber	Light: Indicates the RJ45 port is providing PoE power.
LNK/ACT	Green	Blink: Indicates the extender is actively sending or receiving data over that port.

2. Application Diagram

Point to Point



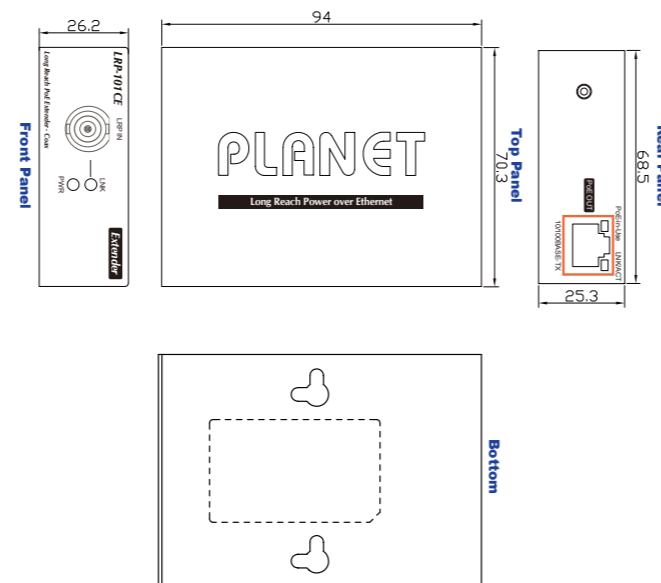
Single Chain, Multi-point



3. Physical Introduction

LRP-101CE Physical Dimensions

Dimensions (W x D x H): 94 x 70.3 x 26 mm



4. Hardware Specifications

Model	LRP-101CE	
Functions	Long Reach PoE Extender	
Hardware Specifications		
Ethernet Interface	Copper	10/100BASE-TX RJ45 Auto-negotiation/Auto-MDI/MDI-X
	Power over Ethernet Standard	IEEE 802.3at/af PoE PSE (power source equipment)
	PoE Output	48~56V DC, 600mA max.
	PoE Budget	Up to 25 watts
	PoE Mode	End-span, RJ45 Pin 1/2(+), 3/6(-)
	Data Rate	100/100Mbps
	Cabling	Cat5e or above
	Maximum Distance	100m
	Maximum Frame sizes	1522bytes
	Long Reach PoE Interface	Connectivity
Power Input		44~56V DC
Cabling		Coaxial cable: 75 ohm RG-6/U cable, less than 12Ω/1000 ft RG-59/U cable, less than 30Ω/1000 ft.

Long Reach PoE Interface	Maximum Distance	Max. 200m with PoE+ output (656ft.) Max. 600m with PoE output (1,968ft.) Max. 1200m without PoE output (3,937ft.)					
	Long Reach Ethernet Standard	IEEE 1901					
	Modulation Type	Wavelet-OFDM					
	Security	128-bit AES encryption					
	Frequency Band	2~28 MHz					
	Performance	Distance	Data Rate* (Upload/Download)	LRP-101CE 802.3af/at PoE Output Capability**			
				LRP-101CH W/56V DC IN	LRP-101CH W/30W PoE+ IN		
				200m	93/93 Mbps	29W	16W
				400m	93/93 Mbps	22W	14W
				600m	87/91 Mbps	13W	10W
800m	75/83 Mbps	10W	8W				
1000m	55/73 Mbps	8W	7W				
LRP Compatibility	With power over coaxial input ■ LRP-101CH – 1-Port LRP Injector ■ LRP-822CS – 8-Port LRP over Coax Switch ■ LRP-1622CS – 16-Port LRP over Coax Switch						

LED Indicators	<ul style="list-style-type: none"> ■ PWR ■ LRP LNK ■ PoE-in-use ■ LNK/ACT
ESD/EFT Protection	2KV/2KV DC
Enclosure	Metal case
Installation	Wall mount or DIN rail with optional kit
Dimensions (W x D x H)	94 x 70 x 26 mm
Weight	375g
Power Requirements	BNC Power over Coaxial Input: 44~56V DC
Standards Conformance	
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3af Power over Ethernet (802.3at Type 1) IEEE 802.3at Power over Ethernet (802.3at Type 2)
Regulatory Compliance	FCC Part 15 Class A, CE
Environment	
Temperature	Operating: -20~70 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~95% (non-condensing) Storage: 5~95% (non-condensing)

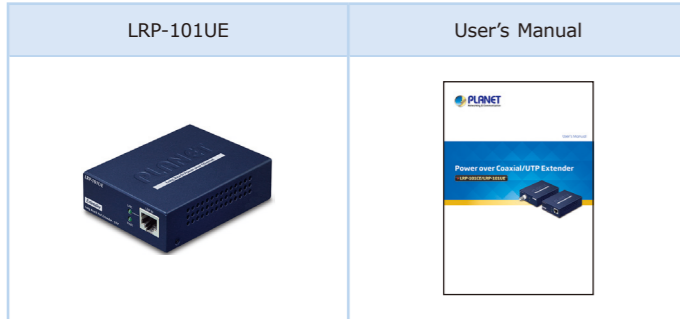
* 1. Upload: LRP-101CE to LRP-101CH. Download: LRP-101CH to LRP-101CE.
 2. As there are various resistance values in the category of RG-59/U or RG-6/U cable, the actual data rate may vary on the quality of the copper wire and environment factors.

** Depending on what the DC/PoE power input and the length of coaxial cable are.

5. Package Contents

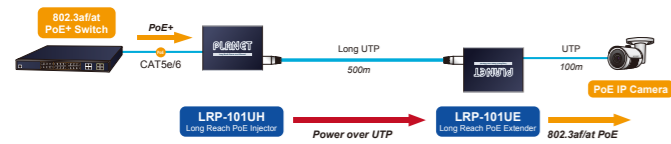
Thank you for purchasing PLANET Long Reach PoE over UTP Extender, the LRP-101UE. "Long Reach PoE over UTP Extender" mentioned in this manual refers to the LRP-101UE.

Open the box of the Long Reach PoE over UTP Extender and carefully unpack it. The box should contain the following items:



6. Application Diagram

Point to Point

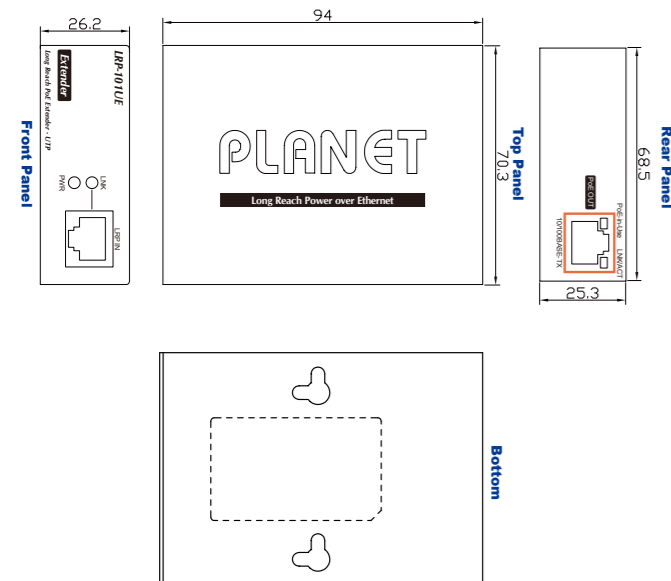


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7. Physical Introduction

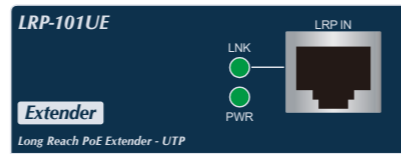
LRP-101UE Physical Dimensions

Dimensions (W x D x H): 94 x 70.3 x 26 mm



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LED Descriptions



> System & LRP Coax Interface

LED	Color	Function
PWR	Green	Light: Indicates the power is on.
LNK	Green	Light: Indicates that the UTP link is established.
		Off: Indicates that the UTP link is down.



> RJ45 10/100BASE-TX Interface

LED	Color	Function
PoE in-Use	Amber	Light: Indicates the RJ45 port is providing PoE power.
LNK/ACT	Green	Blink: Indicates the extender is actively sending or receiving data over that port.

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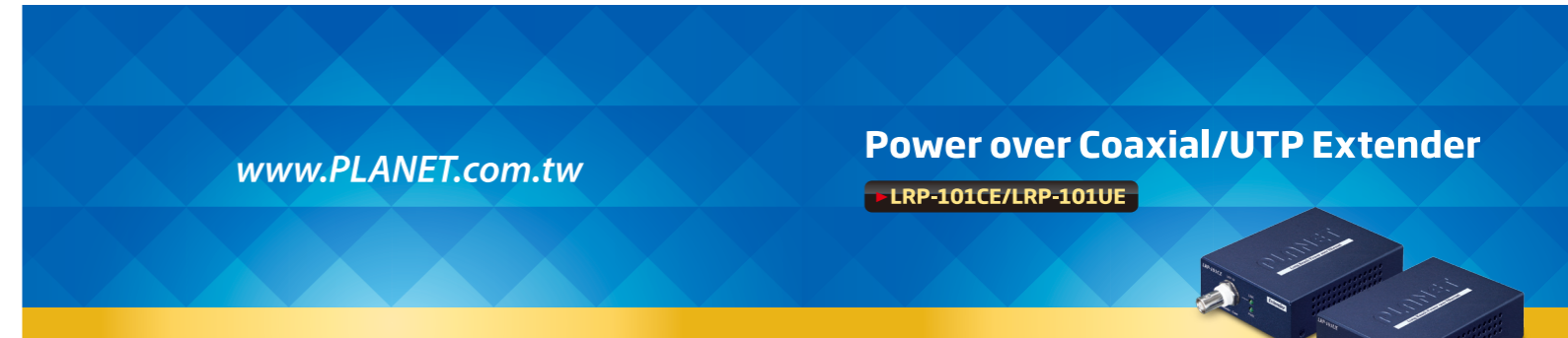
8. Hardware Specifications

Model		LRP-101UE
Hardware Specifications		
Ethernet Interface	Copper	10/100BASE-TX RJ45 Auto-negotiation/Auto-MDI/MDI-X
	PoE Standard	IEEE 802.3at/af PoE PSE (power source equipment)
	PoE Output	48~56V DC, 600mA max.
	PoE Budget	Up to 25 watts
	PoE Mode	End-span, RJ45 Pin 1/2(+), 3/6(-)
	Data Rate	100/100Mbps
	Cabling	Cat5e or above
	Maximum Distance	100m
	Maximum Frame Size	1522bytes
	Long Reach PoE Interface	Connectivity
Pin Assignment		PIN 1, 3, 5, 7: VCC+ PIN 2, 4, 6, 8: VCC-
Power Input		44~56V DC
Cabling		2-wire UTP 4-wire UTP 8-wire UTP
Maximum Distance		Max. 200m with PoE+ output (656ft.) Max. 600m with PoE output (1,968ft.) Max. 1200m without PoE output (3,937ft.)

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User's Manual



PLANET Technology Corp.

10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan

2350-AN0010-002

Warning:
This device is compliant with Class A of CISPR 32. In a residential environment this device may cause radio interference.



Energy Saving Note of the Device
This power required device does not support Standby mode operation. For energy savings, please remove the DC plug or slide the hardware-based Power Switch to the OFF position to disconnect the device from the power source. Without removing the DC plug from or switching off the device, the device will still consume power from the power source. In view of Saving the Energy and reducing the unnecessary power consumption, it is strongly suggested to power off or to remove the DC plug from the device if this device is not intended to be active.

Long Reach PoE Interface	Long Reach Ethernet Standard	IEEE 1901					
	Modulation Type	Wavelet-OFDM					
	Security	128-bit AES encryption					
	Frequency Band	2 ~ 28 MHz					
	Performance	Distance	Data Rate* (Upload/Download)	LRP-101UE 802.3af/at PoE Output Capability**			
				LRP-101UH W/56V DC IN	LRP-101UH W/30W PoE+ IN		
				100m	94/94 Mbps	30W	19W
				200m	82/82 Mbps	30W	18W
				300m	63/67 Mbps	30W	17W
	LRP Compatibility	With power over UTP input LRP-101UH - 1-Port LRP Injector	400m	44/48 Mbps	22W	14W	
500m			30/30 Mbps	18W	12W		
LED Indicators							
ESD/EFT Protection		2KV/2KV DC					
Enclosure		Metal case					
Installation		Wall mount or DIN rail with optional kit					

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Dimensions (W x D x H)	94 x 70 x 26 mm
Weight	190g
Power Requirements	Power over RJ45 Input: 44~56V DC
Standards Conformance	
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3af Power over Ethernet (802.3at Type 1) IEEE 802.3at Power over Ethernet (802.3at Type 2)
Regulatory Compliance	FCC Part 15 Class A, CE
Environment	
Temperature	Operating: -20~70 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~95% (non-condensing) Storage: 5~95% (non-condensing)

* 1. Upload: LRP-101UE to LRP-101UH. Download: LRP-101UH to LRP-101UE.
2. As there are various resistance values in the category of 5/5e cable, the actual data rate may vary on the quality of the copper wire and environment factors.

** Depending on what the DC/PoE power input and the length of UTP cable are.

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