ULNA CPE802T

ULNA CPE802T Wireless Bridge Instruction Manual

Model: CPE802T

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your ULNA CPE802T Wireless Bridge. This device is designed to extend network connectivity wirelessly over long distances, suitable for various outdoor environments.

Image 1.1: Three ULNA CPE802T Wireless Bridge units, showcasing the product design.

1.1 Package Contents

Please verify that all items listed below are included in your package:

- 3 x ULNA CPE802T Wireless Bridge Units
- 3 x 24V 1000Mbps PoE Adapters
- 3 x 3FT Test Network Cables
- 1 x User Manual
- Installed Accessories (Mounting hardware)

2. Product Overview

The ULNA CPE802T is a high-performance dual-band wireless bridge designed for stable and high-speed network extension. It supports both Point-to-Point (PTP) and Point-to-Multipoint (PTMP) configurations.

Image 2.1: Overview of ULNA CPE802T Wireless Bridge highlighting 5KM range, 1000Mbps, One Key Bridge, Guest Mode, and Dual Band features.

2.1 Key Features

- **Long Distance Transmission:** Stable transmission up to 5 KM (3.1 miles).
- **Dual Band Gigabit Speeds:** Supports 2.4G (300Mbps) and 5.8G (900Mbps) for a combined 1200Mbps.
- **Outdoor Durability:** IP65 waterproof, ±6KV lightning-resistant, dustproof, and operates from -20°C to 75°C.
- **Flexible Network Modes:** Supports DHCP Server, Guest Mode, and broadcasts up to 4 SSIDs simultaneously.
- **Enhanced Security:** Built-in WPA-PSK/WPA2-PSK/WPA/WPA2 protocols to protect network security.
- **Pre-configured Setup:** Plug and Play functionality with LED indicators for status monitoring.

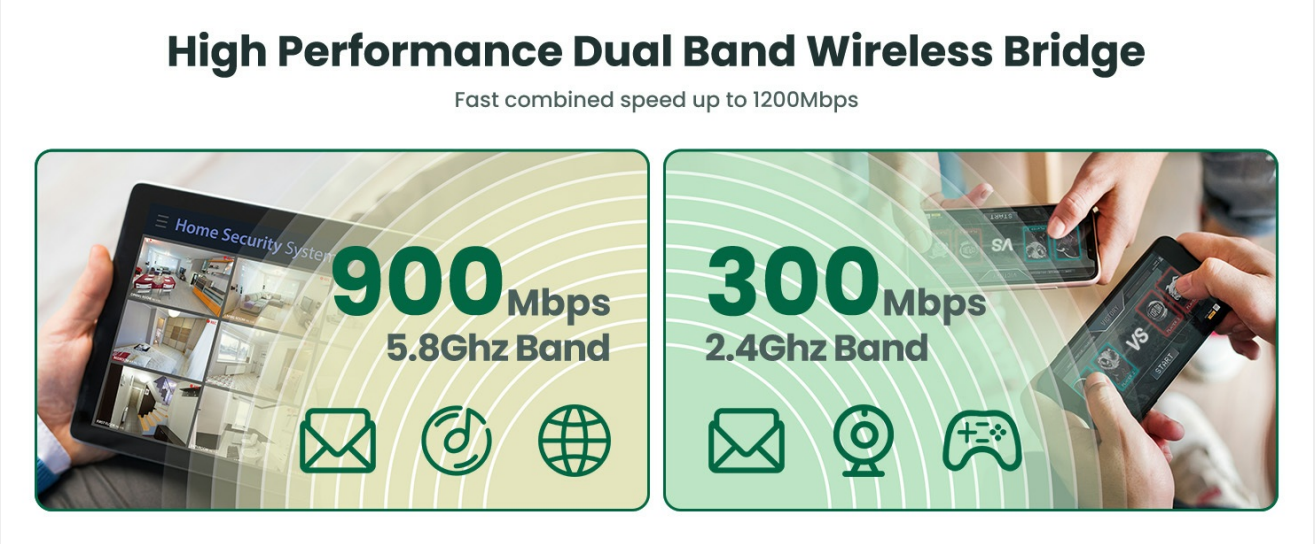


Image 2.2: High-performance dual-band capabilities, illustrating speeds for 5.8GHz and 2.4GHz bands.

2.2 Device Interfaces and Indicators

Familiarize yourself with the ports and LED indicators on the CPE802T unit:

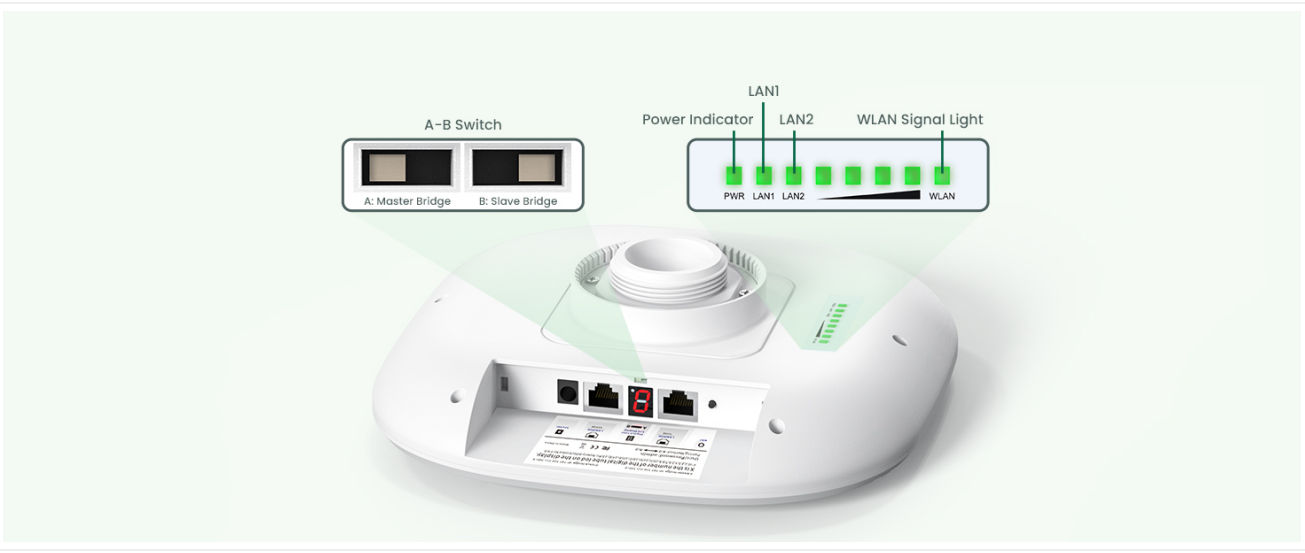


Image 2.3: Detailed view of the CPE802T unit's bottom panel, showing the A-B Switch, Power Indicator, LAN1, LAN2, WLAN Signal Light, 12V 1A DC port (not included), Digital Tube, and Reset Button.

- **A-B Switch:** Used to designate the unit as a Master (A) or Slave (B) bridge.
- **PWR (Power Indicator):** Illuminates when the device is powered on.
- **LAN1/LAN2:** Ethernet ports for network connectivity. LAN1 is typically the PoE input.
- **WLAN Signal Light:** Indicates wireless signal strength.
- **Digital Tube:** Displays status or configuration information.
- **Reset Button:** Used to restore factory default settings.

3. Setup and Installation

3.1 Pre-configured Setup (Plug and Play)

The ULNA CPE802T units are pre-configured for ease of use. Follow these simple steps for initial setup:

1. **Step 1: Plug them in.** Connect the PoE adapter to the CPE unit and a power source.
2. **Step 2: Align them to face each other.** Ensure a clear line of sight between the Master and Slave units.
3. **Step 3: Pair successfully and start running.** The LED indicators will confirm successful pairing and operation.

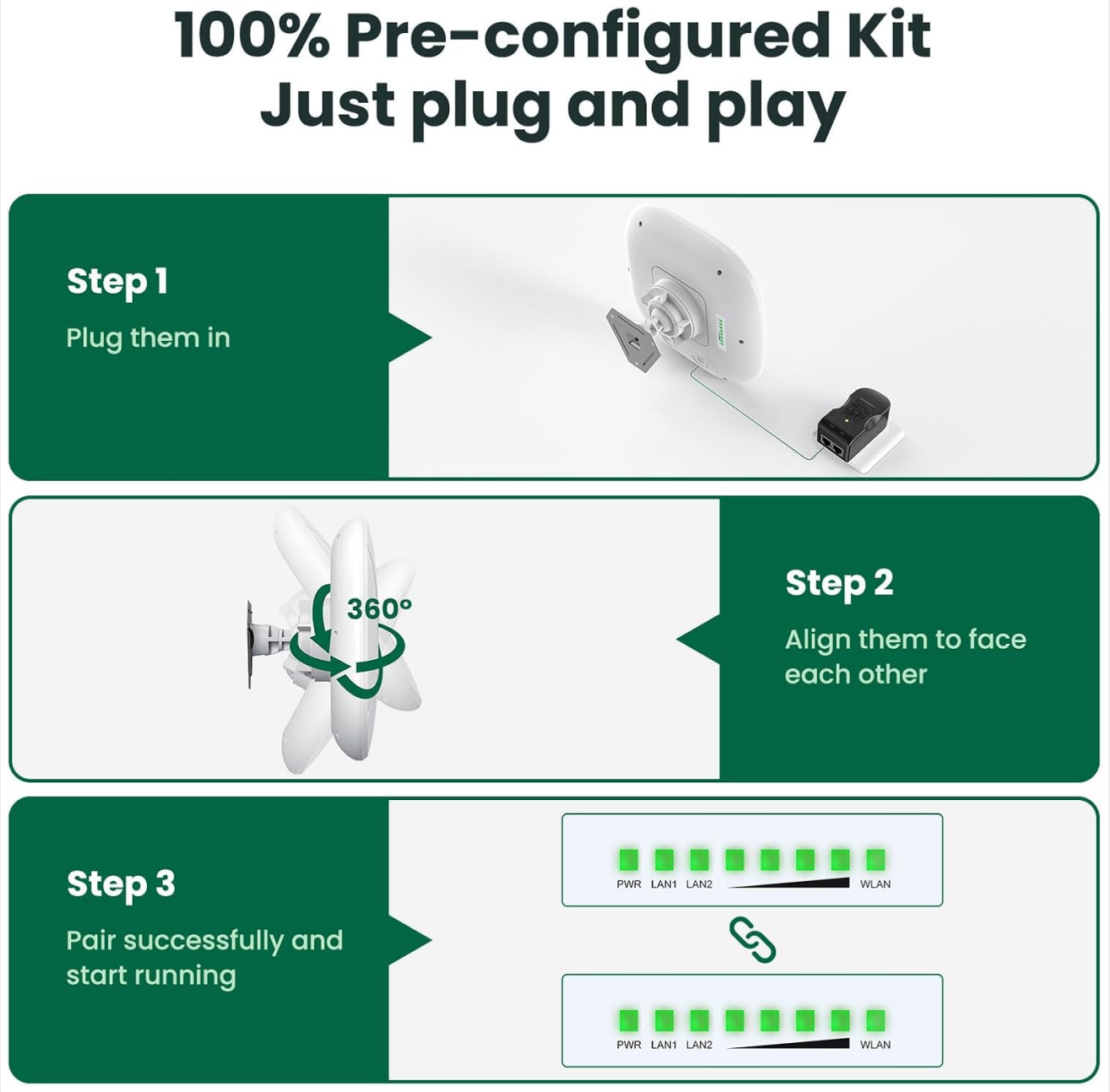


Image 3.1: Visual representation of the three-step "Plug and Play" setup process for the ULNA Wireless Bridge.

3.2 Physical Installation Guidelines

For optimal performance and durability, consider the following during physical installation:

- **Line of Sight:** Install units face-to-face within a Horizontal 60° / Vertical 30° angle with a clear, unobstructed line of sight. Obstacles like trees or buildings can significantly degrade performance.
- **Mounting:** Use the provided accessories to securely mount the units.
- **Outdoor Environment:** The CPE802T is designed to withstand harsh outdoor conditions.

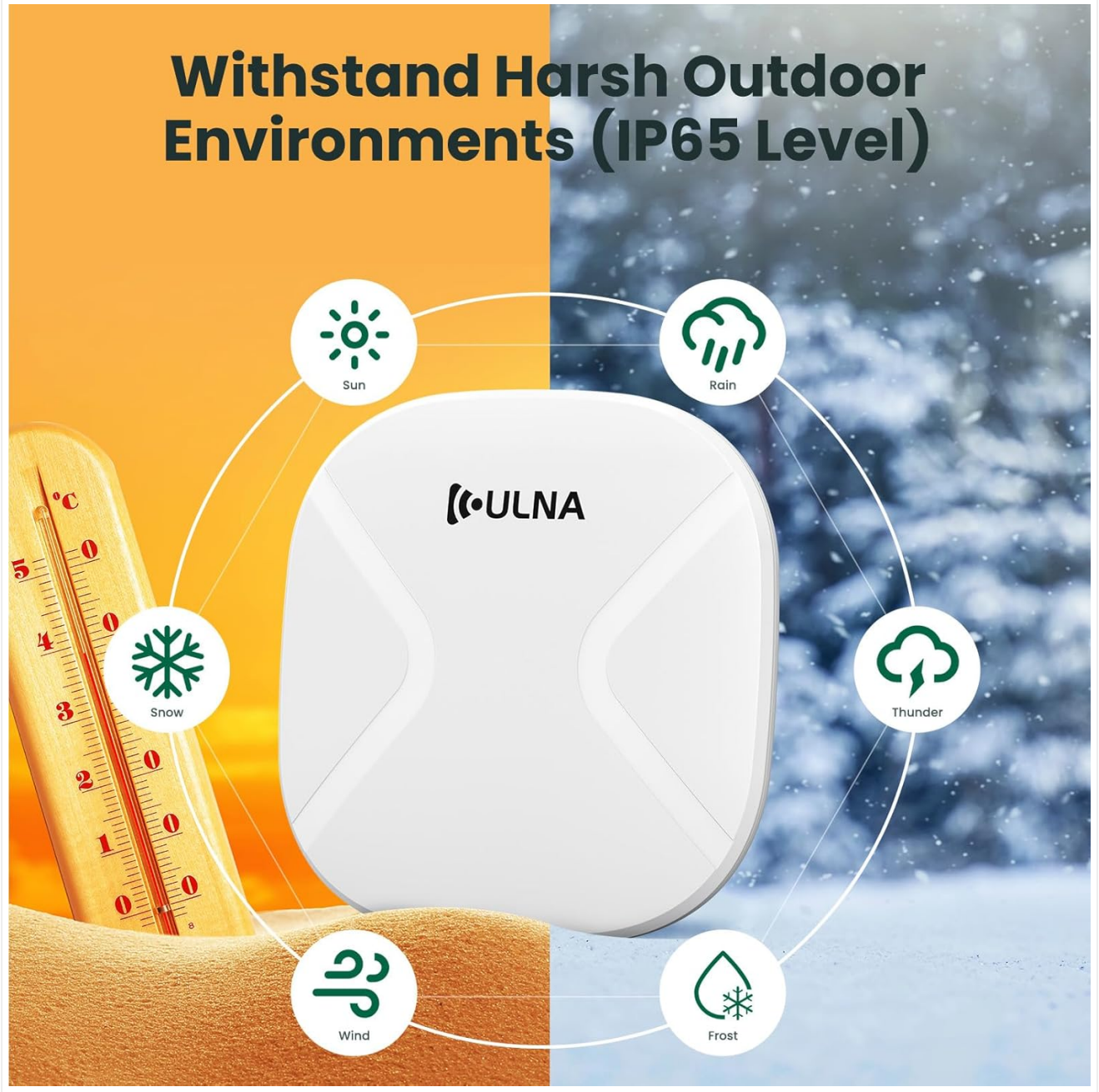


Image 3.2: Illustration of the CPE802T's IP65 rating, indicating its resistance to sun, rain, thunder, frost, wind, and snow.

3.3 Connection Diagrams

The ULNA CPE802T can be deployed in various scenarios to extend network coverage:

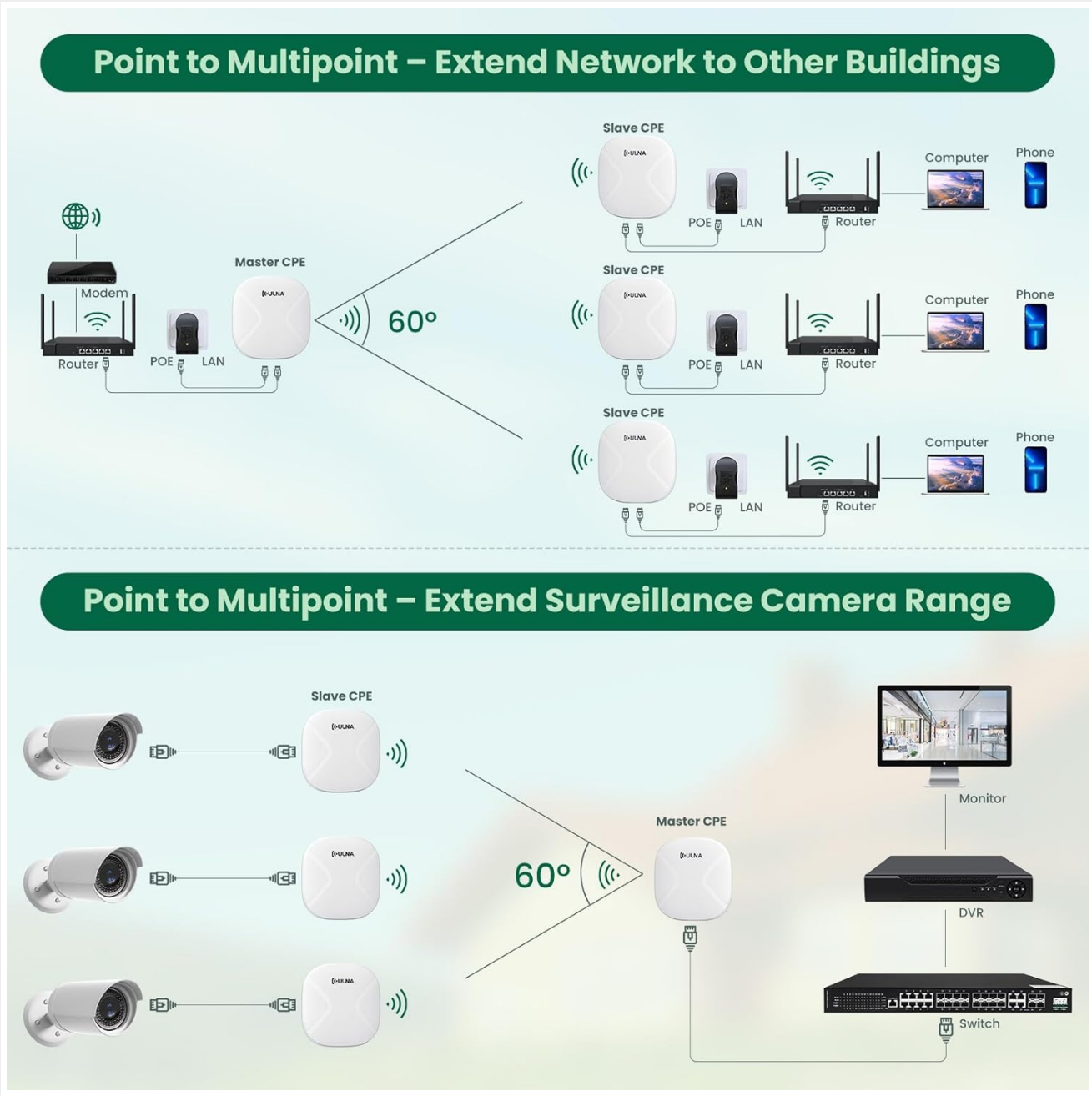


Image 3.3: Two detailed diagrams showing point-to-multipoint configurations: one for extending network to multiple outbuildings with routers and devices, and another for extending surveillance camera monitoring range with a DVR and switch.

- **Extend Network to Outbuildings:** Connect a Master CPE to your main network (modem/router) and deploy Slave CPEs at remote locations (e.g., barn, shop, garage) to provide internet access.
- **Extend Surveillance Camera Range:** Use a Master CPE connected to your DVR/NVR and Slave CPEs near IP cameras to transmit video feeds wirelessly.

4. Operation

4.1 Network Modes

The CPE802T supports Point-to-Multipoint (PTMP) connections, allowing one Master unit to communicate with multiple Slave units.

Image 4.1: Conceptual diagram of a point-to-multipoint connection, showing a central Master CPE unit wirelessly connecting to two Slave CPE units at remote locations.

4.2 Guest Mode and Multiple SSIDs

The device supports Guest Mode and can broadcast up to four SSIDs simultaneously, allowing for segregated network access.

Image 4.2: Illustration of the CPE802T's ability to broadcast four SSIDs (two 5.8G and two 2.4G, including guest networks) for flexible network management.

4.3 Network Security

The ULNA CPE802T incorporates advanced security protocols to protect your network from unauthorized access and data leakage.

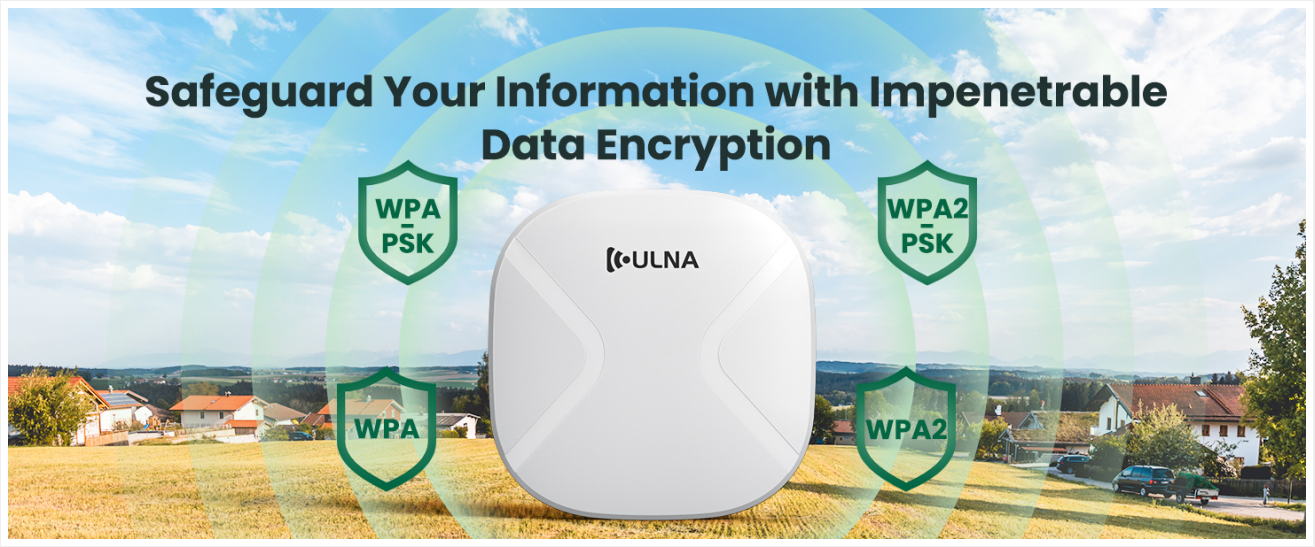


Image 4.3: Visual representation of the supported wireless security protocols: WPA-PSK, WPA2-PSK, WPA, and WPA2.

4.4 Web Interface Access

For advanced configuration and monitoring, the CPE802T can be accessed via a web-based graphical user interface (GUI). This allows for customization of IP settings, network modes, and other parameters.

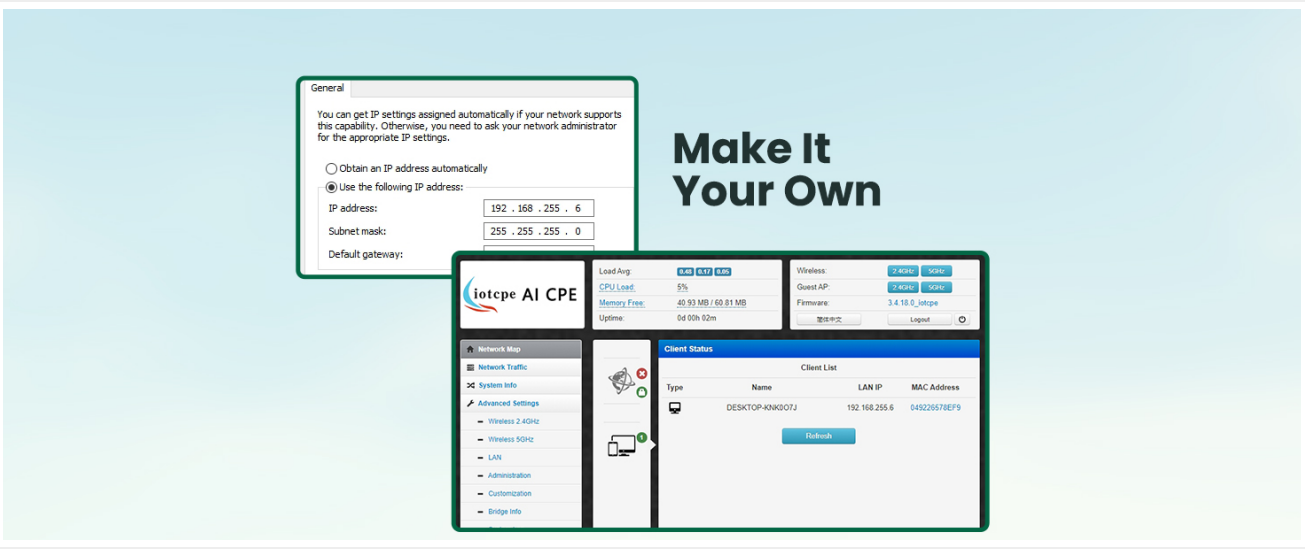


Image 4.4: Screenshots of the CPE802T's web interface, demonstrating options for IP address configuration and client status monitoring.

5. Maintenance

To ensure the longevity and optimal performance of your ULNA CPE802T Wireless Bridge, consider the following maintenance guidelines:

- **Regular Inspection:** Periodically check the physical condition of the units and mounting hardware, especially after severe weather.
- **Clear Line of Sight:** Ensure that the line of sight between units remains unobstructed by new foliage growth or other obstacles.
- **Firmware Updates:** Check the manufacturer's website or contact support for any available firmware updates to improve performance and security.
- **Cleaning:** Gently clean the exterior of the units with a soft, damp cloth if dust or dirt accumulates. Do not use harsh chemicals.

6. Troubleshooting

If you encounter issues with your ULNA CPE802T Wireless Bridge, refer to the following common troubleshooting steps:

- **No Power:**
  - Ensure the PoE adapter is correctly connected to the unit and a working power outlet.
  - Check the power indicator LED on the unit.
- **No Network Connection:**
  - Verify that the Ethernet cables are securely connected to the LAN ports on both the CPE unit and your network device (router, PC).
  - Check the LAN indicator LEDs on the CPE unit.
- **Poor Signal/Low Speed:**
  - Confirm that there is a clear, unobstructed line of sight between the Master and Slave units.
  - Adjust the alignment of the units to ensure they are directly facing each other.
  - Check the WLAN signal strength indicator LEDs. More illuminated LEDs indicate a stronger signal.

- Reduce the distance between units if possible, or eliminate any new obstructions.

- **Cannot Access Web Interface:**
  - Ensure your computer is connected to the same network segment as the CPE unit.
  - Verify the IP address of the CPE unit and your computer's network settings.
  - Try resetting the unit to factory defaults using the reset button (note: this will erase all custom configurations).

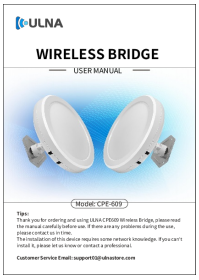
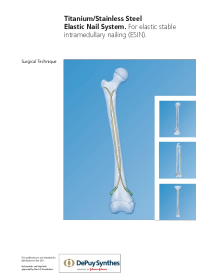
7. Specifications

Feature	Detail
Brand	ULNA
Model Number	CPE802T
Package Dimensions	11.02 x 9.21 x 7.95 inches
Item Weight	5.66 pounds
Special Feature	Access Point Mode, Guest Mode, LED Indicator, Weatherproof
Frequency Band Class	Dual-Band (2.4GHz, 5.8GHz)
Wireless Communication Standard	802.11a, 802.11ac
Compatible Devices	Personal Computer, Router, Security Camera, Smartphone, Starlink
Recommended Uses	Business, Gaming, Home
Connectivity Technology	Ethernet, Wi-Fi
Color	White
Antenna Type	Internal
Manufacturer	ULNA
FCC ID	2A6ZR-CPE609

8. Warranty and Support

For specific warranty information and technical support, please refer to the documentation included with your product or contact ULNA customer service directly. Contact details are typically found on the product packaging or the manufacturer's official website.
Note: The provided product data does not contain specific warranty terms or direct support contact information. Please consult the manufacturer's official channels for the most accurate and up-to-date details.

Related Documents - CPE802T

	[ULNA CPE412 Wireless Bridge User Manual - Long-Range 5.8Ghz Network Extension] 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.
	[ULNA CPE-609 Wireless Bridge User Manual] 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.
	[ULNA CPE412 Wireless Bridge User Manual - Long-Range 5.8Ghz Network Extension] 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.
	[ULNA CPE-609 Wireless Bridge User Manual] 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.
	[Bonebridge Smart Orthopaedic Trauma Implants - Product Catalog] Explore Bonebridge's comprehensive catalog of smart orthopaedic trauma implants, including CASCELLA, TAMINA, POYA, SALGINA, and TRIFT systems. Discover innovative solutions designed for reduced complexity and optimized clinical performance, all made in Switzerland.
	[Titanium/Stainless Steel Elastic Nail System: Surgical Technique] A comprehensive surgical technique guide for the Titanium/Stainless Steel Elastic Nail System (TEN/STEN) by DePuy Synthes, detailing the application of Elastic Stable Intramedullary Nailing (ESIN) for pediatric and adult long bone fractures, including femur, tibia, humerus, radius, ulna, and clavicle.