

DIN Rail Industrial Intelligent Gateway

Model No : MT-MooGate600 Series



Product Description

MooGate600 series industrial communication intelligent gateway adopts high-performance quad-core 64-bit ARM Cortex-A53 processor with main frequency of 1.8GHz, equipped with 2GB DDR4+ 16GB eMMC, supports Gigabit Ethernet wired connection and 4G cellular network wireless connection, providing high-bandwidth, low-latency and high-reliability wired and wireless network communication for industrial automation applications.

MaxGate600 series have rich interfaces, including 2 Gigabit Ethernet ports, 4 isolated RS485, 16 I/O (8 DI+8 DO), 1 HDMI, 2 USB2.0, 1 TF card slot and 1 Nano SIM card slot; at the same time, it adopts reliable industrial-grade design, meets the working temperature environment of -40°C~+75°C, and passes strict safety regulations and EMC tests. It can be widely used in industrial automation, integrated energy, smart cities, smart transportation, smart mines, smart factories and other fields.

Features & Benefits

- 2*1000M copper ports, 4* RS485, 16 I/O (8 DI + 8 DO), 1 HDMI and 2 USB2.0HOST
- Adopts quad-core 64-bit ARM Cortex-A53 processor with a main frequency of up to 1.8GHz to meet edge computing needs
- Supports 2GB DDR4 memory and 16GB eMMC storage, which is convenient for secondary development, and can be customized with larger memory and eMMC
- Supports Docker, and secondary development and deployment of own programs are fast
- Built-in mature wired, cellular network, and Wi-Fi network management systems, support multi-network mutual backup switching, automatic reconnection of faults and other mechanisms
- Built-in mature equipment remote maintenance software system, support multiple VPN protocols, quickly connect to the privately deployed MixConnect platform, and build remote maintenance channels for PLC and other equipment with one click.
- Supports 1 DC12~48V wide voltage, non-polarity input High-strength aluminum alloy casing, IP40 protection Work in harsh industrial environments of -40°C~+75°C
- Supports 2 Gigabit electrical ports, 4 RS485, 16 I/O (8 DI + 8 DO), 1 HDMI and 2 USB2.0 HOST;
- Adopts quad-core 64-bit ARM Cortex-A53 processor with a main frequency of up to 1.8GHz to meet edge computing needs;
- Supports 2GB DDR4 memory and 16GB eMMC storage is convenient for secondary development, and larger memory and eMMC can be customized;
- Based on Ubuntu20.04 system, optional Linux-5.10.198 or Linux-RT-5.10.198 kernel, support apt package manager, easy to download and install software;



More Features

- USupport Docker, fast secondary development and deployment of own programs;
- Support network card, serial port, GPIO, eMMC, HDMI, I2C, RTC, built-in Watchdog, USB, Wi-Fi and other drivers, provide application layer programming sample code and general cross-compilation environment, convenient for secondary development;
- Support I/O digital quantity detection and control;
- WAN port can be connected to the external network through dynamic/static/PPPoE dial-up mode; Optional 4G cellular network, single card single standby; Optional dual-band Wi-Fi 6. Can be used as a wireless client to access wireless networks;
- Support multiple network access modes such as wired, wireless, and 4G (only wired is supported by default);
- Support multiple file systems and multiple network protocols;
- Support VPN clients and servers to build private networks;

Technical Specification

Processor	Quad-core 64-bit ARM Cortex-A53, clocked at 1.8GHz
OS	Ubuntu 20.04 (Linux-5.10.198 kernel or Linux-RT-5.10.198 real-time kernel optional)
Memory	2GB DDR4
Storage	16GB eMMC TF card: up to 256GB
Interface	
1000M Copper Port	2* 10/100/1000Base-T(X) auto-sensing copper RJ45 ports, supporting Full/half duplex, auto MDI/MDI-X
Cellular network interface (optional)	Antenna interface: 1, SMA-K (external thread and internal hole) SIM holder: Nano SIM card slot
Wi-Fi+Bluetooth (optional)	Antenna interface: 1, RP-SMA-K (external thread and internal pin) Standard: IEEE 802.11b/g/n + BLE 5.1 Frequency band: 2.4GHz



Technical Specifications

HDMI interface	1 HDMI 1.4 port, supports 1080p@60Hz video output (does not support audio)
USB interface	2 Type-A USB 2.0 interfaces (HOST)
DI Digital Input	Number of channels: 8 DI input Connection method: 10-bit 3.5mm pitch terminal block Rated voltage: DC12V (DC5~24V) Input type: wet contact PNP (Logic level 0: no external power input) Logic level 1: DC5~24V external power input) Isolation protection: 5kVDC (optocoupler isolation)
DO Digital Output	Number of channels: 8 DO outputs Connection method: 10-bit 3.5mm pitch terminal block Output type: relay output (dry contact) Output mode: normally open Rated load: single channel 5A@AC250V/DC30V
DEBUG interface	1 debug, using Type-C USB interface, for device debugging
Button	Restart or restore factory settings with one click
Indicator	Power LED, system operation LED, system error LED, programmable LED(6)
Power Supply	
Power Input	DC12~48V power input, non-polarity input
Consumption	• MooGate600: average $\leq 8.0W@DC24V$, peak $\leq 8.9W@DC24V$ • MooGate600-W: average $\leq 8.2W@DC24V$, peak $\leq 8.8W@DC24V$ • MooGate600-4G: average $\leq 8.7W@DC24V$, peak $\leq 13.7W@DC24V$

Technical Specifications

Connection method	3-position 5.08mm pitch locking terminal block
Physical Characteristics	
Dimension	160×58×122(mm) (excluding rail and connector dimensions)
Installation Method	Easy installation on 35mm DIN rails
Housing protection	Aluminum alloy housing, IP40
Weight	About 0.85kg (excluding antenna)
Working Environment	
Operating Temp	-40°C~+75°C
Storage Temp	-40°C~+85°C
Relative Humidity	5%~95% (non-condensing)
Industry 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; Network port: common mode ±6kV, differential mode ±2kV; Serial port: common mode ±4kV, differential mode ±2kV) IEC 61000-4-4 (EFT): Level 4 (power supply: ±4kV; network port, serial port: ±2kV)
Certification	CE, FCC, RoHS

Dimension

