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Make network communication more reliable

ICPE3300-C61 Series Industrial 5G CPE Quick Installation Guide

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【Package Checklist】

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

1. 5G CPEx1
2. DIN-Rail mounting attachment
3. Wall mounting attachment*2
4. 5G Sub-6G omnidirectional antenna*4
5. 2.4G/5.8G omnidirectional antenna*2
6. Warranty card
7. Certification

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

【Product Overview】

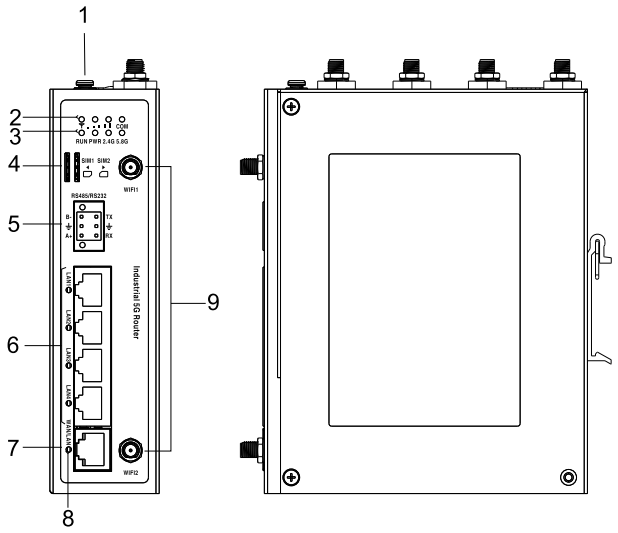
This series products are industrial 5G CPE. For convenience, the products of this series adopt the following number on the left in this guide, please confirm the number of your product:

Model I. ICPE3300-C61 (1 Gigabit copper port (WAN/LAN) + 4 Gigabit copper ports (LAN) + 2 2.4G/5.8G dual-band antenna interfaces + 4 5G antenna interfaces + 1 RS-232/485 serial port + 2 SIM card slots, 24VDC (9~36VDC) power input)

Model II. ICPE3300-C61-EA-LV (1 Gigabit copper port (WAN/LAN) + 4 Gigabit copper ports (LAN) + 2 2.4G/5.8G dual-band antenna interfaces + 4 5G antenna interfaces + 1 RS-232/485 serial port + 2 SIM card slots, 24VDC (9~36VDC) power input)

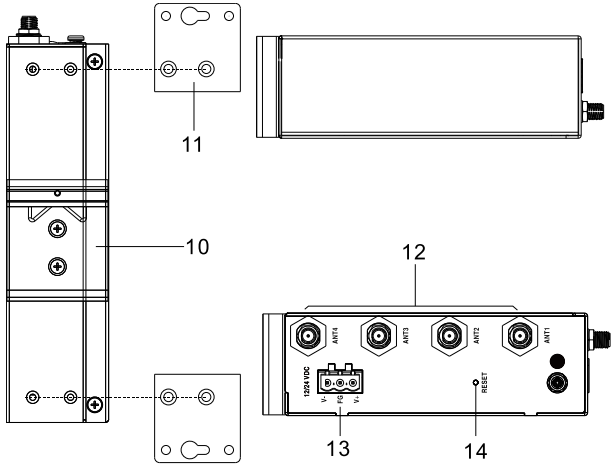
【Panel Design】

➢ **Front view and side view**



Model I, II

➢ **Rear view, bottom view, and top view**



Model I, II

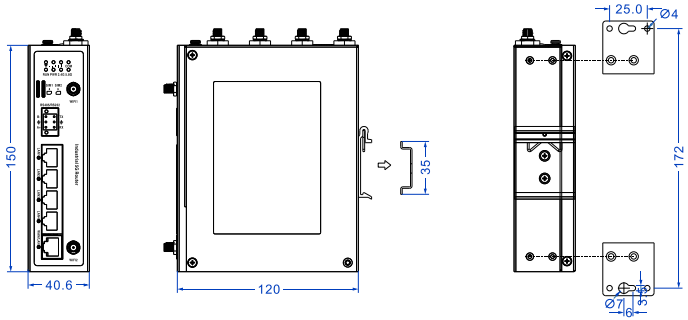
1. Grounding screw (M4)
2. Indicators, from left to right in turn they are:
   - 5G signal strength indicator
   - Serial port indicator (COM)
3. Indicators, from left to right in turn they are:
   - Running Indicator (RUN)
   - Power Indicator (PWR)
   - 2.4G Wireless Indicator (2.4G)
   - 5.8G wireless Indicator (5.8G)
4. SIM card slot (SIM1-2)
5. RS-485/232 terminal block
6. 10/100/1000Base-T(X) Gigabit copper port (LAN1-LAN4)
7. 10/100/1000Base-T(X) Gigabit copper port (WAN/LAN)
8. Ethernet port indicator (LAN1-LAN4, WAN/LAN)
9. 2.4G/5.8G antenna interface (WIFI1-WIFI2)
10. DIN-Rail mounting kit
11. Wall-mounting panel
12. 5G Sub-6G antenna interface (ANT1-ANT4)
13. Power supply input terminal block
14. RESET button (RESET)

【Mounting Dimension】

Unit: mm

Note:

The external dimensions of this series of products are the same.

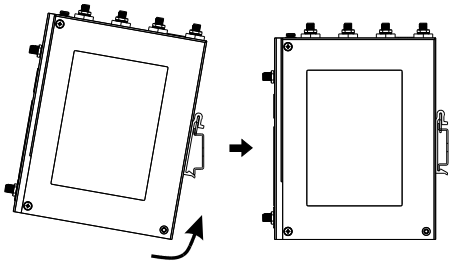


Notice Before Mounting:

- 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.

Installation and unloading method 1:【DIN-Rail Mounting】

The product adopts 35mm standard DIN-Rail mounting which is suitable for most industrial scenes, mounting steps are as follows:



Step 1 Check whether the DIN-Rail mounting kit that comes with the device is installed firmly.

Step 2 Insert the bottom of DIN-Rail mounting kit (one side with spring support) into DIN-Rail, and then insert the top into DIN-Rail.

Tips:

Insert a little to the bottom, lift upward and then insert to the top.

Step 3 Check and confirm the product is firmly installed on DIN-Rail, then mounting ends.

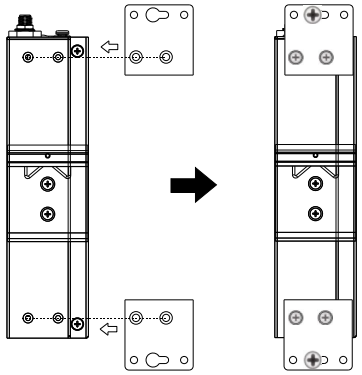
【Disassembling DIN-Rail】

Step 1 Power off the device.

Step 2 After lifting the device upward slightly, first shift out the top of DIN-Rail mounting kit, and then shift out the bottom of DIN-Rail, disassembling ends.

Installation and unloading method 2:【Wall-mounted Device Mounting】

Step 1 Use M3 screws to install the left/right hanging board on the device backboard.



Step 2 On the wall of device mounting, place the device on the wall for reference or refer to the mounting dimension to mark two screw positions.

Step 3 Nail M4 screws on the wall and keep 2mm interspace reserved.

Step 4 Hang the device on two screws and slide downward, then tighten the screw to enhance stability, mounting ends.

【Wall-mounted Device Disassembling】

Step 1 Power off the device.

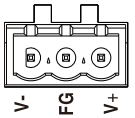
Step 2 Unscrew the screw on the wall about 2mm.

Step 3 Lift the device upward slightly, take out the device, disassembling ends.

Notice Before Powering on:

- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug and power on.
- Power OFF operation: First, remove the power plug, then remove the wiring section of terminal block. Please pay attention to the above operation sequence.

【Power Supply Connection】



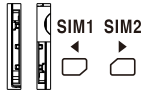
The series provides 3-pin 5.08mm pitch terminal blocks and supports 1 24VDC power supply input. The definitions of power pin are shown in the left figure, and the power input range is 9~36VDC.

【Reset Button Setting】



The series provides 1 RESET button, press the RESET button for 3s and release it, and the device will restart automatically; Press and hold the RESET button for 7s and release it, and the device will automatically restore the factory defaults.

【Mounting SIM Card】



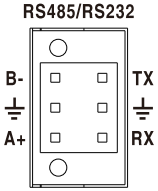
This series supports 2 SIM card slots, and 2 Nano SIM cards can be installed. Insert the SIM card into the SIM card slot according to the slot direction, press it lightly and then clip it into the card slot to complete the installation.

【Antenna Connection】

The specifications of the antennas provided in this series are as follows:

Type	P/N	Gain (dBi)	Quantity (pcs)
2.4G/5.8G antenna	3005040216	5	2
5G Sub-6G antenna	3005040098	5	4

【Serial Port Connection】



This series provides 1 RS-485/232 terminal block, and adopts 2*3 PIN 3.5mm pitch terminal blocks, with pin definitions as follows:

Serial Port	RS-485	RS-232
PIN	RS485B-	RS232-TX
	GND	GND
	RS485A+	RS232-RX

【Checking LED Indicator】

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

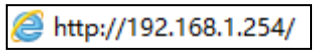
LED	Indicate	Description
RUN	ON	The device is powering on or the device is abnormal
	Blinking	The device is running normally
	OFF	The device is powered off or the device is abnormal.
PWR	ON	The power input is functioning normally.
	OFF	Power input end is disconnected or running abnormally
2.4G/ 5.8G	ON	Wireless WiFi network is enabled
	Blinking	Wireless WiFi is in an active network status
	OFF	Wireless WiFi network is running abnormally or turned off
LAN1-4 WAN/LAN	ON	LAN/WAN port connection has established a valid network connection
	Blinking	LAN/WAN port is in network active status
	OFF	LAN/WAN port connection has not established a valid network connection
COM	Blinking	Serial port is sending/receiving data
	OFF	Serial port is not transmitting/receiving data, or data abnormally.
	○ ○ ○	The indicators are all off, indicating that no 5G bridge has been established.
	☼ ○ ○	Only one indicator is on, indicating that the 5G signal at the opposite end is weak
	☼ ☼ ○	Two indicators are on. It means 5G signal at the opposite end is normal
	☼ ☼ ☼	All indicators are on. It means 5G signal at the opposite end is strong

【Logging in to WEB Interface】

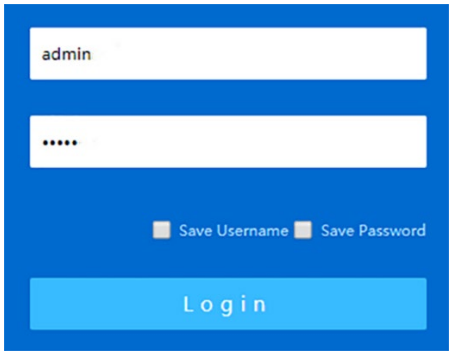
The series supports WEB management and configuration, computer can access LAN port of the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

Step 1 Configure the IP addresses of computer and the device's LAN port 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's LAN port is "192.168.1.254".
- The default user name and password of the device are "admin".
- If the user name or password is lost, user can restore it to factory settings via restoring factory setting button; 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 (LAN)	4 10/100/1000Base-T(X) self-adaptive RJ45 LAN ports, support automatic flow control, full/half duplex mode, MDI/MDI-X self-adaption
Gigabit copper port (WAN/LAN)	1 10/100/1000Base-T(X) self-adaptive RJ45 WAN/ LAN ports, support automatic flow control, full/half duplex mode, MDI/MDI-X self-adaption
Antenna	● 2 2.4G/5.8G antenna interfaces,

interface	RP-SMA-K(Female); ● 4 5G antenna interfaces, SMA-K type (Female)
Serial port	1 RS-485/232, adopt 2*3PIN 3.5mm pitch terminal blocks
SIM card slot	2 Nano SIM card slots, redundant backup
Indicator	Running indicator, Power indicator, 2.4G indicator, 5.8G indicator, 5G signal strength indicator, interface indicator, serial port indicator
WiFi Radio Frequency	
802.11b/g/n/ax	2.412GHz~2.4835GHz
802.11a/n/ac/ax	5.18GHz-5.825GHz
RF power output	20dBm
Modulation scheme	DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM, 256-QAM, 1024QAM
WiFi Receiving Sensitivity	
802.11b	-86dBm@1Mbps, -80dBm@11Mbps
802.11g/a	-82dBm@6Mbps, -65dBm@54Mbps
802.11n	-82dBm@MCS0, -64dBm@MCS7
802.11ac	-82dBm@MCS0, -59dBm@MCS9
802.11ax	-82dBm@MCS0, -52dBm@MCS11
WiFi Transmitting Power	
802.11b	27dBm@1Mbps, 20dBm@11Mbps
802.11g/a	23dBm@6Mbps, 20dBm@54Mbps
802.11n	23dBm@MCS0, 20dBm@MCS7
802.11ac	23dBm@MCS0, 20dBm@MCS9
802.11ax	23dBm@MCS0, 20dBm@MCS11
5G Operating Frequency Band (CN) (Model I)	
5G NR	3GPP Release 15/16; NSA/SA operation; Sub-6 GHz
5G NR NSA	n41/78/79
5G NR SA	n1/3/5/8/28/41/77/78/79
MIMO	DL 4×4 MIMO: n1/28A/41/77/78/79 UL 2×2 MIMO: n41/77/78/79 DL 2×2 MIMO: n3/5/8
5G Operating Frequency Band (EA) (Model II)	
5G NR	3GPP Release 15; NSA/SA operation; Sub-6 GHz
5G NR NSA	n1/3/7/28/38/40/41/77/78
5G NR SA	n1/3/5/7/8/20/28/38/40/41/66/77/78
MIMO	DL 4×4 MIMO: n1/3/7/28/38/40/41/66/77/78 UL 2×2 MIMO: n38/40/41/77/78 DL 2×2 MIMO: n3/5/20
4G Operating Frequency Band (CN) (Model I)	
LTE Category	DL Cat12, UL Cat13
LTE-FDD	B1/3/5/8
LTE-TDD	B34/38/39/40/41
DL 2×2 MIMO	B1/3/5/8/34/38/39/40/41
4G Operating Frequency Band (EA) (Model II)	
LTE Category	DL Cat12, UL Cat13
LTE-FDD	B1/2/3/4/5/7/8/20/28/66
LTE-TDD	B38/40/41
DL 2×2 MIMO	B1/2/3/4/5/7/8/20/28/38/40/41/66
WCDMA Operating Frequency Band (CN) (Model I)	
WCDMA	B1/5/8
WCDMA Operating Frequency Band (EA) (Model II)	
WCDMA	B1/2/5/8
Max Data Transfer Rate (DL, UL) (CN) (Model I)	
5G SA Sub-6	DL 2Gbps; UL 1Gbps
5G NSA Sub-6	DL 2.2Gbps; UL575 Mbps
4G LTE	DL 600Mbps; UL 150Mbps
3G WCDMA	DL 42.2Mbps; UL 11Mbps
Max Data Transfer Rate (DL, UL) (EA) (Model I)	
5G SA Sub-6	DL 2Gbps; UL 1Gbps
5G NSA Sub-6	DL 2.6Gbps; UL650 Mbps
4G LTE	DL 600Mbps; UL 150Mbps
3G WCDMA	DL 42.2Mbps; UL 11Mbps
Power Supply	
Input power supply	24VDC (9~36VDC)
Access terminal block	Adopt 3-pin 5.08mm pitch terminal block
Power Consumption	
Model I	No-load at 25℃: 5.67W@24VDC Full-load at 25℃: 12.08W@24VDC Full-load at 75℃: 13.15W@24VDC
Model II	No-load at 25℃: 5.67W@24VDC Full-load at 25℃: 12.08W@24VDC Full-load at 75℃: 13.15W@24VDC
Working Environment	
Working temperature	-40~75℃
Storage temperature	-40~85℃
Working humidity	5%~95% (no condensation)
Protection grade	IP40 (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.