MLG020 Series Gateway

MLG020 is a multi-functional data transmission and monitoring management gateway. It has the characteristics of small size, convenient installation and multiple interfaces that enable to connect various acquisition cards to collect data. It supports Ethernet, WIFI, Zigbee, 4G, RS485, LoRa and various communication modes. It is equipped with TYPE-C port as standard configuration, easy to set up and operate. Up to 256 channels of data acquisition is supported.

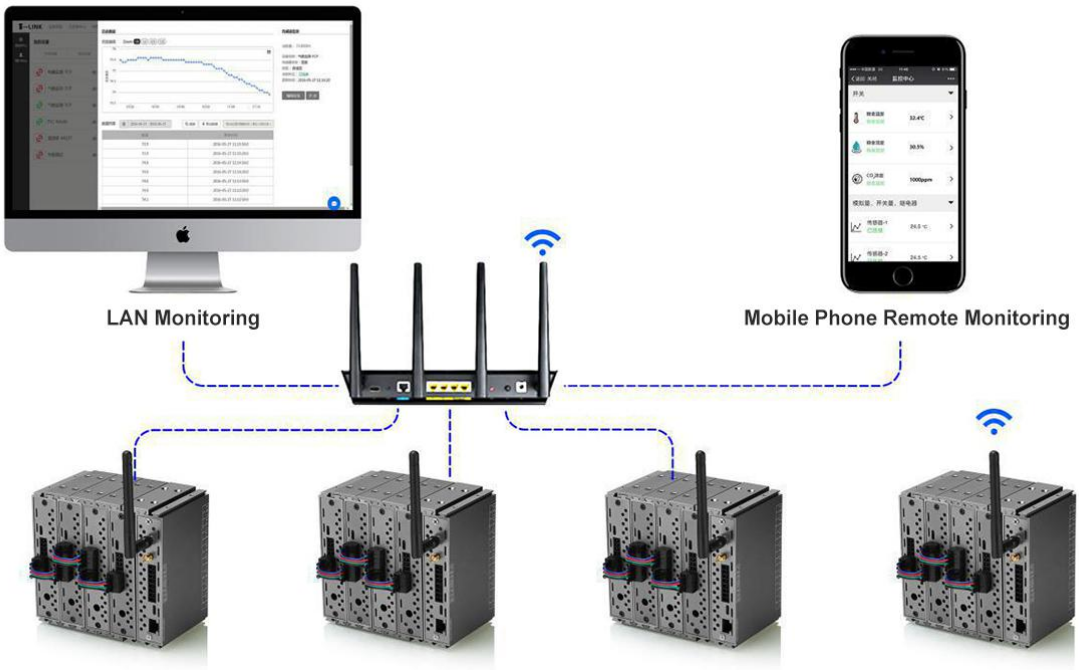
High Scalability
The standard configur-ation is Ethernet, RS48 5, TYPE-C communic-at ion ports. Wifi, 4G full Netcom/ Global Communication, GPRS, Zigbee, LoRa and etc are optional, suitable for various scenes.

High Stability
The host has undergone cyclic continuous tests in harsh environments such as high and low tempera-ture, and high humidity for months under full loa dcondition, and laid the foundation for industrial use.

High Processing Performance
The host can support up to 256 channels of data collection, which is equivalent to simultaneous connecting of 32 MST530 modules or 128 H401 temperature and humidity devices.

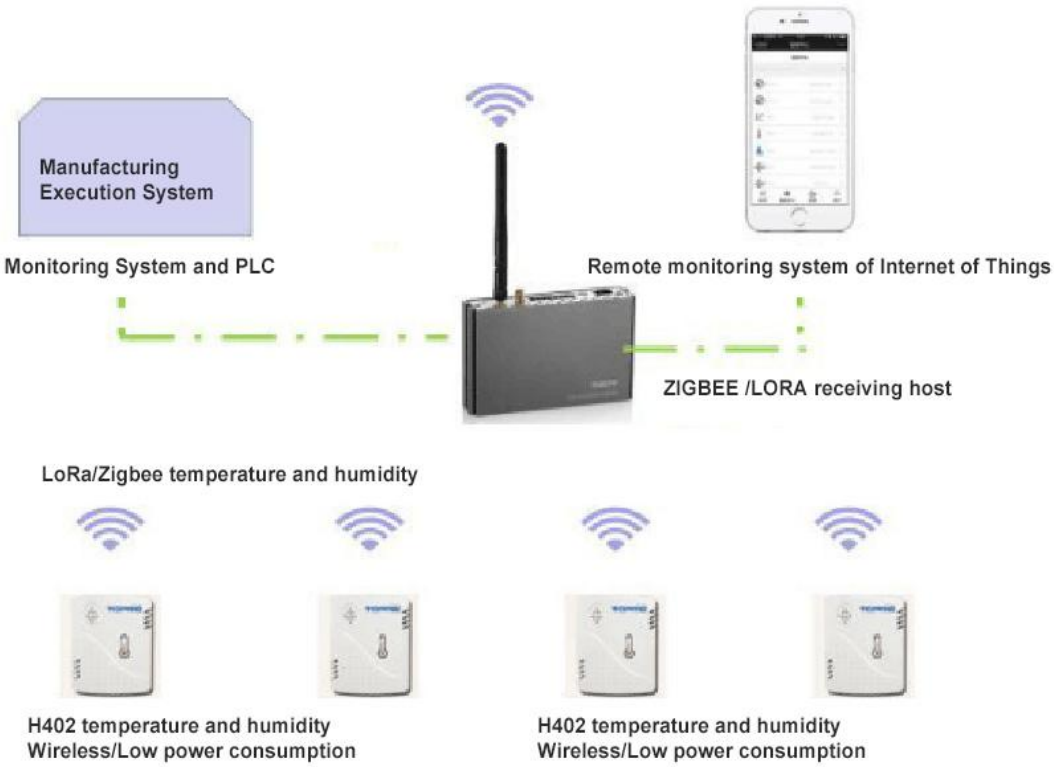
Various Applications of MLG020 Host and Data Acquisition Site

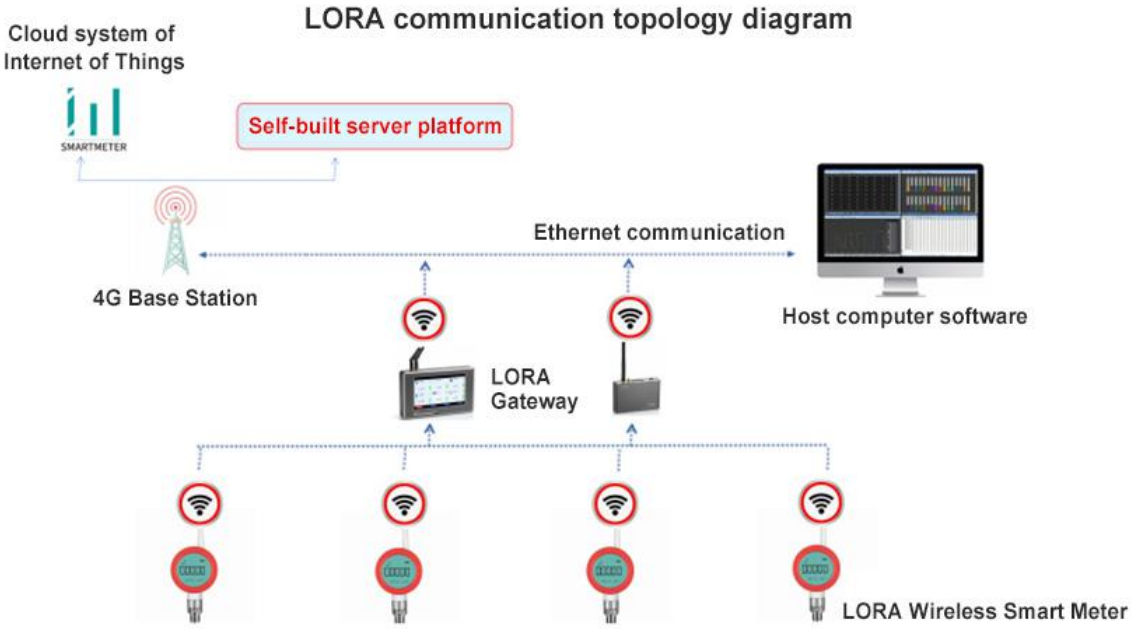
1. The combination of MLG020 host and MST530 series modules monitors via Ethernet (wifi) LAN (Internet of Things)



2. The combination of MLG020 host and MST530 series connects to the system via Ethernet (wifi)

3. The combination of MLG020 host and MST530 series connects to the system or monitoring equipment via Ethernet (wifi)





Successful Cases

BYD battery aging, temperature & humidity monitoring system (connecting MES)

Shennan Circuit Workshop Wireless Monitoring System

Jilin Railway Tunnel Wireless Monitoring System

Model Description

Product Model #	Model Description	Remarks
MLG020-A	/	The standard configuration is RS485 two-channel (one master and one slave), Ethernet communication, TYPE-C port
MLG020-Z	Zigbee wireless communication	
MLG020-L	Lora wireless communication	
MLG020-4G	4G wireless communication	The standard configuration is RS485 two-channel (one master and one slave), Ethernet communication, TYPE-C port
MLG020-W	Wifi wireless communication	
MLG020-Z-G	ZIGBEE, GPRS dual wireless	
MLG020-Z-W	ZIGBEE, WiFi dual wireless	
MLG020-Z-4G	ZIGBEE, 4G dual wireless	
MLG020-L-G	LORA, GPRS dual wireless	
MLG020-L-W	LORA, WiFi dual wireless	
MLG020-L-4G	LORA, 4G dual wireless	

Specifications

Power supply voltage: DC8-28V

Working current: 150mA (24v)

Configuration method: TYPE-C port configuration

Working temperature range: -20℃~60℃

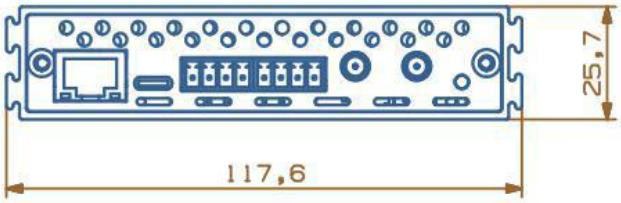
Storage temperature range: -10℃~50℃

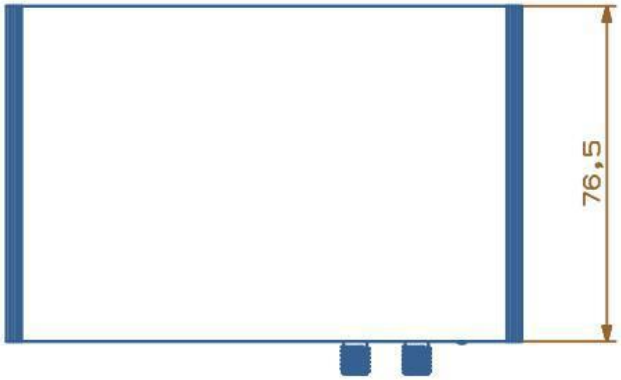
Working humidity range: less than 95%R.H, no condensation

Host weight: about 0.8Kg max

Interface	Type	Mode	Address	Protocol	Communication Parameters	Data Format	Supporting device	Extended Function
Network port	Output	Slave, connected to cloud platform	0 by default, configurable	Modbus RTU	Network port	32-bit floating point	/	/
		Server, connected to local host computer, compatible with recorder		Modbus TCP	Network port		/	/
		Slave, connect to local server or host computer		Modbus RTU	Network port		/	/
2G/4G/WIFI (choose either)	Output	Slave, connect to cloud platform	0 by default, configurable	Modbus RTU	2G/4G	32-bit floating point	/	/
		Slave, connect to cloud or local		Modbus RTU	WIFI		/	/
RS485-1	Output	Slave	0 by default, configurable	Modbus RTU	9600,8，N，1	32-bit floating point	/	/
RS485-2	Input	Host	The start and end address is configurable, the system will automatically close this function when the address is empty	Modbus RTU	9600,8，N，1	32-bit floating point	MST530_New	
ZIGBEE	Input	Receiver	Network number can be modified	Advantech Active Reporting Agreement, H401TH Active Reporting Agreement	Zigbee_ stack	Depends on agreement	MST530,H401	
LoRa	Input	Receiver	Network number can be modified	Advantech Active Reporting Agreement, H401TH Active Reporting Agreement	433MHz/470-510MHz	Depends on agreement	MST530/H401/TP402 TP2400	
USB（Type-C）	Input/ Output	Configuration, debugging						

Product Dimension





Register List

MST530 Register Address Occupied:

Parameter Category	Register Address		Register Name	Contents	Operation
	hexadecimal	decimal			
Measured values	00-1FFH	0-511	DataValue [0] - DataValue [511]	Receive external data value, a total of 256 channels (The number MST530 can be connected is 256/8 = 32; the number H401 can be connected is 256/(2*the number of channels of the single device))	Read only

Device type	Device Address	Register Address Occupied	Total Number Connectable
MST530	**1**	**0-15**	
	2	**16-31**	
	...		
	32	**496-511**	**32**

MST530 Calculation formula of register: 01

Reg_add = device_add * 16 + 2 * ch_id;
Reg_add: register address;
ch_id: Channel no. of device.The channel number of each MST530 starts from 0-7

2.6 Meaning of Indicator Lights

Light color	Green	Constant red	Flashing violet	Flashing red	Flashing yellow	Flashing sky-blue
Status	Normal	The wireless communication module fails to start, the wireless communication module is abnormal	Abnormal GPRS network or WIFI connection	The wireless connection to the server, or the network port function socket connection fails	SIM card is abnormal	Wireless network, signal is too poor
Solutions	/	If the device reset has no wireless transmission function, go to the configuration tool to turn off the wireless device; for other cases, contact the after-sales of the original factory.	Check if the WIFI account configuration is wrong, or GPRS SIM card is still in credit or it has expired.	Check if the network configuration is wrong, if there is no error, check if the WIFI network is interrupted or if the host computer is connected or if the network is normal.	Wipe the SIM contact surface and insert it into the SIM slot of the device.	Check if the antenna connection is firm; still not working, change the device placement position.

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