ACE ICX8200-24P

Ruckus ICX8200-24P 24-Port Gigabit PoE+ L3 Managed Switch User Manual

Model: ICX8200-24P

1. INTRODUCTION

This manual provides essential instructions for the installation, operation, and maintenance of your Ruckus ICX8200-24P 24-Port Gigabit PoE+ L3 Managed Switch. The ICX8200-24P is designed to deliver high-performance network connectivity with 24 Gigabit Power over Ethernet Plus (PoE+) ports and four flexible 1/10/25G SFP/SFP28 uplinks, making it suitable for enterprise, campus, and data center environments. Please read this manual thoroughly before using the device to ensure proper setup and functionality.

2. SAFETY INFORMATION

- **Electrical Safety:** Ensure the switch is connected to a properly grounded power outlet. Do not overload power circuits.
- **Ventilation:** Maintain adequate airflow around the switch. Do not block ventilation openings.
- **Environment:** Operate the switch in a clean, dry environment within specified temperature and humidity ranges. Avoid exposure to moisture or extreme temperatures.
- **Professional Installation:** Installation and servicing should be performed by qualified personnel.
- **Power Disconnection:** Always disconnect power before cleaning or performing maintenance.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Ruckus ICX8200-24P Switch
- AC Power Cord
- Rackmount Kit (brackets and screws)

4. PRODUCT OVERVIEW

4.1 Front Panel

Figure 1: Front Panel of Ruckus ICX8200-24P Switch

The front panel features 24 Gigabit Ethernet RJ45 ports with PoE+ capabilities, allowing you to power compatible devices such as IP cameras, VoIP phones, and wireless access points. Additionally, there are four SFP/SFP28 uplink ports supporting 1G, 10G, and 25G connectivity for high-speed network aggregation. A USB-C console port and a USB-A storage port are also located on the front for management and file transfer.

4.2 Rear Panel

Figure 2: Rear Panel of Ruckus ICX8200-24P Switch

The rear panel includes the AC power input connector and cooling fans, which ensure optimal operating temperature for the device.

5. SETUP

5.1 Rack Mounting

1. Attach the provided rackmount brackets to the sides of the switch using the included screws.
2. Secure the switch into a standard 19-inch equipment rack, ensuring it occupies 1U of space.
3. Ensure sufficient clearance for airflow around the front and rear panels.

5.2 Power Connection

1. Connect the AC power cord to the power input on the rear panel of the switch.
2. Plug the other end of the power cord into a grounded electrical outlet.
3. The switch will power on automatically. Observe the power indicator LED on the front panel.

5.3 Network Connections

1. Connect network devices (computers, servers, IP phones, cameras) to the 24 Gigabit RJ45 ports using standard Ethernet cables.
2. For high-speed connections to other switches or routers, insert compatible SFP/SFP28 transceivers into the uplink ports and connect fiber optic cables.

5.4 Console Connection (Initial Configuration)

For initial configuration or command-line interface (CLI) access:

- Connect a USB-C cable from your computer to the USB-C console port on the front panel.

- Alternatively, use an RJ45 serial console cable to connect to the dedicated console port.
- Configure your terminal emulation software (e.g., PuTTY, Tera Term) with the appropriate serial settings (typically 9600 baud, 8 data bits, no parity, 1 stop bit, no flow control).

6. OPERATING INSTRUCTIONS

6.1 Initial Access and Management

The Ruckus ICX8200-24P can be managed via:

- **Web-based Graphical User Interface (GUI):** Access the switch's IP address through a web browser for intuitive configuration.
- **Command Line Interface (CLI):** Use the console port or Telnet/SSH for advanced configuration.
- **Simple Network Management Protocol (SNMP):** Integrate with network management systems.

6.2 Power over Ethernet Plus (PoE+)

The switch supports 802.3at PoE+ standard, providing up to 30W per port with a total budget of 370W. Ensure connected devices are PoE+ compatible. The switch automatically detects and powers PoE-enabled devices.

6.3 Layer 2 and Layer 3 Features

The ICX8200-24P offers comprehensive Layer 2 and Layer 3 capabilities:

- **VLANs:** Create Virtual Local Area Networks to segment traffic and enhance security.
- **Quality of Service (QoS):** Prioritize critical network traffic for optimal performance.
- **Link Aggregation:** Combine multiple physical links for increased bandwidth and redundancy.
- **Spanning Tree Protocols (RSTP, MSTP):** Prevent network loops and ensure network resilience.
- **Layer 3 Routing:** Supports IPv4/IPv6 static routing and RIP for inter-VLAN routing and network segmentation.
- **Jumbo Frames:** Supports jumbo frames up to 9216 bytes for efficient data transfer.

6.4 Security Features

Enhance network security with features such as:

- **802.1X Port-based Authentication:** Control network access for connected devices.
- **MAC Authentication:** Authenticate devices based on their MAC addresses.
- **Access Control Lists (ACLs):** Filter network traffic based on defined rules.
- **AES Encryption:** Secure management traffic.

7. MAINTENANCE

- **Firmware Updates:** Regularly check the manufacturer's website for the latest firmware versions to ensure optimal performance and security. Follow the provided instructions for firmware upgrades.
- **Cleaning:** Keep the switch free from dust and debris. Use a soft, dry cloth for cleaning. Do not use liquid or aerosol cleaners.
- **Environmental Monitoring:** Ensure the operating environment remains within specified temperature and humidity limits to prevent overheating and component damage.

8. TROUBLESHOOTING

8.1 No Power

- Verify the power cord is securely connected to both the switch and the power outlet.
- Check if the power outlet is functional by plugging in another device.
- Ensure the power supply unit is working correctly.

8.2 No Network Connectivity

- Check the Ethernet cables for proper connection and damage.
- Verify the link/activity LEDs on the switch ports are illuminated.
- Confirm IP address, subnet mask, and gateway settings on connected devices and the switch.
- Ensure VLAN configurations are correct if applicable.

8.3 PoE Devices Not Powering On

- Ensure the connected device is PoE+ (802.3at) compatible.
- Check the switch's PoE budget utilization to ensure sufficient power is available.
- Verify the Ethernet cable is capable of carrying power (Cat5e or higher recommended).

8.4 Console Access Issues

- Confirm the console cable is correctly connected.
- Verify the terminal emulation software settings (baud rate, data bits, parity, stop bits, flow control).
- Ensure the correct COM port is selected on your computer.

9. SPECIFICATIONS

Feature	Description
Model	ICX8200-24P
Ports	24 x 10/100/1000Base-T Gigabit Ethernet RJ45 PoE+ ports
Uplink Ports	4 x 1/10/25G SFP/SFP28
PoE Standard	IEEE 802.3at PoE+
PoE Budget	370W
Form Factor	1U Rackmount
Console Ports	1 x USB-C, 1 x RJ45 Serial
RAM	4GB
MAC Address Table Size	32K entries
Jumbo Frame Support	Up to 9216 bytes

Feature	Description
Layer 3 Features	IPv4/IPv6 Static Routing, RIP
Security Features	802.1X, MAC Authentication, AES Encryption, ACLs
Dimensions (H x W x D)	1.73 x 17.32 x 11.02 inches (4.4 x 44 x 28 cm)
UPC	199240289655

10. WARRANTY AND SUPPORT

The Ruckus ICX8200-24P is eligible for Cloud Care pre-configured bundles, which may include extended support and services. For specific warranty details, technical assistance, or customer support, please refer to the documentation provided with your purchase or contact ACE/Ruckus customer service directly. Keep your purchase receipt and product serial number handy when contacting support.