

Description

PLANET Long Reach PoE solution is designed to extend IP Ethernet transmission and inject power simultaneously into a remote 802.3af/at PoE compliant powered device (PD) beyond the 100 meters distance limit of Ethernet.

Convenient PoE over UTP Extender in Harsh Environment

The LRP-101U-KIT, a PLANET Long Reach PoE solution, is a Single-port PoE over UTP Extender Kit featuring long range data and power transmission for distance up to 500m (1,640ft.) over UTP cable, and another 100m over Ethernet cable to remote PoE IP camera, PoE wireless AP or access control systems complied with 802.3af/at PoE. The LRP-101U-KIT provides point to point application for easy plug-n-play operation and deployment in climatically demanding environments with wide temperature range from -20 to 70 degrees C. Without the problem of power source, it makes the installation of remote PoE powered devices easier and more efficiently.



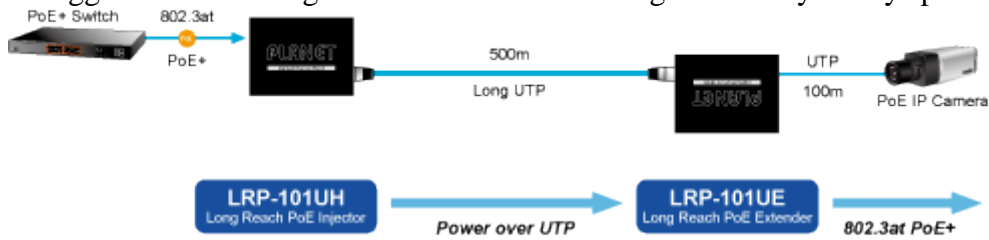
Composition of Long Reach PoE over UTP Extender Kit

The LRP-101U-KIT consists of a Long Reach PoE injector and a Long Reach PoE extender set which can work in pair anywhere on your network infrastructure. It contains two brand-new products:

| LRP-101UH: 1-Port 10/100TX PoE PD + 1-Port UTP Long Reach PoE Injector

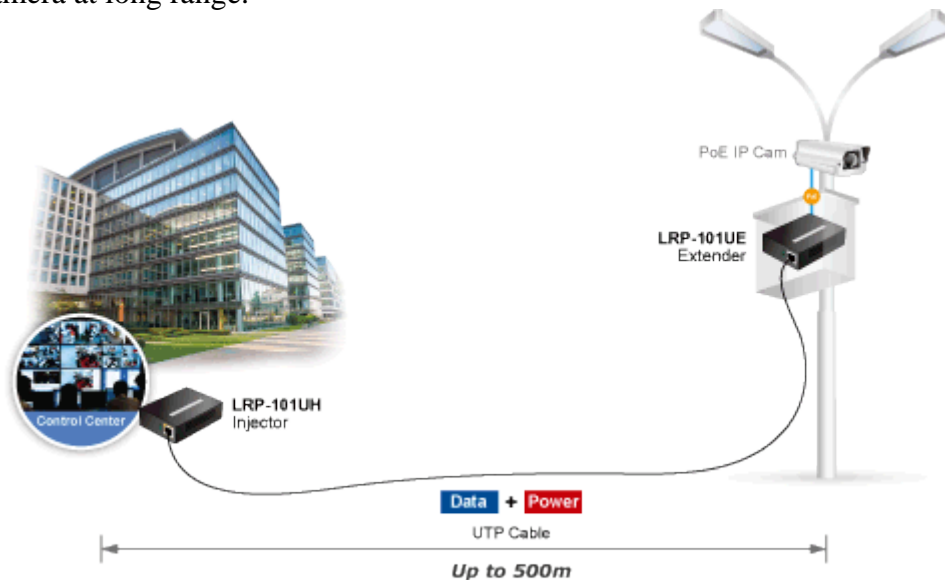
| LRP-101UE: 1-Port 10/100TX PoE PSE + 1-Port UTP Long Reach PoE Extender

The LRP-101UH transmits data and power over UTP cable to the LRP-101UE, which can be located as far as 500m away. It will then deliver the data and power output with a maximum of up to 25 watts to a PoE PD over Ethernet cable, thus expediting the IP surveillance network or wireless LAN infrastructure in long distance. Both of the two products come in a compact but rugged metal housing. Their wall-mounted design fits easily in any space-limited location.



IP Ethernet and Power over Long UTP or Twisted-pair Cable

A normal UTP cable can only be extended up to 100 meters, but the LRP-101U-KIT can extend PoE networking up to 500 meters (1,640ft.) over long 4-pair UTP cable or up to 300 meters (1,000ft.) over an existing 1-pair twisted-pair cable, such as telephone wire, with stable, high-quality video transmission. It eliminates the need for additional remote site power while allowing a single power source to provide power to both LRP extenders and the PoE IP camera at long range.



Stable Operating Performance under Difficult Environments

PLANET Long Reach PoE Extender Kit is the perfect solution for distance extension for PoE or non-PoE networking for warehouses, parking lots, campuses, casinos, and many more. They can operate stably under temperature ranging from -20 to 70 degrees C to enable the users to conveniently operate the kit in almost any location.

Plug-n-play Installation

With the plug and play feature, PLANET Long Reach PoE Extender Kit can be used immediately without the need of configuration and is also compliant with all kinds of IP network protocols. Moreover, the rich diagnostic LEDs on the front panel show the operating status of the individual port and the whole system, enabling the administrator to efficiently manage the network.

KEY FEATURES

PoE over Long UTP

- Eliminates power cabling with PoE over UTP
- Supports Power over Ethernet PSE (PoE Injector)
- Power and Ethernet data transmission of 500m over UTP cabling
- Complies with IEEE 802.3af / IEEE 802.3at Power over Ethernet PD on RJ45 port
- Supports Long Reach PoE power up to 30.8 watts (depending on power source and cable distance)
- Supports PoE Power up to 25 watts (depending on power source and cable distance)
- Auto detects remote powered device (PD)
- Plug and Play; no PC required

Industrial Case and Installation

- Supports extensive LED indicators for network diagnostics
- Metal case protection
- Compact size, DIN-rail and wall-mount design
- Supports EFT surge protection of 2kV DC for power line
- Supports Ethernet ESD protection of 2kV DC
- 20 to 70 degrees C operating temperature

SPECIFICATIONS

Hardware Specifications

- Ethernet Interface
 - LRP-101UH
 - Copper: 10/100BASE-TX RJ45, auto-negotiation/ auto-MDI/MDI-X
 - Power over Ethernet Standard: IEEE 802.3at/af PoE PD
 - PoE Input: Supports both mid-span and end-span PSE
 - Data Rate: 100/100Mbps
 - Cabling: Cat5e or above
 - Maximum Distance: 100m
 - Maximum Frame Size: 1522 bytes
 - LRP-101UE
 - Copper: 10/100BASE-TX RJ45, auto-negotiation/ auto-MDI/MDI-X
 - Power over Ethernet Standard: IEEE 802.3at/af PoE PSEPoE 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: 1522 bytes
- Long Reach PoE Interface
 - LRP-101UH
 - Connectivity: 1 x RJ45 connector, Long Reach PoE over UTP PSE
 - Power Output: 41~56V DC
 - Power Pin assignment:
 - RJ45 Pin 1, 3, 5, 7: VCC+
 - RJ45 Pin 2, 4, 6, 8: VCC-
 - Cabling:
 - Cat. 3, 4, 5, 5e UTP cable (100 meters, max.)
 - EIA/TIA-568 100-ohm STP (100 meters, max.)
 - Maximum Distance:
 - Max. 100m with PoE+ output (328ft.)
 - Max. 500m with PoE output (1,640ft.)
 - Max. 1000m without PoE output (3,280ft.)
 - Long Reach Ethernet Standard: IEEE 1901
 - Modulation Type: Wavelet-OFDM
 - Security: 128-bit AES encryption
 - Frequency Band: 2 ~ 28 MHz
 - Encryption: AES 128-bit
 - LRP-101UE
 - Connectivity: 1 x RJ45 connector, Long Reach PoE over UTP PD
 - Power Input: 37~56V DC*
 - Power Pin assignment:
 - RJ45 Pin 1, 3, 5, 7: VCC+
 - RJ45 Pin 2, 4, 6, 8: VCC-
 - Maximum Distance:
 - Max. 100m with PoE+ output (328ft.)
 - Max. 500m with PoE output (1,640ft.)
 - Max. 1000m without PoE output (3,280ft.)
 - Long Reach Ethernet Standard: IEEE 1901
 - Modulation Type: Wavelet-OFDM
 - Security: 128-bit AES encryption
 - Frequency Band: 2 ~ 28 MHz
 - Encryption: AES 128-bit
- LED Indicators
 - LRP-101UH
 - 4 x LEDs
 - PWR
 - LRP LNK
 - PoE IN
 - LNK/ACT
 - LRP-101UE
 - 4 x LEDs
 - PWR
 - LRP LNK
 - PoE-in-use
 - LNK/ACT

- ESD Protection
 - 2KV DC
- EFT Protection
 - LRP-101UH
 - 2KV
 - LRP-101UE
- 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
 - LRP-101UH
 - 193g
 - LRP-101UE
 - 190g
- Power Requirements
 - LRP-101UH
 - RJ45 PoE Input: 802.3at/af 48~56V DC
 - DC Input: 48~56V DC
 - LRP-101UE
 - 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)
- Regulation 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)