Mport3104

4-Port RS232/485 Wall Mount Ethernet Serial Server

- Support 4 RS232/485 serial ports converted to 1 10/100M Ethernet port

- Enable serial terminal devices to connect to the network, with protocol conversion capabilities for UDP, TCP, Modbus, HTTPD, WebSocket, and support for 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 prevent system crashes

- Equipped with an industrial-grade DC power supply with input voltage ranging from DC9 to 36V, offering reverse polarity protection

- Housed in a robust metal enclosure with an IP40 protection rating, the fanless design, the operating temperature from -40°C to +85°C

CE FC RoHS IP40

Product Description

Mport3104 is a 4-port RS232/485 wall mount Ethernet serial server equipped with a 32-bit Arm Cortex-M7 core that operates at a high frequency of up to 400MHz. It features an external hardware watchdog design. The power supply, ethernet port, and serial ports all have high-level ESD, surge, and EFT protection, making it highly resistant to interference. It is specifically designed to facilitate data transmission between multiple serial ports and Ethernet for industrial users.This product supports 4 RS232/485 serial ports and 1 100M Ethernet port. Each serial port can operate independently without affecting the others and can be configured with different operating modes and baud rates (600bps to 460800bps). It internally integrates a TCP/IP protocol stack, allowing RS232/485 devices that cannot access the internet to easily, flexibly, and quickly connect to Ethernet. This makes industrial communication smoother, more reliable, and faster.

Industrial-grade Ethernet serial servers support various network management functions through web configuration, including serial port/network operating modes, DNS, network logs, serial port reboot, system management, and more. They also support various conversion modes 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 others, enabling serial-to-Ethernet or Modbus TCP protocol conversion.In terms of core components, the product adopts an industrial-grade design with wide temperature and voltage tolerance, lightning protection, electromagnetic interference resistance, high reliability, high performance, and suitability for operation in harsh environments. It can be used in various industries such as industrial monitoring, traffic management, meteorology, water treatment, environmental monitoring, coal mining, petroleum, chemical industry, new energy, and more. It is ideal for remote field data collection, remote monitoring, and on-site control, making it 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 with a high operating frequency of up to 400MHz
- Serial ports support baud rates ranging from 600bps to 460800bps
- Support UDP/UDP Multicast modes, enabling point-to-point, point-to-multipoint, or multipoint-to-multipoint communication via the UDP protocol for rapid and efficient data exchange
- Support TCP Client/Server modes, establishing session connections via the TCP protocol. TCP Client supports up to 4 concurrent session connections, while TCP Server supports up to 8 concurrent session connections. It allows dynamic modification of serial port baud rates and other communication parameters using RFC2217 commands
- Support Pair Connection Master/Slave mode for paired device usage with simple operation
- Support Modbus RTU/ASCII Master/Slave modes, facilitating the conversion between Modbus TCP and Modbus RTU/ASCII protocols
- Support Modbus slave pre-fetching, automatically learning up to 32 RTU or 16 ASCII commands on a single port for fast response
- Support RealCOM_MCP/CCP/MW mode, mapping the network as a local COM port for seamless connectivity
- Support HTTPD Client mode for GET or POST operations with an HTTPD server
- Support WebSocket Client mode for bidirectional communication with WebSocket servers
- Offer various packetization mechanisms, converting serial data into Ethernet data packets based on data length or time, catering to different network real-time requirements
- Support registration packets and heartbeat packets for connection verification and connection status detection
- Support Modbus virtual IDs, mapping real Modbus slave IDs to virtual IDs for data communication to avoid ID duplication
- Provide statistics for serial communication parameters, operating modes, and transmitted/received frame counts

Specification

| Software	
Network Protocol	IP, TCP/UDP, ARP, ICMP, DHCP, DNS, HTTP, RFC2217
IP Obtaining Method	Static IP / DHCP
DNS Resolution	Support
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	Support the TCP Keepalive mechanism, with customizable content for heartbeat packets
Registration Package	Customizable Registration Packet Content
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support
RealCOM	Support 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) , full/half-duplex, auto MDI/MDI-X
Serial Port	Serial Type: 4 RS232/485 ports Connection Method: 5.08mm pitch 5-pin terminal block

Specification

Button	One-button restart or factory reset button
Status LED	Power indicator, status indicator, Ethernet interface rate and connection/activity status indicators

Power Supply

Input Voltage	DC9~36V
Power Consumption	＜1.5W@DC12V(full load)
Connection	5.08mm pitch 2-pin terminal block or Φ2.5mm DC round head

Physical Characteristics

Dimensions	207×112×34.2 mm (mounting brackets included)
Installations	Wall-mounted installation
IP Code	IP40

Working Environment

Operating Temp	-40℃~+85℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)

Industry Standard

EMC	IEC 61000-4-2 (ESD): Contact Discharge ±8kV, Air Discharge ±15kV. IEC 61000-4-5 (Surge):
Certifications	CE, FCC, RoHS

Dimensions

Unit: mm
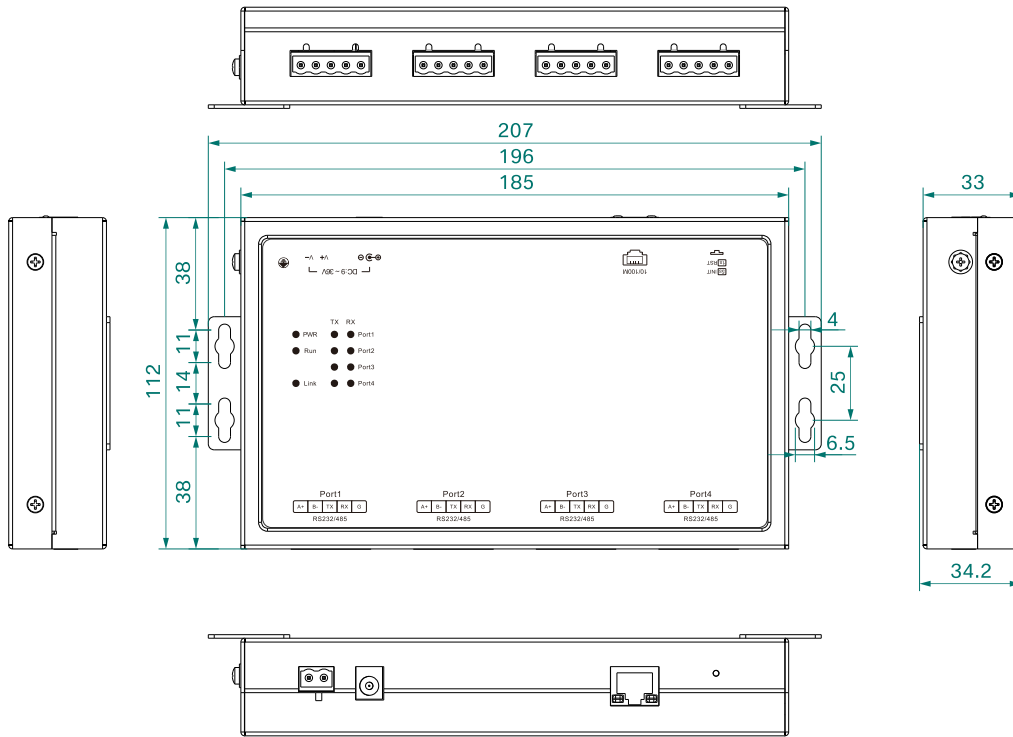
Ordering Information

Standard Model	10/100M Copper Port	RS232/485	Input Voltage
Mport3104	1	4	DC9~36V

Contact Us

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