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Convention

If not specifically indicated, the switch, this product or this device mentioned in this Install Guide stands for IP-COM 8GE+2SFP Managed PoE Switch G3210P.

Symbols in this Install Guide:

Symbol	Description
A Note	Ignoring this type of note may result in a malfunction or damage to this device.
Tips	This format is used to highlight a procedure that will save time or resources.

Overview of this Install Guide

Chapter	Introduction	
Chapter 1 Product Overview	Introduction to this switch's package contents and physical appearance	
Chapter 2 Installation	Introduction to this switch's installation considerations and installation procedures	
Chapter 3 Login	Introduction to steps of logging in to this switch's web management page	

Chapter 1 Product Overview

1.1 Package Contents

Open the package and verify the following items:

Switch*1

- Power Cord*1
- L-shaped Bracket*2

Screw*6

Footpad*4

Install Guide*1

If any item is missing or damaged, contact the place of purchase immediately.

1.2 Physical Appearance

Front Panel

The following parts are located on the front panel shown as Figure 1-1.

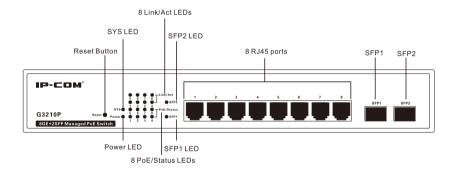


Figure 1-1 Front Panel

Reset Button

With the switch powered on, pressing the Reset button for at least 5 seconds and then releasing it restore the switch to factory default settings. The switch will reboot automatically after reset and this process takes about 45 seconds.

While rebooting, following phenomena will occur: All LEDs light up \rightarrow SYS LED is off \rightarrow All LEDs are off except the Power LED \rightarrow SYS is on and blinking.



LEDs

The following table describes the LED designations.

LED	Status	Description	
Power Solid Off		Proper connection to power supply	
		Improper connection to power supply or malfunction occurs.	
	Blinking	The system is functioning properly.	
SYS	Solid	The system is functioning improperly.	
Off		The system is still rebooting.	
	Solid	A valid link is established on the corresponding RJ45 port.	
Link/Act Blinking Off	Data transmission is occurring on the corresponding RJ45 port.		
	No link is established on the corresponding RJ45 port.		
PoE/Status	Solid	The PoE powered device (PD) is connected on the corresponding RJ45 port and the port is supplying power successfully.	
Off	Off	No PoE powered device (PD) connected.	
SFP1&SFP2	Solid	A valid link is established or data transmission on the corresponding SFP port.	
	Off	No link is established on the corresponding SFP port.	

Table 1-1 LED Designations

RJ45 Ports

This switch comes with 8 10/100/1000Mbps auto-negotiation RJ45 ports. Each port has a corresponding Link/Act LED. Speed rates and corresponding working modes of all RJ45 ports are described below in table 1-2.

Speed	Working Mode
10Mbps (auto-negotiation)	Half/Full duplex auto-negotiation
100Mbps (auto-negotiation)	Half/Full duplex auto-negotiation
1000Mbps (auto-negotiation)	Full duplex auto-negotiation

Table1-2 Speed & Working Mode of RJ45 Ports

All RJ45 ports are PoE-capable, and can connect up to 8 IEEE 802.3af-compliant PDs (15.4W for each) or 4 IEEE 802.3af-compliant PDs (30W for each).



As pair 1, 2 and pair 3, 6 are applying PoE power supply, it is advisable to use cat 5 or higher UTP/STP cables. Note that Ethernet specifications limit the cable length between the switch and the attached device to 100 m (328 ft).

SFP Ports

This switch comes with 2 1000Mbps SFP fiber ports, accommodating a standard SFP fiber module.

SFP (Small Form-factor Pluggable) is a compact, hot-pluggable transceiver mainly used for implementing the switchover between fiber and electricity signals, including fiber rate control, modulation sending, signal detection, IV transformation and amplifier limiting judgment regeneration.

An optical fiber connector terminates the end of an optical fiber. The optical fiber connector (known as union), an indispensable passive device in optical fiber communication, is mainly used for detachable optical fiber connection, which is not only convenient for commissioning test and maintenance of the optical fiber system, but makes this system's switch-over and scheduling more flexible.

G3210P only supports LC optical fiber connector as shown in figure 1-2:

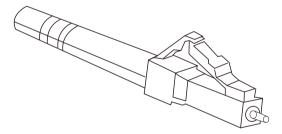


Figure 1-2 LC Optical Fiber Connector



The optical fiber module or photoelectric converter is not included in the package and you need to prepare it by yourself.

Back Panel

The following parts are located on the back panel as shown in Figure 1-3.



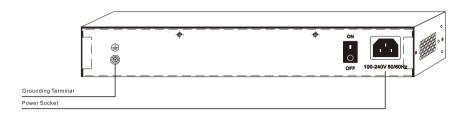


Figure 1-3 Back Panel

Power ON/OFF

Used for controlling power supply of this device.

Grounding Terminal

Used for connecting the protective grounding cable for lightning protection. As for the method of connecting protective grounding cable, please refer to <u>2.4 Connect to Protective Grounding Cable</u> (Page 8).

Power Socket

Used for connecting the included power cord for power supply.

Chapter 2 Installation

2.1 Installation Considerations

To avoid any equipment damage or bodily injury caused by improper use, read the following safety recommendations before installing the switch. Note that the recommendations do not cover every possible hazardous condition.

■ Safety Caution

- Do wear anti-static wrist straps while installing this device and disable the power supply of this
 device:
- Use the included power cord for power supply;
- Ensure operating power supply accords with rated input standard.
- Ensure ventilation holes of the switch are in good condition;
- Do not open or remove the housing of the switch:
- Do disconnect power supply while cleaning the switch and do not use damp cloth or any liquid to clean the switch;
- It's suggested to ground the switch to avoid strong inductive lightning. Keep the switch away
 from power lines, electric lights or strong power grid or anywhere the power grid with strong
 current is reachable, all for better performance.



There is an IP-COM seal on one of the screws. You should keep the seal unbroken before the technical staff maintains your switch. You cannot open the housing of the device unless you get the local reseller's permission, or you have to be responsible for the result that the device cannot be maintained because of unpermitted operation.

Site Requirements

Temperature & Humidity

Environment	Temperature	Humidity
Operating	-10°C ~ 45°C	10% ~ 90%RH (non-condensing)
Storage	-40℃ ~70℃	5%~90% RH (non-condensing)

Table 2-1 Temperature & Humidity Requirements



Cleanliness Requirements

In case that static electricity affects this device's normal operation, please observe following quidelines:

- Keep indoor environment clean and do dusting for the switch regularly;
- Keep the switch well-grounded for electrostatic transferring.

Lightning Protection

In case that strong current does damage to the switch due to inductive lightning, verify that:

- Power socket, rack, work bench and the grounding terminal of the switch are well-grounded;
- The switch is cabled properly. When the switch is cabled outdoors, it is advisable to use it together with the signal lightning arrester.

Installation Site Requirements

Whether install the switch in a rack or on a flat work bench, please verify:

- The rack or work bench is stable and sturdy enough;
- The switch should be clean and well ventilated. Keep at least 10 centimeters free on all sides for cooling:
- Do not place any article, especially heavy articles, on the switch;
- There is more than 1.5 centimeters vertical distance free between devices that stack up.

2.2 Tools

While installing the switch, prepare tools as shown below:



Antistatic Gloves



Phillips Screwdriver



Ethernet Cable

2.3 Installation

The switch can be installed either in a rack or on a desktop. You can choose the more suitable one as you need.

A. Mount the switch in a rack

With the included L-shaped brackets and screws, you can install it in a 19-inch standard rack.

Step 1: Make sure the rack is well-earthed and stable;

Step 2: Attach the included mounting brackets to the two sides of the switch with the included screws;

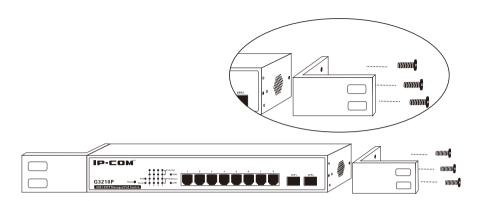


Figure 2-1 Attach L-shaped brackets to the switch

Step 3: Insert screws (prepared by yourself) through each bracket and into the rack to securely fix the switch onto the rack.

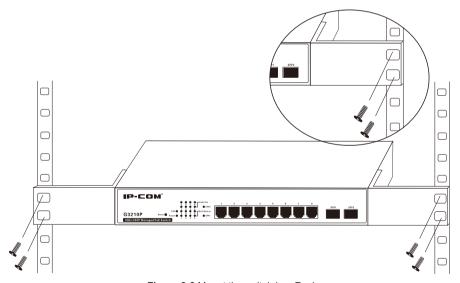


Figure 2-2 Mount the switch in a Rack

B. Mount the switch on a desktop

Without a 19-inch standard rack, you can install the switch on a desktop.

Step 1: Place the switch bottom up on a flat desktop;

Step 2: Attach four footpads to the corresponding circular grooves on the bottom of the switch;



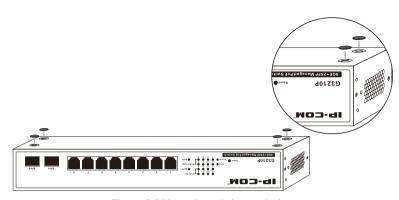


Figure 2-3 Mount the switch on a desktop

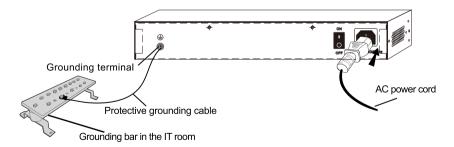
Step 3: Place the switch face up on the desktop.

2.4 Connect to Protective Grounding Cable

Proper connection of protective grounding cable is not only important for lightning protection and anti-interference, but for your own personal safety. Please select the most suitable method to connect protective grounding cable according to your installation environment.

A. With grounding bar

- Step 1: Connect one end of the protective grounding cable to the binding post on the grounding bar.
- **Step 2:** Connect the other end of the protective grounding cable to the grounding terminal and fix the screws.

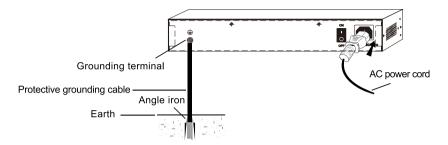


B. Without grounding bar

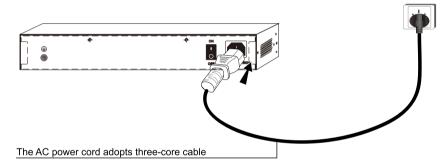
With mud land nearby and allowed to bury grounding bar, follow below steps:

- **Step 1:** Bury an angle iron or steel pipe (≥0.5m) into the mud land;
- **Step 2:** Weld one end of the protective grounding cable to the angle iron or steel pipe and embalm the welding point;

Step 3: Connect the other end of the protective grounding cable to the grounding terminal.



If not allowed to bury the grounding bar, you can connect it to ground through the three-core PE cable of the AC power socket on the precondition that the PE cable in the switchgear room or beside the AC power supply transformer is well-grounded.



2.5 Connect to Power Supply

Please use the included power cord for power supply.

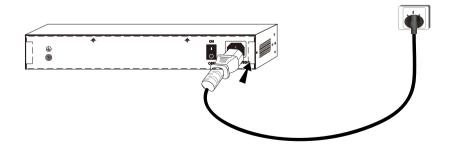


Figure 2-4 Connect to Power Supply



2.6 Cable Connection

2.6.1 Connect to RJ45 Ports

Connect the switch to remote Ethernet devices with Ethernet cables.

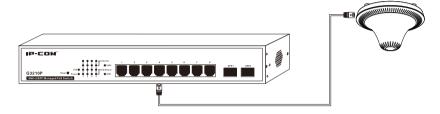


Figure 2-5 Connect to RJ45 Ports



All RJ45 ports of the switch are Auto MDI/MDIX-capable, which allows you to attach devices using twisted pair category 5 or higher, either straight-through or crossover cables.

2.6.2 Connect to SFP Fiber Ports

Step 1: Insert the SFP module into the SFP module bay.

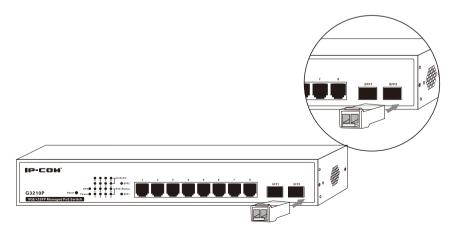


Figure 2-6 Insert the SFP module



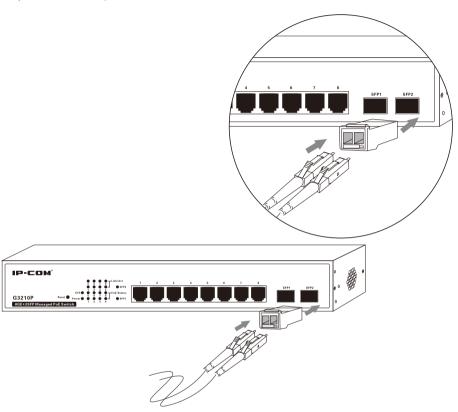


Figure 2-7 Insert the LC Optical Fiber Connector

2.6.3 Connect to PDs

The PoE power supply feature on all RJ45 ports is enabled by default. You can connect IEEE 802.3at-/802.3af-compliant APs, IP telephones, IP cameras or other powered devices to the switch.



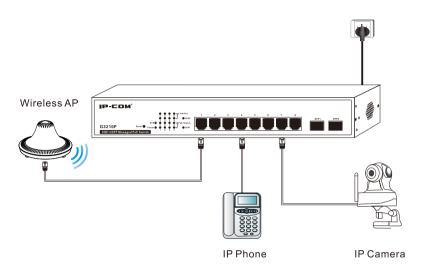


Figure 2-8 Connect to PDs



The PoE power supply mode is dynamic, i.e. the switch accommodates power supply for powered devices automatically.

2.7 Power Up the Device

Check the device thoroughly before powering up the device.

2.7.1 Check the Device

Before applying power supply, perform the following:

- The operating power supply should accord with rated input standard;
- The power cord and grounding cable is correctly connected;
- All cable connections (RJ45 ports, SFP ports) are correct.
- If cabling outside, ensure the Ethernet port lightning arrester and AC power source lightning arrester are connected.

2.7.2 Power Up the Device

Step 1: Turn on the power switch (Power ON/OFF) on the back panel to power up the switch.

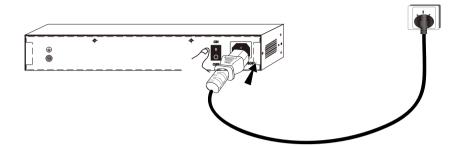


Figure 2-9 Power Up the Switch

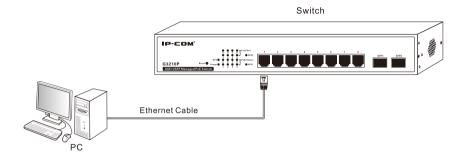
Step 2: After being powered on, the switch will be initialized automatically. Please ensure that following phenomena will occur to LEDs one by one:

- All LEDs (Power, SYS, PoE/Status, Link/Act, SFP1, SFP2) will light up for self-checking.
- SYS LED is off.
- All LEDs are off except the Power LED.
- After restarting, the Power LED lights up, SYS LED is blinking, corresponding Link/Act LED or SFP1/SFP2 LED is on or blinking and corresponding PoE/Status LED lights up.

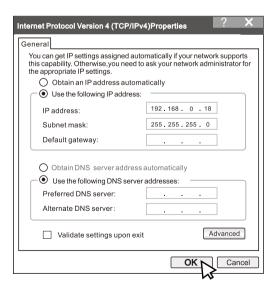


Chapter 3 Login

Step 1: Connect the PC to an RJ45 port of the switch using an Ethernet cable;

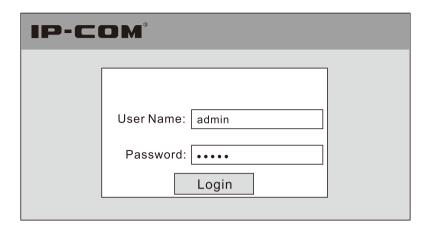


Step 2: Configure your PC's IP, which should be in the same network segment but be different from the switch's management IP. The default management IP of the switch is 192.168.0.1, so you can set your PC's IP to **Use the following IP address:** IP address: 192.168.0.X (where X can be any number between 2 and 254); subnet mask: 255.255.255.0.

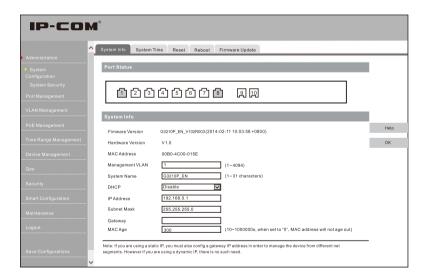


Step 3: Launch a web browser, input 192.168.0.1 in the address bar and press Enter.

Step 4: Enter the default username admin and default password admin, and click Login.



Step 5: Then you can go to the web management page to view or modify the switch's configuration info.





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约定

本手册中,所提到的"交换机"、"设备"、"产品"等名词,如无特别说明,均指IP-COM8GE+2SFP 网管型PoE交换机 G3210P。

本手册采用的标识和含义如下:

标识	含义
企 注意	提醒用户操作中应注意的事项,如果操作错误可能导致设备损坏等不良后果。
提示	对操作内容的描述进行必要的补充和说明。

安装手册简介

章节	说明
第 1 章 产品介绍	介绍交换机包装及外观。
第2章设备安装	介绍交换机安装注意事项及安装步骤方法。
第 3 章 设备登录	介绍登录到交换机Web网管的步骤。

第1章 产品介绍

1.1 包装

打开包装,检查包装盒内应有以下配件:

● 交换机*1

● 螺钉*6

L型支架*2

● 电源线*1

脚垫*4

安装手册(内含保修卡)*1

如果发现配件有损坏或短缺,请持原包装与经销商联系更换。

1.2 外观

■ 前面板

前面板包括: Reset 按键,指示灯, RJ45端口, SFP端口,如图 1-1 所示。

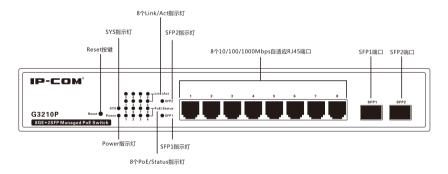


图 1-1 前面板

Reset 按键

交换机运行正常时,持续按下 Reset 按键至少 5 秒后放开,可将交换机恢复出厂设置。恢复出厂设置后, 交换机将自动重启,请等待重启完成(约 45 秒)即可。

重启时,交换机指示灯依次会出现下列现象:所有指示灯亮→SYS 熄灭→Power 保持亮,其它指示灯全熄灭→SYS 亮并闪烁。



指示灯

各指示灯说明参见表 1-1。

指示灯名称	状态	说明	
Power	常亮	交换机供电正常。	
Power	不亮	交换机未通电或出现故障。	
	闪烁	系统运行正常。	
SYS	常亮	系统运行异常。	
	不亮	系统还未启动完成。	
Link/Act	常亮	对应的 RJ45 口连接正常。	
	闪烁	对应的 RJ45 口正在传输数据。	
	不亮	对应的 RJ45 口未连接或连接异常。	
PoE/Status	常亮	有受电设备与对应的 RJ45 口连通,并供电正常。	
	不亮	无受电设备与对应的 RJ45 口连通或无供电。	
SFP1&SFP2	常亮	对应的 SFP 口连接正常或正在传输数据。	
	不亮	对应的 SFP 口未连接或连接异常。	

表 1-1 指示灯工作状态说明

RJ45 端口

交换机提供 8 个 10/100/1000Mbps 自适应 RJ45 端口,每个 RJ45 端口对应一个 Link/Act 灯。RJ45 端口各速率和对应的工作模式参见表 1-2。

速率	工作模式
10Mbps (自适应)	半/全双工自动协商
100Mbps (自适应)	半/全双工自动协商
1000Mbps (自适应)	全双工自动协商

表 1-2 RJ45 端口速率和工作模式说明

所有 RJ45 端口都支持 PoE 供电,兼容 IEEE 802.3af(15.4W)和 IEEE 802.3at(30W),最多可同时接入 8 个 IEEE 802.3af 或 4 个 IEEE 802.3at 标准的受电设备。



PoE 供电采用网线的 1、2, 3、6 数据线对供电,网线建议采用 5 类或 5 类以上 UTP/STP,最长供电距 离为 100 米。

SFP 端口

交换机提供 2 个 1000Mbps SFP 光纤端口, 支持干兆 SFP 光模块。

SFP (Small Form-factor Pluggable,小型封装可热插拔)光模块,用于光信号的传输,主要功能是实现光电/电光变换,包括光功率控制、调制发送、信号探测、IV 转换以及限幅放大判决再生功能。

光纤通过光纤连接器连接到 SFP 光模块。光纤连接器(俗称活接头)是光纤通信系统中不可缺少的无源器件,主要用于光通道间的可拆式连接。使用光纤连接器不仅方便了光系统的调测与维护,还使光系统的转接调度更加灵活。

本交换机只支持 LC 型光纤连接器, 其外观如图 1-2 所示。

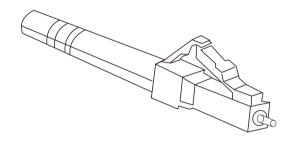


图 1-2 LC 光纤连接器外观



光模块需要用户单独选配,购买本交换机时不随机提供。

■ 后面板

后面板有1个接地端子,1个电源开关,1个电源插座。如图1-2所示。

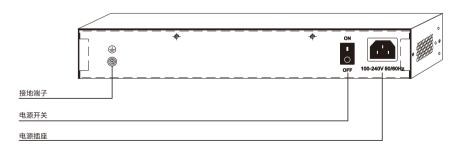


图 1-2 后面板

IP-COM®

电源开关

用于开启、关闭交换机电源。

接地端子

用于连接保护地线,以防雷击。连接保护地线的方法请参考 2.4 连接保护地线(第 24 页)。

电源插座

用于连接电源,给交换机供电。请使用产品包装盒内的配套电源线进行连接。

第2章 设备安装

2.1 安装注意事项

为避免使用不当造成交换机损坏及人身伤害, 请遵从以下注意事项。

■ 安全措施

- 安装过程中,需佩戴防静电手套,且交换机电源应保持为关闭状态;
- 使用产品包装盒内的电源线给交换机供电;
- 确保输入电压范围与交换机上标明的输入电压范围相符;
- 确保交换机散热孔通风良好;
- 不要打开或拆卸交换机机壳:
- 清洁交换机时,请切断电源。请勿使用任何液体擦洗交换机;
- 交换机远离电力线、电灯、电网附近或任何有可能接触强电电网的地方。



交换机机壳的一个安装螺钉上封有 IP-COM 公司的防拆封条,代理商对交换机进行维护时,要求所维护交换机的封条保持完好。如果用户需要打开交换机机壳,请先与本地代理商联系,获得允许;否则,由于擅自操作导致交换机无法维护,将由用户本人负责。

■ 安装环境要求

温/湿度要求

交换机对温度和湿度的要求见下表 2-1

环境描述	温度	湿度
工作环境	-10°C ~ 45°C	10% ~ 90%RH (无凝结)
存储环境	-40℃ ~ 70℃	5%~90% RH (无凝结)

表 2-1 温度和湿度要求

洁净度要求

为避免静电影响设备正常工作,请注意:

- 保持室内空气清洁,交换机需要定期除尘;
- 交换机接地良好,确保静电顺利转移。

防雷要求

为避免雷电产生的强大瞬间电流破坏交换机,请采取以下防雷措施:

IP-COM®

- 确认电源插座、机架、工作台和交换机接地端子均与大地接触良好;
- 合理布线,避免内部感应雷;需要室外布线时,建议使用信号防雷器。

安装台要求

无论交换机安装在机架内或其他工作台上,请注意以下事项:

- 确认机架或工作台够平稳、牢固;
- 保持良好的通风,交换机四周留出10厘米的散热空间;
- 不要在交换机上放置重物;
- 需要叠放使用时,设备之间的垂直距离不能小于1.5厘米。

2.2 准备安装工具

安装交换机过程中,会用到以下安装工具,请自备。



2.3 安装设备主机

请根据您的安装环境,选择最适合的设备安装方式。

A、机架安装方式

交换机配备了 L 型支架和螺钉,可支持标准 19 英寸机架安装。

步骤 1:检查机架的接地与平稳性;

步骤 2:使用配件中提供的螺钉将两个 L 型支架分别固定安装在交换机的两侧;

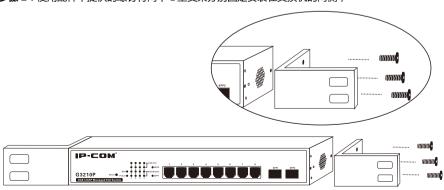


图 2-1 安装 L 型支架在交换机两侧

步骤 3:使用螺钉 (需用户自备)将安装好 L型支架的交换机安装在机架上。

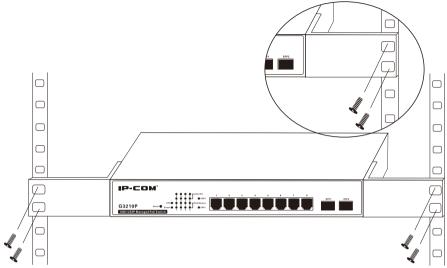


图 2-2 机架安装示意图

B、桌面安装方式

如果用户不具备 19 英寸标准机柜,可采用桌面安装方式。

步骤 1:将交换机底部朝上放置于足够大且平稳的桌面上;

步骤 2:将4个脚垫粘贴在机壳底部四角对应的圆形凹槽中;

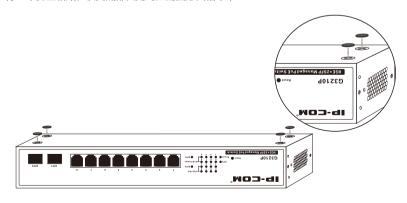


图 2-3 桌面安装示意图

步骤 3: 翻转交换机, 让其正面朝上放置于桌面即可。



2.4 连接保护地线

连接保护地线不仅是为了尽快释放掉交换机因雷击而感应的过电压和过电流,也是保障人身安全的必要措施。请根据您的安装环境,选择最适合的连接保护地线的方式。

A、安装环境中有接地排

步骤1:将接地线的一端接到机房工程接地排的接线柱;

步骤2:将接地线的另一端接到交换机接地端子,拧紧固定螺母。

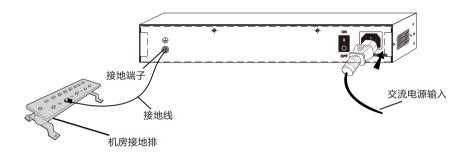


图2-4 机房有接地排时接地安装简图

B、安装环境中无接地排

如果附近有泥地并目允许埋设接地体,可按以下步骤进行接地安装:

步骤1:将长度不小于0.5米的角钢(或钢管)打入地下;

步骤2:采用电焊连接接地线的一端和角钢(或钢管),并将焊接点做防腐处理;

步骤3:将接地线另外一端接到交换机的接地端子。

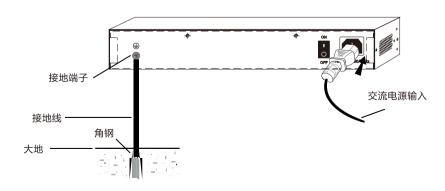


图2-5 机房附近允许埋设接地体时接地安装简图

如果不允许埋设接地体,可直接通过电源线进行接地。但前提是:交换机的电源线采用带保护地线的三芯电缆,且交流电源的保护地线已在配电室或交流供电变压器侧良好接地。

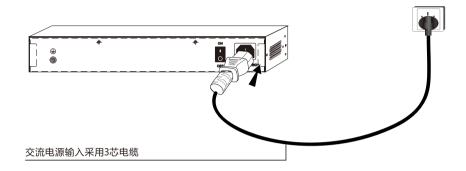


图2-6 利用已接地的电源线进行接地保护

2.5 连接设备电源

使用产品包装盒内配套的电源线连接交换机和电源插座。

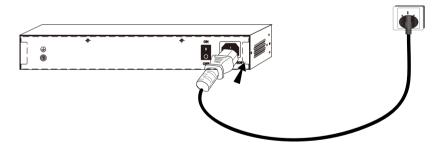


图 2-7 连接电源



2.6 连接接口线缆

2.6.1 连接自适应 RJ45 端口

用网线连接交换机和对端网络设备的 RJ45 端口。

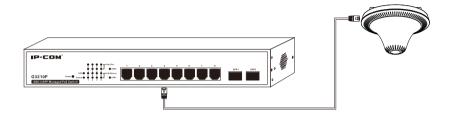


图 2-8 连接 RJ45 端口



建议采用 5 类或 5 类以上双绞线连接到对端网络设备。因交换机的每个 RJ45 端口均支持 MDI/MDIX 自适应,故双绞线无需区分平行线或交叉线。

2.6.2 连接 SFP 光纤端口

步骤 1:将 SFP 光模块不带拉手的那一头对准交换机的 SFP 端口,确认好光模块插入时的上下方位后,再将光模块插入 SFP 端口;

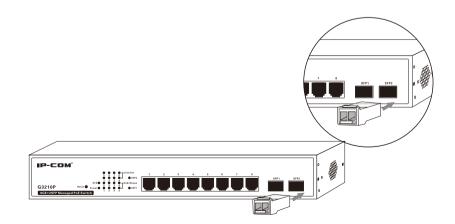


图 2-9 插入光模块

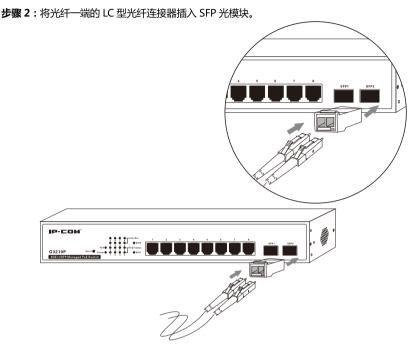


图 2-10 插入光纤连接器

2.6.3 连接受电设备

默认情况下,交换机所有 RJ45 端口均已开启 PoE 供电功能,可对符合 IEEE 802.3at、IEEE 802.3af 标准的 AP、IP 电话和网络摄像头等受电设备进行供电。

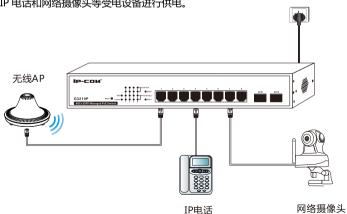


图 2-11 连接受电设备





交换机 PoE 供电模式为动态供电。即,交换机自动给受电设备提供所需功率的 PoE 电源。

2.7 设备上电启动

请完成上电前检查后,再给设备上电。

2.7.1 上电前检查

以上安装完成后,在上电之前,请对交换机进行如下检查:

- 供电电源电压是否与交换机要求一致;
- 电源线和地线连接是否正确;
- 各接口(RJ45 口、SFP 口)连线是否准确;
- 接口线缆是否都在室内走线,若有户外走线情况,请检查是否进行了网口防雷器和交流电源避雷器的连接。

2.7.2 给设备上电

步骤 1:按下交换机后面板上的电源开关,给交换机上电。

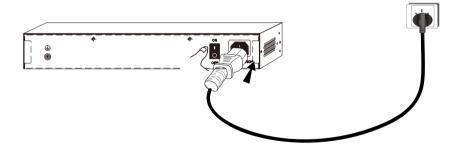


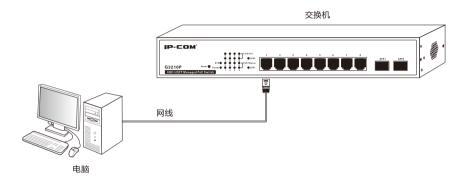
图 2-12 给交换机上电

步骤 2:上电后,交换机将自动进行初始化,检查指示灯,应依次出现下列现象:

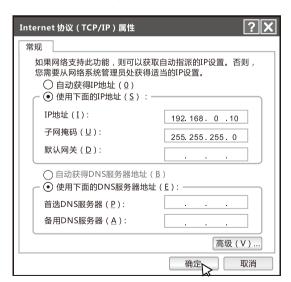
- 指示灯 (Power、SYS、PoE/Status、Link/Act、SFP1、SFP2)全亮进行自检;
- SYS 熄灭;
- Power 保持亮,其它指示灯全部熄灭;
- 启动完成后, Power 灯亮, SYS 灯闪烁, 对应已连接的接口指示灯(Link/Act、SFP1、SFP2)
 亮或闪烁, 对应已连接受电设备的 RJ45 口 PoE/Status 灯亮。

第3章设备登录

步骤 1: 用网线连接电脑和交换机的 RJ45 端口:

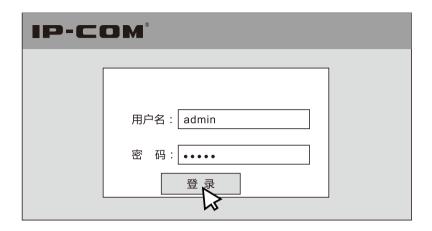


步骤 2: 将电脑的 IP 地址设置为和交换机的 IP 在同一网段的不同 IP 地址。交换机的默认 IP 为 192.168.0.1, 所以电脑的 IP 设置为 192.168.0.X (X为 2~254), 子网掩码为 255.255.255.0;



步骤 3: 打开电脑上的浏览器,在地址栏输入交换机的 IP (192.168.0.1)后,敲回车;步骤 4:进入交换机的 Web 网管登录页面,用户名和密码均输入 admin 后,点击登录;





步骤 5: 进入交换机的 Web 网管页面,您可在此查看或修改交换机的配置信息。



Appendix/附录

A FAQs

1. Power supply troubleshooting

You can know whether the power supply is working fine or not according to the status of Power LED. If the power supply is working fine, the Power LED is solid; if the Power LED is off, please verify that:

- The power cord is correctly connected and the power switch is on;
- Operating power supply accords with rated input standard.

2. When the Link/Act LED is off, try the following solutions:

- Check all cables are properly connected to both the switch and remote devices;
- Ensure the cable length between the switch and the attached device is within 100 meters.

3. When the PoE/Status LED is off, try the following solutions:

- Check all cables are properly connected to both the switch and remote devices;
- Ensure the cable length between the switch and the attached device is within 100 meters.
- Log in to this device and click PoE Management > Port Setup to verify the PoE power supply feature on the corresponding port is enabled.



A 常见问题处理

1. 电源系统故障处理

您可以根据前面板上的 Power 指示灯来判断交换机电源系统是否故障。电源系统工作正常时, Power 指示灯应保持常亮:如果 Power 指示灯不亮,请进行如下检查:

- 交换机电源线是否连接正确,电源开关是否为开启状态;
- 输入电压是否与交换机所要求的输入电压一致。

2. Link/Act 指示灯不亮时,可能出现的故障及排除方法:

- 交换机与远端设备未连接好,请用网线连接好两端设备;
- 网线长度超过标准距离,请设法减少设备间的网线长度到标准距离以内(≤100 米)。

3. PoE/Status 指示灯不亮时,可能出现的故障及排除方法:

- 交换机与远端设备未连接好,请用网线连接好两端设备;
- 网线长度超过标准距离,请设法减少设备间的网线长度到标准距离以内(≤100米);
- 登录到交换机Web网管后,进入『PoE管理』→『端口设置』页面查看是否已禁用该端口的PoE供电功能。

B Technical Specifications

■ Hardware Specifications

Item	Specification	
Input Voltage	100-240V AC, 50/60Hz	
Power Consumption	17W (no load)	
	128W (full load)	
PoE	8 10/100/1000Mbps auto-negotiation, PoE-capable RJ45 ports with up to 40W on each; Support dynamic power allocation and can connect up to 8 IEEE 802.3af-compliant PDs (15.4W) or up to 4 IEEE 802.3at-compliant PDs (30W)	
Traffic Ports	8 10/100/1000Mbps auto-negotiation RJ45 ports, 2 1000Mbps SFP ports	
Operating / Storage Temperature	-10°C ~ 45°C -40°C ~ 70°C	
Operating / Storage Humidity	10% ~ 90% RH (non-condensing) / 5% ~ 90% RH (non-condensing)	
Safety	UL 60950-1 CAN/CSAC22.2 No 60950-1 IEC 60950-1 EN 60950-1/A11 AS/NZS 60950-1	
EN 55024; 1998+A1: 2001+A2: 2003 EN 55022: 2006 EN 61000-3-2: 2000+A1: 2001+A2: 2005 EN 61000-3-3: 1995+A1: 2001+A2: 2005 AS/NZS CISPR 22: 2004 FCC PART 15: 2005		
MTBF	> 100, 000 hours	
Dimension	294mm*178mm*44mm	
Weight	< 2kg	



■ Software Specifications

Item	Specification	
Switching Capacity(full-duplex)	20Gbps	
Packet Forwarding Rate (full load)	14.88Mpps	
MAC Table	8K	
VLAN	Support port VLAN and up to 10 groups can be configured; Support IEEE 802.1Q VLAN and up to 64 groups can be configured; Support Voice VLAN	
DHCP	Support DHCP Snooping Support DHCP Client	
Multicast	Support IGMP Snooping V1/V2 Up to 200 multicast groups can be configured; Support fast leave mode	
Broadcast Storm Control	1. Support port based broadcast storm control 2. Support port based multicast storm control 3. Support port based unknown unicast storm control	
1. Support IEEE 802.1d STP 2. Support IEEE 802.1w fast STP 3. Support edge port 4. Support P2P port 5. Support STP BPDU packets statistics		
MAC Filter	Support unicast MAC filter Up to 64 entries can be configured.	
QoS	1. Support 802.1P port trust mode 2. Support IP DSCP port trust mode 3. Support bandwidth control 4. Up to 4-queue QoS mapping can be configured.	
Certification	Support port based IEEE 802.1X certification	
Loading and Upgrading	НТТР	
Management	Support SNMP (Simple Network Management Protocol) Support Web management	

Port Management	Port Setup: port speed rate setup and display, flow control setup, isolation setup, Jumbo frame setup (1518-9216)	
	Port Mirroring: implement port ingress mirror image, egress mirror image and ingress & egress mirror image	
	Port Statistics: display packets the port has received and sent	
	Port Trunk: implement static trunk and LACP and up to 2 trunk groups can be configured with 2~8 ports in each group.	
	1. Support IEEE 802.3at standard	
PoE	2. Support IEEE 802.3af standard	
	3. Maximum power consumption: 115W	
Time Range Management	Support absolute time, periodic time and superposition of time slices an applicable for PoE. Up to 16 time ranges can be configured and as for each time range, at most 4 time slices can be allowed.	
Maintenance	Support Ping\Tracert\Cable test	



B 技术规格参数

■ 硬件规格

项目	规格	
输入电压	100-240V AC , 50/60Hz	
功耗	空载时,整机功耗约17W	
	PoE满负荷时,整机功耗约128W	
PoE	8个10/100/1000Mbps自适应RJ45端口,支持PoE供电,单端口最大可输出40W;支持动态分配功耗,最多可同时支持8个IEEE 802.3af标准(15.4W)或4个IEEE 802.3at标准(30W)的受电设备;	
业务端口描述	8个10/100/1000Mbps自适应RJ45端口,2个1000Mbps SFP端口	
工作 / 存储温度	-10°C ~ 45°C -40°C ~ 70°C	
工作/存储湿度	10% ~ 90% RH(无凝结) 5% ~ 90% RH(无凝结)	
安全规范	UL 60950-1 CAN/CSAC22.2 No 60950-1 IEC 60950-1 EN 60950-1/A11 AS/NZS 60950-1	
EN 55024;1998+A1:2001+A2:2003 EN 55022:2006 EN 61000-3-2:2000+A1:2001+A2:2005 EN 61000-3-3:1995+A1:2001+A2:2005 AS/NZS CISPR 22:2004 FCC PART 15:2005		
MTBF	> 100,000小时	
外形尺寸	294mm*178mm*44mm	
重量	< 2千克	

■ 软件规格

项目	规格	
交换容量(全双 工)	20Gbps	
包转发率(整机)	14.88Mpps	
MAC 地址表	8K	
VLAN	 支持基于端口的 VLAN 划分,最大可设置 10 组 支持 IEEE 802.1Q VLAN,最大可设置 64 组 支持 Voice VLAN 	
DHCP	1. 支持 DHCP Snooping 2. 支持 DHCP Client	
组播	 支持 IGMP Snooping V1/V2 支持最多 200 个组播组 支持端口快速离开模式设置 	
广播风暴抑制	 支持基于端口的广播风暴抑制 支持基于端口的组播风暴抑制 支持基于端口的未知单播风暴抑制 	
STP(生成树)	 支持 IEEE 802.1d 生成树 支持 IEEE 802.1w 快速生成树 支持边缘端口 支持 P2P 端口 支持生成树 BPDU 报文统计 	
MAC 过滤	1. 支持单播 MAC 地址过滤 2. MAC 过滤最大可以配置 64 条	
QoS	 支持 802.1P 端口信任模式 支持 IP DSCP 端口信任模式 支持带宽限制 最大可以支持 4 个队列服务质量映射 	

IP-COM®

认证	支持基于端口的 IEEE 802.1X 认证	
加载与升级	支持 HTTP 升级	
管理	1. 支持 SNMP (Simple Network Management Protocol) 2. 支持 Web 管理	
	端口设置:包括端口速率设置和显示、流控设置、隔离设置、Jumbo 帧设置 (1518-9216)	
端口管理	端口镜像:实现端口入方向、出方向、出和入方向的镜像	
	端口统计:显示端口接收和发送数据个数	
	端口汇聚:实现静态汇聚和 LACP,最多支持2个汇聚组,每个汇聚组的端口数 范围为2-8	
	1. 支持 IEEE 802.3at 标准 PoE 供电	
PoE	2. 支持 IEEE 802.3af 标准 PoE 供电	
	3. 最大供电功耗支持 115W	
时间段管理	支持绝对时间、周期时间、片段时间叠加,可应用于 PoE 供电。最多可支持 16个时间段,每个时间段最多可添加 4个时间片段	
维护	支持 Ping\Tracert\线缆检查	

C Safety and Emission Statement



CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.



FCC Statement

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.



C 产品保修卡

感谢您购买 IP-COM 产品,您在使用 IP-COM 产品时将享有如下服务。

一、保換、保修承诺:

保修条款(适用于2007年9月1日以后生产的产品)

产品类型	承诺政策	服务方式
PoE 交换机、百兆/干兆/万兆交换机、企业网吧专用及其它类宽带路由器、企业无线、室内无线接入点、室外无线接入点、光纤类产品(光纤收发器、光纤模块)		客户送修

说明:

- 1."一年保换,两年保修"是指产品售出后如果出现故障,第一年可以免费更换,第二年可以免费维修;
- 2. 若此产品停产,将更换性能相当的产品;
- 3.保换、保修的产品为良品;
- 4.经 IP-COM 保换、保修过的产品,保换、保修期仍然以原产品为准。

二、保换、保修内容:

保换、保修的范围仅限于产品主机。电源线、各种连接线、软件产品、说明书等附件不在保换保修范围内,若在购机后一周内附件出现问题,可无偿保换。

若产品购买后的 15 天内出现设备性能问题,且外观无划伤,可直接在购买处更换新产品。产品在安装或使用中出现问题时,可先与 IP-COM 售后服务中心取得联系,由工程师在电话里指导解决。通过沟通,确认是产品性能问题的,客户可到购买处更换同一型号或与该产品性能相当的良品。如果客户无法联系到经销商,可联系 IP-COM 售后服务中心获得保换、保修服务。但经 IP-COM 检测,确认产品无故障的,将不予保换、保修。

外置电源、无线外置天线的保修期为三个月。若返修的电源有明显的硬物损伤、裂痕、断脚、严重变形, 电源线有破损、断线、裸芯等现象则不予保修,用户可另行购买。

符合保修规定的产品,我公司将免费予以维修。

IP-COM产品实行全国范围联保。您在中华人民共和国境内(不包括港、澳、台地区)任何地方购买的产品,如果在使用过程中出现保修范围内的硬件故障,均可凭本产品的购机发票到 IP-COM 售后服务中心获得保换、保修服务。对不能提供购机发票的,按产品出厂日期向后顺延两个月作为保换、保修的起始日期。

三、有下列情况之一的,不属于保换、保修范围:

- 1. 超过保换、保修期的;
- 2. 封口标破损、私自涂改或无封口标的;
- 3.客户私白拆装或维修讨的;
- 4.人为损坏,外壳有明显划痕,受损变形的;

- 5. 在高温、高压、潮湿等不正常环境下安装使用造成故障的;
- 6. 雷击、水灾、地震等自然灾害造成损坏的。
- 四、凡不在保换保修范围内的产品,我公司可以提供有偿维修服务。有偿维修后的产品,同一性能问题 将享受自修复之日起三个月内的免费保修期。

五、其它:

上述服务承诺仅适用于我公司在中国大陆地区售出的产品。对于产品在售出时另行约定了售后服务条款的,以深圳市和为顺网络技术有限公司确认的合同为准。

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六、维修记录表

维修日期	维修编号	维修记录	维修员签字

七、用户存根

为了维护您的权益,请您认真填写,并妥善保管,送修时请出示此存根。

产 品	产品型号	
产品信息	序列号	
代	经销商名称	
理 信 息	联系电话	
息	销售日期	
	用户姓名	
用 户	通讯地址	
户 信 息	联系电话	
	E-mail	

