IP-COM

Quick Installation Guide
### L3 Managed Switch
G5528X-EI

Package contents

- Switch x 1
- Console cable x 1
- Power cord x 1
- Grounding cable x 1
- Footpad x 4
- L-shaped bracket x 2
- Screw x 6
- Quick installation guide x 1

If any item is missing, or damaged, please keep the original package and contact the local reseller or distributor immediately.

For product or function details, please go to www.ip-com.com.cn to download the user guide.

Appearance

- 10/100 Mbps management port
- Reset button
- Console port
- 10/100/1000 Mbps RJ45 ports
- SFP+ ports
- Power jack
- Grounding terminal
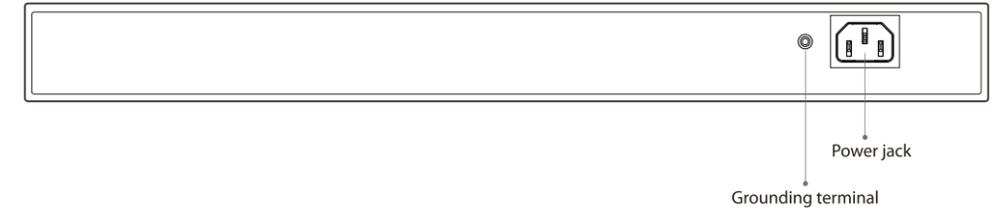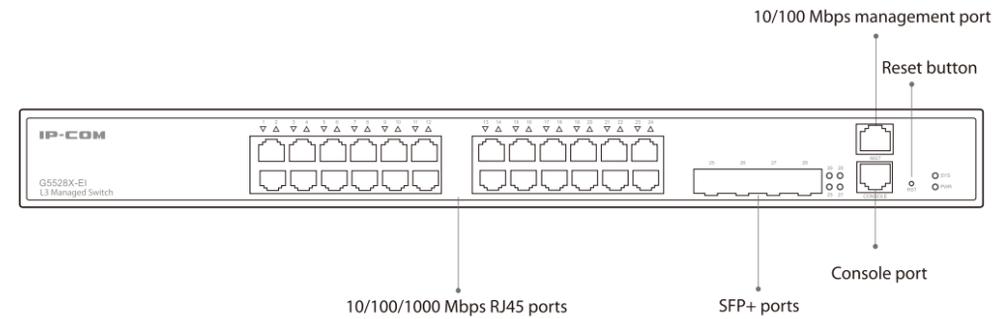
LED indicator	Status	Description
PWR	Solid on	The switch is connected to a power source properly.
PWR	Off	The switch is disconnected from or connected improperly to a power source.
SYS	Solid on	The system is working properly.
SYS	Off	The system startup is not completed.
1-28	Solid on	The corresponding RJ45 port is connected properly.
1-28	Blinking	Data is being transmitted over the RJ45 port.
1-28	Off	The corresponding RJ45 port is disconnected or connected improperly.

Port/Button	Description
RJ45 ports	24 10/100/1000 Mbps auto-negotiation RJ45 ports.
SFP+ ports	4 x 10G SFP+ ports used to connect to standard SFP+ fiber modules.
MGT	One 10/100 Mbps management port used to connect to a computer to manage or configure the switch.
CONSOLE	Console port. The default baud rate is 115200. Connect the console cable to the serial port of a computer to manage or configure the switch.
RST	Reboot/reset button. • When the SYS LED indicator solid on, hold the button down for 1 to 3 seconds, then release it when all LED indicators blink once. The switch starts to restart. • When the SYS LED indicator is solid on, hold the button down for about 10 seconds, then release it when all LED indicators blink once. The switch starts to restore to default settings.
Grounding terminal	Used to connect to a grounding cable for lightning protection.
Power jack	Use the included power cord to connect this jack to a power source for power supply.

Device installation

■ Installation notes

Follow the notes below to avoid device damages or personal injuries caused by operational errors.

■ Safety precautions

Before performing an operation, read the operation instructions and precautions to be taken, and follow them to prevent accidents. The warning and danger items in other documents do not cover all the safety precautions that must be followed. They are only supplementary information, the installation and maintenance personnel need to understand the basic safety precautions to be taken.

- Wear the ESD bracelet before installation, and do not power on the switch before finishing installation.
- Use the included power cord to power the switch.
- Make sure that the input voltage matches the value specified in this guide of the switch.
- Do not remove the housing of the switch.
- Disconnect the switch from the power supply before cleaning it. Do not scrub the switch with any liquid.
- Position the switch away from power line, electric lamp, and power system.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings, such as newspapers, table-cloth, curtains, etc.
- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
- Do not damage the ground conductor or operate the device in the absence of well installed ground conductor. Conduct the appropriate electrical inspection.
- Protect the power cord from being walk on or pinched particularly at the plugs, convenience receptacles and at the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lighting storms or when unused for long periods of time.
- Mains plug is used as the disconnect device, the disconnect device shall remain readily operable.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing.
- Warning: To reduce the risk of electric shock, do not remove cover as there no user-serviceable parts inside. Refer servicing to qualified personnel.

💡 **Note** There is a void sticker covering one of the screws on the housing of the switch. Do not remove the sticker without permission of the local agent. Otherwise you shall be responsible for any damage.

■ Environment requirements

① Temperature and humidity requirements

Item	Temperature	Humidity
Operating Environment	0 ℃ - 45 ℃	10% - 90% RH (non-condensing)
Storage Environment	-40 ℃ - 70 ℃	5% - 90% RH (non-condensing)

② Anti-static precautions

Electrostatic adsorption occurs if dust falls onto the switch, which may cause poor metal contact that disables the switch to work properly. To prevent this problem, pay attention to the following:
- Keep the air in the ambient environment clean. Regularly perform dedusting.
- Make sure that the switch is grounded properly.

③ Lightning protection

In thunderstorm weather, a sudden current caused by lightning stroke may damage the switch. To protect the switch against lightning stroke or strong current:
- Make sure that the device, workbench or subrack where the switch is mounted and receptacle in the wall is all properly grounded.
- Connect cables to the switch properly to avoid internal lightning induction.
- If outdoor cabling is required, it is advisable to deploy a signal lightning arrester.

④ Mounting Requirements

Follow the instructions below.
- The desktop is stable and sturdy enough.
- Place the switch in a clean, dry and well-ventilated environment. Keep at least 10 cm gap on all sides for cooling.
- Do not place any heavy or big object on the switch.
- Keep at least 1.5 cm vertical distances between each device while installing it in stack.
- For safety, do not face the air vents of the switch down.

■ Installation tools

Tools you may need to prepare by yourself:
- Phillips screwdriver
- ESD bracelet
- Optional: straight screwdriver, nipper pliers, diagonal pliers

■ Installation

If you have a 19-inch subrack, select either desktop or rack mounting to install you switch. Otherwise, select desktop mounting.

■ Rack mounting

Step 1 Ensure that the subrack is stable, level, and properly grounded.

**Step 2** Fix L-shaped brackets to the switch with screws. See the following figure.

Fixing L-shaped brackets
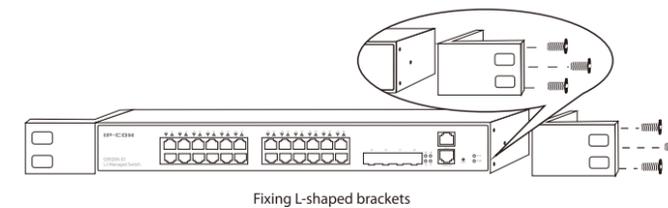
Step 3 Mount the switch at a proper height on the subrack and fix it to the rack with screws (prepared by yourself).

Mounting the switch on the subrack
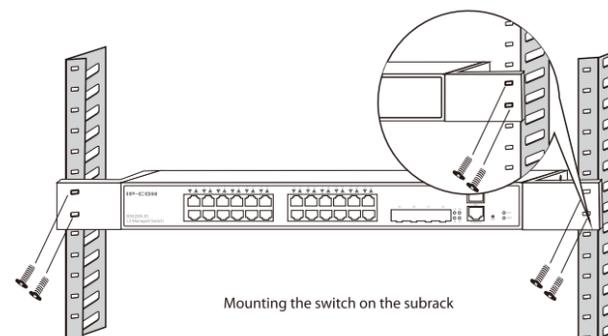
■ Desktop mounting

Step 1 Place the switch upside down on a stable and flat desktop.

**Step 2** Paste the four footpad stickers to the corresponding four recesses on the bottom of the switch.

Desktop mounting
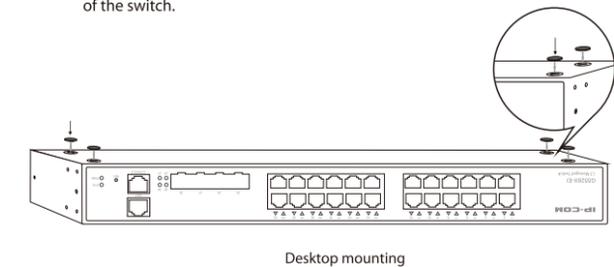
**Step 3** Place the switch right side upon the desktop.

Physical connection

■ Connecting the fiber module to an SFP+ Port

Step 1 With the handle upward, insert your fiber module into an SFP+ port of the switch, and firmly press it into place.
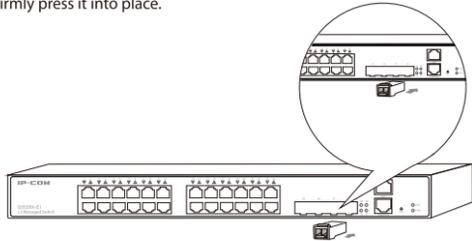
Fiber module connection

Step 2 After confirming the Rx port and Tx port of the fiber module, insert two fiber connectors at one end of the optical fiber into the Rx port and Tx port of the fiber module respectively. Insert two fiber connectors at the other end of the optical fiber into the Tx port and Rx port of the peer device respectively, ensuring that the Tx port is connected to the Rx port properly.
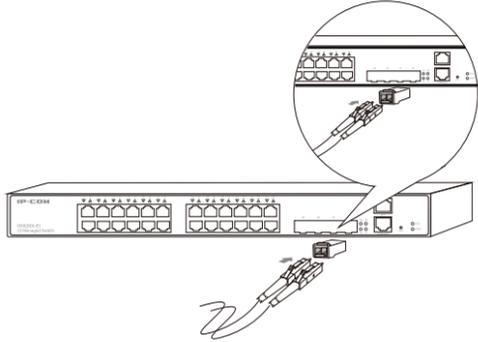
Optical fiber connection

■ Connecting RJ45 ports

Connect the RJ45 ports of the switch to the RJ45 Ethernet ports of your peering devices using Ethernet cables.

■ Connecting the console port

Step 1 Connect the RS-232 DB9 male pin side of the console cable to the computer.
Step 2 Connect the RJ45 side to the **CONSOLE** port of the switch.
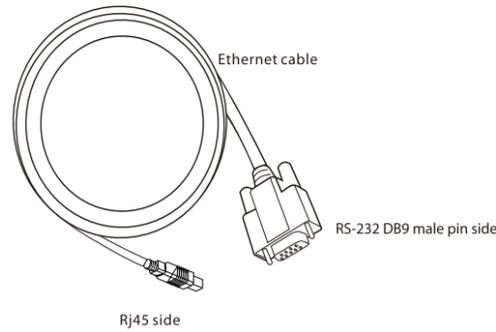
Ethernet cable
RS-232 DB9 male pin side
Rj45 side

■ Connecting the grounding cable

Step 1 Connect one end of the grounding cable to grounding terminal of the switch and fasten the screw.
Step 2 Connect the other end of the grounding cable to a grounded device, or directly to the binding post on the grounding bar, and fasten the screw.
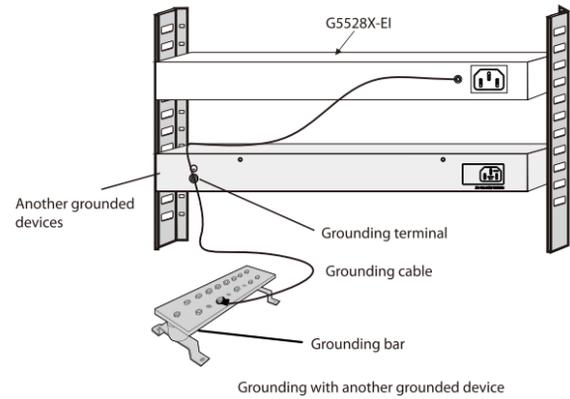
G5528X-EI
Another grounded devices
Grounding terminal
Grounding cable
Grounding bar
Grounding with another grounded device

or
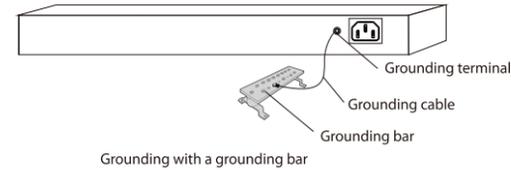
Grounding terminal
Grounding cable
Grounding bar
Grounding with a grounding bar

> **Note** Connect the grounding cable to a grounding system in the equipment room. Do not connect it to a fire main or lightning rod.

■ Checking the cable connection

Once the installation is completed, check the cable connections of the switch as the follows:
- The power supply should accord with the rated input standard.
- Port cables and grounding cable are correctly connected.
- If an outdoor cable is required, connect a surge protector to the cable before you connect the cable to the port, as shown in the following figure.
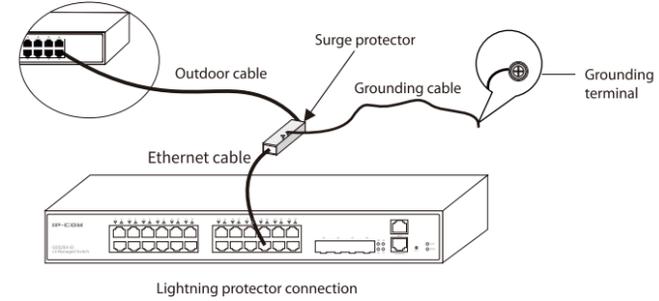
Surge protector
Outdoor cable
Grounding cable
Grounding terminal
Ethernet cable
Lightning protector connection

■ Connecting the switch to a power source

Use the included power cord to connect the switch to a power source.
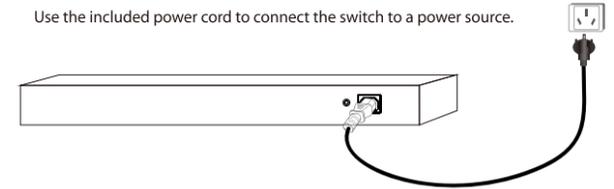
The switch starts automatically after it is powered on. When the startup is completed, the **PWR** LED indicator and **SYS** indicator turn to solid on, and the LED indicator of the corresponding RJ45 port lights up.

Safety Precautions

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2. Clean only with dry cloth.
3. Do not block any ventilation openings, such as newspapers, table-cloth, curtains, etc.
4. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
5. Do not damage the ground conductor or operate the device in the absence of well installed ground conductor. Conduct the appropriate electrical inspection.
6. Protect the power cord from being walk on or pinched particularly at the plugs, convenience receptacles and at the point where they exit from the apparatus.
7. Only use attachments/accessories specified by the manufacturer.
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9. Mains plug is used as the disconnect device, the disconnect device shall remain readily operable.
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