

Cport3102

2×RS232/485/422 Ports Wall-Mount Serial to Ethernet Converter



- 2 x RS232/485/422 ports to 1 × 10/100 Mbps Ethernet port
- Support UDP, TCP, Modbus, HTTP, WebSocket, MQTT, and virtual serial port
- Support Modbus RTU to Modbus TCP protocol conversion
- Support standard MQTT protocols, including AWS IoT, Alibaba Cloud, ThingsBoard, EMQX, Tuya, Cumulocity IoT
- Built-in hardware and software watchdogs to prevent system crashes and ensure automatic recovery.
- Support DC 5~36V power input, reverse polarity protection
- High-strength metal shell with IP30-rated housing protection
- -40 °C ~ +85 °C working temperature range

Product Description

Cport3102 is a wall-mount Ethernet Serial Server, powered by a 32-bit ARM Cortex-M7 processor running at up to 400 MHz, and designed with an external hardware watchdog for enhanced system reliability. The power supply, Ethernet port, and serial ports are all equipped with high-level ESD, Surge, and EFT protection, providing strong anti-interference capability. It is specially designed for industrial users to enable stable and efficient data transmission between multiple serial ports and Ethernet networks.

This serial-to-Ethernet converter supports 2 × RS232/422/485 serial ports and 1 × 10/100 Mbps Ethernet port. Each serial port can operate independently and simultaneously without interference, and can be configured with different working modes and baud rates (600 bps to 230400 bps). With a built-in TCP/IP protocol stack, it allows serial devices to easily, flexibly, and efficiently connect to Ethernet networks.

This Come-Star's industrial-grade serial server supports web-based configuration and multiple network management functions, including serial/network operation mode settings, serial forwarding, log management, serial restart, and system management. It supports various communication and conversion modes such as UDP, TCP Client, TCP Server, Modbus RTU to Modbus TCP protocol conversion, HTTP Client, and WebSocket Server, enabling serial-to-Ethernet or Modbus TCP protocol conversion. Additionally, it features MQTT gateway functionality with edge computing capabilities, supporting connections to cloud platforms such as Alibaba Cloud and AWS IoT.

At the hardware level, it features an industrial-grade design with wide voltage and temperature tolerance, strong EMC resistance, and high reliability. Suitable for harsh environments, it supports

remote data acquisition, monitoring, and control across industrial automation, energy, and environmental applications.

Product Features

- Adopt a 32-bit ARM Cortex-M7 processor running at up to 400 MHz
- Support 2 × RS232/485/422 independent serial ports, built-in 15KV ESD serial port protection
- Support baud rates from 600 bps to 230400 bps with flexible parity and flow control settings
- Support 1 × 10/100 Mbps Ethernet port with auto MDI/MDIX
- Support TCP Client, TCP Server, UDP, and UDP multicast modes for versatile communication
- Support dual socket connections per serial port for data redundancy
- Support Modbus gateway for bidirectional conversion between Modbus RTU and Modbus TCP, including multi-host polling
- Support MQTT gateway and edge computing for data collection, processing, and reporting, up to 300 points, compatible with Alibaba Cloud, AWS, and other IoT platforms
- Support SSL/TLS encryption for secure TCP, HTTP, and MQTT communication
- Support WebSocket Server mode for bidirectional web-to-serial data transmission and custom monitoring dashboards
- Support configuration via web interface, configuration software, or AT commands, with firmware upgrade and virtual COM port functionality
- Support flexible serial data framing for packet segmentation based on length or time to meet real-time network requirements
- Support heartbeat and keepalive mechanisms for automatic detection and reconnection of dead connections
- Support built-in hardware watchdog for automatic restart in case of system failure
- Support DC 5~36V wide voltage input with reverse polarity protection and -40°C to +85°C wide operating temperature
- Support rugged metal housing suitable for harsh industrial environments, wall or optional DIN-Rail mount

Technical Specifications

Software	
Network Protocol	TCP, UDP, IPv4, ARP, ICMP, DHCP, NTP, DNS, HTTP, TLS/SSL v3, IGMP, SNMP v1/v2c, MQTT
IP Obtaining Method	Static IP/DHCP
DNS	Support
User Configuration	Web page configuration
Simple Transparent Transmission	TCP Client, TCP Server, UDP Client, UDP Server, and HTTPD Client
Modbus	Modbus RTU to Modbus TCP
Serial Port Packaging Mechanism	Support flexible serial data framing, adjustable by packet length or time interval, with a maximum packet length of 1460 bytes
TCP Server Connection	Support dual socket connections per serial port for TCP Server mode
Heartbeat Package	Support TCP Keep-alive mechanism, customize heartbeat packet content
Registration Package	Support customizable registration packet content.
HTTPD Client	Support
WebSocket	Support
UDP	Support
Virtual COM	Support
Interface	
100M Copper Port	1 x 10/100 Base-T(X) auto-sensing RJ45 port, auto MDI/MDI-X
Ethernet Packets Cache	48Kbyte
Serial Port	Port type: 1×RS485/422/232

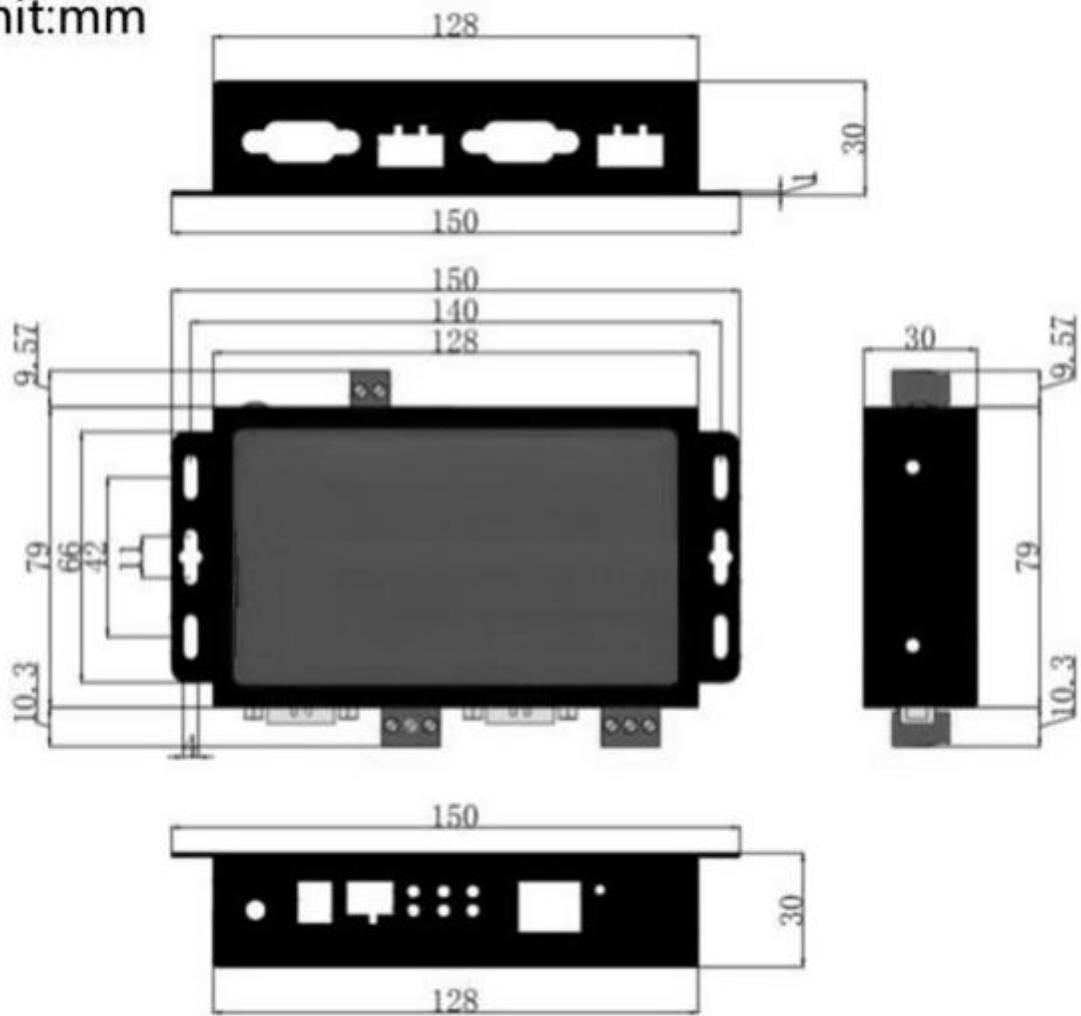
	<p>Connection: Standard DB9 male.</p> <p>Baud rate: 600-230400 bps</p> <p>Data bit: 7bit, 8bit</p> <p>Parity bit: None, Even, Odd, Mark, Space</p> <p>Flow Control None: RTS/CTS (RS-232 only), XON/XOFF</p> <p>RS-485 Pull-up and Pull-down Resistor: 2.2KΩ</p>
Serial Signal	<p>RS-232: TxD, RxD, RTS, CTS, GND</p> <p>RS-422: Tx+, Tx-, Rx+, Rx-, GND</p> <p>RS-485-2w: A+, B-, GND</p>
Serial Packets Cache	<p>Dynamic packet cache.</p> <p>For example:</p> <p>When the packet length is 10 byte, the serial port can cache 450 packets (4.5KB). When the packet length is 1460 bytes, the serial port can cache 10 packets (14.6KB).</p>
Power Supply	
Input Voltage	DC 5~36V
Input Current	Mean: 69mA @12V
Connection	AC-DC adapter (DC Jack) or DC direct (Terminal Block)
Physical Characteristic	
Dimensions	150×98.8×30 mm (including terminals and mounting brackets)
Installations	Wall or optional DIN-Rail mount
IP Code	IP30
Working Environment	
Operating Temp	-40°C~+85°C
Storage Temp	-40°C~+105°C
Relative Humidity	5%~95% (non-condensing)

Industrial Standard	
EMC	ESD (IEC 61000-4-2): Level 4, Air ± 15 kV, Contact ± 8 kV Surge (IEC 61000-4-5): Level 3, ± 2 kV EFT (IEC 61000-4-4): Level 3, ± 2 kV
Certification	CE, FCC, RoHS

Dimensions

Unit: mm

Unit:mm



Ordering Information

Standard Model	100M Copper Port	RS23/485/422	Input Voltage
Cport3102	1	2	DC 5~36V



Contact Us

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