SICOM6448G Series Industrial Ethernet Switches Hardware Installation Manual

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KYLAND

SICOM6448G Series Industrial Ethernet Switches

Hardware Installation Manual

Disclaimer: Kyland Technology Co., Ltd. tries to keep the content of this manual as accurate and as updated as possible. This document is not guaranteed to be error-free, and we reserve the right to amend it without notice to users.

Notice for Safety Operation

The product performs reliably as long as it is used according to the guidance. Artificial damage or destruction of the device should be avoided. Before using the device, read this manual carefully for personal and equipment safety. Please keep the manual for further reference. Kyland is not liable to any personal or equipment damage caused by violation of this notice.

- Do not place the device near water sources or damp areas. Keep the ambient relative humidity within the range from 5% to 95% (non-condensing).
- Do not place the device in an environment with high magnetic field, strong shock, or high temperature. Keep the working and storage temperatures within the allowed range.
- Install and place the device securely and firmly.
- Please keep the device clean; if necessary, wipe it with a soft cotton cloth.
- Do not place any irrelevant materials on the device or cables. Ensure adequate heat dissipation and tidy cable layout without knots.
- Wear antistatic gloves or take other protective measures when operating the device.
- Avoid any exposed metal wires because they may be oxidized or electrified.
- Install the device in accordance with related national and local regulations.
- Before power-on, make sure the power supply is within the allowed range of the device. High voltage may damage the device.
- Power connectors and other connectors should be firmly interconnected.
- Do not plug in or out the power supply with wet hands. When the device is powered on, do not touch the device or any parts with wet hands.
- Before operating a device connected to a power cable, remove all jewelry (such as rings, bracelets, watches, and necklaces) or any other metal objects, because they may cause electric shock or burns.
- Do not operate the device or connect or disconnect cables during an electrical storm.
- Use compatible connectors and cables. If you are not sure, contact our sales or technical support personnel for confirmation.

- Do not disassemble the device by yourself. When an anomaly occurs, contact our sales or technical support personnel.
- If any part is lost, contact our sales or technical support personnel to purchase the substitute. Do not purchase parts from other channels.
- Dispose of the device in accordance with relevant national provisions, preventing environmental pollution.
- Specification of the internal fuses in this equipment: 3.15A/300V.

In the following cases, please immediately shut down your power supply and contact your Kyland representative:

- Water gets into the equipment.
- Equipment damage or shell damage.
- Equipment operation or performance has abnormally changed.
- The equipment emits odor, smoke or abnormal noise.

The following information applies when operating this device in hazardous locations:

Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations, or nonhazardous locations only.

Cet appareillage est utilisable dans les emplacements de Classe I, Division 2, Groupes A, B, C et D, ou dans les emplacements non dangereux seulement.

WARNING: EXPLOSION HAZARD

- Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.
- Substitution of any component may impair suitability for Class I, Division 2.

AVERTISSEMENT: RISQUE D'EXPLOSION

- Avant de deconnecter l'equipement, couper le courant ou s'assurer que l'emplacement est designe non dangereux.
- La substitution de composants peut rendre ce materiel inacceptable pour les emplacements de Classe I, Division 2.

Contents

1 Product Overview 2
2 Structure and Interface 3
2.1 Front Panel 3
2.2 Rear Panel 4
3 Switch Installation 5
3.1 Dimension Drawing 5
3.2 Mounting Modes and Steps 6
4 Connection 9
4.1 10/100/1000Base-T(X) Ethernet Port 9
4.2 1000Base-X, 10/100/1000Base-T(X) SFP slot 10
4.3 1000Base-X, 10/100/1000Base-T(X) Combo port 13
4.4 10GBase-X SFP+ port 14
4.5 Console Port 14
4.6 Grounding 15
4.7 Power Terminal Block 16
4.8 Alarm Terminal Block 17
5 LEDs 19
6 Switch Access 22
6.1 Access through Console Port 22
6.2 Access through Telnet 24
6.3 Access through Web 25
7 Basic Features and Specifications 26

1 Product Overview

SICOM6448G includes a series of high-performance gigabit industrial Ethernet switches developed by Kyland. The series devices are applicable to rail transit(ground system), Petrochemical core switching system. The series switches support high density gigabit ports and flexible configuration of gigabit optical ports and gigabit electrical ports. All the devices meet the requirements stipulated in the EN50121-4 and other industrial standards. SICOM6448G provides powerful network management functions. The devices can be managed through CLI, Telnet, Web, and SNMP-based network management software.

The series switches support 2U rack mounting by front/rear panel.

Table 1 SICOM6448G configuration table

Product version	**SICOM6448G-Ports-PS1-PS2** **SICOM6448G-C-Ports-PS1-PS2**
Code definition	Code type
C	three proofing coatings
Ports	4X20G28GE、4X8G24GX16GE、20G28GE、8G24GX16GE
	NOTE： *4X8G24GX16GE：four 10GBase-X SFP+；* *eight 10/100/1000Base-T(X)combo ports；* *twenty-four 1000Base-X，10/100/1000Base-T(X) SFP ports；* *sixteen 10/100/1000Base-T(X) ports.*
PS1:Input power 1	HV（220AC/DCW）
PS2:Input power 2	HV（220AC/DCW）、NA

Note：

For the product information listed in these tables, we reserve the right to amend it without notice.

To obtain the latest information, you can contact our sales or technical support personnel.

2 Structure and Interface

Caution:

It is recommended to purchase the port dustproof shield (optional) to keep ports clean and ensure device performance.

2.1 Front Panel

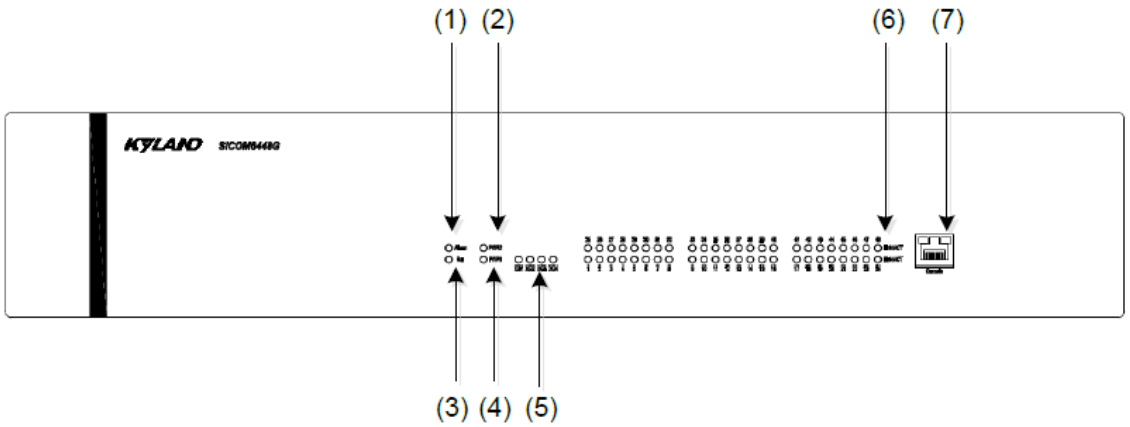


Figure 1 Front Panel

Table 2 Description of the Front Panel

No.	Identifier	Description
(1)	Alarm	Alarm LED
(2)	PWR2	Power 2 LED
(3)	Run	Running LED
(4)	PWR1	Power 1 LED
(5)	XG(1-4)	four 10GBase-X SFP+ port connection status LEDs
(6)	(1-48)Link/ACT	Forty-eight 1000Base-X port connection status LEDs;
(7)	Console	One console port.

2.2 Rear Panel

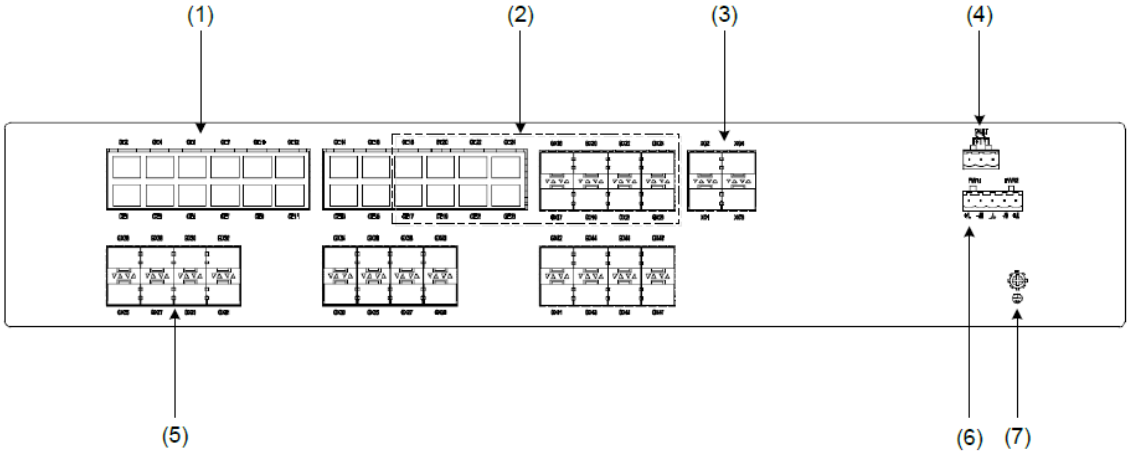


Figure 2 Rear Panel

Table 3 Description of the Rear Panel

No.	Identifier	Description
(1)	GE(1-16)	Sixteen 10/100/1000Base-T(X) Ethernet interface;
(2)	GX/GE(17-24)	Eight 1000Base-X, 10/100/1000Base-T(X)Combo interface;
(3)	XG(1-4)	Four 10GBase-X SFP+ interface;
(4)	FAULT	Alarm terminal block;
(5)	GX(25-48)	Twenty-four 1000Base-X, 10/100/1000Base-T(X)SFP interface;
(6)	PWR1 / PWR2	Power terminal block;
(7)		Grounding screw.

3 Switch Installation

3.1 Dimension Drawing

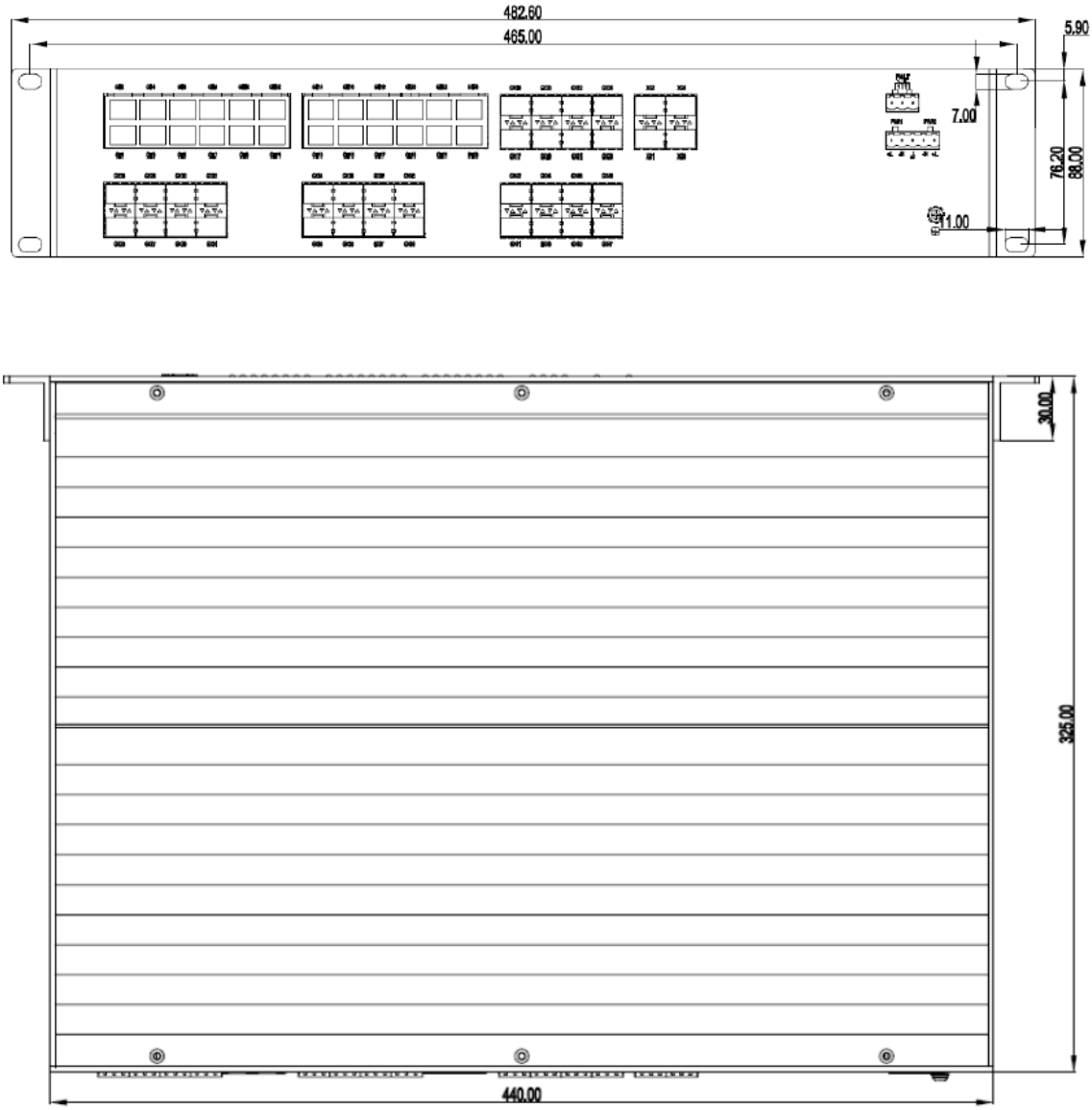


Figure 3 Dimensions (unit: mm)

Caution:

- As part of the heat dissipation system, the switch housing becomes hot during operation. Please use caution when coming in contact and avoid covering the switch housing when the switch is running.
- The figures in this manual are only for reference.

3.2 Mounting Modes and Steps

The series switches support rack mounting by front/rear panel. The following uses mounting by front panel as an example to describe mounting steps. The steps for mounting by rear panel are similar to those for mounting by front panel. Before installation, make sure that the following requirements are met.

1) Environment: temperature (-20℃ to 60℃), ambient relative humidity (5% to 95%, non-condensing)
2) Power requirement: The power input is within the voltage range of the switch.
3) Grounding resistance: <5Ω
4) No direct sunlight, distant from heat source and areas with strong electromagnetic interference.
5) Devices are to be installed in an authority certified enclosure and accessible only by the use of a tool.
6) Devices should be installed and accessed by service personnel or users who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken.

- Installing Mounting Brackets

The mounting brackets for this series switches support two mounting positions, as indicated by the two dashed boxes in the following figure. You can select either of the mounting positions as needed.

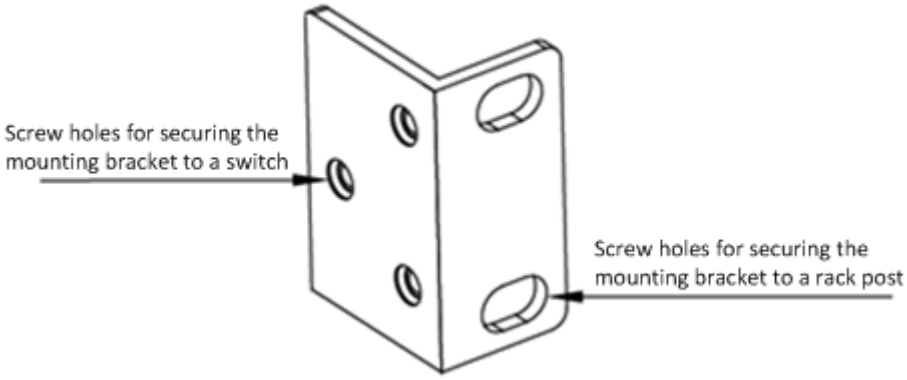


Figure 4 Mounting Bracket

You can select the screw holes for front or rear panel mounting to install the mounting

brackets. If there are screws inserted in the screw holes, remove the screws and keep them for future use.

As shown in the following figure, use four screws to secure two mounting brackets to the switch respectively.

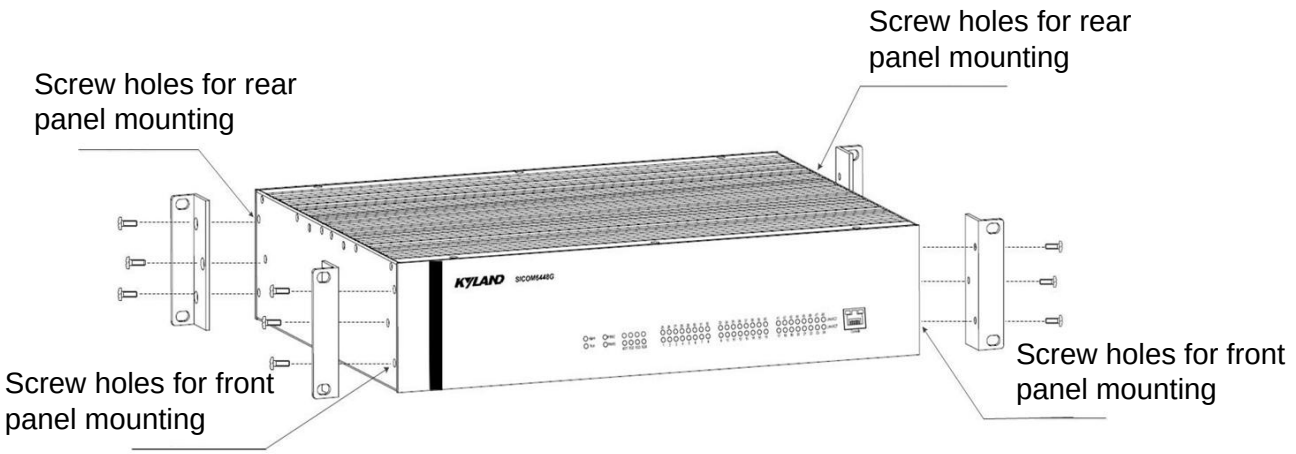


Figure 5 Installing Mounting Brackets

- Mounting

Step 1: Select the mounting position for the switch and guarantee adequate space and heat dissipation (house dimensions: 440mm×44mm×325mm).

Step 2: Move the switch in direction 1 until the screw holes for securing the mounting brackets to rack posts are in alignment with the corresponding holes in the rack posts. Then use four screws and supporting captive nuts to secure the mounting brackets to the rack posts.

- Dismounting

Step 1: Remove the four screws and supporting captive nuts securing the mounting brackets to the rack posts.

Step 2: Remove the switch from the rack posts. Then unscrew the mounting brackets to complete dismounting.

Caution:

- Cut off the power and disconnect all cables before mounting, dismounting or moving the equipment.

- The mounting brackets can only fix the switch and can not bear the load. Please select a rack with a tray or rail for installation.
- In a high vibration environment, the front and rear panels of the device are secured to the rack at the same time to ensure safe use. Only two mounting brackets are available. Additional mounting flanges are optional.

4 Connection

4.1 10/100/1000Base-T(X) Ethernet Port

10/100/1000Base-T(X) Ethernet port is equipped with RJ45 connector. The port is self-adaptive. It can automatically configure itself to work in 10M, 100M, or 1000M state, full or half duplex mode. The port can also adapt to MDI or MDI-X connection automatically. You can connect the port to a terminal or network device with a straight-through or cross-over cable.

- Pin Definition

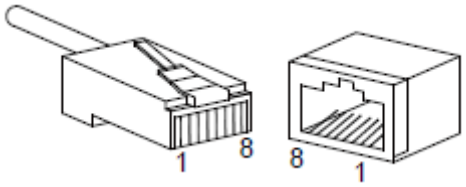


Figure 6 RJ45 Port

Table 4 Pin Definitions of 10/100/1000Base-T(X) RJ45 Port

Pin	MDI-X	MDI
1	Transmit/Receive Data (TRD1+)	Transmit/Receive Data (TRD0+)
2	Transmit/Receive Data (TRD1-)	Transmit/Receive Data (TRD0-)
3	Transmit/Receive Data (TRD0+)	Transmit/Receive Data (TRD1+)
4	Transmit/Receive Data (TRD3+)	Transmit/Receive Data (TRD2+)
5	Transmit/Receive Data (TRD3-)	Transmit/Receive Data (TRD2-)
6	Transmit/Receive Data (TRD0-)	Transmit/Receive Data (TRD1-)
7	Transmit/Receive Data (TRD2+)	Transmit/Receive Data (TRD3+)
8	Transmit/Receive Data (TRD2-)	Transmit/Receive Data (TRD3-)
NOTE	**Note:** "+" and "-" indicate level polarities.	

- Wiring Sequence

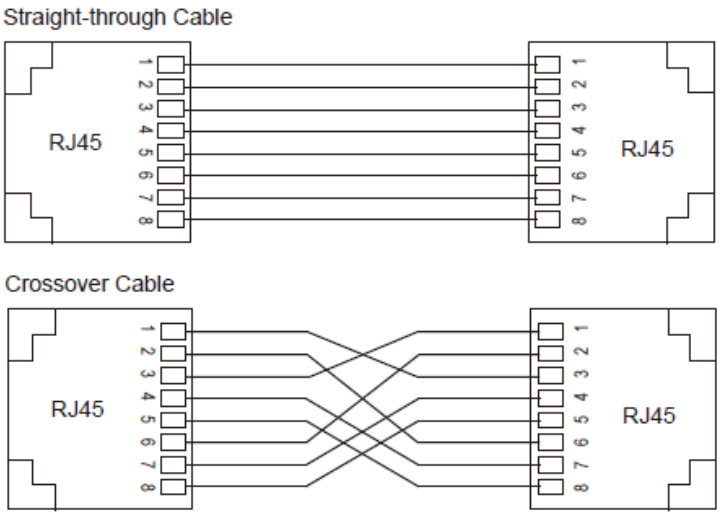


Figure 7 Connection Using Straight-through/Cross-over Cable

Note：

The color of the cable for RJ45 connector meets the 568B standard: 1-orange and white, 2-orange, 3-green and white, 4-blue, 5-blue and white, 6-green, 7-brown and white, and 8-brown.

4.2 1000Base-X, 10/100/1000Base-T(X) SFP slot

1000Base-X, 10/100/1000Base-T(X) SFP slot (gigabit SFP slot) requires an SFP optical/electrical module to enable data transmission. The following table lists the gigabit SFP optical/electrical modules (optional) supported by the series switches.

Table 5 Gigabit SFP Optical/Electrical Modules

Model	Port	MM/SM	Connector	Central Wavelength	Transmission Distance
IGSFP-M-SX-LC-850-0.55	1000Base-X port	MM	LC	850nm	0.55km
IGSFP-S-LX-LC-1310-10	1000Base-X port	SM	LC	1310nm	10km
IGSFP-S-LH-LC-1310-40	1000Base-X port	SM	LC	1310nm	40km
IGSFP-S-ZX-LC-1550-80	1000Base-X port	SM	LC	1550nm	80km
IG-FSFP-M-LX-LC-1310-2	100Base-FX port	MM	LC	1310nm	2km

IG-FSFP-S-LX-LC-1310-10	100Base-FX port	SM	LC	1310nm	10km
IGSFP-SD-S-LC-1310T/1550R-20	1000Base-X port	SM	LC	T1310nm R1550nm	20km
IGSFP-SD-S-LC-1550T/1310R-20	1000Base-X port	SM	LC	T1550nm R1310nm	20km
IGSFP-SD-S-LC-1310T/1550R-40	1000Base-X port	SM	LC	T1310nm R1550nm	40km
IGSFP-SD-S-LC-1550T/1310R-40	1000Base-X port	SM	LC	T1550nm R1310nm	40km
IGSFP-SD-S-LC-1490T/1550R-80	1000Base-X port	SM	LC	T1490nm R1550nm	80km
IGSFP-SD-S-LC-1550T/1490R-80	1000Base-X port	SM	LC	T1550nm R1490nm	80km
IGSFP-SD-S-LC-1490T/1550R-120	1000Base-X port	SM	LC	T1490nm R1550nm	120km
IGSFP-SD-S-LC-1550T/1490R-120	1000Base-X port	SM	LC	T1550nm R1490nm	120km
IGSFP-SD-S-LC-1310T/1550R-60	1000Base-X port	SM	LC	T1310nm R1550nm	60km
IGSFP-SD-S-LC-1550T/1310R-60	1000Base-X port	SM	LC	T1550nm R1310nm	60km
IGSFP-SD-S-LC-1310T/1550R-80	1000Base-X port	SM	LC	T1310nm R1550nm	80km
IGSFP-SD-S-LC-1550T/1310R-80	1000Base-X port	SM	LC	T1550nm R1310nm	80km

caution:

- Modules 1 to 6 are dual-fiber 1000M SFP optical modules.
- Modules 7 to 18 are single-fiber bidirectional 1000M SFP optical modules and need to be

used in pairs. For example, modules 7 and 8 are single-mode and LC-interface modules with a transmission distance of 20 km. For the central wavelength of module 7, the transmitting end is 1310 nm and the receiving end is 1550 nm. For the central wavelength of module 8, the transmitting end is 1550 nm and the receiving end is 1310 nm. Therefore, modules 7 and 8 can be used in a pair.

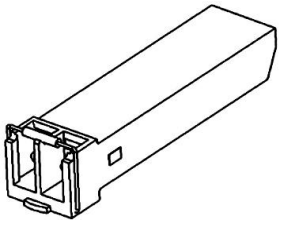


Figure 8 Gigabit SFP Optical Module

An SFP optical module is equipped with LC connector, and each port consists of a TX (transmit) port and an RX (receive) port. To enable communication between Device A and Device B, connect the TX port of Device A to the RX port of Device B, and the RX port of Device A to the TX port of Device B, as shown in the following figure.

Figure 9 Fiber Connection of an SFP Optical Module

- How to Connect the SFP Optical Module

Insert the SFP optical module into the SFP slot in the switch, and then insert the fibers into the TX port and RX port of the SFP module.

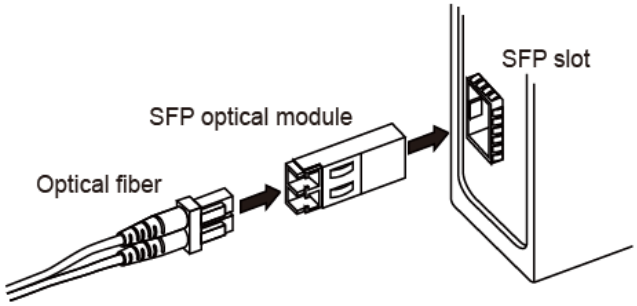


Figure 10 Connecting the SFP Optical Module

Identify the RX port and TX port of an SFP optical module:

1. Insert the two connectors in one end of two fibers into the SFP module, and those in the other end into the peer module.
2. View the corresponding connection status LED:

   If the LED is on, the connection is correct. If the LED is off, the link is not connected. This may be caused by incorrect connection of the TX and RX ports. In this case, swop the two connectors at one end of the fibers.

Caution:

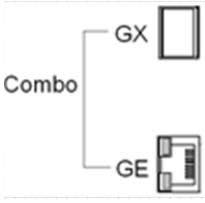
- The device uses laser to transmit signals in fibers. The laser meets the requirements of level 1 laser products. Routine operation is not harmful to your eyes, but do not look directly at the fiber port when the device is powered on.
- If the defined transmission distance of an SFP module is longer than 60km, do not use a short fiber (<20km) for connection. If such a short fiber is used, the module will be burned.

4.3 1000Base-X, 10/100/1000Base-T(X) Combo port

As shown in following table, the 1000Base-X, 10/100/1000Base-T(X)Combo port consists of one 1000Base-X port(GX) and one 10/100/1000Base-T(X) Ethernet port, and only one of the two ports can be used at one time, and the 1000Base-X port has priority over 10/100/1000Base-T(X) port. Plug the optical fiber and the twisted pair into GX and GE respectively; GX can communicate normally and the GE will be disabled automatically.

The following table lists the relation of Gigabit SFP ports of Combo port and the corresponding 10/100/1000 Base-T(X) Ethernet port.

Table 6 Combo port corresponding relation



Combo port	1000Base-X SFP port	10/100/1000Base-T(X) Ethernet port
(1)	GX1	GE1

(2)	GX2	GE2
……	……	……

4.4 10GBase-X SFP+ port

10GBase-X SFP+ slot (10GBase-X SFP+ slot) requires an SFP+ optical module to enable data transmission. The following table lists the 10GBase-X SFP+ optical modules (optional) supported by the series switches.

Table 7 SFP+ optical module

Model	**Port**	**MM/SM**	**Connector**	**Central Wavelength**	**Transmission Distance**
ATR-S0701DT	10GBase-X	SM	LC	1310nm	10km

Note：

The appearance, wiring and using methods of the 10GBase-X SFP+ port are same as the gigabit SFP slot, user can refer to 4.2 .

4.5 Console Port

The RJ45 connector use a DB9-RJ45 console cable to connect the 9-pin serial port of a PC to the console port of the switch.

Then you can configure, maintain, and manage the switch by running Hyper Terminal in Windows OS of the PC.

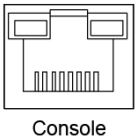


Figure 11 Console Port

- DB9-RJ45 Console Cable

One end of a DB9-RJ45 console cable is the DB9 connector to be inserted into the 9-pin

serial port of a PC, and the other end is crimped RJ45 connector to be inserted into the console port of the switch.

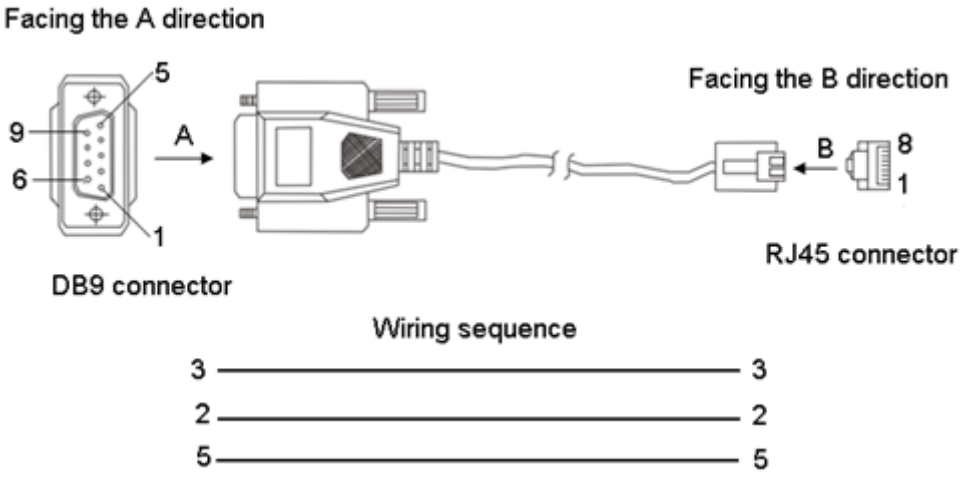


Figure 12 Wiring Sequence of DB9-RJ45 Console Cable

Table 8 Pin Definitions of DB9 Port (9-Pin Serial Port) and RJ45 Port (Console Port)

DB9 Port (9-Pin Serial Port)		**RJ45 Port (Console Port)**	
Pin	**Signal**	**Pin**	**Signal**
2	RXD (Receive data)	2	TXD (Transmit data)
3	TXD (Transmit data)	3	RXD (Receive data)
5	GND (Grounding)	5	GND (Grounding)

4.6 Grounding

Grounding protects the switch from lightning and interference. Therefore, you must ground the switch properly. You need to ground the switch before it is powered on and disconnect the grounding cable after the switch is powered off.

The switch provides a grounding screw(see Figure 2) on the rear panel for chassis grounding. After crimping one end of the grounding cable to a cold pressed terminal, secure the end to the grounding screw and connect the other end to the earth firmly.

Note:

Cross-sectional area of the chassis grounding cable>2.5mm^2; grounding resistance<5Ω.

4.7 Power Terminal Block

There is a power terminal block on the rear panel of the device. You need to connect the power wires to the terminal block to provide power to the device. The device supports single (PWR1) and redundant (PWR1 and PWR2) power supply with a 5-pin 5.08mm-spacing plug-in terminal block. When the redundant power supply is used and one power input is faulty, the device can continue operating properly, thereby improving network reliability.

Note:

0.75mm^2<Cross-sectional area of the power wire<2.5mm^2; grounding resistance<5Ω.

- 5-Pin 5.08mm-Spacing Plug-in Terminal Block

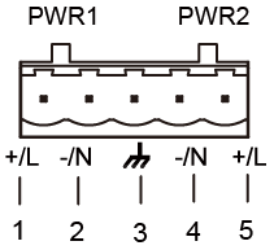


Figure 13 5-Pin 5.08mm-Spacing Plug-in Terminal Block (socket)

Table 9 Pin Definitions of 5-Pin 5.08mm-Spacing Plug-in Terminal Block

No.	Signal	DC Definition	AC Definition
1	+/L	PWR1: +	PWR1: L
2	-/N	PWR1: -	PWR1: N
3	⏚	PGND	PGND
4	-/N	PWR2: -	PWR2: N
5	+/L	PWR2: +	PWR2: L

- Wiring and Mounting

Step 1: Ground the device properly according to section 4.6.

Step 2: Remove the power terminal block from the device.

Step 3: Insert the power wires into the power terminal block according to Table 9 and secure

the wires.

Step 4: Insert the terminal block with the connected wires into the terminal block socket on the device.

Step 5: Connect the other end of the power wires to the external power supply system according to the power supply requirements of the device. View the status of the power LEDs on the front panel. If the LEDs are on, the power is connected properly.

Wiring and Mounting should meet following specifications.

Table 10 Wiring and Mounting Specifications

Terminal Type	Required Torque	Wire Range (AWG)
Terminal Block Plug	4.5-5.0 lb-in for WEIDMUELLER terminal block	12-24

Caution:

- Before connecting the device to power supply, make sure that the power input meets the power requirement. If connected to an incorrect power input, the device may be damaged.
- To comply with UL restrictions, this equipment must be powered from a source compliant with Class 2.

Warning:

- Do not touch any exposed conducting wire, terminal, or component with a voltage warning sign, because it may cause damage to humans.
- Do not remove any part or plug in or out any connector when the device is powered on.

4.8 Alarm Terminal Block

The device provides an alarm terminal block on the rear panel for alarm output. When the switch works properly, the normally-open contacts of the alarm relay are closed and the normally-closed contacts are open; when an alarm occurs, the normally-open contacts are open and the normally-closed contacts are closed. The alarm is outputted through a 3-pin 5.08mm-spacing plug-in terminal block.

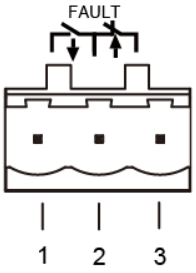


Figure 14 Alarm Terminal Block (socket)

Electrical parameters of the relay:

Max Switch Voltage: 250VAC/220VDC;

Max Switch Current: 2A

Max Switching Power: 60W

Dielectric Strength: 2KV

Note：

Pin 1 and pin 2 are normally-open contacts; pin 2 and pin 3 are normally-closed contacts. When the switch works properly, pin 1 and pin 2 are closed, pin 2 and pin 3 are open; when an alarm occurs, pin 1 and pin 2 are open; pin 2 and pin 3 are closed.

- Wiring and Mounting

Step 1: Remove the alarm terminal block from the switch.

Step 2: Secure the three wires for alarm into the alarm terminal block in the required sequence.

Step 3: Insert the alarm terminal block into its socket.

Wiring and Mounting should meet following specifications.

Table 11 Wiring and Mounting Specifications

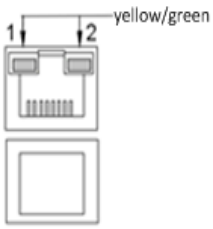
Terminal Type	**Required Torque**	**Wire Range (AWG)**
Terminal Block Plug	4.5-5.0 lb-in for WEIDMUELLER terminal block	12-24

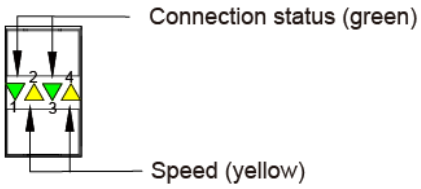
5 LEDs

Table 12 Front Panel LEDs

LED	State	Description
Power 1 LED-PWR1	On	Power 1 is connected and operates properly.
	Off	Power 1 is not connected or operates abnormally.
Power 2 LED-PWR2	On	Power 2 is connected and operates properly.
	Off	Power 2 is not connected or operates abnormally.
Running LED-Run	Blinking	The CPU operates properly.
	On	The CPU is starting up.
	Off	The CPU does not start up.
Alarm LED-Alarm	On	An alarm occurs.
	Off	No alarm occurs.
Port connection status LED-Link/ACT (1-48)	On	Effective port connection
	Blinking	Ongoing network activities
	Off	No effective port connection
Port connection status LED-Link/ACT XG(1-4)	On	Effective port connection
	Blinking	Ongoing network activities
	Off	No effective port connection

Table 13 Rear Panel LEDs

<table>
<tr><th colspan="2">LED</th><th>State</th><th>Description</th></tr>
<tr><td colspan="4"> 

LED 1 indicate the status of the lower slot, while LED 2 indicate the status of the upper slot.</td></tr>
<tr><td colspan="2" rowspan="5">10/100/1000Base-T(X) Ethernet port</td><td>Yellow on</td><td>Effective port connection and 1000M working state (1000Base-TX)</td></tr>
<tr><td>Green on</td><td>Effective port connection and 10/100M working state (10/100Base-T(X))</td></tr>
<tr><td>Yellow blinking</td><td>1000M working state(1000Base-TX) and Ongoing network activities</td></tr>
<tr><td>Green blinking</td><td>10/100M working state (10/100Base-T(X)) and Ongoing network activities</td></tr>
<tr><td>off</td><td>No effective port connection</td></tr>
<tr><td colspan="4"> 

LED 1 and LED 2 indicate the status of the lower gigabit SFP slot, while LED 3 and LED 4 indicate the status of the upper gigabit SFP slot.</td></tr>
<tr><td rowspan="4">1000Base-X, 10/100/1000Base-T(X) SFP slot speed LED</td><td rowspan="2">Gigabit SFP optical module</td><td>On</td><td>1000M working state (1000Base-TX)</td></tr>
<tr><td>Off</td><td>100M working state (100Base-FX) or no connection</td></tr>
<tr><td rowspan="2">Gigabit SFP electrical module</td><td>On</td><td>1000M working state (1000Base-TX)</td></tr>
<tr><td>Off</td><td>10/100M working state (10/100Base-T(X)) or no connection</td></tr>
</table>

1000Base-X, 10/100/1000Base-T(X) SFP slot connection status LED	On	Effective port connection
	Blinking	Ongoing network activities
	Off	No effective port connection
10GBase-X SFP+ slot speed LED	On	10G working state (10GBase-X)
	Off	1000M working state (1000Base-TX) or no connection
10GBase-X SFP+ slot connection status LED	On	Effective port connection
	Blinking	Ongoing network activities
	Off	No effective port connection

6 Switch Access

You can access the switch in any of the following ways:

6.1 Access through Console Port

Step 1: Connect the console port of the switch to the 9-pin serial port of a PC with the delivered DB9-RJ45 console cable.

Step 2: Open Hyper Terminal in Windows OS. On the computer's desktop, click Start → All Programs → Accessories → Communications → Hyper Terminal.

Step 3: Create a connection "Switch", as shown in the following figure.

Figure 15 Creating a Connection

Step 4: Connect the communication port in use, as shown in the following figure.

Figure 16 Selecting a Serial Port

Note：

To confirm the communication port in use, right-click [My Computer] and select [Property]. Click [Hardware] → [Device Manager] → [Port] to view the communication port.

Step 5: Set port parameters (Bits per second: 115200, Data bits: 8, Parity: None, Stop bits: 1, and Flow control: None), as shown in the following figure.

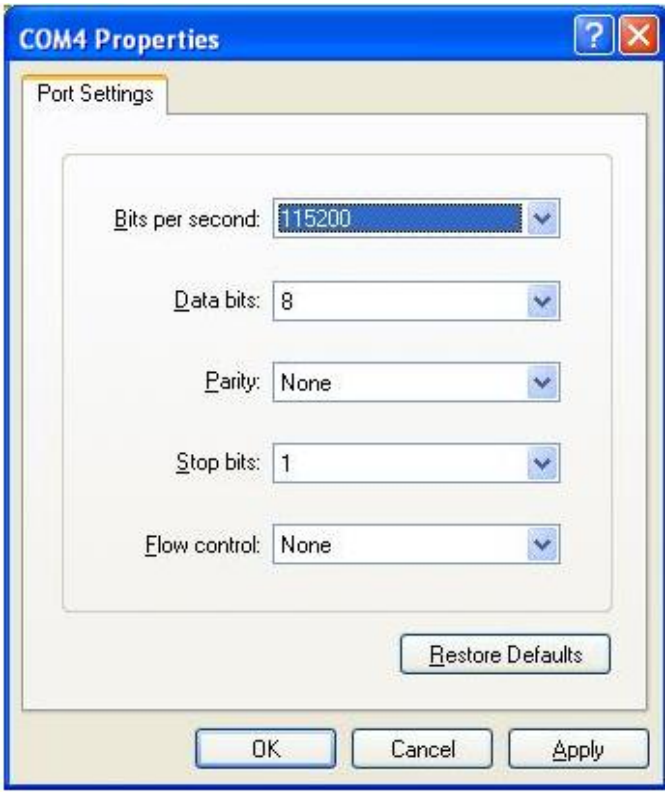


Figure 17 Setting Port Parameters

Step 6: Click OK to enter the switch CLI. Then the following commands can be used to perform operations.

Table 14 CLI Commands

View	Command	Description
General mode	SWITCH>enable	Enter the privileged mode.
Privileged mode	SWITCH#show interface vlan 1	Query the default IP address of the switch.
Privileged mode	SWITCH#show version	Query the version of the switch.
Privileged mode	SWITCH#reboot	Restart the switch.
Privileged mode	SWITCH#set default SWITCH#save	Restore the factory default settings (including the IP address).
Privileged mode	SWITCH#config terminal	Enter the configuration mode.

6.2 Access through Telnet

Step 1: Connect the network port of a PC to the Ethernet port of the switch with a network cable.

Step 2: On the Windows desktop, click Start and Run. The Run dialog box is displayed. Enter "telnet *IP address*". For example, if the IP address of the serial port module is 192.168.0.2 (default IP address of the device), enter "telnet 192.168.0.2" in the dialog box.

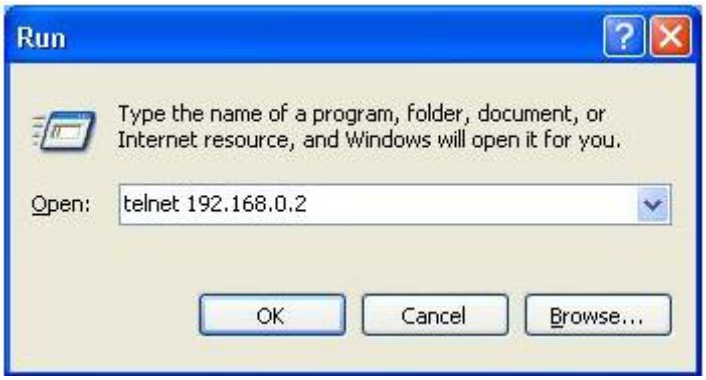


Figure 18 Access through Telnet

Step 3: Click OK. The Telnet CLI is displayed. Then you can run the commands in Table 14 to perform operations.

6.3 Access through Web

Step 1: Connect the network port of a PC to the Ethernet port of the switch with a network cable.

Step 2: Enter the IP address of the device in the address box of the browser. The user login interface is displayed. You can log in to the Web UI by default user name "admin" and password "123".

Note:

- IE8.0 or a later version is recommended.
- For details about how to access the device and other operations, refer to the Web operation manual in the delivered CD.

7 Basic Features and Specifications

Power Requirements		
Power Identifier	Rated Voltage Range	Maximum Voltage Range
HV (220AC/DCW)	100-240VAC, 50/60Hz; 110-220VDC	85-264VAC/77-300VDC
Terminal block	5-pin 5.08mm-spacing plug-in terminal block	
Rated Power Consumption		
Rated power consumption	Without 10GBase-X SFP+ port : 75W With 10GBase-X SFP+ port : 85W	
Physical Characteristics		
Housing	Metal, fanless	
Protection class	IP30	
Installation	19 inch 2U rack mounting	
Dimensions (W×H×D)	440mm×44mm×325mm (excluding connectors and mounting brackets)	
Weight	10.5Kg	
Environmental Limits		
Operating temperature	-20℃~+60℃	
Storage temperature	-40℃~+85℃	
Ambient relative humidity	5%~95% (non-condensing)	
MTBF		
MTBF	460670h	
Warranty		
Warranty	5 years	

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