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> Zyxel XMG-105HP 5-Port 2.5Gb Multi-Gigabit Unmanaged PoE++ Network Switch Instruction Manual

ZYXEL XMG-105HP

Zyxel XMG-105HP 5-Port 2.5Gb Multi-Gigabit Unmanaged PoE++ Network Switch Instruction Manual

Model: XMG-105HP | Brand: ZYXEL

INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of the Zyxel XMG-105HP 5-Port 2.5Gb Multi-Gigabit Unmanaged PoE++ Network Switch. This device is designed to enhance network performance with high-speed data transfer and Power over Ethernet capabilities for compatible devices.

PRODUCT OVERVIEW

The Zyxel XMG-105HP is an unmanaged network switch featuring multi-gigabit ports and Power over Ethernet (PoE++) capabilities. It is designed for environments requiring high-speed network connectivity and power delivery to devices such as WiFi access points, IP cameras, and VoIP phones.

- **Multi-Gigabit Performance:** Equipped with 5x 2.5G ports for speeds 2.5 times faster than standard gigabit, suitable for 4K/8K streaming, NAS transfers, and gaming. Compatible with existing Cat5e cables.
- **PoE++ Power Delivery:** Features 4x 802.3bt PoE++ ports with a total budget of 70W, supplying up to 60W per port. Ideal for powering WiFi 6/6E access points, PTZ cameras, and IP phones via a single Ethernet cable.
- **10G Fiber Uplink:** Includes an SFP+ slot for 10 Gigabit connectivity, supporting high-bandwidth applications like NAS storage and server connections.
- **Zero-Configuration Setup:** Unmanaged plug-and-play design with auto-negotiation for 100M/1G/2.5G speeds and auto-MDI/MDIX, simplifying installation.
- **Silent Fanless Design:** Metal housing with passive cooling ensures quiet operation, suitable for home and office environments. Offers 45 Gbps switching capacity and 33.5 Mpps forwarding rate.

HARDWARE DESCRIPTION

Front Panel

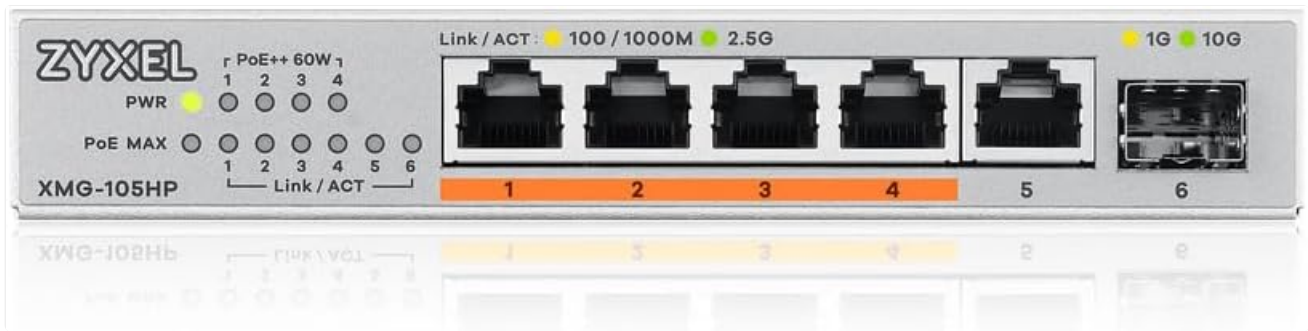


Figure 1: Front panel of the Zyxel XMG-105HP switch, showing 5 Ethernet ports (4 PoE++), a 10G SFP+ port, and LED indicators for power, PoE status, and link/activity.

The front panel of the XMG-105HP switch features the following components:

- **PWR LED:** Indicates power status. Green for power on.
- **PoE++ 60W LEDs (1-4):** Indicate PoE status for ports 1-4. Lit when PoE power is being supplied.
- **PoE MAX LED:** Indicates if the total PoE power budget is nearing its limit.
- **Link/ACT LEDs (1-5):** Indicate network link and activity for ports 1-5. Green for 2.5G link, Amber for 100M/1G link. Blinking indicates activity.
- **2.5G Ports (1-5):** Five 2.5 Gigabit Ethernet ports. Ports 1-4 support PoE++.
- **10G SFP+ Port (6):** One 10 Gigabit SFP+ slot for fiber optic connections.
- **1G/10G SFP+ Link/ACT LEDs:** Indicate link and activity for the SFP+ port. Green for 10G link, Amber for 1G link. Blinking indicates activity.

Rear Panel



Figure 2: Rear panel of the Zyxel XMG-105HP switch, showing the DC 54V power input port.

The rear panel contains the DC 54V power input port for connecting the external power adapter.

SETUP

The Zyxel XMG-105HP is an unmanaged switch designed for plug-and-play operation. No complex configuration is required for basic network functionality.

1. **Unpack the Switch:** Carefully remove the switch and its accessories from the packaging.
2. **Placement:** Place the switch on a stable, flat surface or mount it to a wall. Ensure adequate ventilation around the device.
3. **Connect Power:** Connect the provided power adapter to the DC 54V power input port on the rear panel of the switch, then plug the adapter into a power outlet. The PWR LED on the front panel should illuminate.
4. **Connect Network Devices:**
 - Connect your network devices (computers, NAS, routers, etc.) to the 2.5G Ethernet ports (1-5) using standard

Ethernet cables (Cat5e or higher recommended for optimal performance).

- For PoE-powered devices (e.g., IP cameras, WiFi APs), connect them to ports 1-4. The corresponding PoE++ LED will light up when power is supplied.
- For 10G fiber connections, insert a compatible SFP+ transceiver into port 6 and connect a fiber optic cable.

5. **Verify Connection:** Check the Link/ACT LEDs for each connected port. A solid green or amber light indicates a successful link, and blinking indicates data activity.

Single Cable for Both Power and Data

The XMG-105HP and XMG-108HP feature 4 and 8 uninterrupted PoE++ (60W) ports with cost-efficient PoE budgets of 70W and 100W, making them ideal for deploying WiFi 6/7 APs, PTZ cameras, and IoT devices.

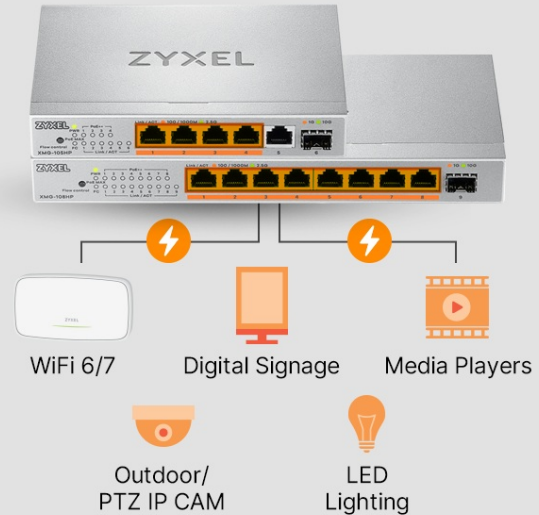


Figure 3: Diagram illustrating the easy plug-and-play installation of the Zyxel XMG-105HP switch, connecting various devices.

OPERATING INSTRUCTIONS

Once the switch is powered on and devices are connected, the Zyxel XMG-105HP operates automatically. It functions as a transparent bridge, forwarding data frames between connected devices based on their MAC addresses.

- **Data Transfer:** The switch automatically detects the speed of connected devices (100Mbps, 1Gbps, or 2.5Gbps) and negotiates the optimal connection.
- **PoE Operation:** For devices connected to PoE++ ports (1-4), the switch automatically detects if the device is PoE-compatible and supplies power accordingly. The PoE++ LED for that port will light up. Ensure the total power consumption of all PoE devices does not exceed the 70W budget.
- **Fanless Design:** The switch operates silently due to its fanless design, making it suitable for noise-sensitive environments.

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Video 1: An overview of the Zyxel XMG105 Unmanaged Switch, highlighting its plug-and-play functionality and silent operation.

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Video 2: A detailed look at the Zyxel 5-Port PoE 2.5G Multi-Gig Unmanaged Switch, showcasing its features and benefits.

MAINTENANCE

The Zyxel XMG-105HP switch is designed for low maintenance due to its fanless operation and robust metal casing.

- **Cleaning:** Periodically wipe the exterior of the switch with a soft, dry cloth to remove dust. Do not use liquid or aerosol cleaners.
- **Ventilation:** Ensure that the ventilation holes on the sides of the switch are not obstructed to allow for proper heat

dissipation.

- **Firmware Updates:** As an unmanaged switch, firmware updates are typically not required or available.

TROUBLESHOOTING

If you encounter issues with your Zyxel XMG-105HP switch, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No Power (PWR LED off)	Power adapter not connected or faulty; power outlet not working.	Ensure the power adapter is securely connected to the switch and a working power outlet. Test the outlet with another device.
No Link (Link/ACT LED off)	Ethernet cable faulty or disconnected; connected device is off or faulty.	Check the Ethernet cable connection at both ends. Try a different cable. Ensure the connected device is powered on and functioning correctly.
Slow Network Speed	Cable quality; connected device speed limitation; network congestion.	Use Cat5e or higher cables for 2.5G speeds. Verify the connected device supports 2.5G. Reduce network traffic if possible.
PoE Device Not Powering On	Device not PoE compatible; total PoE budget exceeded; faulty cable.	Ensure the device is 802.3bt PoE++ compatible. Check the PoE MAX LED; if lit, reduce the number of PoE devices. Try a different Ethernet cable.

SPECIFICATIONS

Brand	ZYXEL
Model Number	XMG-105HP
Number of Ports	5 (4x 2.5G PoE++, 1x 2.5G, 1x 10G SFP+)
Switch Type	Unmanaged
PoE Standard	802.3bt (PoE++)
Total PoE Budget	70W
Maximum Power Per Port	60 Watts
Data Transfer Rate	2.5 Gigabits Per Second (Ethernet), 10 Gigabits Per Second (SFP+)
Product Dimensions (L x W x H)	6.3" x 4.33" x 1.02"
Case Material	Metal
Cooling	Fanless
Compatible Devices	Camera, Laptop, Printer, WiFi Access Points, VoIP Phones

WARRANTY AND SUPPORT

The Zyxel XMG-105HP switch comes with a Limited Lifetime Warranty. For technical support, please contact Zyxel customer service. Refer to the official Zyxel website for the most current warranty terms and support contact information.

- **Manufacturer:** Zyxel
- **Warranty:** Limited Lifetime
- **Online Support:** [Zyxel Support Website](#)

