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› ZYXEL GS2220-10HP 8 Port GB L2 POE+ Switch User Manual

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Model: GS2220-10HP

INTRODUCTION

This user manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of the ZYXEL GS2220-10HP 8 Port Gigabit Layer 2 PoE+ Switch. Designed for reliable network connectivity and Power over Ethernet (PoE) capabilities, this switch is suitable for various networking environments. Please read this manual thoroughly before using the device to ensure proper setup and optimal performance.

PRODUCT OVERVIEW

The ZYXEL GS2220-10HP is an advanced Layer 2 managed switch offering 8 Gigabit Ethernet ports with PoE+ support, along with additional SFP ports for fiber uplinks. It is engineered to provide robust and flexible network solutions, supporting features like cloud management, standalone operation, and SNMP for diverse deployment scenarios.

Key Features:

- 8 Gigabit Ethernet ports with PoE+ (802.3at) support.
- Layer 2 management capabilities.
- Flexible management options: Cloud, Standalone, SNMP.
- High PoE power budget for connecting multiple PoE-powered devices.
- Compact and durable design.

Physical Components:



Figure 1: ZYXEL GS2220-10HP 8 Port GB L2 POE+ Switch, angled view. This image shows the overall compact design of the switch, highlighting its professional appearance and port layout from a top-front perspective.

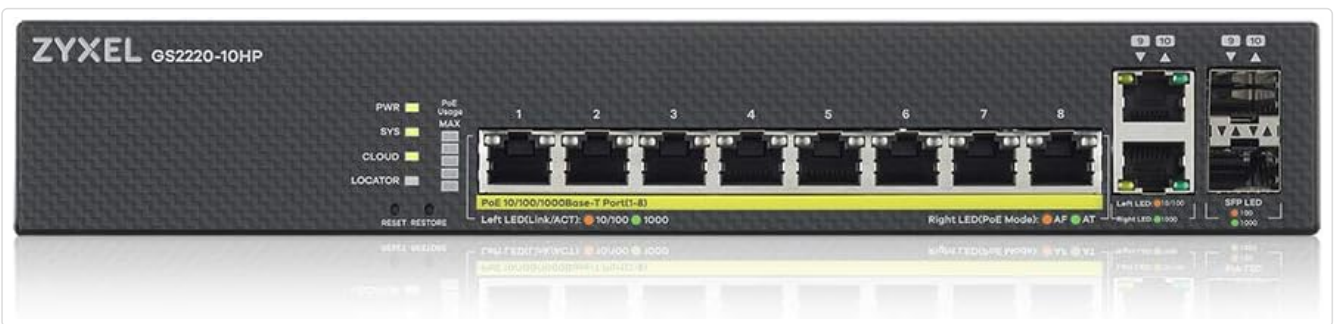


Figure 2: Front Panel of the ZYXEL GS2220-10HP Switch. This view details the 8 Gigabit Ethernet ports (1-8), PoE status LEDs, system status LEDs (PWR, PoE Max, SYS, CLOUD, LOCATOR), and the SFP uplink ports on the right. The front panel provides visual indicators for power, network activity, and PoE status.



Figure 3: Rear Panel of the ZYXEL GS2220-10HP Switch. This image displays the console port (DB9), grounding screw, Kensington lock slot, and the AC power input (100-240VAC 50/60Hz, 2.40A MAX). These components are essential for initial configuration, security, and power supply.



Figure 4: ZYXEL Switch Management Options. This graphic illustrates the three primary management modes for ZYXEL switches: Cloud (for remote management via ZYXEL Nebula Cloud), Standalone (for local web GUI or CLI management), and SNMP (for integration with network management systems). This highlights the flexibility in deploying and managing the switch.

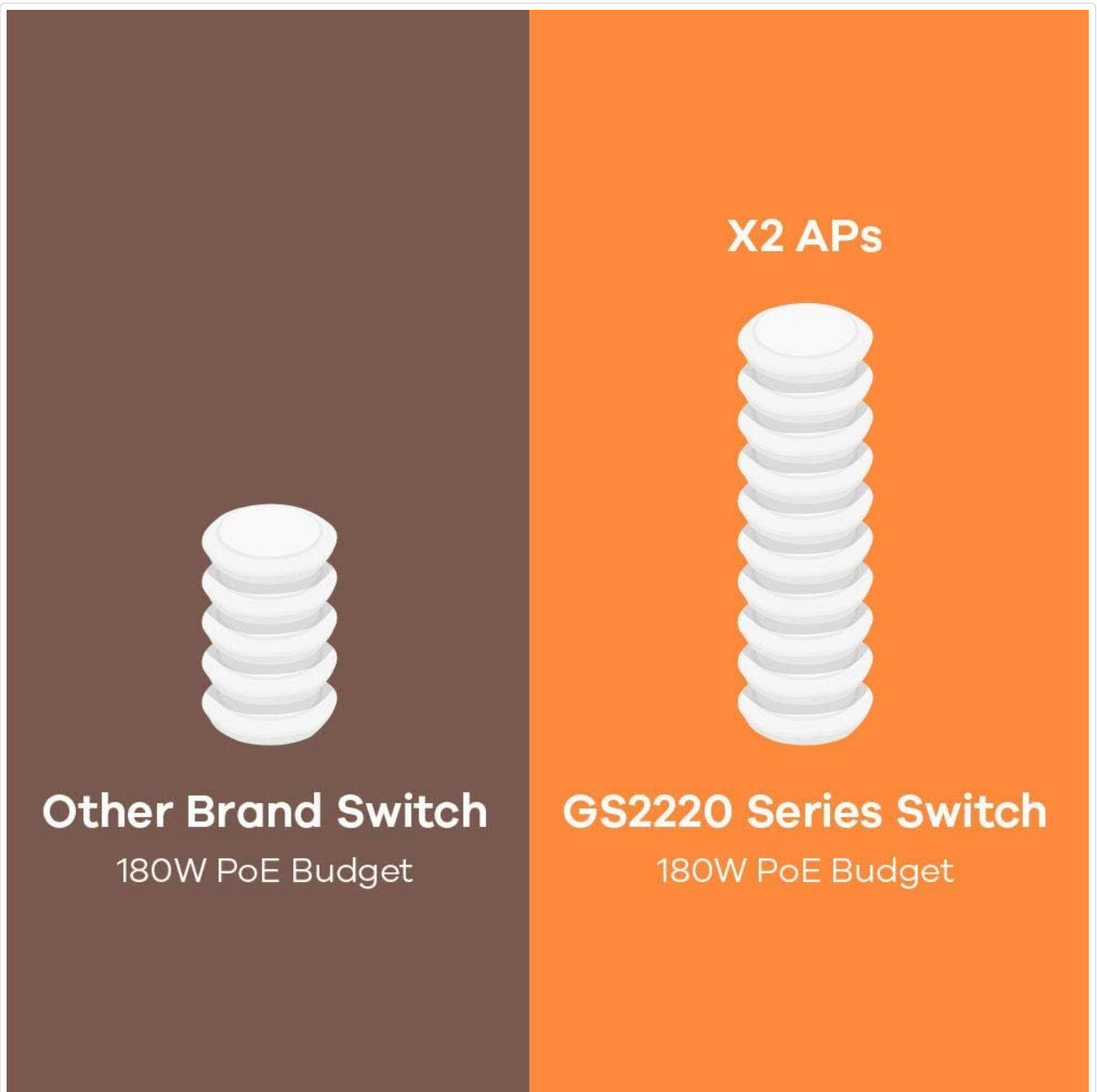


Figure 5: PoE Budget Comparison. This image visually compares the PoE power efficiency of the ZYXEL GS2220 Series Switch against other brands, both with a 180W PoE budget. It suggests that the ZYXEL switch can power more Access Points (APs) or PoE devices more efficiently, indicating superior power management capabilities.

 Combo port (RJ-45/SFP)

 Additional SFP port

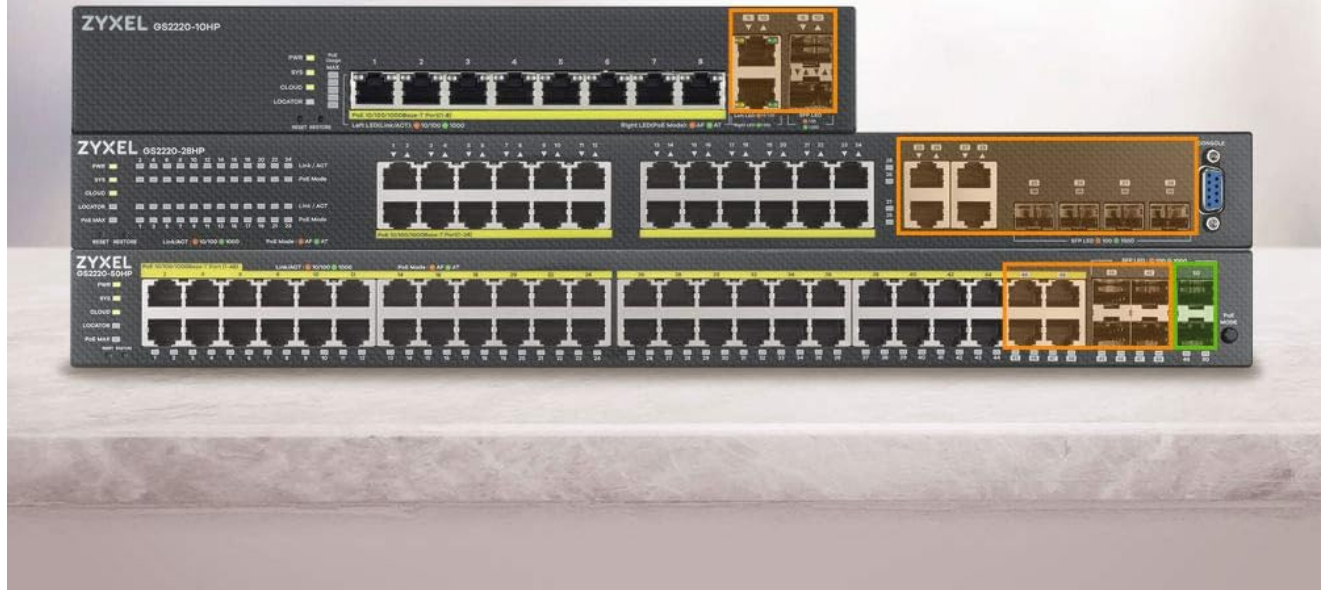


Figure 6: ZYXEL Switch Port Types. This image highlights the different port types available on ZYXEL switches, specifically the Combo port (RJ-45/SFP) and Additional SFP port. Combo ports offer flexibility by supporting either copper or fiber connections, while dedicated SFP ports provide additional fiber uplink options for longer distances or higher bandwidth requirements.

SETUP

Package Contents:

Before proceeding with the installation, verify that all items are present in the package:

- ZYXEL GS2220-10HP Switch
- Power Cord
- Rackmount Kit (if applicable)
- Documentation (Quick Start Guide, Safety Warnings)

Installation Steps:

1. **Placement:** Choose a suitable location for the switch. Ensure it is a stable, flat surface or a standard 19-inch equipment rack. Maintain adequate ventilation around the device to prevent overheating.
2. **Power Connection:** Connect the provided power cord to the AC input port on the rear panel of the switch

(refer to Figure 3) and then to a grounded power outlet.

3. Network Connections:

- Connect your network devices (computers, servers, IP cameras, VoIP phones, wireless access points) to the Gigabit Ethernet ports (1-8) on the front panel (refer to Figure 2) using standard Ethernet cables.
- For devices requiring Power over Ethernet (PoE), ensure they are PoE-compatible. The switch will automatically detect and provide power.
- For uplink connections to your core network or other switches, use the SFP ports with appropriate fiber transceivers and fiber optic cables, or use the combo RJ-45 ports.

4. **Initial Configuration (Optional):** For advanced configuration, connect a computer to the console port using a serial cable (refer to Figure 3) or connect a computer to any Ethernet port and access the switch's web-based management interface via its default IP address. Refer to the Quick Start Guide for default login credentials and IP address.

OPERATING INSTRUCTIONS

Powering On:

Once the power cord is connected, the switch will automatically power on. Observe the PWR LED on the front panel (Figure 2); it should illuminate steadily, indicating that the device is receiving power.

Network Connectivity:

When a network device is connected to an Ethernet port, the corresponding Link/Act LED will illuminate. A solid light indicates a successful link, while a blinking light indicates network activity. For Gigabit connections, both the 10/100 and 1000 LEDs will be active.

Power over Ethernet (PoE) Operation:

The GS2220-10HP supports PoE+ (802.3at) on its 8 Gigabit Ethernet ports. When a PoE-compatible device is connected, the switch will automatically detect its power requirements and supply power. The PoE LED for that port will illuminate, indicating active PoE delivery. The PoE Max LED indicates if the total PoE power budget is nearing its limit.

Management Access:

The switch can be managed via a web-based graphical user interface (GUI), command-line interface (CLI) through the console port, or via ZYXEL Nebula Cloud for cloud-managed deployments. Refer to the product's official documentation for detailed instructions on accessing and configuring these management interfaces.

MAINTENANCE

Cleaning:

Regularly clean the exterior of the switch with a soft, dry cloth. Do not use liquid or aerosol cleaners. Ensure ventilation openings are free from dust and obstructions to maintain proper airflow.

Firmware Updates:

Periodically check the ZYXEL official website for firmware updates. Keeping the firmware up-to-date ensures optimal performance, security, and access to new features. Follow the instructions provided with the firmware update package carefully.

Environmental Considerations:

Ensure the switch operates within its specified temperature and humidity ranges. Avoid placing the device in direct sunlight, near heat sources, or in excessively dusty or humid environments.

TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your ZYXEL GS2220-10HP switch.

No Power:

- Verify the power cord is securely connected to both the switch and the power outlet.
- Ensure the power outlet is functional by testing it with another device.
- Check the power adapter (if external) for any damage.

No Link/Activity on Port:

- Ensure the Ethernet cable is securely connected at both ends (switch port and connected device).
- Try a different Ethernet cable to rule out cable failure.
- Verify the connected device is powered on and functioning correctly.
- Check the port status in the switch's management interface.

PoE Device Not Receiving Power:

- Confirm that the connected device is PoE-compatible (802.3af/at).
- Check the PoE LED for the specific port; if it's off, PoE is not being delivered.
- Ensure the total PoE power budget of the switch is not exceeded (monitor the PoE Max LED).
- Try connecting the PoE device to a different PoE port.

Cannot Access Management Interface:

- Verify your computer's IP address is in the same subnet as the switch's default IP address.
- Ensure there are no IP address conflicts on your network.
- Try resetting the switch to factory defaults (refer to the Quick Start Guide for the reset procedure).

If you continue to experience issues, please refer to the ZYXEL support website or contact technical support.

SPECIFICATIONS

Feature	Description
Model Number	GS2220-10HP (Item Model Number: 14374225)
Ports	8 x Gigabit Ethernet (PoE+), 2 x SFP Uplink (Combo/Additional)
Interface Type	PoE
Data Transfer Rate	12 Gigabits Per Second (Switching Capacity)
Voltage	100-240VAC, 50/60Hz
Product Dimensions	6.38 x 10.51 x 1.73 inches (16.2 x 26.7 x 4.4 cm)
Item Weight	3.96 pounds (1.8 Kilograms)
Platform	Not Machine Specific
Manufacturer	ZYXEL
First Available Date	August 1, 2023

WARRANTY AND SUPPORT

The ZYXEL GS2220-10HP switch comes with **1 year technical support**. For detailed warranty information, technical assistance, or to download the latest drivers and firmware, please visit the official ZYXEL support website:

[Visit ZYXEL Support](#)

When contacting support, please have your product model number (GS2220-10HP) and serial number ready.