CIAP525-4A5-D

1×RS232/485 + 2×1G Ethernet Ports Dual 5GHz Band WiFi 5 Wireless Client



- Quad-core 32-bit ARM Cortex-A7 processor, 716.8 MHz
- 2 × Gigabit Ethernet ports, 1 × RS232/485 serial port
- 4 × 5 GHz antenna interfaces, dual 5 GHz bands
- Supports IEEE 802.11a/n/ac with 2×2 MIMO, delivering up to 867 Mbps per 5 GHz band
- Connection modes: WDS, Universal, Wireless NAT
- Enhanced roaming, adjustable transmit power, maintenance AP, and built-in firewall
- Serial-to-network conversion supporting UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, OPC UA, IEC104, HJ212, and virtual serial
- DC9~36V input voltage range
- IP30-rated housing protection. High-grade EMS protection
- -40℃~+75℃ working temperature

Product Description

CIAP525-4A5-D is a DIN-rail industrial dual-5GHz Wi-Fi 5 wireless client powered by a quad-core 32-bit ARM Cortex-A7 processor running at 716.8 MHz.

It supports dual 5 GHz bands for wireless uplink, enabling link redundancy and seamless roaming, with up to 867 Mbps per band. The device provides 2 × Gigabit Ethernet interfaces, 1 × RS232/RS485 serial interface, and 4 × 5 GHz antenna interfaces.

It enables RS232/RS485 serial-to-network conversion and supports multiple protocol mappings to meet diverse industry application needs. The Ethernet interfaces support 10/100/1000M, full/half-duplex, and MDI/MDI-X auto-negotiation, delivering high bandwidth, low latency, and reliable communication for industrial automation.

The wireless client supports Web-based management and a wide range of networking functions to enhance efficiency, reliability, and security in complex network environments.

At the hardware level, CIAP525-4A5-D features a robust industrial-grade design and operates within a temperature range of −40 to +75℃. It passes rigorous functional, thermal, safety, and EMC tests, making it suitable for harsh industrial environments and field deployments across industrial automation, energy systems, smart city, intelligent transportation, and smart factory applications.

Features and Benefits

- Quad-core 32-bit ARM Cortex-A7 CPU running at 716.8 MHz
- 2 × Gigabit Ethernet interfaces
- 1 × RS232/RS485 serial interface
- 4 × 5 GHz antenna interfaces with dual 5 GHz bands
- Compliant with IEEE 802.11a/n/ac and 2×2 MIMO, delivering up to 867 Mbps per 5 GHz band
- Client-based dual-radio Super Roaming technology enabling fast roaming with no AP support, achieving optimal roaming recovery <10 ms with zero packet loss (actual performance depends on environment)
- Support WDS, Universal mode, and Wireless NAT connection modes
- Support enhanced roaming, transmit power adjustment, AP maintenance, and firewall functions
- Serial-to-network conversion supporting UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, OPC UA, IEC104, HJ212 and other protocols, with virtual COM support
- High-level EMS protection ensuring stable operation in complex electromagnetic environments
- 5 dBi high-gain omnidirectional antennas with high-power design
- 1 × DC 9~36V wide-range power input with reverse polarity protection
- Aluminum alloy enclosure with efficient heat dissipation and IP30 protection rating
- Operating temperature from –40℃ to +75℃

Specifications

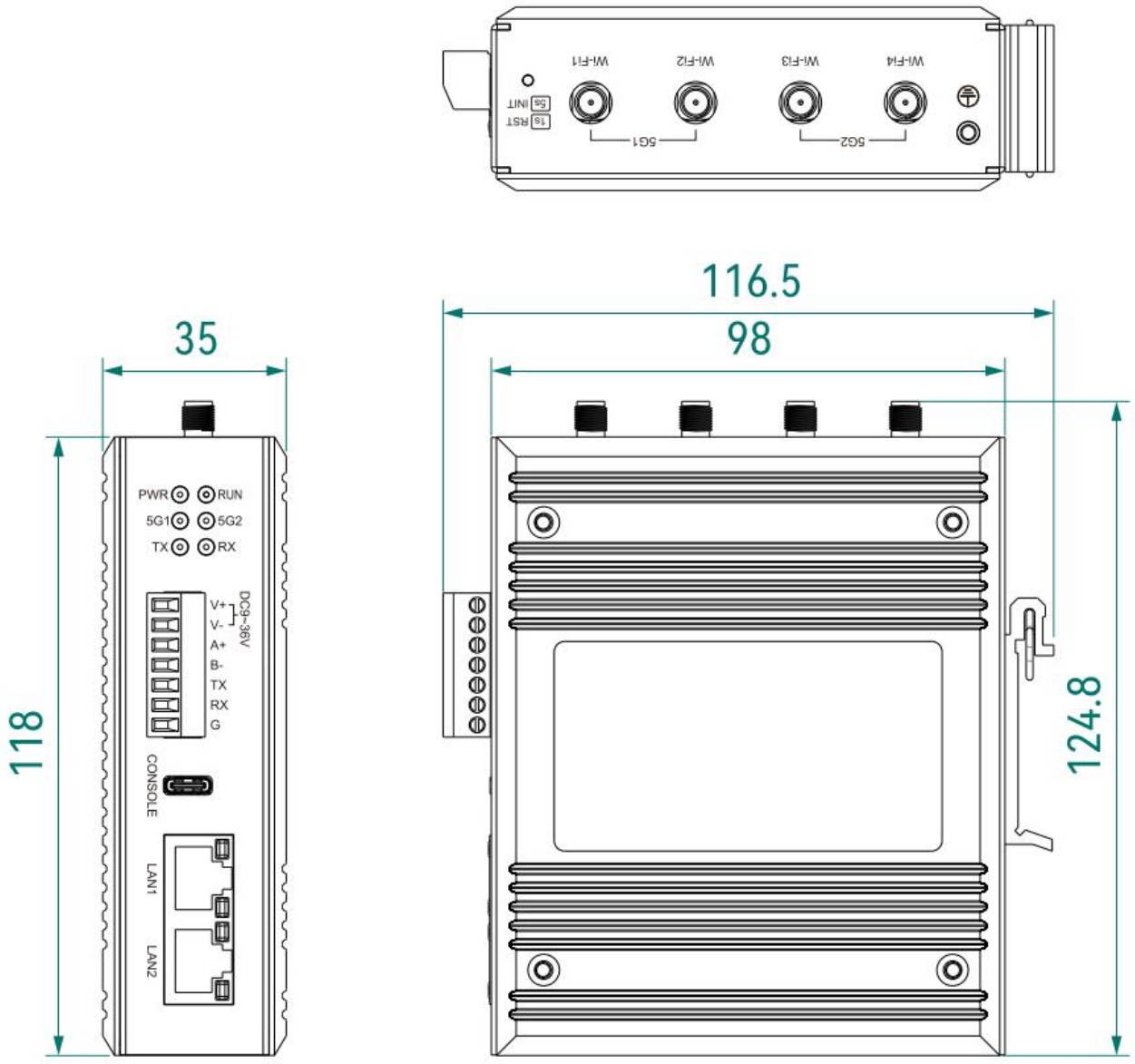
Protocol Standard	
IEEE Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.11a/n/ac
Interface	
1G LAN	2 × 10/100/1000Base-T(X) auto-sensing RJ45 LAN ports, full/half-duplex, auto MDI/MDI-X
Serial Port	1 × RS232/485 Connection: 7-pin 3.81mm pitch terminal blocks Baud rates: 300~230400bps
Antenna Connector	4 × 5GHz RP-SMA-K connectors (external thread, internal pin), supporting dual 5GHz bands
CONSOLE	1 × CONSOLE port, USB Type-C interface
Button	One-Click Reboot or Factory Reset
Status LED	Power indicator, Operation indicator, 5G indicator, Serial port indicator, Copper port speed and connection/activity indicator
Wi-Fi	
Working Frequency	5.18GHz~5.825GHz (Dual 5GHz)
Modulation	DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM, 256-QAM
Channel Bandwidth	20MHz/40MHz/80MHz
TX Power	+18dBm@VHT80/MCS9 -41dB Dynamic EVM +20dBm@HT20/40 MCS7 -40dB Dynamic EVM +24dBm@HT20/MCS0

RX Sensitivity	-93dBm (HT20/MCS0/1SS) -72dBm (HT40/MCS7/1SS) -63dBm (VHT80/MCS9/1SS)
Theoretical Transfer Rate	The maximum transmission rate for the 5GHz-1 band with 2T2R is 867Mbps. The maximum transmission rate for the 5GHz-2 band with 2T2R is 867Mbps.
Operation Mode	Wireless Client
Power Supply	
Power Input	DC 9~36V
Power Consumption	Average power ≤ 7.4W @DC24V Peak power ≤ 9.9W @DC24V (full load)
Connection	7-pin 3.81mm terminal block
Protection	Reverse polarity protection
Physical Characteristics	
Dimensions	118×35×98mm (excluding DIN Rail mounting clip and connectors)
Installations	Easy installation on 35mm DIN rails
IP Code	Aluminum alloy housing, IP30 protection rating
Weight	About 0.41kg
Working Environment	

Operating Temp	-40℃~+75℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMS	IEC 61000-4-2 (ESD): Level 4 (contact discharge ±8kV, air discharge ±15kV) IEC 61000-4-5 (Surge): Level 3 (Power supply: Common-mode ±2kV, Differential-mode ±1kV; Ethernet port, RS485: Common-mode ±4kV, Differential-mode ±2kV) IEC 61000-4-4 (EFT): Level 4 (Power supply: ±4kV; Ethernet port, Serial port: ±2kV)

Dimensions

Unit: mm



Ordering Information

Standard Model	5GHz Antenna	1G LAN	RS232/485	Input Voltage
CIAP525-4A5-D	4	2	1	DC 9~36V

Contact Us

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