

PRODUCT INTRODUCTION

LM Gateway202-IoT provides 4 RS-485 serial ports and 1 10/100 Mbps Ethernet port. The data acquisition drivers such as Modbus, BACnet, OPCUA, DLT645, Siemens PLC are embedded in the gateway, providing private protocol driver integration. The gateway can be used as Modbus RTU, Modbus TCP server to provide external data. The gateway and cloud platform use the instant messaging protocol MQTT to transmit data. The gateway can be used as an MQTT client to connect to Alink (Alibaba Cloud), Amazon cloud and so on. The data points of the gateway are pushed to the cloud through the mechanism of subscription and published, and the cloud can read and write to the collected device through the gateway, which supports disconnected storage.



HARDWARE SPECIFICATION

LM Gateway202 Hardware parameters:

CPU	ARM926EJ, clocked at 240MHz
RAM	32MByte high performance memory
Nand Flash	128MByte SLC Flash
Serial port	4 fully isolated RS485 interfaces
Network port	1 100M/10M Ethernet interface
Power supply	DC9V~36V, Support anti-reverse connection, lightning resistance, overcurrent and other protection
Total Weight	210g
Enclosure rating	IP51
Installation size	144mm×83.5mm×27mm(L×W×H)
Mechanical installation	DIN rail card slot fixing
LM Gateway202 Environmental parameters:	
Power consumption	The biggest power consumption is ≤3W
Operating temperature	-40~80℃
Humidity	20~90% non-condensing

INTERFACE DEFINITION

1. POWER

SIGNAL	DESCRIPTION
V+	Positive power supply
V-	Negative power supply
E	Safety ground

2. DC, 5.5*2.1mm

In the environment of poor power quality, it is recommended to use a switching power supply which can effectively improve the anti-interference ability of the gateway.

3. Network port

- 10/100M high speed adaptive network card;
- It adopts dual-level lightning protection and anti-static protection to resist 2KV lightning strikes;
- Unique MAC address.

LAN	IP	Subnet mask
Eth0	192.168.1.233	255.255.255.0

4. CON

PIN	SIGNAL	DESCRIPTION
1	COM1-A	RS485-1 Positive signal
2	COM1-B	RS485-1 Negative signal
3	COM1-GND	Signal ground
4	COM1-TX	RS232-1 Signal sender
5	COM1-RX	RS232-1 Signal receiver
6	COM2-A	RS485-2 Positive signal
7	COM2-B	RS485-2 Negative signal
8	COM2-GND	Signal ground
9	COM2-TX	RS232-2 Signal sender
10	COM2-RX	RS232-2 Signal receiver

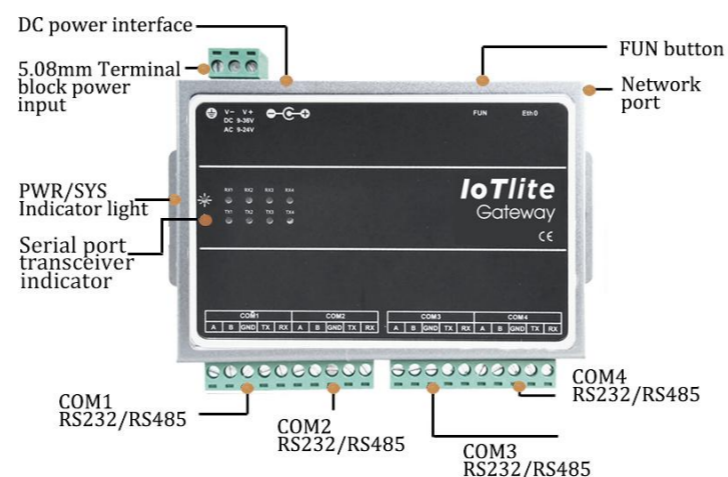
RS485:

- Fully isolated RS485 interface with three levels of protection ;
- Supports the highest level of 4KV protection for the 10/700uS test in the GB/T 17626.5-2008 standard;
- ±15kV human body discharge mode;
- ±15kV IEC1000-4-2 air gap discharge;
- Communication parameters can be configured, default communication parameters: 9600, 8-1-N.

5. LEDx-Lighting

PIN	Signal	DESCRIPTION
1	POWER	Power indication
2	SYS	System operation indication
3	TX1-RX1	Serial port sending and receiving indication, left side sending indication, right side receiving indication
4	TX2-RX2	Serial port sending and receiving indication, left side sending indication, right side receiving indication

INTERFACE REMARKS



DATA SERVICE

- The gateway acts as a Modbus RTU and Modbus TCP server to provide external data. It supports 4 functional areas(0x, 1x, 3x, 4x) & various types of data(int16, int32, float32, etc.)
- The gateway can be used as an MQTT client to connect to Alibaba Cloud, Amazon Cloud, etc. The data points of the gateway are pushed to the cloud through the mechanism of subscription and published, and the cloud can read and write to the collected device through the gateway.
- The gateway provides an http server, which supports two common methods (GET and POST). Users can retrieve real-time data and stored historical data of the gateway through the http server interface.
- Support data points up to 1000.

DATA OPERATION

Support arithmetic & functions operations, logical judgments, Boolean operations.

IoT

The gateway can communicate with the cloud server via the MQTT protocol. Support Alibaba Cloud, LM Cloud and other private cloud servers. LM Cloud, which can facilitate users to verify data on the cloud, cloud services, WeChat public accounts and other Internet of Things applications.

ALARMS AND EVENTS

The Alarms and Events page allows the user to set the trigger condition for the event, trigger the event when the condition is met, and perform the event release when the state transitions from the satisfied condition to the unsatisfied condition.

MISSION PLAN

The user establishes a mission plan that specifies the values for multiple points for the day of the week and time period. Please calibrate the gateway time before using the mission planning function.

JavaScript EDITING

JavaScript script editor built-in function, user can customize logic control by editing script language.

CONFIGURING THE GATEWAY

LAN operation steps

1. Power the gateway;
2. Connect the LM Gateway202 to the computer or switch using a crossover cable; (PS. the gateway and the computer are in the same network segment);
3. Use the tool software to configure the data acquisition gateway. For the operation, see the configuration manual of the configuration tool.

Remote operation steps

1. Open the browser and enter the URL <http://hub.iotddc.com>
2. Generate the gwID and write it to the gateway through the configuration tool
3. After the gateway is restarted, the gateway can be operated remotely.

More specific operation, click here:

<http://www.lmgateway.com/images/2.3config.mp4>

[Download Configuration Tool](#)

CONTACT US

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	Data acquisition driver	Serial port	Network port		
Instrumentation	Modbus Protocol	Modbus RTU ModbusAscii	Modbus TCP Modbus RTU_over_TCP		
	DLT645 Protocol	DLT645-1997 DLT645-2007 DLT645.98	DLT645_over_TCP		
		CJ188 Protocol	CJ188	/	
		Mbus Protocol	MBus_EnergyMeter MBus_EN1434	/	
	PLC	MitsubishiProtocol	Mitsubishi Fx3U Mitsubishi Fx485	MC_Qna-3EBinary MC_Qna-1EBinary	
Siemens Protocol		Siemens S7-200 PPI	Siemens S7-200 Network Siemens S7-300 Network Siemens S7-400 Network Siemens S7-1200 Network Siemens S7-1500 Network FetchWrite		
			AB	/	AB NET
			HOSTLINK	HOSTLINK-FINS HOSTLINK-CMODE	OMRON_FINS
			Panasonic	Mewtocol	/
			YOKOGAWA	/	YOKOGAWA PLC
FUJI		/	FUJI_SPH_NET		
Eco protection		212Protocol	Environmental protection 212 protocol serial monitoring	Environmental protection 212 protocol network port monitoring	
Building communications		BACnet Protocol	BACnet MS/TP	BACnet IP KNX	
				OPC UA OPC DA OPC XML DA	
Industrial control, automation interface standards	OPC Protocol	/			
Substation communication standards	IEC Protocol	/	IEC104		
CNC	FANUC		FANUC		