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KuWiFi CPE130H-US

KuWiFi 300Mbps Point to Point Wireless Bridge User Manual

Model: CPE130H-US

INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your KuWiFi 300Mbps Point to Point Wireless Bridge (Model: CPE130H-US). This outdoor CPE is designed for long-range wireless transmission, offering a stable and reliable connection for various applications such as extending network coverage to remote buildings or connecting IP cameras over distances up to 1KM.

WHAT'S IN THE BOX

Please verify that all items are present and in good condition upon unpacking.

- Two (2) high-performance CPE130 WiFi Bridges
- Two (2) PoE adapters
- Two (2) LAN cables
- One (1) User Manual

PRODUCT FEATURES

POE Powered: Simplifies installation by providing power and data over a single Ethernet cable.

1KM Transmission Distance: Capable of establishing stable wireless links over distances up to 1 kilometer.

One-Key Bridge (M-S): Easy setup for Master/Slave configuration using a dedicated switch.

300Mbps Data Rate: Provides sufficient bandwidth for various network applications.

2.4G Wireless Access Point: Operates on the 2.4GHz frequency band, compatible with 802.11b/g/n standards.

100Mbps Port: Equipped with a 100Mbps Ethernet port for wired connections.

High-Gain 12dBi Antenna: Integrated dual-polarized antenna for enhanced signal strength and range.

Weatherproof (IP65): Designed for outdoor use, resistant to dust and water ingress.

Wide Operating Temperature: Functions reliably in extreme temperatures from -40°C to 70°C.

LED Display: Features an LED display for easy configuration of operation mode, IP address, and channel, and to view connection status and signal strength.

1. Physical Installation

The CPE130H-US units are designed for outdoor mounting. Ensure a clear line of sight between the two units for optimal performance.

- **Mounting Options:** The units can be mounted on a pole or directly on a wall using the provided mounting hardware.
- **Orientation:** Orient the units so their front faces are directed towards each other.



Figure 1: KuWFi Wireless Bridge units, illustrating their long-range capability for connecting devices like security cameras.

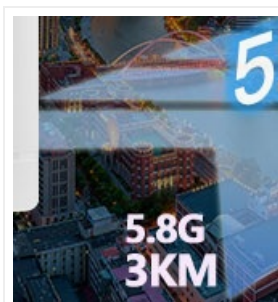


Figure 2: Examples of mounting options: pole mount and wall mount.

2. Connecting with PoE Adapters

Each CPE unit is powered via a Power over Ethernet (PoE) adapter. This allows for a single cable to carry both power and data.

1. Connect one end of a LAN cable to the **WAN/PoE** port on the CPE unit.
2. Connect the other end of this LAN cable to the **PoE** port on the PoE adapter.
3. Connect a second LAN cable from the **LAN** port on the PoE adapter to your network device (e.g., router, switch, PC).
4. Plug the PoE adapter into a power outlet.

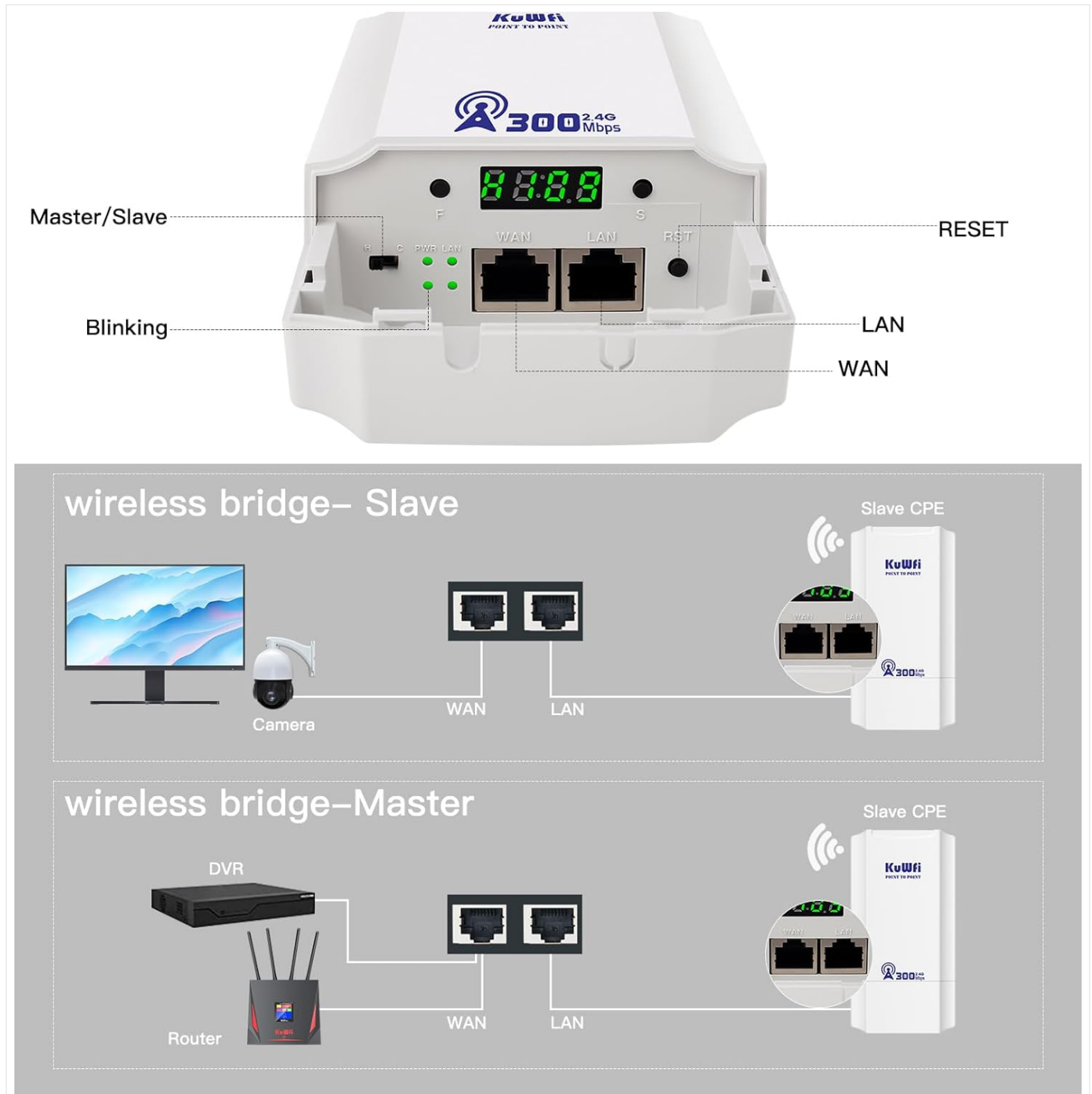


Figure 3: Port layout and basic connection diagrams for Master and Slave CPE units.



Figure 4: PoE adapter connection for powering the CPE unit.

3. Initial Configuration (Master/Slave Setup)

The CPE130H-US features an LED display and physical switches for simplified configuration without needing to access a web GUI for basic setup.

1. **Identify Units:** Designate one CPE unit as the **Master** and the other as the **Slave**.
2. **Set Master/Slave Mode:** Use the "M/S" switch on each unit to set its role. The LED display will show "M" for Master and "S" for Slave.
3. **Configure IP Address and Channel:** Use the Function/Selection switch and the LED display to set the desired IP address and wireless channel for each unit. Ensure the Master and Slave units are configured to communicate on the same channel.
4. **Verify Connection:** Once powered on and configured, the LED display will show signal strength indicators, confirming a successful wireless link between the Master and Slave units.



Figure 5: Master and Slave bridge units with LED displays indicating connection status.



Figure 6: Detailed view of the CPE unit's LED display and control switches.

OPERATING MODES AND APPLICATIONS

The KuWFi Wireless Bridge supports various operating modes to suit different networking needs.

Point-to-Point (PTP) Connection

This is the primary mode, establishing a direct wireless link between two locations. Ideal for extending network access to a second building or remote area.



Figure 7: Application scenarios including PTP network extension and camera monitoring.

Point-to-Multi-Point (PTMP) Connection

One Master unit can connect to multiple Slave units, allowing for broader coverage or connecting multiple remote devices to a central network.

- **PTP-IP Camera:** Connects IP cameras wirelessly to a DVR or NVR system.
- **PTP-Network Coverage:** Extends internet access to areas without wired infrastructure.
- **PTP-Multi-IP Camera:** Connects multiple IP cameras to a single Master unit.
- **Multi to Multi Bridge:** Advanced configuration for complex network setups.

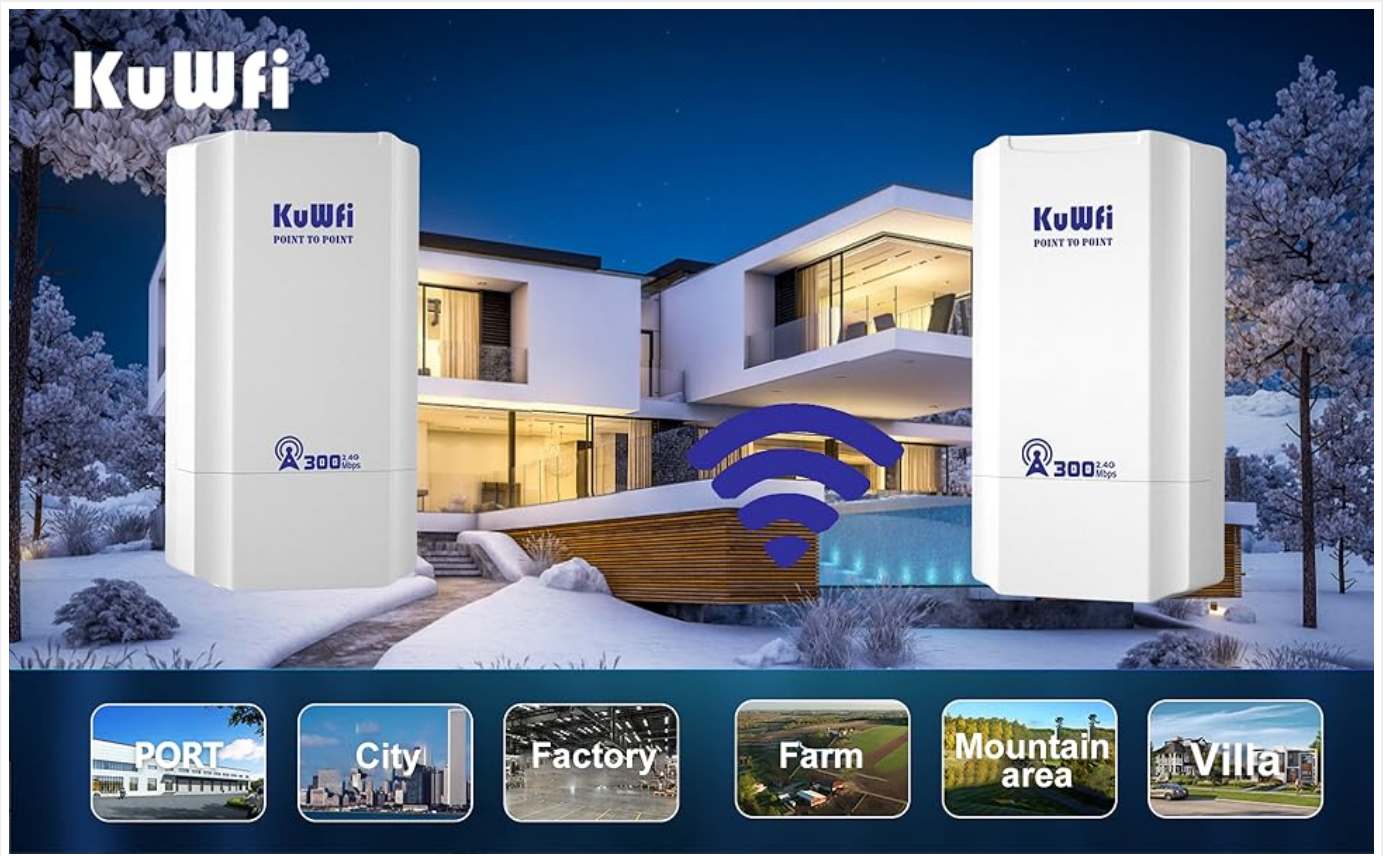


Figure 8: Versatile applications for the wireless bridge in diverse environments.



Figure 9: Outdoor CPE capabilities for large-scale environments like ports.



Figure 10: High-gain antenna and effective transmission range.

MAINTENANCE

To ensure the longevity and optimal performance of your KuWFi Wireless Bridge, follow these maintenance guidelines:

- **Regular Cleaning:** Periodically clean the exterior of the units to remove dust, dirt, and debris. Use a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Inspect Cables and Connections:** Annually check all cable connections for signs of wear, corrosion, or damage. Ensure they are securely plugged in.
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates. Keeping the firmware updated can improve performance, stability, and security.
- **Environmental Monitoring:** While designed for outdoor use, extreme weather conditions (e.g., severe storms, prolonged heavy snow) may temporarily affect performance. Ensure units are securely mounted to withstand strong winds.



Figure 11: The product's resilience to various weather conditions.

TROUBLESHOOTING

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

- **No Link/Poor Signal:**

- Ensure clear line of sight between units. Obstructions like trees or buildings can degrade signal.
- Verify both units are powered on and the PoE adapters are functioning correctly.
- Check the LED display on both units for signal strength indicators. Adjust alignment if necessary.
- Confirm Master/Slave roles are correctly set and units are on the same channel.

- **No Internet Access:**

- Verify the LAN cables are securely connected from the PoE adapter to your network devices (router, PC).
- Check the network configuration of your connected devices (IP address, gateway, DNS).
- Ensure your main router or network source is providing internet access.

- **Unit Stops Working After Some Time:**

- This can sometimes be indicated by "Running time too long" in some manuals. Try power cycling the unit (unplug and re-plug the PoE adapter).
- Ensure the unit is not overheating. Verify it is mounted in a location with adequate ventilation and not exposed to direct, prolonged sunlight in extreme heat.
- Check for any physical damage or loose connections.

- **Difficulty with Setup:**

- Refer to the "Initial Configuration" section of this manual. The LED display simplifies basic setup.
- If issues persist, consider resetting the units to factory defaults using the Reset button (refer to Figure 6 for location) and re-attempting the setup.

SPECIFICATIONS

Feature	Specification
Model Name	CPE130H-US
Product Dimensions	3.5 x 2.3 x 6.6 inches
Item Weight	2.05 pounds
Wireless Communication Standard	802.11n, 802.11b, 802.11g
Frequency Band Class	Single-Band (2.4 GHz)
Frequency	2500 MHz
Data Rate	300Mbps
Port Speed	100Mbps
Transmission Distance	Up to 1KM
Antenna Gain	12dBi
Special Features	Beamforming, Weatherproof (IP65), Access Point Mode, LED Indicator
Power Supply	PoE Powered
Operating Temperature	-40°C to 70°C
Compatible Devices	Security Camera, Personal Computer, Tablet, Smart Television, Smartphone

WARRANTY AND SUPPORT

KuWFi is committed to providing high-quality products and excellent customer service.

- **Warranty:** This product comes with a **3-Year Quality Service** warranty. Please retain your proof of purchase for warranty claims.
- **Technical Support:** For any technical assistance, setup queries, or troubleshooting beyond this manual, KuWFi offers **One-to-One VIP service and 24-hour support**.
- **Contact Information:** Please refer to the contact details provided on the product packaging or the official KuWFi website for support.

