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UeeVii CPE820

UeeVii CPE820 Wireless Bridge User Manual

Model: CPE820

Brand: UeeVii

1. PRODUCT OVERVIEW

The UeeVii CPE820 Gigabit WiFi Bridge is a 5.8G long-range outdoor CPE designed for extending network signals over distances up to 3KM (barrier-free). It features a digital tube display for simplified point-to-point pairing, eliminating the need for complex GUI access during initial setup. This device is engineered to provide reliable wireless coverage, data transmission, and monitoring capabilities for various outdoor applications.

Key functionalities include extending WiFi networks to remote buildings like barns, shops, or garages, and boosting Starlink signals. It supports both point-to-point and point-to-multipoint configurations with flexible transmission/receiver switching. The system utilizes 5.8 GHz IEEE 802.11ac single-band wireless transmission technology, offering strong anti-interference capabilities and enhanced stability for high-speed video transmission, particularly for surveillance systems.

Designed for outdoor use, the CPE820 boasts an IP65 waterproof rating and supports 24V PoE power supply for easy installation. It incorporates low power consumption and high-performance design, with RF and radiation indexes compliant with national standards. The device also features dynamic MIMO power saving mode (DMPS) and automatic power-saving transmission (APSD), and automatically repairs connections after power outages.

Equipped with a 16 dBi directional antenna, the CPE820 can automatically adjust power (up to 27 dBm) to adapt to environmental changes, ensuring smooth video transmission even at ultra-close distances.

Package Contents

Upon opening the package, verify that all components are present and in good condition:

- 2 x Wireless Bridge (CPE820 units)
- 2 x 24V PoE Injector
- 2 x 3FT Test Network Cables
- 2 x Metal Hoop (for mounting)
- 1 x User Manual (this document)

If any items are missing or damaged, please contact UeeVii customer support.

2. SETUP AND INSTALLATION

The UeeVii CPE820 is designed for straightforward setup, primarily through a digital display for point-to-point pairing without requiring initial GUI access. This section outlines the basic steps for installation and initial configuration.

2.1 Physical Installation

The CPE820 units are designed for outdoor mounting. Choose locations that provide a clear line of sight between the two units for optimal performance. Avoid obstructions such as large trees, buildings, or hills.

- **Mounting:** Use the provided metal hoops to securely attach the CPE units to poles or suitable mounting brackets. Ensure the units are mounted vertically with the UeeVii logo facing upwards.
- **Weather Protection:** While the units are IP65 waterproof, consider additional protection for cable connections to prolong lifespan, especially in harsh weather conditions.
- **Optimal Placement:** For best signal strength, aim the front face of each CPE unit directly towards the other.



Figure 2.1: UeeVii CPE820 mounted on a pole, illustrating its directional antenna capability.

2.2 Powering and Initial Connection

The CPE820 units are powered via Power over Ethernet (PoE) using the included 24V PoE injectors.

1. Connect one end of an Ethernet cable (e.g., the 3FT test cable) from the **PoE port** on the PoE injector to the Ethernet port on the CPE820 unit.
2. Connect another Ethernet cable from the **LAN port** on the PoE injector to your network device (e.g., router,

switch, or PC for configuration).

3. Plug the PoE injector into a standard electrical outlet. The CPE unit will power on.

24V~48V Wide Voltage Powered

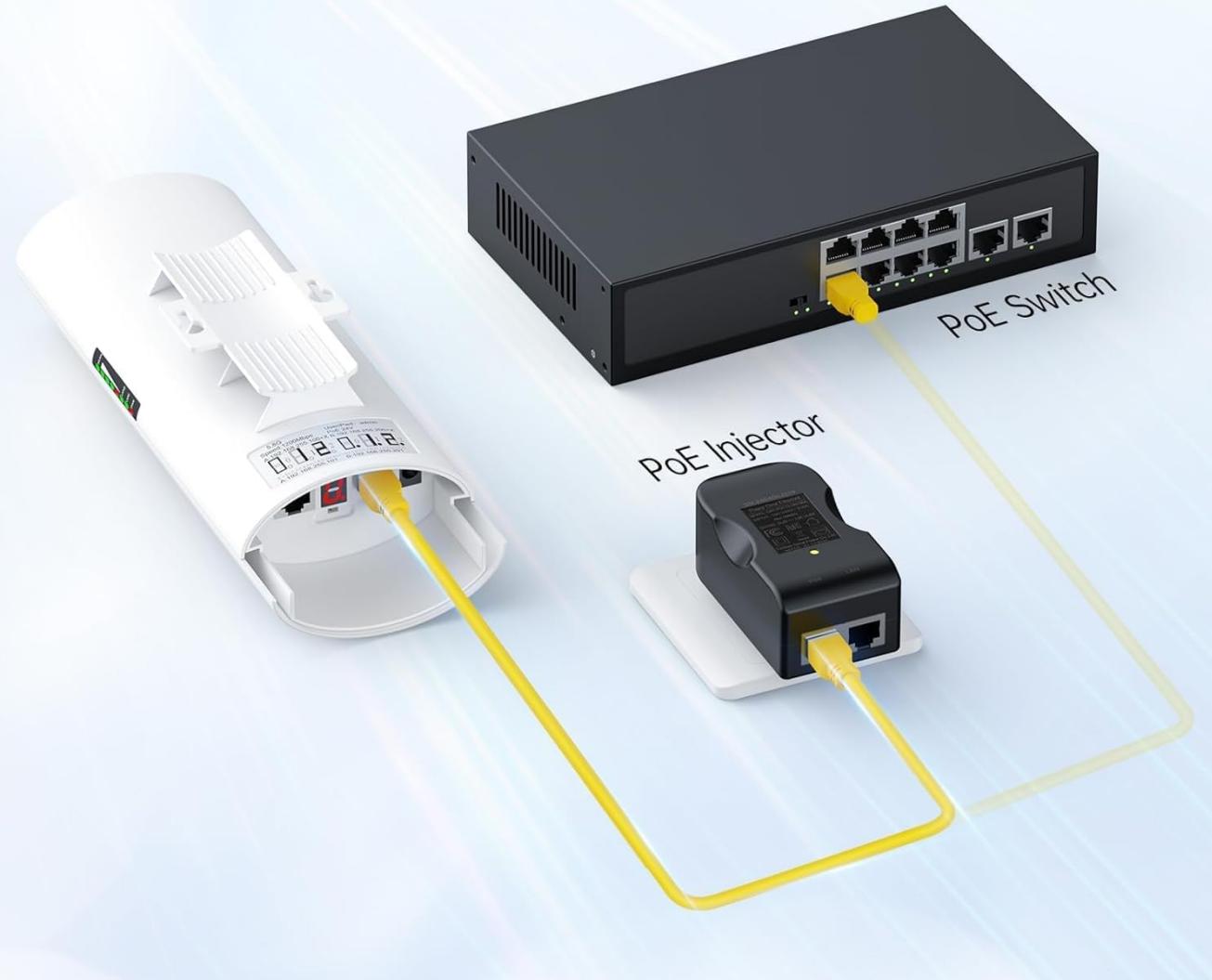


Figure 2.2: Powering the CPE820 via PoE injector.

2.3 Easy Pairing (Digital Display Method)

The CPE820 allows for quick point-to-point pairing using its digital display, bypassing complex GUI setup for basic operation.

1. **Identify Master and Slave:** Decide which CPE unit will be the "Master" (connected to your main network source, e.g., router) and which will be the "Slave" (connected to the remote network device, e.g., another router or IP camera).
2. **Set Master Unit:** On the Master CPE, use the dial or buttons (refer to the unit's physical interface) to set its digital display to 'A'.
3. **Set Slave Unit:** On the Slave CPE, set its digital display to 'B'.
4. **Confirm Pairing:** Once both units are powered on and set to 'A' and 'B' respectively, they should automatically detect and pair with each other. The digital display or LED indicators on the units will confirm a successful connection.

For point-to-multipoint setups, additional units can be configured. For example, if you have multiple slave units, they can all be set to 'B' to connect to a single 'A' master unit, provided they are within the 60-degree angle range for multi-camera monitoring.

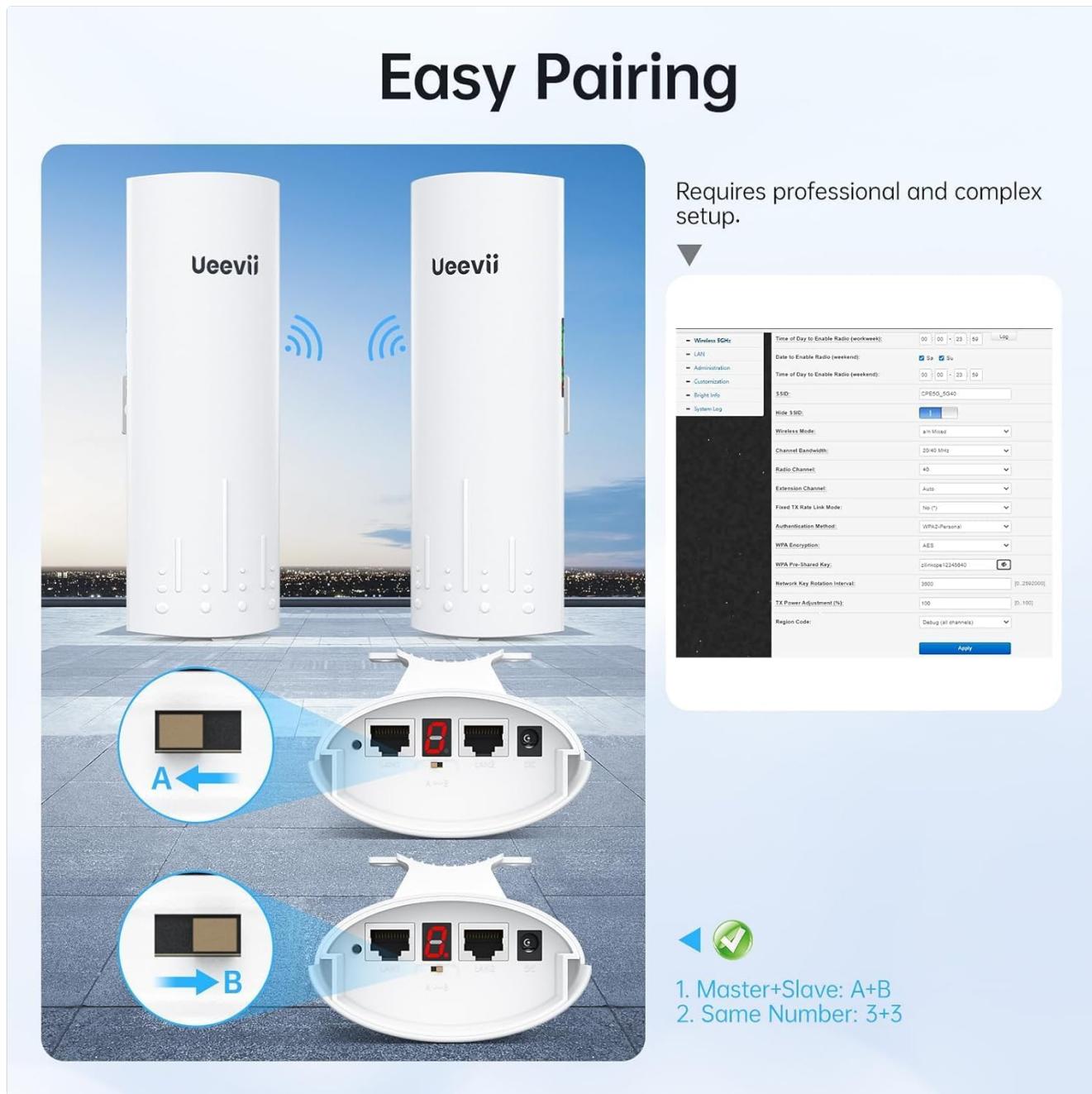


Figure 2.3: Easy pairing method using the digital display.

3. OPERATING THE WIRELESS BRIDGE

Once the CPE820 units are physically installed and paired, they function as an invisible Ethernet cable, extending your network wirelessly. This section details common operational scenarios.

3.1 Network Extension to Outbuildings

The primary use case for the CPE820 is to extend your existing network to a remote location such as a barn, garage, or another building without running physical cables.

- The Master CPE connects to your main router/modem.
- The Slave CPE is placed at the remote building. You can connect a secondary router or a network switch to the Slave CPE to provide Wi-Fi and wired connections within that building.

- The system supports transmission speeds up to 1200Mbps between the two bridges, with a maximum achievable network speed of 433 Mbps for connected devices.

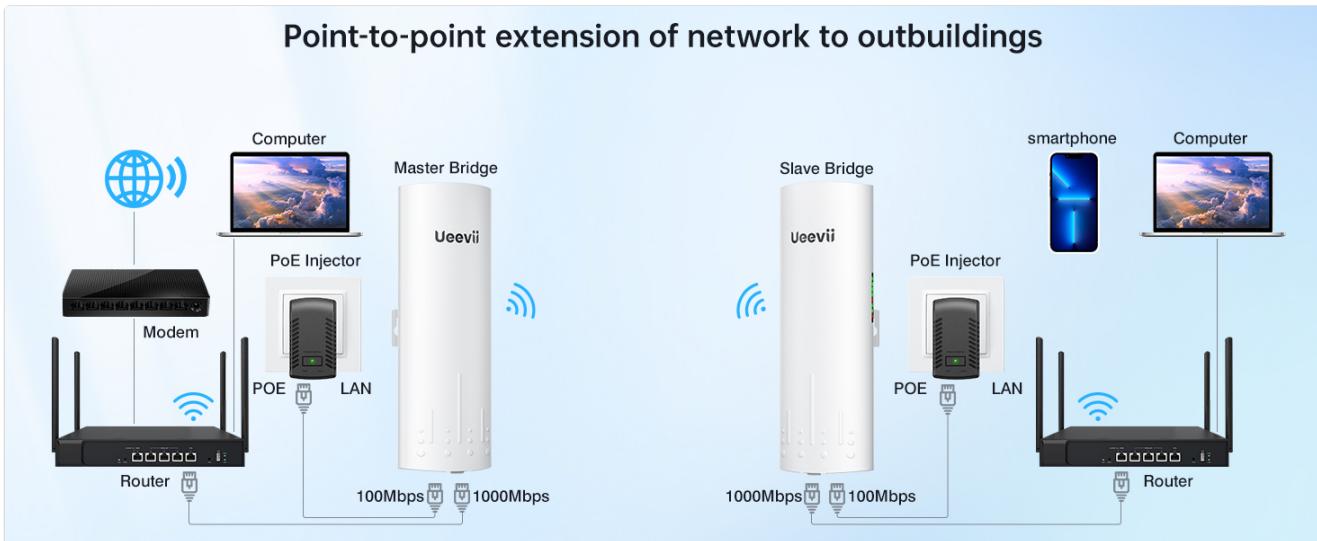


Figure 3.1: Extending network to an outbuilding.

3.2 Starlink WiFi Extension

The CPE820 can be used to extend Starlink internet service to other buildings. The Master wireless bridge connects to your Starlink V2 or V3 router/adapter, boosting the Starlink signal to distant locations.

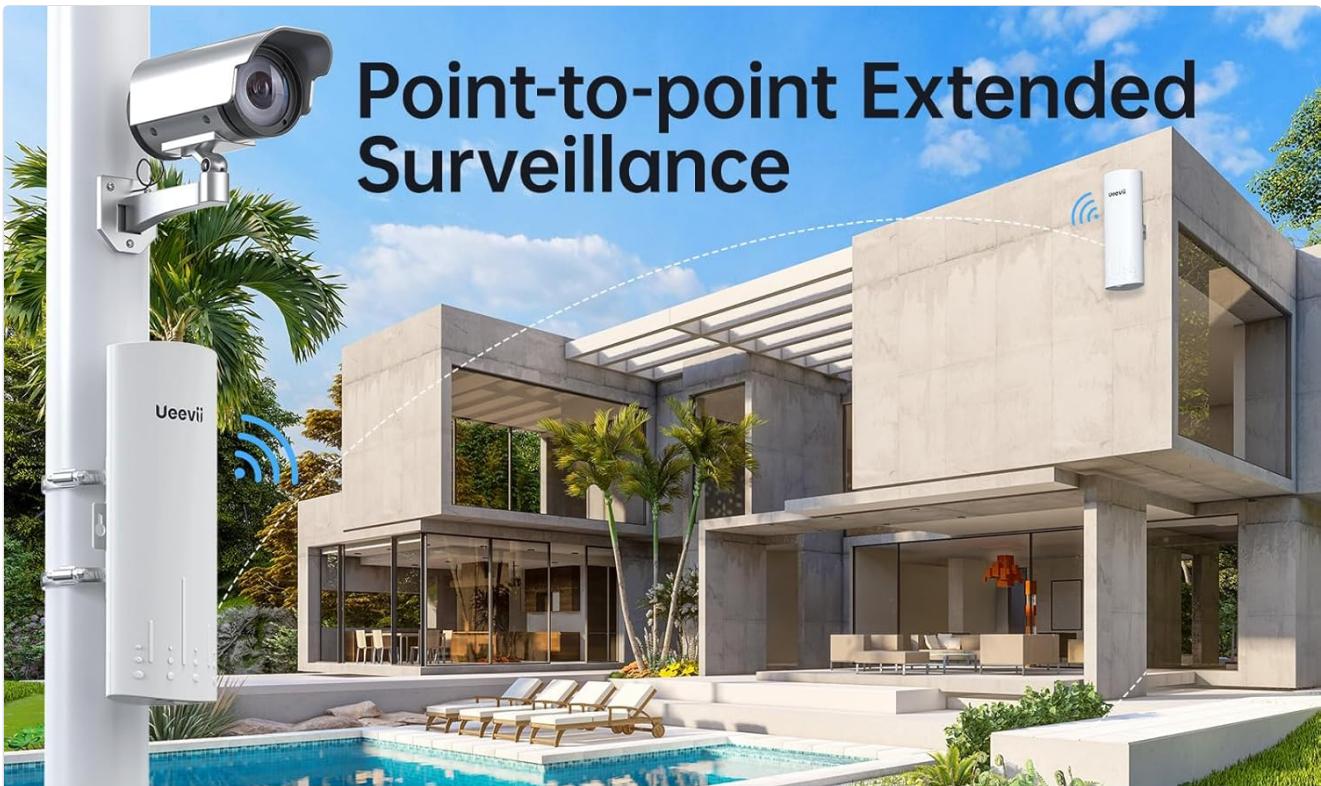


Figure 3.2: Integrating CPE820 with Starlink for extended coverage.

3.3 Surveillance System Extension

The CPE820 is optimized for wireless video surveillance transmission, ensuring smooth video feeds for IP cameras without the need for extensive wiring.

- **Point-to-Point Surveillance:** Connect IP cameras to a switch at the remote location, which then connects to a Slave CPE. The Master CPE connects to your DVR/NVR system.
- **Point-to-Multipoint Surveillance:** Multiple Slave CPE units can connect to a single Master CPE, allowing for decentralized camera monitoring. Ensure cameras are within a 60-degree angle range from the Master unit for optimal performance in multi-camera setups.
- **Relay Mode:** For scenarios with obstacles, two pairs of wireless bridges can be used in a relay mode to transmit signals around obstructions.

Working with Starlink



Figure 3.3: Point-to-point extended surveillance.

Point-to-point extension 1~Multiple camera monitoring range



Figure 3.4: Point-to-multipoint camera monitoring.

Point-to-point extension decentralized camera monitoring range

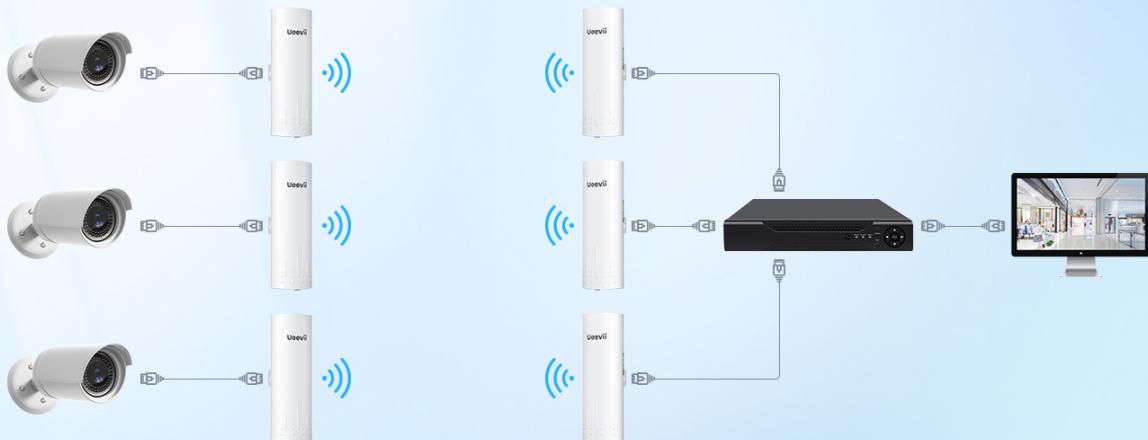


Figure 3.5: Relay mode for signal transmission around obstacles.

4. MAINTENANCE

The UeeVii CPE820 is designed for robust outdoor performance with minimal maintenance. Adhering to these guidelines will ensure its longevity and reliable operation.

- **Environmental Durability:** The CPE820 has an IP65 waterproof rating, making it resistant to dust and water jets. It is built to withstand various outdoor weather conditions, including rain, heat, and cold.
- **Power Cycling:** The device is designed to automatically repair its connection and resume operation after a power outage, requiring no manual intervention in most cases.
- **Physical Inspection:** Periodically inspect the units and their mounting hardware for any signs of wear, damage, or loose connections, especially after severe weather events. Ensure cables are securely connected and protected.
- **Cleaning:** If necessary, gently clean the exterior of the units with a soft, damp cloth. Do not use harsh chemicals or abrasive materials. Ensure the digital display and LED indicators are clear for visibility.

All-weather durability, worry-free outdoors



Figure 4.1: All-weather durability of the CPE820.

5. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your UeeVii CPE820 Wireless Bridge.

5.1 No Connection / Poor Signal

- **Line of Sight:** Ensure there is a clear, unobstructed line of sight between the Master and Slave units. Obstacles like buildings, dense foliage, or hills can significantly degrade signal quality.
- **Alignment:** Verify that both CPE units are precisely aimed at each other. Even slight misalignments can impact performance over long distances.
- **Power:** Check that both CPE units are properly powered via their PoE injectors and that the injectors are plugged into working electrical outlets.
- **Ethernet Cables:** Ensure all Ethernet cables are securely connected and undamaged. Test with the provided 3FT test cables if you suspect a cable issue.
- **Pairing:** Re-verify the digital display settings for Master ('A') and Slave ('B') units to ensure they are correctly paired.

5.2 Network Speed Issues

- **Distance:** While rated for up to 3KM, actual performance can vary based on environmental factors. Ensure your distance is within reasonable limits for your specific environment.
- **Interference:** The 5.8 GHz band is generally less congested than 2.4 GHz, but interference from other wireless devices or strong electromagnetic sources can occur.
- **Connected Devices:** If you are experiencing slow speeds at the remote end, test the connection by plugging a PC directly into the Slave CPE's LAN port (via its PoE injector) to rule out issues with the secondary router or devices connected to it. Old or low-performance routers at the remote end can bottleneck the connection.
- **GUI Optimization:** For advanced users, accessing the device's Graphical User Interface (GUI) allows for optimization of settings like channel selection, bandwidth, and power adjustment. Refer to the full user manual (PDF) for details on GUI access.

5.3 Unit Not Responding

- **Power Cycle:** Disconnect power from the PoE injector for about 10 seconds, then reconnect it. This can resolve temporary software glitches.
- **Factory Reset:** If the unit is unresponsive or you need to reconfigure it from scratch, a factory reset may be necessary. Consult the full user manual (PDF) for instructions on performing a factory reset, as this typically involves a physical button press or a specific sequence.

For persistent issues or advanced troubleshooting, please refer to the comprehensive User Manual PDF available online or contact UeeVii customer support.

6. SPECIFICATIONS

Detailed technical specifications for the UeeVii CPE820 Wireless Bridge:

Feature	Specification
Model Name	CPE820
Wireless Type	802.11a, 802.11ac, 802.11n
Frequency Band Class	Single-Band (5.8 GHz)
Antenna	16 dBi Directional Antenna
Max Transmission Distance	Up to 3KM (Barrier-free)
Max Transmission Speed (Bridge-to-Bridge)	1200 Mbps
Max Network Speed (to device)	433 Mbps
Power Supply	24V PoE (24V~48V Wide Voltage Powered)
Operating System	RouterOS (Internal)
Ingress Protection (IP) Rating	IP65 (Waterproof)
Dimensions (LxWxH)	3.54 x 2.76 x 9.84 inches
Item Weight	2.44 pounds

Feature	Specification
Color	White
Special Features	Access Point Mode, LED Indicator, Weatherproof, Digital Display Pairing
Compatible Devices	Personal Computer, Network Devices (Routers, Switches, IP Cameras, NVRs)

7. WARRANTY AND SUPPORT

UeeVii is committed to providing reliable products and excellent customer service.

7.1 Warranty Information

Specific warranty details for the UeeVii CPE820 are typically provided with your purchase documentation or can be found on the official UeeVii website. Please retain your proof of purchase for warranty claims.

7.2 Customer Support

For technical assistance, troubleshooting, or any product-related inquiries, please contact UeeVii customer support. Many users have reported positive experiences with UeeVii's responsive and helpful support team.

- Official User Manual (PDF):** For a more comprehensive guide, you can download the official User Manual PDF: [Download PDF Manual](#)
- UeeVii Brand Store:** Explore other UeeVii products and resources by visiting their official brand store: [Visit UeeVii Store](#)

When contacting support, please have your product model (CPE820) and purchase details ready to facilitate faster service.

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This manual is for informational purposes only. Specifications are subject to change without notice.

Related Documents

 <p>The image shows the front cover of the UeeVii CPE58G Wireless Bridge User Manual. It features the UeeVii logo at the top, followed by the text 'WIRELESS BRIDGE' and 'User Manual'. Below this is a photograph of the device, which is a white, rectangular unit with a mesh pattern. At the bottom, it says 'Model: CPE58G'. There is also some small text at the bottom of the cover, including a note about reading the manual before use and a customer service email address.</p>	<p>UeeVii CPE58G Wireless Bridge User Manual - Setup, Specs, and Troubleshooting</p> <p>Official user manual for the UeeVii CPE58G 5G high-performance outdoor wireless bridge. Covers product introduction, features, specifications, interface details, button operations, quick start guide, installation, application cases, advanced settings, and troubleshooting for optimal network connectivity.</p>
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UeeVii
Wireless Bridge
User Manual
(Model: CPE452)

Tips:
Thank you for ordering and using UeeVii Wireless Bridge, please read the manual carefully before use. If there are any problems during the use, please contact us in time. The installation of this device requires some network knowledge. If you can't install it, please let us know or contact a professional.
Customer Service Email: support@ueevii.com

[UeeVii Wireless Bridge CPE452 User Manual](#)

User manual for the UeeVii Wireless Bridge CPE452, detailing its features, specifications, installation, and troubleshooting.

Documents - UeeVii – CPE820



UeeVii
WIRELESS BRIDGE
USER MANUAL
Model: CPE-820

Tips:
Thank you for ordering and using UeeVii CPE820 Wireless Bridge, please read the manual carefully before use. If there are any problems during the use, please contact us in time. The installation of this device requires some network knowledge. If you can't install it, please let us know or contact a professional.
Customer Service Email: support@ueevii.com

[\[pdf\] User Manual Installation Guide](#)

ZQ 1086 UeeVii CPE820 1G Administrator User Manual Gigabit Wireless Bridge Point to CPE830 5 8G 1Gbps WiFi Outdoor CPE with 16dBi High Gain Antenna Long Range Up 3KM Plug and Play 24V PoE Power IP65 Waterproof 2 Pack Industrial Scientific C1NIVuWwuFL m media amazon images I |||

WIRELESS BRIDGE USER MANUAL Model: CPE-820

Tips: Thank you for ordering and using UeeVii **CPE820** Wireless Bridge, please read the manual carefully before use. If there are any problems during the use, please contact us in time. The installation of this device requires some network knowledge. If you can't install it, please let us know or contact a professional.

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WIRELESS BRIDGE
USER MANUAL
Model: CPE820/CPE830/CPE850

Tips:
Thank you for ordering and using UeeVii CPE820 Wireless Bridge, please read the manual carefully before use. If there are any problems during the use, please contact us in time. The installation of this device requires some network knowledge. If you can't install it, please let us know or contact a professional.
This manual is a universal version for CPE820, CPE830, and CPE850. The manual content uses the CPE820 model and pictures as examples.
Customer Service Email: support@ueevii.com

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— USER MANUAL —



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[pdf] User Manual Specifications

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WiFi HalowTM Extender USER MANUAL Web:www.anjelo.com OVERVIEW 1 . What is Wi-Fi HaLow AH WiFi HaLOW Extender point-to-point long-distance wireless access, 20DBi high-gain antenna, 100Mbps 2.4G WiFi Halow Extender, supports 3000 feet of outdoor transmission distance, the distance through the wall ...

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