NICGIGA 10 Port | 8x PoE+ 120W + 2x UPLink

NICGIGA 10-Port PoE+ Switch User Manual

Model: 10 Port | 8x PoE+ 120W + 2x UPLink (FS0820GP)

1. Introduction

This manual provides instructions for the NICGIGA 10-Port PoE+ Switch, an unmanaged network switch designed to provide Power over Ethernet (PoE) capabilities. It features 8 10/100Mbps PoE+ ports and 2 Gigabit uplink ports, supporting IEEE 802.3af/at standards. This device is suitable for extending network connectivity and powering compatible devices such as IP cameras, IP phones, and wireless access points.

Figure 1: The NICGIGA 10-Port PoE+ Switch, model FS0820GP, shown with its retail packaging. The switch features 8 PoE ports and 2 uplink ports.

2. Product Overview

2.1 Key Features

- **10 Ports Total:** 8x 10/100Mbps PoE+ ports and 2x Gigabit uplink ports.
- **PoE+ Power Budget:** Maximum 120W total, up to 30W per PoE port, compliant with IEEE 802.3af/at.
- **Unmanaged Plug-and-Play:** No configuration required for basic operation.
- **VLAN Isolation:** Ports 1-8 can be isolated to reduce network traffic and enhance security.
- **250m Extend Mode:** Allows PoE transmission up to 250 meters at 10Mbps speed.
- **Durable Design:** Metal casing with 4KV lightning protection and fanless operation for silent performance.
- **Mounting Options:** Supports desktop, wall, or 19-inch rack installation.

2.2 Port Layout and Indicators

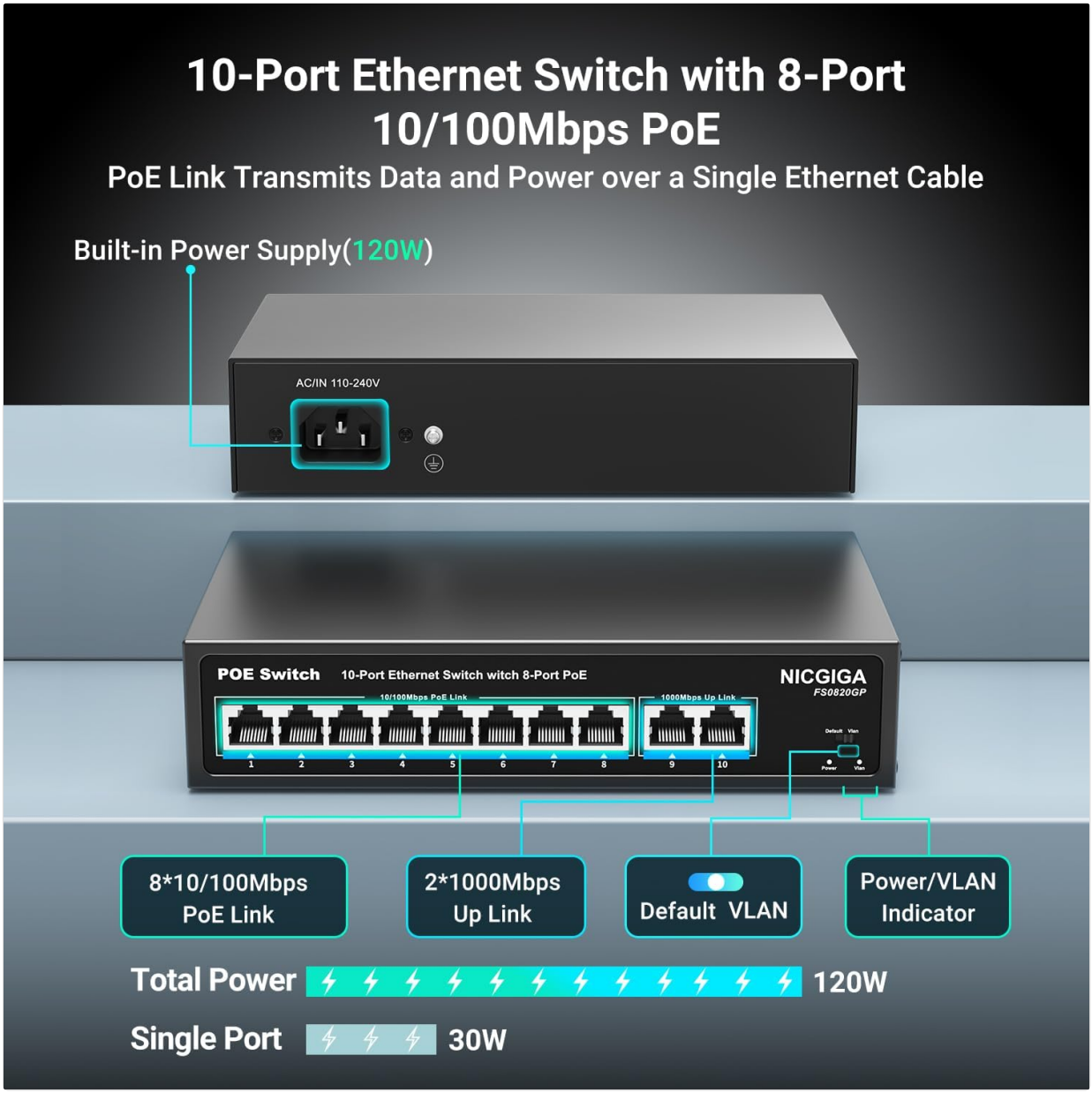


Figure 2: Detailed view of the NICGIGA 10-Port PoE+ Switch, highlighting the 8x 10/100Mbps PoE ports, 2x 1000Mbps uplink ports, power input, and VLAN/Extend mode switch.

The front panel includes 8 PoE ports (1-8) and 2 uplink ports (9-10). Each port has LED indicators for link/activity and PoE status. A switch on the front panel allows toggling between Default (VLAN Off) and

VLAN (VLAN On/Extend) modes.

2.3 Package Contents

- NICGIGA 10-Port PoE+ Switch (Model FS0820GP)
- Power Adapter
- Rack Mount Kit (2 pieces)
- Pack of Screws
- Quick Start Guide

Figure 3: Illustration of the items included in the product package.

3. Setup

The NICGIGA PoE+ Switch is designed for simple plug-and-play operation, requiring no software configuration.

1. **Connect to Power:** Connect the included power adapter to the switch's power input and then to a power outlet. The power indicator LED on the switch will illuminate.
2. **Connect Network Devices:**
    - Connect PoE-compatible devices (e.g., IP cameras, IP phones, wireless APs) to ports 1-8 using standard Ethernet cables. The switch will automatically detect and provide power to these devices.
    - Connect non-PoE network devices (e.g., routers, NVRs, PCs) to the uplink ports 9-10 for network connectivity.
3. **Verify Connection:** Check the LED indicators for each connected port. A solid green or amber light typically indicates a successful link, and a blinking light indicates data activity.

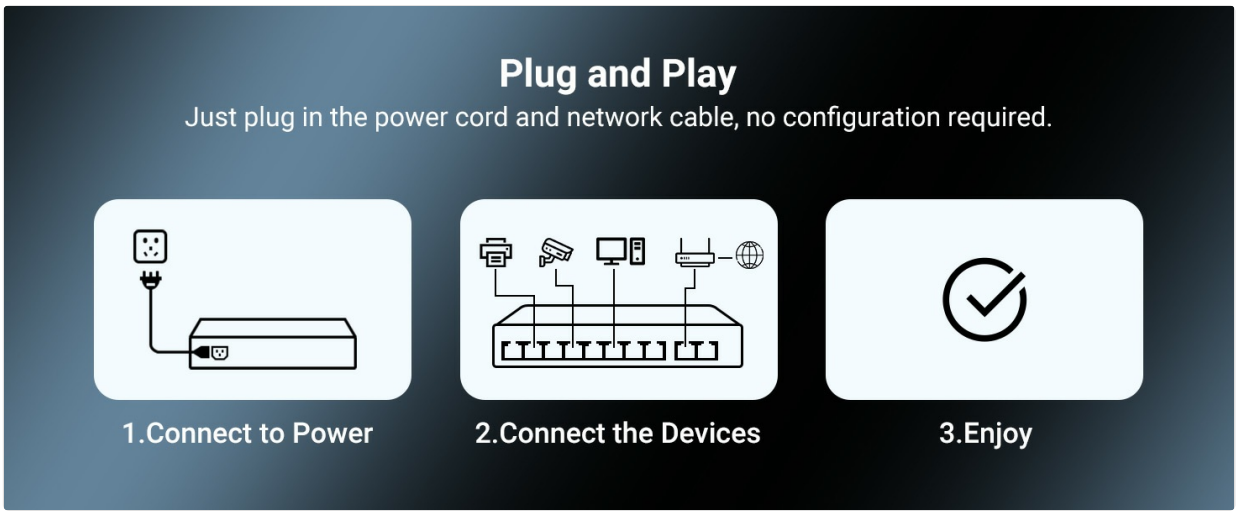


Figure 4: Simple three-step plug-and-play setup: Connect to Power, Connect Devices, and Enjoy.

3.1 Mounting Options

The switch can be placed on a desktop, mounted on a wall, or installed in a 19-inch rack using the provided rack mount kit.

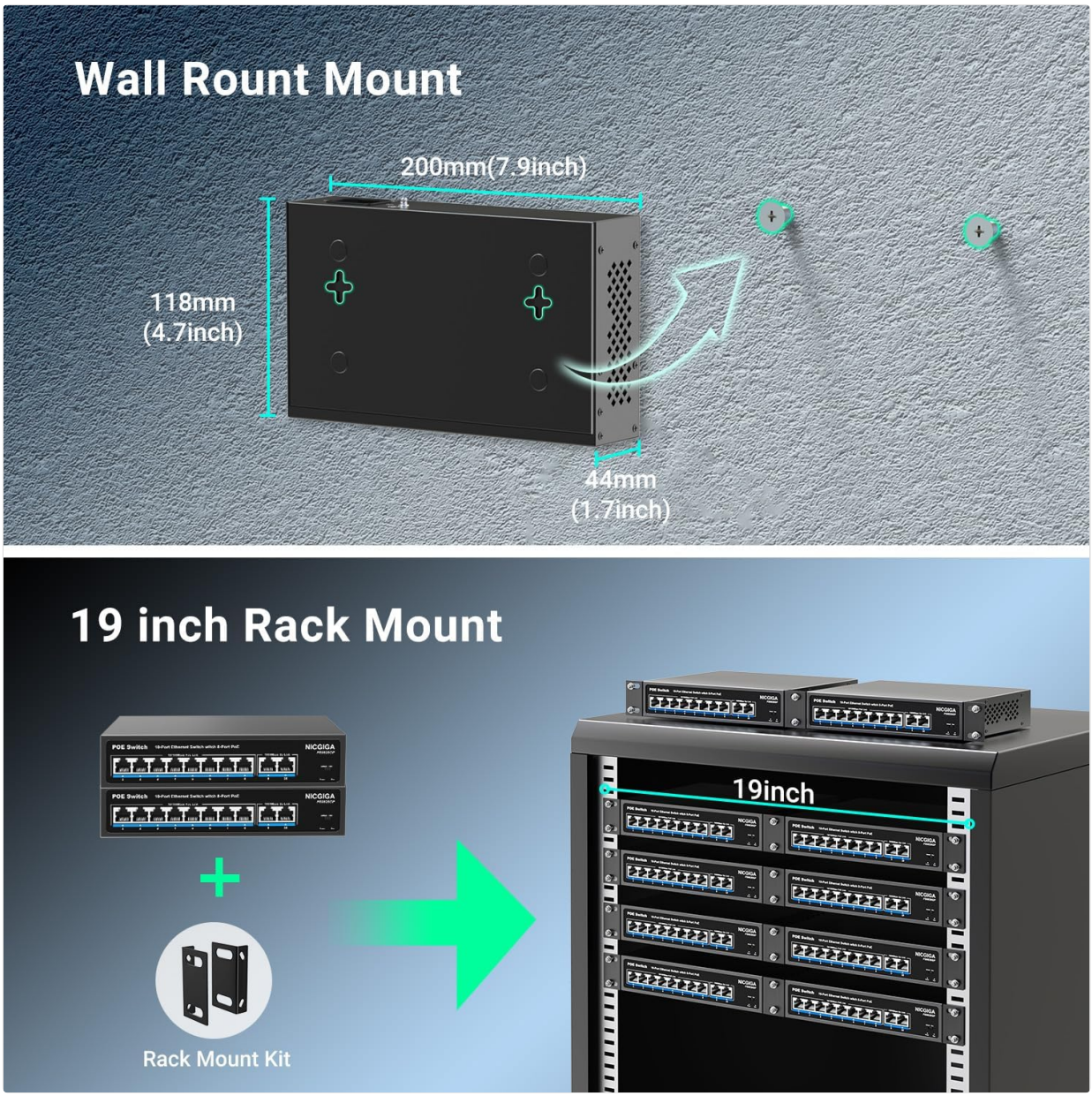


Figure 5: Wall mounting dimensions (200mm x 118mm x 44mm) and an example of 19-inch rack mounting with multiple switches.

4. Operating Modes

The switch features a mode switch on the front panel to select between Default and VLAN/Extend modes.

4.1 VLAN Isolation Mode

When the VLAN switch is enabled, ports 1-8 are isolated from each other. This means devices connected to these ports cannot directly communicate with each other. All communication from ports 1-8 is routed through the uplink ports (9-10). This feature helps to reduce network broadcast storms, improve network security, and optimize performance for specific applications like surveillance systems.

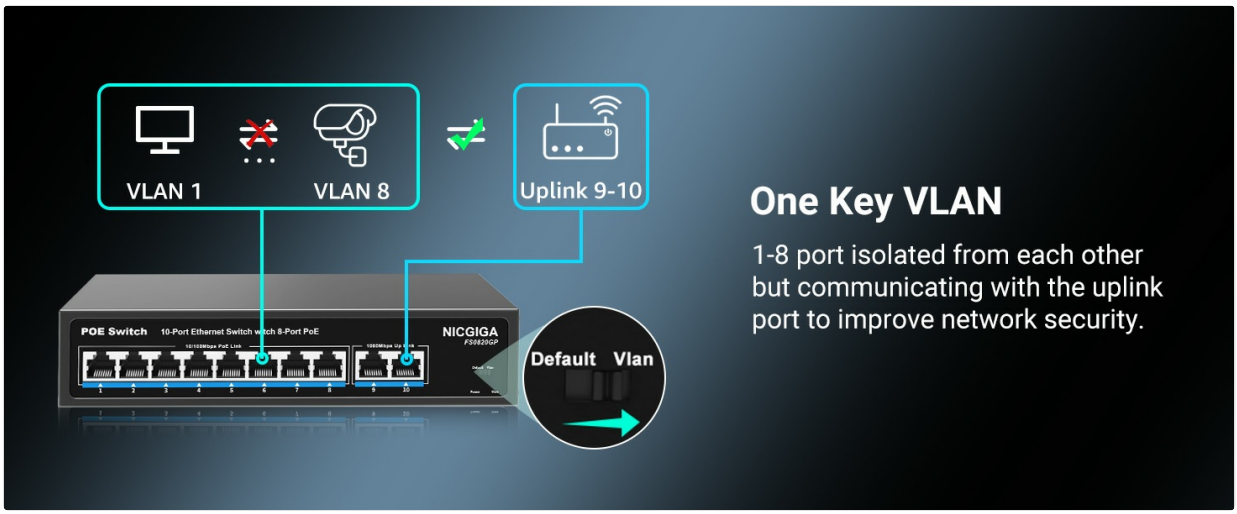


Figure 6: Illustration of VLAN isolation where ports 1-8 are isolated from each other but communicate with uplink ports 9-10.

4.2 Extend Mode

The Extend Mode is typically activated when VLAN mode is enabled. In this mode, the transmission distance for PoE ports (1-8) is extended up to 250 meters (820 feet) at a reduced speed of 10Mbps. This is beneficial for deploying devices in remote locations where standard 100-meter Ethernet cable limits are insufficient.

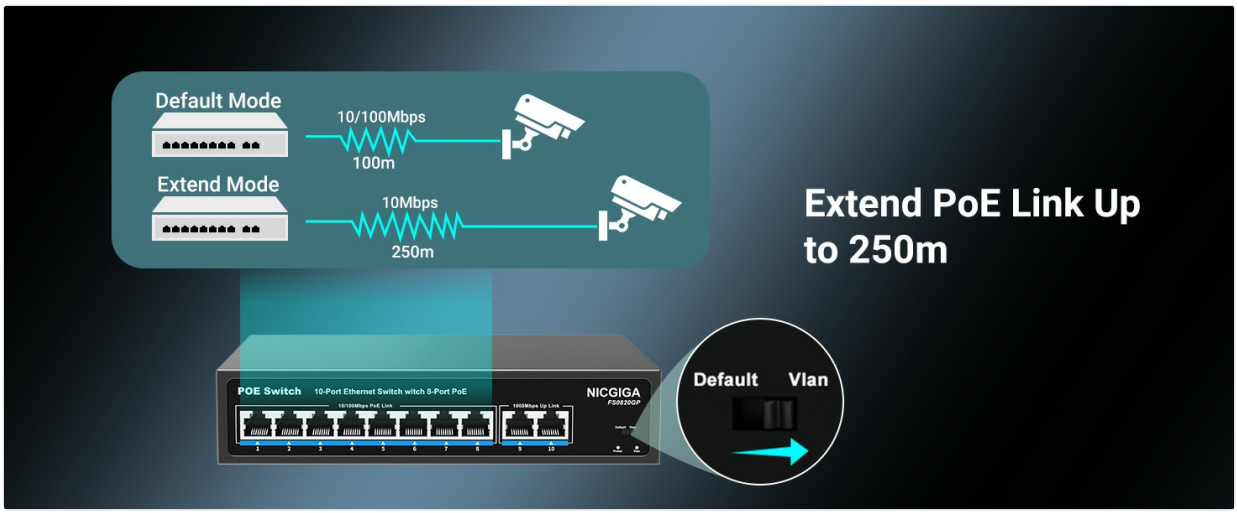


Figure 7: Comparison of Default Mode (10/100Mbps, 100m) and Extend Mode (10Mbps, 250m) for PoE links.

5. Specifications

Feature	Specification
Model Number	FS0820GP (10 Port | 8x PoE+ 120W + 2x UPLink)
Number of Ports	10 (8x 10/100Mbps PoE+, 2x Gigabit Uplink)
PoE Standard	IEEE 802.3af/at
Total PoE Power Budget	120W
Max Power Per PoE Port	30W
Data Transfer Rate	10/100Mbps for PoE ports, 1000Mbps for Uplink ports
Switching Capacity	12Gbps
Interface Type	RJ45

Feature	Specification
Case Material	Metal
Cooling	Fanless Design
Lightning Protection	4KV
Dimensions (L x W x H)	Approximately 9.33 x 7.68 x 2.87 inches (Package)
Item Weight	2.13 pounds
UPC	790885826214

6. Troubleshooting

- **No Power:** Ensure the power adapter is securely connected to the switch and a working power outlet. Check the power indicator LED.
- **No Link/Activity:** Verify that Ethernet cables are properly connected to both the switch and the network device. Try a different cable or port. Ensure the connected device is powered on.
- **PoE Device Not Powering On:** Confirm the device is PoE-compatible (IEEE 802.3af/at). Check the PoE status LED for the port. Ensure the total power consumption of all connected PoE devices does not exceed the 120W budget.
- **Slow Network Speed in Extend Mode:**This is expected behavior. In Extend Mode, the data rate is reduced to 10Mbps to achieve longer transmission distances (up to 250m).
- **Network Isolation Issues:** If devices on ports 1-8 cannot communicate with each other, verify if VLAN mode is enabled. This is the intended behavior for VLAN isolation.

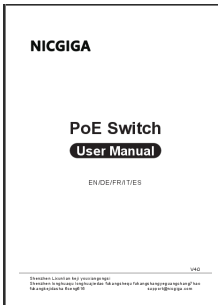
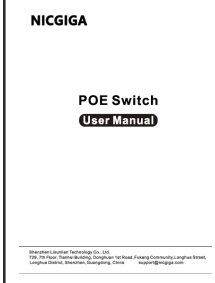
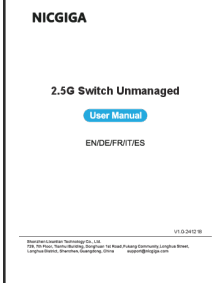
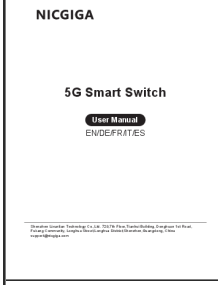
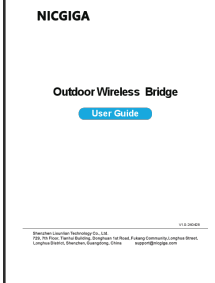
7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the switch. Do not use liquid cleaners or aerosols.
- **Ventilation:** Ensure adequate airflow around the switch. Although it has a fanless design, proper ventilation helps with heat dissipation.
- **Environment:** Operate the switch within its specified temperature and humidity ranges to ensure optimal performance and longevity.
- **Firmware:** As an unmanaged switch, firmware updates are generally not required or available.

8. Warranty and Support

Each NICGIGA PoE switch undergoes rigorous testing for reliability, quality, and performance. For any questions or technical assistance during use, please contact NICGIGA customer support.

Related Documents - 10 Port | 8x PoE+ 120W + 2x UPLink

	[NICGIGA PoE Switch User Manual V4.0 - Technical Specifications and Features] 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.
	[NICGIGA PoE Switches User Manual and Product Overview] 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 2.5G Unmanaged Ethernet Switch User Manual and Specifications] 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 5G Smart Switch User Manual - S50-0800] 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] 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] 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.