



8-Port 10/100/1000/2500T + 1-Port 10G SFP+

Multigigabit Ethernet Switch

8-Port 10/100/1000/2500T 802.3at PoE+ + 1-Port 10G SFP+

Multigigabit Ethernet Switch (120 Watts)

MGS-910X/MGS-910XP

User's Manual


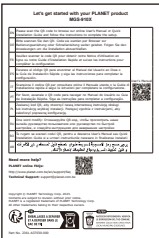




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1. Package Contents

Thank you for purchasing PLANET **8-Port 10/100/1000/2500T** Multigigabit Ethernet Switch, MGS-910X or MGS-910XP. “**Multigigabit Ethernet Switch**” mentioned in this User’s Manual refers to the MGS-910X or MGS-910XP.

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

Multigigabit Ethernet Switch x 1	Quick Start QR Code Sheet x 1	Rack-mounting Brackets x 2	
			
Power Cord x 1	SFP+ Dust Cap x 1	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 Multigigabit Ethernet Switch consists of 8 auto-sensing 10/100/1000/2500Mbps Ethernet RJ45 ports and 1 10GBASE-X SFP+ slot. The LED Indicators are also located on the front panel of the Multigigabit Ethernet Switch.

➤ MGS-910X



➤ MGS-910XP

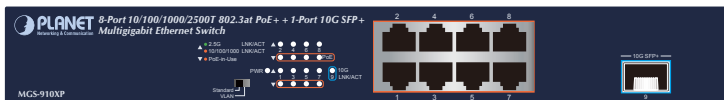


Figure 1: Front Panel

2.2 LED Indicators

■ System

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

■ Per 10/100/1000/2500BASE-T Port

LED	Color	Function
10/100/1000 LNK/ACT	Amber	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.
2500 LNK/ACT	Green	Lights to indicate the link through that port is established successfully at 2500Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.

■ 10GBASE-X SFP+ Port



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

■ 802.3at PoE+ TP Interface (MGS-910XP)

LED	Color	Function
802.3at PoE+ PoE-in-Use	Amber	Lights to indicate that the port is providing PoE in-line power to remote powered device. Off to indicate that the port is not providing PoE in-line power to remote powered device.

2.3 Multiple Functions of DIP Switch

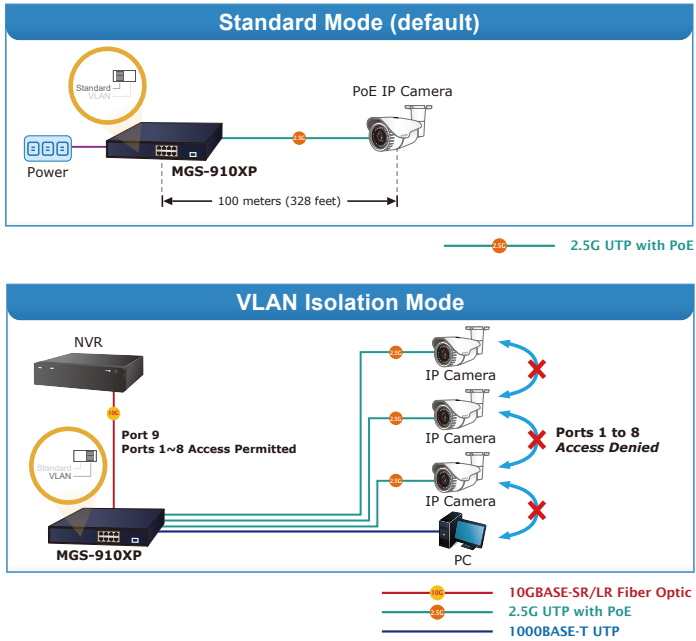
The front panel of the Multigigabit Ethernet Switch provides one DIP switch for Standard or VLAN mode selection. The detailed descriptions are shown in the following table.

DIP Switch Mode	Function
 <p>Standard VLAN</p>	This mode operate as a general switch and all ports operate at 10/100/1000/2500Mbps auto-negotiation. All ports can communicate with one another.
 <p>Standard VLAN</p>	This mode operate as a VLAN isolation switch and Ports 1 to 8 will isolate respectively. Ports 1 to 8 can only communicate with port 9.



Note

Please adjust the DIP switch before powering on the Multigigabit Ethernet Switch.



2.4 Switch Rear Panel

Figure 2 shows the rear panel of the MGS-910X/910XP

➤ MGS-910X



➤ MGS-910XP



Figure 2: 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 your Multigigabit Ethernet Switch from being damaged by unregulated surge or current to the Multigigabit Ethernet Switch or the power adapter.

3. Hardware Installation

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



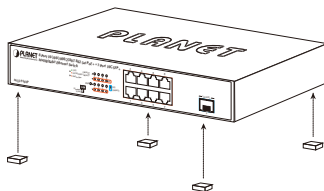
Note

This Multigigabit Ethernet Switch does not need software configuration.

3.1 Rack Mounting

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

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



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

Step 3: Keep enough ventilation space between the Multigigabit 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 Multigigabit Ethernet Switch to network devices.

- A.** Connect one end of a standard network cable to the 10/100/1000/2500BASE-T RJ45 ports on the front of the Multigigabit 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 Multigigabit Ethernet Switch.

- A.** Connect one end of the power cable to the Multigigabit Ethernet Switch.
- B.** Connect the power plug of the power cable to a standard wall outlet.

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

3.2 Rack Mounting

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

- Step 1:** Place your Multigigabit 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 3 shows how to attach brackets to one side of the Multigigabit Ethernet Switch.

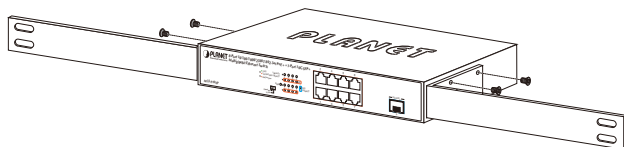


Figure 3: Attaching the brackets to the Multigigabit Ethernet Switch

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 Multigigabit Ethernet Switch, use suitable screws to securely attach the brackets to the rack, as shown in Figure 4.

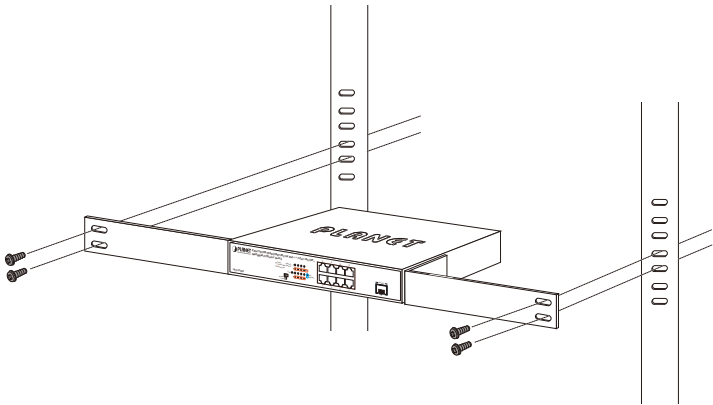


Figure 4: Mounting the Multigigabit Ethernet Switch in a Rack

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

3.3 Installing the SFP+ Transceiver

The sections describe how to insert an SFP+ transceiver into an SFP+ slot.

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 Multigigabit Ethernet Switch, as Figure 5 shows.

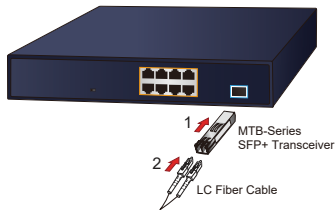


Figure 5: Plugging In the SFP+ Transceiver



Note

It is recommended to use PLANET SFP+ on the Multigigabit Ethernet Switch. If you insert an SFP+ transceiver that is not supported, the Multigigabit Ethernet Switch will not recognize it.

■ 10GBASE-X SR/LR:

Before connecting the other switches, workstation or media converter, please do the following:

1. Make sure both sides of the SFP+ transceiver are with the same media type; for example, 10GBASE-SR to 10GBASE-SR, 10GBASE-LR to 10GBASE-LR.
2. Check whether the fiber-optic cable type matches the SFP+ transceiver model.
 - To connect to 10GBASE-SR SFP+ transceiver, use the multi-mode fiber cable with one side being the male duplex LC connector type.
 - To connect to 10GBASE-LR SFP+ transceiver, use the single-mode fiber cable with one side being the male duplex LC connector type.

■ Connecting the fiber cable

1. Attach the duplex LC connector on the network cable to the SFP+ transceiver.
2. Connect the other end of the cable to a device like a switch with SFP+ installed, workstation with fiber NIC or media converter.

■ Removing 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. Turn the lever of the MTB module to a horizontal position.
4. Pull out the module gently through the lever.

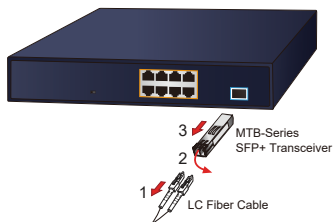


Figure 6: Pulling Out from the Transceiver



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 Multi-gigabit Ethernet Switch.

■ 2.5G/1G/100/10BASE-T

The 2.5G/1G/100/10BASE-T port comes with auto-negotiation capability. It automatically supports 10BASE-T, 100BASE-TX, 1GBASE-T and 2.5GBASE-T networks. Users only need to plug a working network device into the 2.5G/1G/100/10BASE-T port, and then turn on the Multigigabit Ethernet Switch. The port will automatically run at 10Mbps, 100Mbps, 1000Mbps and 2500Mbps after the negotiation with the connected device.

■ Connecting the UTP Cable

The 2.5G/1G/100/10BASE-T port uses RJ45 socket -- similar to phone jack -- for connection of unshielded twisted-pair cable (UTP).

The 802.3/802.3u/802.3ab/802.3bz/802.3ae Ethernet standard requires Category 5 UTP for 10/100Mbps while 10BASE-T/100BASE-TX. 2.5G/1G/100/10BASE-T uses Cat5e/6/6A/7 UTP (see table below). Maximum distance is 100 meters (328 feet).

Standard	Transfer Speed	Cable Requirements (100m)
2.5GBASE-T	2500Mbit/s	Cat. 5e/Cat. 6/Cat. 6A/Cat. 7
1GBASE-T	1000Mbit/s	Cat. 5e/Cat. 6/Cat. 6A/Cat. 7
100BASE-TX	100Mbit/s	Cat. 5/Cat. 5e/Cat. 6/Cat. 6A/Cat. 7
10BASE-T	10Mbit/s	Cat. 3/Cat. 4/Cat. 5/Cat. 5e/Cat. 6/Cat. 6A/Cat. 7

4. Product Specifications

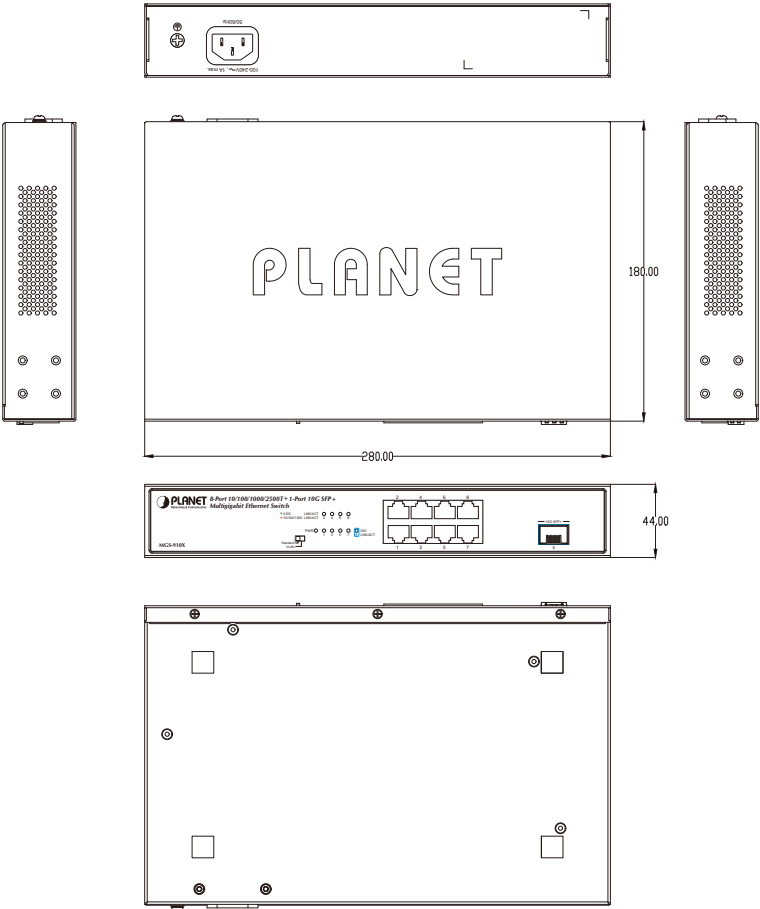
Product	MGS-910X	MGS-910XP
Hardware Specifications		
10/100/1000/2500BASE-T Copper Interfaces	8	8
10GBASE-X SFP+ interface	1	1
DIP Switch	Selectable operation mode <ul style="list-style-type: none"> ■ Standard ■ VLAN 	Selectable operation mode <ul style="list-style-type: none"> ■ Standard ■ VLAN
LED	System <ul style="list-style-type: none"> ■ Power (Green) 10/100/1000/2500T RJ45 Interfaces <ul style="list-style-type: none"> ■ 10/100/1000 LNK/ACT (Amber) ■ 2500 LNK/ACT (Green) 10G SFP+ Interface <ul style="list-style-type: none"> ■ LNK/ACT (Green) 	System <ul style="list-style-type: none"> ■ Power (Green) 10/100/1000/2500T RJ45 Interfaces <ul style="list-style-type: none"> ■ 10/100/1000 LNK/ACT (Amber) ■ 2500 LNK/ACT (Green) ■ PoE-in-Use (Amber) 10G SFP+ Interface <ul style="list-style-type: none"> ■ LNK/ACT (Green)
Weight	1505g	1739g
Power Requirements	100~240V AC, 1A, 50-60Hz	100~240V AC, 3A, 50-60Hz
Power Consumption/Dissipation	6.6 watts/22.5 BTU	140 watts/447.6BTU
Thermal Fan		1
Dimensions (W x D x H)	280 x 180 x 44mm	280 x 180 x 44mm
ESD Protection	Contact discharge of ±6KV DC, Air discharge of ±8KV DC	Contact discharge of ±6KV DC, Air discharge of ±8KV DC
Surge Protection	±6KV	±6KV

Switching		
Switch Architecture	Store-and-Forward	Store-and-Forward
Switch Fabric	60Gbps	60Gbps
Switch Throughput@64bytes	44.64Mpps	44.64Mpps
MAC Address Table	4K entries	4K entries
Jumbo Frame	12K	12K
Flow Control	IEEE 802.3x pause frame for full duplex; back pressure for half duplex	IEEE 802.3x pause frame for full duplex; back pressure for half duplex
Power over Ethernet		
PoE Standard	/	IEEE 802.3at Power over Ethernet Plus/PSE
PoE Injector Ports		8
PoE Power Supply Type		End-span: 1/2 (+), 3/6 (-)
PoE Power Output		Per port 54 DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per port 54V DC, 600mA. max. 32 watts (IEEE 802.3at)
PoE Power Budget		120 watts
Number of PDs, 7 watts		8
Number of PDs, 15.4 watts		7
Number of PDs, 30 watts		4

Standards Conformance		
Regulatory Compliance	FCC Part 15 Class A, CE	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3bz (2.5Gigabit Ethernet) IEEE 802.3ae 10Gbps Ethernet IEEE 802.3x (Full-Duplex Flow Control) IEEE 802.3az Energy Efficient Ethernet (EEE)	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3bz (2.5Gigabit Ethernet) IEEE 802.3ae 10Gbps Ethernet IEEE 802.3x (Full-Duplex Flow Control) IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet (EEE)
Environment		
Temperature	Operating: 0~50 degrees C Storage: -10~70 degrees C	Operating: 0~50 degrees C Storage: -10~70 degrees C
Humidity (non-condensing)	Operating: 5% to 95% Storage: 5% to 95%	Operating: 5% to 95% Storage: 5% to 95%

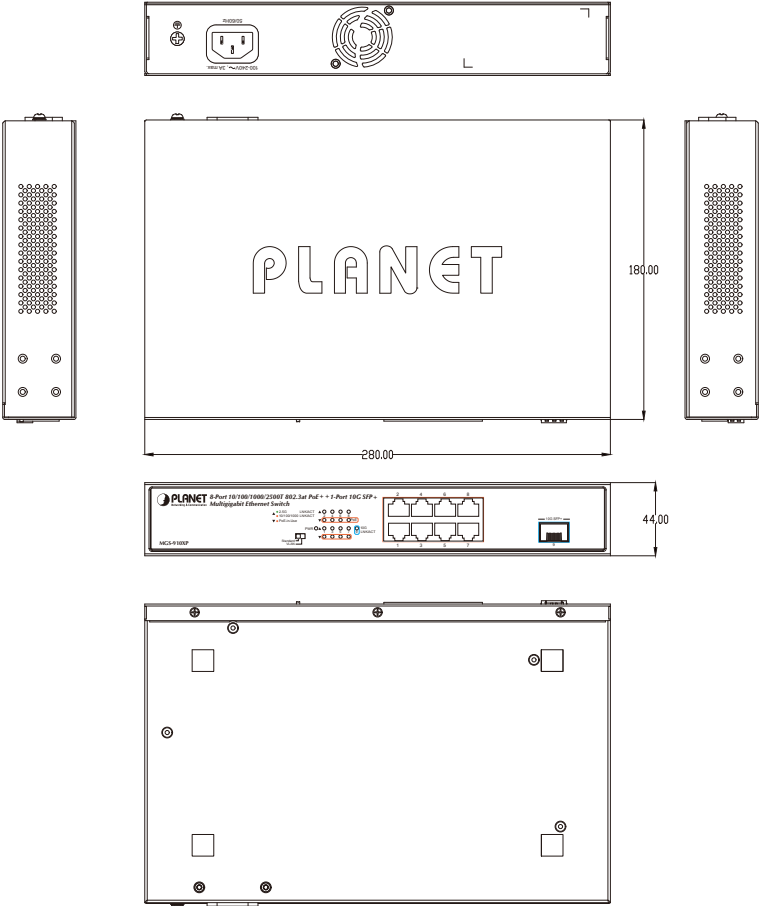
5. Physical Dimensions

The MGS-910X dimensions (W x D x H): 280 x 180 x 44mm



Unit: mm

The MGS-910XP dimensions (W x D x H): 280 x 180 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

The logo for DIREKTRONIK is displayed in a bold, italicized, sans-serif font. The letters are white with a thick red outline. The logo is set against a yellow curved background that occupies the bottom right portion of the page.

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