

**2-Port 10/100/1000T 802.3bt PoE +  
4-Port 10/100/1000T 802.3at PoE +  
2-Port 10/100/1000T +  
2-Port 1000X SFP Desktop Switch**

**GSD-1022UP**

**User's Manual**

# Table of Contents

1. Package Contents.....	3
2. Hardware Introduction .....	4
2.1 Front Panel .....	4
2.2 LED Indicators.....	4
2.3 Multiple Functions of DIP Switch .....	5
2.4 Switch Rear Panel.....	6
3. Hardware Installation.....	7
3.1 Desktop Installation .....	7
3.2 Rack Mounting.....	8
3.3 Wall Mounting .....	10
3.4 Installing the SFP Transceiver .....	11
4. Product Specifications .....	14
5. Physical Dimensions .....	16
Customer Support.....	17

# 1. Package Contents

Thank you for purchasing PLANET **2-Port 10/100/1000T 802.3bt PoE + 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T + 2-Port 1000X SFP Desktop Switch, GSD-1022UP.**

Open the box of the GSD-1022UP and carefully unpack it. The box should contain the following items:

GSD-1022UP x 1	Quick Start QR Code Sheet x 1		Rack-mounting Brackets x 2
			
Power Cord x 1	SFP Dust Cap x 2	Rubber Feet x 4	Screws x 8
			

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. Hardware Introduction

### 2.1 Front Panel

The Front Panel of the GSD-1022UP consists of **2-Port 10/100/1000T 802.3bt PoE, 4-Port 10/100/1000T 802.3at PoE, 2-Port 10/100/1000T and 2-Port 1000X SFP**. The LED Indicators are also located on the front panel of the GSD-1022UP as shown in Figure 2-1.

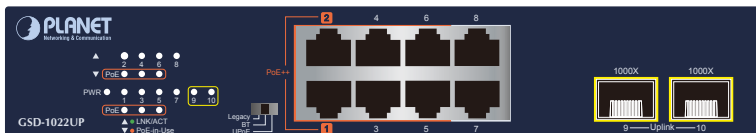


Figure 2-1: GSD-1022UP Front Panel

### 2.2 LED Indicators

#### ■ System

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

#### ■ PoE 10/100/1000BASE-T Interfaces (Port-1 to Port-6)

LED	Color	Function	
10/100/1000 LNK/ACT	Green	Lights:	To indicate the link through that port is successfully established at 10/100/1000Mbps.
		Blinks:	To indicate that the switch is actively sending or receiving data over that port.
PoE-in-Use	Amber	Lights:	To indicate the port is providing PoE in-line power.
		Off:	To indicate the connected device is not a PoE powered device (PD)

### ■ 10/100/1000BASE-T Interfaces (Port-7 to Port-8)

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

### ■ 1000X SFP Interfaces (Port-9 to Port-10)

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

## 2.3 Multiple Functions of DIP Switch

The front panel of the GSD-1022UP provides one DIP switch for Legacy, BT and UPoE mode selection. The detailed descriptions are shown in the following table.



Modes	Descriptions
Legacy	Powered devices that support capacitive or resistance electronic tag with output budget of 90W.
BT (default)	Powered devices that fully support IEEE 802.3bt standards with output budget of 90W.
UPoE	Powered devices that support Cisco UPoE with output budget of 95W.



Note

Please adjust the DIP switch before powering on the GSD-1022UP.

## 2.4 Switch Rear Panel

Figure 2-2 shows the rear panel of the GSD-1022UP



**Figure 2-2:** GSD-1022UP Rear Panel

### ■ AC Power Receptacle



#### Power Note

The device is a power-required device, which means it will not work till it is powered. If your networks 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.



#### Power Note

In some areas, installing a surge suppression device may also help to protect the GSD-1022UP from being damaged by unregulated surge or current to the GSD-1022UP or the power adapter.

### 3. Hardware Installation

This part describes how to install the GSD-1022UP and make connections to it. Please follow the procedure below:



Note

This GSD-1022UP does not need software configuration.

#### 3.1 Desktop Installation

To install the GSD-1022UP on the desktop, simply follow these steps:

**Step 1:** Attach the rubber feet to the recessed areas on the bottom of the GSD-1022UP as shown in Figure 3-1.

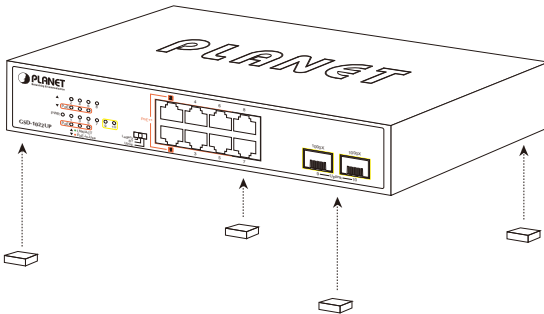


Figure 3-1: Attach the rubber feet to GSD-1022UP

**Step 2:** Place the GSD-1022UP on the desktop near an AC power source.

**Step 3:** Keep enough ventilation space between the GSD-1022UP and the surrounding objects.



Note

When choosing a location, please keep in mind the environmental restrictions discussed in Section 4 under Product Specifications.

**Step 4:** Connect the GSD-1022UP 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 GSD-1022UP.
- B.** Connect the other end of the cable to the network devices such as printer servers, workstations or routers, etc.



Note

Connection to the Switch requires UTP Category 5, 5e, 6 network cabling with RJ45 tips.

**Step 5:** Supply power to the GSD-1022UP.

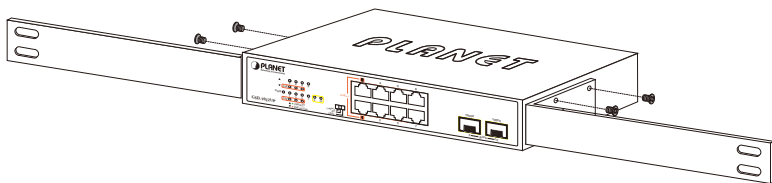
- A.** Connect one end of the power cable to the GSD-1022UP.
- B.** Connect the power plug of the power cable to a standard wall outlet.

When the GSD-1022UP receives power, the Power LED should remain solid Green.

## 3.2 Rack Mounting

To install the GSD-1022UP in a 19-inch standard rack, follow the instructions described below:

- Step 1:** Place the GSD-1022UP on a hard flat surface, with the front panel positioned towards the front side.
- Step 2:** Attach a rack-mount bracket to each side of the Switch with supplied screws attached to the package. Figure 3-2 shows how to attach brackets to one side of the GSD-1022UP.



**Figure 3-2:** Attaching the brackets to the GSD-1022UP



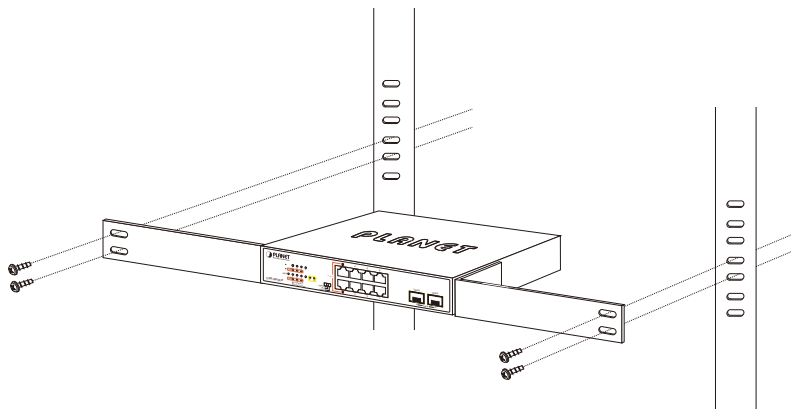


You must use the screws supplied with the mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

**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 GSD-1022UP, use suitable screws to securely attach the brackets to the rack, as shown in Figure 3-3.



**Figure 3-3:** Mounting the GSD-1022UP in a Rack

**Step 6:** Proceed with Steps 4 and 5 of Desktop Installation to connect the network cabling and supply power to the GSD-1022UP.

### 3.3 Wall Mounting

**Step 1:** Please find the wall that can mount the GSD-1022UP.

**Step 2:** Install two screws on the wall.

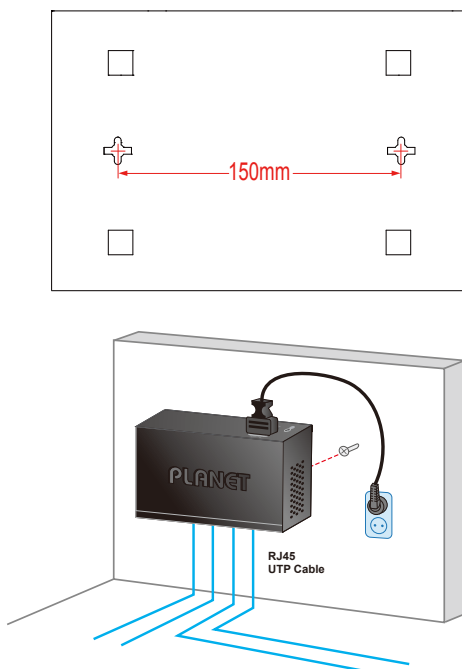
**Step 3:** Hang the GSD-1022UP on the screws from the wall, as shown in Figure 3-4.

**Step 4:** Proceed with Steps 4 and 5 of Desktop Installation to connect the network cabling and supply power to the GSD-1022UP.



Note

Before mounting the device to the wall, please check the location of the electrical outlet and the length of the Ethernet cable.

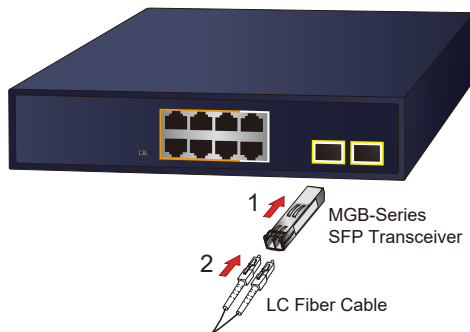


**Figure 3-4:** Hang the GSD-1022UP on the wall

### 3.4 Installing the SFP Transceiver

The sections describe how to insert an SFP transceiver into an SFP slot of the GSD-1022UP.

The SFP transceivers are hot-pluggable and hot-swappable. You can plug in and out the transceiver to/from any SFP port without having to power down the GSD-1022UP as shown in Figure 3-5.



**Figure 3-5:** Plugging In the SFP Transceiver

#### ■ Approved PLANET SFP Transceivers

GSD-1022UP supports both single mode and multi-mode SFP transceivers. The following list of approved PLANET SFP transceivers is correct at the time of publication:

#### Gigabit SFP Transceiver Modules

- |            |   |
|------------|---|
| ■ MGB-GT   | SFP-Port 1000BASE-T Module                    |
| ■ MGB-SX   | SFP-Port 1000BASE-SX mini-GBIC module - 550m  |
| ■ MGB-LX   | SFP-Port 1000BASE-LX mini-GBIC module - 20km  |
| ■ MGB-L30  | SFP-Port 1000BASE-LX mini-GBIC module - 30km  |
| ■ MGB-L50  | SFP-Port 1000BASE-LX mini-GBIC module - 50km  |
| ■ MGB-L70  | SFP-Port 1000BASE-LX mini-GBIC module - 70km  |
| ■ MGB-L120 | SFP-Port 1000BASE-LX mini-GBIC module - 120km |
| ■ MGB-LA10 | SFP-Port 1000BASE-LX (WDM,TX:1310nm) - 20km   |
| ■ MGB-LB10 | SFP-Port 1000BASE-LX (WDM,TX:1550nm) - 20km   |
| ■ MGB-LA20 | SFP-Port 1000BASE-LX (WDM,TX:1310nm) - 20km   |
| ■ MGB-LB20 | SFP-Port 1000BASE-LX (WDM,TX:1550nm) - 20km   |
| ■ MGB-LA40 | SFP-Port 1000BASE-LX (WDM,TX:1310nm) - 40km   |
| ■ MGB-LB40 | SFP-Port 1000BASE-LX (WDM,TX:1550nm) - 40km   |



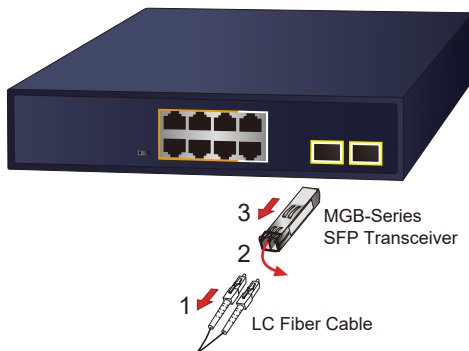
#### Note

It is recommended to use PLANET SFP on the GSD-1022UP. If you insert an SFP transceiver that is not supported, the GSD-1022UP will not recognize it.

1. Before you connect the GSD-1022UP to the other network device, we have to make sure both sides of the SFP transceivers are with the same media type, for example, 1000BASE-SX to 1000BASE-SX; 1000BASE-LX to 1000BASE-LX.
  2. Check whether the fiber-optic cable type matches with the SFP transceiver requirement.
    - To connect to 1000BASE-SX SFP transceiver, please use the multi-mode fiber cable with one side being the male duplex LC connector type.
    - To connect to 1000BASE-LX SFP transceiver, please use the single-mode fiber cable with one side being the male duplex LC connector type.
- Connect the Fiber Cable
1. Insert the duplex LC connector into the SFP transceiver.
  2. Connect the other end of the cable to a device with SFP transceiver installed.
  3. Check the LNK/ACT LED of the SFP slot on the front of the GSD-1022UP. Ensure that the SFP transceiver is operating correctly.

■ Remove the Transceiver Module

1. Make sure there is no network activity by consulting or checking with the network administrator. Or through the management interface of the switch/converter (if available) to disable the port in advance.
2. Remove the Fiber-Optic Cable gently.
3. Lift up the lever of the MGB module and turn it to a horizontal position.
4. Pull out the module gently through the lever as shown in Figure 3-6.



**Figure 3-6:** Pulling Out the SFP Transceiver



**Note**

Never pull out the module without pulling the lever or the push bolts on the module. Directly pulling out the module with effort could damage the module and SFP module slot of the GSD-1022UP.

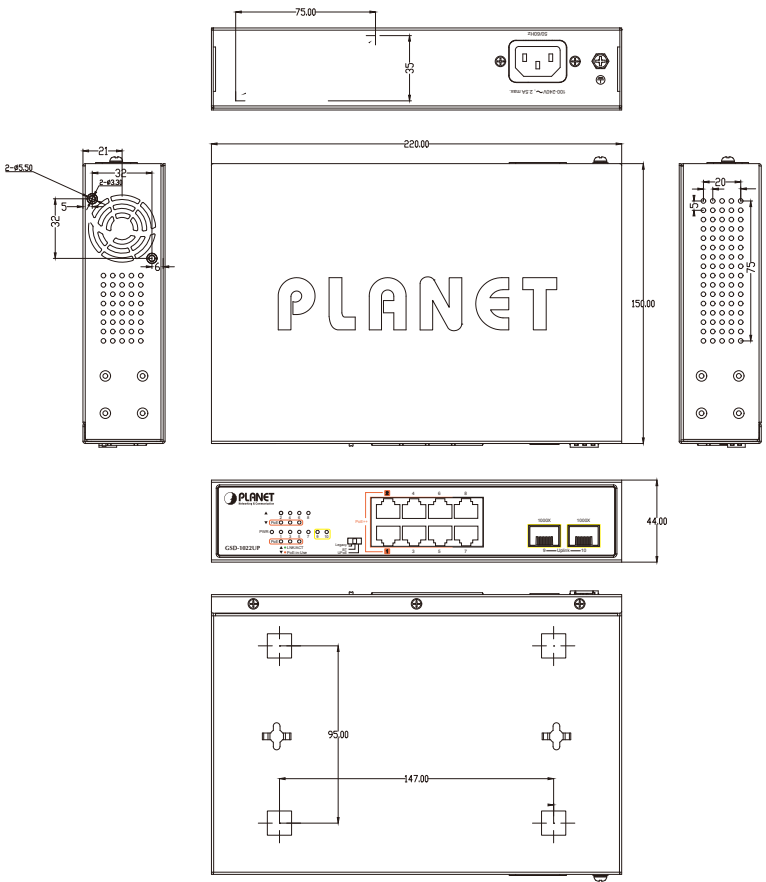
## 4. Product Specifications

Model	GSD-1022UP
Hardware Specifications	
Copper Port	8 10/100/1000BASE-T RJ45 auto MDI/MDIX ports
Fiber Port	2 1000BASE-X SFP slots
PoE Inject Port	2 ports with 802.3bt PoE++ injector function (Ports 1 to 2)
	4 ports with 802.3af/at PoE+ injector function (Ports 3 to 6)
DIP Switch	PoE power feeding options (Legacy/BT/UPOE) selection
Thermal Fan	1
Power Requirements	AC 100~240V, 50/60Hz, 2.5A max
Power Consumption	Max. 200 watts, 682.4 BTU
Dimensions (W x D x H)	220 x 150 x 44 mm
Weight	1322g
Surge Protection	Differential mode $\pm 2KV$ Common mode $\pm 4KV$
ESD Protection	Contact: $\pm 6KV$ ; Air: $\pm 8KV$
Installation	Desktop, Wall-mount or Rack-mount installation
LED Indicators	System: Power (Green) 10/100/1000BASE-T RJ45 interfaces: 10/100/1000Mbps LNK/ACT (Green) 1000BASE-X SFP interfaces: 10/100/1000Mbps LNK/ACT (Green) PoE interfaces: PoE-in-Use (Amber)
Switching	
Switch Architecture	Store-and-Forward
MAC Address Table	4K MAC address table with auto learning function

Switch Fabric	20Gbps
Switch Throughput	13.39Mpps
Jumbo Packet	9K bytes
Flow Control	Back pressure for half duplex. IEEE 802.3x pause frame for full duplex
Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE IEEE 802.3bt Power over Ethernet Plus Plus/PSE
PoE Power Supply Type	Ports 1 to 2: End-span + Mid-span; Ports 3 to 6: End-span
Power Pin Assignment	Ports 1 to 2: 4 pairs 1/2 (-), 3/6 (+) and 4/5 (+), 7/8 (-); Ports 3 to 6: 2 pairs 1/2 (-), 3/6 (+)
PoE Power Output	Ports 1 to 2: 95W max.; Ports 3 to 6: 32W max.
Total PoE Power Budget	180 watts
Standard Conformance	
EMI Safety	FCC Part 15 Class A, CE
Standard Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T Gigabit 1000BASE-T IEEE 802.3x Flow Control and Back Pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt Power over Ethernet Plus Plus
EEE	IEEE 802.3az
Environment	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

# 5. Physical Dimensions

The GSD-1022UP dimensions (W x D x H): 220 x 150 x 44mm



Unit: mm



---

## ***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 support team.

PLANET online FAQs:

<https://www.planet.com.tw/en/support/faq>

Support team mail address:

[support@planet.com.tw](mailto:support@planet.com.tw)

Copyright © PLANET Technology Corp. 2023

Contents are subject to revision without prior notice.

PLANET is a registered trademark of PLANET Technology Corp.

All other trademarks belong to their respective owners.