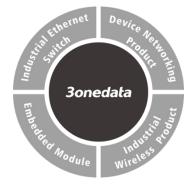
# **3onedata**

# IAP2300C Series Industrial Wireless Client Quick Installation Guide



3onedata Co., Ltd.

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Xili, Nanshan District, Shenzhen Website: www.3onedata.com Tel: +86 0755-26702688 Fax: +86 0755-26703485

## [Package Checklist]

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

- 1. Wireless Client
- 2. DIN-Rail mounting attachment
- 3. 2.4G/5G dual-band antenna ×2
- 4. Wall-mounting panel x 2

Note: 2E single-frequency device antenna (standard), and

2E2E dual-frequency device antenna (optional).

- 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]

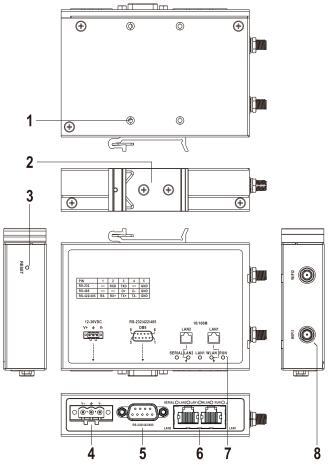
The products of this series are DIN-Rail/wall mounting industrial wireless client. For convenience, the products of this

series adopt the following number on the left in this guide, please affirm the number of your product.

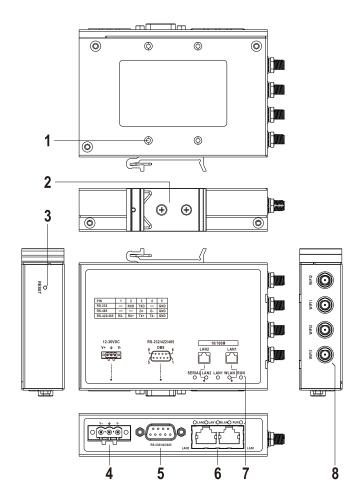
Model I. IAP2300C-2E-2T-1D-P12\_36 (2 2.4G/5G dual-band antenna interfaces + 2 100M LAN + 1 RS-232/485/422 serial port, 12~36VDC power input).
Model II. IAP2300C-2E2E-2T-1D-P12\_36 (4 2.4G/5G dual-band antenna interfaces + 2 100M LAN + 1 RS-232/485/422 serial port, 12~36VDC power input).
Model III. IAP2300C-2E-5T-1D-P12\_36 (2 2.4G/5G dual-band antenna interfaces + 1 100M WAN + 4 100M LAN + 1 RS-232/485 serial port, 12~36VDC power input).
Model IV. IAP2300C-2E2E-5T-1D-P12\_36 (4 2.4G/5G dual-band antenna interfaces + 1 100M WAN + 4 100M LAN + 1 RS-232/485 serial port, 12~36VDC power input).
Model IV. IAP2300C-2E2E-5T-1D-P12\_36 (4 2.4G/5G dual-band antenna interfaces + 1 100M WAN + 4 100M LAN + 1 RS-232/485 serial port, 12~36VDC power input).

# [Panel Design]

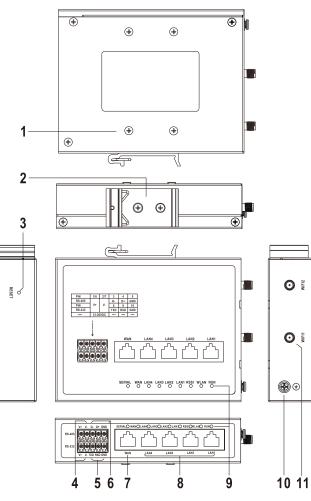
> Model I



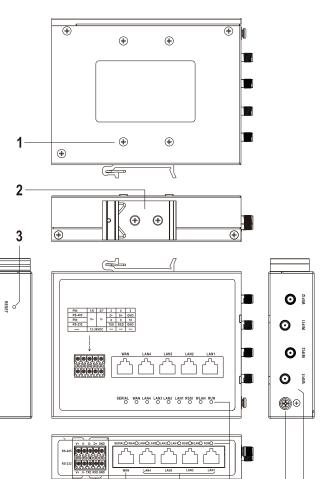
> Model II



- 1. Wall-mounting location hole
- 2. DIN-Rail mounting kit
- 3. RESET button
- 4. Terminal blocks for power supply input
- 5. RS-232/485/422 serial port
- 6. 10/100Base-T(X) 100M LAN port (LAN1-LAN2)
- 7. Device indicators, from left to right in turn they are: Serial port indicator (SERIAL)
  - LAN port indicator (LAN2-LAN1)
  - Wireless bridge indicator (WLAN)
  - Running status indicator (RUN)
- 8. 2.4G/5G dual-band antenna interface (WIFI1-WIFI2)
- Model III



> Model IV



- 4 5 6 7 8 9
- 1. Wall-mounting location hole
- 2. DIN-Rail mounting kit
- 3. RESET button
- 4. Terminal blocks for power supply input
- 5. RS-232 serial port
- 6. RS-485 serial port
- 7. 10/100Base-T(X) 100M WAN port (WAN)
- 8. 10/100Base-T(X) 100M LAN port (LAN1-LAN4)
- Device indicators, from left to right in turn they are: SERIAL indicator (SERIAL) WAN port indicator (WAN)

10 11

LAN port indicator (LAN4-LAN1)

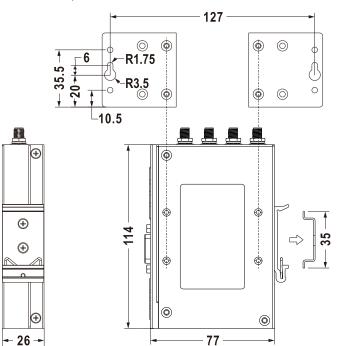
Signal strength indicator (RSSI) Wireless network indicator (WLAN) Running status indicator (RUN)

- 10. Grounding screw
- 11. 2.4G/5G dual-band antenna interface (WIFI1-WIFI2)

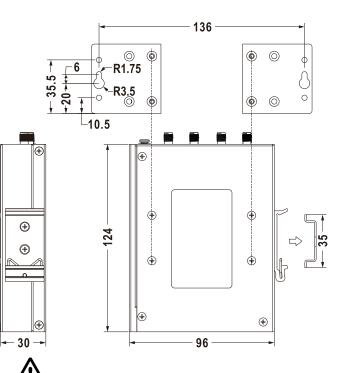
### [Mounting Dimension]

Unit: mm

> Model I, Model II



> Model III, Model IV

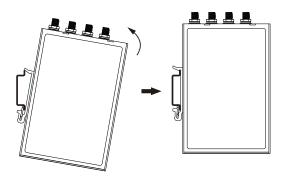


# Notice Before Mounting:

- 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.

# 【DIN-Rail Mounting】

The product adopts 35mm standard DIN-Rail mounting which is suitable for most industrial scenes, mounting steps 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.

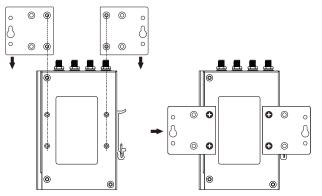
Step 3 Check and confirm the product is firmly installed on DIN-Rail, then mounting ends.

## 【Disassembling DIN-Rail】

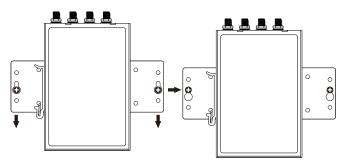
- Step 1 Power off the device.
- Step 2 After lifting the device upward slightly, first shift out the top of DIN-Rail mounting kit, and then shift out the bottom of DIN-Rail, disassembling ends.

## [Wall-mounted Device Mounting]

Step 1 Adopt M3 screw to install the left/right mounting board on the device side board.



- 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 M3 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.



## [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 power on:

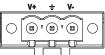
• Power ON operation: First insert the power supply

terminal block into the device power supply interface, then plug the power supply plug contact 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]

#### Model I, Model II

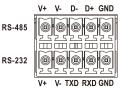


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The Model I and Model II device of this series provide 3-pin 5.08mm pitch terminal blocks and supports 1 DC

power supply input which supports anti-reverse connection. Pin definitions are shown in the left figure, V+ and V- are the positive and negative poles of power input, and  $\ddagger$  is the case grounding. Voltage range: 12~36VDC.

#### > Model III, Model IV



This Model III and Model IV device of this series provide 2\*5PIN 3.81mm pitch terminal blocks, power supply occupies the left 4 pins. Support 1 DC power supply input with anti-reverse

connection protection. The pins are defined as shown in the figure on the left. V+ and V- are the positive and negative poles of power input, and any set of V+ and V- can be used for power input. Voltage range: 12~36VDC.

# [Serial Port Connection]

### > Model I, Model II



The Model I and Model II device of this series provide 1 RS-232/485/422 3IN1 serial port, and the interface type is DB9 male. The pin definition as follows:

PIN	1	2	3	4	5
RS-232		RXD	TXD		GND
RS-485	_		D+	D-	GND
RS-485/422	RX-	RX+	TX+	TX-	GND
PIN	6	7	8	9	

IO (Reserved) DO+ DO-DI+ DI-

#### Model III, Model IV

	V+	V-	D-	D+	GND
RS-485	Ø	þ	þ	þ	Ø
RS-232					
	V+	٧	TXD	RXD	GND

Model III and IV of this series of device provide 1 RS-232/485 2-in-1 serial port. The interface type is 2\*5PIN 3.81mm pitch terminal, and the serial port occupies 6 pins on the right. The pin definition as follows:

	light. The pin definition as follows.				
PIN	1	2	3	4	5
Definition	V+	V-	D-	D+	GND
Description	12~36VDC		RS-485 serial port		
Description	power input				
PIN	6	7	8	9	10
Definition	V+	V-	TXD	RXD	GND
Description	12~36VDC		RS-232 serial port		
Description	power in	put			

## [RESET Button Setting]

O This series device provide 1 RESET button, press **RESET** the button for 1-3s then release it, then the 2T device can enable debugging WLAN temporarily, and the 5T device can be rebooted automatically; press the button for 5s then release it to restore factory defaults. The SSID of debugging WLAN, that is, the Wi-Fi name is ADMIN-XXXXX(X is the last six digits of the MAC address of the device), which is password-free, and is mainly used to temporarily access the device through the wireless network for debugging. After the device restarts or reconfigures the wireless, the device will automatically turn off the debugging WLAN.

# [Antenna Connection]

Model I and model III of this series of device are equipped with two antennas as standard, and the antenna specifications are as follows:

Туре	P/N	Gain (dBi)	Count (pcs)
2.4/5.8G Dual frequency antenna	3005040132	2	2

# [Checking LED Indicator]

The series of devices 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			
	ON	The device is powering on or the			
		device is abnormal.			
RUN	Blinking	The device is running normally			
	OFF	The device is powered off or the			
	011	device is abnormal.			
	ON	Wireless network is enabled			
	Blinking	Wireless network is in an active			
WLAN(5T)	Dilliking	network status			
		Wireless network is running			
L	OFF	abnormally or disabled			
		The wireless terminal has			
	ON	established bridge and the signal			
		is great			
WLAN(2T)	Blinking	0.5Hz blinking, the established			
RSSI(5T)		bridge signal is normal; 1Hz			
		blinking, and the established			
		bridge signal is weak			
	OFF	The wireless terminal has not			
		established bridge			
	ON	Ethernet port has established a			
\A/ANI/		valid network connection			
WAN/ LAN1-	Blinking	Ethernet port is in an active			
LAN1- LAN4		network status Ethernet port has not			
	OFF	Ethernet port has not established valid network			
		connection			
		Serial port is sending/receiving			
	Blinking	data			
SERIAL		No serial port connection or no			
	OFF				

## 【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.

http://192.168.1.254/

Step 3 Enter device's username and password in the login

#### window as shown below.

Username	admin
Password	••••••
	Login

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 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 RESET button 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			
Antenna	2.4G/5G	dual-band	antenna
	interfaces, RP-SMA-K(Female)		

Wan	10/100Base-T(X) RJ45 interface
Lan	10/100Base-T(X) RJ45 interface
Serial Port	RS-232/485/422 serial port adopts
	DB9 (Male);
	RS-232/485 serial port adopt 2*5PIN
	3.81mm pitch terminal blocks (serial
	port occupies 6 pins)
Indicator	Running indicator, WLAN indicator,
	RSSI indicator, WAN indicator, LAN
	indicator, serial port indicator
Radio Frequence	х <b>у</b>
Channel	802.11b/g/n: 2.412GHz~2.4835GHz
	802.11a/n: 5.18GHz~5.825GHz
RF Power	20dBm
Output	
Modulation	DBPSK, DQPSK, CCK, OFDM, 16-
Scheme	QAM, 64-QAM
<b>Receiving Sens</b>	itivity
802.11b	-95dBm@1Mbps, -89dBm@11Mbps
802.11g	-90dBm@6Mbps, -74dBm@54Mbps
802.11a	-89dBm@6Mbps, -72dBm@54Mbps
802.11n	-85dBm@MCS0, -67dBm@MCS7
Transmitting Po	wer
802.11b	23dBm@1Mbps, 20dBm@11Mbps
802.11g/a	23dBm@6Mbps, 20dBm@54Mbps
802.11n	23dBm@MCS0, 20dBm@MCS7
Power Supply	
Input Power	12~36VDC, support anti-reverse
Supply	connection
Access	Model I, Model II:
Terminal Block	3-pin 5.08mm pitch terminal block;
	Model III, Model IV:
	2*5PIN 3.81mm pitch terminal blocks,
	power supply occupies 4 pins
Power Consum	ption
Model I	No-load at normal temperature:
	2.0W@12VDC, <u>2.0W@36VDC</u>
	Full load at normal temperature:

	4.6W@12VDC, <u>4.8W@36VDC</u>
	Full load at high temperature:
	4.7W@12VDC, 5.1W@36VDC
Model III	No-load at normal temperature:
	2.1W@12VDC, 2.5W@36VDC
	Full load at normal temperature:
	5.5W@12VDC, <u>5.7W@36VDC</u>
	Full load at high temperature:
	5.5W@12VDC, 5.7W@36VDC
Working Enviro	nment
Working	-40°C~75°C
Temperature	
Storage	-40°C~85°C
Temperature	
Working	5% $\sim$ 95% (no condensation)
Humidity	
Protection	IP30(metal shell)
Grade	