

Cport3108-RJ

8-Port RS232/485/422 Wall-Mount Serial to Ethernet Converter



- Support 8 x RS232/485/422 ports to 1 x 100Mbps Ethernet copper port, meeting various industrial bus or network field requirements
- Support networking for serial terminal devices and supports protocols such as UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, and virtual serial port
- Support serial port forwarding, enabling transparent data transmission between serial ports
- Support conversion between Modbus RTU/ASCII and Modbus TCP and Modbus RTU/ASCII Over TCP transparent transmission
- Support standard MQTT protocol, can connect to cloud platform, and realize the interconnection of everything between end and cloud
- Industrial-grade DC power input range: DC 9~36V, with reverse polarity protection
- High-strength metal enclosure, IP40-rated housing protection
- -40 °C ~ +85 °C working temperature range

Product Description

Cport3108-RJ is an 8-port RS232/485/422 wall-mount serial to Ethernet server, powered by a 32-bit Arm Cortex-M7 core running at up to 528 MHz with an external hardware watchdog. It features advanced ESD, surge, and EFT protection on the power supply, Ethernet port, and serial interfaces, providing excellent resistance to electromagnetic interference. Designed for industrial applications, it enables reliable and efficient data transmission between multiple serial devices and Ethernet networks.

The device offers 8 × RS232/485/422 serial ports and 1 × 100 Mbps Ethernet port. Each serial port operates independently in different working modes and baud rates ranging from 600 bps to 460,800 bps. With a built-in TCP/IP protocol stack, Cport3108-RJ allows traditional RS232/485/422 devices to easily, flexibly, and quickly connect to Ethernet, delivering smoother, faster, and more reliable industrial communication.

This industrial-grade serial server supports web-based configuration with comprehensive network management features, including serial/network mode settings, serial forwarding, network interface configuration, log management, serial reboot, and system maintenance. Multiple communication and protocol conversion modes are available, such as UDP, UDP Multicast, TCP Client/Server, Modbus RTU Master/Slave, Modbus ASCII Master/Slave, RealCOM_MCP/CCP/MW, Pair Connection Master/Slave, HTTPD Client, WebSocket Client, and MQTT, enabling seamless serial-to-Ethernet and Modbus TCP integration.

Built with industrial-grade components, Cport3108-RJ supports wide temperature and wide voltage operation with strong lightning and EMI protection. It delivers high reliability and performance for use in harsh environments. It's ideal for industrial automation, traffic control, meteorology, water treatment, environmental monitoring, mining, petroleum, chemical, and renewable energy applications, supporting remote data acquisition, monitoring, and field control in industrial IoT systems.

Features and Benefits

- Powered by a 32-bit ARM Cortex-M7 core, running at up to 528MHz
- The serial port supports selectable baud rates from 600bps to 460800bps
- Support UDP/UDP Multicast modes, enabling fast and efficient point-to-point, point-to-many, or many-to-many communication via the UDP protocol
- Support TCP Client/Server mode, establishing sessions via the TCP protocol. The TCP Client supports up to 8 sessions, and the TCP Server supports up to 8 sessions. RFC2217 commands are supported for dynamically modifying serial port baud rate and other communication parameters
- Support Pair Connection Master/Slave mode, allowing devices to operate in pairs for simple operation
- Support Modbus RTU/ASCII Master/Slave mode, enabling conversion between Modbus TCP and Modbus RTU/ASCII protocols
- Support Modbus slave pre-reading, automatically learning up to 128 RTU or 64 ASCII messages per port. Commands for fast response
- Support RealCOM_MCP/CCP/MW modes, mapping the network to a local COM for seamless connection
- Support HTTPD Client mode, enabling GET or POST operations with HTTPD servers
- Support WebSocket Client mode, enabling bidirectional communication with WebSocket servers
- Support multiple packetization mechanisms, converting serial port data into Ethernet packets based on data length or time, meeting the real-time requirements of different networks
- Support registration packets and heartbeat packets for connection verification and status detection
- Support Modbus virtual IDs, mapping Modbus slave IDs to virtual IDs for data communication, preventing slave ID duplication
- Support serial port communication parameters, operating modes, and statistics on sent and received frames
- Support local log storage, network storage, and serial port log output

Specifications

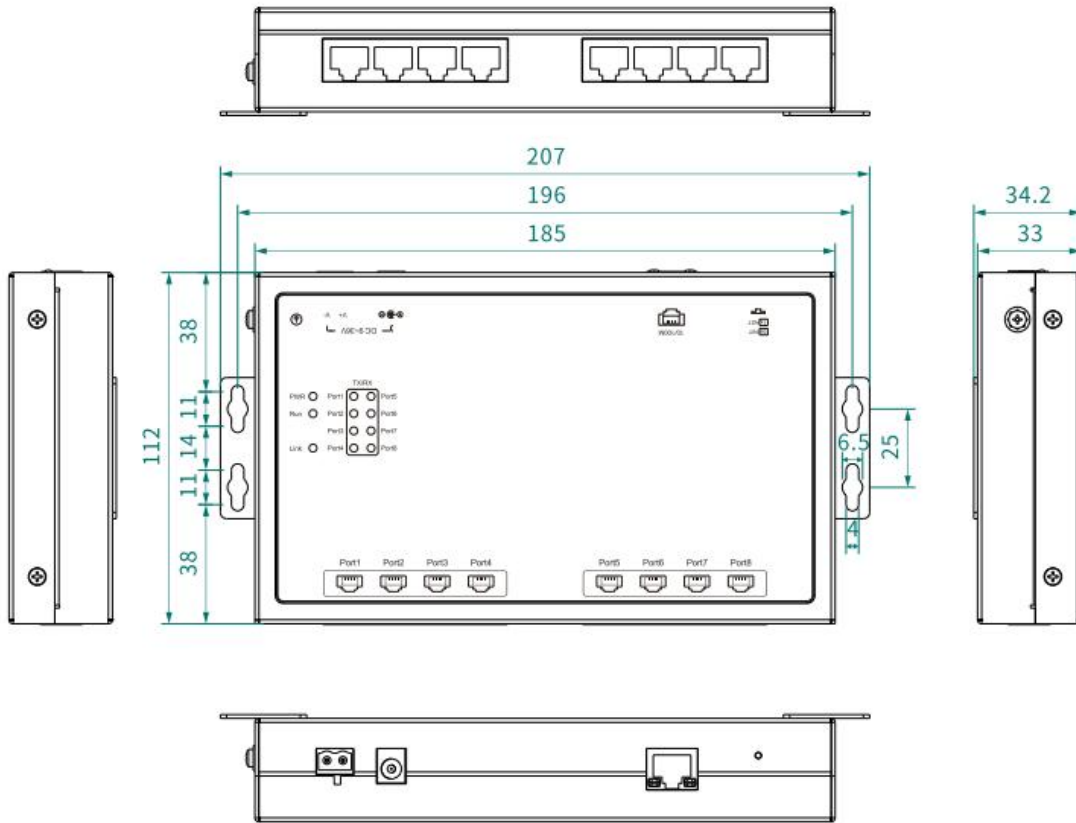
Software	
Network Protocol	IPv4, TCP/UDP, ARP, ICMP, DHCP, DNS, HTTP, RFC2217, NTP
IP Obtaining Method	Static IP / DHCP
DNS Resolution	Support
User Configuration	Web-based interface
Simple Transparent Transmission	UDP / UDP Multicast / TCP Client / TCP Server / RealCOM / Pair / MQTT
Modbus	Modbus RTU/ASCII to Modbus TCP
Serial Port Data Packaging	Time and length are configurable; the default value varies with the baud rate; maximum packet length is 1460 bytes
TCP Server Connection	A single serial port supports up to 8 TCP Client connections
Network Cache	Send: 16Kbyte; Receive: 16Kbyte
Serial Port Cache	Send: 1.5Kbyte; Receive: 1.5Kbyte
Heartbeat Package	Supports TCP Keepalive mechanism, with customizable heartbeat packet content
Registration Package	Customizable registration package content
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support

RealCOM	Support Moxa, Kanghai, and other working modes
MQTT	Support standard MQTT cloud platforms, including Alibaba Cloud Platform, OneNet, Huawei Cloud
Serial to serial data forwarding	Support (Disable, Bidirectional Forwarding, Unidirectional Forwarding, Unidirectional Receiving)
Transmission Delay	<10ms
Supporting Software	Network Management Configuration Tool, Virtual Serial Port Software, MixView, MaxView
Interface	
100M Copper Port	1×10/100Base-T(X) auto-sensing 100 Mbps RJ45 copper port, full/half duplex, auto MDI/MDI-X
Serial Port	Serial Port Type: 8×RS232/485/422 Connection Method: RJ45 Baud Rate: 600bps to 460800bps Data Bits: 7, 8 Stop Bits: 1, 2 Parity: None, Odd, Even
Button	One-click reboot or factory reset
Status LED	Power indicator, operation indicator, Ethernet port speed and link/activity indicator, serial port transmit and receive data indicator
Power Supply	
Power Input	DC 9~36V
Power Consumption	<2.6W @ DC 12V

Connection	2-pin 5.08mm pitch terminal block or DC barrel jack
Physical Characteristics	
Dimensions	207 × 112 × 34.2 mm (including mounting brackets, excluding connector dimensions)
Installations	Wall-mount
IP Code	IP40
Working Environment	
Operating Temp	-40℃~+85℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMC	<p>IEC 61000-4-2 (ESD): Level 4 (Contact discharge ±8kV, Air discharge ±15kV)</p> <p>IEC 61000-4-5 (Surge): Level 4 (Power supply: Common mode ±4kV, Differential mode ±2kV; RS485/422: Common mode ±4kV, Differential mode ±2kV; Ethernet port: Common mode ±6kV, Differential mode ±2kV)</p> <p>IEC 61000-4-4 (EFT): Level 4 (Power supply: ±4kV; Ethernet and serial ports: ±2kV)</p>

Dimensions

Unit: mm



Ordering Information

Standard Model	100M Copper Port	RS232/485/422	Input Voltage
Cport3108-RJ	1	8	DC 9~36V

Contact Us

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