Mport3216

16-Port RS232/485 Rack-Mount Serial Server



- Support 16×RS232/485 to 2×1G Combo ports,meet various industrial bus or network field needs
- Support serial port terminal device networking, support UDP,TCP,ModbusHTTPD,,WebSocket, MQTT, DDP/DC
- Support serial port forwarding, can realize 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, realize connectivity between cloud and clients via multiple cloud platforms
- Support AC85~264V/DC110~370V power input
- Supprot Dual AC85-264V/DC110~370V optional
- High strength metal shell, IP40 protection grade,fanless chassis cooling,ensuring reliable operation in harsh industrial environments ranging from -40°C to +70°C

Product Description

The Mport3216 is 16-port RS232/485 rack mount serial server. It transforms serial to Ethernet compatible signals that allow them to be used remotely by network-attached applications and machines.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. The 16×port RS232/485 ports can work independently at the same time in different working mode and baud rate range from 600bps to 460800bps. The two gigabit Ethernet combo ports can work as either gigabit copper port or gigabit fiber port. The 16 port serial server integrates TCP/IP protocol stack, so that RS232/485 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.

This industrial-grade Ethernet serial server supports 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, 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 , MQTT, DDP/DC 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

- Adopt 32-bit ARM Cortex-M7 kernel runs at up to 800 MHz
- The network port is a gigabit Combo port, which supports optional fiber or copper ports and can be configured as two independent network segments or cascaded ports
- 600bps~460800bps port rate is optional
- Support UDP / UDP Multicast mode, through the UDP protocol to achieve point-to-multipoint, point-to-multipoint or multipoint-to-multipoint communication, fast and efficient
- Supports TCP Client / Server mode, establishes session connection through TCP protocol, TCP Client supports up to 8 session connection, and support RFC2217 instructions to dynamically modify serial port port rate and other communication parameters
- Support Pair Connection Master / Slave mode, devices can be used in pairs, easy to operate
- Support Modbus RTU / ASCII Master / Slave mode,realize Modbus TCP and Modbus RTU / ASCII protocol conversion
- Support Modbus from the machine 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 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
- Supports multiple sub-packaging mechanisms, converts serial port data into Ethernet data packets according to data length or time, to meet the real-time needs of different networks
- Support for 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、DNS、HTTP、RFC2217、NTP
IP Obtaining Method	Static IP / DHCP
DNS	Support
User configuration	Web page 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	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 packet content
Registration Package	Customize the content heartbeat package content
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support
RealCOM	Support Maisvch,Moxa and Kanghai working mode
Data Encryption	Support (DES/3DES/AES/RC2/RC4/RC5/BlowFish etc)

Specification

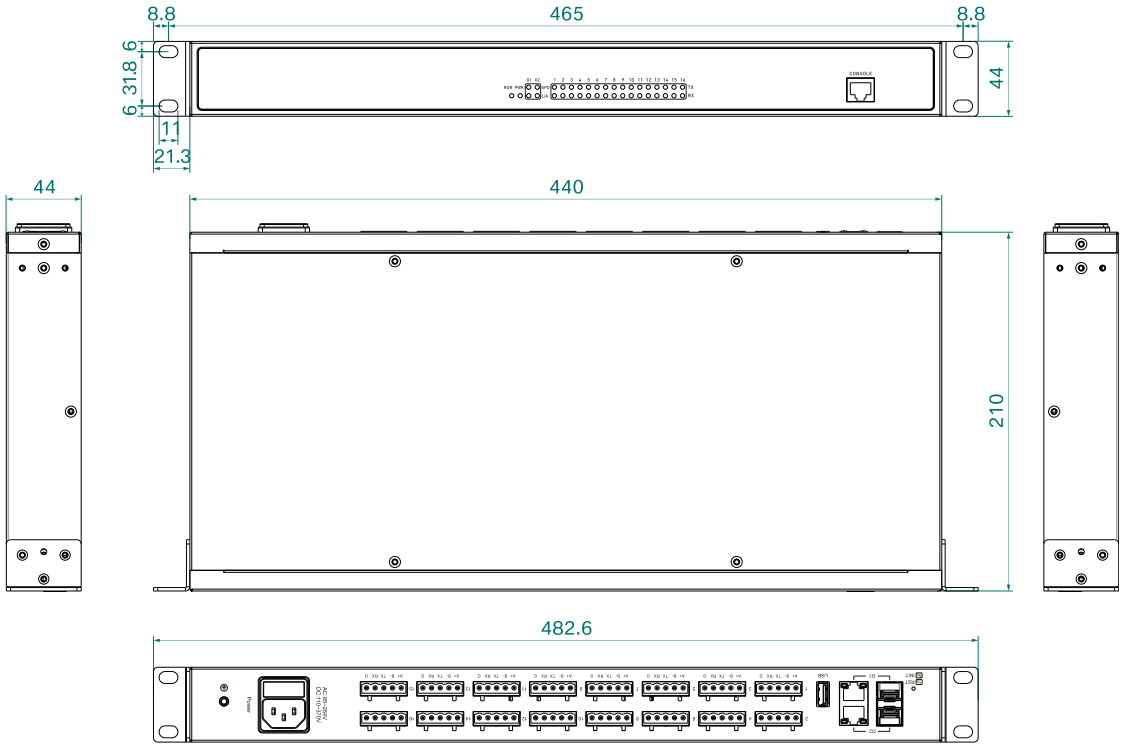
SSL Encryption	Support (TLS1.0/TLS1.1/TLS1.2)
MQTT	Support Alibaba MQTT Cloud Platform as well as other standard MQTT cloud platforms
DDP/DC	Support
Serial to Serial Data Forwarding	Support (Prohibit, bidirectional forwarding, unidirectional forwarding, unidirectional receiving)
Transmission Delay	<10ms
Supporting Software	Network management configuration tool, Vitualcom software, MixView, MaxView
Interface	
1000M Combo Port	2*1000M combo port，Support 10/100/1000 Base-T(X) auto-sensing RJ45 or 1000Base-X SFP slot, full/half duplex, auto MDI/ MDI-X connection
Serial port	Port type: 16×RS232/485 Connector: 5-position 5.08mm pitch terminal block Baud rate：600bps~460800bps Data bit：5bit, 6bit, 7bit, 8bit Stop bit：1bit,2bit Parity bit：None,Odd,Even,Mark,Space
USB	1 Type-A USB 2.0 interface
Button	One-click restart, factory reset
Console port	1 port console port,RS232 RJ45 port,used for device debugging and command line configuration
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 power supply with switch
Physical Characteristic	
Dimensions	482.6×44×210 (mm)
Installations	19 inn 1U rack mount installation

Specification

IP Code	IP40
Working Environment	
Operating Temp	-40℃~+75℃
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: 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	1000M Combo	RS232/485	Input Voltage
Mport3216-AD220	2	16	AC85~264V / DC110~370V
Mport3216-2AD220	2	16	Dual AC85-264V/DC110~370V

Contact Us

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