CIAP325-2A25-2D

RS232/485 2.4+5.8 GHz Dual Band WiFi 5 Industrial Wireless Client



- 1×10/100Base-T(X) WAN port, 1×10/100Base-T(X) LAN port, 1×RS232+1×485 serial port
- Support 802.11a/b/g/n/ac, 2.4G & 5.8G WiFi, AP/STA/AP+STA/Bridge working modes, 1×dual nano SIM cards slot
- Link backup and mutual backup of wired, 4G cellular networks
- Support TCP/UDP/MODBUS/HTTP/MQTT/SNMP
- Support mainstream cloud platforms, such as Alibaba Cloud and Amazon Cloud
- Hardware watchdog with self-detection, auto-recovery, and firmware backup for stable, crash-free operation
- DC 9~36V input, reverse polarity protection
- Industrial-grade design, IP30-rated housing protection
- -25℃~+75℃working temperature, EMC level 3

Product Description

CIAP325-2A25-2D is a dual-band Wi-Fi 5 industrial wireless client designed for high-speed, low-latency, and stable connections. Supporting IEEE 802.11 a/b/g/n/ac, it can handle over 16 Wi-Fi users in AP mode.

The device features 1×RS232, 1×RS485, 2 Ethernet ports (1 LAN + 1 WAN/LAN configurable), and a Wi-Fi antenna. It supports AP, STA, AP+STA, and Bridge modes, providing flexible networking for diverse industrial applications.

Built to industrial standards, it operates from -25℃ to +75℃ with DC 9~36V input and IP30 metal housing. EMC protection includes surge, ESD, and EFT (level 3). Dual hardware and software watchdogs, fault self-recovery, and firmware backup ensure stable operation.

CIAP325-2A25-2D supports protocols including TCP, UDP, MODBUS, HTTP, and MQTT, with WPA3 encryption, SSL protocol, and cloud connectivity (Alibaba Cloud, AWS). Features include anti-drop mechanism, multi-network backup, remote management, SNMP, NTP time calibration, and MAC-IP binding.

Ideal for AGV transport, smart warehouses, medical devices, factory automation, surveillance, and smart city applications. DIN-rail, wall, or desktop mounting ensures flexible installation in industrial environments.

Product Features

- 1 × RS232 and 1 × RS485 serial ports for flexible data acquisition
- 2 × 10/100M Ethernet ports, 1 × WAN/LAN configurable, 1 × LAN
- Dual-band Wi-Fi 2.4G & 5.8G, supporting IEEE 802.11 a/b/g/n/ac
- Wi-Fi operating modes: AP, STA, AP+STA, Bridge
- Compatible with TCP, UDP, MODBUS RTU/TCP, HTTP, MQTT, SNMP protocols
- Supports connection to cloud platforms such as Alibaba Cloud and AWS
- SSL/TLS and WPA3 encryption for secure data transmission
- Built-in web interface, AT commands, and mobile app for configuration
- Heartbeat packet, registration packet, and anti-drop mechanism for reliable communication
- Wired/STA multi-network intelligent backup to maintain continuous connectivity
- Remote management for centralized monitoring and configuration
- SNMP support, NTP time calibration, MAC-IP binding, anti-access restriction
- Built-in hardware watchdog, fault self-detection, self-repair, firmware backup and restoration functions for stable operation
- Metal housing with IP30 protection, suitable for wall-mounted or desktop installation
- Wide operating voltage DC 9~36V with reverse-polarity protection
- Industrial-grade design, operating temperature -25℃~+75℃, EMC level 3 protection

Technical Specifications

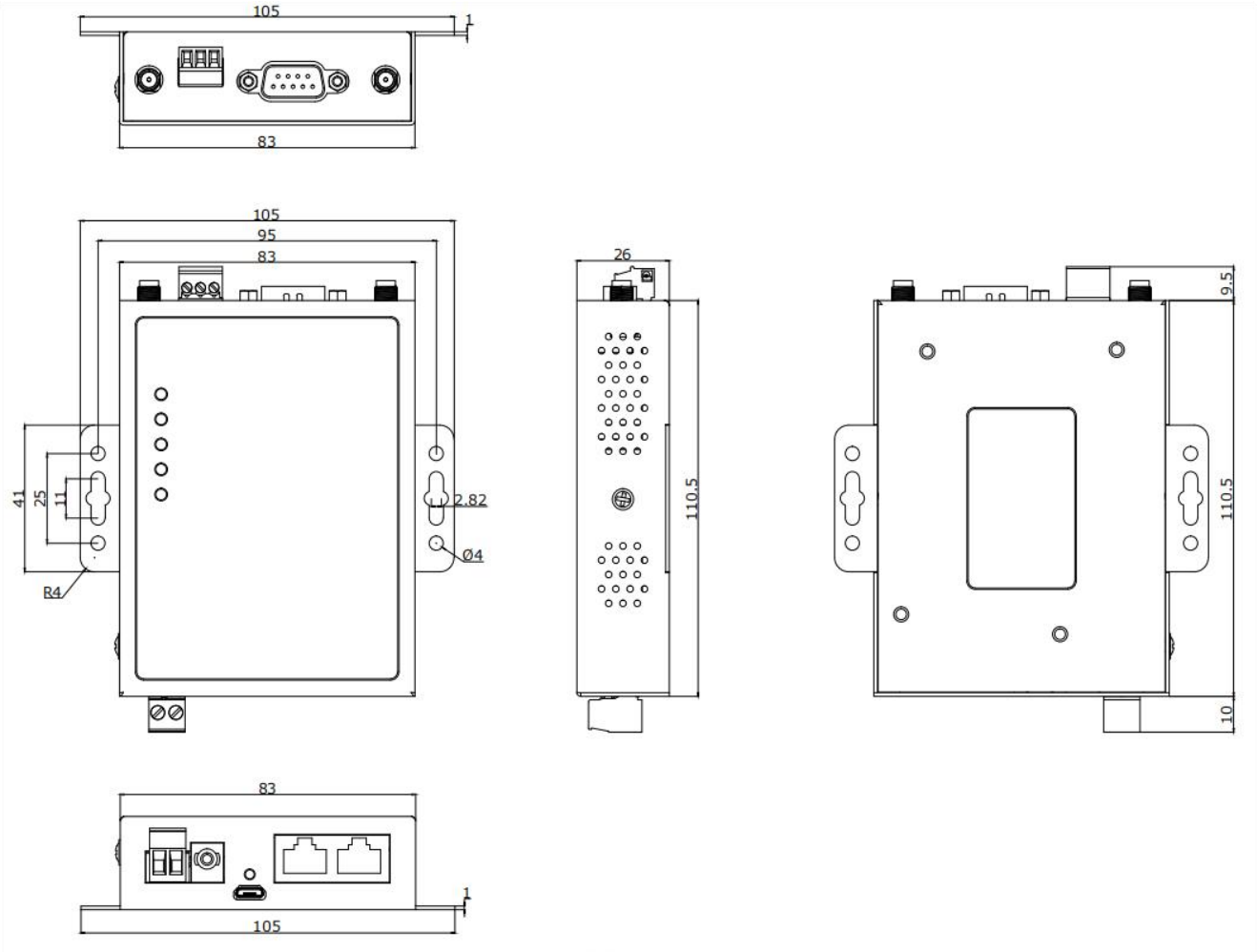
Power	
Power Supply	DC 9~36V
Connection	2-pin 5.08 mm terminal block connector, reverse polarity protection, surge protection 5.5*2.1 DC jack connector
Working Current	Average: 300mA @12V, max: 900mA @12V
Serial Port	
Type	1 × RS485, 3-pin 3.81 mm terminal block connector 1 × RS232, DB9 male
Baud rates	RS232: 1200/2400/4800/9600/19200/38400/57600/115200/230400 RS485: 1200/2400/4800/9600/19200/38400/57600/115200/230400
Data bits	7, 8
Stop bits	1, 2
Parity	NONE, ODD, EVEN
Flow Control	RS232: Hardware flow control RS485: 485 conflict prevention
Packaging Interval	Range: 0 ~ 1000ms, default: 0ms
Packaging Length	Range: 5 ~ 1460 bytes, default: 1000 bytes
Ethernet Port	
No.	1 × WAN/LAN (configurable), 1 × LAN
Interface	RJ45, 10/100 Mbps, compliance with IEEE 802.3, auto MDI/MDIX
Protection	1.5KV network isolation transformer protection
Wi-Fi	

Standards & Frequency	IEEE 802.11b/g/n/ac, 2.4GHz & 5.8G
Working Mode	AP/STA/AP+STA/Bridge
Data speed	867 Mbps (5.8GHz) & 300 Mbps (2.4GHz)
MU-MIMO	2 × 2
Modulation system	DSSS (DBPSK, DOPSK, CCK)
	OFDM (BPSK, QPSK,16-QAM,64-QAM,125-QAM, 256-QAM)
Covering distance	2.4G: Coverage radius up to 400 meters 5.8G: Coverage radius up to 200 meters
Wi-Fi Users	16
Antenna	2 × 5 dBi rod antenna
Antenna Connector	2 × SMA-female
Physical	
Casing material	Metal shell, IP30 protection
Dimensions	110.5×105×26 mm(L*W*H, antenna pedestal, terminal block are not included)
Installation	Wall mounting, desktop placement
EMC	Surge protection: level 3, IEC61000 ESD protection: level 3, IEC61000 EFT protection: level 3, IEC61000
Operating temperature	-25℃～+75℃
Storage temperature	-40℃～+125℃
Operating humidity	5% ~ 95% RH, non-condensing
Storage humidity	1% ~ 95% RH, non-condensing

Software	
Network protocols	TCP, UDP, HTTP, TLS, MQTT, ARP, DHCP, ICMP, PPPoE, IPv4, DNS, SNMP, NTP,
Modbus Gateway	Modbus RTU/TCP protocol conversion, Modbus multi-host polling
IP	DHCP/Static IP
MQTT	Standard MQTT protocol, 16 subscription topics and 16 publish topics
Registration packet	Support
Heartbeat packet	Support
IOT PLATFORMS	AWS IOT, Alibaba cloud
User Configuring	Web console (HTTP), AT command
Others	
Reload	Pinhole reset button, press and hold for 3~15 seconds to reset to factory settings
Indicators	1 × RS485, 1 × RS232, 1 × WLAN, 1 × RUN, 1 × PWR
Ground protection	Screw
Certification	
Regulatory	CE/RED, RoHS, WEEE, FCC

Dimensions

Unit: mm



Ordering Information

Standard Model	100M WAN Port	100M LAN Port	RS232	RS485	WiFi	Antenna	Input Voltage
CIAP325-2A25-2D	1	1	1	1	2.4 & 5.8 GHz	2	DC9~36V



Contact Us

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