**AdaLov CPE881**

# AdaLov CPE881 Wireless Bridges Kit Instruction Manual

Model: CPE881

## 1. INTRODUCTION

The AdaLov CPE881 Wireless Bridges Kit is designed to extend network connectivity over long distances, suitable for various outdoor and indoor applications. This kit includes three wireless bridges, enabling point-to-point (PTP) and point-to-multipoint (PTMP) connections with high-speed data transmission. Featuring a 14dBi high-gain antenna and 5.8GHz wireless frequency, it supports stable connections up to 5 kilometers (3.1 miles) and offers IP65 weather resistance for harsh environments.

## 2. WHAT'S IN THE BOX

Carefully unpack your AdaLov CPE881 Wireless Bridges Kit and ensure all items are present:

- 3 x CPE881 Wireless Bridges
- 3 x POE Adapters
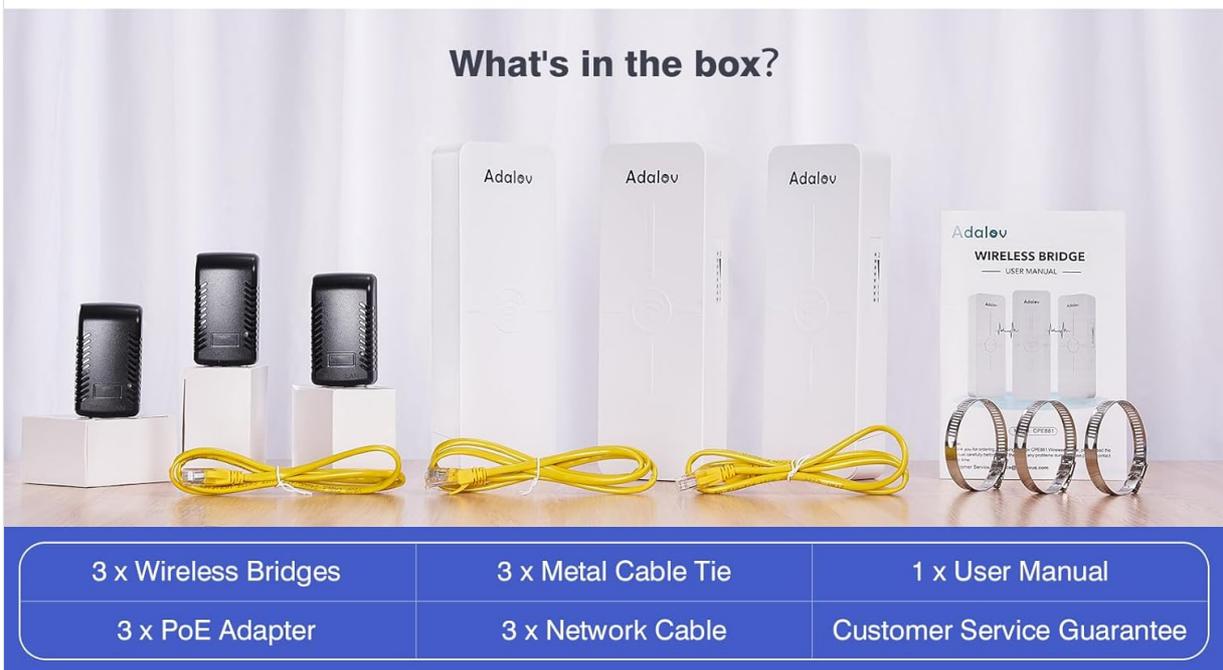- 3 x Metal Cable Ties
- 3 x Network Cables
- 1 x User Manual

Image: Contents of the AdaLov CPE881 Wireless Bridges Kit, including three wireless bridges, three PoE adapters, three network cables, three metal cable ties, and a user manual.

# 3. PRODUCT OVERVIEW

## 3.1 Ports and Buttons

Each CPE881 wireless bridge features the following ports and buttons:

- **PoE/1000Mbps LAN1 Port:** Connects to the PoE adapter for power and data, or to a network device.
- **PoE/1000Mbps LAN2 Port:** Connects to a network device, providing an additional Gigabit Ethernet port.
- **Reset Button (RST):** Used for changing channels or resetting the device.
- **A-B Button:** Used for configuring the device as a Master (A) or Slave (B) bridge.
- **DC Jack (12V):** Alternative power input.
- **Digital Tube:** Displays the current channel number or pairing status.

Image: Detailed view of the AdaLov CPE881 wireless bridge showing the LAN1, LAN2, Reset button, A-B button, DC Jack, and Digital Tube.

## 3.2 LED Indicators

The device features several LED indicators to show its status:

- **PWR:** Power indicator.
- **LAN1**/**LAN2:** LAN port activity indicators.
- **WLAN:** Wireless activity indicator.
- **SIG1-SIG4:** Signal strength indicators.

# 4. SETUP AND INSTALLATION

## 4.1 One-Key Pairing

The CPE881 bridges support one-key dialing pairing for simplified setup:

1. Connect all three wireless bridges to their respective PoE adapters and power them on.
2. Ensure the digital tube on each bridge displays the same channel number. If not, short press the "RST" button to cycle through channels until they match.
3. The bridges will automatically attempt to pair. Wait for the pairing process to complete. The signal indicators will light up once paired.

Image: Diagram illustrating the one-key dialing pairing process for the AdaLov CPE881 wireless bridges, showing a master bridge and two slave bridges connecting wirelessly over a long distance.

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Video: A demonstration of the DIP pairing process for the AdaLov CPE881 wireless bridges, showing how to power the devices, set channels, and initiate pairing.

## 4.2 Physical Installation

The CPE881 bridges are designed for outdoor use and can be pole-mounted or wall-mounted using the provided metal cable ties. For optimal performance, ensure a clear line of sight between the master and slave bridges.

- Mount the bridges securely in the desired outdoor locations.
- Ensure the master bridge and slave bridges are facing each other.
- The maximum angle between the master bridge and slave bridges should not exceed 60 degrees for effective signal transmission.

Image: An AdaLov CPE881 wireless bridge mounted on a pole outside a house, demonstrating a typical outdoor installation scenario.
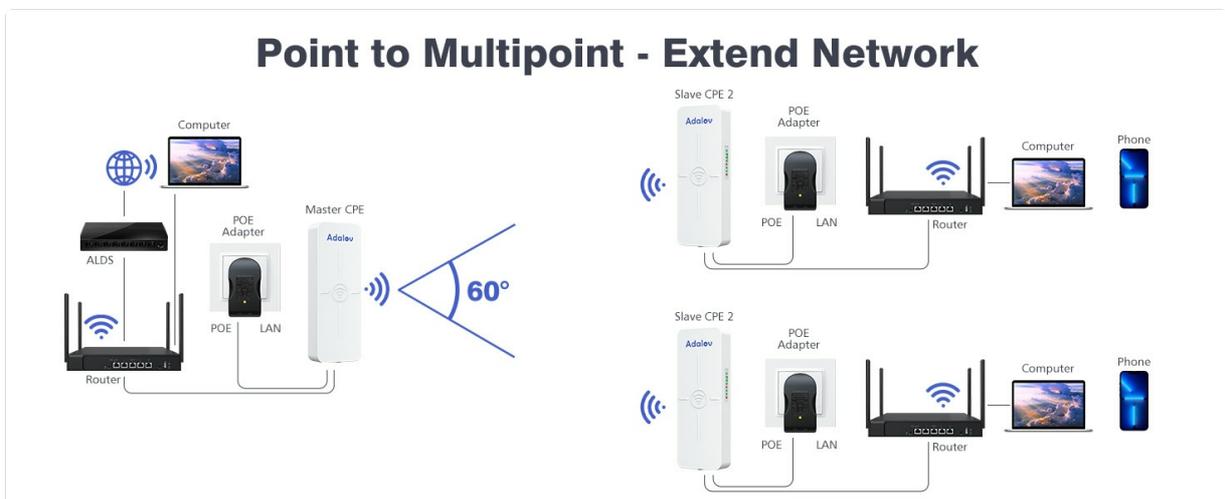


Image: An AdaLov CPE881 wireless bridge installed outdoors during a rainstorm, highlighting its IP65 waterproof rating and weather resistance.

# 5. OPERATING MODES

The AdaLov CPE881 Wireless Bridges Kit supports both Point-to-Point (PTP) and Point-to-Multipoint (PTMP) operating modes.

## 5.1 Point-to-Point (PTP) Connection

In a PTP setup, one bridge acts as the Master (transmitter) and another as the Slave (receiver), creating a direct wireless link between two locations. This is ideal for extending a network to a single remote building

or device.

## 5.2 Point-to-Multipoint (PTMP) Connection

For PTMP connections, one bridge functions as the Master, transmitting data to multiple Slave bridges. This configuration is suitable for scenarios requiring network extension to several remote locations, such as multiple IP cameras or buildings.
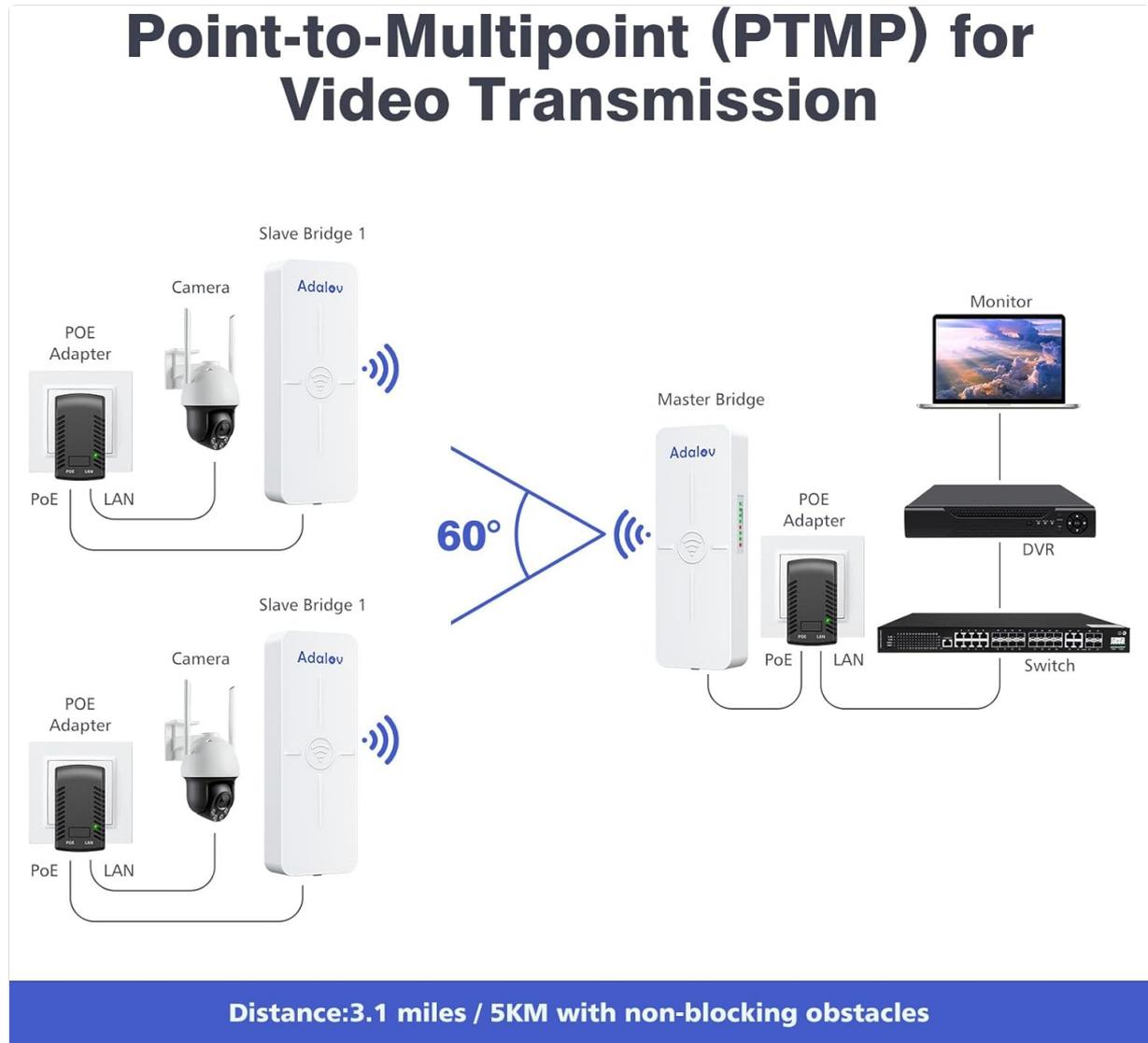


Image: Diagram showing a Point-to-Multipoint setup for video transmission, with a Master Bridge connected to an NVR/Monitor and two Slave Bridges connected to IP cameras.

Image: Diagram illustrating a Point-to-Multipoint setup for network extension, with a Master CPE connected to a router and two Slave CPEs extending Wi-Fi to computers and phones.

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Video: A demonstration of how to add an additional IP camera to an existing AdaLov CPE881 wireless bridge setup, showcasing the ease of expanding a surveillance system.

# 6. SPECIFICATIONS

| Feature | Specification |
|---------|---------------|
| Model Number | CPE881 |
| Wireless Communication Standard | 802.11ac |
| Frequency Band Class | Single-Band (5.8GHz) |
| Data Transfer Rate | Up to 866 Mbps (Wireless), 1000 Mbps (LAN) |
| Antenna Gain | 14 dBi |
| Max Work Distance | 5 km (3.1 miles) |
| LAN Ports | 2 x 1000Mbps (Gigabit) |
| Weather Resistance | IP65 Waterproof/Dustproof |
| Product Dimensions | 3.54 x 2.17 x 9.84 inches |
| Item Weight | 4.2 pounds (for the kit) |



Image: Visual representation of the AdaLov CPE881 wireless bridge's high speed (866Mbps wireless, 500Mbps LAN data rate) and 5.8Ghz frequency.

Image: Diagram showing the long-range capability of the AdaLov CPE881 wireless bridge, extending connectivity up to 5km (3.1 miles) with its 14dBi high-gain antenna.

# 7. MAINTENANCE

To ensure the longevity and optimal performance of your AdaLov CPE881 Wireless Bridges, follow these maintenance guidelines:

- **Regular Cleaning:** Periodically clean the exterior of the devices to remove dust, dirt, and debris, especially from the antenna area. Use a soft, dry cloth.
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates. Keeping the firmware updated can improve performance, security, and add new features.
- **Cable Inspection:** Regularly inspect all network and power cables for any signs of wear, damage, or corrosion. Replace damaged cables immediately.
- **Environmental Protection:** While the devices are IP65 rated, ensure they are installed in locations that minimize direct exposure to extreme weather conditions where possible, to further extend their lifespan.

# 8. TROUBLESHOOTING

If you encounter issues with your AdaLov CPE881 Wireless Bridges, refer to the following troubleshooting tips:

- **No Power:** Check if the PoE adapter is properly connected to a power source and the bridge. Ensure the network cable is securely connected to the PoE port on the adapter and the bridge.
- **No Signal/Poor Connection:**
  - Verify clear line of sight between the master and slave bridges. Obstructions can significantly degrade signal quality.
  - Ensure the bridges are correctly aimed at each other. Adjust their orientation for optimal signal strength (monitor the signal indicators).
  - Confirm that all bridges are set to the same channel during pairing.
- **Cannot Access Network:**
  - Check the network cables connecting the bridges to your router/devices.
  - Ensure your router is functioning correctly and providing internet access.
- **Resetting the Bridge:** If a bridge is unresponsive or you need to reconfigure it, you can reset it to factory defaults. Long press the "RST" button for 10 seconds until the digital tube resets.

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Video: This video demonstrates the function of the reset button on the AdaLov CPE881 wireless bridge, showing how to short press to change channels and long press to reset the device.

## 9. SAFETY INFORMATION

Please read and follow these safety precautions to prevent damage to the device or injury to yourself:

- Do not open or attempt to repair the device yourself. Refer all servicing to qualified personnel.
- Use only the provided PoE adapters and power cables. Using unauthorized accessories may damage the device and void the warranty.
- Ensure proper grounding for outdoor installations to protect against lightning and electrical surges.
- Avoid installing the device near sources of strong electromagnetic interference.
- When installing outdoors, take appropriate safety measures, such as using a stable ladder and avoiding installation during adverse weather conditions.

## 10. WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance, please refer to the contact details provided in the packaging or visit the official AdaLov website. Keep your purchase receipt for warranty claims.