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Make network communication more reliable

RACK2100 Series Industrial Multi-service Rack Quick Installation Guide

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【Package Checklist】

Please check whether the package and accessories are intact while using the product for the first time.

1. Industrial multi-service rack x 1
2. Certification
3. Quick installation guide
4. Warranty card
5. Power line x 2

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

【Product Overview】

The series products are 2U industrial multi-service racks, which could be used matching with management card and daughter card. The models are as follows:

Model I RACK2100(rack with front power supply)

Model II RACK2100(rack with rear power supply)

Model III NMU(management card)

Model IV ECU101M(100M managed daughter card)

Model V ECU101(100M unmanaged daughter card)

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

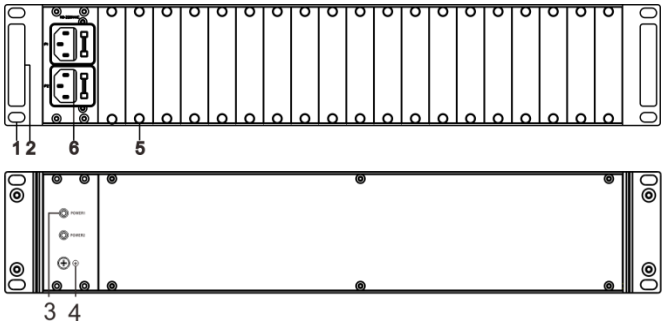
Model VII ECU100M-1GT2GS(1 Gigabit copper port + 2 Gigabit SFP slot daughter cards)

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

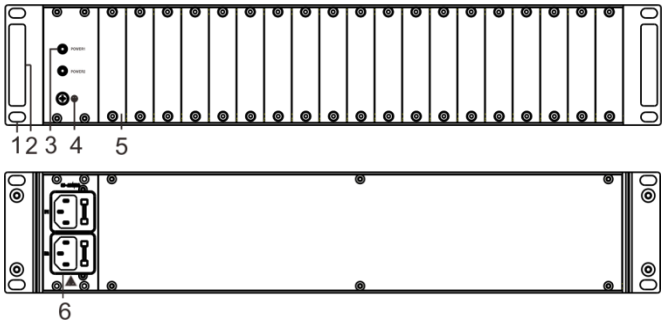
【Rack Panel Design】

➢ **Rack**

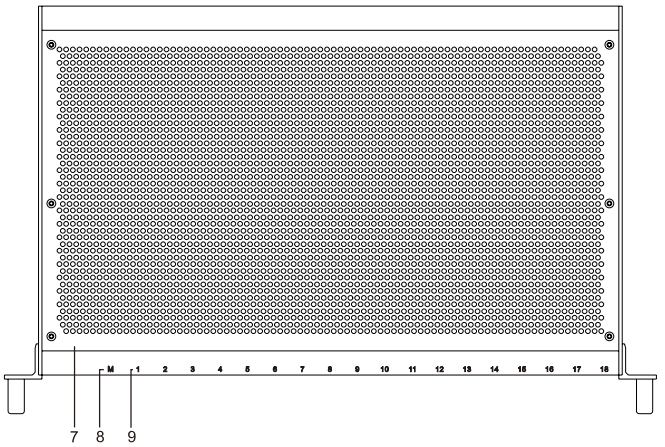
- **Front output power supply scheme: Front panel and Back panel (default)**



- **Back output power supply scheme: Front panel and Back panel**



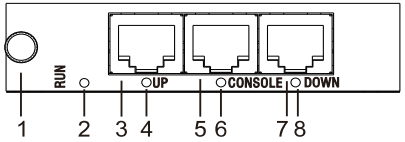
- **Top panel**



1. Location hole of rack mounting
2. Handle (Removable)
3. Power supply connection indicator (Power 1~2)
4. Shell grounding screw
5. Panel back up plate (Suit for untapped slot)
6. Redundant AC power supply input socket (P1~2)
7. Heat emission hole
8. Management card identification (M)
9. Daughter card identification (1~18)

【Management Card Panel Design】

- **Management Card (Special for managed products)**

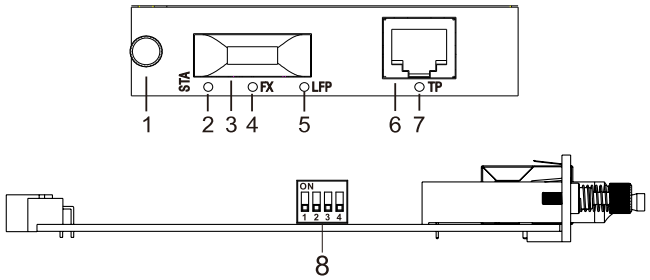


1. Spring screw (Fixed panel card)
2. Device running status indicator (RUN)
3. Upward cascade 100M/gigabit Ethernet copper port (UP)
4. UP port connection indicator
5. Console control management port
6. Console port connection indicator
7. Downward cascade 100M/gigabit Ethernet copper port (DOWN)
8. DOWN port connection indicator

【Daughter Card Panel Design】

- **100M Daughter Card**

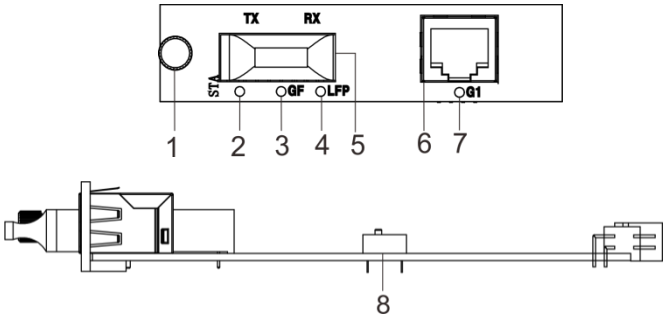
ECU101M (Managed) or ECU101 (Unmanaged)



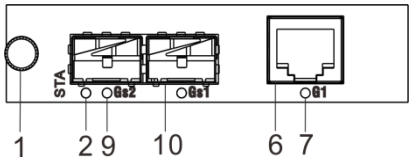
1. Spring screw (Fixed panel card)
2. STA daughter card running indicator
3. 100Base-FX 100M Ethernet fiber port
4. 100M fiber port connection indicator
5. LFP link invalid alarm indicator
6. 10/100Base-T(X) 100M Ethernet copper port
7. 100M copper port connection indicator
8. DIP switch

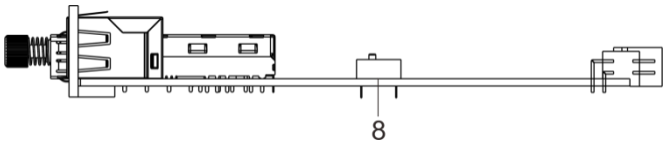
➢ **Gigabit Daughter Card**

ECU100M-1GT1GF

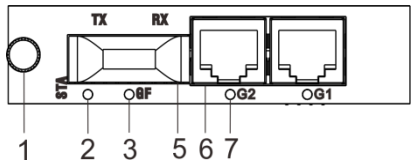


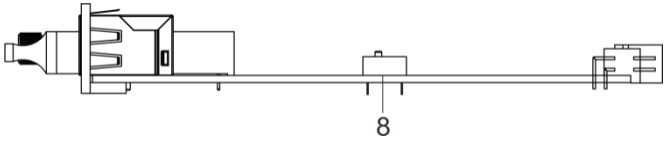
ECU100M-1GT2GS





ECU100M-2GT1GF



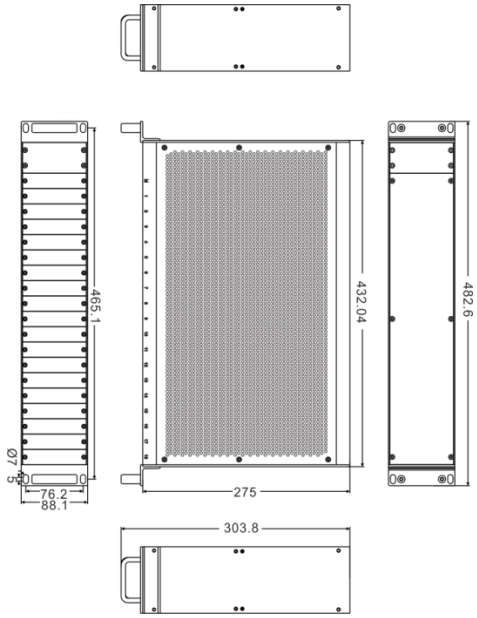


1. Spring screw (Fixed panel card)
2. STA daughter card running indicator
3. 100Base-FX gigabit Ethernet fiber port indicator
4. LFP link invalid alarm indicator
5. 1000Base-FX gigabit Ethernet fiber port
6. 10/100/1000Base-T(X) gigabit Ethernet copper port
7. Gigabit copper port connection indicator
8. DIP switch
9. Gigabit SFP slot indicator
10. 1000Base-SFP slot

【Mounting Dimension】

Unit (mm)

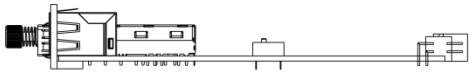
➢ **Rack**

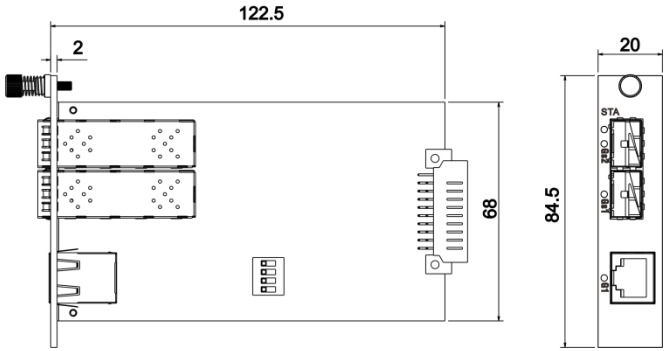


➢ **Daughter card**

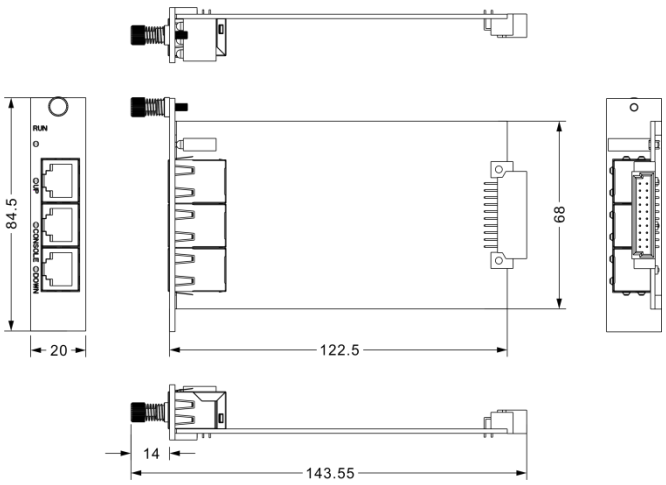
Note

Take ECU100M-1GT2GS's dimension diagram for example, other daughter cards are the same size.





➢ **Management card**



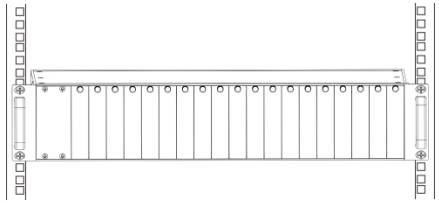
Notice before mounting:

- 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 Device Mounting】

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, mounting ends.

【Disassembling Rack Device】

Step 1 Device powers off.

Step 2 Unscrew the fixed mounting lug screw on the rack

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

【Power Supply Connection】

➢ **AC power supply**



Rack built-in professional communication power supply, it supports dual power supply redundant. When one of the power supply occurs faults, it can timely switch to another power supply to continue the device power supply. Power supply input range: 85~264VAC.

【DIP Switch Setting】



Daughter card provides 4-pin DIP switch for function setting. “ON” is enable valid port. DIP switch default status is “OFF”. Please power off and power on after changing the status of DIP switch. DIP switches definition as follows:

Type	No.	ON	OFF
100M	1	LFP function enable	LFP function disable
	2	ECU101M: remote control ECU101: reserved	ECU101M: remote control disable ECU101: reserved
	3	Cut-through mode	Store and forward mode
	4	Flow control enable	Flow control disable
Gigabit	1	Flow control enable	Flow control disable
	2	-----	-----
	3	Remote control	Remote control disable
	4	LFP function enable	LFP function disable

【Console Port Connection】

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

Pin	2	3	5
Pin definition	TXD	RXD	GND

【Checking LED Indicator】

The device provides LED indicators (The indicators include Rack2100, management card and daughter card indicators) to monitor the device operation status and comprehensively simplify troubleshooting. The detailed status of each LED is described in the table as below:

Type	LED	Indicator	Description
Rack indicator	POWER(1-2)	ON	Power supply is connected normally
		OFF	Power supply is connected abnormally or without power supply
Management card indicator	RUN	Blinking	Device runs normally and blinks in certain frequency
		ON/OFF	Device runs abnormally or is powering on
	UP/DOWN	ON	Port is connected normally
		Blinking	Port exists data transmission
		OFF	Port is disconnected or abnormal
	CONSOLE	ON	Port is connected normally
		OFF	Port is disconnected or abnormal
Daughter card indicator	LINK(GS1-GS2/G1-G2/GF)	ON	Port has established valid network connection
		Blinking	Port exists data transmission
		OFF	Port hasn’t established valid

Type	LED	Indicator	Description
			network connection
	TP	OFF	Copper port is disconnected
		Blinking	Copper port exists data transmission
		ON	Copper port is connected
	FX	OFF	Fiber port is disconnected
		Blinking	Fiber port exists data transmission
		ON	Fiber port is connected
	STA	Slow blinking	Daughter card runs normally. 1s per time
		Quick blinking	Daughter card alarm/system fault
		OFF	Daughter card hasn't powered on/system fault
		ON	Daughter card runs normally
	LFP/Alarm	OFF	LFP function disable or port is connected normally
		ON	LFP function enable, port is connected abnormally

Note

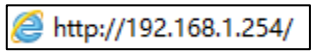
LFP function: After enable LFP function via DIP switch, when any one port on the daughter card panel is disconnected, LFP alarm indicator is bright, another port is forced to be disconnected.

【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 username and password in the login window as shown below.



Step 4 Click "OK" 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 "admin".
- 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	10/100Base-T(X), RJ45, full/half duplex self-adaption, supports MDI/MDI-X automatic detection
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-FX fiber port
Gigabit SFP slot	1000Base-SFP
Console port	CLI command management port (RS-232), RJ45
Indicator	Management card running indicator, power supply connection indicator, management card up and down cascade indicator, CONSOLE port connection indicator, daughter card running status indicator, LFP link invalid alarm indicator, interface connection status indicator
Power supply	
Input power supply	85~264VAC Supports dual power redundant
Consumption	
No-load	26.24W@220VAC
Full-load	34.46W@220VAC
Operating environment	
Operating temperature	-40℃~75℃
Storage temperature	-45℃~85℃

Panel	
Operating humidity	0%~95% (no condensation)
Protection grade	IP20 (mental shell)