



MJT-300 Series Industrial RTU

Technical Spec sheet

Product Description

The MJT-300 series industrial intelligent gateway is a compact and feature-rich industrial edge intelligent gateway that supports multiple networks such as 4G/Wi-Fi/Ethernet. It has strong edge data acquisition, processing, and storage capabilities, enabling data optimization, real-time response, agile connectivity, and intelligent analysis at the edge nodes of the Internet of Things. This significantly reduces the data flow between the field and the central end, avoids the bottleneck of cloud computing power, optimizes the network architecture, and achieves a more secure and faster response, while implementing on-site business in a low-cost and intelligent manner.

The MJT-300 series industrial intelligent gateway supports multiple industrial serial ports and has I/O expansion capability. It can be equipped with the ILM series I/O expansion module according to requirements to expand support for DI/DO/relay/AI and other functions, meeting the I/O acquisition and control needs of industrial sites.

The MJT-300 series industrial intelligent gateway meets the needs of industrial users. It has low power consumption, operates at temperatures ranging from -40°C to 80°C, and has strict EMC indicators. It can meet the network communication requirements in harsh environments of temperature, humidity, and electromagnetic interference, making it an ideal choice for industrial applications.

The MJT-300 series industrial intelligent gateway also has VPN function, providing multiple VPN encryption modes such as IPSec, L2TP, GRE, etc., to transmit device data in a secure data channel, preventing data from being accessed and tampered with, and providing higher security for network applications.



Key Features

High-speed network, faster and more stable, supports multiple protocols.

- Supports 4G, WiFi, and wired connections simultaneously, with multiple network backup links to ensure faster and more stable network.
- Supports multiple industrial interfaces (RS232/RS485/CAN, etc.), and can directly connect to PLC/sensors and other industrial devices.
- Supports multiple industrial protocols to meet various on-site data collection needs.
- Supports secondary development, customizable C/C++/Python development platform.

Industrial-grade design, better business experience

- Uses industrial-grade components and specialized design to adapt to harsh working environments.
- Fan-less design, capable of long-term operation in -40°C~+80°C environment
- Metal casing with IP40 protection level, ideal for industrial control field applications
- Low power consumption design with wide power input range (12~48VDC), suitable for different on-site power supply modes



High reliability design, safe and stable business operation

- Embedded watchdog technology for self-healing in case of failures to ensure normal device operation.
- Equipped with a complete anti-disconnection mechanism to ensure the data terminal is always online.
- WDT watchdog design with hardware interface isolation protection to ensure system stability.
- Supports multiple VPN encryption modes such as IPsec, L2TP, GRE, N2N to ensure data transmission security.
- Supports dual SIM cards, link backup, and other redundancy backup functions to provide transfer protection for faulty lines.
- Multi-antenna design enhances wireless signal and ensures various on-site network performance.

Intelligent business deployment, convenient operation, and maintenance

- Flexible data feedback methods, supports both Ethernet wired and 4G/Wi-Fi wireless modes.
- Provides a simple and easy-to-use web configuration interface for convenient deployment.
- Supports remote device management and real-time monitoring through cloud platforms to improve operation and maintenance quality.
- Supports remote firmware upgrade, remote configuration management, and simple function expansion.
- Supports cloud-edge collaborative computing and integrated data and application management.

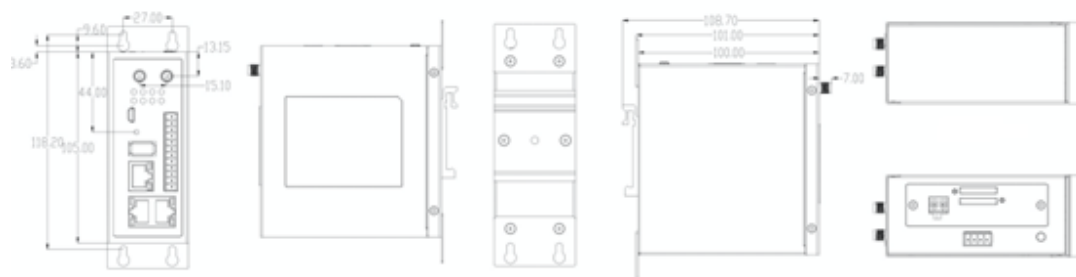
Application

IoT



Intelligent devices such as PLCs, HMIs, and high-definition cameras in industrial production sites are connected to the MJT-300 gateway via various industrial buses or high-speed Ethernet. The MJT-300 performs data collection, preprocessing, filtering, and cleaning before sending it to the cloud system via common IoT transmission protocols such as MQTT and HTTP. The IoT cloud platform can be deployed in a private data center or public cloud service platform. The cloud platform enables remote device status monitoring, real-time alert notifications and fault diagnosis analysis, remote fault localization and program upgrades, equipment asset management, preventive maintenance, and industrial big data mining. This solution assists production manufacturers in building a complete industrial intelligent remote operation and maintenance management system.

Dimension





Specification

Parameters	MJT-300-FA	MJT-300-W
Hardware Specification		
4G	FDD-LTE: B1/B3/B5 TDD-LTE: B38/B39/B40/B41	Not Supported
3G	WCDMA: B1 CDMA2000 EVDO:800MHz TD-SCDMA: B34/B39	Not Supported
2G	EDGE/GPRS/GSM: 1800MHz/900MHz CDMA2000 1X: 800MHz	Not Supported
Wi-Fi	Not Supported	2.4G 802.11 a/b/g/n
Chips	528MHz ARM Cortex-A7	
DRAM	128MB DDR3L (Optional 256MB/512MB)	
NAND FLASH	128MB	
EMMC	8G (Optional)	
OS	PanGu OS (Linux)	
SIM/UIM	Standard Sim Slot*2 Support 1.8V/3V SIM/UIM	
Com Port	1*RS-232/RS-485、1*RS-232、1*RS-485 Or 4*RS-485 (Optional)	
USB	1*USB2.0 Host 1*USB2.0 Device (Programming)	
Ethernet	3*10/100Mbps Ethernet Port 1*WAN 2*LAN	
CAN	1*CAN	
Antenna	2*4GAntenna Port (Standard SMA 50U)	2*Wi-Fi Port (Standard SMA 50U)
SD Card	Up to 128GB SD Card	
LED	PWR*1 NET*1 VPN*1 SIM*2 Signal*3	
Power Input	Terminal, Reverse and Overvoltage Protected	
Reset Button	Factory Reset	



RTC	Internal RTC	
Power Supply	DC 12V/1A	
Power Input	DC 12~48V	
Power Consumption	3.6W	
Idle Current	130mA	
Highest Current	300mA	
Casing	Metal, IP40	
Dimension (W*D*H)	45.0mm * 100.0mm * 105.0mm (exclude antenna and add-on)	
Weight	385.5g	
Operating Temperature	-40~+80℃	
Storage Temperature	-40~+85℃	
Operating Humidity	5~95%(non-condensing)	
Installation	DIN	
Software Specification		
Internet	APN, VPDN	
Authentication	CHAP/PAP/MS-CHAP/MS-CHAPV2	
LAN	ARP, Ethernet	
WAN	Static IP, DHCP, PPPoE	
VLAN	VLAN	
IP Usage	Ping, Traceroute, DHCP Server/ Client, DNS Relay, Dynamic DNS, Telnet, SSH, HTTP, HTTPS, TFTP, FTP, SFTP, NAT	
IP Routing	Static Routing, Dynamic Routing	
VPN	IPsec, L2TP/PPTP, GRE, OpenVPN, N2N	
Firewall	NAT, PAT, DMZ, Port Mapping IP Filtering, Port Filtering, MAC Filtering	
Link Backup	Link Switch 4G, Wi-Fi and Wired Ethernet	
Link Detection	TCP/Ping Heartbeat Detection, VPN Link Detection, Disconnect and Reconnect	
QoS	Uplink and Downlink Bandwidth Limitation	
Watchdog	Self-check, Self-Repair	
Serial	Built-in DTU, Modbus TCP/RTU	
WLAN	Not Supported	Support IEEE 802.11n b/g/n 2.4GHz AP, Client working mode.



		Open system, shared key, WPA/WPA2 authentication
Data Statistics	Real-time, Monthly, Set Upper Limit	
Task	Reboot	
Configuration Management	web management Telnet and SSH terminals System Status Monitoring NTP client, supports device system clock network synchronization. Support device cloud platform remote management Configuration import and export Network tools: Ping, Tracert	
Firmware Management	Firmware upgrade, support local (HTTP/serial port) and remote upgrade	
Event Alert	Sys Log, App Log	
Open Platform	C/C++/Python	
Edge Device Specification		
Data Communication	Support Modbus RTU/TCP Support Siemens PLC S7/PPI/MPI protocol Support Mitsubishi PLC MC protocol/FX protocol Support Omron PLC HostLink protocol/Fins protocol Support OPC UA Client Support power protocol DLT645	
Data Transmission	MQTT Modbus RTU/TCP OPC UA Server	
Scene Linkage	Support local rule engine, configure scene linkage	
Communication Interval	Up to 100ms	



Packing List

Standard

- 1 x MJT-300
- 1 x Antenna
- 1 x Cert

Add-on

- 2m/3m antenna
- Power Supply (12VDC, 1A)