

MokerLink 28*1G POE

MokerLink 28-Port Gigabit PoE Switch (Model: 28*1G POE) User Manual

Unmanaged Plug and Play Ethernet Switch

1. INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of the MokerLink 28-Port Gigabit PoE Switch (Model: 28*1G POE). This unmanaged switch is designed to provide reliable network connectivity and Power over Ethernet (PoE) capabilities for various devices such as IP cameras, wireless access points, and IP phones.

2. SAFETY INFORMATION

- Ensure the power supply voltage matches the requirements specified on the device label.
- Do not open the device casing. Refer all servicing to qualified personnel.
- Avoid placing the switch in areas with high humidity, dust, or extreme temperatures.
- Ensure proper ventilation around the switch to prevent overheating.
- Disconnect power before cleaning or performing any maintenance.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- MokerLink 28-Port Gigabit PoE Switch (Model: 28*1G POE)
- Power Cord
- Rackmount Kit (for rack installation)
- User Manual (this document)

4. PRODUCT FEATURES

- **28 Gigabit Ports:** The switch includes 24 Gigabit PoE+ ports, 2 Gigabit Uplink ports, and 2 Gigabit SFP ports. Ethernet ports support 10/100/1000Mbps automatic adaptation.
- **High PoE Power:** Provides a maximum total power output of 300W. It supports IEEE 802.3af/at standards, delivering up to 30W per port. This device does not support passive 24V PoE.
- **Unmanaged Plug & Play:** Features a Power Detection function that automatically identifies connected devices. It is compatible with non-PoE devices for data links. No configuration is required; simply connect the power cord and Ethernet cables.
- **Extend Mode:** When activated, PoE ports 17-24 can extend their transmission distance up to 250 meters at a speed of 10Mbps. This mode also enables the PoE Watchdog function.
- **PoE Watchdog:** Automatically monitors PoE devices. If a connected PoE device becomes unresponsive, the corresponding port will restart to restore functionality, enhancing reliability.
- **Durable Design:** Features a compact, fanless metal housing for quiet operation and includes LED indicator lights for status monitoring. It is designed for rackmount installation.



Figure 1: Overview of MokerLink 28-Port Gigabit PoE Switch features, including Full Gigabit Port, IEEE802.3af/at Support, 250m PoE Extend, Fiber Connectivity, PoE Watchdog, Plug & Play, LED Indicator, and Fanless Quiet Design.

5. HARDWARE OVERVIEW

5.1 Front Panel

The front panel of the MokerLink 28-Port Gigabit PoE Switch features all network ports, LED indicators, and a DIP switch for mode selection.



Figure 2: Front view of the MokerLink 28-Port Gigabit PoE Switch, showing 24 PoE+ ports, 2 Gigabit uplink ports, 2 SFP ports, LED indicators, and a DIP switch.

24x1G PoE + 2x1G RJ45 UpLink + 2x1G SFP UpLink Ports Configuration

24 × 1G PoE+ Ports | IEEE 802.3af/at PoE Standard |
56Gbps Switching Capacity | 300W PoE Budget

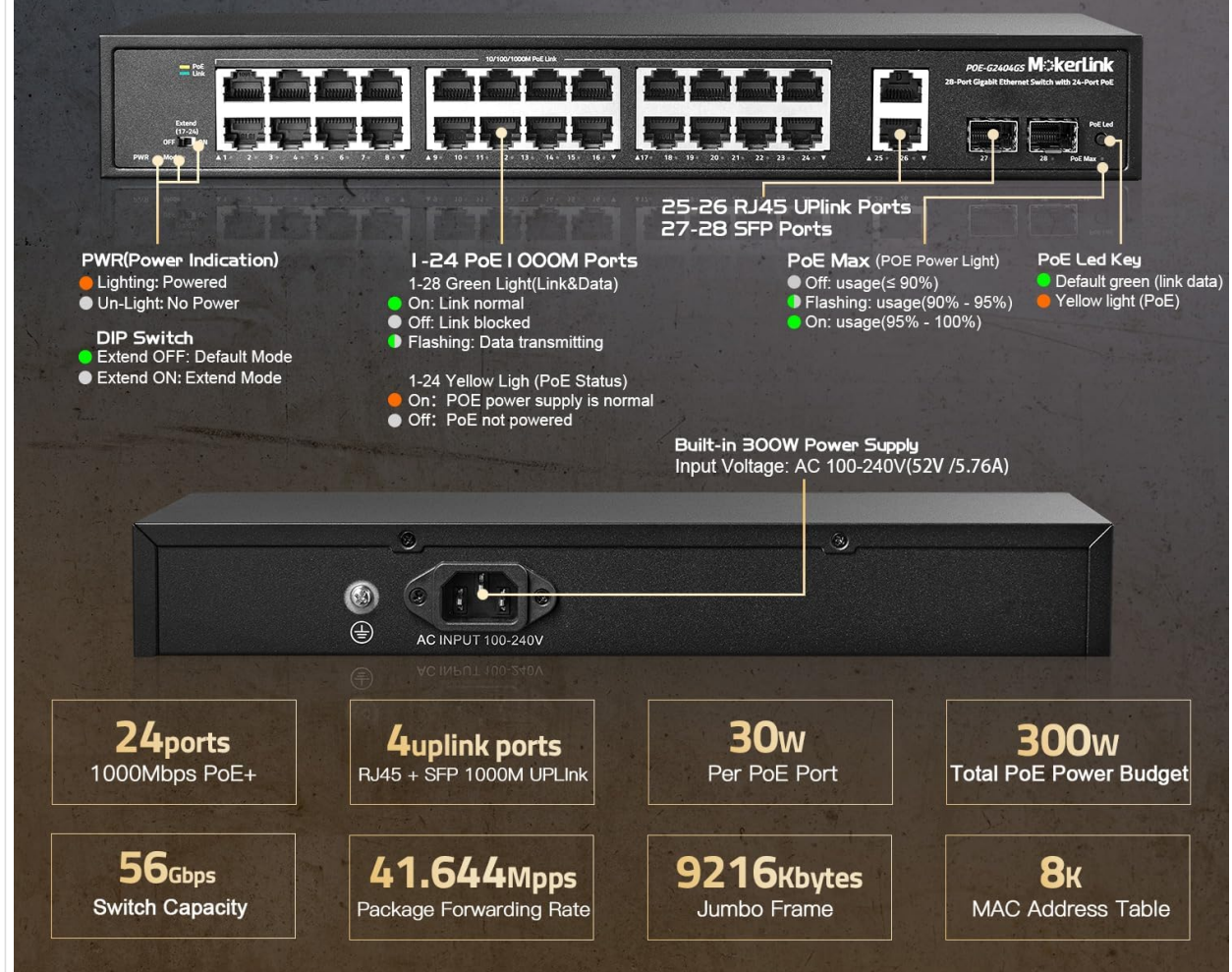


Figure 3: Detailed view of the switch's port configuration, including 24x1G PoE+ ports, 2x1G RJ45 Uplink ports, and 2x1G SFP Uplink ports. Also shown are the PWR (Power), Link/Data, PoE, and PoE Max LED indicators, along with the DIP switch.

LED Indicators:

- **PWR (Power):**
 - Lighting: Device is powered on.
 - Off: Device is not powered.
- **1-28 POE 1000M Ports (Link & Data):**
 - On: Link is normal.
 - Off: Link is disconnected.
 - Flashing: Data is being transmitted.
- **1-24 Yellow Light (PoE Status):**
 - On: PoE power supply is active.
 - Off: PoE is not powered.
- **PoE Led Key (PoE Max):**

- Off: PoE usage is less than or equal to 90%.
- Flashing: PoE usage is between 90% and 95%.
- On: PoE usage is greater than or equal to 95%.

DIP Switch:

The DIP switch controls the Extend Mode and PoE Watchdog functions. Refer to Section 7 for detailed configuration.

- **DIP Switch OFF:** Default Mode (100 meters, 1000Mbps).
- **DIP Switch ON:** Extend Mode (250 meters, 10Mbps for ports 17-24) and PoE Watchdog enabled.

5.2 Rear Panel

The rear panel contains the AC power input port.

6. SETUP INSTRUCTIONS

The MokerLink 28-Port Gigabit PoE Switch is designed for plug-and-play operation, requiring minimal setup.

1. **Power Connection:** Connect the provided power cord to the AC power input on the rear panel of the switch and then to a standard electrical outlet. The PWR LED on the front panel should illuminate.
2. **Network Connection:**
 - Connect your router or main network device to one of the Gigabit Uplink ports (RJ45 or SFP).
 - Connect your PoE-compatible devices (e.g., IP cameras, wireless access points) to any of the 24 Gigabit PoE+ ports using standard Ethernet cables. The switch will automatically detect and provide power to these devices.
 - Connect non-PoE devices (e.g., computers, NVRs) to any available Gigabit PoE+ port or Uplink port for data connectivity.
3. **Rackmount Installation (Optional):** If installing in a server rack, attach the included rackmount brackets to the sides of the switch and secure it into the rack using appropriate screws.

Easy to Use and Well Designed



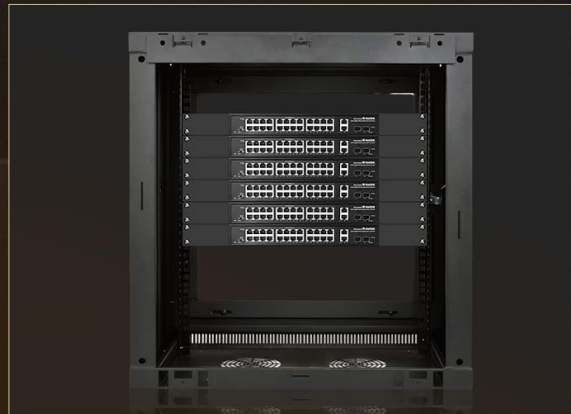
4KV Lighting Protection



Fanless and Noiseless Design



Plug and Play



Rack Mountable

Figure 4: Illustration of the switch's plug-and-play functionality and its rack-mountable design, highlighting ease of use and installation flexibility.

7. OPERATING INSTRUCTIONS

7.1 Basic Operation

Once powered on and connected, the switch operates automatically. Data transmission and PoE power delivery are managed without user configuration. Monitor the LED indicators on the front panel to verify power, link status, data activity, and PoE status for each port.

7.2 Extend Mode Configuration

The DIP switch on the front panel allows you to enable Extend Mode and PoE Watchdog for specific ports.

Advanced Features via DIP Switch

PoE Watchdog & 250m PoE Extend

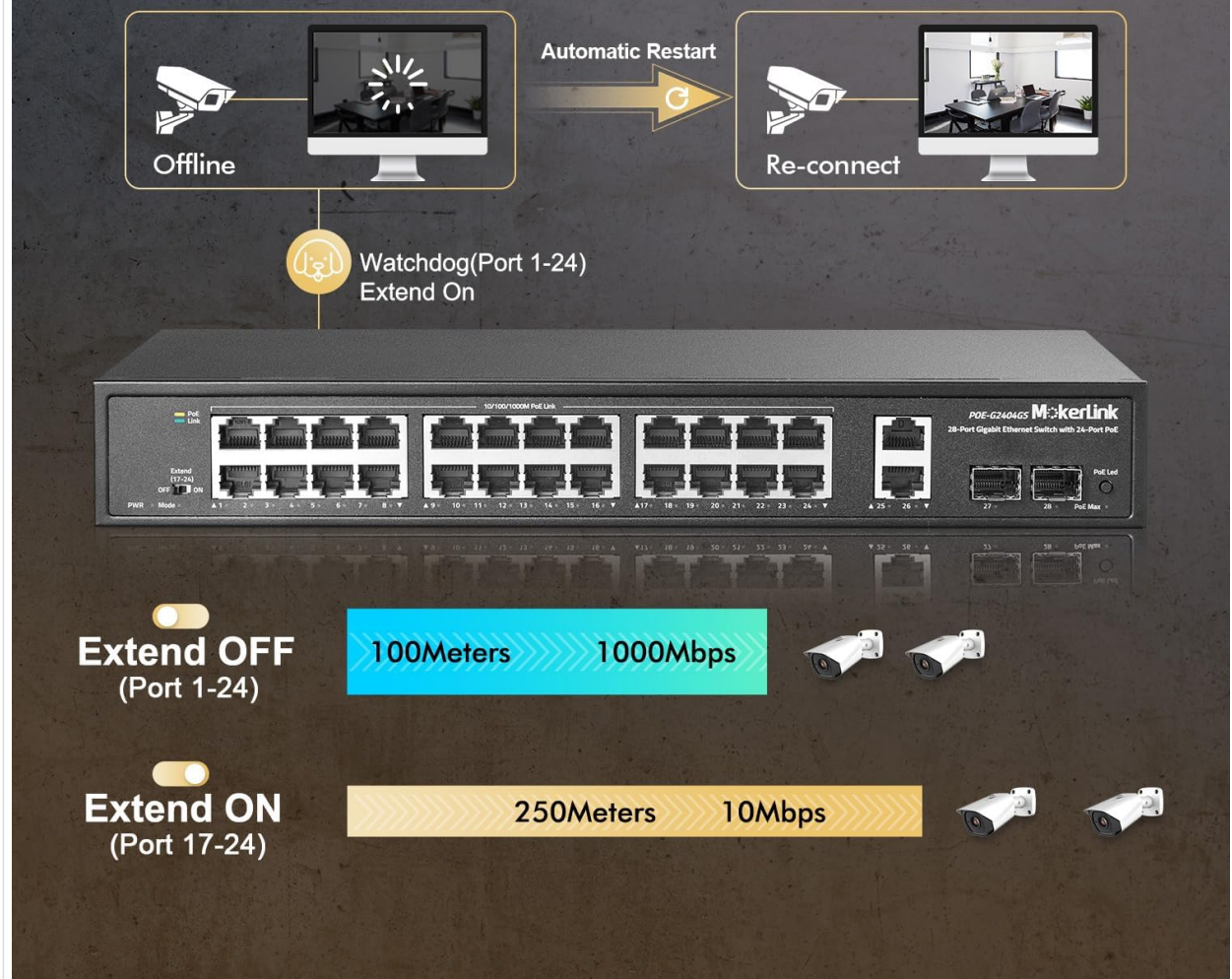


Figure 5: Diagram illustrating the DIP switch settings for Extend Mode and PoE Watchdog. When the DIP switch is OFF, ports operate at 1000Mbps up to 100 meters. When ON, ports 17-24 operate at 10Mbps up to 250 meters, and PoE Watchdog is active.

- **DIP Switch OFF (Default Mode):**

- All ports (1-24) operate at Gigabit speeds (1000Mbps).
- Maximum transmission distance for Ethernet cables is 100 meters.
- PoE Watchdog is disabled.

- **DIP Switch ON (Extend Mode):**

- Ports 17-24 will operate at 10Mbps.
- The maximum transmission distance for ports 17-24 is extended to 250 meters.
- PoE Watchdog is enabled for ports 1-24. This function automatically detects unresponsive PoE devices and restarts the corresponding port to restore connectivity.

To change the DIP switch setting, ensure the switch is powered off before making adjustments, then power it back on.

8. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the switch. Do not use liquid or aerosol cleaners.
- **Ventilation:** Ensure that the ventilation openings on the sides of the switch are not blocked to allow for proper airflow.
- **Environment:** Operate the switch within its specified environmental conditions (temperature, humidity) to ensure optimal performance and longevity.

9. TROUBLESHOOTING

If you encounter issues with your MokerLink 28-Port Gigabit PoE Switch, refer to the following common troubleshooting steps:

- **No Power:**
 - Check if the power cord is securely connected to both the switch and the power outlet.
 - Verify that the power outlet is functional.
 - Ensure the PWR LED on the front panel is illuminated.
- **No Link/Connectivity:**
 - Ensure Ethernet cables are securely connected to both the switch port and the connected device.
 - Check the Link/Data LED for the corresponding port. If it's off, try a different cable or port.
 - Verify that the connected device is powered on and functioning correctly.
 - If using Extend Mode, ensure the connected device is compatible with 10Mbps speed over extended distances.
- **No PoE Power to Device:**
 - Check the Yellow PoE LED for the specific port. If it's off, the device may not be receiving PoE power.
 - Ensure the connected device is IEEE 802.3af/at compliant. This switch does not support passive 24V PoE.
 - Verify that the total PoE power budget (300W) is not exceeded by all connected PoE devices. The PoE Max LED will indicate high usage.
 - If PoE Watchdog is enabled, an unresponsive device might be automatically restarted. Wait a moment to see if power is restored.
- **Slow Network Speed:**
 - Ensure the DIP switch is in the OFF position if you require Gigabit speeds for all ports (1-24). Extend Mode (DIP switch ON) limits ports 17-24 to 10Mbps.
 - Check the quality and length of your Ethernet cables. Cat5e or Cat6 cables are recommended for Gigabit speeds.

10. SPECIFICATIONS

Feature	Specification
Brand	MokerLink
Model Number	28*1G POE

Feature	Specification
Number of Ports	28 (24 Gigabit PoE+, 2 Gigabit Uplink, 2 Gigabit SFP)
Data Transfer Rate	1000 Megabits Per Second (Gigabit)
PoE Standard	IEEE 802.3af/at
Max PoE Power Output	300W Total, 30W per port
Interface Type	PoE, SFP
Case Material	Metal
Item Weight	5.63 pounds (2.56 Kilograms)
Package Dimensions	14.68 x 11.5 x 3.43 inches
Voltage	24 Volts (Internal Power Supply supports AC 100-240V)
Included Components	Gigabit PoE Switch

11. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or visit the official MokerLink website. Keep your purchase receipt for warranty claims.