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Make network communication more reliable

MES5400 Series Modular Layer 3 Managed Industrial Ethernet Switch Quick Installation Guide

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【Package Checklist】

Please check the integrity of package and accessories while first using the switch.

1 Switch ×1
2. Mounting lug x 4
3. AC power line ×2 (only for AC device)
4. Foot pad x4
5. Warranty card
6. Certificate

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

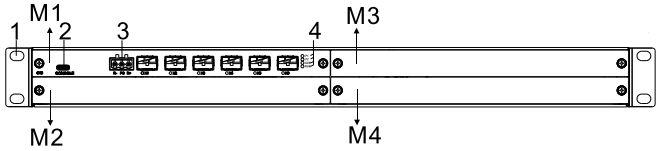
【Product Overview】

This series product is a rack-mounted modular layer 3 managed industrial Ethernet switch. Support 1 embedded fixing: 10Gigabit daughter board (with 6*10Gigabit SFP+) and 3 expansion slots: Gigabit daughter board (support 8-port SFP daughter board or 8-copper-port daughter board).

- DC product: support 2*48VDC power inputs, support hot plugging and anti-reverse connection
- AC product: support 2*220VAC (110~240VAC/DC) power supply inputs

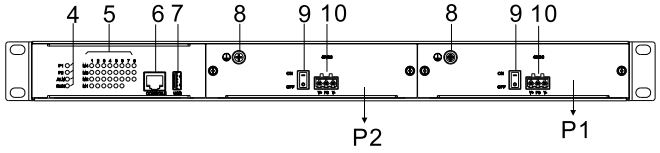
【Panel Design】

➢ **Front view**

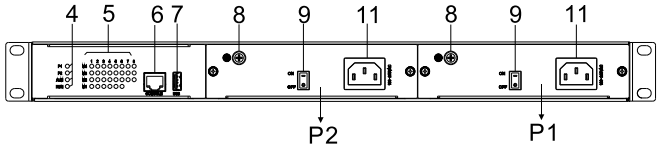


DC/AC product

➢ **Rear view**

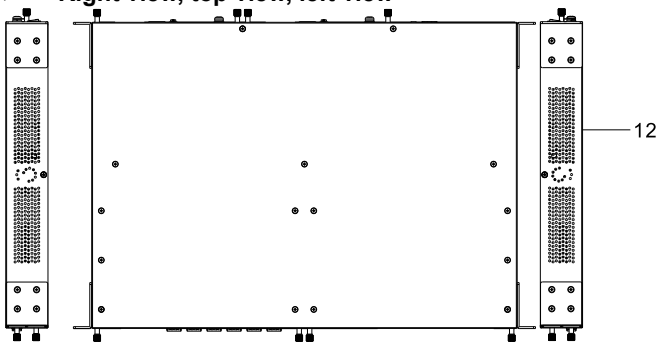


DC product



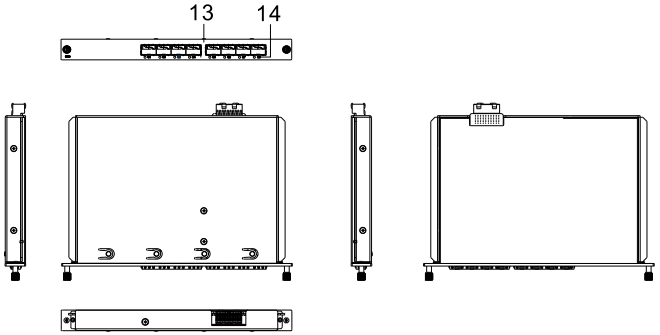
AC product

➢ **Right view, top view, left view**

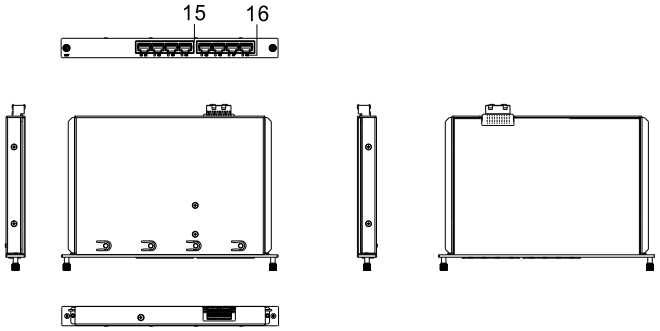


DC/AC product

➢ **Front view, right view, top view, left view, rear view and bottom view**



8GS daughter board



8GT daughter board

1. Lugs
2. CONSOLE port (front panel: Type-C)
3. Relay alarm output terminal block (R-, FG, R+)
4. Device indicators, from top to bottom in turn they are:
   - Power supply indicator (P1-P2)
   - Alarm indicator (ALM)
   - Running indicator (RUN)
5. Device indicators, from top to bottom in turn they are:
   - M4 daughter card Ethernet port indicator (G1-G8)
   - M3 daughter card Ethernet port indicator (G1-G8)
   - M2 daughter card Ethernet port indicator (G1-G8)
   - M1 daughter card Ethernet port indicator

(X1-X6)

6. CONSOLE port (back panel: RJ45)
7. USB2.0 interface
8. Grounding screw (M5)
9. Power switch (ON and OFF)
10. Terminal blocks for DC power input (P1, P2)
11. Outlet for AC power input (P1, P2)
12. Device heat dissipation hole
13. Daughter card of Gigabit copper port (8GT)
14. Gigabit copper port indicator (G1-G8)
15. Daughter card of Gigabit SFP slot (8GS)
16. Gigabit SFP slot indicator (G1-G8)

The M2/M3/M4 daughter card of the device does not support hot plug, and it needs to be powered on again to replace the daughter card of the device. The interface of the daughter card of the device is as follows:

— M1 daughter card fixed slot: 10Gigabit SFP+(X1-X6)

— M2 daughter card expansion slot: Gigabit SFP/RJ45(G1-G8)

— M3 daughter card expansion slot: Gigabit SFP/RJ45(G1-G8)

— M4 daughter card expansion slot: Gigabit SFP/RJ45(G1-G8)

— P1 daughter card fixed slot: AC/DC power supply

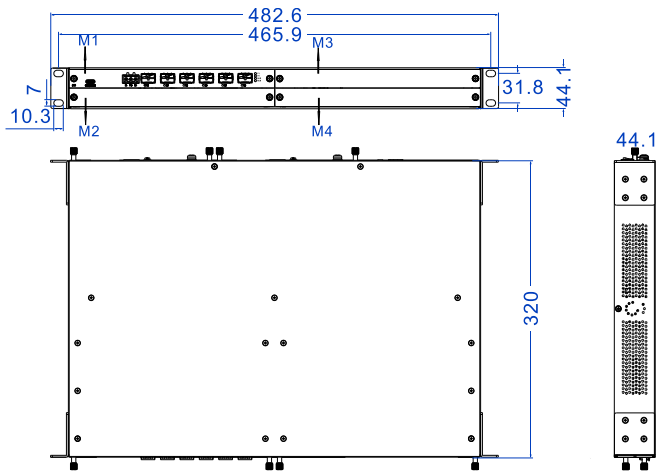
— P2 daughter card fixed slot: AC/DC power supply

【Mounting Dimension】

Unit: mm

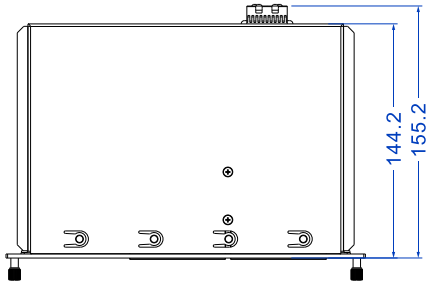
Note:

This series of products have the same shell size, GS/GT daughter boards have the same size, AC/DC daughter boards have the same size.



Product shell dimension





GS/GT daughter board size

Notice Before Mounting:

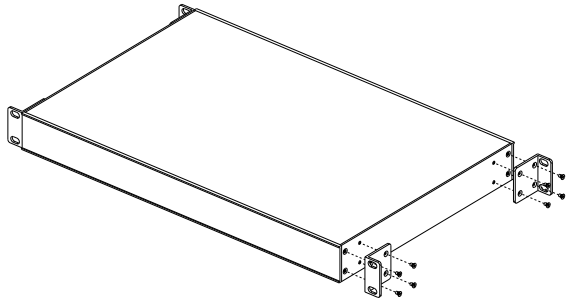
- Don't place or install the device in area near water or moisture, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before powering on the device, check the power specifications supported by the device to prevent device damage due to overvoltage.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

【Install Rack-Mounted Device】

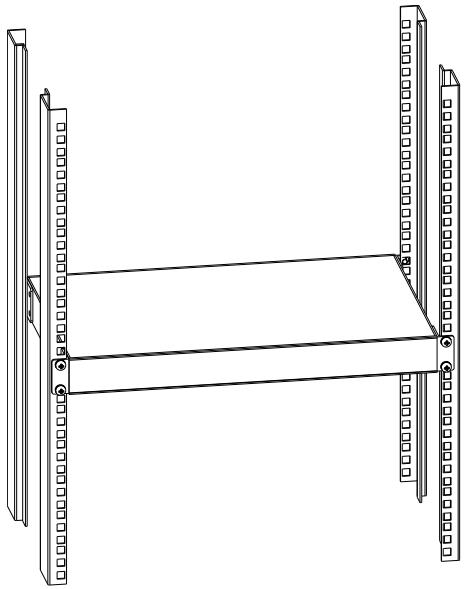
This product adopts 1U rack-mounting, mounting steps as below:

Step 1 Select the device mounting position and ensure enough mounting size is reserved.

Step 2 Adopt 4 bolts to install each mounting lug at the device position as shown in the figure below.



Step 3 Place the device in the rack; adopt 2*4 bolts to fix two sides mounting lugs in the rack, then use a torque wrench to tighten the screw to a torque of 0.8~1.2 N·m.



Step 4 Check and confirm the product is mounted firmly on the rack, then mounting ends.

【Disassembling Device】

Step 1 Power off the device.

Step 2 Loosen the 2*4 screws fixed on the rack lug with a screwdriver.

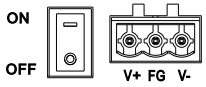
Step 3 Shift the device away from the rack, then disassembling ends.

Notice Before Powering on:

- The grounding wire must meet the following specifications:
  - Cable type: stranded copper conductor.
  - Color: green and yellow.
  - Cross-sectional area: ≥2.5 mm², ＝AWG 14.
- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug contact and power on.
- Power switch "—" means power ON, "O" means power OFF.
- Power off operation: when using AC power product, firstly put the powers switch to the "O" side and then disconnect the power supply. Finally disconnect the connector between the device and the power cord. Please notice the operation order above.
- Please be aware of the power input range supported by the device before powering on. Use the recommended voltage of the device to avoid device damage.
- Users are not allowed to replace the power supply fuse by themselves and protect the power supply line from over-current impact.

【Power Supply Connection】

➢ **DC device power supply**

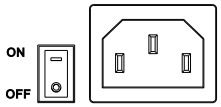


Provide 2 independent power supplies, support anti-reverse connection, and adopt 3-pin 5.08mm pitch terminal blocks with switch. The rated voltage is 48VDC. The pin definitions of power supply are shown in the left figure.

Note:

When two power sources supply power at the same time, it is normal that the corresponding indicator will not go out if the switch of one device turned off, and the power cord needs to be manually unplugged.

➢ **AC device power supply**

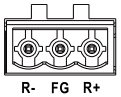


Provide 2 independent power supplies, adopt three-phase power socket with switch. The rated voltage: 220VAC, and the power supply range is 110~240VAC/DC.

Note:

When two power sources supply power at the same time, it is normal that the corresponding indicator will not go out if the switch of one device turned off, and the power cord needs to be manually unplugged.

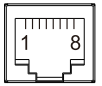
【Relay Connection】



Provide 3-pin 5.08mm pitch terminal blocks, support 1 relay alarm output. The relay supports the output of DC power supply alarm or network abnormality alarm. It can be connected to alarm light or alarm buzzer or other switching value collecting devices, which can timely inform operators when the alarm occurs. The default relay status is shown in the figure below.

Device Status	Relay Contacts	Alarm
Not powered on or powered off	Closed	Yes
Powered on, but not working properly	Closed	Yes
Powered on, and working properly without triggering any alarm	Disconnected	None
Powered on, and working properly, but it triggered alarms	Closed	Yes

【Console Port Connection】



The back panel of the device provides 1 program debugging port based on RS-232 serial port which can conduct device CLI command management after connecting to PC. The interface adopts RJ45 port, the RJ45 pin definition as follows:

Pin No.	2	3	5
Pin Definition	TXD	RXD	GND

【Console Port Connection】

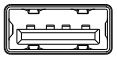


The front panel of the device provides 1 program debugging port based on Type-C interface which can conduct device CLI command management after connecting to PC.

Connect the CONSOLE port through software. The default configuration is as follows:

Serial Port Connection	Default
Baud rate	115200 bps
Data bit	8 bits
Parity bit	None
Stop bit	1 bit

【USB Port Connection】



This device provides1 Type-A USB 2.0 Female interface, and support external removable storage device.

【Checking LED Indicator】

Provide LED indicators to monitor its operating status, which has simplified the overall troubleshooting process. The function of each LED is described in the table below:

LED	Indicate	Description
P1/P2	ON	Power supply cable is running normally
	OFF	Power supply cable is disconnected or running abnormally
ALM	ON	Power supply link has alarm
	OFF	Power supply link has no alarm

LED	Indicate	Description
RUN	ON	The device is running abnormally
	Blinking	Blinking 1 time per second, system is running normally
	OFF	The device is powered off or the device is abnormal.
Link/Act (G1-G8, X1-X6)	ON	Ethernet port has established a valid network connection
	Blinking	Ethernet port is in an active network status
	OFF	Ethernet port has not established a valid network connection

【Logging in to WEB Interface】

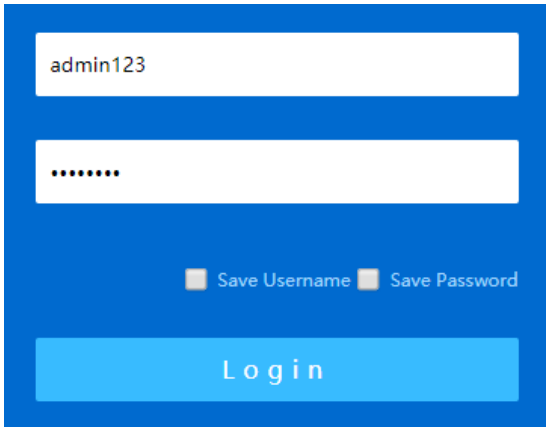
Support WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

Step 1 Configure the IP addresses of computer and the device to the same network segment, and the network between them can be mutually accessed.

Step 2 Enter device's IP address in the address bar of the computer browser.

http://192.168.1.254

Step 3 Enter device's username and password in the login window as shown below.



Step 4 Click "Login" button to login to the WEB interface of the device.

Note:

- The default IP address of the device is "192.168.1.254".
- The default username and password of the device are "admin123".
- If the username or password is lost, user can restore it to factory settings via management software; all modified configurations will be cleared after restoring to factory settings, so please backup configuration file in advance.
- Please refer to user manual for specific configuration method of logging in to WEB interface and other configurations about network management function.

【Specification】

Panel	
Gigabit copper port	10/100/1000 Base-T(X) self-adapting RJ45 port, half/full duplex self-adaption or forced working mode, support MDI/ MDI-X self-adaption
Gigabit SFP	100/1000Base-X self-adaption or forced work mode, SFP slot
10Gigabit SFP+	1G/2.5G//10G Base-X self-adaption or forced work mode, SFP+ slot
CONSOLE	2 CONSOLE, 1 RJ45 supports CLI command line management port (RS-232); 1 Type-C supports CLI command line management port.
USB 2.0	Provide 1 Type-A USB 2.0 Female interface, and support external removable storage device.
Relay	Support 1 relay alarm output, adopt 3-pin 5.08mm pitch terminal blocks, the current carrying capacity is 2A@250VAC or 2A@30VDC
Indicator	Power indicator, running indicator, alarm indicator, interface indicator
Switch Property	
Backplane bandwidth	110Gbps
Buffer size	24Mbit
MAC address table	32K
Power Supply	
DC product	Power input: 2*48VDC power inputs, support hot plugging and anti-reverse connection Connection mode: adopt 2*3-pin 5.08mm pitch terminal blocks with switch
AC product	Power supply input: 2*220VAC (110~240VAC/DC) power inputs Connection mode: adopt 2 three-phase power sockets with switch
Power Consumption	
DC product	No-load: 8.17W@48VDC Full-load: 14.41W@48VDC
AC product	No-load: 7.65W@220VAC Full-load: 13.67W@220VAC
Working Environment	
Working temperature	-40~75℃
Storage temperature	-40~85℃
Working humidity	5%~95% (no condensation)
Protection grade	IP30(metal shell)

【Disposal of Waste Electrical and Electronic Equipment (WEEE 2012/19/EU)】

(Applicable in the EU-member states)



The crossed-out wheeled bin symbol on the equipment or its packaging indicates that the product, at the end of its service life, shall not be mixed with unsorted municipal waste but should be collected separately, in accordance with local laws and regulations.

A proper separate collection of end-of-life equipment for the subsequent recycling, treatment and environmentally compatible disposal, will help prevent potential damage to the environment and human health, facilitating the reuse, recycling and/or recovery of its component materials.

Private users should contact their vendor or municipal waste management service and ask for disposal information.

Professional users should contact their suppliers and check the terms of their selling agreement.

This product must not be disposed of with other commercial waste.

Users' cooperation in the correct disposal of this product will contribute to saving valuable resources and protecting the environment.