NICGIGA S25-2400

NICGIGA 24 Port 2.5Gb Ethernet Switch User Manual

Model: S25-2400

1. Introduction

The NICGIGA 24 Port 2.5Gb Ethernet Switch (Model S25-2400) is an unmanaged network switch designed to provide high-speed connectivity for your home or office network. Featuring 24 2.5 Gigabit Ethernet ports, this switch offers a robust solution for expanding your network capacity and enhancing data transfer rates. Its plug-and-play design ensures easy installation without complex configuration, making it suitable for various environments, including desktop and 19-inch rack mount setups. The fanless metal design ensures quiet operation and efficient heat dissipation, contributing to device stability and longevity.

Image 1.1: Front view of the NICGIGA 24 Port 2.5Gb Ethernet Switch, showcasing its 24 RJ45 ports and LED indicators.

2. Package Contents

Verify the following items are included in your package:

- NICGIGA 24 Port 2.5Gb Ethernet Switch (Model S25-2400)
- Power Adapter
- Rack Mount Kit (for 19-inch rack installation)
- User Manual (this document)

3. Product Overview

3.1 Front Panel

The front panel of the NICGIGA 24 Port 2.5Gb Ethernet Switch features 24 RJ45 ports and LED indicators for monitoring network activity.

Image 3.1: Detailed view of the switch's front panel, highlighting the 24 RJ45 ports and power input.

- **RJ45 Ports (1-24):** These ports support 100/1000/2500Mbps Ethernet connections. They automatically detect and adjust to the speed of the connected device.
- **LED Indicators:** Each port has an associated LED that indicates link status and activity.
    - **Solid Green:** A stable link is established at 2.5Gbps.
    - **Solid Yellow:** A stable link is established at 1Gbps.
    - **Solid Orange:** A stable link is established at 100Mbps.
    - **Flashing:** Data activity is occurring on the port.
    - **Off:** No link is established or the device is not connected.
- **Power LED:** Indicates the power status of the switch.
    - **Solid Green:** The switch is powered on.
    - **Off:** The switch is powered off.

3.2 Rear Panel

The rear panel typically contains the power input and ventilation openings.

Image 3.2: Rear view of the switch, showing the power input and fanless design.

4. Setup

The NICGIGA 24 Port 2.5Gb Ethernet Switch is designed for simple plug-and-play operation, requiring no software installation or complex configuration.

4.1 Desktop Installation

1. Place the switch on a stable, flat surface, ensuring adequate ventilation around the device.
2. Connect the power adapter to the switch's power input and then to a power outlet.
3. Connect your network devices (e.g., computers, NAS, Wi-Fi 6 APs, routers) to any of the 24 RJ45 ports using standard Ethernet cables. The switch will automatically detect the link speed.

Image 4.1: Example of desktop setup, showing the switch connected to a laptop and a Wi-Fi router.

4.2 19-inch Rack Mount Installation

The switch can be installed in a standard 19-inch equipment rack using the included rack mount kit.

1. Attach the two rack-mount brackets to the sides of the switch using the provided screws.
2. Secure the switch into an available slot in your 19-inch rack using appropriate rack screws (not included).
3. Connect the power adapter and network cables as described in the desktop installation.

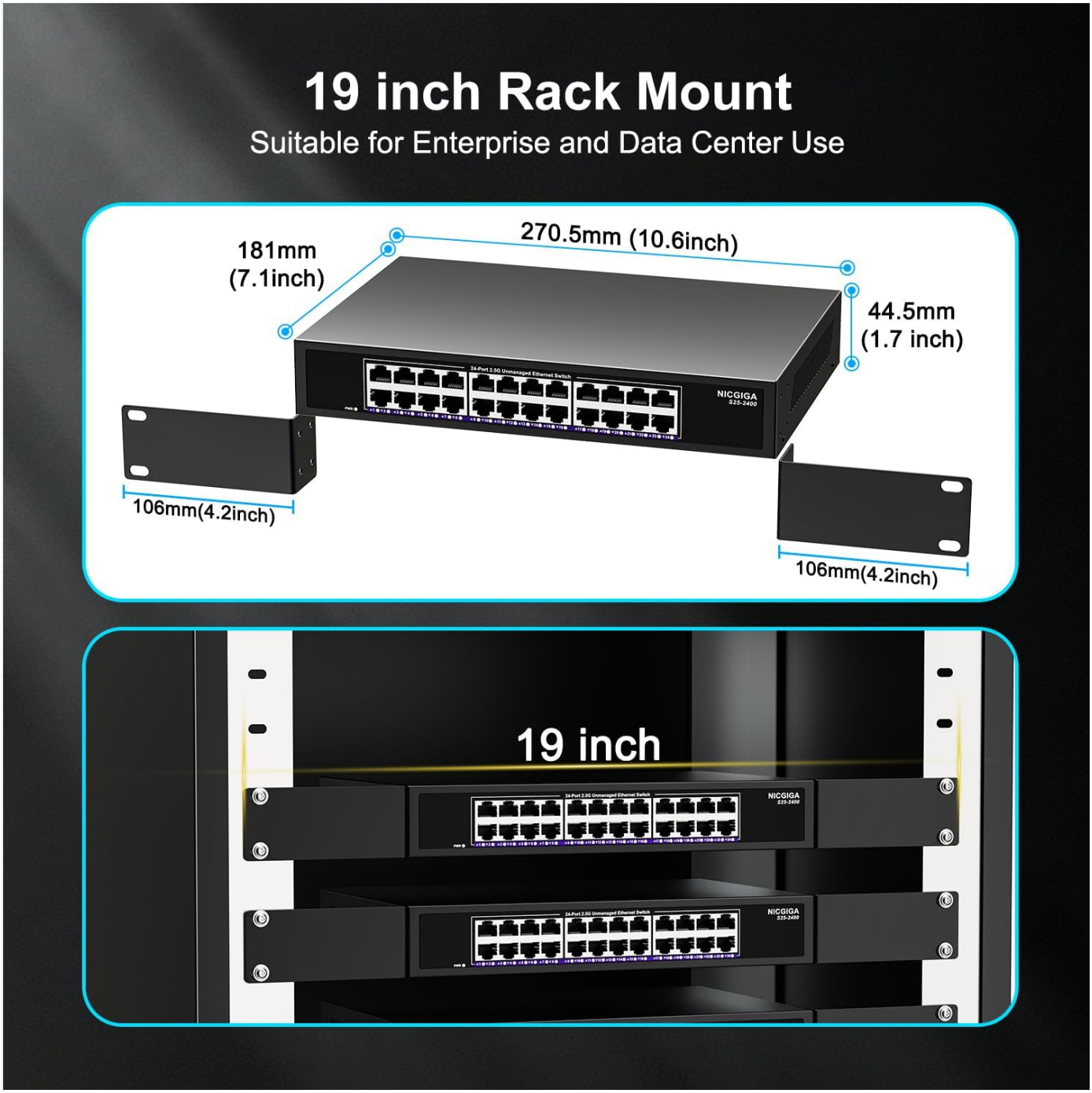

Image 4.2: Diagram illustrating the dimensions for rack mounting and an example of the switch installed in a 19-inch rack.

5. Operating Instructions

Once the switch is powered on and devices are connected, it operates automatically.

- **Auto-Negotiation:** Each port automatically detects the speed (100Mbps, 1Gbps, or 2.5Gbps) and duplex mode (half/full) of the connected device and adjusts accordingly. This ensures optimal performance and compatibility across various network devices.
- **Non-Blocking Architecture:** The switch provides full wire-speed forwarding on all ports simultaneously, ensuring maximum throughput for all connected devices without bottlenecks.
- **Unmanaged Operation:** No configuration or software is required. Simply connect your devices, and the switch will manage data traffic efficiently.

Image 5.1: Illustration of the auto-negotiation feature, showing how the switch adapts to different link speeds.

6. Maintenance

The NICGIGA 24 Port 2.5Gb Ethernet Switch is designed for minimal 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 are not blocked to allow for proper airflow and heat dissipation. The fanless design relies on natural convection.
- **Environment:** Operate the switch within its specified environmental conditions (temperature, humidity) to ensure optimal performance and longevity.

7. Troubleshooting

If you encounter issues with your NICGIGA 24 Port 2.5Gb Ethernet Switch, refer to the following common troubleshooting steps:

1. **No Power:**
    - Ensure the power adapter is securely connected to both the switch and a working power outlet.
    - Verify the power outlet is functional by plugging in another device.
    - Check the Power LED on the switch; it should be solid green when powered on.
2. **No Link/Activity on a Port:**
    - Verify that the Ethernet cable is securely connected to both the switch port and the connected device.
    - Ensure the connected device is powered on and its network adapter is functioning correctly.
    - Try a different Ethernet cable to rule out cable issues.
    - Test with a different port on the switch.
    - Check the LED indicator for the specific port; if it's off, there's no link.
3. **Slow Network Speed:**
    - Ensure all connected devices and network adapters support 2.5Gbps speeds for optimal performance. The switch will auto-negotiate to the highest common speed.
    - Use Cat5e or higher-rated Ethernet cables for 2.5Gbps connections.
    - Check for excessive network traffic or bottlenecks on other network devices.
4. **Intermittent Connectivity:**
    - Inspect Ethernet cables for damage.
    - Ensure the switch is placed in a well-ventilated area to prevent overheating, although it has a fanless design.
    - Check for potential electromagnetic interference from other electronic devices.

8. Specifications

Feature	Specification
Model	S25-2400
Number of Ports	24 x 2.5Gbps RJ45 Ports
Interface Type	RJ45
Data Transfer Rate	100/1000/2500Mbps (Auto-Negotiation)
Switching Capacity	160Gbps
Jumbo Frame	12K
MAC Address Table Size	16K
Memory Cache	12Mbit
Packet Forwarding Rate	89.28Mpps
Design	Fanless Metal Design
Lightning Protection	4KV
Installation	Desktop or 19-inch Rack Mount

Feature	Specification
Dimensions (L x W x H)	270.5 x 181 x 44.5 mm (10.6 x 7.1 x 1.7 inches)
Item Weight	1.9 Kilograms (4.18 pounds)
Compatible Devices	Desktop, Gaming Console, Laptop
UPC	790885830235

Note: Specifications are subject to change without notice.

9. Warranty and Support

NICGIGA provides a one-year warranty for this product, ensuring reliability, quality, and performance. Additionally, lifetime technical support is available for the entire product lifecycle.
For technical assistance or warranty claims, please contact NICGIGA customer support through the official website or your purchase platform.