LINOVISION POE-SWR510GMP

LINOVISION POE-SWR510GMP Outdoor 8-Port Gigabit PoE Switch User Manual

Model: POE-SWR510GMP

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the LINOVISION POE-SWR510GMP Outdoor 8-Port Gigabit PoE Switch. This device is designed for outdoor network deployments, offering robust performance and advanced management capabilities.
The POE-SWR510GMP is an IP65-rated, L2+ managed Power over Ethernet (PoE) switch featuring 8 full Gigabit PoE ports and 2 Gigabit SFP uplink ports. It supports a total PoE budget of 140W and includes remote cloud management functionalities.

2. Safety Information

Please read and understand all safety instructions before installing or operating this device. Failure to do so may result in injury or damage to the equipment.

- **Electrical Safety:** For safety, a Ground Fault Circuit Interrupter (GFCI) circuit breaker is required at the power input side. Installation should be performed by a licensed electrician.
- **Power Supply:** Ensure the power source voltage matches the device's requirements (100-240V AC).
- **Environmental Conditions:** The switch is designed for outdoor use within a temperature range of -20°C to 60°C (-4°F to 140°F). Avoid exposing the device to extreme conditions outside this range.
- **Surge Protection:** The device includes 4kV PoE surge protection. However, additional external surge protection is recommended in areas prone to lightning.
- **Mounting:** Securely mount the device using the provided brackets to prevent accidental falls.

3. Package Contents

Verify that all items are present in the package:

- LINOVISION POE-SWR510GMP Outdoor PoE Switch

- Metal Straps (for pole mounting)
- User Manual

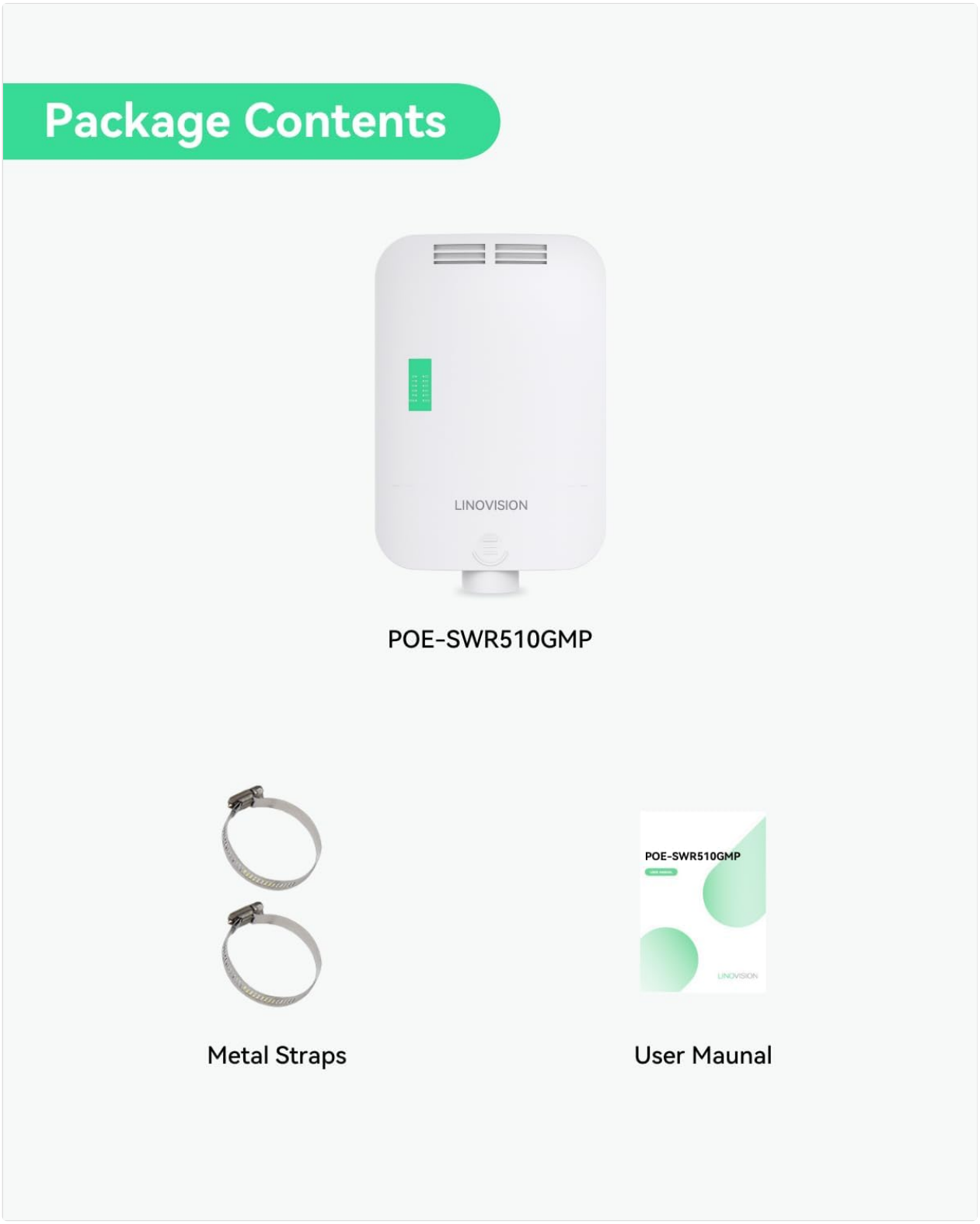


Image 3.1: Contents included with the POE-SWR510GMP switch, showing the switch unit, metal straps, and user manual.

4. Product Overview

4.1 Hardware Description

The LINOVISION POE-SWR510GMP features a robust, waterproof enclosure designed for outdoor environments. Key components include:

- **8 Gigabit PoE Ports:** Provide data and power to connected PoE-compatible devices (e.g., IP cameras, wireless access points). Each port supports up to 30W (IEEE802.3af/at).
- **2 Gigabit SFP Ports:** For fiber optic uplinks, enabling long-distance network connections.
- **100-240V AC Input:** Power connection terminal.
- **Reset Switch:** For restoring factory default settings.
- **LED Indicators:** For power, PoE status, and network activity.

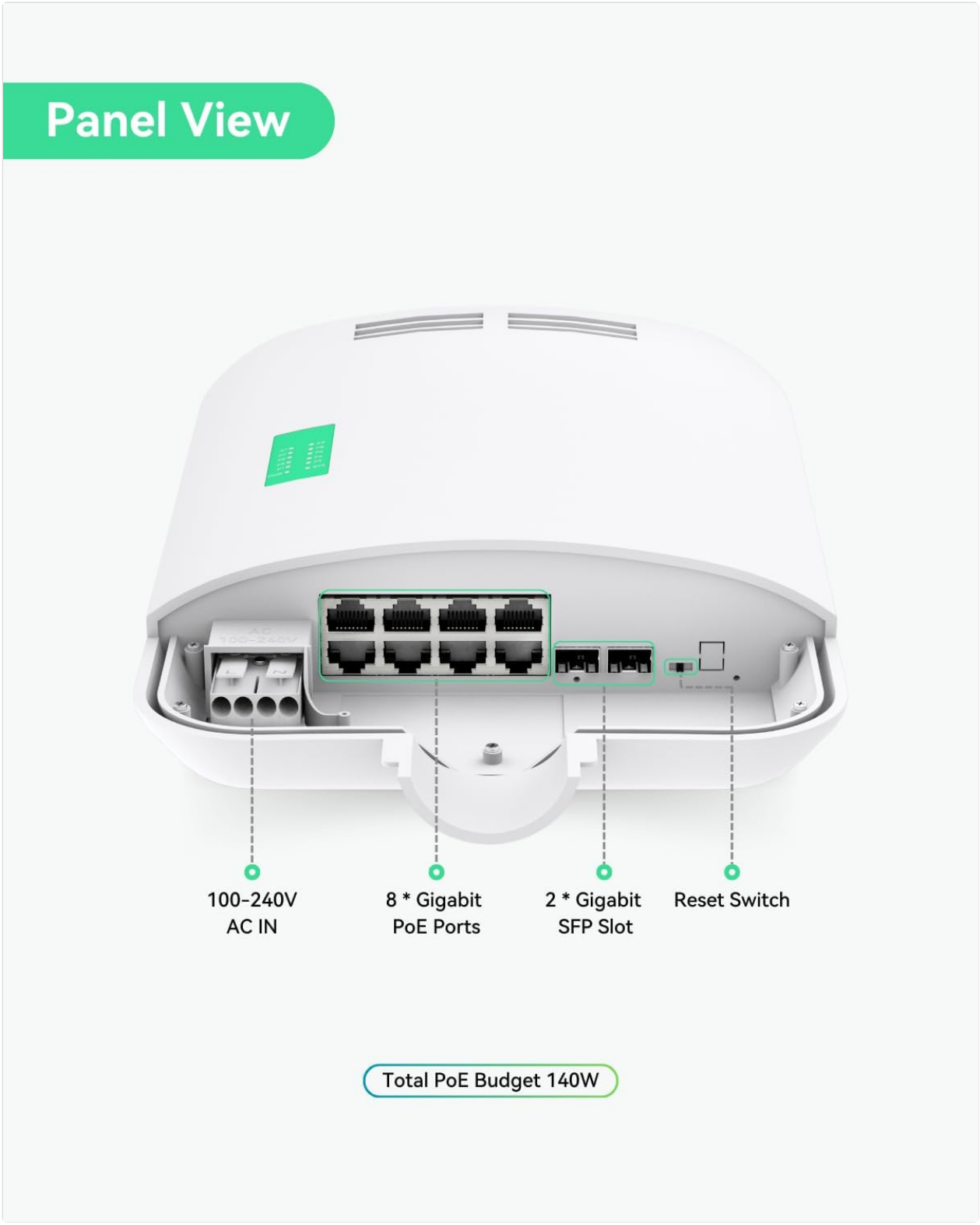


Image 4.1: Detailed view of the switch's panel, highlighting the 100-240V AC input, 8 Gigabit PoE ports, 2 Gigabit SFP slots, and the reset switch.

4.2 Industrial Design Features

The switch is engineered for durability and reliable operation in challenging outdoor conditions:

- **IP65 Waterproof Enclosure:** Protects against dust and water ingress.
- **Wide Operating Temperature:** Functions reliably from -20°C to 60°C (-4°F to 140°F).
- **4kV Surge Protection:** Built-in protection against electrical surges.
- **Large-Area Pure Aluminum Heat Sink:** Efficiently dissipates heat to prevent overheating, ensuring stable performance.

Image 4.2: The switch installed in an outdoor environment, illustrating its IP65 waterproof enclosure, wide temperature tolerance, and 4kV PoE surge protection.

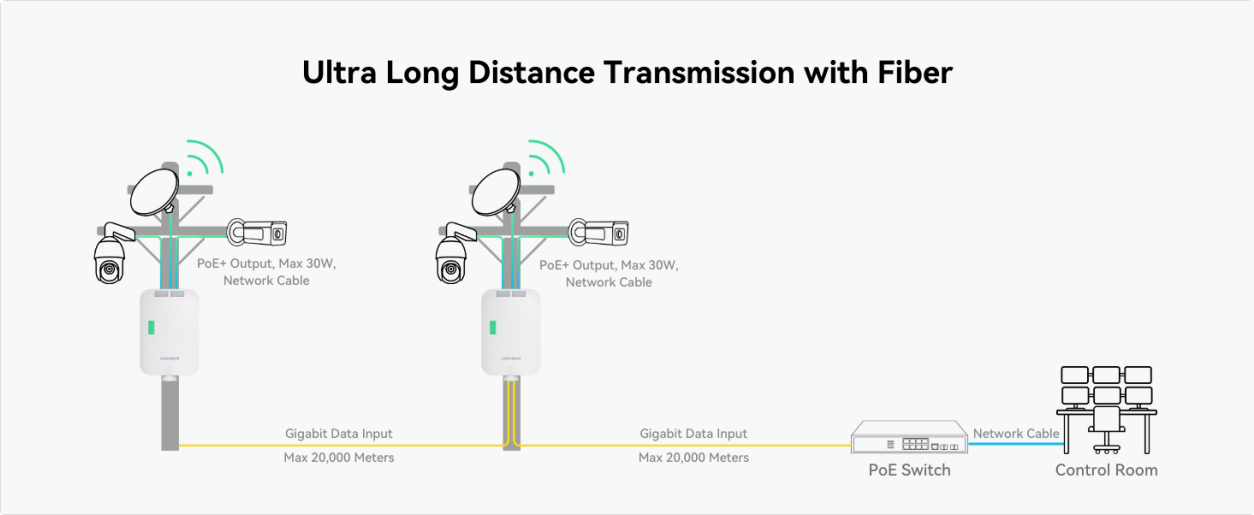


Image 4.3: Illustration of the large-area pure aluminum heat sink, demonstrating its role in preventing internal chipset overheating.

5. Setup and Installation

5.1 Mounting Options

The POE-SWR510GMP supports both pole mount and wall mount installations. Brackets are included in the package.

- **Pole Mount:** Use the provided metal straps to secure the switch to a pole.
- **Wall Mount:** Use appropriate screws and anchors (not included) to fix the switch to a wall.

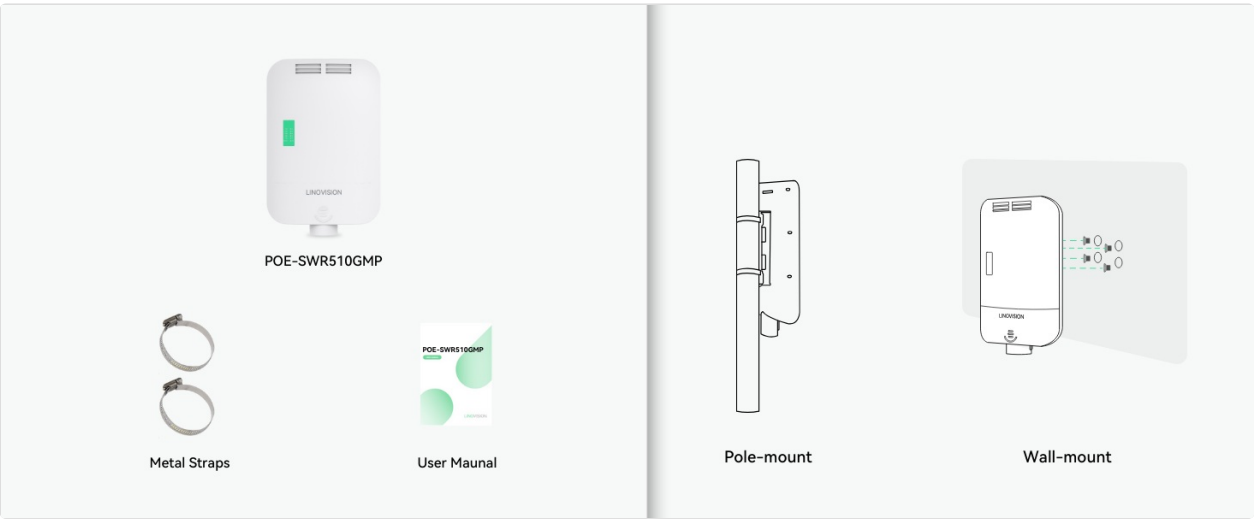


Image 5.1: Visual guide for pole mounting and wall mounting the PoE switch.

5.2 Power Connection

Connect the 100-240V AC power source to the designated terminal block on the switch. Ensure the GFCI circuit breaker is installed as per safety guidelines.

5.3 Network Connections

- **PoE Devices:** Connect IP cameras, wireless access points, or other PoE-powered devices to the 8 Gigabit PoE ports using standard Ethernet cables.
- **Uplink:** Use the 2 Gigabit SFP ports for fiber optic connections to your core network or other switches, especially for long-distance data transmission.

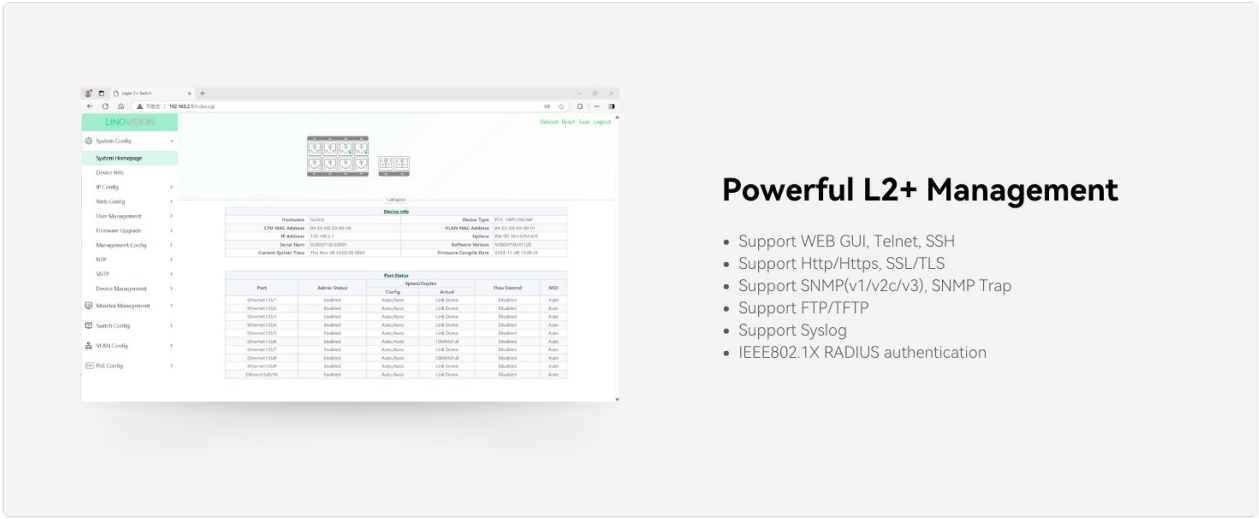


Image 5.2: Example of ultra-long distance data transmission using the SFP ports with fiber optic cables, connecting remote PoE devices to a central control room.

6. Operating Instructions

6.1 L2+ Management Functions

The POE-SWR510GMP is an L2+ managed switch, offering advanced network configuration and monitoring capabilities via its WEB GUI, Telnet, SSH, CLI, SNMP, and MQTT Cloud interfaces.
Key L2+ management features include:

- **VLAN:** Virtual Local Area Network for network segmentation.
- **QoS:** Quality of Service for prioritizing network traffic.
- **ACL:** Access Control List for network security.
- **Static Routing:** For defining fixed paths for network traffic.
- **Link Aggregation:** Combining multiple network connections for increased throughput and redundancy.
- **ONVIF Camera Discovery:** Automatic detection of ONVIF-compliant cameras.

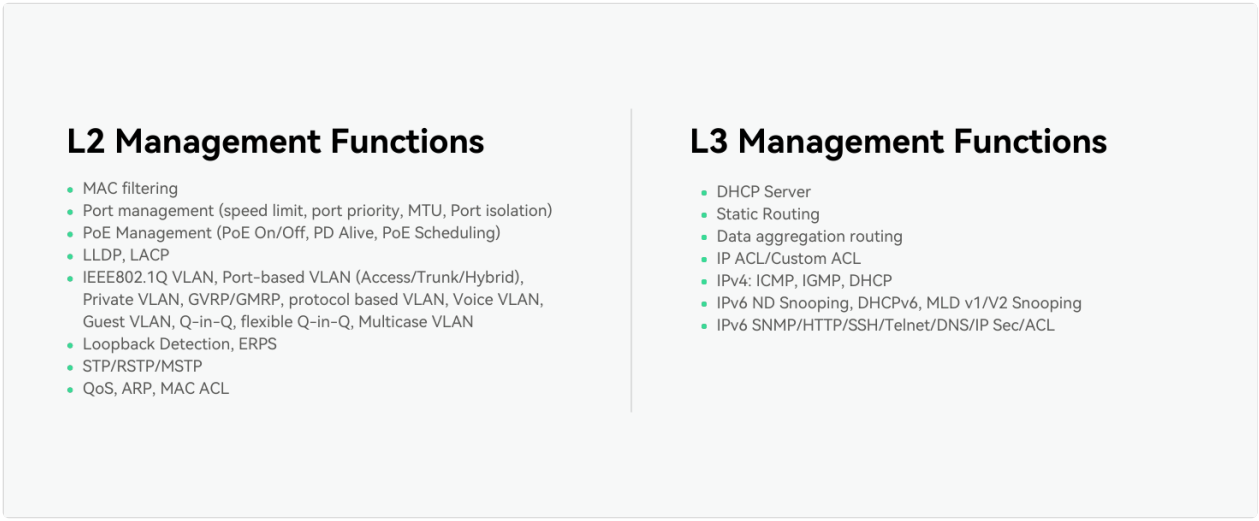


Image 6.1: Screenshot of the web-based management interface, demonstrating various L2+ management functions such as VLAN, QoS, and ACL settings.

6.2 Remote Cloud Management

The switch supports remote monitoring and control of PoE ports through LINOVISION's RemoteMonit Cloud platform or other compatible 3rd party cloud platforms using MQTT protocol. This feature allows for:

- PoE Port On/Off Control
- Port Speed Limit Configuration
- PoE Power Control
- Port Priority Settings

A one-year free subscription for RemoteMonit Cloud is included.

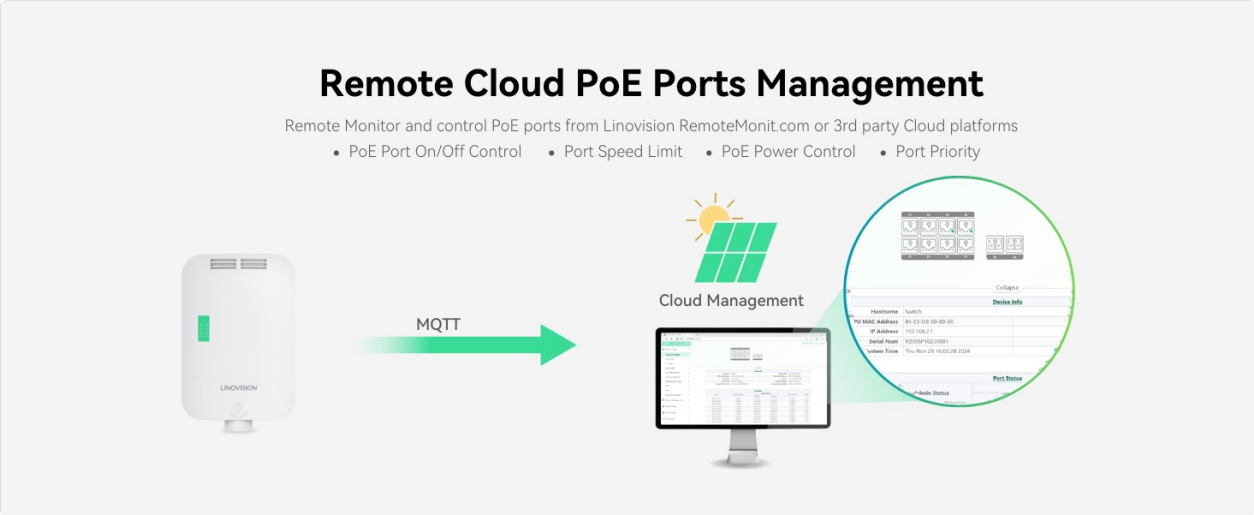


Image 6.2: Diagram illustrating the remote cloud management process, where the switch connects to a cloud platform via MQTT for remote control and monitoring.

6.3 PoE Compatibility and Safety

The switch utilizes IEEE802.3af/at PoE chipset technology for intelligent power allocation. It automatically detects and classifies Powered Devices (PDs) in four steps: Detection, Classification, Start Up, and Power ON. This ensures appropriate power delivery to IEEE802.3af/at compliant devices and prevents power delivery to non-PoE devices, enhancing safety and compatibility.

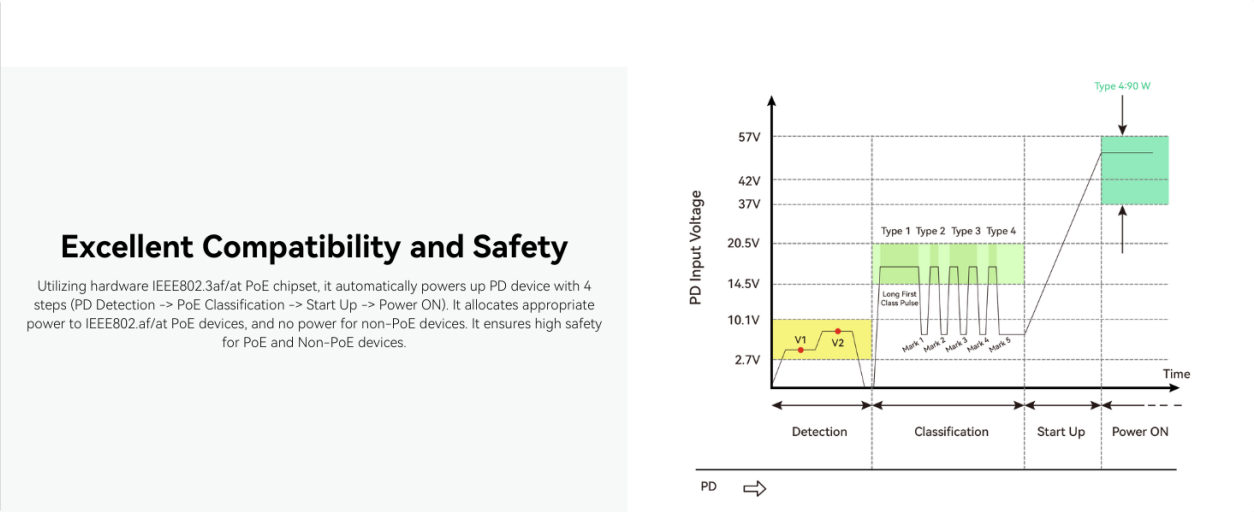


Image 6.3: Graph detailing the PoE power detection, classification, startup, and power-on sequence, ensuring safe and compatible power delivery.

7. Maintenance

To ensure optimal performance and longevity of your LINOVISION POE-SWR510GMP switch, follow these maintenance guidelines:

- **Regular Inspection:** Periodically check the enclosure for any signs of damage, corrosion, or loose

connections.

- **Cleaning:** Keep the exterior of the switch clean. Use a soft, dry cloth to wipe away dust. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure that the heat dissipation vents are not obstructed to allow for proper airflow.
- **Firmware Updates:** Check the LINOVISION website for available firmware updates to enhance performance and security.

8. Troubleshooting

If you encounter issues with your POE-SWR510GMP switch, refer to the following common troubleshooting steps:

- **No Power:** Verify the AC power connection and ensure the GFCI circuit breaker is not tripped. Check the power LED indicator on the switch.
- **No Network Connectivity:** Check Ethernet cable connections for all devices. Ensure the link/activity LEDs on the switch ports are active. Verify IP settings for connected devices.
- **PoE Device Not Powering On:** Confirm the connected device is PoE-compatible (IEEE802.3af/at). Check the PoE status LED for the specific port. Ensure the total PoE budget (140W) is not exceeded. Try connecting the device to a different PoE port.
- **Cannot Access Web GUI:** Ensure your computer's IP address is in the same subnet as the switch's default IP (refer to specifications for default IP). Clear browser cache or try a different browser.
- **Device Malfunction:** If the switch is unresponsive, try performing a soft reset by power cycling the device. If issues persist, use the reset button to restore factory default settings (note: this will erase all configurations).

9. Specifications

Detailed technical specifications for the LINOVISION POE-SWR510GMP switch:

Feature	Specification
Model Number	POE-SWR510GMP
Number of Ports	8 Gigabit PoE Ports, 2 Gigabit SFP Ports
PoE Standard	IEEE802.3af/at
Max PoE Power Per Port	30W
Total PoE Budget	140W
Data Transfer Rate	10/100/1000Mbps (Gigabit)
Interface Type	RJ45, SFP
Management	L2+ Managed (WEB GUI, Telnet, SSH, CLI, SNMP, MQTT Cloud)
Waterproof Rating	IP65
Surge Protection	4kV PoE

Feature	Specification
Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Power Input	100-240V AC
Product Dimensions	8.46 x 3.03 x 13.43 inches (215 x 77 x 341 mm)
Item Weight	2.33 pounds (1.06 kg)
Mounting Options	Pole Mount, Wall Mount
Compatible Devices	Camera, Desktop, Laptop, Printer (PoE-compatible)

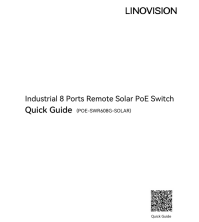
Image 9.1: Physical dimensions and weight of the POE-SWR510GMP switch.

10. Warranty and Support

LINOVISION provides comprehensive support for its products. For warranty information, technical assistance, or service inquiries, please refer to the official LINOVISION website or contact their support team.

- **Support:** LINOVISION offers 24/7 US local and global technical support.
- **Warranty:** Warranty and replacement services are available from their Texas location.
- **Online Resources:** Visit the LINOVISION Store on Amazon or their official website for FAQs, downloads, and contact information.

Related Documents - POE-SWR510GMP

	LINOVISION POE-SW508G2 Industrial Full Gigabit PoE Switch Quick Guide Quick guide for the LINOVISION POE-SW508G2, an industrial full gigabit PoE switch with 8 ports, including 4x 90W PoE ports and 2x SFP uplinks. Details installation, interface, power connection, and technical specifications.
	Linovision POE-SW508G2 Industrial Full Gigabit PoE Switch Quick Guide Quick guide for the Linovision POE-SW508G2, an 8-port industrial full gigabit unmanaged PoE switch with 2 SFP uplinks and 4 BT 90W PoE ports. Includes installation, interface, and technical specifications.
	Linovision POE-SW508G2: 8-Port Industrial Gigabit PoE Switch with 4x90W PoE++ Ports Explore the Linovision POE-SW508G2, an industrial 8-port full Gigabit PoE switch featuring 4x90W PoE++ ports, 2x Gigabit SFP uplinks, wide temperature operation, and robust surge/ESD protection. Ideal for demanding network applications.
	LINOVISION Industrial 8 Ports Remote Solar PoE Switch Quick Guide A quick guide for the LINOVISION POE-SWR608G-SOLAR, an industrial 8-port remote solar PoE switch. This document covers product overview, package contents, installation, interface details, application scenarios, technical specifications, and configuration instructions.
	Linovision POE-SWR708GM-8BT 8-Port Gigabit PoE++ Switch Quick Guide Quick guide for the Linovision POE-SWR708GM-8BT industrial 8-port Gigabit PoE++ switch. Details installation, interface, connection diagrams, and technical specifications including PoE budget, switching features, and environmental ratings.

	[Linovision PoE-SWR708GM-8BT Industrial PoE++ Switch - Features & Specifications] Comprehensive details on the Linovision PoE-SWR708GM-8BT, an 8-port Gigabit L2+ managed industrial PoE++ switch with a 460W power budget, featuring advanced L2/L3 functions, robust industrial design, and wide operating temperature range.