

Juniper Networks EX2200-48P-4G

Juniper EX2200-48P-4G Ethernet Switch User Manual

Model: EX2200-48P-4G

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of the Juniper EX2200-48P-4G Ethernet Switch. The EX2200-48P-4G is a high-performance, manageable Ethernet switch designed for converged data, voice, and video environments. It features 48 Power over Ethernet (PoE) ports and 4 expansion slots, supporting 10/100/1000Base-T connectivity. This device offers a reliable platform for unifying enterprise communications, ensuring high levels of flexibility and functionality.

2. SAFETY INFORMATION

Please read all safety instructions carefully before installing or operating the switch. Failure to follow these guidelines may result in injury, damage to the equipment, or voiding the warranty.

- **Electrical Safety:** Ensure the power source matches the voltage requirements of the switch (240 Volts). Use only the provided power cord or an approved replacement. Disconnect power before performing any maintenance.
- **Ventilation:** Maintain adequate airflow around the switch. Do not block ventilation openings. Operate the switch within the specified upper temperature rating of 40 degrees Celsius.
- **Handling:** The switch weighs approximately 9.92 pounds. Use proper lifting techniques to avoid injury. Avoid dropping the device.
- **Environment:** Install the switch in a clean, dry environment, away from direct sunlight, heat sources, and excessive dust or moisture.

3. SETUP AND INSTALLATION

3.1 Unpacking the Switch

Carefully remove the switch and all accessories from the packaging. Verify that all components listed in the packing list are present and undamaged. Retain the packaging for future transport or storage.

3.2 Physical Installation

The Juniper EX2200-48P-4G switch can be installed in a standard 19-inch equipment rack or placed on a desktop.

- **Rack Mounting:** Secure the switch to a rack using the provided rack-mount kit. Ensure proper ventilation space above and below the unit.
- **Desktop Placement:** If placing on a desktop, ensure a stable, level surface with adequate space for airflow around the device.

3.3 Connecting Power

Connect the power cord to the AC power inlet on the rear panel of the switch and then to a grounded electrical outlet. Ensure the power switch is in the OFF position before connecting.

3.4 Connecting Network Cables

Connect Ethernet cables from your network devices (computers, servers, access points) to the 10/100/1000Base-T ports on the front panel. For higher-speed connections or uplinks, insert SFP transceivers into the expansion slots and connect appropriate fiber or copper cables.



Figure 3.4.1: Front panel of the Juniper EX2200-48P-4G switch, illustrating the 48 PoE-enabled Ethernet ports and the 4 SFP uplink ports on the right side.

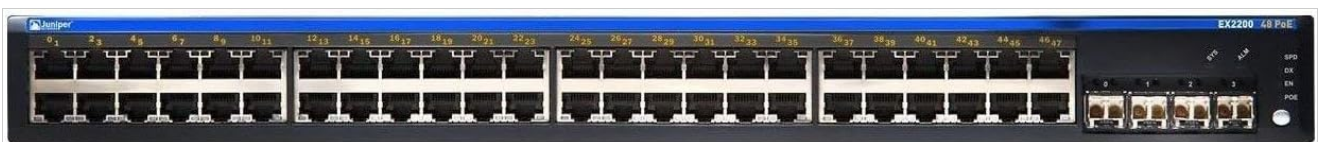


Figure 3.4.2: Detailed front view of the Juniper EX2200-48P-4G switch, providing a clear perspective of the port arrangement and LED indicators.

3.5 Initial Configuration

For initial configuration, connect a console cable to the console port on the switch and to a computer. Use a terminal emulation program (e.g., PuTTY, Tera Term) with the following settings: 9600 baud, 8 data bits, no parity, 1 stop bit, no flow control. Refer to the Juniper Networks documentation for detailed CLI or web interface configuration steps.

4. OPERATING THE SWITCH

4.1 Powering On/Off

To power on the switch, flip the power switch on the rear panel to the ON position. The system will initiate its boot sequence. To power off, flip the power switch to the OFF position. For controlled shutdowns, it is recommended to use the appropriate command-line interface (CLI) or web interface commands to prevent data corruption.

4.2 LED Indicators

The front panel features various LED indicators that provide status information for the system and individual ports.

- **System LED:** Indicates overall system status (e.g., power, boot status).
- **Port LEDs:** Each Ethernet port has LEDs to indicate link status, activity, and PoE status. Refer to the detailed product documentation for specific LED behavior.
- **SFP LEDs:** Indicate link status and activity for the SFP uplink ports.

4.3 Port Functionality

The EX2200-48P-4G provides 48 Gigabit Ethernet ports with Power over Ethernet (PoE) capabilities, allowing you to power compatible devices such as IP phones, wireless access points, and surveillance cameras directly through the network cable. The 4 SFP (Small Form-Factor Pluggable) uplink ports support fiber optic or copper connections for high-speed data transmission to other network devices or the core network.

4.4 Management Interfaces

The switch can be managed through several interfaces:

- **Command-Line Interface (CLI):** Accessible via the console port or SSH/Telnet for advanced configuration and monitoring.
- **Web-Based Interface (Web UI):** Provides a graphical interface for easier management and monitoring, accessible via a web browser.
- **SNMP:** Supports Simple Network Management Protocol for integration with network management systems.

5. MAINTENANCE

5.1 Cleaning

Periodically clean the exterior of the switch with a soft, dry cloth. Use compressed air to gently remove dust from ventilation openings. Do not use liquid cleaners or solvents. Ensure the switch is powered off and disconnected from the power source before cleaning.

5.2 Firmware Updates

Regularly check the Juniper Networks support website for the latest firmware updates. Keeping the switch firmware up-to-date ensures optimal performance, security, and access to new features. Follow the instructions provided with the firmware update package carefully.

5.3 Environmental Considerations

Ensure the operating environment remains within the specified temperature and humidity ranges to prevent damage and ensure reliable operation. Avoid exposing the switch to extreme temperatures or rapid changes in temperature.

6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with the Juniper EX2200-48P-4G switch.

- **No Power:**
 - Verify the power cord is securely connected to both the switch and the power outlet.
 - Check if the power outlet is functional.
 - Ensure the power switch on the rear panel is in the ON position.
 - Inspect the power cord for any damage.

- **Network Connectivity Issues:**

- Check the link/activity LEDs on the connected port. If off, reseal the Ethernet cable or try a different cable/port.
- Verify that the connected device is powered on and functioning correctly.
- Ensure correct network configuration (IP addresses, VLANs) on both the switch and the connected device.

- **PoE Device Not Receiving Power:**

- Confirm the connected device is PoE-compatible.
- Check the PoE status LED for the specific port.
- Ensure the switch's total PoE power budget is not exceeded.
- Verify PoE settings in the switch configuration.

- **Cannot Access Management Interface:**

- For Web UI, ensure your computer is on the same network segment as the switch's management IP address.
- For CLI via console, verify console cable connection and terminal emulation settings.
- Check firewall settings on your computer or network that might block access.

If issues persist, consult the comprehensive Juniper Networks documentation or contact technical support.

7. SPECIFICATIONS

Feature	Description
Brand	Juniper Networks
Model Number	EX2200-48P-4G
Number of Ports	48 (PoE)
Expansion Slots	4 (SFP)
Interface	PoE, SFP
Data Transfer Rate	1000 Megabits Per Second (Gigabit Ethernet)
Switch Type	Managed
Item Weight	9.92 Pounds
Voltage	240 Volts
Upper Temperature Rating	40 Degrees Celsius
Case Material Type	Metal
Compatible Devices	Desktop (referring to typical network device compatibility)
UPC	132017790596, 832938043329

8. WARRANTY AND SUPPORT

The Juniper EX2200-48P-4G Ethernet Switch is covered by a standard manufacturer's warranty. For detailed information regarding warranty terms, duration, and coverage, please refer to the warranty card included with your product or visit the official Juniper Networks website.

For technical assistance, product support, or to report issues, please contact Juniper Networks customer support through their official website or designated support channels. Ensure you have your product model number (EX2200-48P-4G) and serial number ready when contacting support.

Juniper Networks Official Website: www.juniper.net