DS-3T3512P Gigabit PoE Switch

User Manual

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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 DS-3T35XXP 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.

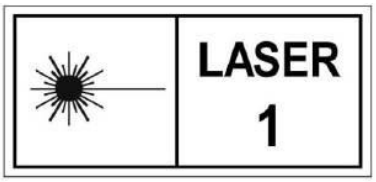
Safety Instruction

- **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.
- ϟ 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

DS-3T3512P series switches (hereinafter referred to as "the device") are layer 3 Industrial 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 and medium sized LAN device access. In addition,DS-3T3512P Series layer 3 industrial Ethernet Switches has a rugged metal housing to ensure suitability for use in industrial environments

1.2 Packing List

	DS-3T3512P Series
Switch	× 1
Console line	× 1
Quick Start Guide	× 1
Packing list	× 1

1.3 Appearance

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

illustration.

Front Panel

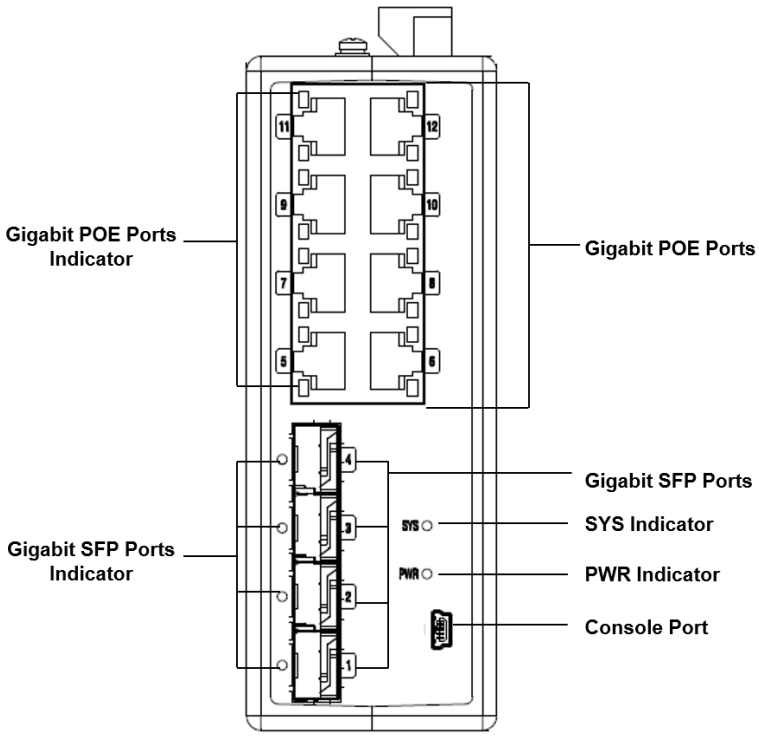


Figure 1-1 DS-3T3512P Front Panel

Rear Panel

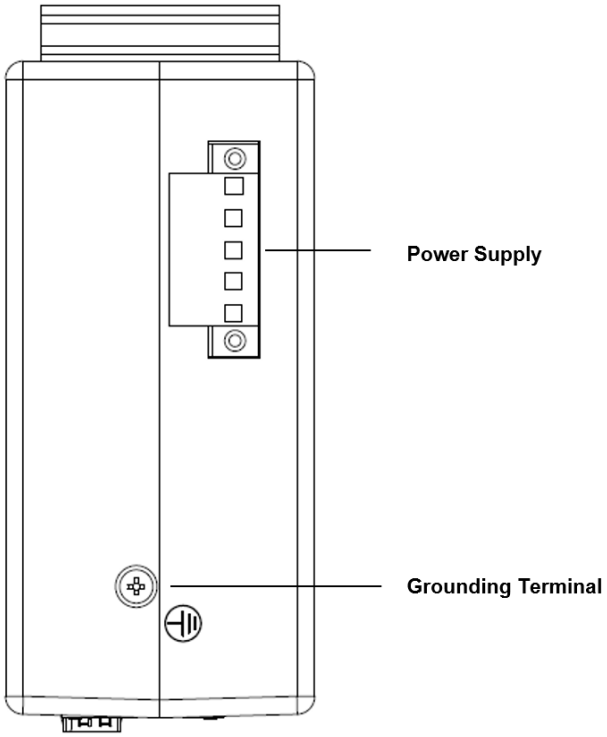


Figure 1-2 DS-3T3512P Rear Panel

Port/Indicator Description

Indicator/Port	Description
PWR Indicator	● Solid: The switch is powered on normally. ● Unlit: No power supply connected or power supply is abnormal.
SFP LINK/ACT Indicator	● Solid: The port is connected. ● Flashing: The port is transmitting data. ● Unlit: The port is disconnected or connection is abnormal.
PoE LINK/ACT Indicator	● Solid: The port is connected. ● Flashing: The port is transmitting data. ● Unlit: The port is disconnected or connection is abnormal.
SYS Indicator	● Flashing: The switch is powered on normally. ● Unlit: No power supply connected or power supply is abnormal.

Chapter 2 Installation

2.1 Cautions

Similar to other electronic products, the semiconductor chip easily gets damaged if you power on and off abruptly and frequently. To restart up the switch of DS-3T3512P, you have to open the power on-off three or five seconds after the power is cut off.

Avoid severe collision or falling down from the height to protect the parts in the switch.

Use correct outside ports to connect the switch of DS-3T3512P. Do not insert the Ethernet plug into the console port (RJ45 8-line socket). Similarly, do not insert the console cable into the console port (RJ45 8-line socket).

Note:

1) When you plug or dial out the power line, keep the power line horizontal with the power socket.

2) When the lifetime of our products ends, handle them according to national laws and regulations, or send these products to our company for collective processing.

3) When using the product, please use the chassis that meets the fire protection requirements

2.2 Safety Advice

2.2.1 Safety Principles

- Keep dustless and clean during or after the installation.
- Put the cover at the safe place.
- Put tools at the right place where they are not easily falling down.
- Put on relatively tight clothes, fasten the tie or scarf well and roll up the sleeve, avoiding stumbling the chassis.
- Put on the protective glasses if the environment may cause damage to your eyes.
- Avoid incorrect operations that may cause damage to human or devices.

2.2.2 Safety Notices

The safety notices mentioned here means that improper operation may lead to body damage.

- Read the installation guide carefully before you operate the system.
- Only professionals are allowed to install or replace the switch.

- Pull out the AC power socket and close the direct-current power before operating on the chassis or working beside the power source.
- The final configuration of products must comply with relative national laws and regulations.

2.2.3 Safety Principles for Live Working

When you work under electricity, following the following principles:

- Put off ornaments, such as ring, necklace and watch, before you operate under live working. When metal articles connect the power to the ground, short circuit happens and components may be damaged.
- Pull out the AC power socket and close the direct-current power before operating on the chassis or working beside the power source.
- When the power is on, do not touch the power.
- Correctly connect the device and the power socket.
- Only professionals are allowed to operate and maintain the device.
- Read the installation guide carefully before the system is powered on.

Note:

1) Check potential dangers, such as the humid floor, ungrounded extensible power line and tatty power line.
2) Install the emergent on-off at the working room for turning off the power when trouble happens.
3) Turn off the power on-off of the switch and plug off the power line before installing or uninstalling the chassis or working beside the power.
4) Do not work alone if potential dangers exist.
5) Cut off the power before checkout.
6) If trouble happens, take the following measures:
   A. Cut off the system's power.
   B. Alarm
   C. Take proper measures to help persons who are hit by the disaster. Artificial respiration is needed if necessary.
   D. Seek for medical help, or judge the loss and seek for available help.

2.2.4 Electrostatic Discharge Prevention

Electrostatic discharge may damage devices and circuits. Improper treatment may cause the switch to malfunction completely or discontinuously.

Move or locate the devices according to the measures of electrostatic discharge prevention, ensuring the chassis connects the ground. Another measure is to wear the static-proof hand ring. If there is no hand ring, use the metal clip with the metal cable to clip the unpainted metal part of the chassis. In this case, the static is discharged to the ground through the metal cable of the clip. You can also discharge the static to the ground through your body.

2.3 Requirements for Common Locations

This part describes the requirements for the installation locations.

2.3.1 Environment

The switch can be installed on the desk or the cabinet. The location of the chassis, cabinet planning and indoor cabling are very important for normal system's function. Short distance between devices, bad ventilation and untouchable control plate will cause maintenance problems, systematic faulty and breakdown.

For location planning and device locating, refer to section 2.3.2 "Location Configuration Prevention".

2.3.2 Location Configuration Prevention

The following preventive measures assist you to design the proper environment for the switch.

- Make sure that the workshop is well-ventilated, the heat of electrical devices is well-discharged and sufficient air circulation is provided for device cooling.
- Avoid to damage devices by following the electrostatic discharge prevention procedure.
- Put the chassis at the place where cool air can blow off the heat inside the chassis. Make sure the chassis is sealed because the opened chassis will reverse the cool air flow.

2.3.3 Power Requirements

Make sure that the power supply has nice grounding and the power at the input side of the switch is reliable. The voltage control can be installed if necessary. At least a 240 V, 10A fuse or a breaker is provided in the phase line if you prepare the short-circuit prevention measures for a building.

Caution:

If the power supply system does not have good grounding, or the input power disturbs too much and excessive pulses exist, the error code rate of communication devices increases and even the hardware system will be damaged.

Chapter 3 Grounding

3.1 Connecting the Grounding Cable

Grounding is used to quickly release overvoltage and overcurrent induced by lightening 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.

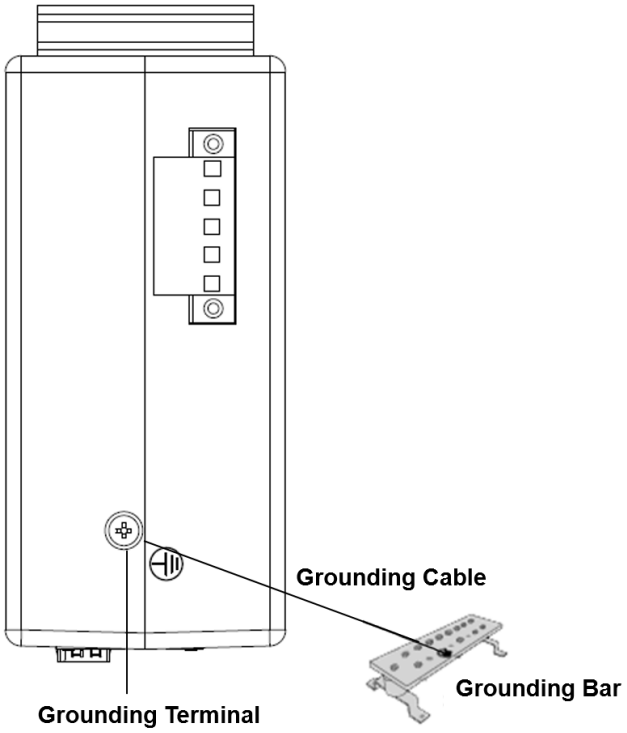


Figure 3-1 Grounding with Grounding Bar

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.

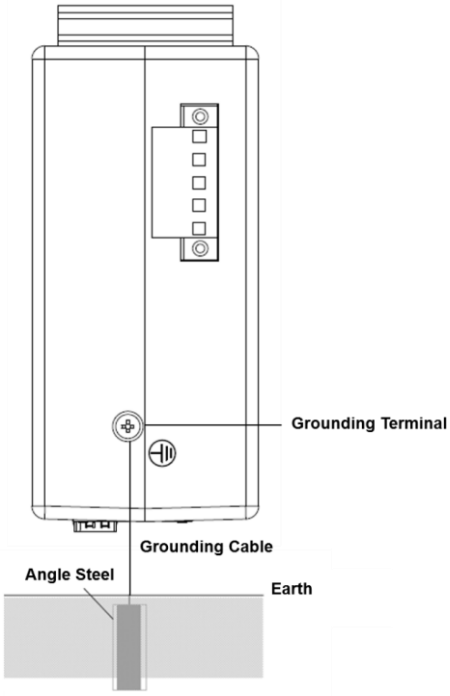


Figure 3-2 Grounding with Angle Steel

3.2 Connecting 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.

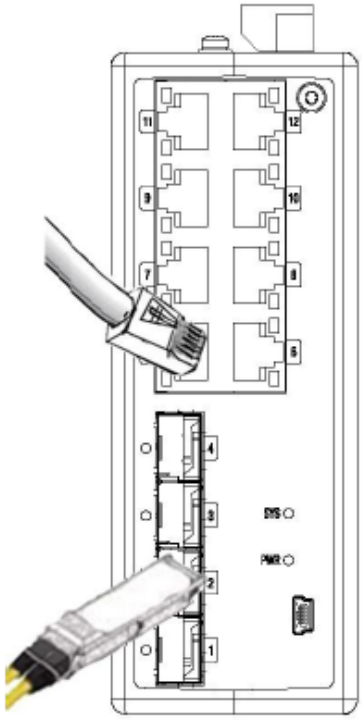


Figure 3-3 RJ45 Port Connection

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 Powering 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 lightening 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

You can manage your devices on the Web.

Note

This chapter mainly introduces how to activate and add the device to the Web.

5.1 On the Web

You can manage your device on the Web. For the first time usage, you must activate the device and configure the password.

Before You Start

The computer and the device are on the same network segment.

Steps

Note

Take DS-3T3512P as an example. All figures in this manual are for illustration purpose only.

1. Enter the default IP https://192.168.1.64 in the browser address bar.

Figure 5-2 Activation

Note

You are recommended to use the newest version of the following browsers: IE 10+, Edge, and Chrome 31+.

2. Configure the password and confirm it.
3. Click **OK**.

   Go to the login page.

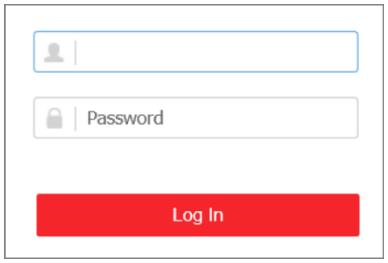


Figure 5-3 Login

4. Enter the **User Name** and **Password**, and click **Log In**.
5. Optional: Change the network configuration.

   1) Go to **System Management** → **Network Configuration**.

Figure 5-4 Network Configuration

   2) Change the IP address, mask address, the gateway address, DNS and alternative DNS as needed. You can log in to the switch with the new IP address next time.

Note

You are recommended to change the network configuration to better manage the device.


See Far, Go Further