

## ULNA CPE609P

# ULNA Wireless Bridge CPE609P Instruction Manual

Model: CPE609P | Brand: ULNA

## 1. INTRODUCTION

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The ULNA Wireless Bridge CPE609P is an outdoor point-to-point (PtP) and point-to-multipoint (PtMP) wireless communication device designed to extend network connectivity over long distances. It operates on the 5.8G frequency band, offering up to 1000Mbps wire speed and 1200Mbps transmission speed between two bridges. Featuring dual Gigabit LAN ports, a 14dBi antenna, and IP65 weatherproof rating, the CPE609P is suitable for various outdoor applications, including extending home networks to outbuildings, connecting surveillance cameras, or distributing Starlink internet.

## 2. PACKAGE CONTENTS

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Verify that all items are present in your package:

- 2 × ULNA Wireless Bridge CPE609P Units
- 2 × 24V 1000Mbps PoE Injectors
- 2 × 3FT Ethernet Cables (Cat 5e)
- 2 × Metal Hoops (for pole mounting)
- 1 × Mounting Screw Set
- 1 × User Manual

Video: Unboxing the ULNA CPE609P Wireless Bridge Kit. This video demonstrates the contents of the product package, including the two bridge units, PoE injectors, Ethernet cables, and mounting accessories.

## 3. PRODUCT FEATURES

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- **High-Speed Connectivity:** Supports IEEE802.11ac and IEEE802.11a/n standards, providing up to 1200Mbps transmission speed between units and a maximum network speed of 1000Mbps via dual Gigabit ports.

- **Extended Range:** Equipped with a 14dBi circular antenna, enabling long-range wireless communication up to 5 KM (3.1 Miles) in outdoor environments with a clear line of sight.
- **Weatherproof Design:** IP65-rated enclosure ensures protection against water, heat, freezing temperatures, and thunder, operating reliably from -30°C to 65°C (-22°F to 149°F).
- **Flexible Pairing:** Supports both DIP switch and WEB GUI pairing methods for simplified setup and real-time monitoring.
- **Enhanced Security:** Offers multiple encryption types, including WPA-Personal, WPA2-Personal, WPA-Auto-Personal, WPA-Enterprise, WPA2-Enterprise, and WPA-Auto-Enterprise, to secure your network.
- **Versatile Applications:** Ideal for extending WiFi to detached buildings (garages, barns, shops), creating building-to-building network links, and extending surveillance camera ranges.



Image: The ULNA CPE609P Wireless Bridge highlighting its dual Gigabit ports and 5.8G technology for stable, high-speed

## 4. SETUP INSTRUCTIONS

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### 4.1 Initial Pairing (Plug & Play)

The CPE609P units are designed for plug-and-play operation. Follow these steps for basic pairing:

1. **Power On:** Connect each CPE unit to its respective 24V PoE Injector using an Ethernet cable. Plug the PoE Injectors into power outlets.
2. **Automatic Pairing:** The units will automatically attempt to pair. Observe the LED indicators on the units. Once paired, the signal strength LEDs will illuminate.
3. **Connect to Network:** For the 'Master' unit, connect the LAN port of its PoE Injector to your main router. For the 'Slave' unit, connect the LAN port of its PoE Injector to your client device (e.g., PC, secondary router, switch for cameras).

Video: Demonstrates the quick pairing process of the ULNA CPE609P Wireless Bridge using the DIP switch.

### 4.2 Physical Installation

Proper placement and alignment are crucial for optimal performance. Ensure a clear line of sight between the two CPE units.

1. **Mounting Options:** The package includes metal hoops for pole mounting and screw sets for wall mounting. Choose the appropriate method for your location.
2. **Orientation:** Install units face-to-face. For best signal, ensure they are within 60° horizontal and 30° vertical angles of each other. The built-in bubble level on each unit assists with horizontal alignment.
3. **Cable Management:** Securely route Ethernet cables to protect them from environmental factors.

# Easy to Mount

The package includes the hardware to mount



Image: Illustrates the pole-mounted and wall-mounted installation options for the CPE609P units.

## 4.3 Advanced Configuration (WEB GUI)

For customized settings, you can access the WEB GUI via a smartphone or computer. Refer to the user manual for detailed instructions on modifying IP addresses and other network settings.

## 5. OPERATING MODES AND APPLICATIONS

The CPE609P supports various operating modes to suit different networking needs:

- **Point-to-Point (PtP):** Connects two locations wirelessly, acting as a virtual Ethernet cable. Ideal for extending a network to a single remote building.

- **Point-to-Multipoint (PtMP):** A master unit connects to multiple slave units, allowing network extension to several remote locations. Useful for surveillance camera networks or multiple outbuildings.
- **Access Point (AP) Mode:** The master bridge can also function as an access point to extend WiFi coverage.

Video: Illustrates various point-to-point application cases for the ULNA CPE609P Wireless Bridge, including extending networks to remote buildings and connecting surveillance systems.



Image: Diagram showing a typical setup for extending a network to a remote building using Master and Slave CPE units connected to routers.



Image: Diagram illustrating a point-to-multipoint setup where a Master CPE connects to multiple IP cameras via Slave CPE units for extended surveillance range.

## 6. MAINTENANCE

The CPE609P is designed for minimal maintenance due to its IP65 weatherproof rating. However, consider the following:

- **Regular Inspection:** Periodically check the physical mounting and cable connections for any signs of wear or damage.
- **Clear Line of Sight:** Ensure that no new obstructions (e.g., growing trees) block the line of sight between units, which could degrade signal quality.
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates to ensure optimal performance and security.

# Specially Designed for Outdoor Application

Withstand Harsh Outdoor Environment (IP65 Level)



Image: Highlights the robust, weatherproof design of the CPE609P, capable of withstanding harsh outdoor environments.

## 7. TROUBLESHOOTING

### • No Signal/Poor Signal:

- Ensure a clear line of sight between both units.
- Verify proper alignment using the built-in bubble levels.
- Check that both units are powered on and the PoE injectors are functioning.
- Confirm Ethernet cables are securely connected to the correct ports (LAN/PoE).

### • No Internet Connectivity:

- Check the internet connection of your main router.
- Ensure the Master unit's PoE Injector is connected to your main router's LAN port.
- Verify the Slave unit's PoE Injector is connected to your client device/secondary router.
- If using advanced settings, confirm IP addresses are correctly configured and on the same network segment.

- **Slow Speed:**

- Ensure you are using Cat 5e or higher Ethernet cables.
- Check for any physical obstructions or interference.
- Verify the signal strength indicators on the units.

## 8. SPECIFICATIONS

Attribute	Detail
Model Name	CPE609P
Product Dimensions	5.2 x 5.2 x 3.1 inches
Item Weight	3.56 pounds
Frequency Band Class	Single-Band (5.8G)
Wireless Communication Standard	802.11a, 802.11ac, 802.11n
Connectivity Technology	Ethernet, Wi-Fi
Ports	2 Gigabit LAN Ports
Antenna Gain	14dBi
Weatherproof Rating	IP65
Operating Temperature	-30°C to 65°C (-22°F to 149°F)
FCC ID	2A6ZR-CPE609

## 9. WARRANTY AND SUPPORT

The ULNA Wireless Bridge CPE609P comes with a 2-year warranty. For any issues or questions not covered in this manual, please contact ULNA customer support. You can find contact information in the included user manual or on the ULNA official store website.

 <p><b>ULNA</b> <b>WIRELESS BRIDGE</b> USER MANUAL</p> <p>Model: CPE-412</p> <p><small>Tip: Thank you for ordering and using ULNA CPE412 Wireless Bridge. Please read the manual carefully before use. If there are any problems during the use, please contact us at once. The installation of this device requires some network knowledge. If you can't install it, please get an installer or contact a professional. Customer Service Email: support@ulnabridge.com</small></p>	<p><a href="#">ULNA CPE412 Wireless Bridge User Manual - Long-Range 5.8Ghz Network Extension</a></p> <p>Comprehensive user manual for the ULNA CPE412 Wireless Bridge. Learn about its specifications, package contents, interface details, LED indicators, quick start guide, installation procedures, application cases, web interface access, and troubleshooting for reliable long-distance point-to-point and point-to-multipoint wireless network connectivity.</p>
 <p><b>ULNA</b> <b>WIRELESS BRIDGE</b> USER MANUAL</p> <p>Model: CPE-609</p> <p><small>Tip: Thank you for ordering and using ULNA CPE609 Wireless Bridge. Please read the manual carefully before use. If there are any problems during the use, please contact us at once. The installation of this device requires some network knowledge. If you can't install it, please get an installer or contact a professional. Customer Service Email: support@ulnabridge.com</small></p>	<p><a href="#">ULNA CPE-609 Wireless Bridge User Manual</a></p> <p>Comprehensive user manual for the ULNA CPE-609 Wireless Bridge, detailing setup, installation, advanced settings, troubleshooting, and technical support for this 5.8GHz wireless transmission device.</p>
 <p><b>ULNA</b> <b>WIRELESS BRIDGE</b> USER MANUAL</p> <p>Model: CPE-966</p> <p><small>Tip: Thank you for ordering and using ULNA CPE-966 Wireless Bridge. Please read the manual carefully before use. If there are any problems during the use, please contact us at once. The installation of this device requires some network knowledge. If you can't install it, please get an installer or contact a professional. Customer Service Email: support@ulnabridge.com</small></p>	<p><a href="#">ULNA CPE-966 Wireless Bridge User Manual</a></p> <p>Comprehensive user manual for the ULNA CPE-966 Wireless Bridge, covering setup, specifications, troubleshooting, and application cases for long-distance point-to-point and point-to-multipoint network connections.</p>