

100 Mbps PoE Switch

Quick Start Guide

Legal Information

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the company website Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

Trademarks Acknowledgement

Trademarks and logos mentioned are the properties of their respective owners.

LEGAL DISCLAIMER

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS MANUAL AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". OUR COMPANY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL OUR COMPANY BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF OUR COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.

YOU ACKNOWLEDGE THAT THE NATURE OF INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND OUR COMPANY SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, OUR COMPANY WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: 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 Conditions

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see:

<http://www.recyclethis.info>



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see:

<http://www.recyclethis.info>

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.




Preface

Applicable Models

This manual is applicable to POE-SWxxxxS series switches.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Note	Provides additional information to emphasize or supplement important points of the main text.

Safety Instruction

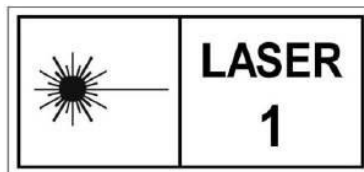
Danger

- This is a class A product and may cause radio interference in which case the user may be required to take adequate measures.
- Ensure that your devices powered via the PoE port have their shells protected and fire-proofed, because the switches are not compliant with the Limited Power Source (LPS) standard.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- The socket-outlet shall be installed near the device and shall be easily accessible.
- The device must be connected to an earthed mains socket-outlet.
- Install the device according to the instructions in this manual.
- ⚡ indicates hazardous live and the external wiring connected to the terminals requires installation by an instructed person.
- Keep body parts away from fan blades. Disconnect the power source during servicing.
- Never place the device in an unstable location. The device may fall, causing serious personal injury or death.
- This device is not suitable for use in locations where children are likely to be present.

- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas. Dispose of used batteries according to the instructions.

 **Caution**

- CAUTION: Double pole/Neutral fusing. After operation of the fuse, parts of the device that remain energized might represent a hazard during servicing.
- The device has been designed, when required, modified for connection to an IT power distribution system.
- This device is suitable for mounting on concrete or other non-combustible surface only.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc. The openings shall never be blocked by placing the device on a bed, sofa, rug or other similar surface.
- No naked flame sources, such as lighted candles, should be placed on the device.
- The device shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the device.
- Burned fingers when handling the cover area of the device. Wait one-half hour after switching off before handling the parts.
- CLASS 1 LASER PRODUCT



Chapter 1 Introduction

1.1 Product Introduction

POE-SWxxxxS series switches (hereinafter referred to as "the device") are layer 2 PoE switches, providing advanced PoE power supply technology on the basis of high-performance access. The switches support client management, network topology management, link aggregation, port management and so on. The switches are suitable for small-scale LAN device access.

1.2 Packing List

	POE-SW401S/ POE-SW801S Series	POE-SW1602S/ POE-SW2402S Series
Switch	× 1	× 1
Power Adapter	× 1	× 1
Screw	-	× 4
L-Shaped Bracket	-	× 2
Quick Start Guide	× 1	× 1

1.3 Appearance

Different models of devices may have different appearances. The following pictures are only for illustration.

Front Panel

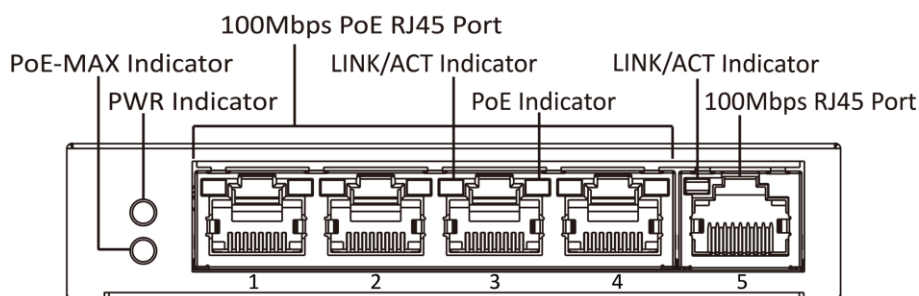


Figure 1-1 POE-SW401S Series

Note

The front panel of POE-SW801S switch is similar to that of POE-SW401S, with differences on 8 100Mbps PoE RJ45 ports, and that No.9 port is gigabit RJ45 port.

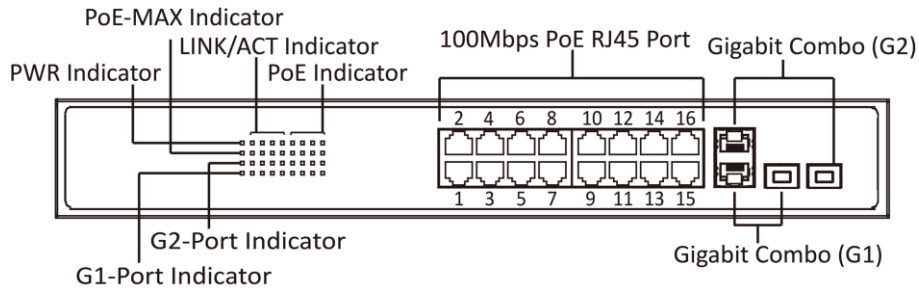


Figure 1-2 POE-SW1602S Series

Note

The front panel of POE-SW2402S switch is similar to that of POE-SW1602S, with differences on 24 100Mbps PoE RJ45 ports, 24 LINK/ACT, and 24 PoE indicators.

Rear Panel

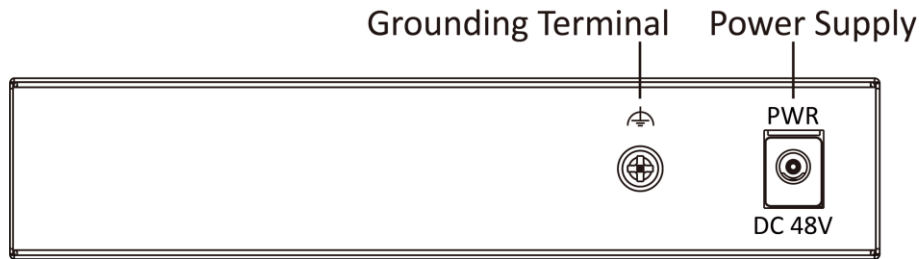


Figure 1-3 POE-SW401S/ POE-SW801S Series

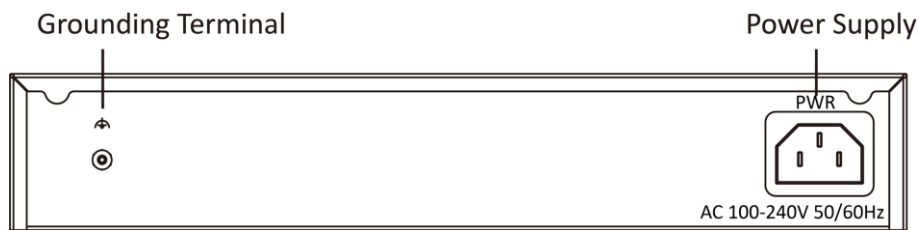


Figure 1-4 POE-SW1602S/ POE-SW2402S Series

Port/Indicator Description

Indicator/Port	Description
PoE-MAX Indicator	<ul style="list-style-type: none"> ● Solid /Flashing: The output power of the switch will reach the upper limit. The power supply may be abnormal if more devices

100 Mbps PoE Switch Quick Start Guide

	<p>are connected.</p> <ul style="list-style-type: none">● Unlit: The switch provides power supply to PD normally.
PWR Indicator	<ul style="list-style-type: none">● Solid: The switch is powered on normally.● Unlit: No power supply connected or power supply is abnormal.
LINK/ACT Indicator	<ul style="list-style-type: none">● Solid: The port is connected.● Flashing: The port is transmitting data.● Unlit: The port is disconnected or connection is abnormal.
PoE Indicator	<ul style="list-style-type: none">● Solid: The switch provides power supply to PD normally.● Unlit: The switch is disconnected to PD, or provides power supply to PD abnormally.
G1/G2 Port Indicator	<ul style="list-style-type: none">● Solid: The gigabit SFP fiber optical port is connected.● Flashing: The gigabit SFP fiber optical port is transmitting data.● Unlit: No gigabit SFP fiber optical port connected or connection is abnormal.
100Mbps PoE RJ45 Port	Used for PD devices connection via network cables.
100Mbps RJ45 Port	Used for other devices connection via network cables.
Gigabit Combo	<ul style="list-style-type: none">● When connected to a network cable, the combo is a RJ45 port. When plugged into with an optical module and connected to an optical fiber, the combo functions as a fiber optic port.● When connected to both the network cable and optical fiber at the same time, the port works as a fiber optic port.
Grounding Terminal	Used for connecting to the grounding cable to protect the switch from lightning.
Power Supply	Use the attached power cord to connect the switch to socket.

Chapter 2 Installation

Please select the appropriate installation method according to the actual needs.

Before You Start

- Ensure that the desktop or rack is stable and firm enough.
- Keep the room well-ventilated. Keep at least 10 cm distance around the device for heat dissipation.
- Keep at least 1.5 cm vertical distance between two adjacent devices for rack-mount installation.

2.1 Desk-Mounted Installation

Place the device on the desk.

2.2 Wall-Mounted Installation

Before You Start

Prepare the tools.

Steps

1. Check the distance between the two hanging holes on the rear cover of the device.
2. Insert two M4 screws into the wall.

Note

- Ensure that the distance between the two screws equals to the distance between the two hanging holes.
 - Set aside at least 4 mm screws outside the wall.
-

3. Align the hanging holes with screws, and hang the device on the screws.

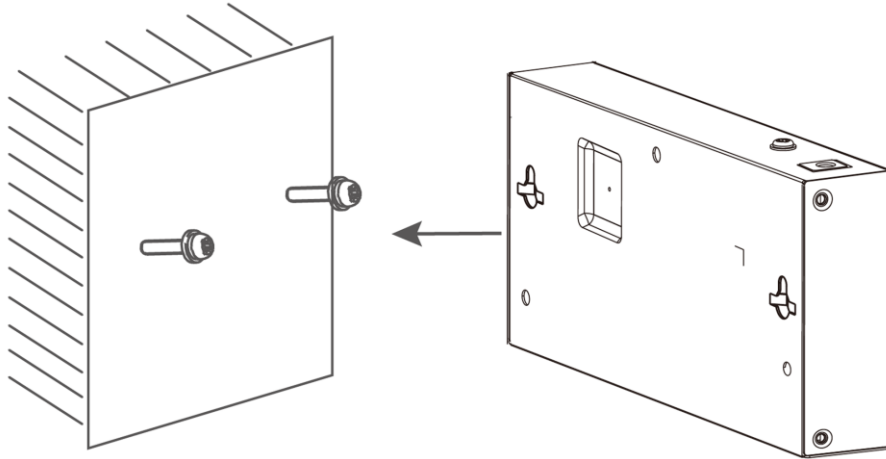


Figure 2-1 Wall-Mounted Installation

2.3 Rack-Mounted Installation

Steps

1. Check the grounding and stability of the rack.
2. Use the attached screws to fix the two L-shaped brackets to the sides of the switch.

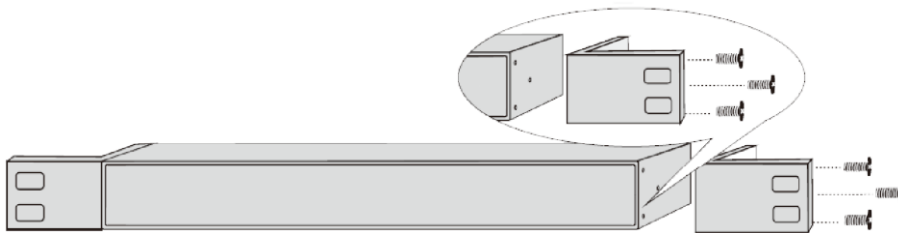


Figure 2-2 Fix L-Shaped Brackets

3. Place your switch on the rack, fix it to the rack with self-prepared screws to stably install your switch.

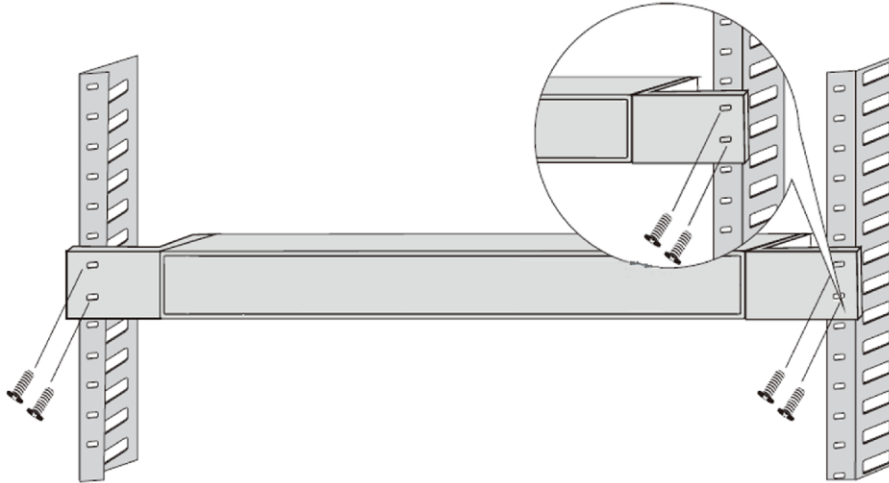


Figure 2-3 Fix to the Rack

Chapter 3 Grounding

3.1 Connect Grounding Cable

Grounding is used to quickly release overvoltage and overcurrent induced by lightning for switch, and to protect personal safety. Select the appropriate grounding method according to your needs.

3.1.1 With Grounding Bar

If a grounding bar is available at the installation site, follow the steps below.

Steps

1. Connect one end of the grounding cable to the binding post on the grounding bar.
2. Connect the other end of the grounding cable to the grounding terminal of the device and fix the screw.

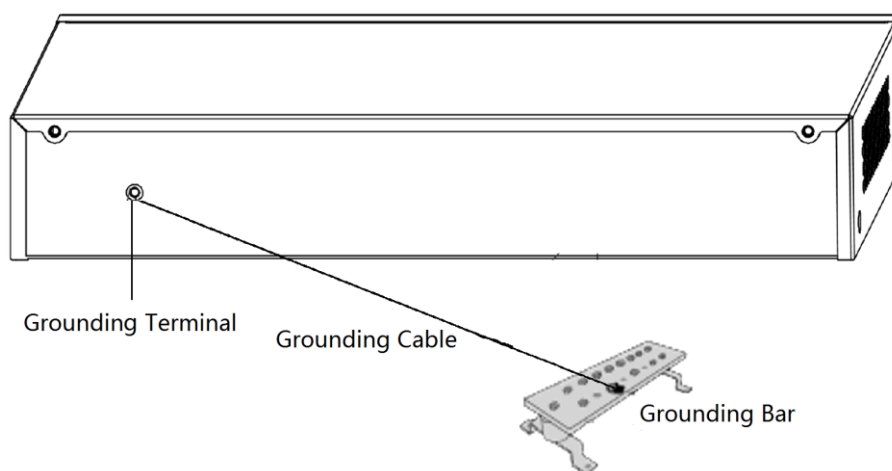


Figure 3-1 Ground with Grounding Bar

3.1.2 Without Grounding Bar

If there is no grounding bar but the earth is nearby and the grounding body is allowed to be buried, follow the steps below.

Steps

1. Bury an angle steel or steel pipe (≥ 0.5 m) into the mud land.
2. Weld one end of the grounding cable to the angle steel or steel pipe and embalm the welding point via electroplating or coating.

3. Connect the other end of the grounding cable to the grounding terminal.

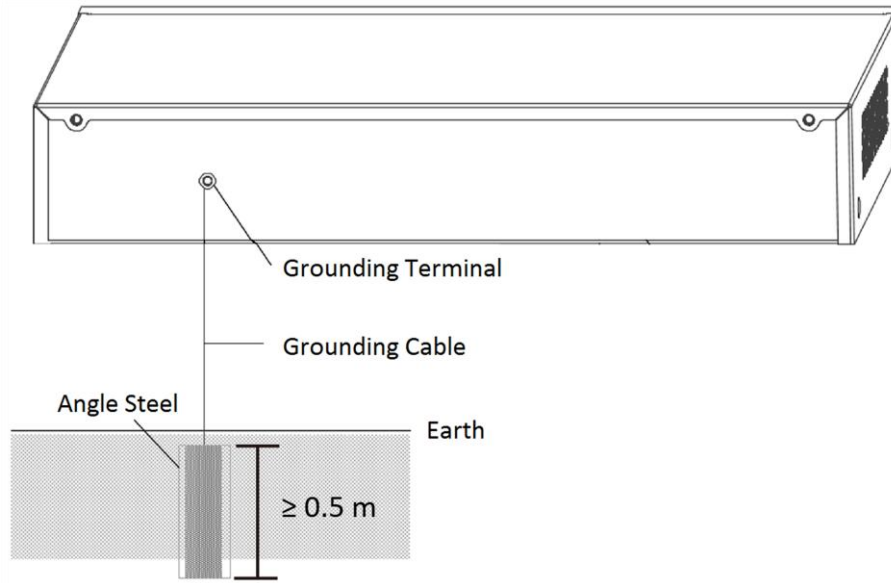


Figure 3-2 Ground with Angle Steel

3.2 Connect RJ45 Port

Use a network cable to connect the device to the RJ45 port of a peer device such as network camera, NVR, switch, etc.

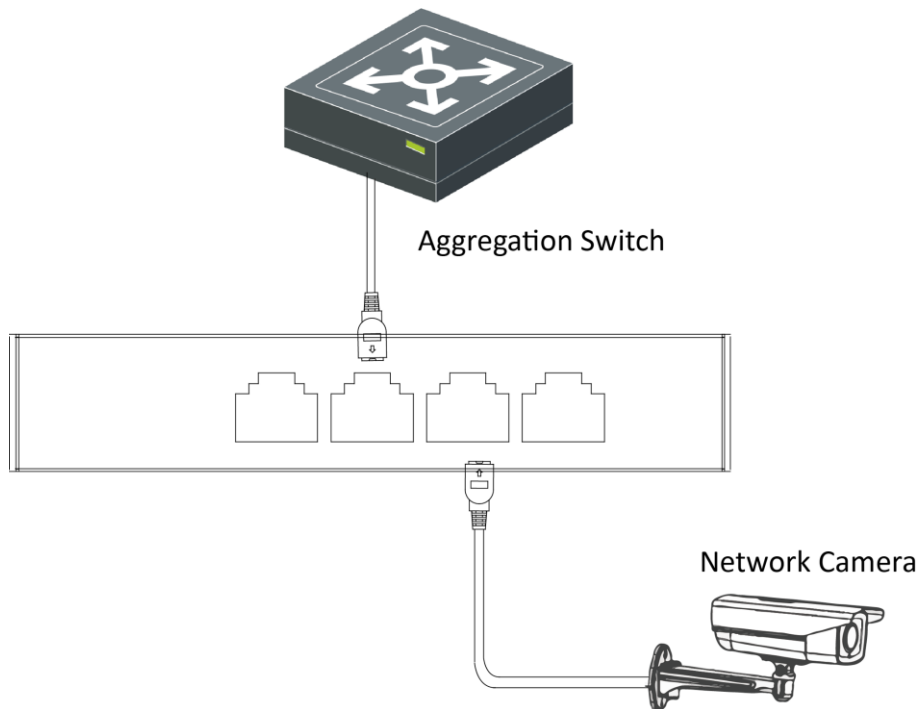


Figure 3-3 RJ45 Port Connection

3.3 Connecting SFP Optical Module

Connecting SFP optical module is supported when the device has a fiber optic port or a combo.

When connected to a network cable, the combo is a RJ45 port. When plugged into with an optical module and connected to an optical fiber, the combo functions as a fiber optic port.

When connected to both the network cable and optical fiber at the same time, the port works as a fiber optic port.

Steps

Caution

- Single-Mode optical module needs to be paired.
 - Do not bend fiber optic (curvature radius ≥ 10 cm) overly.
 - Do not look directly at fiber optic connector because the laser is harmful to eyes.
-

1. Connect the two paired SFP optical modules with an optical fiber.
2. Hold the SFP optical module from one side, and smoothly plug it into the device along with the SFP port slot until the optical module and the device are closely attached.
3. After powering on the device, check the status of LINK/ACT indicator. If the indicator is lit, the link is connected. If the indicator is unlit, the link is disconnected. Check the line, and make sure peer devices have been started.

Chapter 4 Power on the Device

Please use the attached power cord in package to power on the device.

Before powering your switch, make sure that:

- The operating power supply is compliant with rated input standard.
 - Port cables and grounding cables are correctly connected.
 - If there is outdoor cabling, connect a lightning rod and lightning arrester to the cable.
-

Caution

PoE power supply line and strong wire cannot be wired together, otherwise PD equipment or switch ports will be burnt.

Chapter 5 Device Management

The device can be configured and managed through NVMS V3 software, mainly including network parameter configuration, port configuration, link aggregation configuration, network topology display, and so on.

Note

- This chapter will briefly introduce the device management through NVMS V3 software. For other functions, please refer to *User Manual of NVMS V3 Software*.
- All pictures in this manual are for illustration only, and the specific interface is subject to the actual interface.

5.1 Activate Devices

For the inactive devices, you are required to create a password to activate them before they can be added to the software and work properly.

Before You Start

Make sure the device to be activated is connected to the network and is in the same network segment with the PC running the client.

Steps

Note

This function should be supported by the device.

1. Enter the Device Management page.
2. Click **Device** tab on the top of the right panel.
3. Click **Online Device** to show the online device area at the bottom of the page.
The searched online devices are displayed in the list.
4. Check the device status (shown on **Security Level** column) and select an inactive device.

IP	Device Mo...	Firmwa...	Security...	Port	Enhance...	Serial No.	Boot Time	Added	Support...	Hik-
192.168.1.64	V5.4.0b...		Inactive	8000	N/A	20141119CCWR...	2019-08-10 22:18...	No	N/A	N/A

Figure 5-1 Online Inactive Devices

5. Click **Activate** to open the Activation dialog.

Activate [X]

Device Activation

User Name admin

Password

8 to 16 digits. The combination should contain at least two of the following types: numbers, upper case letters, lower case letters, special characters (!"#\$%&'()*+,-./:;<=>?@[^_`{|}~ and space).

Confirm Password

OK Cancel

Figure 5-2 Activate Online Device

6. Create a password in the password field, and confirm the password.

! Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

7. Click **OK** to activate the device.

5.2 Add Devices

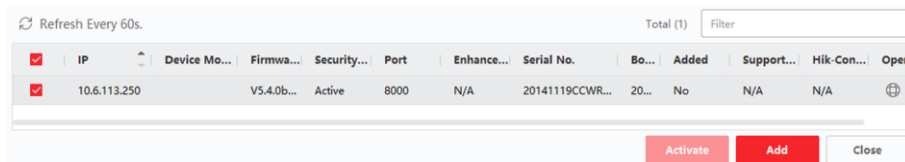
The client provides various device adding modes including IP/domain, IP segment, cloud P2P, ISUP

100 Mbps PoE Switch Quick Start Guide

protocol, and HiDDNS. The client also supports importing multiple devices in a batch when there are large amount of devices to be added. The section only introduces one mode, namely, adding a detected online device.

Steps

1. Enter the Device Management module.
2. Click **Device** tab on the top of the right panel.
3. Click **Online Device** to show the online device area.
The searched online devices are displayed in the list.



<input checked="" type="checkbox"/>	IP	Device Mo...	Firmwa...	Security...	Port	Enhance...	Serial No.	Bo...	Added	Support...	Hik-Con...	Oper
<input checked="" type="checkbox"/>	10.6.113.250	V5.4.0b...	Active	8000	N/A	20141119CCWR...	20...	No	N/A	N/A		

Figure 5-3 Select Online Device

4. Select an online device in the **Online Device** area, and click **Add** to open the device adding dialog.

Note

For the inactive device, you need to create the password for it before you can add the device properly. For detailed steps, refer to **Activate Devices**.

Add [Close]

Name []

IP Address [10.6.113.250]

Port [8000]

User Name []

Password []

Synchronize Time

Import to Group

i Set the device name as the group name and add all the channels connected to the device to the group.

[Add] [Cancel]

Figure 5-4 Add Online Device

5. Enter the required information.

Name

Enter a descriptive name for the device.

IP Address

Enter the device's IP address. The IP address of the device is obtained automatically in this adding mode.

Port

You can customize the port No. The port No. of the device is obtained automatically in this adding mode.

User Name

By default, the user name is *admin*.

Password


Enter the device password.

Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.


Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.


6. Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.
7. Click **Add**.
8. Optional: Perform the following operation(s).


Remote Configuration Click  on Operation column to set remote configuration of the corresponding device.

Note

See the user manual of the device for details.

Device Status Click  on Operation column to view device status, including cameras, recording status, signal status, hardware status, etc.

Edit Device Information Click  on Operation column to edit the device information, such as IP address, user name, and password.

Check Online User Click  on Operation column to check the online users who access the device, such as user name, user type, user's IP address, and login time.

Refresh Click  on Operation column to get the latest device information.

Delete Device Select one or multiple devices and click **Delete** to delete the selected device(s) from the client.