16-/24-Port 10/100/1000BASE-T

Gigabit Ethernet Switch

GSW-1601/GSW-2401

**User's Manual**

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1. Package Contents

Thank you for purchasing PLANET 16-/24-Port 10/100/1000BASE-T Unmanaged Gigabit Ethernet Switch, GSW-1601/GSW-2401. **"Gigabit Ethernet Switch"** mentioned in this User's Manual refers to the GSW-1601/GSW-2401.

Open the box of the Gigabit Ethernet Switch and carefully unpack it. The box should contain the following items:

Gigabit Ethernet Switch x 1	Quick Code Sheet x 1
Power Cord x 1	Accessories x 1
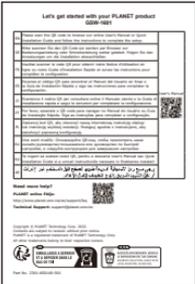
If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Product Features

Physical Port

- 16/24 10/100/1000BASE-T Gigabit Ethernet ports

- Supports auto MDI/MDI-X function

Layer 2 Features

- Complies with IEEE 802.3, 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T Ethernet standards

- Features Store-and-Forward mode with wire-speed filtering and forwarding rates

- Integrated address look-up engine, supporting 8K absolute MAC addresses

- 9K jumbo packet support

- Power saving ability for Green networking

- IEEE 802.1Q VLAN packet transparency support

- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation

- Hardware-based 10/100BASE-TX, half/full duplex and 1000BASE-T full duplex mode, flow control and auto-negotiation

- Automatic address learning and address aging

- Supports CSMA/CD protocol

Hardware Features

- 100~240V AC, 0.15A, 50~60Hz universal power input (GSW-1601)

- 100~240V AC, 0.22A, 50~60Hz universal power input (GSW-2401)

- DIP switch for standard/VLAN/Port Trunk/flow control off selection

- FCC, CE class A compliant

3. Product Specifications

Product	GSW-1601	GSW-2401
Hardware Specifications		
Hardware Version	10	
10/100/1000BASE-T MDI/MDIX Ports	16	24
Throughput (packet per second)	23.8Mpps	35.7Mpps
Switch Fabric	32Gbps	48Gbps
Weight	1.6kg	1.7kg
Power Consumption/Dissipation	7.6 watts/25 BTU	10.8 watts/36 BTU
Power Requirements	100~240V AC, 0.15A, 50-60Hz	100~240V AC, 0.22A, 50-60Hz
Dimensions (W x D x H)	440 x 180 x 44mm, 1U height	
Switch Processing Scheme	Store-and-Forward	
Address Table	8K entries	
Jumbo Packet Size	9K	
Flow Control	Back pressure for half duplex, IEEE 802.3x Pause Frame for full duplex	
DIP Switch	Standard/VLAN/Port Trunk/Flow Control Off mode selection	
Temperature	Operating: 0~50 degrees C Storage: -10~70 degrees C	
Humidity (non-condensing)	Operating: 5% to 95% Storage: 5% to 95%	
Standards Conformance		
Regulatory Compliance	FCC Part 15 Class A, CE	
Standards Compliance	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3x (Full-Duplex Flow Control) IEEE 802.3az Energy Efficient Ethernet (EEE)	

4. Switch Front Panel

Figures **1 & 2** show the front panels of the GSW-1601 and GSW-2401.

Figure 1: GSW-1601 Front Panel

Figure 2: GSW-2401 Front Panel

LED Indicators

GSW-1601/GSW-2401

System

LED	Color	Function
PWR	Green	Lights to indicate that the Switch has power.

Per 10/100/1000BASE-T Port

LED	Color	Function
10/100/1000 LNK/ACT	Green	Lights to indicate the link through that port is established successfully at 10/100/1000Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.

DIP Switch

The front panel of Gigabit Ethernet Switch provides one DIP switch for **"Standard"**, **"VLAN"**, **"Port Trunk"** and **"Flow Control Off"** mode selections. The detailed descriptions are shown in the following table.

DIP Switch Mode	Function	
Standard (default)	This mode makes the **Gigabit Ethernet Switch** operate as a general switch and all ports operate at 10/100/1000Mbps auto-negotiation.	
VLAN	This mode makes the GSW-1601 operate as a VLAN isolation switch and 1. Port 1 to port 14 will isolate respectively. 2. Port 1 to port 14 can only communicate with **port 15** and **port 16 (uplink port)**.	This mode makes the GSW-2401 operate as a VLAN isolation switch and 1. Port 1 to port 22 will isolate respectively. 2. Port 1 to port 22 can only communicate with **port 23** and **port 24 (uplink port)**.
Port Trunk	This mode makes the GSW-1601 operate as a Trunk switch with **port 15** and **port 16** as a set of **trunk ports**.	This mode makes the GSW-2401 operate as a Trunk switch with **port 23** and **port 24** as a set of **trunk ports**.
Flow Control Off	This mode disables the Gigabit Ethernet Switch flow control function.	

Note	Change the DIP switch setting and the Gigabit Ethernet Switch must power off/power on to take effect.

5. Switch Rear Panel

Figures 3 & 4 show the rear panels of the GSW-1601 and GSW-2401.

Figure 3: GSW-1601 Rear Panel

Figure 4: GSW-2401 Rear Panel

Power Notice	1. The device is a power-required device, meaning it will not work till it is powered. If your network should be active all the time, please consider using UPS (Uninterrupted Power Supply) for your device. It will prevent you from network data loss or network downtime.
	2. In some areas, installing a surge suppression device may also help to protect your Gigabit Ethernet Switch from being damaged by unregulated surge or current to the Switch or the power adapter.

6. Installing the Switch

This part describes how to install your Gigabit Ethernet Switch and make connections to it. Please follow the procedure below:

📝 Note	This Gigabit Ethernet Switch does not need software configuration.

Desktop Installation

To install the Gigabit Ethernet Switch on the desktop, simply follow these steps:

Step 1: Attach the rubber feet to the recessed areas on the bottom of the Gigabit Ethernet Switch.

Step 2: Place the Gigabit Ethernet Switch on the desktop near an AC power source.

Step 3: Keep enough ventilation space between the Gigabit Ethernet Switch and the surrounding objects.

📝 Note	When choosing a location, please keep in mind the environmental restrictions discussed in Section 3 under Product Specifications.

Step 4: Connect your Gigabit Ethernet Switch to network devices.

   A. Connect one end of a standard network cable to the 10/100/1000BASE-T RJ45 ports on the front of the Gigabit Ethernet Switch.

   B. Connect the other end of the cable to the network devices such as printer servers, workstations or routers, etc.

Step 5: Supply power to the Gigabit Ethernet Switch.

   A. Connect one end of the power cable to the Gigabit Ethernet Switch.

   B. Connect the power plug of the power cable to a standard wall outlet.

When the Gigabit Ethernet Switch receives power, the Power LED should remain solid Green.

Rack Mounting

To install the Gigabit Ethernet Switch in a 19-inch standard rack, follow the instructions described below:

Step 1: Place your Gigabit Ethernet Switch on a hard flat surface, with the front panel positioned towards your front side.

Step 2: Attach a rack-mount bracket to each side of the Switch with supplied screws attached to the package. Figure **5** shows how to attach brackets to one side of the Gigabit Ethernet Switch.
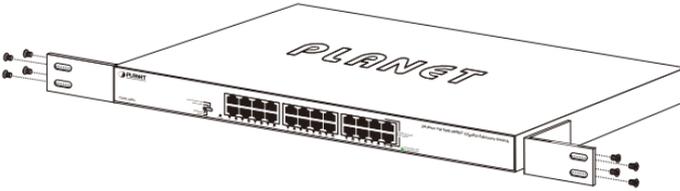
Figure 5: Attaching the brackets to the Gigabit Ethernet Switch

> ⚠ **Caution**
>
> You must use the screws supplied with the mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

Step 3: Secure the brackets tightly.

Step 4: Follow the same steps to attach the second bracket to the opposite side.

Step 5: After the brackets are attached to the Gigabit Ethernet Switch, use suitable screws to securely attach the brackets to the rack, as shown in Figure **6**.
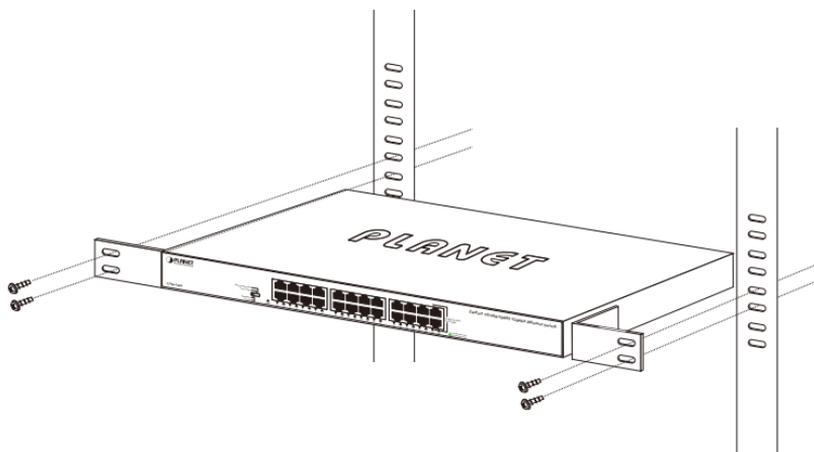

Figure 6: Mounting the Gigabit Ethernet Switch in a Rack

Step 6: Proceed with Steps 4 and 5 of **Desktop Installation** to connect the network cabling and supply power to your Gigabit Ethernet Switch.

Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq

Switch support team mail address:
support@planet.com.tw