

IAP2300C-2E-2T-1D-P12_36

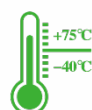
DIN-Rail or Wall Mounting

Industrial Wireless Client

- Support two 2.4G/5G dual-band antenna interfaces, two 100M LAN ports and one RS-232/485/422 3IN1 serial port
- Support bridge mode and client mode to convert wireless signals into wired signals
- Support multiple serial port modes like RealCom, TCP Server, TCP Client, UDP Server, UDP Client
- Support 12~36VDC power supply input
- Support -40~75°C wide operating temperature range



Industrial Grade



Introduction

IAP2300C-2E-2T-1D-P12_36 is a 100M industrial wireless client. The product supports 1 3IN1 serial port that can make serial device be equipped with networking capability instantly and centrally manage the scattered serial devices and hosts via network. This product provides 2.4G/5G dual-band antenna interface, 100M copper port (LAN) and RS-232/485/422 serial port. It supports DIN-Rail or wall mounting, which can meet the requirements of different application scenes.

The management system supports bridge and client wireless work mode; Support IEEE802.11a/b/g/n wireless technology, the wireless rate of the whole device is up to 300Mbps; The device supports wireless encryption methods such as WPA/WPA2/WPA3, and has various security policies such as SSID hiding, wireless user isolation, IP address filtering, MAC address filtering, URL filtering, port forwarding, port redirection, ARP binding, DMZ setting, etc. Support virtual AP, that is, one AP device supports multiple SSIDs; The device supports wireless fast roaming and efficient roaming. And the efficient roaming takes only about 50 milliseconds, which can meet the requirements of rapid roaming and recovery of wireless data in industrial occasions. Each serial port supports 4 TCP or UDP session connections and multiple work modes like RealCom, TCP Server, TCP Client, UDP Server, UDP Client.

The button can enable the device to debug WLAN and restore factory defaults. The hardware adopts fanless, low power consumption, wide temperature, wide pressure design, through strict testing in line with industry standards, can adapt to the industrial site environment with harsh requirements for EMC, can be widely used in the robot industry: sorting robot, small freight robot, etc.

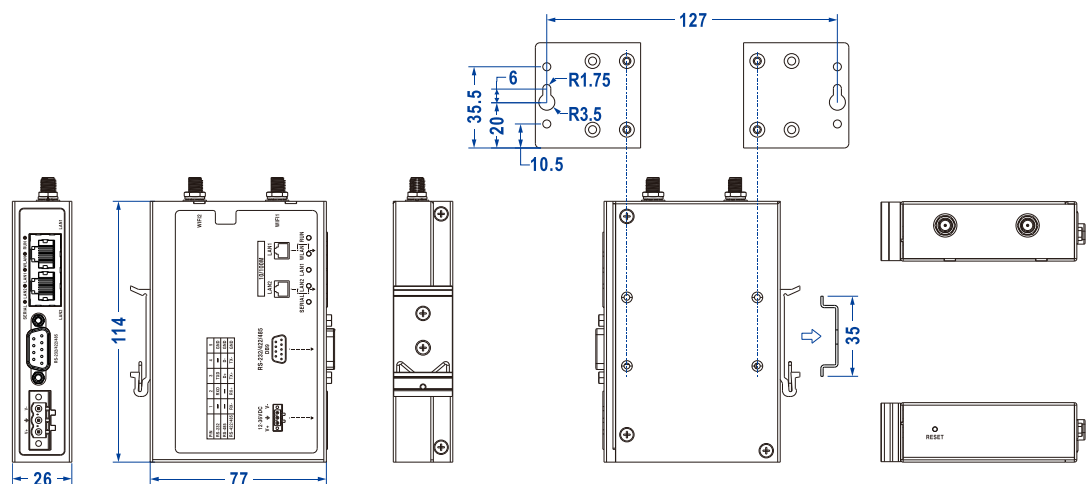
Features and Benefits

- ⦿ Support network modes like bridge mode and client mode, support connection methods like WDS and universal bridge
- ⦿ The client mode supports wireless NAT connection, and the wireless network can connect with the external network through PPPoE, static IP and DHCP dynamic acquisition, and implement route switch
- ⦿ Support high-speed wireless connection, the transmission speed of 2.4GHz/5GHz can reach up to 300Mbps
- ⦿ Support multi-AP fast roaming technology, and the switching time of efficient roaming is less than 50ms
- ⦿ Support SNMP network management and Trap alarm
- ⦿ Support multiple SSID settings and provide SSID hiding function
- ⦿ Support WPA/WPA2/WPA3 wireless encryption method of both personal edition and enterprise edition and TKIP/AES encryption algorithm
- ⦿ AC management can specify AC device information to realize directional management

- ⦿ Roaming proxy can realize roaming proxy host across network segments, effectively avoiding the data interruption caused by the failure to update the forwarding list of upper-level device in time
- ⦿ Support firewall functions like IP filtering, MAC filtering, URL filtering, port forwarding, ARP binding, DMZ isolation area
- ⦿ Support wireless user management and user event, and support blacklist and whitelist filtering rules, wireless user online/offline notification
- ⦿ WMM can achieve better transmission quality of voice, video and other applications in wireless networks
- ⦿ Network detection can realize network diagnosis and specific network recovery operations
- ⦿ Serial application can realize immediate networking of serial devices and support virtual COM and TCP/UDP network connection
- ⦿ Support serial port 300bps-115200bps line speed non-blocking communication
- ⦿ Support multiple serial port modes like RealCom, TCP Server, TCP Client, UDP Server, UDP Client, etc.

Dimension

Unit: mm



Specification

Standard & Protocol

IEEE 802.3 for 10Base-T
IEEE802.3u for 100Base-TX
IEEE802.11a/b/g/n for WLAN
IEEE802.11i for wireless security
IEEE802.11r for fast roaming

	IEEE802.11e for WMM
Working Mode	Bridge mode (connection: WDS bridge, universal bridge; point-to-point, roaming) Client mode (connection: WDS bridge, universal bridge, wireless NAT; point-to-point, roaming)
WLAN	WAP/WAP2/WAP3 personal/enterprise edition encryption mode, hidden wireless SSID, wireless user isolation, wireless transmission power adjustment, maximum user limit, packet segmentation and RTS threshold, China/US wireless channel, WDS, WMM
Management	Intranet settings, extranet settings (wireless NAT), wireless settings, AC management, SNMP management, roaming agent, user settings, system upgrade, timed restart, profile management, system log, wireless user list, and Wi-Fi real-time traffic monitoring
Security Policy	Wireless user black/white list, wireless user event notice, IP filtering, MAC filtering, URL filtering, port forwarding, port redirection, ARP binding, DMZ setting
Routing/switching	Static routing (wireless NAT)
Troubleshooting	Network Detection
Time Management	NTP Client
Radio Frequency	802.11b/g/n: 2.412GHz~2.4835GHz 802.11a/n: 5.18GHz~5.825GHz RF power output: 20dBm Modulation methods: DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM
Receiving Sensitivity	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 Power	802.11b: 23dBm@1Mbps, 20dBm@11Mbps 802.11g/a: 23dBm@6Mbps, 20dBm@54Mbps 802.11n: 23dBm@MCS0, 20dBm@MCS7
Interface	Antenna interface: 2 2.4G/5G dual-band antenna interfaces, RP-SMA-K(Female) 100M copper port: 2 10/100Base-T(X) RJ45 ports are LAN ports

Serial port: 1 RS-232/485/422 serial port, DB9 Male

Serial Port Parameter	Standard: EIA RS-232C, RS-485, RS-422 RS-232 signal: RXD, TXD, GND RS-485 signal: D+, D-, GND RS-422 signal: TX+, TX-, GND, RX+, RX- Baud rate: 300~115200bps Data bit: 7bit, 8bit Parity bit: None, Even, Odd Stop bit: 1bit, 2bit Directional control: RS-485 direction adopts Automatic Data Direction Control technology Load capacity: RS-485/422 end supports 32-node polling environment Pull high/low resistor for RS-485: 4.7kΩ Work mode: RealCom Mode, TCP Server Mode, TCP Client Mode, UDP Server Mode, UDP Client Mode
Indicator	Running indicator, WLAN indicator, LAN indicator, serial port indicator
Power Supply	12~36VDC, support anti-reverse connection, 3-pin 5.08mm pitch terminal blocks
Power Consumption	No-load: 2.0W@24VDC Full-load: 4.7W@24VDC (high temperature≤5.1W)
Working Environment	Operating temperature: -40~75°C Storage temperature:-40~85°C Relative humidity: 5%~95% (no condensation)
Physical Characteristic	Housing: IP30 protection, metal Installation: DIN-Rail or wall mounting Dimension (W x H x D): 26mm×114mm×77mm
Industrial Standard	IEC 61000-4-2 (ESD, electrostatic discharge), Level 3 ● Air discharge:± 8kV ● Contact discharge: ±6kV IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3 ● Power supply: ±2kV ● Signal: ±1kV IEC 61000-4-5 (Surge), Level 3 ● Power supply: common mode±2kV, differential mode±1kV ● Signal: common mode±2kV, differential mode±1kV

	Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6
MTBF	>1 million hours
Authentication	CE, FCC, RoHS
Warranty	5 years



Federal Communications Commission (FCC) Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications made to this device not expressly approved by 3onedata Co., Ltd may void the FCC authorization to operate this device.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

RF exposure statement:

The transmitter must not be colocated or operated in conjunction with any other antenna or transmitter. This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a Minimum distance of 20cm between the radiator and any part of your body.

Ordering Information

Available Models	2.4G/5G Antenna Interface	100M LAN	RS-232/485/422	Power Supply
IAP2300C-2E-2T-1D-P12_36	2	2	1	12~36VDC



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