**NICGIGA 6 Port | 4x 2.5G + 2x 10G SFP+**

# NICGIGA 6 Port 2.5G Unmanaged Ethernet Switch User Manual

Model: 6 Port | 4x 2.5G + 2x 10G SFP+

## 1. Introduction

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your NICGIGA 6 Port 2.5G Unmanaged Ethernet Switch. This device is designed to enhance network performance by providing high-speed connectivity for various devices in home and office environments.
The NICGIGA 6 Port 2.5G Unmanaged Ethernet Switch features 4 x 2.5 Gigabit Ethernet ports and 2 x 10G SFP+ ports, offering flexible and high-bandwidth connectivity options. Its unmanaged design ensures plug-and-play functionality without requiring complex configuration.

## 2. Product Overview

### 2.1 Key Features

- **6 Port High-Speed Connectivity:** Includes 4 x 2.5G Base-T Ethernet ports and 2 x 10G SFP+ ports.
- **Unmanaged Plug and Play:** Requires no configuration for immediate use.
- **Fanless Design:** Ensures silent operation, suitable for noise-sensitive environments.
- **Durable Metal Casing:** Provides robust protection and efficient heat dissipation.
- **Wide Compatibility:** Supports 10/100/1000/2500Mbps on RJ45 ports and 1G/2.5G/10G modules on SFP+ ports.
- **60Gbps Switching Capacity:** Handles high data traffic efficiently.
- **4KV Lightning Protection:** Enhances device durability against electrical surges.

### 2.2 Package Contents

- NICGIGA 6 Port 2.5G Unmanaged Ethernet Switch (Model: S25-0402-N)
- Power Adapter (12V DC)
- User Manual

### 2.3 Physical Layout

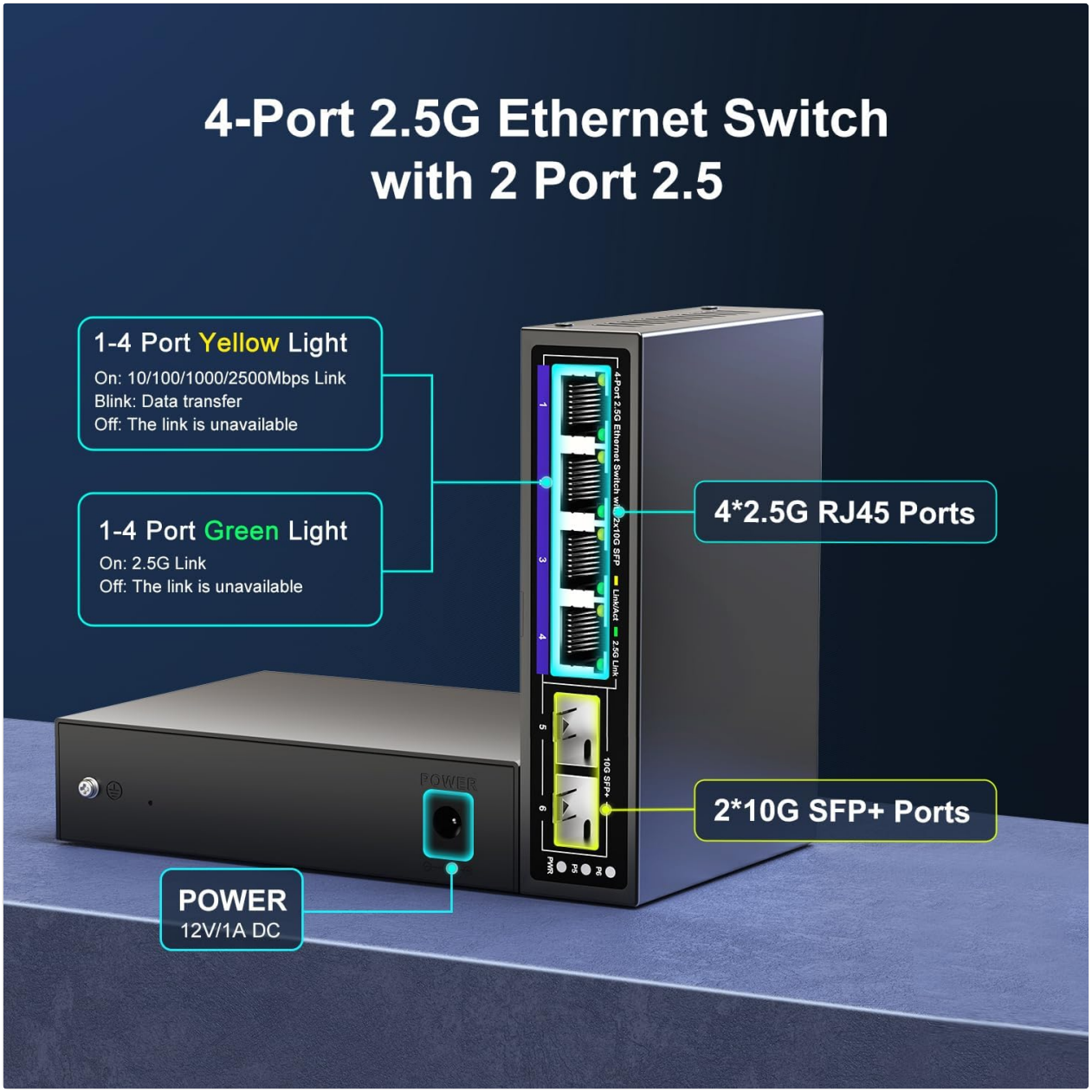


Figure 1: Front and Rear Panel Layout

This image displays the front and rear panels of the switch. The front panel features four 2.5G RJ45 ports (labeled 1-4) and two 10G SFP+ ports (labeled 5-6), along with Link/Act and 2.5G Link LEDs for each RJ45 port, and PWR LEDs. The rear panel shows the 12V DC power input.

- **Ports 1-4 (RJ45):** 2.5G Base-T Ethernet ports, compatible with 10/100/1000/2500Mbps.
- **Ports 5-6 (SFP+):** 10G SFP+ ports, compatible with 1G/2.5G/10G SFP/SFP+ modules (modules not included).
- **LED Indicators:**
  - **Link/Act (Yellow):** On for link, blinking for data activity.
  - **2.5G Link (Green):** On when connected at 2.5Gbps.
  - **PWR:** Indicates power status.
- **Power Input:** 12V DC power jack.

## 3. Setup and Installation

The NICGIGA 6 Port 2.5G Unmanaged Ethernet Switch is designed for simple plug-and-play installation. No software configuration is required.

### 3.1 Connecting the Switch

1. **Connect Power:** Plug the provided 12V DC power adapter into the switch's power input port and then into a standard electrical outlet. The PWR LED should illuminate.
2. **Connect Devices:**
    - For RJ45 devices (e.g., computers, NAS, WiFi 6 APs): Connect standard Ethernet cables from your devices to any of the 2.5G RJ45 ports (1-4) on the switch.
    - For SFP+ devices (e.g., servers, other switches): Insert compatible SFP/SFP+ modules (not included) into the 10G SFP+ ports (5-6) and connect appropriate fiber optic or DAC cables to your devices.
3. **Verify Connection:** Once devices are connected, observe the Link/Act and 2.5G Link LEDs on the front panel. A solid yellow Link/Act LED indicates a successful link, and a blinking yellow LED indicates data activity. A solid green 2.5G Link LED indicates a 2.5Gbps connection.

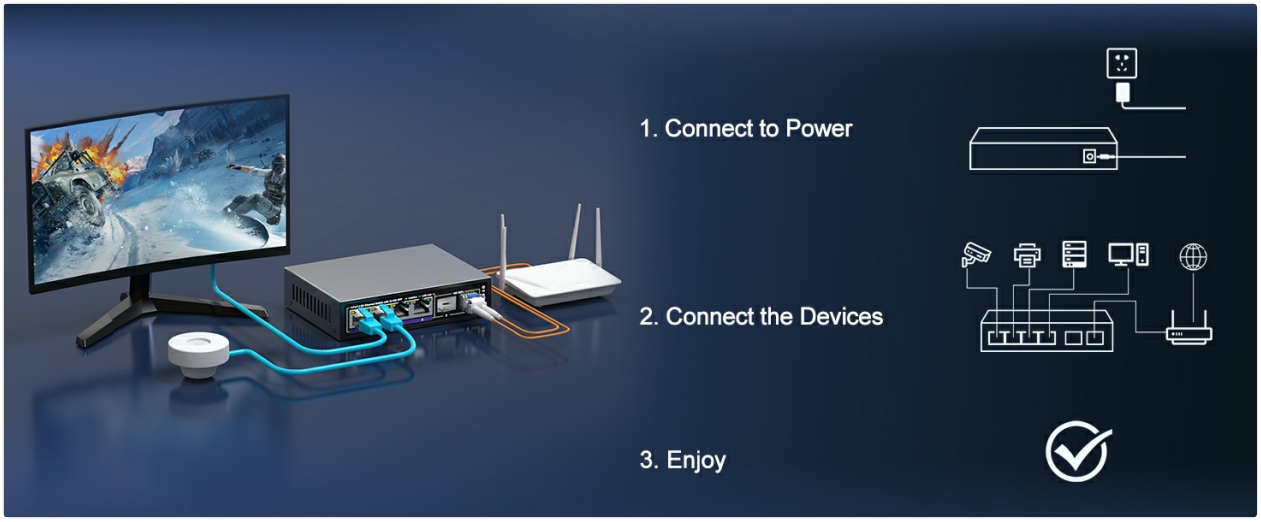


Figure 2: Basic Setup Diagram

This diagram illustrates the straightforward setup process: connecting the power adapter, then connecting various network devices like a computer, NAS, and router to the switch's ports.

## 4. Operating the Switch

As an unmanaged switch, the NICGIGA 6 Port 2.5G Ethernet Switch operates automatically once connected. There are no software settings or configurations required.

### 4.1 LED Indicators

The LEDs on the front panel provide visual status of the switch and its connections:

- **PWR LED:**
    - **On:** The switch is powered on.
    - **Off:** The switch is powered off or not receiving power.
- **Link/Act LED (Yellow, Ports 1-4):**
    - **On:** A valid network link is established.
    - **Blinking:** Data is being transmitted or received through the port.
    - **Off:** No network link is detected.
- **2.5G Link LED (Green, Ports 1-4):**

- **On:** The port is operating at 2.5Gbps.
- **Off:** The port is operating at 10/100/1000Mbps.

- **Link/Act LED (Ports 5-6):** Similar to RJ45 ports, indicates link status and activity for SFP+ connections.

## 4.2 Applications

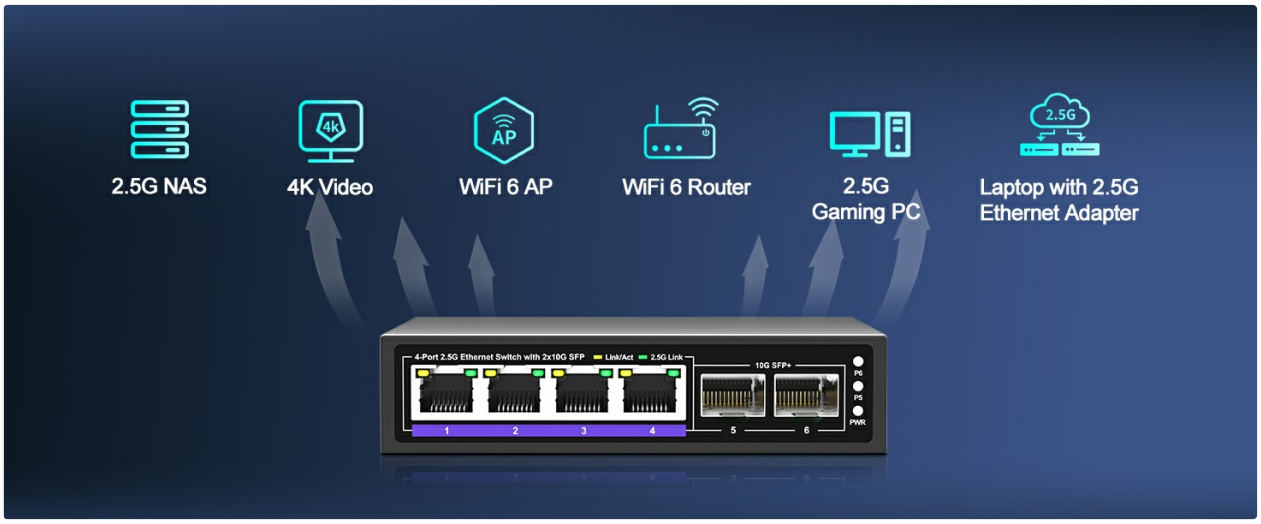


Figure 3: Typical Application Scenarios

This image demonstrates how the switch can be integrated into a network to connect various high-bandwidth devices such as a 2.5G NAS, 4K video streaming devices, WiFi 6 access points, gaming PCs, and laptops with 2.5G Ethernet adapters.

The switch is suitable for various high-bandwidth applications, including:

- Connecting 2.5G Network Attached Storage (NAS) for faster data transfers.
- Supporting 4K video streaming and editing workflows.
- Providing high-speed connections for gaming PCs.
- Uplinking to WiFi 6 Access Points for enhanced wireless performance.
- Expanding network capacity in small offices or home labs.

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Video 1: 2.5Gb Ethernet Switch Unmanaged Overview

This video provides a visual overview of the NICGIGA 2.5Gb Ethernet Switch, demonstrating its features such as 2.5Gb RJ45 ports, 10Gb SFP+ uplink, metal body for heat dissipation, plug-and-play functionality, and multi-device parallel data transfer capabilities.

# 5. Maintenance

To ensure optimal performance and longevity of your NICGIGA Ethernet Switch, follow these maintenance guidelines:

- **Placement:** Place the switch in a well-ventilated area, away from direct sunlight, heat sources, and excessive moisture. Ensure adequate airflow around the device.
- **Cleaning:** Regularly clean the exterior of the switch with a soft, dry cloth. Avoid using liquid or aerosol cleaners, which may damage the device.
- **Cable Management:** Keep network cables organized and free from kinks or excessive bends to prevent signal degradation.
- **Power Supply:** Use only the original power adapter provided with the switch.
- **Firmware:** As an unmanaged switch, firmware updates are generally not applicable.

## 6. Troubleshooting

If you encounter issues with your NICGIGA Ethernet Switch, refer to the following troubleshooting steps:

### 6.1 No Power

- **Check Power Connection:** Ensure the power adapter is securely connected to the switch and a working electrical outlet.
- **Verify Outlet:** Test the electrical outlet with another device to confirm it is supplying power.
- **Power Adapter:** Ensure you are using the correct 12V DC power adapter supplied with the switch.

### 6.2 No Link Light

- **Cable Connection:** Ensure the Ethernet cable is securely plugged into both the switch port and the connected device.
- **Cable Integrity:** Test the Ethernet cable with another device or replace it to rule out a faulty cable.
- **Device Status:** Ensure the connected device (e.g., computer, router) is powered on and its network adapter is enabled.
- **Port Compatibility:** While the RJ45 ports are adaptive, ensure the connected device's network card is functioning correctly. For SFP+ ports, verify that the SFP/SFP+ module and cable are compatible and correctly installed.

### 6.3 Slow Network Speed

- **Cable Quality:** Use high-quality Ethernet cables (Cat5e or higher for Gigabit, Cat6a or higher for 2.5G/10G) to ensure optimal performance.
- **Device Capability:** Verify that your connected devices (network cards, NAS, router) support 2.5G or 10G speeds. The 2.5G Link LED should be green for 2.5Gbps connections on RJ45 ports.
- **Network Congestion:** High network traffic from other devices might affect overall speed.
- **SFP+ Module:** For SFP+ ports, ensure the installed module supports the desired speed (1G, 2.5G, or 10G).

## 7. Specifications

| Feature | Description |
|---|---|
| Model Number | 6 Port \| 4x 2.5G + 2x 10G SFP+ (S25-0402-N) |
| Brand | NICGIGA |
| Number of Ports | 6 |
| RJ45 Ports | 4 x 2.5G Base-T (10/100/1000/2500Mbps adaptive, Auto MDI/MDIX) |
| SFP+ Ports | 2 x 10G SFP+ (Compatible with 1G/2.5G/10G SFP/SFP+ modules) |
| Switching Capacity | 60Gbps |
| Data Transfer Rate | 2.5 Gigabits Per Second (per RJ45 port) |
| Voltage | 12 Volts (DC) |
| Power Consumption | Typically low (fanless design) |

| Feature | Description |
| --- | --- |
| Cooling | Fanless, passive cooling via metal casing |
| Operating Temperature | -10°C to 50°C |
| Lightning Protection | 6KV |
| Dimensions | 5.43 x 3.82 x 3.31 inches (Package Dimensions) |
| Item Weight | 14.4 ounces |
| Mounting Options | Desktop / Wall Mount |

## 8. Warranty and Support

NICGIGA products are designed for reliability and performance. For warranty information and technical support, please refer to the official NICGIGA website or contact their customer service directly. Keep your purchase receipt for warranty claims.
For further assistance, you may visit the NICGIGA Store on Amazon.



**Related Documents - 6 Port | 4x 2.5G + 2x 10G SFP+**

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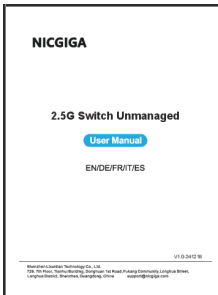
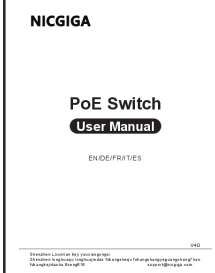
|  | NICGIGA 2.5G Unmanaged Ethernet Switch User Manual and Specifications<br>Comprehensive user manual and technical specifications for NICGIGA's 2.5G Unmanaged Ethernet Switches. Covers main application scenarios and detailed parameters for models S25-0402, S25-0501, S25-0801, S25-0802, S25-1602, S25-2402, S25-0802P, S25-1602P, S25-2402P, and S25-0402T. |
|  | NICGIGA PoE Switch User Manual V4.0 - Technical Specifications and Features<br>User manual for NICGIGA PoE Switches (V4.0), detailing application scenarios, front panel explanations, and comprehensive technical specifications for models including GS0410P, FS0820GP, GS0800P, AI-FS1621GP, GS1620P, FS2420GP, NIC-S25-0402P, and NIC-S25-0801P. |

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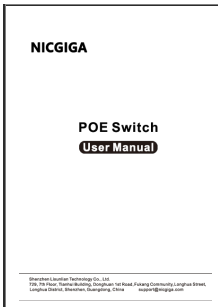
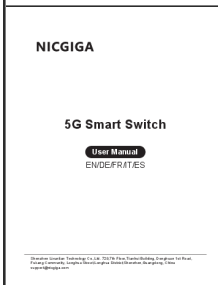
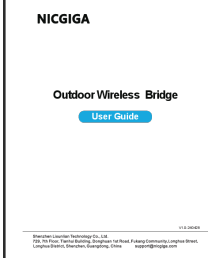
|  | NICGIGA PoE Switches User Manual and Product Overview<br>Comprehensive guide to NICGIGA's range of Gigabit PoE switches, detailing models like GS0401P, GS0800P, GS0820P, AI-GS0821P, FS1620GP, GS1620P, FS2420GP, and AI-GS2421P, including features, application scenarios, and front panel explanations. |
|  | NICGIGA 5G Smart Switch User Manual - S50-0800<br>User manual for the NICGIGA 5G Smart Switch (Model S50-0800), providing detailed information on appearance, installation, safety precautions, site requirements, and technical specifications. |
|  | NICGIGA Outdoor Wireless Bridge User Guide - Setup and Pairing<br>Comprehensive user guide for the NICGIGA CPE-S900 Outdoor Wireless Bridge. Learn how to install, configure, and pair your devices for reliable outdoor network connectivity. Includes multi-language support. |
|  | NICGIGA M.2 WiFi Card User Manual<br>Comprehensive user manual for NICGIGA M.2 WiFi cards featuring Intel wireless technology. Includes detailed installation steps, driver download links for models like BE200, AX210, AX200, AX211, AX411, and support contact information. |