

# Mport3104-I

## 4-Port Isolated RS485/422 Wall Mount Ethernet Serial Server



- Support 4 isolated RS485/422 serial ports converted to 1 100M Ethernet port
- Enable serial terminal devices to connect to the network, with protocol conversion capabilities for UDP, TCP, Modbus, HTTPD, WebSocket, and support virtual serial ports
- Facilitate conversion between Modbus RTU/ASCII and Modbus TCP protocols, and supports Modbus RTU/ASCII Over TCP pass-through
- Feature an external, independent hardware watchdog design to eliminate system crashes
- Provide an industrial-grade DC power supply with input voltage ranging from DC9 to 36V, featuring reverse polarity protection
- Housed in a high-strength metal enclosure with an IP40 protection rating, the fanless design ensures reliable operation in harsh industrial environments ranging from -40°C to +85°C





## Product Description

Mport3104-I is a 4\*isolated RS485/422 wall mount Ethernet serial port server. It uses a 32-bit Arm Cortex-M7 core with a main frequency of up to 400MHz and an external hardware watchdog design. The power supply, network port, and serial port all have high-level ESD, Surge, and EFT protection and strong anti-interference capabilities. It is designed to provide data transmission between multiple serial ports and Ethernet for industrial users. This product supports 4 channels of RS485/422 serial ports and 1 channel of 100M electrical port. Each serial port can work independently at the same time without affecting each other. It can be configured to different working modes and baud rates (600bps~460800bps). It integrates the TCP/IP protocol stack internally, allowing RS485/422 devices that cannot access the Internet to connect to Ethernet conveniently, flexibly and quickly, making industrial communications smoother, more reliable, and faster, and satisfying customers' needs for increasing value-added applications. The need for constant innovation.

This industrial-grade Ethernet serial port server supports WEB configuration of various network management functions, such as serial port/network working mode, DNS, network logs, serial port restart, system management, etc.; supports 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 other conversion modes to realize serial port conversion to Ethernet or Modbus TCP protocol. In terms of core components, the product adopts industrial-grade quality design solutions and has many advantages such as wide temperature and wide voltage, anti-lightning strike, anti-electromagnetic interference, high reliability, high performance, and suitable for operation in harsh environments. It can be used for industrial monitoring, It is used in traffic management, meteorology, water treatment, environmental monitoring, coal mining, petroleum, chemical industry, new energy and other industries for remote on-site data collection, remote monitoring, on-site control, etc. It is an indispensable industrial communication product for the development of the Industrial Internet of Things.



## Features and Benefits

- Utilize a 32-bit ARM Cortex-M7 core, running at a high frequency of up to 400MHz
- Serial ports support selectable baud rates ranging from 600bps to 460800bps
- Support UDP/UDP Multicast modes, allowing for point-to-point, point-to-multipoint, or multipoint-to-multipoint communication via UDP protocol, ensuring rapid and efficient data transfer.
- Support TCP Client/Server modes, facilitating session establishment through the TCP protocol. TCP Client supports up to 4 concurrent sessions, while TCP Server supports up to 8 concurrent sessions. It also supports dynamic modification of serial port baud rates and other communication parameters using RFC2217 commands
- Feature Pair Connection Master/Slave mode, enabling devices to be used in pairs with straightforward operation
- Support Modbus RTU/ASCII Master/Slave modes, enabling conversion between Modbus TCP and Modbus RTU/ASCII protocols
- Support Modbus slave pre-fetching, automatically learning up to 32 RTU or 16 ASCII commands per port for quick response
- Support RealCOM\_MCP/CCP/MW mode, mapping the network as local COM ports for seamless integration
- Support HTTPD Client mode, allowing for GET or POST operations with HTTPD servers
- Support WebSocket Client mode, facilitating bidirectional communication with WebSocket servers
- Offer various packetization mechanisms, converting serial data into Ethernet data packets based on data length or time to meet different real-time network requirements
- Support registration and heartbeat packets for connection validation and connection status monitoring.
- Support Modbus virtual IDs, mapping Modbus slave real IDs to virtual IDs for data communication to avoid ID duplication
- Provide statistics on serial communication parameters, operating modes, and sent/received frame counts



## Specification

Software	
Network Protocol	IP, TCP/UDP, ARP, ICMP, DHCP, DNS, HTTP, RFC2217
IP Obtaining Method	Static IP / DHCP
DNS Resolution	Supported
User Configuration	Web-Based Configuration
Simple Transparent Transmission	UDP/ UDP Multicast/ TCP Client/ TCP Server/ RealCOM/ Pair Connection
Modbus	Modbus RTU / ASCII to Modbus TCP Conversion
Serial Port Data Packaging	Time and length can be set; default values vary with the baud rate; maximum packet length is 1460 bytes.
TCP Server Connection	A single serial port supports a maximum of 8 TCP client connections
Network Cache	Sending: 16 Kbytes; Receiving: 16 Kbytes
Serial Port Cache	Sending: 1.5 Kbytes; Receiving: 1.5 Kbytes
Heartbeat Package	Supports the TCP Keepalive mechanism, with customizable content for heartbeat packets
Registration Package	Customizable Registration Packet Content
RFC2217	Supported
HTTPD Client	Supported
WebSocket Client	Supported
RealCOM	Supports operating modes for various manufacturers such as Maiwe, Moxa, and Kang Hai
Transmission Delay	<10ms
Supporting Software	Includes network management configuration tools, virtual serial port software, MixView, and MaxView.
Interface	
100M Copper Port	1*10/100Base-T(X)(RJ45 connector) interface, full/half-duplex, auto MDI/MDI-X
Serial Port	Serial: 4*RS232/485 ports Connection Method: 5.08mm pitch 5-pin terminal block



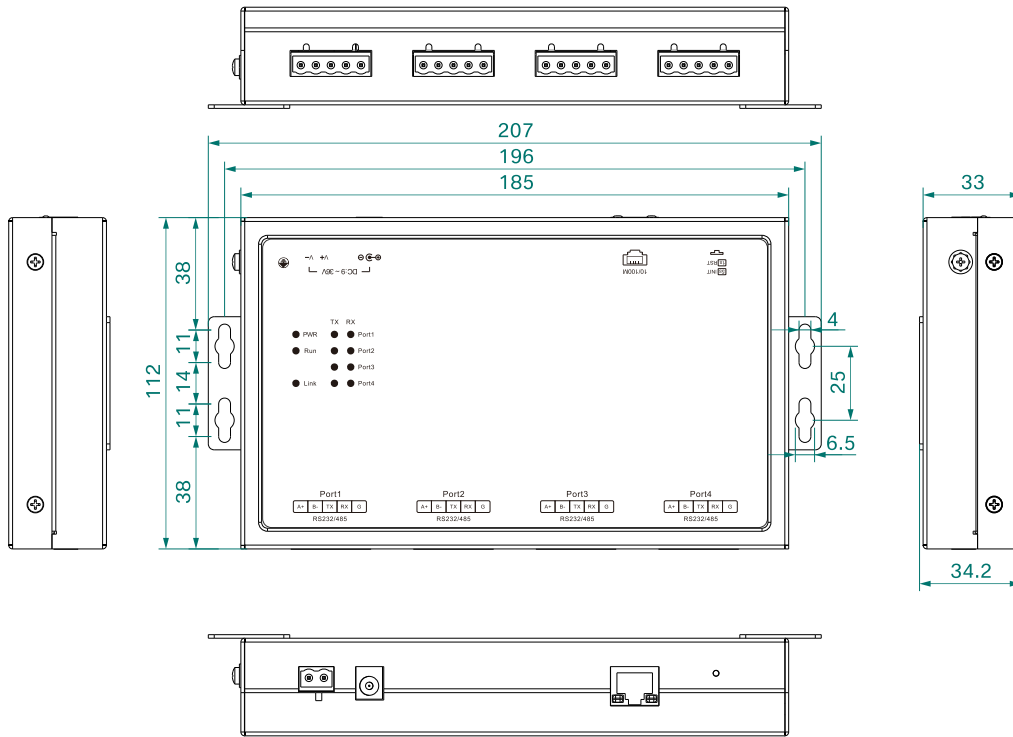
## Specification

Button	One-button restart or factory reset
Status LED	Power indicator, status indicator Ethernet interface rate and connection/activity status indicators
<b>Power Supply</b>	
Input Voltage	DC9~36V
Power Consumption	<1.3W@DC12V(full load)
Connection	5.08mm pitch 2-pin terminal block or $\Phi$ 2.5mm DC round head.
<b>Physical Characteristics</b>	
Dimensions	207×112×34.2 mm (mounting brackets included)
Installations	Wall mount
IP Code	IP40
<b>Working Environment</b>	
Operating Temp	-40°C~+85°C
Storage Temp	-40°C~+85°C
Relative Humidity	5%~95% (non-condensing)
<b>Industry Standard</b>	
EMC	IEC 61000-4-2 (ESD): Contact Discharge $\pm$ 8kV, Air Discharge $\pm$ 15kV. IEC 61000-4-5 (Surge):
Certifications	CE, FCC, RoHS



## Dimensions

Unit: mm





## Ordering Information

Standard Model	10/100M Copper Port	RS485/422	Input Voltage
Mport3104-I	1	4	DC9~36V



## Contact Us

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