VIMIN VM-0E020GP

VIMIN 10-Port Gigabit PoE Switch User Manual

Model: VM-0E020GP

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the VIMIN 10-Port Gigabit PoE Switch. Please read this manual thoroughly before using the device to ensure proper functionality and to prevent damage.

2. Product Overview

2.1 Key Features

- **10 Gigabit Ports:** 8 Power over Ethernet (PoE+) ports and 2 Gigabit uplink ports.
- **PoE+ Standard:** Supports IEEE 802.3af/at, providing up to 30W per port with a total power budget of 120W. Passive PoE is not supported.
- **AI Watchdog Mode:** Automatically detects and restarts unresponsive PoE-powered devices.
- **One-Key VLAN:** Isolates PoE ports (1-8) from each other for enhanced network security while maintaining communication with uplink ports.
- **Extended Transmission:** Supports data transmission up to 250 meters at 10Mbps.
- **Robust Protection:** Features 4KV lightning protection for device and network safety.
- **Durable Design:** Sturdy metal casing for enhanced longevity and heat dissipation.
- **Versatile Installation:** Suitable for desktop or wall-mounted placement.

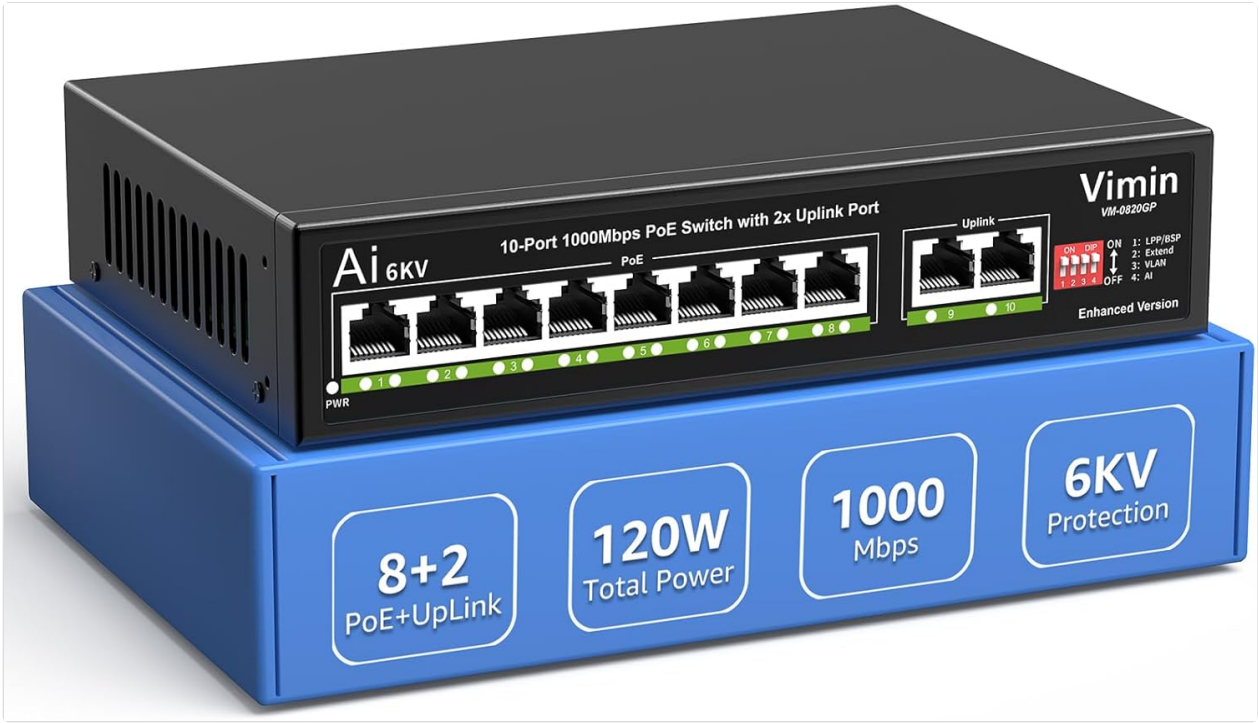

Image 1: Front view of the VIMIN 10-Port Gigabit PoE Switch, illustrating its 8 PoE+ ports, 2 uplink ports, 120W total power, 1000Mbps data transfer rate, and 6KV lightning protection.

2.2 Package Contents

Verify that all items are present in the package:

- 1 x VIMIN 10-Port Gigabit PoE Switch (Model: VM-0E020GP)
- 1 x Power Cable
- 1 x User Manual

2.3 Physical Description

The switch features 8 PoE+ ports (1-8) and 2 Gigabit uplink ports (9-10). It includes a built-in power supply and DIP switches for advanced functions.

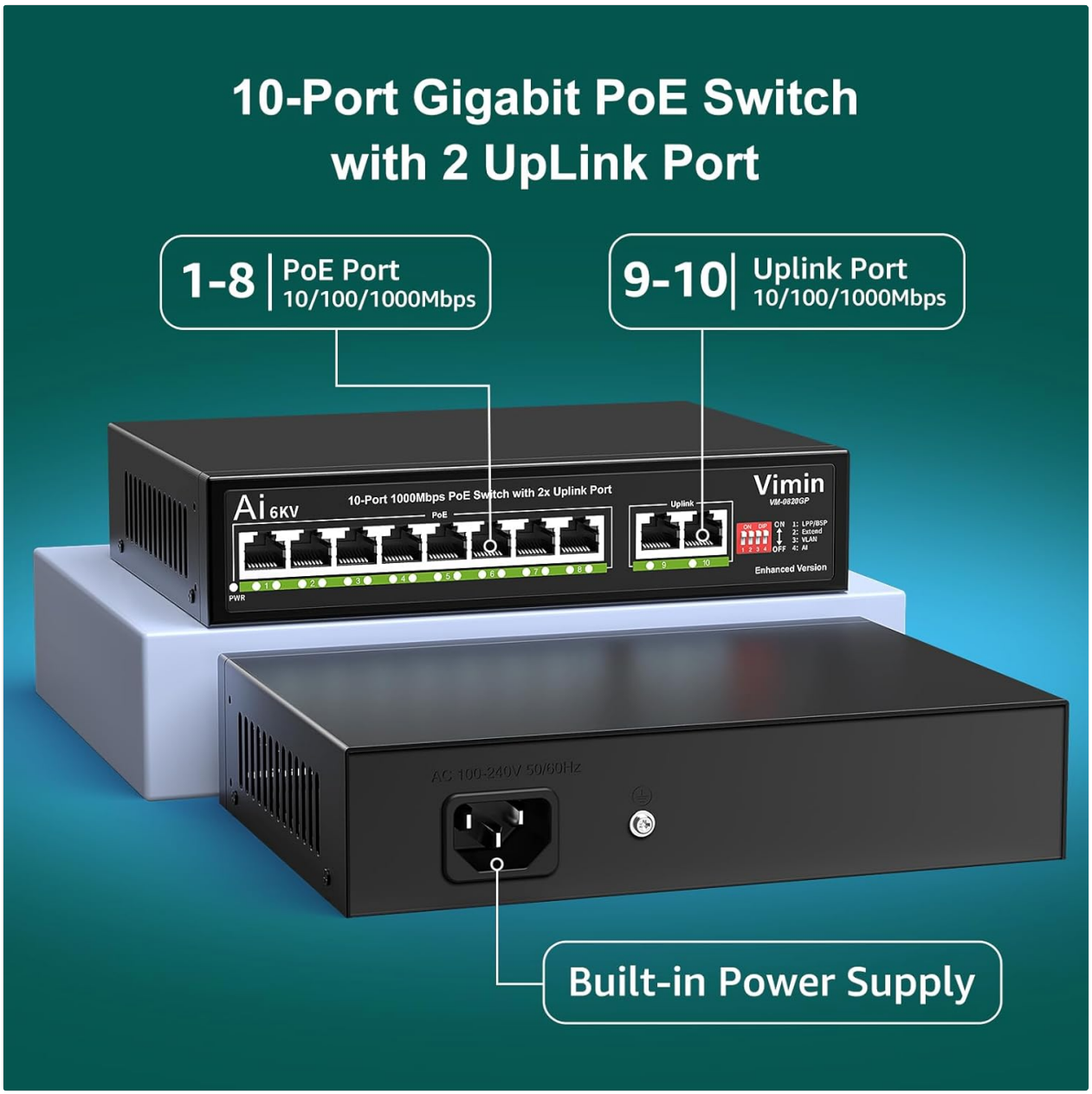

Image 2: Detailed view of the switch's front panel, indicating PoE ports (1-8) and uplink ports (9-10), along with a rear view showing the integrated power supply.

Image 3: Visual representation of the switch's physical attributes, including its metal casing, plug-and-play setup, 6KV lightning protection, and wall-mounting capability.

3. Setup

3.1 Connecting the Power

1. Connect the provided power cable to the power input on the back of the switch.
2. Plug the other end of the power cable into a standard AC power outlet.
3. The Power (PWR) indicator on the front panel will illuminate, indicating the switch is receiving power.

3.2 Connecting Network Devices

1. Connect PoE-compatible devices (e.g., IP cameras, wireless access points, VoIP phones) to ports 1-8 using Ethernet cables. These ports will provide both data and power.
2. Connect non-PoE devices (e.g., routers, NVRs, computers) to the uplink ports 9-10 using Ethernet cables. These ports are for data transmission only.
3. Ensure all cable connections are secure.

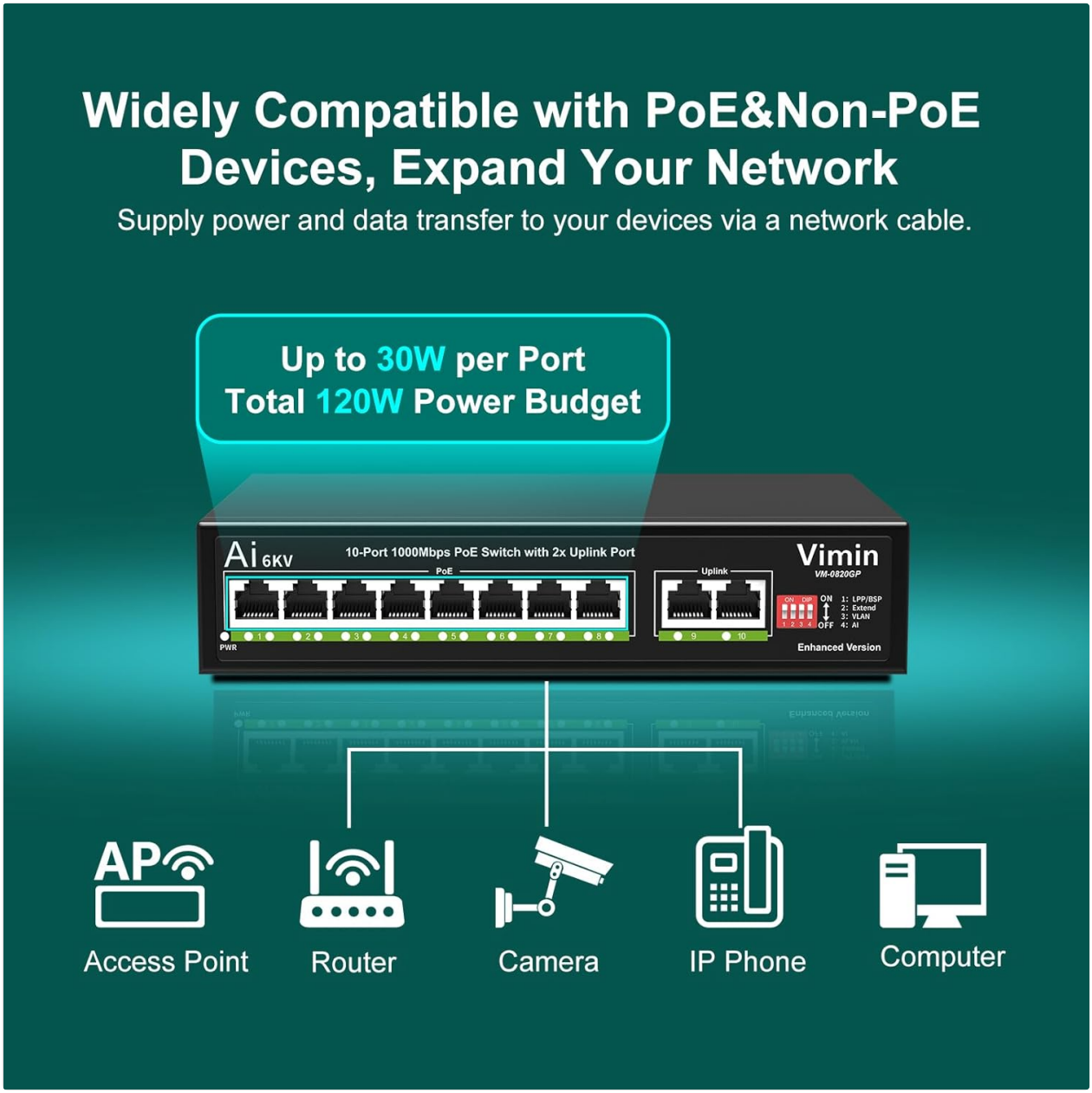

Image 4: Illustration of the switch's compatibility with various devices and its power delivery capabilities, including 30W per port and a 120W total power budget.

4. Operating Instructions

The VIMIN 10-Port Gigabit PoE Switch is a plug-and-play device. Basic operation requires no configuration. Advanced features can be enabled using the DIP switches located on the front panel.

4.1 Understanding DIP Switch Modes

The switch features a set of DIP switches (labeled 1-4) to activate specific functions:

- **DIP Switch 1: LPP Ring & BSP Broadcast Storm Protection**
  When enabled, this feature provides ring protection and broadcast storm protection. If a network link is disrupted, the switch automatically reroutes traffic to maintain network operation.
- **DIP Switch 2: Extend 250m**
  Enables extended transmission mode, allowing data to be transmitted up to 250 meters. In this mode, the data rate for ports 1-8 is reduced to 10Mbps.
- **DIP Switch 3: VLAN**
  Activates VLAN port isolation. Ports 1-8 are isolated from each other, preventing direct communication

between them, but they can still communicate with the uplink ports (9-10). This enhances network security and optimizes bandwidth.

- **DIP Switch 4: AI Watchdog**
  Enables AI Watchdog mode. The switch monitors PoE-powered devices on ports 1-8. If a device becomes unresponsive or loses connection, the switch automatically restarts power to that port, restoring functionality.

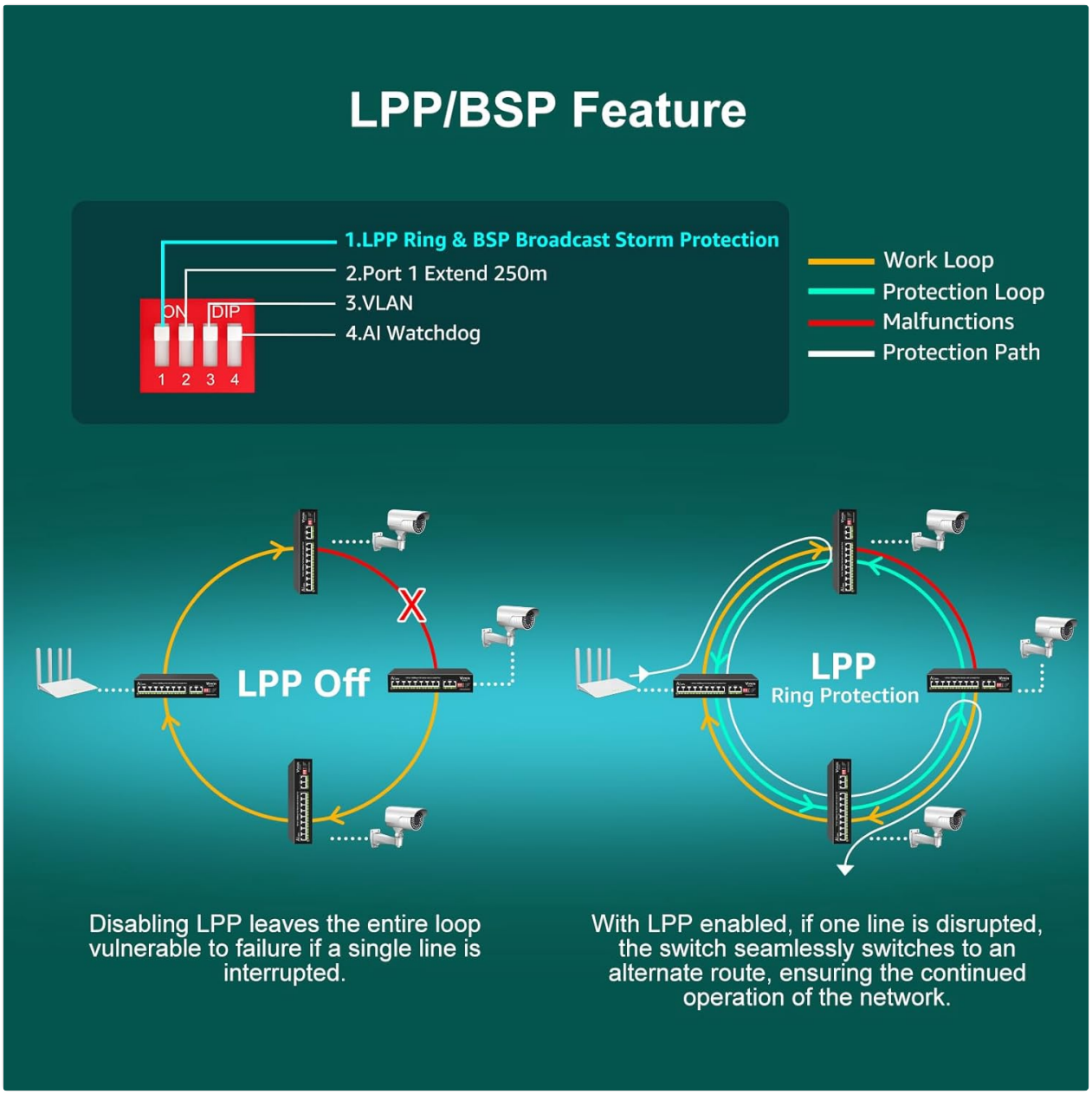

Image 5: Explanation of the LPP (Loop Protection Protocol) and BSP (Broadcast Storm Protection) feature, demonstrating how ring protection ensures continuous network operation.

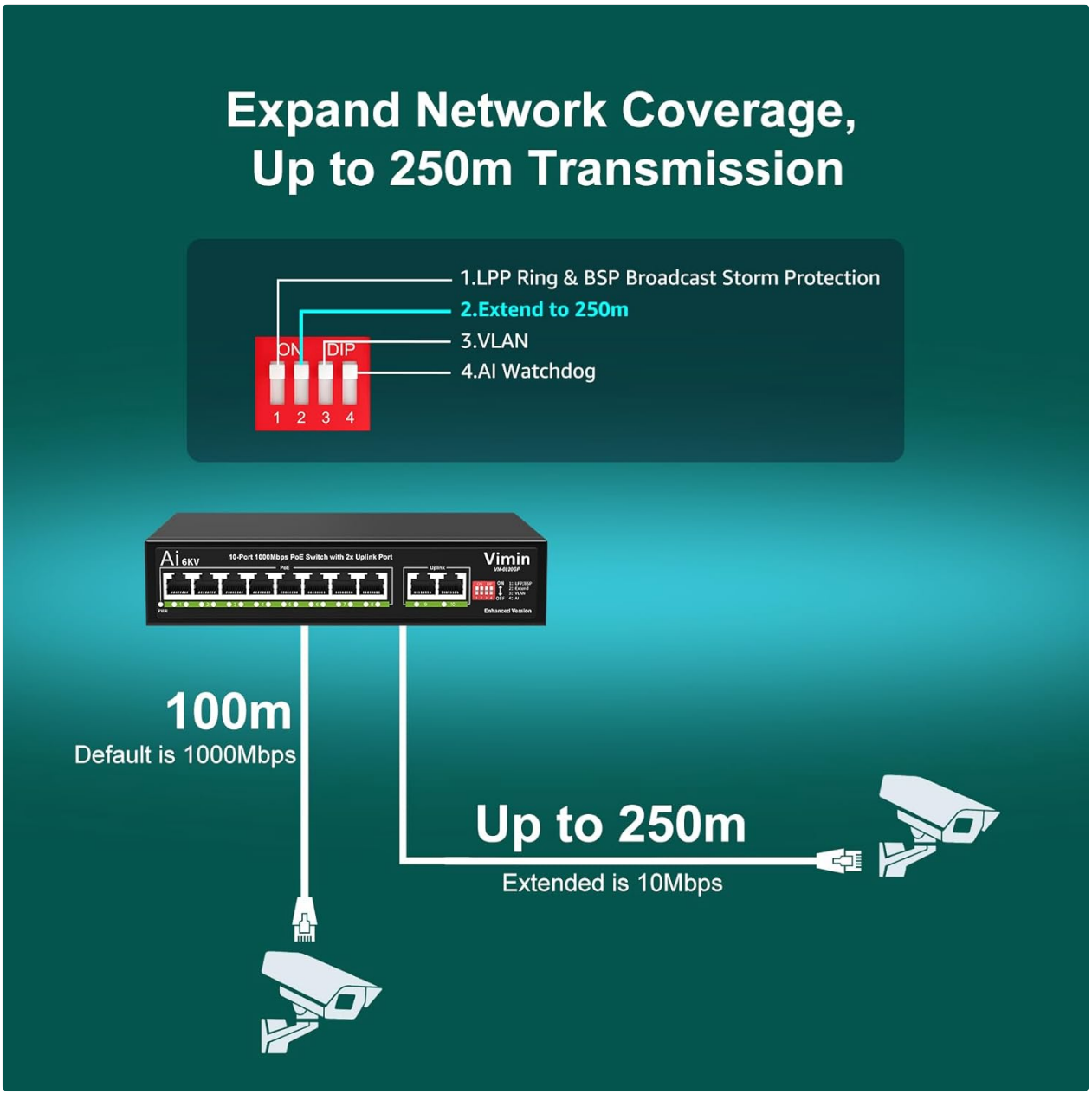

Image 6: Illustration of the 250m extended transmission mode, detailing the reduced speed of 10Mbps over longer distances.

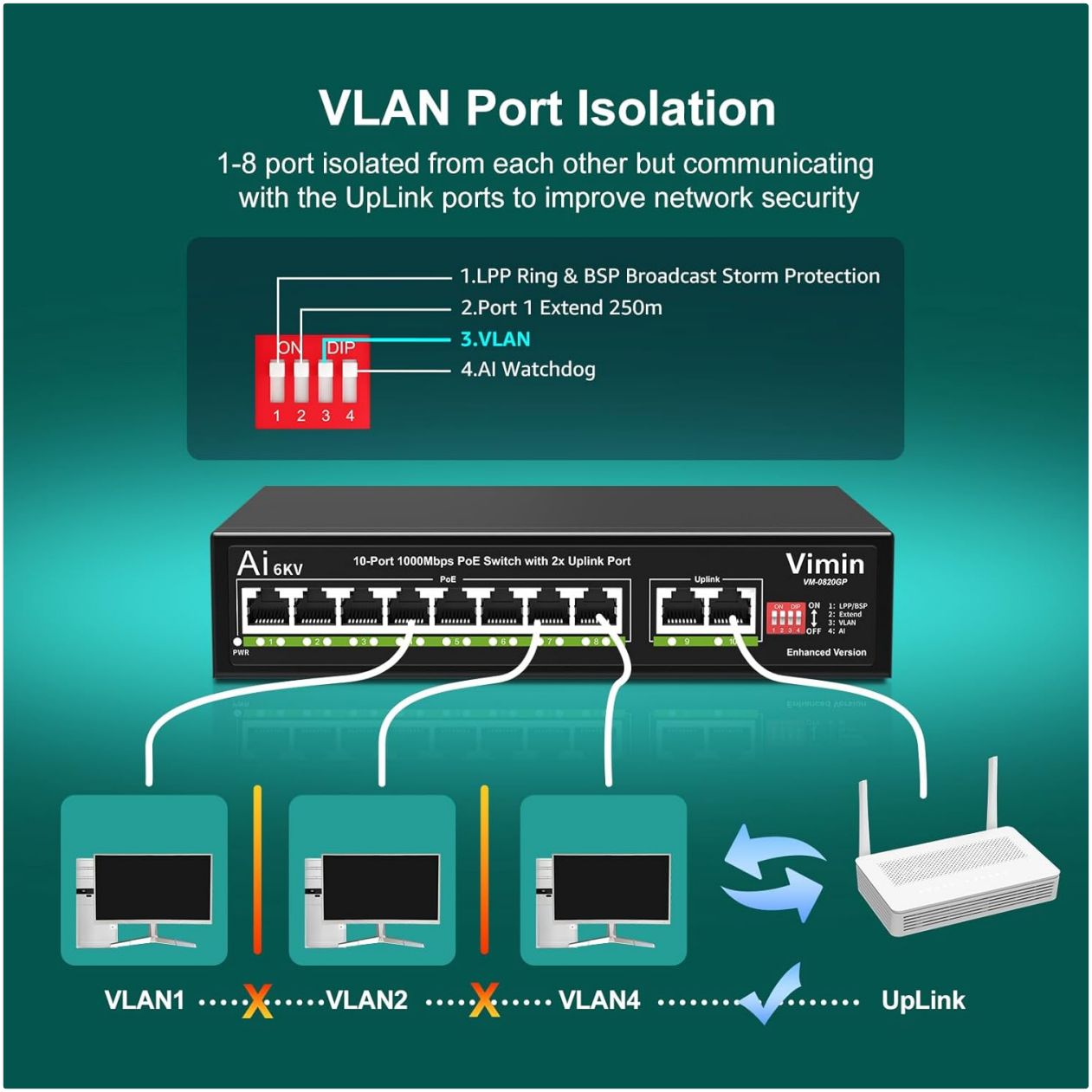

Image 7: Visual explanation of VLAN port isolation, demonstrating how ports 1-8 are segmented for security while maintaining uplink connectivity.

4.2 Activating DIP Switch Functions

To activate a specific function, move the corresponding DIP switch to the 'ON' position. To deactivate, move it to the 'OFF' position. It is recommended to adjust DIP switches when the switch is powered off to avoid potential network disruptions.

5. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the switch. Do not use liquid or aerosol cleaners.
- **Ventilation:** Ensure the ventilation holes on the switch are not obstructed to prevent overheating.
- **Environment:** Operate the switch in a cool, dry environment, away from direct sunlight, heat sources, and excessive moisture.
- **Cable Management:** Keep network cables organized and free from kinks or excessive bends to ensure optimal performance.

6. Troubleshooting

Problem	Possible Cause	Solution
No power indicator light	Power cable not connected or power outlet faulty.	Check power cable connection. Try a different power outlet.
Device connected to PoE port is not receiving power or data	Device is not PoE compatible (IEEE 802.3af/at). Cable fault. Total power budget exceeded. AI Watchdog mode needs to reset the device.	Ensure device supports IEEE 802.3af/at. Test with a different Ethernet cable. Check total power consumption of connected devices. Verify AI Watchdog is enabled or manually restart the switch.
Network devices cannot communicate with each other (on ports 1-8)	VLAN mode is enabled.	Check DIP Switch 3. If VLAN is enabled, ports 1-8 are isolated. Disable VLAN mode if direct communication is required.
Slow network speed for devices on ports 1-8	Extend 250m mode is enabled.	Check DIP Switch 2. If extended mode is enabled, speed is reduced to 10Mbps. Disable if not needed for long-distance connections.
Intermittent network connection	Loose cable connections. Environmental interference. LPP/BSP feature not enabled.	Ensure all cables are securely connected. Relocate the switch away from strong electromagnetic sources. Consider enabling LPP/BSP for network redundancy.

7. Specifications

Feature	Description
Model Number	VM-0E020GP ([NEW]10 Port | 8xPoE+120W | 2xUPLink)
Number of Ports	10 (8 PoE+ ports, 2 Uplink ports)
PoE Standard	IEEE 802.3af/at
PoE Power Output	Up to 30W per port

Feature	Description
Total PoE Power Budget	120W
Data Transfer Rate	10/100/1000Mbps (Gigabit)
Extended Transmission	Up to 250m at 10Mbps (via DIP switch)
Interface Type	PoE, RJ45
Voltage	48 Volts (DC)
Case Material	Metal
Lightning Protection	4KV
Dimensions (L x W x H)	11.46 x 9.96 x 2.64 inches
Item Weight	2.07 pounds
Color	Black
UPC	790885295874
Manufacturer	VIMIN
Compatible Devices	Desktop, Gaming console, Router, Printer, Laptop, Camera

8. Warranty and Support

8.1 Warranty Information

VIMIN products are designed for reliability and performance. For specific warranty details, please refer to the warranty card included with your product or contact VIMIN customer support.

8.2 Technical Support

For technical assistance or inquiries, please contact our support team:

- **Email:** support@vimintech.com
- Our professional technical team is available to provide high-quality service.