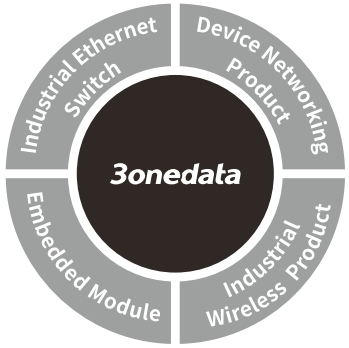
3onedata
Make network communication more reliable

RACK2100 Series
Industrial Multi-service Rack
Quick Installation Guide



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【Package Checklist】

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

1 Industrial multi-service rack 2 Power line x 2

3 Certification 4 Warranty card

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

【Product Overview】

This series products are 2U industrial multi-service racks, which can be used with management card and daughter card.

The models are as follows:

Model I RACK2100-F-2AC (chassis with front power supply)

Model II RACK2100-R-2AC (chassis with rear power supply)

Model III NMU (Management card)

Model IV ECU100M-1T1F (1 100M copper port + 1 100M fiber port, managed daughter card)

Model V ECU100M-2T1F (2 100M copper ports + 1 100M fiber port, managed daughter card)

Model VI ECU100M-1GT1GF (1 Gigabit copper port + 1 Gigabit fiber port, managed daughter card)

Model VII ECU100M-1GT2GS (1 Gigabit copper port + 2 Gigabit SFP slots, managed daughter card)

Model VIII ECU100M-2GT1GF (2 Gigabit copper ports + 1 Gigabit fiber port, managed daughter card)

Model IX ECU100-1T1F (1 100M copper port + 1 100M fiber port, unmanaged daughter card)

Model X ECU100-2T1F (2 100M copper ports + 1 100M fiber port, unmanaged daughter card)

Model XI ECU100-1GT1GF (1 Gigabit copper port + 1 Gigabit fiber port, unmanaged daughter card)

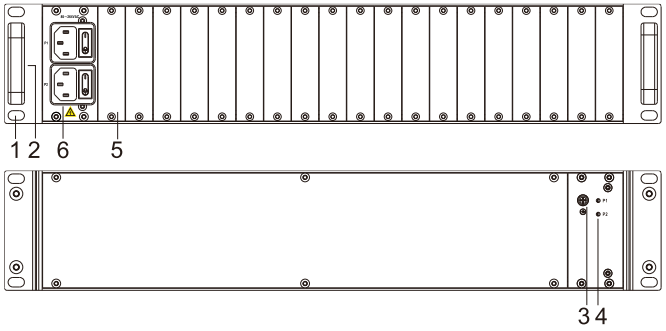
Model XII ECU100-1GT2GS (1 Gigabit copper port + 2 Gigabit SFP slots, unmanaged daughter card)

Model XIII ECU100-2GT1GF (2 Gigabit copper ports + 1 Gigabit fiber port, unmanaged daughter card)

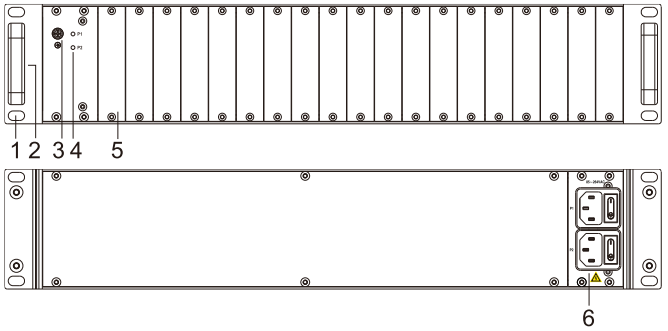
【Rack Panel Design】

➢ **Rack**

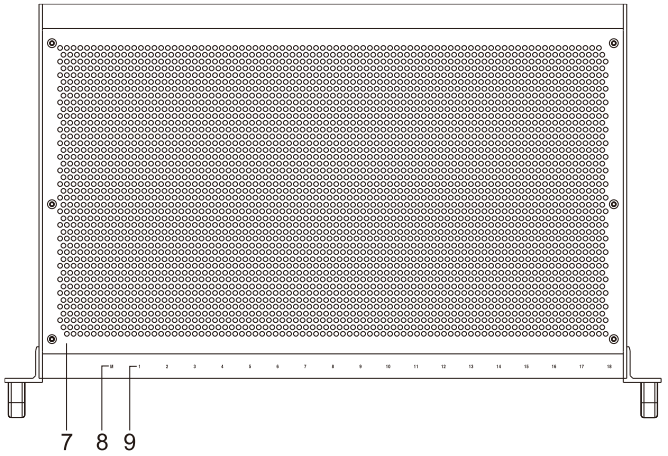
- **Front power supply scheme: front panel and rear panel**



- **Rear power supply scheme: front panel and rear panel (Default)**



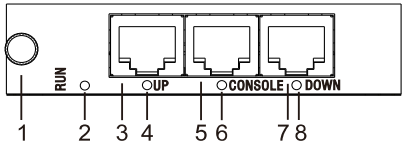
- **Top Panel**



1. Rack mounting location hole
2. Handle (removable)
3. Power indicator (P1/P2)
4. Shell grounding screw
5. Panel catch (used when the cards are not plugged in)
6. Input outlet of redundant AC power (P1/P2)
7. Heat dissipation hole
8. Management card identity (M)
9. Daughter card identity (1-18)

【Panel Design of Management Card】

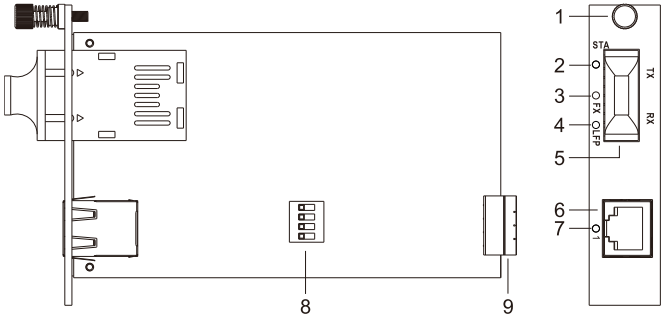
➢ **Management card (for managed type)**



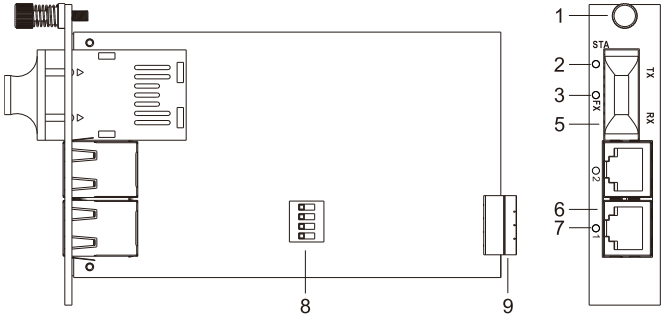
1. Spring screw (fixed board)
2. Device running indicator (RUN)
3. Upward cascading 100M/Gigabit Ethernet copper port (UP)
4. UP port connection indicator
5. Console control management port
6. Console port connection indicator
7. Downward cascading 100M/Gigabit Ethernet copper port (DOWN)
8. DOWN port connection indicator

【Panel Design of Daughter Card】

➢ **100M daughter card**



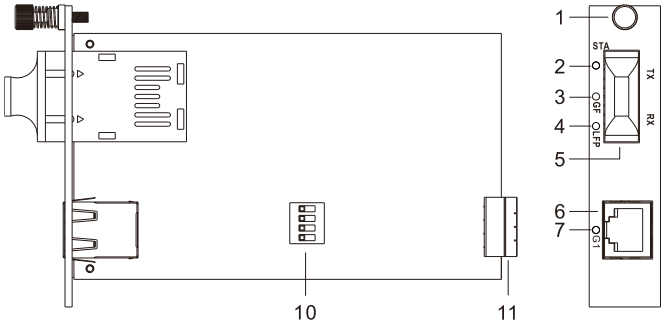
Model IV, Model IX



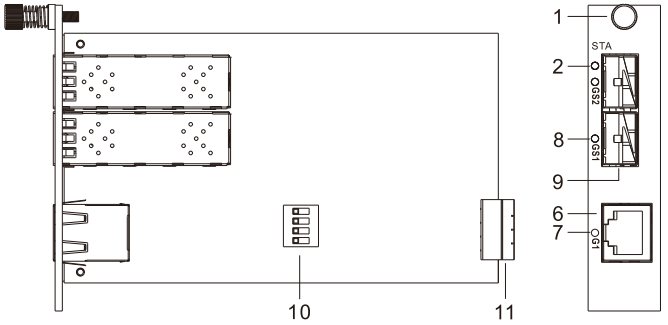
Model V, Model X

1. Spring screw (fixed board)
2. STA daughter card running indicator
3. 100M fiber port connection indicator
4. LFP link failure alarm indicator
5. 100Base-FX 100M Ethernet fiber port
6. 10/100Base-T(X) 100M Ethernet copper port
7. 100M copper port connection indicator
8. DIP switch
9. Access terminal block

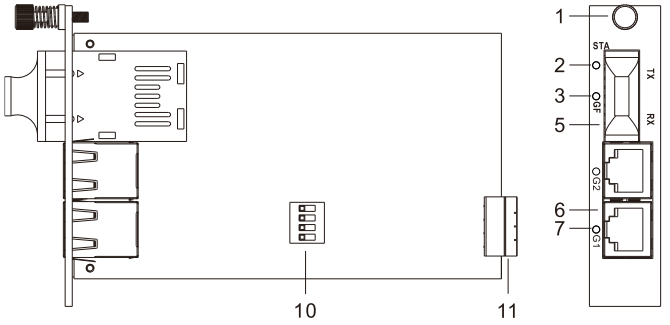
➢ **Gigabit daughter card:**



Model VI, Model XI



Model VII, Model XII



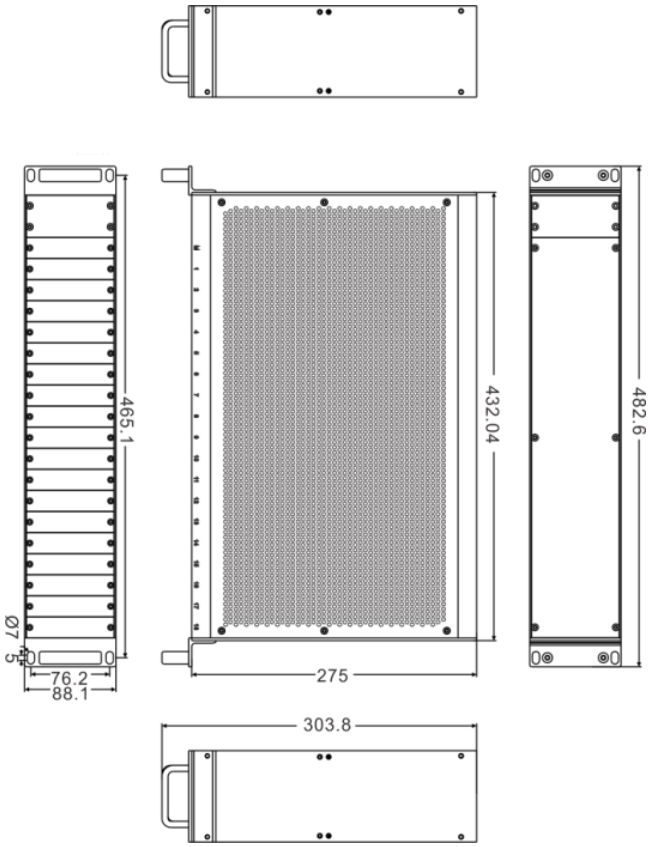
Model VIII, Model XIII

1. Spring screw (fixed board)
2. STA daughter card running indicator
3. 1000Base-X Gigabit Ethernet fiber port indicator
4. LFP link failure alarm indicator
5. 1000Base-X Gigabit Ethernet1×9 fiber port
6. 10/100/1000Base-T(X) Gigabit Ethernet copper port
7. Gigabit copper port connection indicator
8. Gigabit SFP slot indicator
9. 1000Base-X SFP slot
10. DIP switch
11. Access terminal block

【Mounting Dimension】

Unit (mm)

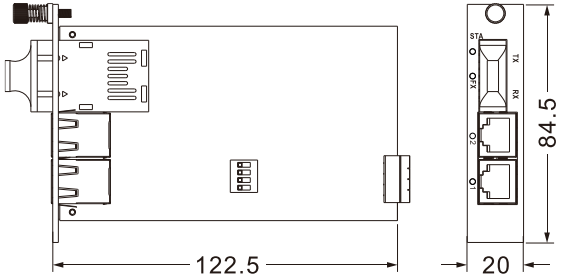
➢ **Rack**



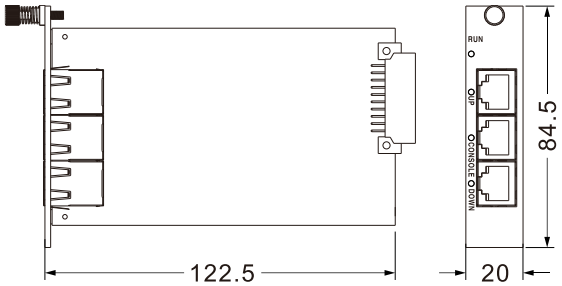
➢ **Daughter card**

Note:

Here take Model V as the example of daughter card size, other daughter cards have the same size.



➢ **Management card**



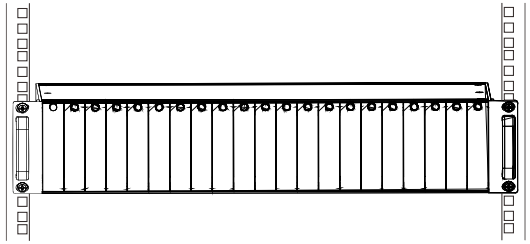
Note Before Mounting:

- 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 location to ensure enough size.

Step 2 Place the device on the rack surface plate; adopt 4 screws to mount the right and left mounting lugs on the rack.



Step 3 Check and confirm the product is mounted firmly on the rack.

Step 4 Insert a board into the slot of the rack, and fix the mounting hole with screws.

Note:

Do not tighten the screws temporarily, so as not to affect the insertion of other boards.

Step 5 Repeat Step 4 until all boards are inserted into slots and fixed with screws.

Step 6 Tighten the screws of all boards and the installation ends.

【Disassembling Rack】

Step 1 Device power off.

Step 2 Unscrew the screws of the board.

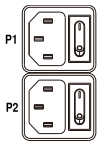
Step 3 Take out the board.

Step 4 Unscrew the fixed mounting lug screw on the rack.

Step 5 Shift out the device from rack, disassembling ends.

【Power Supply Connection】

➢ **AC power supply**

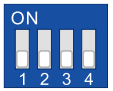


The rack has built-in professional communication power supply, which supports dual power supply redundancy. When one of the power supplies fails, it could switch to another one immediately to ensure the device power supply is not interrupted.

Power supply range: 85~264VAC/DC.

【DIP Switch Settings】

➢ **Management card**

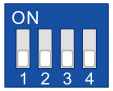


The motherboard of management card provides 4 pins DIP switch for function settings, where "ON" is enable valid terminal. DIP switches definition as follows:

DIP	Definition	Operation
1	Reserved	—
2	Restore factory defaults	Set the DIP switch to ON, power on the device again, it will restore to factory settings, then turn off the DIP switch.
3	Upgrade	Set the DIP switch to ON, upgrade the device, then put the DIP switch back.
4	Reserved	—

➢ **Daughter card**

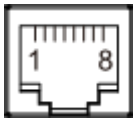
Managed/unmanaged daughter card provides 4-pin DIP



switch for function setting. where "ON" is enable valid terminal. The device needs to be powered on again to change the status of DIP switch. DIP switches definition as follows:

DIP	ON Status	OFF Status
1	● Managed daughter card: reserved ● Unmanaged daughter card: enable LFP (remote offline alarm) Note: Only 1 fiber port + 1 copper port Gigabit device supports LFP.	● Managed daughter card: reserved ● Unmanaged daughter card: disable LFP (remote offline alarm)
2	Enable flow control function	Disable flow control function
3	● Managed daughter card:Device is in remote mode. STA indicator would blink when device is in remote mode. ● Unmanaged daughter card: reserved	● Managed daughter card:Device is in local mode. STA indicator is on when device is in local mode. ● Unmanaged daughter card: reserved
4	● Gigabit daughter card: enable specified 100M ● 100M daughter card: reserved	● Gigabit daughter card: disable specified 100M ● 100M daughter card: reserved

【Console Port Connection】



The device provides 1 channel procedure debugging port based on RS-232 serial port. The interface adopts RJ45 port. The pin definition as follows:

PIN	2	3	5.
PIN definition	TXD	RXD	GND

【Checking LED Indicator】

The device provides LED indicators (this indicator includes rack, management card and daughter card indicator) to monitor the device working status with a comprehensive simplified troubleshooting; the function of each LED is described in the table as below:

Type	LED	Indicate	Description
Rack Indicator	P1/P2	ON	PWR is connected normally
		OFF	Power supply is connected abnormally or not connected.
Management card Indicator	RUN	Blinking	The device is running normally if the indicator is blinking at a frequency
		ON/OFF	The device is running abnormally or is being powered on
	UP/DOWN	ON	The port is normally connected
		Blinking	The port exists data transmission
		OFF	The port is disconnected or running abnormally
	CONSOLE	ON	The port is normally connected
		OFF	The port is disconnected or running abnormally
Daughter card	LINK (GS1-	ON	Interface has established valid
Indicator	GS2/G1-G2/GF)		network connection
		Blinking	Interface is in network active status
		OFF	Interface hasn't established valid network connection
	TP	OFF	Copper port is not connected
		Blinking	The copper port exists data transmission
		ON	Copper port connection indicator
	FX	OFF	Fiber port is not connected
		Blinking	The fiber port exists data transmission
		ON	Fiber port connection
	STA	Blinking	The daughter card is running normally and in remote mode.
		OFF	The daughter card is not powered on/system failure
		ON	The daughter card is running normally and in local mode.
	LFP	OFF	LFP function is not enabled or port is connected normally
		ON	LFP function is enabled, port is connected abnormally

Note:

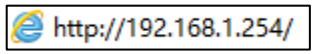
LFP function means that after LFP function is enabled through the DIP switch, when any port of the daughter card panel is disconnected, the LFP alarm indicator will be on and the connection of another port will be forcibly disconnected.

【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 user name and password in the login window as shown below.



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

Notes:

- The default IP address of the device is "192.168.1.254".
- The default username and password of the device is "admin12345".
- If the username or password is lost, user can restore it to factory settings via device DIP switch or 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	
100M copper port	10/100 Base-T(X) , RJ45 port, full/half duplex self-adaption, support MDI/MDI-X auto-tunning
100M fiber port	100Base-FX fiber port is full-duplex SC/ST/FC interface
Gigabit copper port	10/100/1000Base-T(X) self-adaption
Gigabit fiber port	1000Base-X, 1×9 fiber port
Gigabit SFP slot	1000Base-X, SFP
Console port	CLI command management port (RS-232), RJ45
Indicator	management card running indicator, power supply indicator, upward/downward cascading indicator of management card, CONSOLE port connection indicator, daughter card running indicator, LFP link failure alarm indicator, interface connection indicator
Power supply	
Input power supply	85~264VAC/DC, support dual power supply redundancy
Power consumption	
Full-load	34.46W@220VAC
Working environment	
Working temperature	-40～75℃
Storage temperature	-45～85℃
Working humidity	0%～95% (no condensation)

【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.