



Product Features

- ARM Cortex-A7 , 1.1GHz
- 2 x fully isolated RS485 (RS232 multiplexed) interfaces
- 1 x 100M/10M Ethernet interface
- Multi-protocol support: Modbus , BACnet , OPC UA , IEC104 , DLT/645 , S7 , etc.
- Supports MQTT cloud communication
- Supports online monitoring via web services
- Supports alarm settings and push notifications
- Support edge computing
- Supports JavaScript scripts for logic control
- Supports remote monitoring and firmware upgrades
- Operating temperature: -40 ~ 85°C
- Supports 4G routing
- Supports a maximum of 256 data points



Product Introduction

The LM Gateway203-IoTmini gateway is a protocol converter for the Industrial Internet of Things (IIoT), acting as a bridge between OT devices and cloud platforms, SCADA , and MES systems.

The gateway embeds a standard data acquisition driver and provides integration with proprietary protocols. It provides data externally as a Modbus , BACnet , and OPC UA service.

The gateway and cloud platform use MQTT and HTTP protocols to transmit data, providing a unified data interface, making them an ideal choice for digital factories, smart buildings, and energy management.

Product Specifications

Hardware parameters	Certification	RoHS , CE , FCC Class A
	Memory	64MB DDR2 high-performance memory
	Nand Flash	256MByte SLC Flash
	Power supply	DC9V ~ 48V / AC12V ~ 30V , supports reverse connection protection, lightning protection, overcurrent protection, etc.
	LED indicator light	POWER , SYS , serial port transmit/receive indicators
	SIM card slot	1xSIM
	Enclosure protection rating	IP50
	Power consumption	The maximum average power consumption of the entire device is ≤ 5W . Under extreme conditions, the instantaneous peak power consumption of wireless data transmission may reach 10W . The effective output power of the power supply provided by the user must be >10W.
	Installation method	Supports wall mounting and DIN rail back mounting, DIN rail side mounting.
	SIM card	Micro SIM card (12 × 15mm)
I/O interface	Serial port	1xRS485
	Network port	1xLAN port
	Power connector	1x3-pin terminal
Environmental parameters	Operating relative humidity	20-90 % No condensation
	Relative humidity during storage and transportation	15 % –95 % No condensation

Northbound Data Services

The gateway provides various data services for automatic control systems such as SCADA , power, and BA.

- Modbus service
- BACnet service
- OPC UA service
- IEC104 service
- OPC XML-DA Server

IoT

The gateway communicates with the cloud server via the MQTT protocol.

- Standard MQTT client
- AWS
- IoTDA
- Azure
- Customized private cloud connection
- LM ThingsIoT Value-Added Cloud Services

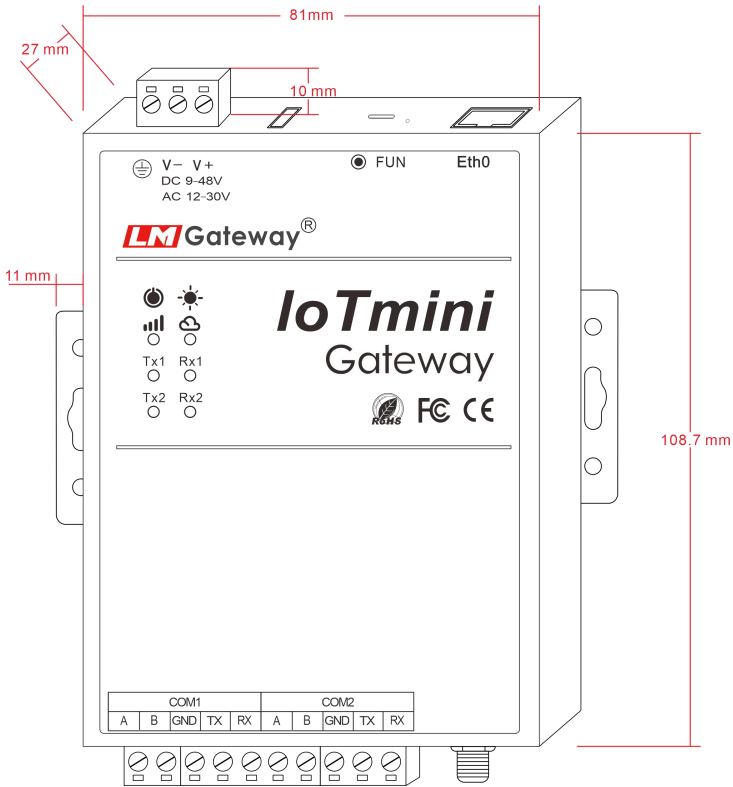
LM Gateway203-IoTmini

List of southbound data acquisition drivers (supports customization of private protocols)

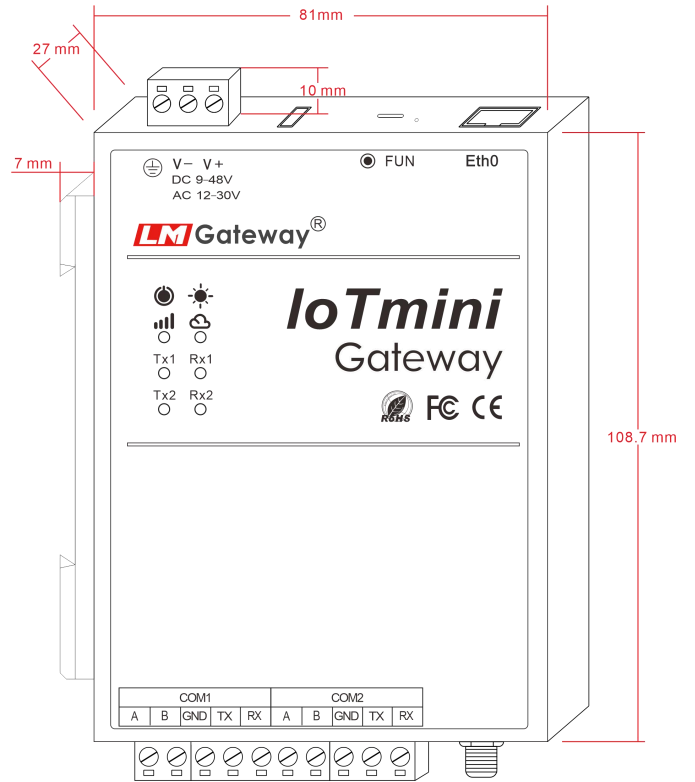
	Data acquisition driver	Serial port	Network port
Meter	Modbus	Modbus RTU	Modbus TCP
		ModbusAscii	Modbus RTU_over_TCP
		ModbusRTUBroadcast	
		Modbus RTU monitoring	
	DLT645	Modbus RTU service	
		DLT645-1997	DLT645_over_TCP
		DLT645-2007	
DLT645.98			
	DLT645 monitoring		
CJ188	CJ188	CJ188_over_TCP	
Mbus	Mbus_EnergyMeter		
	Mbus_EN1434		
Flow meter	LJS ZLJS Flow Meter		
PLC	Mitsubishi	Mitsubishi FX3U	MC_Qna-3EBinary
		Mitsubishi FX485	MC_Qna-1EBinary
			EtherNet /IP CIP
	Siemens	Siemens S7-200 PPI	Siemens S7
			FetchWrite
	AB	Allen_Bradley_DF1	AB NET
	Omron	HOSTLINK-FINS	OMRON_FINS
		HOSTLINK-CMODE	
	Matsushita	Mewtocol	EtherNet /IP CIP
	Yokogawa		Yokogawa PLC
	Fuji		FUJI_SPH_NET
Keyence		Keyence host link communication	
Fatek	Fatek	Fatek	
Inovance		H5U	
Beckhoff		Ads	
OPC			OPC UA
			OPC DA
			OPC XML DA
IEC			IEC104
			IEC61850
CNC			FANUC
			Kane
			Siemens
Smart Building	BACnet	BACnet MS/TP	BACnet IP
		BACnet Router	
		Hitachi Elevator	
	EBM		
Smart lighting			KNX IP
ups		MegaTec Three-Phase UPS	
		SANTAK UPS	
Fire alarm		GST Gulf Controller	
Hydrology and Environmental Protection	HJ/T 212	HJ/T 212 Serial Port Monitoring	HJ/T 212 Network Port Monitoring
			Hydrological monitoring SL651-2014
database			SQL Server
			MySQL
IT Interface			MQTT client
			HTTP client

Gateway dimensions and installation diagram

- Back rail and hanging ear installation



- Side rail installation



Remark:

How to distinguish the positive and negative terminals of the power supply for gateway accessories: The one marked with a letter is negative, and the one completely black is positive.