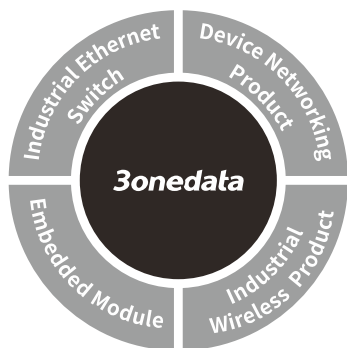


TNS5800 Series (12 Ports) Layer 3 Rack-Mounted Industrial Ethernet Switch Quick Installation Guide



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【Package Checklist】

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

1. Industrial Ethernet switch
2. Lugs
3. Warranty card
4. Certificate

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

【Product Overview】

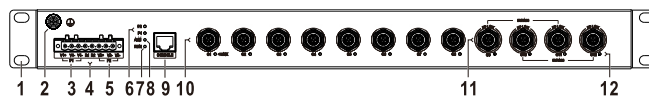
This series of products are layer 3 rack-mounted industrial Ethernet switches designed for the rail transit industry. For convenience, the products of this series adopt the following number on the left in this guide, please affirm the number of your product.

Model I. TNS5800-12GT-X-2P110 (12 Gigabit M12, 110VDC dual power supply input)

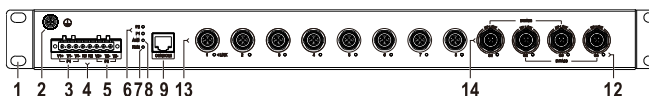
Model II. TNS5800-8T4GT-2P110(8 100M M12 + 4 Gigabit M12, 110VDC dual power supply input)

【Panel Design】

➤ Front view



Model I

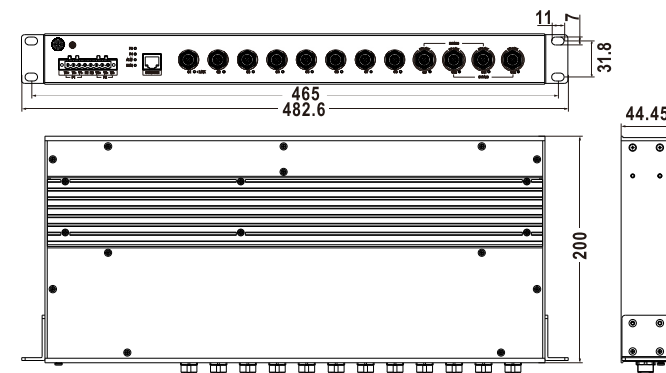


Model II

1. Lugs
2. Grounding screw
3. Power P1 input terminal (P1)
4. Relay alarm output terminal block
5. Power P2 input terminal (P2)
6. Power supply indicator (P1-P2)
7. Running indicator (RUN)
8. Alarm indicator (ALM)
9. CONSOLE port
10. Gigabit M12 interface (G1-G8)
11. Gigabit Bypass M12 interface (Bypass: G9-G11, G10-G12)
12. Ethernet link indicator (1- 8, G1-G12)
13. 100M M12 Interface (1-8)
14. Gigabit Bypass M12 interface (Bypass: G1-G3, G2-G4)

【Mounting Dimension】

The shell dimension of this series of devices is the same, and the dimension figure of model I is shown below. Unit: mm



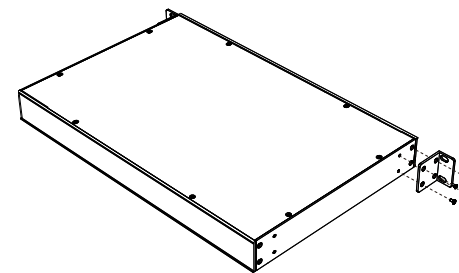
Notice Before Mounting:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

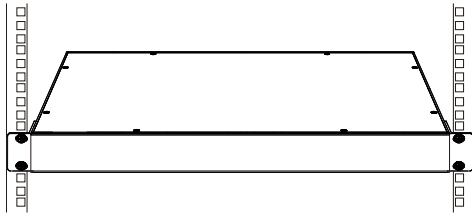
【Rack-mounted】

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

Step 2 Adopt bolts to install the mounting lugs in the device position as figure below.



Step 3 Place the device on the rack surface plate; adopt 4 screws to mount the right and left mounting lugs on the rack.



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

【Disassembling Device】

Step 1 Device power off.

Step 2 Unscrew the fixed mounting lug screw on the rack.

Step 3 Shift out the device from rack, disassembling ends.

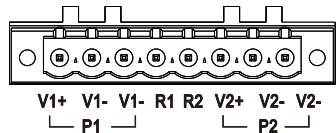


Notice before power on:

- 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 OFF operation: First, remove the power plug, and then remove the wiring section of terminal block. Please pay attention to the above operation sequence.

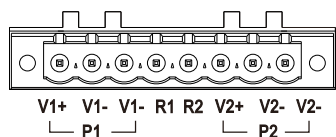
【Power Supply Connection】

➤ 110VDC power supply



This series of devices provide two independent DC power supply systems, P1 and P2, which support reverse connection protection and power redundancy backup. Power interface adopts 8-pin 5.08mm pitch terminal blocks (includes 6-pin power supply), pin definition are shown as above. Power supply input range: 110VDC (66~156VDC).

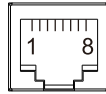
【Relay Connection】



This device adopts 8-pin 5.08mm pitch terminal blocks and supports 1 relay

alarm output, the relay occupies 2 pins, pin definition is shown as above. R1 and R2 are a group of normally open contacts of the device alarm relay, which is open in normal no-alarm state and closed when any alarm information appears. For example, they are closed when powered off, and send out alarm. The relay supports the output of DC power supply alarm information 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.

【Console Port Connection】



The series products provide 1 program debugging port based on RS232 serial port which can conduct device CLI command management after connecting to PC. The interface adopts RJ45 port, the pin definition as follows:

Pin No.	2	3	5
Definition	TXD	RXD	GND

【Communication Interface Connection】

➤ 100M M12 Interface



Model II of the device provides 8 10/100Base-T(X) interfaces, the interface type is M12 D-Coded 4-Pin slot (female). The definitions of M12 pin are as follows:

Pin No.	Definition	Description
1	TX+	Positive send data of 100M Ethernet
2	RX+	Positive receive data of 100M Ethernet
3	TX-	Negative send data of 100M Ethernet
4	RX-	Negative receive data of 100M Ethernet

➤ Gigabit M12 interface



This Series device provides 4 or 12 10/100/1000Base-T(X) interfaces, the interface type is M12 X-Coded 8-Pin slot (female). The definitions of M12 pin are as follows:

Pin No.	Definition	Description
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Pin No.	Definition	Description
1	D0+ (DA+)	Positive bi-directional data of Gigabit Ethernet group 1
2	D0- (DA-)	Negative bi-directional data of Gigabit Ethernet group 1
3	D1+ (DB+)	Positive bi-directional data of Gigabit Ethernet group 2
4	D1- (DB-)	Negative bi-directional data of Gigabit Ethernet group 2
5	D3+ (DD+)	Positive bi-directional data of Gigabit Ethernet group 4
6	D3- (DD-)	Negative bi-directional data of Gigabit Ethernet group 4
7	D2- (DC-)	Negative bi-directional data of Gigabit Ethernet group 3
8	D2+ (DC+)	Positive bi-directional data of Gigabit Ethernet group 3

【Checking LED Indicator】

The device provides LED indicators to monitor the device working status with a comprehensive simplified troubleshooting; the detailed status of each LED is described in the table as below:

LED	Indicate	Description
P1/P2	ON	P1/2 is connected and running normally
	OFF	P1/2 is disconnected and running abnormally
ALM	ON	Power supply or port link has alarm
	OFF	Power supply or port link has no alarm
RUN	ON	The device is powered on or the device is abnormal.
	OFF	The device is powered off or the device is abnormal.

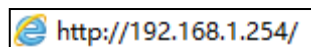
LED	Indicate	Description
	Blinking	Blinking 1 time per second, system is running normally
LINK(1-8, G1-G12)	ON	The Ethernet interface has established a valid network connection.
	Blinking	The Ethernet interface is in a network activity state.
	OFF	The Ethernet port has not established a valid network connection

【Logging in to WEB Interface】

This device supports 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.



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 is "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 M12	10/100/1000Base-T(X), M12(Female), 8-Pin X-Coded, Automatic Flow Control, Full/half Duplex Mode, MDI/MDI-X Autotuning, support Bypass
100M M12	10/100Base-T(X), M12(Female), 4-Pin D-Coded, Automatic Flow Control, Full/half Duplex Mode, MDI/MDI-X Autotuning
Console port	CLI command line management port (RS-232), RJ45
Alarm interface	8-pin 5.08mm pitch terminal blocks, relay occupies 2 pins and 1 relay alarm information output is supported, the current load capability is 1A@30VDC or 0.3A@125VAC
Indicator	Power indicator, alarm indicator, running indicator, interface indicator
Switch Property	
Backplane bandwidth	128G terminal

Packet buffer size	12Mbit
MAC Address Table	16K
Power supply	
Power input	110VDC(66~156VDC) Dual power supply redundancy, anti-reverse connection
Connection Mode	8-pin 5.08mm pitch terminal blocks (power supply occupies 6 pins)
Power consumption	
Full-load	<20W
Working Environment	
Working temperature	-40~75°C
Storage temperature	-40~85°C
Working humidity	5%~95% (no condensation)
Protection grade	IP40 (metal shell)