

Mport3101-W

1 RS232/485/422 Wall Mounted Wi-Fi Ethernet Serial Server



- Support 1xRS232/485/422 serial port, 1x100Mbps Ethernet copper port, and 1x2.4GHz antenna interface, meeting various industrial bus or network field requirements
- Support serial port to wireless Wi-Fi/wired Ethernet
- Support serial terminal device networking, can convert UDP, TCP, Modbus, HTTPD, WebSocket, MQTT protocols, and support virtual serial ports
- Support conversion between Modbus RTU/ASCII and Modbus TCP protocols, and support Modbus RTU/ASCII Over TCP transparent transmission
- Support wireless modes of AP, Client, or AP+Client, which can serve as Wi-Fi hotspots, wireless clients, or bridges, to achieve wired and wireless network conversion
- Industrial grade DC9-36V power supply and anti reverse connection protection
- High strength metal shell, IP40 protection level, fanless shell heat dissipation,
- -40°C to +85°C working temperature





Product Description

Mport3101-W is a wall mounted 1-way RS232/485/422 Wi-Fi Ethernet serial server, specially designed for industrial users to provide transparent data transmission or protocol transmission between serial ports, wireless networks and wired networks. This product supports 1xRS232/485/422 serial port, 1x100Mbps copper port and 1x2.4GHz Wi-Fi interface. It also supports serial port to Wi-Fi, serial port to Ethernet and Ethernet to Wi-Fi functions. It can convert the serial port (RS-232/485/422) to a TCP/IP network interface, making it convenient and fast for serial devices connecting to the TCP/IP network, achieving interconnection between the serial port and the TCP/IP network, making industrial communication smoother, more reliable and faster.

This industrial grade Ethernet serial server supports WEB configuration for various network management functions, such as serial/network working mode, Wireless settings, LAN/WAN settings, static routing, network diagnostics, access restrictions, time synchronization, logs, and alarm settings. It supports conversion modes of 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 MQTT, to convert serial ports to Ethernet or Modbus TCP protocol. In terms of core components, this product adopts an industrial grade quality design scheme, which has many advantages such as wide temperature and pressure, lightning resistance, electromagnetic interference resistance, high reliability, high performance, and suitability for operation in harsh environments. It can be used in industrial monitoring, traffic management, meteorology, water treatment, environmental monitoring, coal mining, petroleum, chemical, new energy and other industries, for remote on-site data collection, remote monitoring, on-site control, etc. It is an essential industrial communication product for the development of industrial Internet of Things.



Features and Benefits

- Support WAN/LAN multiplexing, connecting to external networks through DHCP, static addresses, PPPoE, or connecting to internal networks as a LAN port
- The LAN supports DHCP servers and centrally manages and configures user IP addresses dynamically
- The WLAN supports AP, Client or AP+Client modes, enabling wireless terminal access, wireless network access or bridging
- Support UDP/UDP Multicast mode, enabling fast and efficient point-to-point, point-to-multipoint, or multipoint-to-multipoint communication through UDP protocol
- Support TCP Client/Server mode, establishing session connections through TCP protocol. TCP Client supports up to 16 session connections, TCP Server supports up to 32 session connections, and supports RFC2217 instructions to dynamically modify communication parameters such as serial port baud rate
- Support Pair Connection Master/Slave mode, allowing devices to be used in pairs with simple operation
- Support Modbus RTU/ASCII Master/Slave mode, enabling conversion between Modbus TCP and Modbus RTU/ASCII protocols
- Support Modbus slave pre-reading, single port automatic learning up to 256 RTU or 128 ASCII instructions, achieving fast response
- Support RealCOM_ MCP/CCP/MW mode, mapping network to local COM, seamless connection
- Support HTTPD Client mode and can perform GET or POST operations with HTTPD servers
- Support WebSocket Client mode and can communicate bi-directional with WebSocket servers
- Support MQTT mode, which can connect to Alibaba Cloud, OneNet (multi protocol), OneNet (Internet of Things suite), Tencent Cloud, Huawei Cloud, Maiwe Cloud or other cloud platforms to achieve the interconnection of everything between the end and the cloud
- Support various subcontracting mechanisms to convert serial port data into Ethernet packets based on data length or time, meeting real-time requirements of different networks
- Support registration and heartbeat packets, enabling connection verification and connection status detection
- Support Modbus virtual IDs, mapping Modbus slave real IDs to virtual IDs for data communication, avoiding duplicate slave IDs
- Support JSON function, which can convert collected Modbus slave device data into JSON format and send it to the server
- Support various data encryption algorithms such as DES/3DES/AES/RC2/RC4/BlowFish, to ensure data security
- Support SSL (TLS1.0/1.1/1.2) connection encryption, one-way/two-way certificate verification, ensuring connection security
- Supports IPv4/IPv6 Ping, IPv4/IPv6 Traceroute, Nslookup, packet capture, and can perform network diagnosis or fault analysis
- Support port forwarding, IP/MAC/domain name address filtering and UPnP functions

- Support SNMPv1/v2c, enabling information querying, modification, and troubleshooting through MIB, achieving centralized management
- Support login events, configuration changes, password changes alarms, support email and SNMP alarm methods



Specification

Software	
Network Protocol	IP, TCP/UDP, DNS, ARP, SNMP, SSH, TELNET, FTP, ICMP, HTTP, DHCP Client, NTP, Modbus TCP, UPnP
IP Obtaining Method	DHCP/Static IP/PPPoE Dialing
Domain Name Resolution	Supported
User Configuration	Web configuration
Simple Transparent Transmission	UDP/ UDP Multicast/ TCP Client/ TCP Server/ RealCOM/ Pair Connection
Modbus	Modbus RTU/ASCII to Modbus TCP
Serial Packaging Mechanism	The time and length can be set. Maximum packaging length 1460 bytes
TCP Server Connection	Single serial port supports up to 32 TCP client connections
Network Cache	Send: 16Kbyte; Received: 64Kbyte
Serial Cache	Send: 4Kbyte; Received: 4Kbyte
Heartbeat Package	Support TCP Keepalive mechanism and customize heartbeat packet content
Registration Package	Custom registration package content
RFC2217	Supported
Httpd Client	Supported
WebSocket Client	Supported
RealCOM	Support working modes such as Maiwe, Moxa and Kanghai
Average Transmission Delay	<10ms
Software	Virtual serial port software



Specification

Log Functions	Support storage system, program running logs and log export functions
Wi-Fi RF Parameters	
Wireless Standards	2.4GHz 802.11b/g/n
Frequency Range	2.412GHz~2.484GHz
Band Bandwidth	20MHz/40MHz
Maximum Transmission Power	IEEE 802.11n:15~18dBm @HT20/40 MCS7 IEEE 802.11g:15~18dBm @54MHz IEEE 802.11b:17~19dBm @11MHz
Receiving Sensitivity	HT40 MCS7:-69dBm@10% PER(MCS7) HT20 MCS7:-71dBm@10% PER(MCS7) 54M:-76dBm@10% PER 11M:-90dBm@ 8% PER
Interface	
100M Copper Port	1x10/100Base-T(X) auto-sensing RJ45ports, support full/half duplex, auto MDI/MDI-X
Serial Port	Serial port type: 1 RS232/485/422 Connection method: 3.81mm pitch 5-pin terminal block for RS485/422, DB9M for RS232 Baud rate: 300bps~230400bps Data bits: 5bit, 6bit, 7bit, 8bit Stop bit: 1 bit, 2 bit Check bits: None, Odd, Even
Antenna Interface	1x2.4GHz antenna interface, using SMA-K (external thread internal hole)
Button	One-click restart or factory reset
Indicator LED	Power indicator, Operation indicator, Ethernet interface speed and connection/activity status indicator Serial port sending and receiving data indicator
Power Supply	
Input Voltage	DC9~36V
Power Consumption	< 1.6W@DC12V
Connection	Φ 2.5mm DC round head
Physical Characteristics	

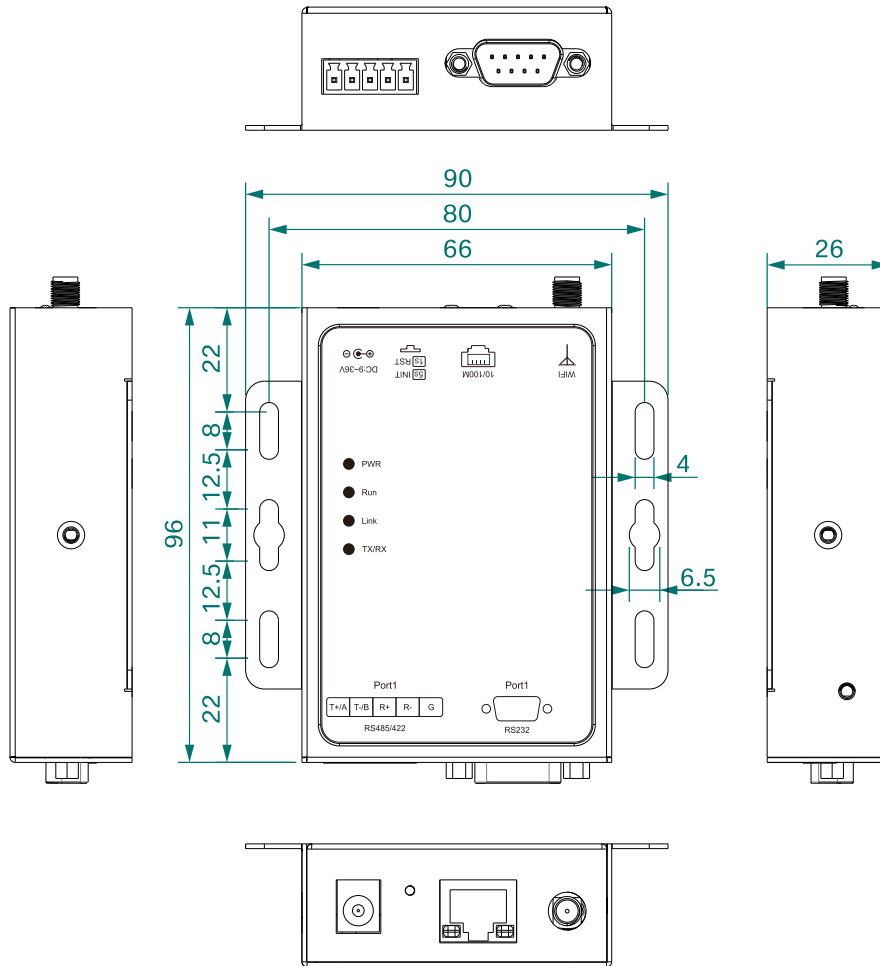
Specification

Dimensions	96×90×26 mm(mounting brackets included)
Installations	Wall mount
IP Code	IP40
Working Environment	
Operating Temp	-40℃~+70℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMC	IEC 61000-4-2 (ESD): Level 3 (Contact discharge: ±6kV, Air discharge: ±15kV) IEC 61000-4-5 (Surge): Level 4 (Power supply: common mode: ±4kV, differential mode: ±2kV) RS485/422: common mode: ±4kV, differential mode: ±2kV Ethernet port: common mode: ±6kV, differential mode: ±2kV IEC 61000-4-4 (EFT): Level 4 (Power supply: ±4kV Data port: ± 2kV)
Certification	CE, FCC, RoHS



Dimensions

Unit: mm





Ordering Information

Standard Model	100M Copper Port	RS232/485/422	2.4GHz Antenna	Input Voltage
Mport3101-W	1	1	1	DC9~36V



Contact Us

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