Mport3216-I

16-Port Isolated Rack Mount RS485/422 Serial Server

- 16×RS485/422 isolated ports to 2×Gigabit combo ports, meeting various industrial bus or network field needs

- Support serial port terminal device networking

- Support UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, virtual serial port

- Support serial port forwarding, realizing transparent data transmission between serial port and other serial ports

- Support protocol conversion between Modbus-RTU/ASCII and Modbus-TCP, support Modbus RTU/ASCII over TCP transparent transmission

- Support MQTT protocol, realizing connectivity between cloud and clients via multiple cloud platforms

- Support AC85~264V/DC110~370V power input

- High-strength metal shell, IP40 protection level, fanless chassis for heat dissipation, operating temperature -40°C to +70°C

CE FC RoHS IP40

Product Description

Mport3216-I is a dual-network 16*RS485/422 rack mount Ethernet serial port server. It uses a 32-bit dual-core Arm Cortex-A8 core with a main frequency of up to 800MHz 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. It transforms serial to Ethernet compatible signals that allow them to be used remotely by network-attached applications and machines. Mport3216-I serial server supports 16 RS485/422 serial ports. The 16 RS485/422 ports can work independently at the same time in different working mode and baud rate range from 300bps to 460800bps. The two Gigabit Ethernet combo ports can work as either Gigabit copper ports or Gigabit fiber ports. The 16 port serial server integrates TCP/IP protocol stack, so that RS485/422 serial devices can be easily, flexibly and quickly connected to Ethernet, making industrial communication more smooth, more reliable, faster, and meet the needs of customers to improve value-added applications.

Mport3216-I Ethernet serial server supports WEB configuration of a variety of network management functions, such as serial port/network working mode, serial port forwarding, network card mode, DNS, access control, IP/MAC filtering, log management, email alarms, SNMP alarms, system management, serial port restart and etc.; It 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 , MQTT, DDP/DC and other conversion modes to realize serial port to Ethernet or Modbus TCP protocol It is designed with industrial-grade components, featuring wide temperature and wide pressure range, lightning resistance, anti-electromagnetic interference, high reliability, high performance, suitable for operation in harsh field environment like industrial monitoring, traffic management, meteorology, water treatment, environmental monitoring, coal mine, oil, chemical, new energy industries, to help user conduct field data collection, remote monitoring, field control, etc.. It is an essential industrial communication products for the development of industrial Internet of Things.

✪ Features and Benefits

- Adopt 32-bit dual-core ARM Cortex-A8 core, running frequency up to 800MHz
- The network port is a Gigabit Combo ports, and can be configured as two independent network segments or cascading ports
- 300bps~460800bps baud rate range available
- Support UDP/UDP Multicast mode, achieving point-to-point, point-to-multipoint or multipoint-to-multipoint communication thru the UDP protocol
- Support TCP Client/Server mode, establishing session connection through TCP protocol, TCP Client/Server supports up to 8 session connections, and support dynamically modify serial port rate and other communication parameters thru RFC2217 instructions
- Support Pair Connection Master/Slave mode, devices can be used in pairs, easy to operate
- Support Modbus RTU/ASCII Master/Slave mode, realizing Modbus TCP and Modbus RTU/ASCII protocol conversion
- Support Modbus Salve pre-read, single port automatic learning up to 32 RTU or 16ASCII instructions, to achieve quick response
- Support RealCOM MCP/CCP/MW mode, mapping network for local COM, seamless connection
- Support HTTPD Client mode and perform GET or POST operation with HTTPD server
- Support WebSocket Client mode for two-way communication with WebSocket server
- Support DDP/DC mode, encapsulate serial port data through DDP/DC protocol to achieve communication with DDP/DC server
- Support Modbus virtual ID, mapping Modbus slave real ID to virtual ID for data communication, to avoid slave ID duplication
- Support multiple sub-packaging mechanisms, convert serial port data into Ethernet data packets according to data length or time, to meet the real-time needs of different networks
- Support package registration and heartbeat packages to realize connection verification and connection status detection
- Support WEB/SSH access control, and IP/MAC address filter
- Support device reboot, login event, configuration change, password change and other event alarms, support for e-mail and SNMP alarm mode
- Support serial communication parameters, operating modes, sending and receiving frame counts
- Support local log storage, network storage, USB flash drive storage and serial port log output

Specification

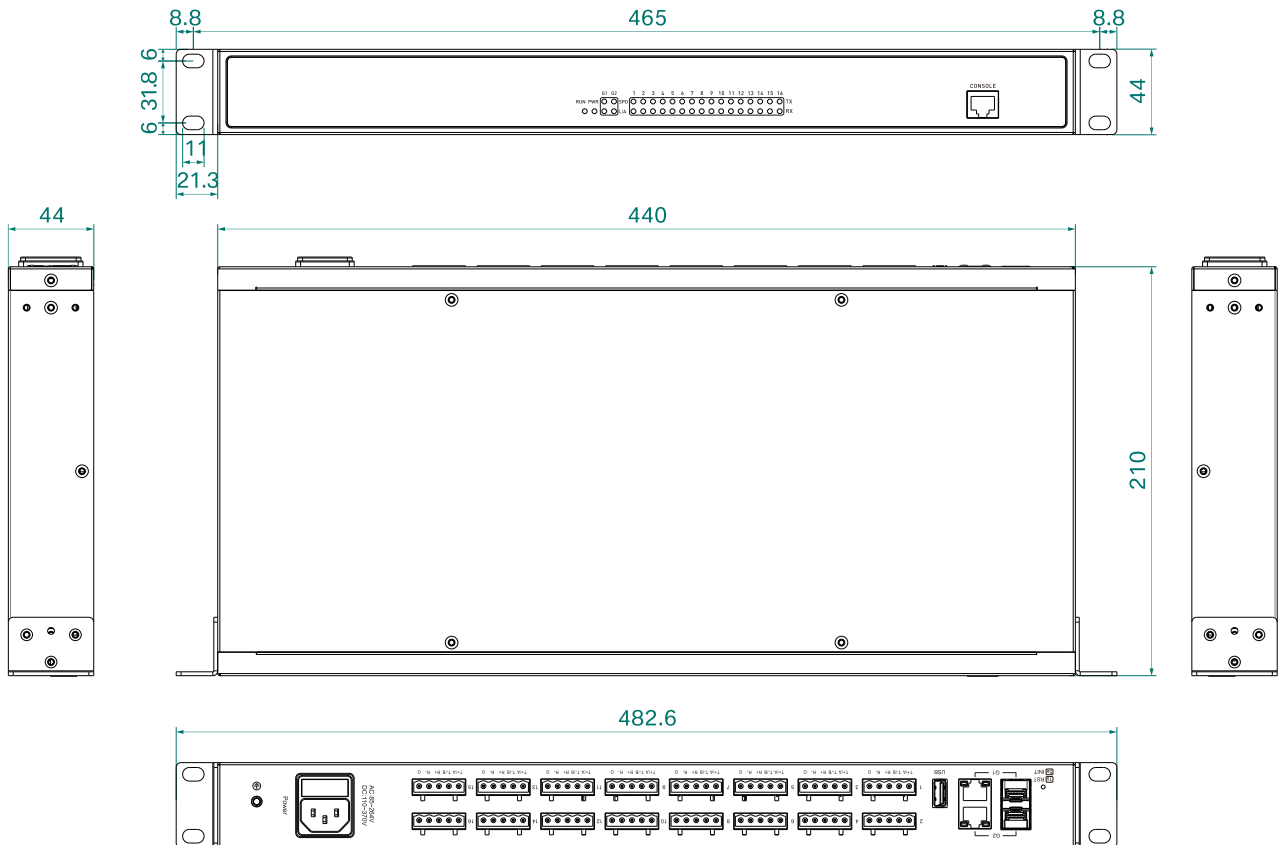| Software	
Network Protocol	IP, TCP/UDP, ARP, ICMP, DHCP Client, DNS, HTTP, RFC2217, NTP, TELNET, SNMP, TFTP
IP Obtaining Method	Static IP/DHCP
DNS	Support
User Configuration	WEB/CONSOLE configuration
Simple Transparent Transmission	UDP/UDP Multicast/TCP Client/TCP Server/RealCOM/Pair Connection
Modbus	Modbus RTU /ASCII to Modbus TCP
Serial Port Packaging Mechanism	Time and length can be set, the maximum packing length is 1460 bytes
TCP Server Connection	Each serial port can connect up to 8 TCP Client
Network Buffer	Send:16Kbyte; Receive: 16Kbyte
Serial Buffer	Send:2Kbyte; Receive:2Kbyte
Heartbeat Package	Support TCP Keep alive mechanism, customize heartbeat package content
Registration Package	Customize the content heartbeat package content
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support
RealCOM	Support Maiwe/Moxa working mode
Data Encryption	Support (DES/3DES/AES/RC2/RC4/RC5/BlowFish and etc.)
SSL Encryption	Support (TLS1.0/TLS1.1/TLS1.2)
MQTT	Support Alibaba MQTT Cloud Platform as well as other standard MQTT cloud platforms
DDP/DC	Support
Serial to Serial Data Forwarding	Support (prohibit, bidirectional forwarding, unidirectional forwarding, unidirectional receiving)

Specification

Transmission Delay	<10ms
Supported Software	NMS configuration tool, Vitualcom software, MixView, MaxView
Interface	
1G Combo Port	2*1G combo ports, 10/100/1000 Base-T(X) auto-sensing RJ45 port or 1000Base-X SFP port optional, RJ45 ports support full/half duplex, auto MDI/ MDI-X
Serial Port	Port type: 16×RS485/422 Connector: 5-pin 5.08mm pitch terminal block Baud rate: 300bps~460800bps Data bit: 5bit, 6bit, 7bit, 8bit Stop bit: 1bit, 2bit Parity bit: None, Odd, Even, Mark, Space Isolation voltage: 2kVAC/3kVDC
USB	1 Type-A USB 2.0 interface
Button	One-click restart, factory reset
Console Port	1 port console port, RS232 signal RJ45 port
Status LEDs	Power supply indicator, running indicator, alarm, Ethernet port indicator, serial port indicator
Power Supply	
Input Voltage	AC85~264V/DC110~370V
Power Consumption	<6.5W @AC220V
Connection	AC socket with switch
Physical Characteristic	
Dimensions	482.6×44×210 mm (Include mounting brackets)
Installations	19 inn 1U rack mount installation
IP Code	IP40
Working Environment	
Operating Temp	-40℃~+70℃

Specification

Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industrial Standard	
EMC	IEC 61000-4-2 (ESD): Level 4 (contact discharge ±8kV, air discharge ±15kV) IEC 61000-4-5 (Surge): Level 3 (power supply: common mode ±2kV, differential mode ±2kV; RS485/422: common mode ±4kV, differential mode ±4kV; network port: common mode ±6kV, differential mode ±2kV) IEC 61000-4-4 (EFT): Level 4 (power supply: ±4kV; network port, serial port: ±2kV)
Certification	CE, FCC, RoHS

Dimensions

Unit: mm

🛒 Ordering Information

Standard Model	1G Combo port	RS422/485 Port	Input Voltage
Mport3216-I	2	16	Single AC85~264V/DC110~370V power supply

📞 Contact Us

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