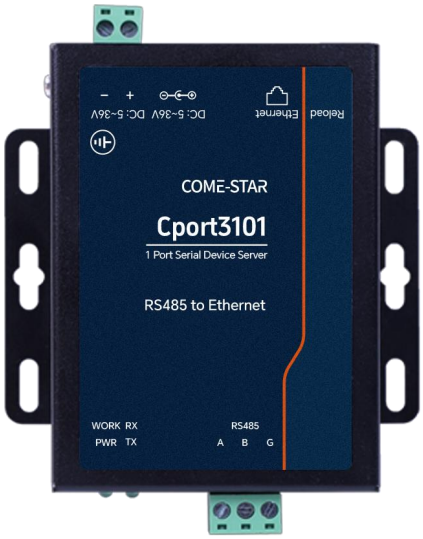
Cport3101-485

1×RS485 Port Wall-Mount Serial to Ethernet Converter



- 1 x RS485 port 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 cloud platforms, including AWS IoT, ThingsBoard, Alibaba Cloud, 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 ℃ ~ +85 ℃ working temperature range

Product Description

Cport3101-485 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 port 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 serial ports and Ethernet networks.

This serial-to-Ethernet converter supports 1 × RS485 serial port and 1 × 10/100 Mbps Ethernet port, with flexible configuration of working modes and baud rates from 600 bps to 921,600 bps. With a built-in TCP/IP protocol stack, it allows serial devices to connect to Ethernet networks easily.

This industrial-grade serial server supports web-based configuration and multiple management functions, including serial and network parameter settings, log query, firmware upgrade, and device reboot. The device supports various communication and protocol conversion modes such as TCP Client, TCP Server, UDP, Modbus RTU to Modbus TCP, HTTP Client, and WebSocket Server. It also provides MQTT gateway functionality with edge computing capability, enabling serial devices to connect to cloud platforms such as Alibaba Cloud, AWS IoT, ThingsBoard, and EMQX.

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 1 × RS485 serial port, built-in 15KV ESD serial port protection
- Support baud rates from 600 bps to 921,600 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

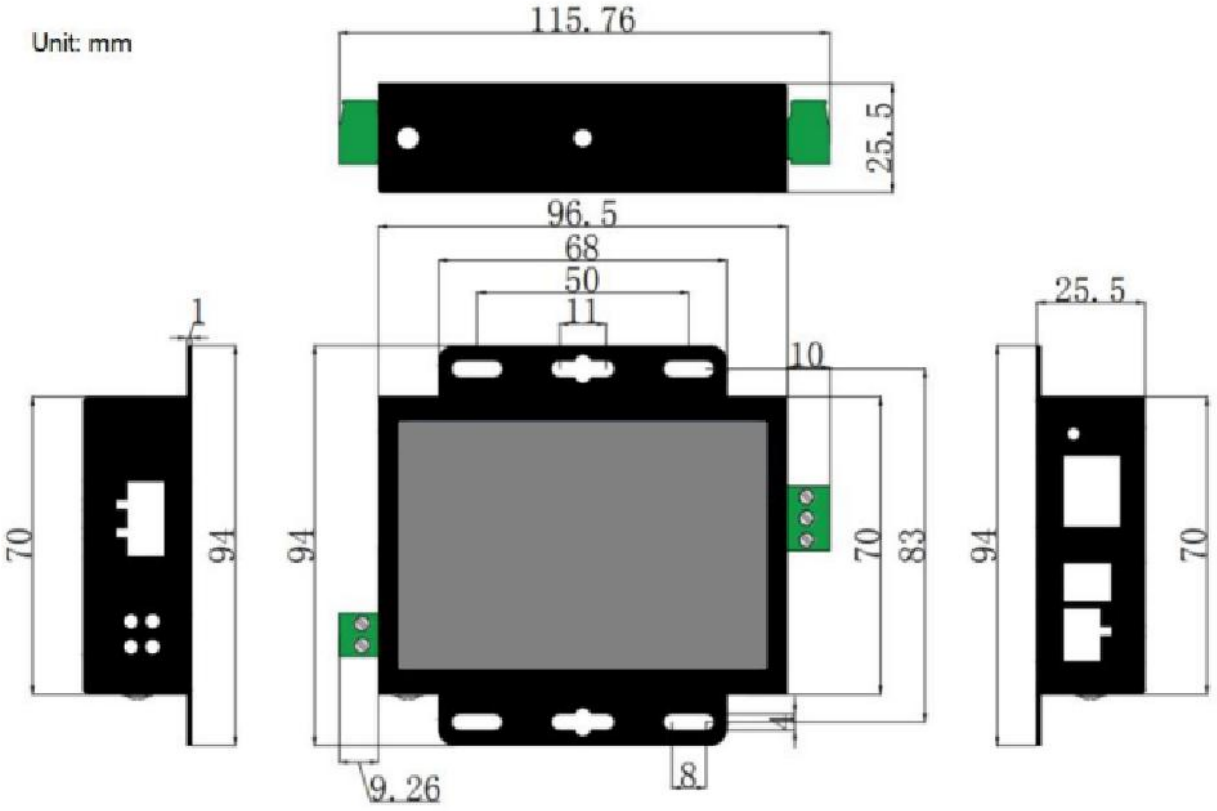
Software	
Network Protocol	TCP, UDP, IPv4, ARP, ICMP, DHCP, NTP, DNS, HTTP, TLS/SSL v3, IGMP, SNMP v1/v2c, MQTT
IP Obtaining Method	Static IP/DHCP
DNS	Support
User Configuration	Web page configuration, configuration tool, or AT commands
Simple Transparent Transmission	TCP Client, TCP Server, UDP Client, UDP Server, and HTTPD Client
Modbus	Modbus RTU to Modbus TCP
Serial Packets Buffer	Dynamic buffer mechanism. Example: When packet length = 10 bytes, the port can buffer 450 packets (~4.5 KB). When packet length = 1460 bytes, it can buffer 10 packets (~14.6 KB).
Ethernet Packets Buffer	48Kbyte
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) RJ45 port, auto MDI/MDI-X
Serial Port	Serial Port: 1 × RS485 Connector: 3 Pin industrial terminal Baud Rate: 600~921,600 bps Data Bits: 7, 8 Parity Bits: None, Even, Odd, Mark, Space Flow Control: None, RTS/CTS (RS-232 only), XON/XOFF RS-485 Pull-up/Down Resistor: 2.2 kΩ Serial Signals: RS-485-2w: A+, B-, GND
Power Supply	
Input Voltage	DC 5~36V
Input Current	Mean: 95 mA @5V, 66.7 mA @12V
Connection	AC-DC adapter (DC Jack) or DC direct (Terminal Block)
Physical Characteristic	
Dimensions	115.7×94×25.5 mm (including terminals and mounting brackets)
Installations	Wall or optional DIN-Rail mount
IP Code	IP30
Working Environment	
Operating Temp	-40℃~+85℃
Storage Temp	-40℃~+105℃
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/WEEE

Dimensions

Unit: mm



Ordering Information

Standard Model	100M Copper Port	RS485	Input Voltage
Cport3101-485	1	1	DC 5~36V

Contact Us

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