Cport3102-I

2×RS485/422 Isolated Ports to 1×100M Ethernet Port Wall-Mount Serial Server

- 2 × RS485/422 isolated port to 1 × 10/100 Mbps Ethernet port
- Support UDP, TCP, Modbus, HTTPD, WebSocket, and virtual serial port
- Support serial forwarding and transparent data transmission between serial ports.
- Support protocol conversion between Modbus RTU/ASCII and Modbus TCP, support Modbus RTU/ASCII over TCP transparent transmission
- External independent hardware watchdog designed to prevent crashes
- DC9~36V power input, reverse polarity protection
- High-strength metal shell, IP40-rated housing protection
- -40 ℃ ~ +85 ℃ working temperature range

Product Description

Cport3102-I is an isolation-enhanced, wall-mounted serial-to-Ethernet converter designed for industrial data communication. It is built with a 32-bit ARM Cortex-M7 processor running at up to 400 MHz and features an external hardware watchdog. The power input, Ethernet port, and serial interfaces all incorporate high-level ESD, Surge, and EFT protection, ensuring strong immunity against electromagnetic interference, providing reliable multi-serial to Ethernet data transmission for industrial communication.

The product supports 2×RS485/422 serial ports and 1×100 Mbps Ethernet port. Each serial port operates independently and can be configured with different modes and baud rates from 600~460800 bps. With an integrated TCP/IP protocol stack, Cport3102-I enables traditional RS485/422 serial devices to be easily and efficiently connected to Ethernet networks.

This industrial-grade serial server from COME-STAR offers a comprehensive web-based management interface, supporting configuration of serial/network operating modes, serial forwarding, log management, serial reboot, system settings, and more. It supports a wide range of communication modes, including UDP, UDP Multicast, TCP Client/Server, Modbus RTU Master/Slave, Modbus ASCII Master/Slave, RealCOM_MCP/CCP/MW, Pair Connection Master/Slave, HTTPD Client, and WebSocket Client, enabling flexible serial-to-Ethernet data conversion and Modbus TCP communication.

Built with an industrial-grade hardware architecture, Cport3102-I delivers wide-temperature and wide-voltage operation, surge resistance, enhanced EMC protection, high reliability, and strong performance. It is engineered for stable operation in harsh environments and serves as a key communication device in the development of the IIoT.

Product Features

- Adopt a 32-bit ARM Cortex-M7 processor running at up to 400 MHz
- Support selectable baud rates from 600 bps to 460800 bps
- Support UDP and UDP Multicast modes, enabling point-to-point, point-to-multipoint, or multipoint-to-multipoint communication through the UDP protocol for fast and efficient data transmission
- Support TCP Client and TCP Server modes to establish session connections via the TCP protocol. The TCP Client supports up to 4 simultaneous connections, and the TCP Server supports up to 8 simultaneous connections. Support dynamic modification of baud rate and other serial parameters via RFC2217 commands
- Support Pair Connection Master/Slave mode, allowing devices to operate in pairs with simple configuration
- Support Modbus RTU/ASCII Master/Slave modes, enabling protocol conversion between Modbus TCP and Modbus RTU/ASCII
- Support Modbus Slave readahead, with automatic learning of up to 32 RTU or 16 ASCII instructions per port for fast response
- Support RealCOM_MCP/CCP/MW mode, mapping the network to a local COM port for seamless integration
- Support HTTPD Client mode to perform GET or POST operations with an HTTPD server
- Support WebSocket Client mode for bidirectional communication with a WebSocket server
- Support multiple packet segmentation mechanisms, converting serial data into Ethernet packets based on data length or time intervals to meet various real-time transmission requirements
- Support registration packets and heartbeat packets to ensure connection verification and connection status monitoring
- Support Modbus virtual ID mapping, mapping real Modbus Slave IDs to virtual IDs to avoid ID conflicts
- Support monitoring of serial communication parameters, operating modes, and statistics of transmitted and received frames

Technical Specifications

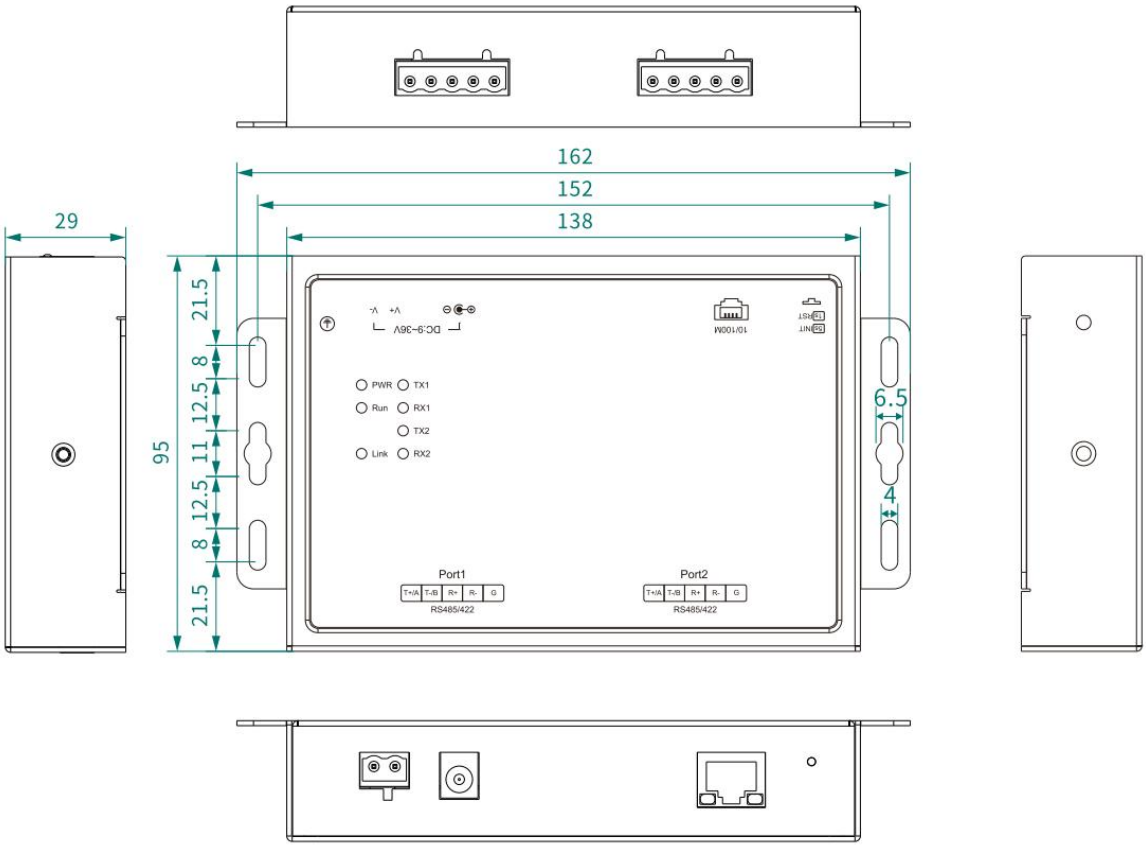
Software	
Network Protocol	IP, TCP, UDP, ARP, ICMP, DHCP Client, DNS, HTTP, RFC2217
IP Obtaining Method	Static IP/DHCP
DNS	Support
User Configuration	Web page configuration
Simple Transparent Transmission	UDP Client, UDP Server, UDP Multicast, TCP Client, TCP Server, RealCOM, Pair Connection
Modbus	Modbus RTU/ASCII to Modbus TCP
Serial Port Packaging Mechanism	Time and length adjustable; default value varies with baud rate; max packet length 1460 bytes.
TCP Server Connection	Each serial port can connect up to 8 TCP clients
Network Buffer	Send:16Kbyte; Receive: 16Kbyte
Serial Buffer	Send:1.5Kbyte; Receive:1.5Kbyte
Heartbeat Package	Support TCP Keep-alive mechanism, customize heartbeat packet content
Registration Package	Support customizable registration packet content.
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support
RealCOM	Support Moxa and Kanghai working mode

Transmission Delay	<10ms
Supported Software	Network Management Configuration Tool, Virtual COM software, MixView, MaxView
Interface	
100M Copper Port	1 × 10/100 Base-T(X) auto-sensing RJ45 port, full/half duplex, auto MDI/ MDI-X
Serial Port	Port type: 2×RS485/422 Connection: 5-position 5.08mm pitch terminal block Baud rate:600bps~460800bps Data bit: 7bit, 8bit Stop bit: 1bit, 2bit Parity bit: None, Odd, Even Isolation voltage: 3kVDC
Button	One-click restart, factory reset
Status LED	Power supply indicator, running indicator, Ethernet port indicator, serial port indicator
Power Supply	
Input Voltage	DC 9~36V
Power Consumption	＜1W@DC12V
Connection	2-pin 5.08 mm pitch terminal block or Φ2.5 mm DC barrel jack
Physical Characteristic	
Dimensions	162×95×29 mm (excluding connectors)
Installations	Wall-mount
IP Code	IP40
Working Environment	

Operating Temp	-40℃~+85℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industrial Standard	
EMC	IEC 61000-4-2 (ESD): Level 4 (Contact discharge ±8 kV, Air discharge ±15 kV) IEC 61000-4-5 (Surge): Level 4 (Power: Common mode ±4 kV, Differential mode ±2 kV; RS485/422: Common mode ±4 kV, Differential mode ±2 kV; Ethernet port: Common mode ±6 kV, Differential mode ±2 kV) IEC 61000-4-4 (EFT): Level 2 (Power: ±1 kV; Communication port: ±2 kV)
Certification	CE, FCC, RoHS

Dimensions

Unit: mm



Ordering Information

Standard Model	100M Copper Port	RS485/422	Input Voltage
Cport3102-I	1	2	DC 9~36V

Contact Us

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