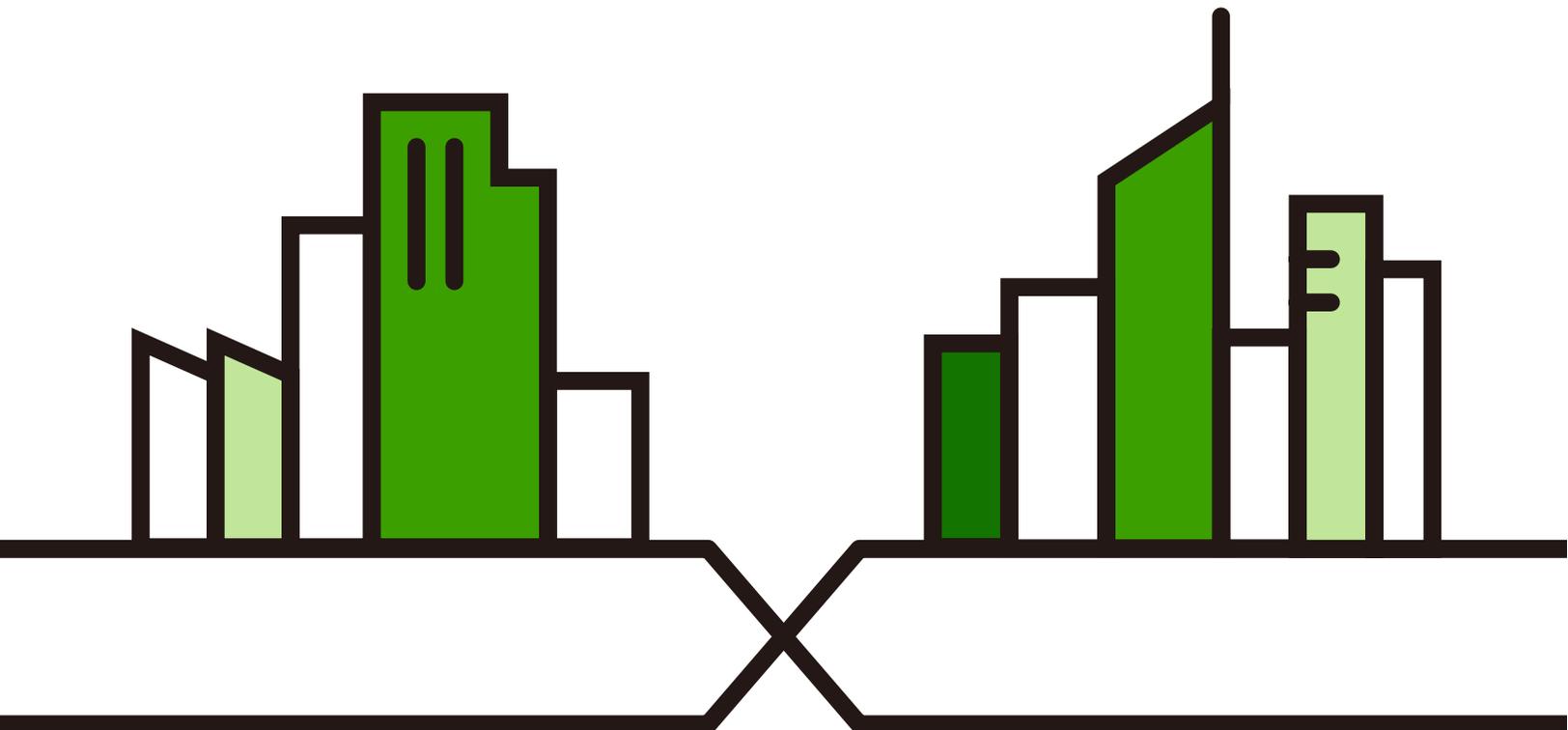# ZYXEL
NETWORKS

User's Guide

GS1300 Series

10/18/26-port GbE PoE Unmanaged Switch

Version 1.00 Edition 2, 05/2023

IMPORTANT!

READ CAREFULLY BEFORE USE.

KEEP THIS GUIDE FOR FUTURE REFERENCE.

This is a User's Guide for a series of products. Not all products support all features. Every effort has been made to ensure that the information in this manual is accurate.

Related Documentation

- Quick Start Guide

  The Quick Start Guide shows how to connect the Switch.

- More Information
  Go to *https://community.zyxel.com/en* for product discussions.
  Go to *support.zyxel.com* to find other information on the Switch.

Document Conventions

Warnings and Notes

These are how warnings and notes are shown in this guide.

Warnings tell you about things that could harm you or your device.

Note: Notes tell you other important information (for example, other things you may need to configure or helpful tips) or recommendations.

Syntax Conventions

- All models may be referred to as the "Switch" in this guide.

Icons Used in Figures

Figures in this user guide may use the following generic icons. The Switch icon is not an exact representation of your device.

Switch	Generic Router	Wireless Router / Access Point
Generic Switch	Smart TV	Desktop
Laptop	IP Camera	Printer
Server		

Table of Contents

CHAPTER 1
Getting to Know Your Switch

1.1 Introduction

This chapter introduces the main features and applications of the Switch.

The GS1300 Series consists of the following models:

- GS1300-10HP
- GS1300-18HP
- GS1300-26HP

All models are referred to as the "Switch" in this guide.

The following table describes the hardware features of the Switch by model.

Table 1   GS1300 Series Comparison Table

FEATURES	GS1300-10HP	GS1300-18HP	GS1300-26HP
Number of 10/100/1000 Mbps Ethernet ports	9	17	24
Number of 10/100/1000 Mbps PoE ports	8	16	24
100/1000 Mbps SFP interfaces	1	1	2
Total system ports	10	18	26
System Fan	1	2	2
Rubber feet for desktop placement	Yes	Yes	Yes
Wall-mount	Yes	No	No
Rack-mount	Yes	Yes	Yes

See the datasheet for a full list of features available on the Switch.

The Switch comes with a Power-over-Ethernet (PoE) feature. The Switch supports the IEEE 802.3at High Power over Ethernet standard and IEEE 802.3af Power over Ethernet standard. The PoE ports can supply power to Powered Devices (PDs) such as outdoor devices, ceiling mounted devices, IP cameras, and so on that are not within reach of a power outlet.

The fiber port(s) is for long range uplink connections to other Layer-2 switches.

See the following table for the cables required and distance limitation to attain the corresponding speed.

Table 2   Cable Types

CABLE	TRANSMISSION SPEED	MAXIMUM DISTANCE	BANDWIDTH CAPACITY
Category 5	100M	100 m	100 MHz
Category 5e or better	1G	100 m	100 MHz

1.1.1 PoE

The Switch is a Power Sourcing Equipment (PSE) because it provides a source of power through its Ethernet ports. Each device that receives power through an Ethernet port is a Powered Device (PD).

The Switch is configured in consumption mode, that is, it supplies the actual power the PD needs (in non-extended mode), see Table 3 on page 7 for more information.

The Switch can adjust the power supplied to each PD according to the PoE standard the PD supports. PoE standards are:

*   IEEE 802.3af Power over Ethernet (PoE)
*   IEEE 802.3at Power over Ethernet (PoE) +

The Switch supplies power with the lowest numbered port having the highest priority by default. For example, port 1 has the highest priority, port 2 the next, and so on.

The following table describes the PoE features of the Switch by PoE standard.

Table 3   Switch Models and PoE Features

PoE FEATURES	GS1300-10HP	GS1300-18HP	GS1300-26HP
IEEE 802.3at PoE+	Ports 1 – 8	Ports 1 – 16	Ports 1 – 24
Extended Range	Ports 1 – 2	Ports 1 – 4	Ports 1 – 4
Power Management Mode	Consumption	Consumption	Consumption
PoE Power Budget	130 W	170 W	250 W

Table 4   PoE Standards

PoE FEATURES	PoE	PoE+
IEEE Standard	IEEE 802.3af	IEEE 802.3at
PoE Type	Type 1	Type 2
Switch Port Power		
Maximum Power Per Port	15.4 W	30 W
Port Voltage Range	44 – 57 V	50 – 57 V
Cables		
Twisted Pairs Used	2-pair	2-pair
Supported Cables	Cat3 or better	Cat5 or better

1.1.2 Extended Range

Extended range allows you to connect a PD that is up to 250 m away to a port.

*   You must use at least a Cat5e cable
*   Maximum data speed is 10 Mbps
*   Maximum PoE power that can be supplied to a PD at 250 m is 15 W.

Use the DIP switches to configure extended range. Move the DIP switch up to turn extended range on ports according to the following table.

Table 5   Extended Range DIP Switch Settings

	GS1300-10HP		GS1300-18HP / GS1800-26HP		
PORT	DIP SWITCH 1	DIP SWITCH 2	DIP SWITCH 1	DIP SWITCH 2	DIP SWITCH 3
1	ON	OFF	ON	OFF	OFF
1 – 2	ON / OFF	ON	OFF	ON	OFF
1 – 3	Not available	Not available	ON	ON	OFF
1 – 4	Not available	Not available	ON / OFF	ON / OFF	ON

Note: After you enable extended range using the DIP switches, press the **RESET & APPLY** button to restart the Switch for extended range on selected port(s) to take effect.

All LEDs blink while the Switch restarts. Wait until the **PWR** LED is steady green.The ports in extended range will have amber **Link/ACT** LEDs (as well as ports connected to a 10 Mbps or a 100 Mbps Ethernet network) and green **PoE Mode** LEDs.

Note: To disable extended range on all ports, set all DIP switches to the OFF position.

1.2 Example Applications

This section shows a few examples of using the Switch in various network environments. Note that the Switch in the figure is just an example Switch and not your actual Switch.

1.2.1 PoE Example Application

The following example figure shows a Switch supplying PoE (Power over Ethernet) to Powered Devices (PDs) such as an IP camera, a wireless router, an IP telephone and a general outdoor router that are not within reach of a power outlet.

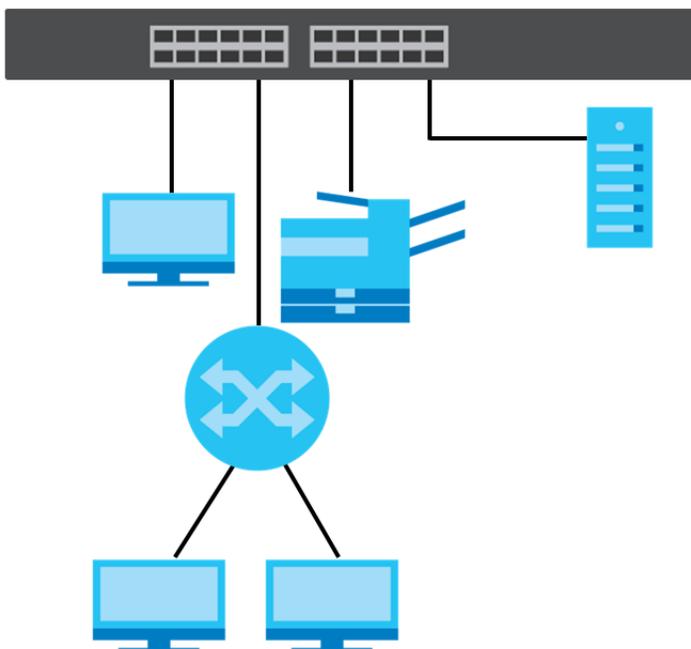**Figure 1** PoE Example Application
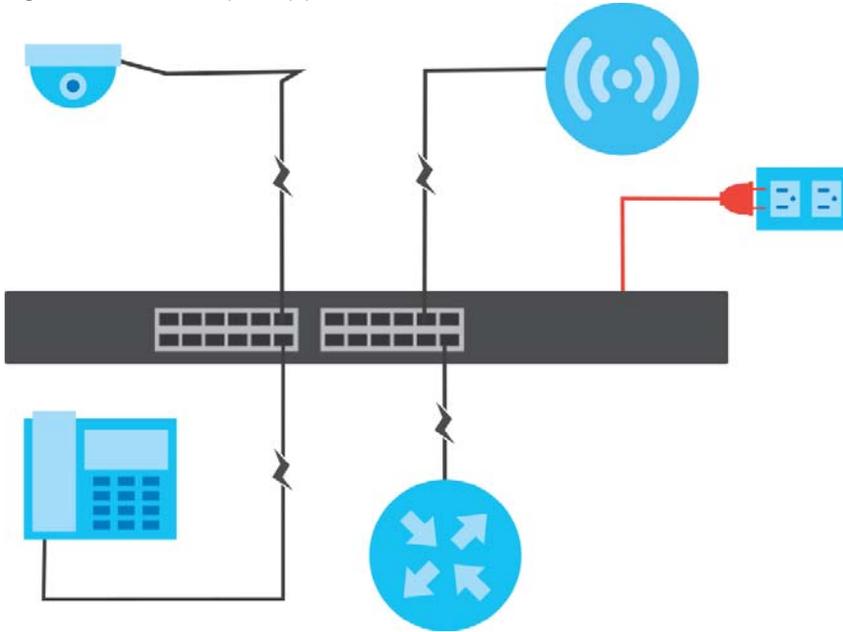
1.2.2 Backbone Example Application

The Switch is an ideal solution for small networks where rapid growth can be expected in the near future. The Switch can be used standalone for a group of heavy traffic users. You can connect computers and servers directly to the Switch's port or connect other switches to the Switch.

In this example, all computers can share high-speed applications on the server. To expand the network, simply add more networking devices such as switches, routers, computers, print servers, and so on.

Figure 2 Backbone Application

1.2.3 Bridging or Fiber Optic Uplink Example Application

In this example, the Switch connects different company departments (**RD** and **Sales**) to the corporate backbone. It can alleviate bandwidth contention and eliminate server and network bottlenecks. All users that need high bandwidth can connect to high-speed department servers through the Switch. You can provide a super-fast uplink connection by using a Gigabit Ethernet or SFP port on the Switch.

Moreover, the Switch eases supervision and maintenance by allowing network managers to centralize multiple servers at a single location.

**Figure 3**   Bridging or Fiber Optic Uplink Example Application
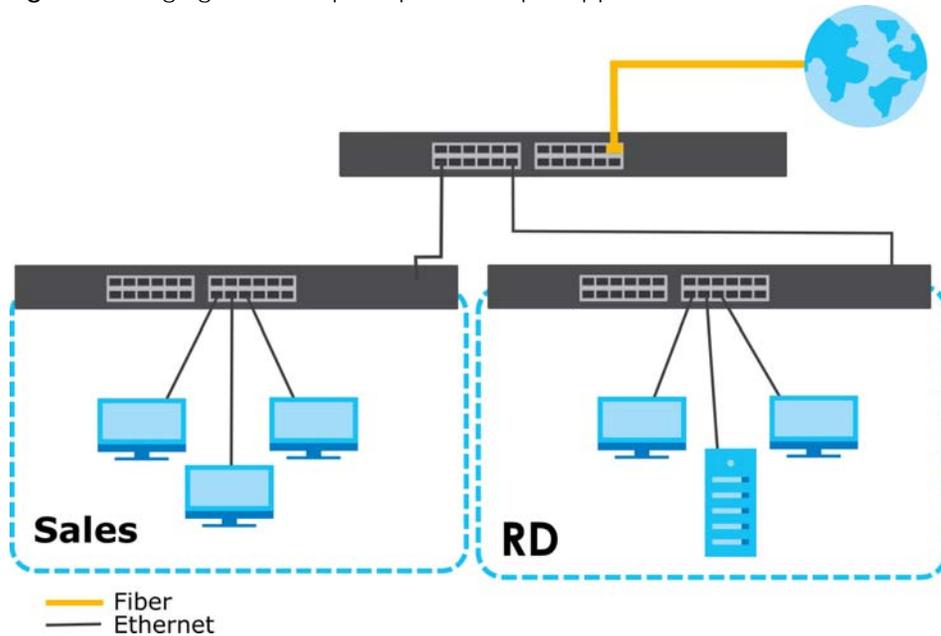
1.2.4 Gigabit Ethernet to the Desktop

The Switch is an ideal solution for small networks which demand high bandwidth for a group of heavy traffic users. You can connect computers and servers directly to the Switch's port or connect other switches to the Switch. Use the 1 Gigabit uplink ports to provide high speed access to a data server and the Internet. The uplink ports support a fiber-optic connection which alleviates the distance limitations of copper cabling.

In this example, all computers can share high-speed applications on the server and access the Internet. To expand the network, simply add more networking devices such as switches, routers, computers, print servers and so on.

Figure 4 Gigabit to the Desktop
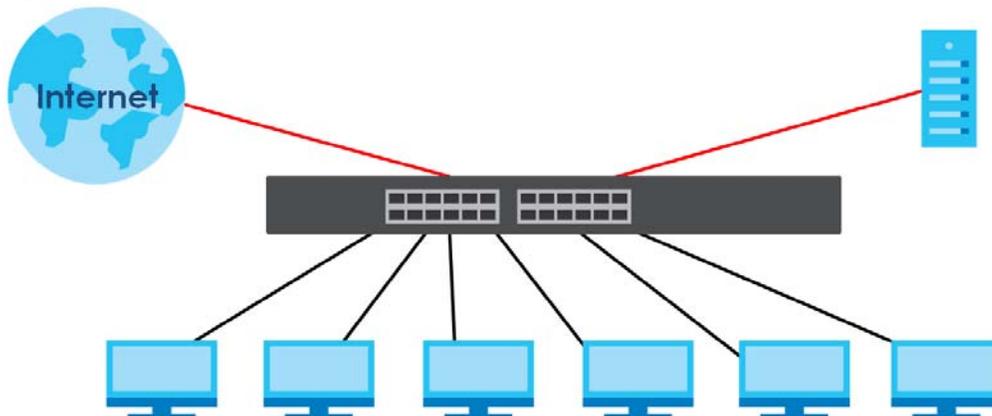
CHAPTER 2
Hardware Installation and Connection

2.1 Installation Scenarios

This chapter shows you how to install and connect the Switch.

The Switch can be:

- Placed on a desktop
- Wall-mounted on a wall
- Rack-mounted on a standard EIA rack.

2.2 Safety Precautions

Please observe the following before using the Switch:

- It is recommended to ask an authorized technician to attach the Switch on a desk or to the rack or wall. Use the proper screws to prevent damage to the Switch. See the **Installation Requirements** sections in this chapter to know the types of screws and screwdrivers for each mounting method.
- Make sure there is at least 2 cm of clearance on the top and bottom of the Switch, and at least 5 cm of clearance on all four sides of the Switch. This allows air circulation for cooling.
- Do NOT block the ventilation holes nor store cables or power cords on the Switch. Allow clearance for the ventilation holes to prevent your Switch from overheating. This is especially crucial when your Switch does not have fans. Overheating could affect the performance of your Switch, or even damage it.
- The surface of the Switch could be hot when it is functioning. Do NOT put your hands on it. You may get burned. This could happen especially when you are using a fanless Switch.
- The Switches with fans are not suitable for use in locations where children are likely to be present.

To start using the Switch, simply connect the power cables to turn it on.

2.3 Freestanding Installation Procedure

1 Make sure the Switch is clean and dry.

2 Remove the adhesive backing from the rubber feet.

3   Attach the rubber feet to each corner on the bottom of the Switch. These rubber feet help protect the Switch from shock or vibration and ensure space between devices when stacking.

Figure 5   Attaching Rubber Feet
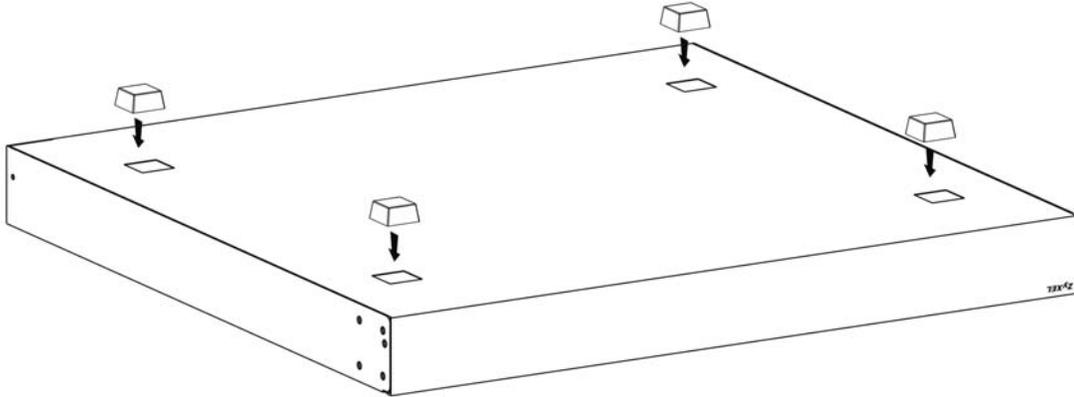
4   Set the Switch on a smooth, level surface strong enough to support the weight of the Switch and the connected cables. Make sure there is a power outlet nearby.

Cautions:

• Avoid stacking fanless Switches to prevent overheating.

• Ensure enough clearance around the Switch to allow air circulation for cooling.

• Do NOT remove the rubber feet as it provides space for air circulation.

2.4 Wall Mounting (GS1300-10HP Only)

The Switch can be mounted on a wall. You may need screw anchors if mounting on a concrete or brick wall.

2.4.1 Installation Requirements

• Distance above the floor: At least 1.8 m (5.9 feet)

• Distance between holes: 78 mm (3.071 inches)

• Two M4 screws and a #2 Philips screwdriver

• Two screw anchors (optional)
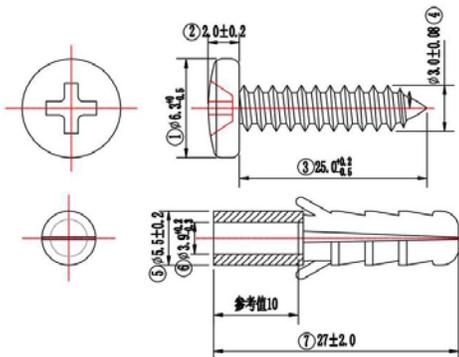
Do the following to attach your Switch to a wall.

1   Select a position free of obstructions on a wall strong enough to hold the weight of the Switch.

2   Mark two holes on the wall at the appropriate distance apart for the screws.

WARNING! Be careful to avoid damaging pipes or cables located inside the wall when drilling holes for the screws.

3   If using screw anchors, drill two holes for the screw anchors into the wall. Push the anchors into the full depth of the holes, then insert the screws into the anchors. Do NOT insert the screws all the way in – leave a small gap of about 0.5 cm.

If not using screw anchors, use a screwdriver to insert the screws into the wall. Do NOT insert the screws all the way in – leave a gap of about 0.5 cm.

4   Make sure the screws are fastened well enough to hold the weight of the Switch with the connection cables.

5   Align the holes on the back of the Switch with the screws on the wall. Hang the Switch on the screws.

Note: Make sure there is enough clearance between the wall and the Switch to allow ventilation.
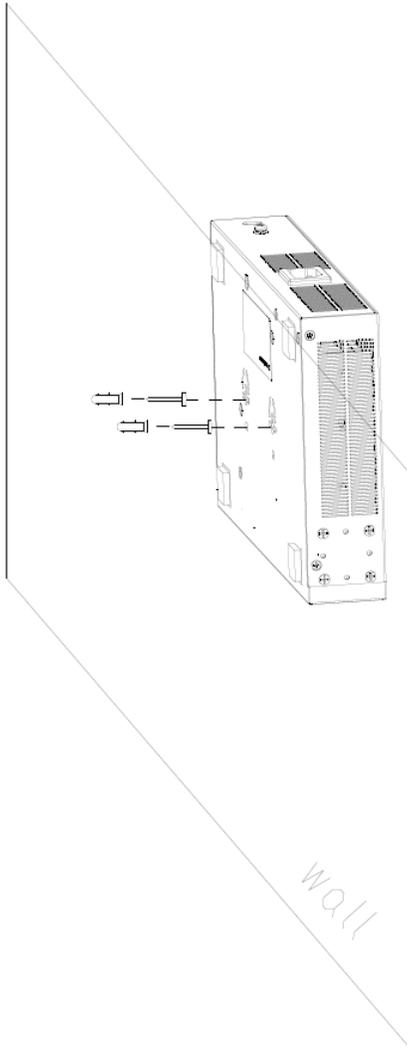
WARNING! The Switch should be wall-mounted horizontally, and make sure the front panel is facing down. The Switch's side panels with ventilation slots should not be facing up or down as this position is less safe.

2.5 Mounting the Switch on a Rack

The Switch can be mounted on an EIA standard size, 19-inch rack or in a wiring closet with other equipment. Follow the steps below to mount your Switch on a standard EIA rack using a rack-mounting kit.

Note: Make sure there is enough clearance between each equipment on the rack for air circulation.

2.5.1 Installation Requirements

- Two mounting brackets.

- Eight M3 flat head screws and a #2 Philips screwdriver.
- Four M5 flat head screws and a #2 Philips screwdriver.

2.5.2 Precautions

- Make sure the rack will safely support the combined weight of all the equipment it contains. The maximum weight a bracket can hold is 21.5 kg.
- Make sure the position of the Switch does not make the rack unstable or top-heavy. Take all necessary precautions to anchor the rack securely before installing the unit.

2.5.3 Attaching the Mounting Brackets to the Switch

1   Position a mounting bracket on one side of the Switch, lining up the four screw holes on the bracket with the screw holes on the side of the Switch.

Figure 6   Attaching the Mounting Brackets (GS1300-10HP / GS1300-18HP)
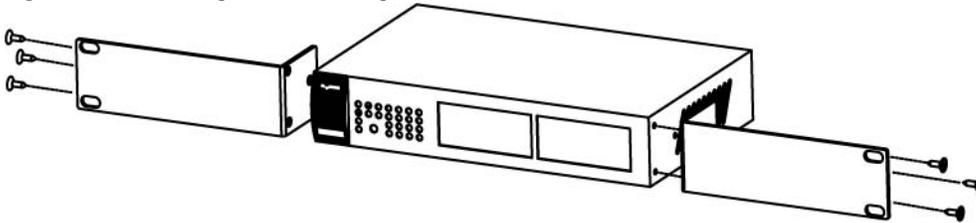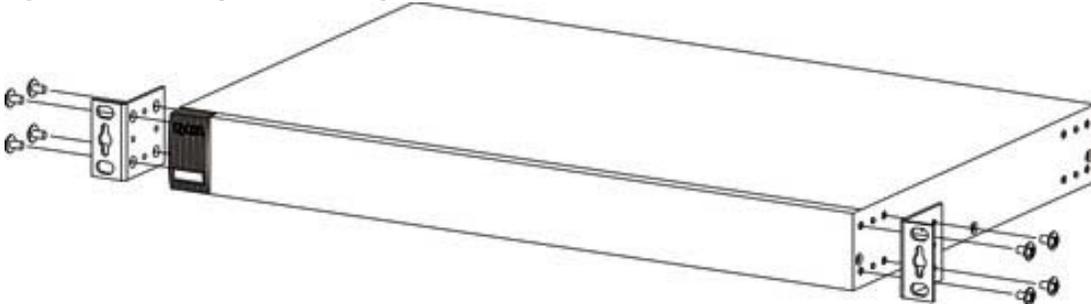

Figure 7   Attaching the Mounting Brackets (GS1300-26HP)

2   Using a #2 Philips screwdriver, install the M3 flat head screws through the mounting bracket holes into the Switch.

3   Repeat steps 1 and 2 to install the second mounting bracket on the other side of the Switch.

4   You may now mount the Switch on a rack. Proceed to the next section.

2.5.4 Mounting the Switch on a Rack

1   Position a mounting bracket (that is already attached to the Switch) on one side of the rack, lining up the two screw holes on the bracket with the screw holes on the side of the rack.

Figure 8   Mounting the Switch on a Rack (GS1300-10HP / GS1300-18HP)
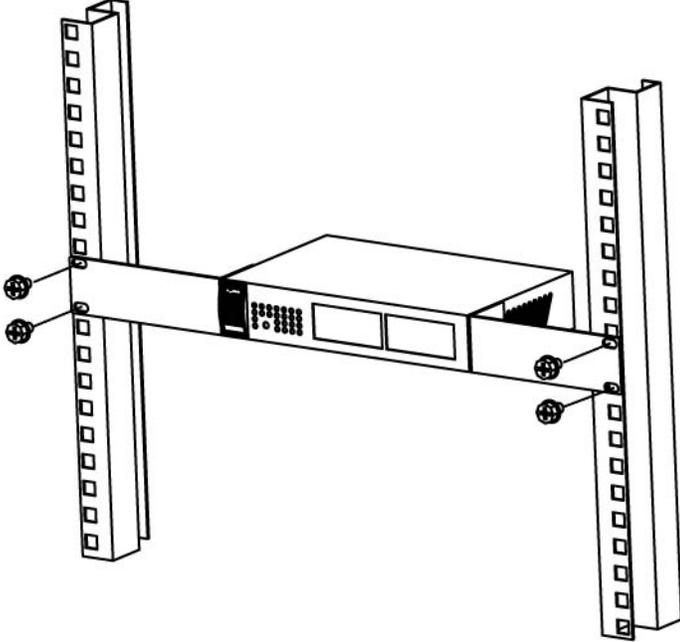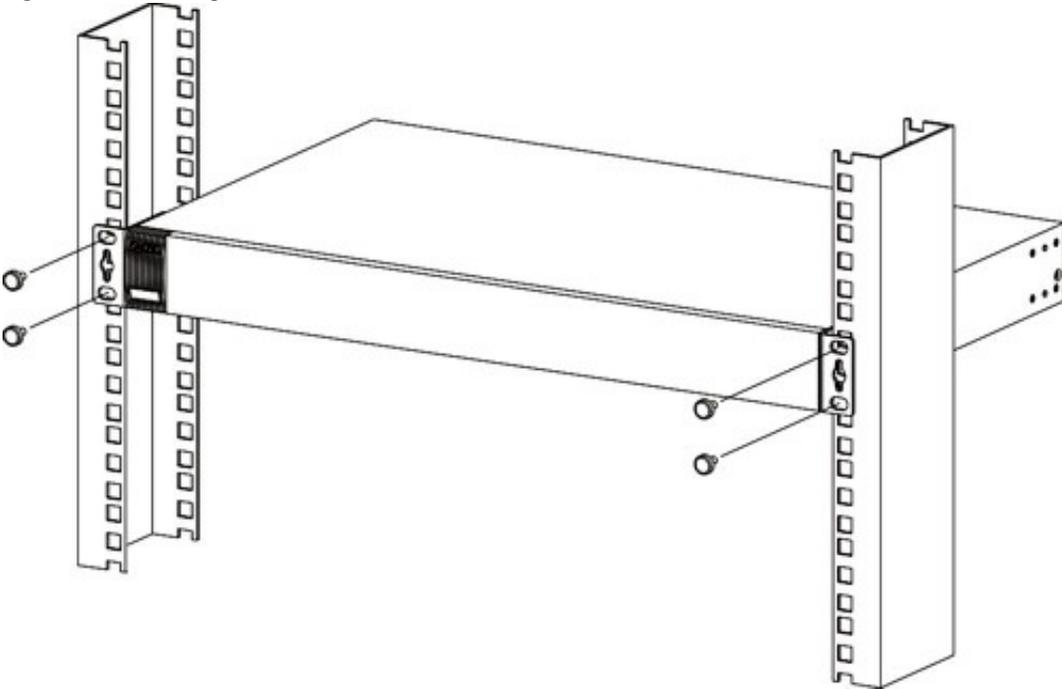

Figure 9   Mounting the Switch on a Rack (GS1300-26HP)

2   Using a #2 Philips screwdriver, install the M5 flat head screws through the mounting bracket holes into the rack.

Note: Make sure you tighten all the four screws to prevent the Switch from getting slanted.

3   Repeat steps 1 and 2 to attach the second mounting bracket on the other side of the rack.

CHAPTER 3
Hardware Panels

This chapter describes the front panel and rear panel of the Switch and shows you how to make the hardware connections.

3.1 Front Panel Connections

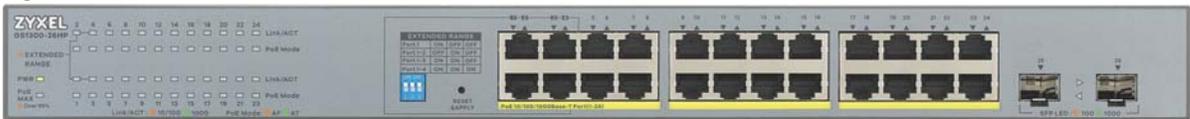The following figures show the front panels of the Switch.

Figure 10 Front Panel: GS1300-10HP

Figure 11 Front Panel: GS1300-18HP

Figure 12 Front Panel: GS1300-26HP

The following table describes the ports.

Table 6   Front Panel Connections

CONNECTOR	DESCRIPTION
10M, 100M, 1G RJ-45 Ethernet Ports Port 1 – 9 (GS1300-10HP) Port 1 – 17 (GS1300-18HP) Port 1 – 24 (GS1300-26HP)	These are 10M/100M/1000MBase-T auto-negotiating and auto-crossover Ethernet ports. Connect these ports to a notebook computer, a workstation, a router, an AP (Access Point), or an Ethernet switch.
10M, 100M, 1G RJ-45 PoE Ports Port 1 – 8 (GS1300-10HP) Port 1 – 16 (GS1300-18HP) Port 1 – 24 (GS1300-26HP)	These are 10M/100M/1000MBase-T auto-negotiating and auto-crossover IEEE802.3at PoE+ 30 W ports. Connect these ports to a PTZ (pan, tilt and zoom) camera, a router, an AP, or an Ethernet switch.
100M, 1G SFP Slots Port 10 (GS1300-10HP) Port 18 (GS1300-18HP) Port 25 – 26 (GS1300-26HP)	Use SFP transceivers in these ports for high-bandwidth backbone connections.
Reset and Apply	After enabling extended range using the DIP switches, press the **RESET & APPLY** button to reboot the Switch without turning the power off. Extended range on the selected PoE ports will take effect. See Section 3.3 on page 25 for more information about the LED behavior.
DIP Switches	Use the DIP switches to configure extended range. Extended range allows you to connect a PD (powered device) that is up to 250 m away to a port. See Section 1.1.2 on page 7 for more information on extended range.

3.1.1 Gigabit Ethernet Ports

The Switch has 1000Base-T auto-negotiating, auto-crossover Ethernet ports. In 10/100/1000 Mbps Gigabit Ethernet, the speed can be 10 Mbps, 100 Mbps or 1000 Mbps. The duplex mode can be half duplex or full duplex.

An auto-negotiating port can detect and adjust to the optimum Ethernet speed (10/100/1000 Mbps) and duplex mode (full duplex or half duplex) of the connected device.

An auto-crossover (auto-MDI/MDI-X) port automatically works with a straight-through or crossover Ethernet cable.

When auto-negotiation is turned on, an Ethernet port negotiates with the peer automatically to determine the connection speed and duplex mode. If the peer Ethernet port does not support auto-negotiation or turns off this feature, the Switch determines the connection speed by detecting the signal on the cable and using half duplex mode. When the Switch's auto-negotiation is turned off, an Ethernet

port uses the pre-configured speed and duplex mode when making a connection, thereby requiring you to make sure that the settings of the peer Ethernet port are the same in order to connect.

3.1.1.1 Default Ethernet Negotiation Settings

The factory default negotiation settings for the Gigabit ports on the Switch are:

- Speed: Auto
- Duplex: Auto
- Flow control: Off
- Link Aggregation: Disabled

3.1.1.2 Auto-crossover

All ports support auto-crossover, that is auto-MDIX ports (Media Dependent Interface Crossover), so you may use either a straight-through Ethernet cable or crossover Ethernet cable for all Gigabit port connections. Auto-crossover ports automatically sense whether they need to function as crossover or straight ports, so crossover cables can connect both computers and switches or hubs.

3.1.2 SFP/SFP+ Slots

These are slots for SFP (Small Form-Factor Pluggable) transceivers. A transceiver is a single unit that houses a transmitter and a receiver. The Switch does not come with transceivers. You must use transceivers that comply with the Small Form-factor Pluggable (SFP) Transceiver MultiSource Agreement (MSA). See the SFF committee's INF-8074i specification Rev 1.0 for details.

You can change transceivers while the Switch is operating. You can use different transceivers to connect to Ethernet switches with different types of fiber optic or even copper cable connectors.

- Type: SFP connection interface
- Connection speed: 100/1000 Mbps

> **WARNING! To avoid possible eye injury, do not look into an operating fiber optic module's connectors.**
> **HANDLING! All transceivers are static sensitive. To prevent damage from electrostatic discharge (ESD), it is recommended you attach an ESD preventive wrist strap to your wrist and to a bare metal surface when you install or remove a transceiver.**
> **STORAGE! All modules are dust sensitive. When not in use, always keep the dust plug on. Avoid getting dust and other contaminant into the optical bores, as the optics do not work correctly when obstructed with dust.**

3.1.2.1 Transceiver Installation

Use the following steps to install a transceiver.

1 Attach an ESD preventive wrist strap to your wrist and to a bare metal surface.

2 Align the transceiver in front of the slot opening.

3 Make sure the latch is in the lock position (latch styles vary), then insert the transceiver into the slot with the exposed section of PCB board facing down.

4 Press the transceiver firmly until it clicks into place.

5 The Switch automatically detects the installed transceiver. Check the LEDs to verify that it is functioning properly.

6 Remove the dust plugs from the transceiver and cables (dust plug styles vary).

7 Identify the signal transmission direction of the fiber optic cables and the transceiver. Insert the fiber optic cable into the transceiver.

Figure 13   Latch in the Lock Position
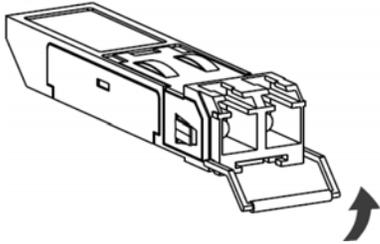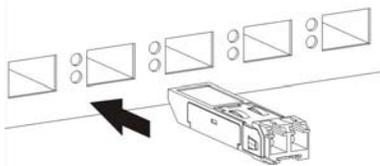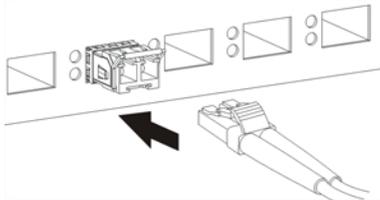
Figure 14   Transceiver Installation Example

Figure 15   Connecting the Fiber Optic Cables

3.1.2.2 Transceiver Removal

Use the following steps to remove an SFP transceiver.

1 Attach an ESD preventive wrist strap to your wrist and to a bare metal surface on the chassis.

2 Remove the fiber optic cables from the transceiver.

3 Pull out the latch and down to unlock the transceiver (latch styles vary).

Note: Make sure the transceiver's latch is pushed all the way down, so the transceiver can be pulled out successfully.

4 Pull the latch, or use your thumb and index finger to grasp the tabs on both sides of the transceiver, and carefully slide it out of the slot.

Note: Do NOT pull the transceiver out by force. You could damage it. If the transceiver will not slide out, grasp the tabs on both sides of the transceiver with a slight up or down motion and carefully slide it out of the slot. If unsuccessful, contact Zyxel Support to prevent damage to your Switch and transceiver.

5 Insert the dust plug into the ports on the transceiver and the cables.

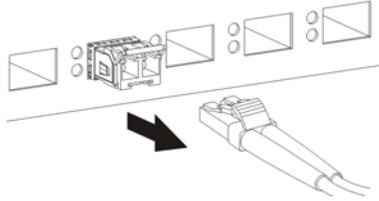**Figure 16** Removing the Fiber Optic Cables

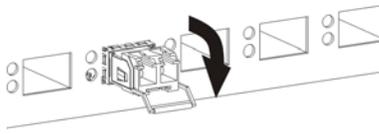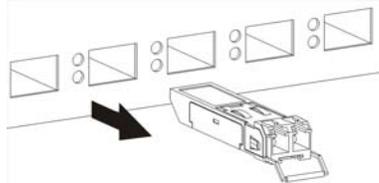**Figure 17** Opening the Transceiver's Latch Example

Figure 18 Transceiver Removal Example

3.2 Rear Panel

The following figures show the rear panel of the Switch. The rear panel contains:

Figure 19 Rear Panel: GS1300-10HP

Figure 20 Rear Panel: GS1300-18HP

Figure 21 Rear Panel: GS1300-26HP

3.2.1 Grounding

Grounding is a safety measure to direct excess electric charge to the ground. It prevents damage to the Switch, and protects you from electrocution. Use the grounding screw on the rear panel and the ground wire of the AC power supply to ground the Switch.

The grounding terminal and AC power ground where you install the Switch must follow your country's regulations. Qualified service personnel must ensure the building's protective earthing terminals are valid terminals.

Installation of Ethernet cables must be separate from AC power lines. To avoid electric surge and electromagnetic interference, use a different electrical conduit or raceway (tube/trough or enclosed conduit for protecting electric wiring) that is 15 cm apart, or as specified by your country's electrical regulations.

Any device that is located outdoors and connected to this product must be properly grounded and surge protected. To the extent permissible by your country's applicable law, failure to follow these guidelines could result in damage to your Switch which may not be covered by its warranty.

Note: The specification for surge or ESD protection assumes that the Switch is properly grounded.

1   Remove the M4 ground screw from the Switch's rear panel.

2   Secure a green or yellow ground cable (16 AWG or smaller) to the Switch's rear panel using the M4 ground screw.

Figure 22   Grounding
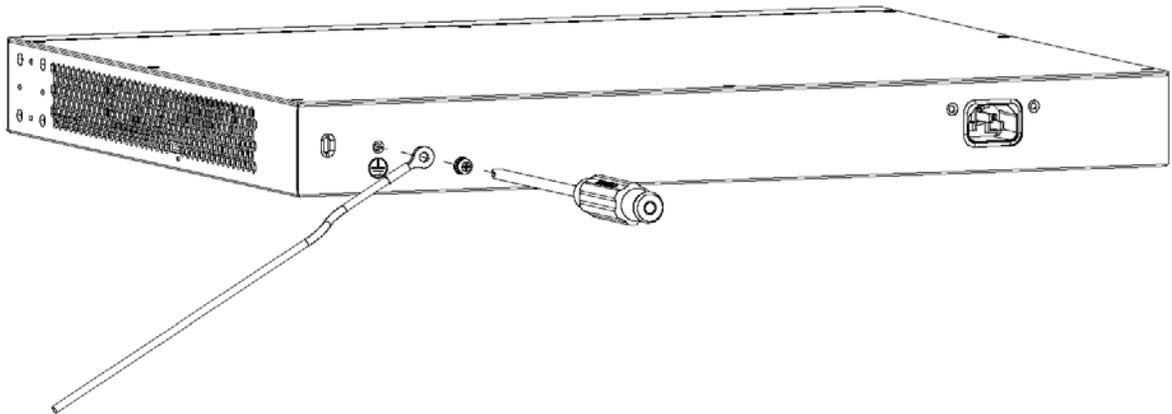
3   Attach the other end of the ground cable to a grounding bar located on the rack where you install the Switch or to an on-site grounding terminal.

Figure 23   Attach Ground Cable to Grounding Bar or On-site Grounding Terminal
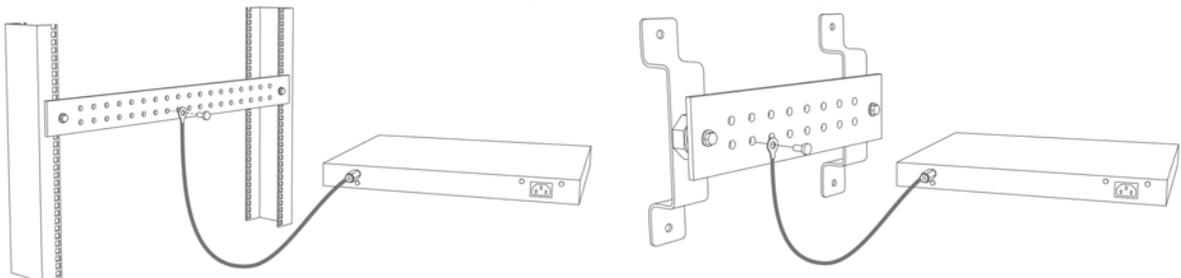
4 The grounding terminal of the server rack or on-site grounding terminal must also be grounded and connected to the building's main grounding electrode. Make sure the grounding terminal is connected to the buildings grounding electrode and has an earth resistance of less than 10 ohms, or according to your country's electrical regulations.

Figure 24 Connecting to the Building's Main Grounding Electrode
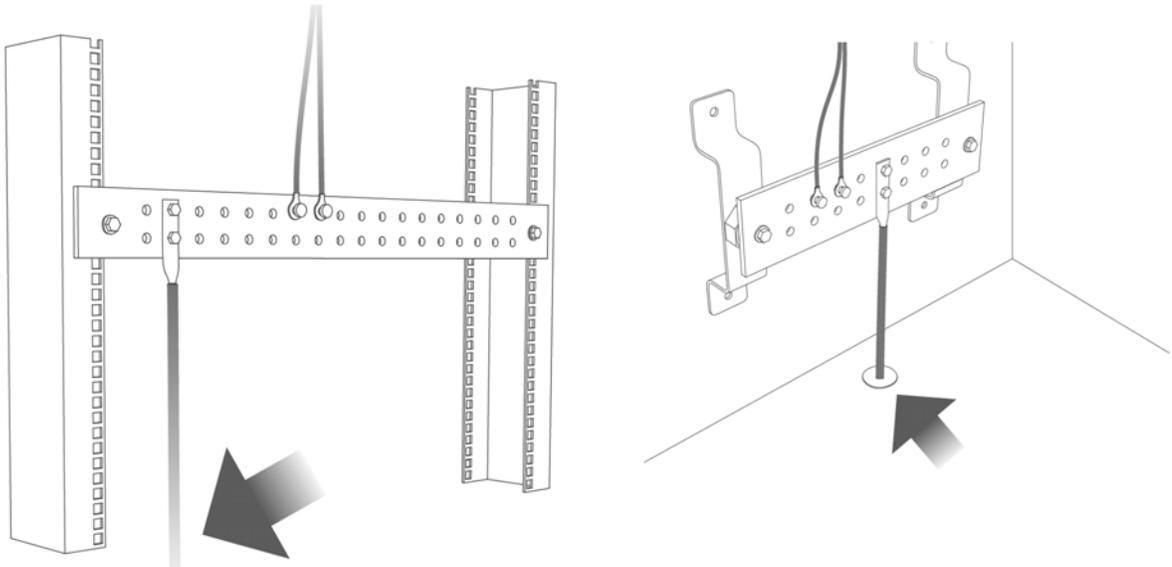
If you are uncertain that suitable grounding is available, contact the appropriate electrical inspection authority or an electrician.

This device must be grounded. Do this before you make other connections.

3.2.2 AC Power Connection

Note: Make sure you are using the correct power source as shown on the panel and that no objects obstruct the airflow of the fans (located on the side/rear of the unit).

To connect power to the Switch, insert the female end of the power cord to the AC power receptacle on the rear panel. Connect the other end of the supplied power cord to a power outlet.

Disconnecting the Power

The power input connectors can be disconnected from the power source individually.

1 Disconnect the power cord from the power outlet.

2 Disconnect the power cord from the AC power socket.

3.3 LEDs

After you connect the power to the Switch, view the LEDs to ensure proper functioning of the Switch and as an aid in troubleshooting.

Table 7   LED Descriptions

LED	COLOR	STATUS	DESCRIPTION
PWR	Green	On	The Switch is receiving power from the power supply.
		Off	The Switch is not receiving power from the power supply.
PoE MAX	Amber	On	More than 95 percent of the power budget is being used. Less than five percent of the power supplied budget remains. Five percent is the default value. Note: You should disconnect some PDs.
		Off	The Switch has a sufficient power supply for all connected PDs.
Ethernet Ports and PoE			
Link/ACT Port 1 – 9 (GS1300-10HP) Port 1 – 17 (GS1300-18HP) Port 1 – 24 (GS1300-26HP)	Green	Blinking	The Switch is transmitting/receiving to/from a 1000 Mbps Ethernet network.
		On	The link to a 1000 Mbps Ethernet network is up.
	Amber	Blinking	The Switch is transmitting/receiving to/from a 10 Mbps or a 100 Mbps Ethernet network.
		On	The link to a 10 Mbps or a 100 Mbps Ethernet network is up.
		Off	The link to an Ethernet network is down.
PoE Mode Port 1 – 8 (GS1300-10HP) Port 1 – 16 (GS1300-18HP) Port 1 – 24 (GS1300-26HP)	Green	On	Power supplied to all PoE Ethernet ports meets the IEEE 802.3at standard.
	Amber	On	Power supplied to all PoE Ethernet ports meets the IEEE 802.3af standard.
		Off	There is no power supplied.
Uplink Interface			
Ethernet Ports Port 1 – 9 (GS1300-10HP) Port 1 – 17 (GS1300-18HP) Port 1 – 24 (GS1300-26HP)	Green	Blinking	The Switch is transmitting/receiving to/from a 1000 Mbps Ethernet network.
		On	The link to a 1000 Mbps Ethernet network is up.
	Amber	Blinking	The Switch is transmitting/receiving to/from a 10 Mbps or a 100 Mbps Ethernet network.
		On	The link to a 10 Mbps or a 100 Mbps Ethernet network is up.
		Off	The link to an Ethernet network is down.
SFP Slots Port 10 (GS1300-10HP) Port 18 (GS1300-18HP) Port 25 – 26 (GS1300-26HP)	Green	On	The uplink port is linking at 1000 Mbps.
		Blinking	The Switch is transmitting/receiving data at 1000 Mbps.
	Amber	On	The uplink port is linking at 100 Mbps.
		Blinking	The Switch is transmitting/receiving data at 100 Mbps.
		Off	There is no link or the uplink connection is down.

APPENDIX A
Customer Support

In the event of problems that cannot be solved by using this manual, you should contact your vendor. If you cannot contact your vendor, then contact a Zyxel office for the region in which you bought the device.

For Zyxel Communications offices, see *https://service-provider.zyxel.com/global/en/contact-us* for the latest information.

For Zyxel Networks offices, see *https://www.zyxel.com/index.shtml* for the latest information.

Please have the following information ready when you contact an office.

Required Information

- Product model and serial number.
- Warranty Information.
- Date that you received your device.
- Brief description of the problem and the steps you took to solve it.

Corporate Headquarters (Worldwide)

Taiwan
- Zyxel Communications (Taiwan) Co., Ltd.
- *https://www.zyxel.com*

Asia

China
- Zyxel Communications Corporation–China Office
- *https://www.zyxel.com/cn/sc*

India
- Zyxel Communications Corporation–India Office
- *https://www.zyxel.com/in/en-in*

Kazakhstan
- Zyxel Kazakhstan
- *https://www.zyxel.com/ru/ru*

Korea

- Zyxel Korea Co., Ltd.
- *http://www.zyxel.kr/*

Malaysia

- Zyxel Communications Corp.
- *https://www.zyxel.com/global/en*

Philippines

- Zyxel Communications Corp.
- *https://www.zyxel.com/global/en*

Singapore

- Zyxel Communications Corp.
- *https://www.zyxel.com/global/en*

Taiwan

- Zyxel Communications (Taiwan) Co., Ltd.
- *https://www.zyxel.com/tw/zh*

Thailand

- Zyxel Thailand Co., Ltd.
- *https://www.zyxel.com/th/th*

Vietnam

- Zyxel Communications Corporation–Vietnam Office
- *https://www.zyxel.com/vn/vi*

Europe

Belarus

- Zyxel Communications Corp.
- *https://www.zyxel.com/ru/ru*

Belgium (Netherlands)

- Zyxel Benelux
- *https://www.zyxel.com/nl/nl*
- *https://www.zyxel.com/fr/fr*

Bulgaria

- Zyxel Bulgaria

- *https://www.zyxel.com/bg/bg*

Czech Republic

- Zyxel Communications Czech s.r.o.
- *https://www.zyxel.com/cz/cs*

Denmark

- Zyxel Communications A/S
- *https://www.zyxel.com/dk/da*

Finland

- Zyxel Communications
- *https://www.zyxel.com/fi/fi*

France

- Zyxel France
- *https://www.zyxel.com/fr/fr*

Germany

- Zyxel Deutschland GmbH.
- *https://www.zyxel.com/de/de*

Hungary

- Zyxel Hungary & SEE
- *https://www.zyxel.com/hu/hu*

Italy

- Zyxel Communications Italy S.r.l.
- *https://www.zyxel.com/it/it*

Norway

- Zyxel Communications A/S
- *https://www.zyxel.com/no/no*

Poland

- Zyxel Communications Poland
- *https://www.zyxel.com/pl/pl*

Romania

- Zyxel Romania
- *https://www.zyxel.com/ro/ro*

Russian Federation

- Zyxel Communications Corp.
- *https://www.zyxel.com/ru/ru*

Slovakia

- Zyxel Slovakia
- *https://www.zyxel.com/sk/sk*

Spain

- Zyxel Iberia
- *https://www.zyxel.com/es/es*

Sweden

- Zyxel Communications A/S
- *https://www.zyxel.com/se/sv*

Switzerland

- Studerus AG
- *https://www.zyxel.com/ch/de-ch*
- *https://www.zyxel.com/fr/fr*

Turkey

- Zyxel Turkey A.S.
- *https://www.zyxel.com/tr/tr*

UK

- Zyxel Communications UK Ltd.
- *https://www.zyxel.com/uk/en-gb*

Ukraine

- Zyxel Ukraine
- *https://www.zyxel.com/ua/uk-ua*

South America

Argentina

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

Brazil

- Zyxel Communications Brasil Ltda.

- *https://www.zyxel.com/br/pt*

Colombia

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

Ecuador

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

South America

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

Middle East

Israel

- Zyxel Communications Corp.
- *https://il.zyxel.com*

North America

USA

- Zyxel Communications, Inc. – North America Headquarters
- *https://www.zyxel.com/us/en-us*

APPENDIX B
Legal Information

Copyright

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Regulatory Notice and Statement

United States of America

The following information applies if you use the product within USA area.

US Importer: Zyxel Communications, Inc, 1130 North Miller Street Anaheim, CA92806-2001, https://www.zyxel.com/us/en/

Federal Communications Commission (FCC) EMC Statement

- This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

  (1) This device may not cause harmful interference.

  (2) This device must accept any interference received, including interference that may cause undesired operations.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada

The following information applies if you use the product within Canada area.

Innovation, Science and Economic Development Canada ICES statement

CAN ICES-3 (A)/NMB-3(A)

European Union and United Kingdom

The following information applies if you use the product within the European Union and United Kingdom.

EMC statement

WARNING: This equipment is compliant with Class A of EN55032. In a residential environment this equipment may cause radio interference.

List of National Codes

COUNTRY	ISO 3166 2 LETTER CODE	COUNTRY	ISO 3166 2 LETTER CODE
Austria	AT	Liechtenstein	LI
Belgium	BE	Lithuania	LT
Bulgaria	BG	Luxembourg	LU
Croatia	HR	Malta	MT
Cyprus	CY	Netherlands	NL
Czech Republic	CR	Norway	NO
Denmark	DK	Poland	PL
Estonia	EE	Portugal	PT
Finland	FI	Romania	RO
France	FR	Serbia	RS
Germany	DE	Slovakia	SK
Greece	GR	Slovenia	SI
Hungary	HU	Spain	ES
Iceland	IS	Sweden	SE
Ireland	IE	Switzerland	CH
Italy	IT	Turkey	TR
Latvia	LV	United Kingdom	GB

Safety Warnings

- To avoid possible eye injury, do NOT look into an operating fiber-optic module's connector.
- Do NOT use this product near water, for example, in a wet basement or near a swimming pool.
- Do NOT expose your device to dampness, dust or corrosive liquids.
- Do NOT store things on the device.
- Do NOT obstruct the device ventilation slots as insufficient airflow may harm your device. For example, do not place the device in an enclosed space such as a box or on a very soft surface such as a bed or sofa.
- Do NOT install or service this device during a thunderstorm. There is a remote risk of electric shock from lightning.
- Connect ONLY suitable accessories to the device.
- Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. Only qualified service personnel should service or disassemble this device. Please contact your vendor for further information.
- Make sure to connect the cables to the correct ports.
- Place connecting cables carefully so that no one will step on them or stumble over them.
- Always disconnect all cables from this device before servicing or disassembling.
- Do NOT remove the plug and connect it to a power outlet by itself; always attach the plug to the power adaptor first before connecting it to a power outlet.
- Do NOT allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord.
- Please use the provided or designated connection cables/power cables/adaptors. Connect it to the right supply voltage (for example, 120V AC in North America or 230V AC in Europe). If the power adaptor or cord is damaged, it might cause electrocution. Remove it from the device and the power source, repairing the power adapter or cord is prohibited. Contact your local vendor to order a new one.
- Do NOT use the device outside, and make sure all the connections are indoors. There is a remote risk of electric shock from lightning.
- CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE, DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTION. Dispose them at the applicable collection point for the recycling of electrical and electronic device. For detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the store where you purchased the product.
- Use ONLY power wires of the appropriate wire gauge for your device. Connect it to a power supply of the correct voltage.
- Fuse Warning! Replace a fuse only with a fuse of the same type and rating.
- The POE (Power over Ethernet) devices that supply or receive power and their connected Ethernet cables must all be completely indoors.
- The following warning statements apply, where the disconnect device is not incorporated in the device or where the plug on the power supply cord is intended to serve as the disconnect device,

  – For PERMANENTLY CONNECTED DEVICES, a readily accessible disconnect device shall be incorporated external to the device;

  – For PLUGGABLE DEVICES, the socket-outlet shall be installed near the device and shall be easily accessible.

- This device must be grounded by qualified service personnel. Never defeat the ground conductor or operate the device in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.
- If your device has an earthing screw (frame ground), connect the screw to a ground terminal using an appropriate AWG ground wire. Do this before you make other connections.
- If your device has no earthing screw, but has a 3-prong power plug, make sure to connect the plug to a 3-hole earthed socket.
- When connecting or disconnecting power to hot-pluggable power supplies, if offered with your system, observe the following guidelines:

  – Install the power supply before connecting the power cable to the power supply.

  – Unplug the power cable before removing the power supply.

  – If the system has multiple sources of power, disconnect power from the system by unplugging all power cables from the power supply.

- CLASS 1 LASER PRODUCT
- APPAREIL À LASER DE CLASS 1

- PRODUCT COMPLIES WITH 21 CFR 1040.10 AND 1040.11.
- PRODUIT CONFORME SELON 21 CFR 1040.10 ET 1040.11.

Important Safety Instructions

1   Warning! Energy Hazard. Remove all metal jewelry, watches, and so on from your hands and wrists before serving the Switch.

2   Caution! The RJ-45 jacks are not used for telephone line connection.

3   Hazardous Moving Parts. Keep body parts away from fan blades.

4   Hot Surface. Do not touch.

1   Avertissement: Risque de choc électrique. Retirer tout bijoux en métal et votre montre de vos mains et poignets avant de manipuler cet appareil.

2   Attention: Les câbles RJ-45 ne doivent pas être utilisés pour les connections téléphoniques.

3   Mobilité des pièces détachées. S'assurer que les pièces détachées ne sont pas en contact avec les pales du ventilateur.

4   Surface brûlante. Ne pas toucher.

Environment Statement

Disposal and Recycling Information

The symbol below means that according to local regulations your product and/or its battery shall be disposed of separately from domestic waste. If this product is end of life, take it to a recycling station designated by local authorities. At the time of disposal, the separate collection of your product and/or its battery will help save natural resources and ensure that the environment is sustainable development.

Die folgende Symbol bedeutet, dass Ihr Produkt und/oder seine Batterie gemäß den örtlichen Bestimmungen getrennt vom Hausmüll entsorgt werden muss. Wenden Sie sich an eine Recyclingstation, wenn dieses Produkt das Ende seiner Lebensdauer erreicht hat. Zum Zeitpunkt der Entsorgung wird die getrennte Sammlung von Produkt und/oder seiner Batterie dazu beitragen, natürliche Ressourcen zu sparen und die Umwelt und die menschliche Gesundheit zu schützen.

El simbolo de abajo indica que según las regulaciones locales, su producto y/o su batería deberán depositarse como basura separada de la doméstica. Cuando este producto alcance el final de su vida útil, llévelo a un punto limpio. Cuando llegue el momento de desechar el producto, la recogida por separado éste y/o su batería ayudará a salvar los recursos naturales y a proteger la salud humana y medioambiental.

Le symbole ci-dessous signifie que selon les réglementations locales votre produit et/ou sa batterie doivent être éliminés séparément des ordures ménagères. Lorsque ce produit atteint sa fin de vie, amenez-le à un centre de recyclage. Au moment de la mise au rebut, la collecte séparée de votre produit et/ou de sa batterie aidera à économiser les ressources naturelles et protéger l'environnement et la santé humaine.

Il simbolo sotto significa che secondo i regolamenti locali il vostro prodotto e/o batteria deve essere smaltito separatamente dai rifiuti domestici. Quando questo prodotto raggiunge la fine della vita di servizio portarlo a una stazione di riciclaggio. Al momento dello smaltimento, la raccolta separata del vostro prodotto e/o della sua batteria aiuta a risparmiare risorse naturali e a proteggere l'ambiente e la salute umana.

Symbolen innebär att enligt lokal lagstiftning ska produkten och/eller dess batteri kastas separat från hushållsavfallet. När den här produkten når slutet av sin livslängd ska du ta den till en återvinningsstation. Vid tiden för kasseringen bidrar du till en bättre miljö och mänsklig hälsa genom att göra dig av med den på ett återvinningsställe.
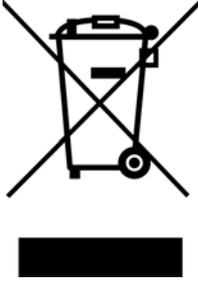
台灣

以下訊息僅適用於產品銷售至台灣地區

- 這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。
- 為避免電磁干擾，本產品不應安裝或使用於住宅環境。

安全警告 — 為了您的安全，請先閱讀以下警告及指示：

- 請勿將此產品接近水、火焰或放置在高溫的環境。
- 避免設備接觸
  - 任何液體 - 切勿讓設備接觸水、雨水、高濕度、污水腐蝕性的液體或其他水份。
  - 灰塵及污物 - 切勿接觸灰塵、污物、沙土、食物或其他不合適的材料。
- 雷雨天氣時，不要安裝或維修此設備。有遭受電擊的風險。
- 切勿重摔或撞擊設備，並勿使用不正確的電源變壓器。
- 若接上不正確的電源變壓器會有爆炸的風險。
- 請勿隨意更換產品內的電池。
- 如果更換不正確之電池型式，會有爆炸的風險，請依製造商說明書處理使用過之電池。
- 請將廢電池丟棄在適當的電器或電子設備回收處。
- 請勿將設備解體。
- 請勿阻礙設備的散熱孔，空氣對流不足將會造成設備損害。
- 請使用隨貨提供或指定的連接線／電源線／電源變壓器，將其連接到合適的供應電壓（如：台灣供應電壓 110 伏特）。
- 假若電源變壓器或電源變壓器的纜線損壞，請從插座拔除，若您還繼續插電使用，會有觸電死亡的風險。
- 請勿試圖修理電源變壓器或電源變壓器的纜線，若有毀損，請直接聯絡您購買的店家，購買一個新的電源變壓器。
- 請勿將此設備安裝於室外，此設備僅適合放置於室內。
- 請勿隨一般垃圾丟棄。
- 請參閱產品背貼上的設備額定功率。
- 請參考產品型錄或是彩盒上的作業溫度。
- 設備必須接地，接地導線不允許被破壞或沒有適當安裝接地導線，如果不確定接地方式是否符合要求可聯繫相應的電氣檢驗機構檢驗。
- 如果您提供的系統中有提供熱插拔電源，連接或斷開電源請遵循以下指導原則：
  - 先連接電源線至設備連，再連接電源。
  - 先斷開電源再拔除連接至設備的電源線。
  - 如果系統有多個電源，需拔除所有連接至電源的電源線再關閉設備電源。
- 產品沒有斷電裝置或者採用電源線的插頭視為斷電裝置的一部分，以下警語將適用：
  - 對永久連接之設備，在設備外部須安裝可觸及之斷電裝置；
  - 對插接式之設備，插座必須接近安裝之地點而且是易於觸及的。

About the Symbols

Various symbols are used in this product to ensure correct usage, to prevent danger to the user and others, and to prevent property damage. The meaning of these symbols are described below. It is important that you read these descriptions thoroughly and fully understand the contents.

Explanation of the Symbols

SYMBOL	EXPLANATION
	Alternating current (AC): AC is an electric current in which the flow of electric charge periodically reverses direction.
	Direct current (DC): DC if the unidirectional flow or movement of electric charge carriers.
	Earth; ground: A wiring terminal intended for connection of a Protective Earthing Conductor.
	Class II equipment: The method of protection against electric shock in the case of class II equipment is either double insulation or reinforced insulation.

Viewing Certifications

Go to *http://www.zyxel.com* to view this product's documentation and certifications.

Zyxel Limited Warranty

Zyxel warrants to the original end user (purchaser) that this product is free from any defects in material or workmanship for a specific period (the Warranty Period) from the date of purchase. The Warranty Period varies by region. Check with your vendor and/or the authorized Zyxel local distributor for details about the Warranty Period of this product. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, Zyxel will, at its discretion, repair or replace the defective products or components without charge for either parts or labor, and to whatever extent it shall deem necessary to restore the product or components to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal or higher value, and will be solely at the discretion of Zyxel. This warranty shall not apply if the product has been modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions.

Note

Repair or replacement, as provided under this warranty, is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular use or purpose. Zyxel shall in no event be held liable for indirect or consequential damages of any kind to the purchaser.

To obtain the services of this warranty, contact your vendor. You may also refer to the warranty policy for the region in which you bought the device at *https://www.zyxel.com/global/en/support/warranty-information*.

Registration

Register your product online at *www.zyxel.com* to receive email notices of firmware upgrades and related information.

Trademarks

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