

AdaLov CPE882

AdaLov CPE882 WiFi 6 Dual-Band Gigabit Outdoor Wireless Bridge User Manual

Model: CPE882 | Brand: AdaLov

1. PRODUCT OVERVIEW

The AdaLov CPE882 WiFi 6 Wireless Bridge is designed to extend network connectivity over long distances, providing stable and high-speed internet access to remote locations. Utilizing advanced WiFi 6 technology, it supports both 2.4 GHz and 5.8 GHz dual-band frequencies, ensuring reliable performance for various applications.

Key Features:

- **WiFi 6 Technology:** Advanced OFDMA and MU-MIMO for fast data transmission, low latency, and stable connections.
- **Dual-Band Operation:** Combines 2.4 GHz for long-distance stability and 5.8 GHz for ultra-fast transfers and reduced interference.
- **Gigabit Ethernet Ports:** Two Gigabit Ethernet ports for stable wired connections to routers, switches, modems, or Starlink systems.
- **Long-Range Coverage:** Supports reliable point-to-point (P2P) and point-to-multipoint (PTMP) connections up to 3 km (approximately 1.86 miles).
- **IP65 Weatherproof Enclosure:** Designed for outdoor use, resistant to rain, snow, intense sun, dust, and extreme conditions.
- **Flexible Mounting:** Includes mounting brackets for easy wall or pole installation with up to 150° vertical adjustment.
- **Multiple Power Options:** Powered by the included 24V PoE adapter, also supports 48V PoE switches or 12V DC power.

Tecnología WiFi 6

Más Rápido, Más Fluido, Más Estable



Figure 1.1: AdaLov CPE882 WiFi 6 Wireless Bridge showcasing WiFi 6 technology for enhanced performance.

2. WHAT'S IN THE BOX

The AdaLov CPE882 kit includes all necessary components for immediate installation:

- 2 x AdaLov CPE882 Gigabit WiFi Bridges
- 2 x Mounting Brackets

- 2 x 1m Network Cables
- Small and Large Cable Ties
- 2 x PoE Adapters (24V)
- 2 x Wall Cable Glands
- 50 x Clips
- 1 x User Manual



Figure 2.1: Complete package contents for the AdaLov CPE882 Wireless Bridge kit.

3. INSTALLATION GUIDE

Follow these steps to install and configure your AdaLov CPE882 Wireless Bridge for optimal performance.

3.1 Mounting the Units

The CPE882 units are designed for outdoor installation. Use the provided mounting brackets to securely attach the units to a wall or pole. Ensure a clear line of sight between the two bridge units for best signal transmission.

Fácil De Instalar

Configuración Rápida, Plug & Play



Figure 3.1: Easy installation of the AdaLov CPE882 unit on an exterior surface.

3.2 Connecting Power and Ethernet

1. Connect one end of an Ethernet cable to the PoE port on the included 24V PoE adapter.
2. Connect the other end of this Ethernet cable to the LAN1/LAN2 port on the CPE882 unit. This cable provides both data and power to the unit.
3. Plug the PoE adapter into a power outlet.
4. For the Master unit, connect an Ethernet cable from your main router's LAN port to the LAN port on its PoE adapter.
5. For the Slave unit, connect an Ethernet cable from the LAN port on its PoE adapter to your network

device (e.g., computer, switch, or secondary router).

Puertos LAN Gigabit Duales

Doble Experiencia De Alta Velocidad



Figure 3.2: The two Gigabit LAN ports on the CPE882 unit.

3.3 DIP Switch Configuration and Pairing

The CPE882 units are Plug & Play, often pre-configured. However, you can adjust the DIP switches for specific roles (Master/Slave) and channels if needed. The display on the unit indicates the current channel number.

1. Identify one unit as the **Master (A)** and the other as the **Slave (B)**.
2. Use a small tool to adjust the DIP switch on the Master unit to 'A' and the Slave unit to 'B'.
3. Briefly press the 'Reset' button on each unit to cycle through channel numbers until both units display the

same channel number. This ensures they are paired correctly.

4. Once paired, the LED indicators will show a solid green light, confirming a successful connection.

4. OPERATING MODES & APPLICATIONS

The AdaLov CPE882 supports various operating modes to extend your network effectively.

4.1 Point-to-Point (P2P) Mode

In P2P mode, two CPE882 units establish a direct wireless link, extending your network from one location to another. This is ideal for connecting two buildings, such as a main house to a garage, barn, or remote office.



Figure 4.1: Point-to-Point network extension setup.

4.2 Point-to-Multipoint (PTMP) Mode

For scenarios requiring network extension to multiple remote locations from a single central point, the PTMP mode is utilized. One Master unit can connect to several Slave units, providing broader coverage.



Figure 4.2: Point-to-Multipoint network configuration.

4.3 Dual-Band Functionality

The CPE882 operates on both 2.4 GHz and 5.8 GHz frequencies. The 2.4 GHz band offers wider coverage and better penetration through obstacles, suitable for general internet use and older devices. The 5.8 GHz band provides higher speeds and lower interference, ideal for streaming 4K video, online gaming, and connecting modern devices.



Figure 4.3: Dual-band operation for versatile connectivity.

4.4 Extended Range and Applications

With its 14 dBi antenna, the CPE882 can extend network signals up to 3 km, making it suitable for:

- **Security Camera Systems:** Connect remote IP cameras to your NVR wirelessly.
- **Starlink Network Extension:** Extend your Starlink internet to other buildings or areas on your property.
- **Connecting Outbuildings:** Provide internet to garages, workshops, barns, or sheds.
- **Large Property Coverage:** Ensure reliable network access across extensive properties or multi-acre terrains.



Figure 4.4: Long-range transmission capabilities of the CPE882.

PTP – Cámara de seguridad



Figure 4.5: P2P application for security camera systems.



Compatible Con Starlink



Figure 4.6: Starlink network extension using CPE882.

5. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Name	AdaLov CPE882 WiFi 6 Puente Inalámbrico Exterior

Feature	Specification
Dimensions	8l. x 4.6an. x 25.2al. cm (9 x 5.5 x 25.2 cm)
Weight	1.7 kg
Wireless Standard	802.11a, 802.11ac, 802.11ax, 802.11g, 802.11n (WiFi 6 Generation)
Frequency Band Class	Dual Band (2.4 GHz, 5.8 GHz)
Data Transfer Rate	Up to 3000 Mbps
LAN Port Bandwidth	1000 Mbps (Gigabit)
Antenna Type	Internal (14 dBi)
Number of Antennas	2
Number of Ports	2 (Ethernet)
Special Features	Waterproof (IP65), LED Indicator, Guest Mode, Access Point Mode, Internet Security
Power Supply	24V PoE Adapter (included), supports 48V PoE switches or 12V DC
Security Protocol	WP3-PSK, WPA2-PSK, WPA3
Compatible Devices	Security Camera, Router, Personal Computer, Smart TV, Smart Thermostat
Operating System	RouterOS

6. MAINTENANCE & TROUBLESHOOTING

6.1 Weather Resistance

The AdaLov CPE882 features an IP65-rated weatherproof enclosure, protecting it from environmental elements such as rain, snow, and dust. This ensures reliable operation in various outdoor conditions.



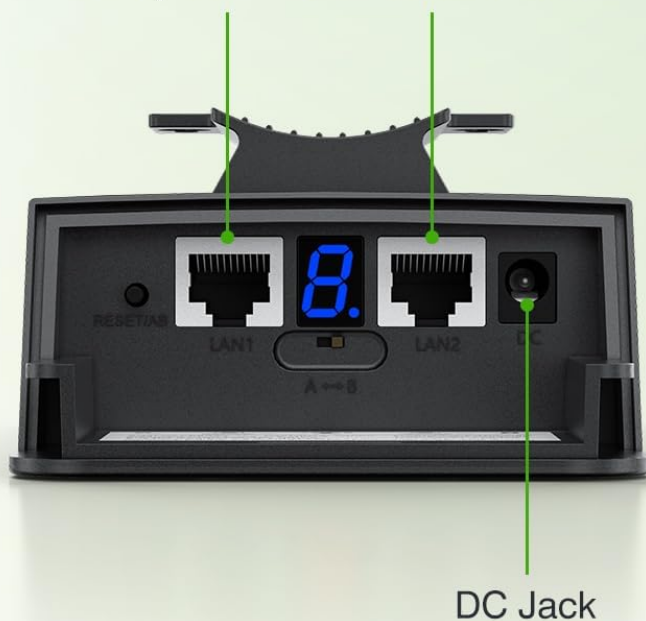
Figure 6.1: IP65 weather resistance for outdoor durability.

6.2 Power Options

The device offers flexible power options, including the provided 24V PoE adapter, compatibility with 48V PoE switches, or 12V DC power. This versatility allows integration into various network setups.

Múltiples Opciones De Alimentación

Puerto LAN1/LAN2:
Compatible Con PoE 24V–48V



1 Adaptador PoE 24V



2 Switch PoE 48V



3 Compatible Con Alimentación DC 12V

Figure 6.2: Multiple power options for flexible deployment.

6.3 Troubleshooting Common Issues

- **No Signal/Poor Connection:** Ensure a clear line of sight between the Master and Slave units. Obstacles like trees or buildings can degrade signal quality. Verify that both units are powered on and the Ethernet cables are securely connected.
- **Incorrect Pairing:** Check the DIP switch settings on both units to ensure one is set to 'A' (Master) and the other to 'B' (Slave). Confirm that both units are displaying the same channel number after pressing the 'Reset' button.
- **Slow Speeds:** While the device supports high speeds, actual performance can be affected by the quality of your internet service, network congestion, and environmental factors. Ensure your main router is

providing adequate speed.

- **Power Issues:** Verify that the PoE adapter is correctly plugged into a working power outlet and that the Ethernet cable is properly connected to the PoE port on the adapter and the CPE882 unit.

7. WARRANTY & SUPPORT

The AdaLov CPE882 Wireless Bridge comes with a **one-year warranty** from the date of purchase. This warranty covers manufacturing defects and ensures product reliability.

For technical support, troubleshooting assistance, or warranty claims, please refer to the contact information provided in the included user manual or visit the official AdaLov website. When contacting support, please have your product model (CPE882) and purchase details readily available.