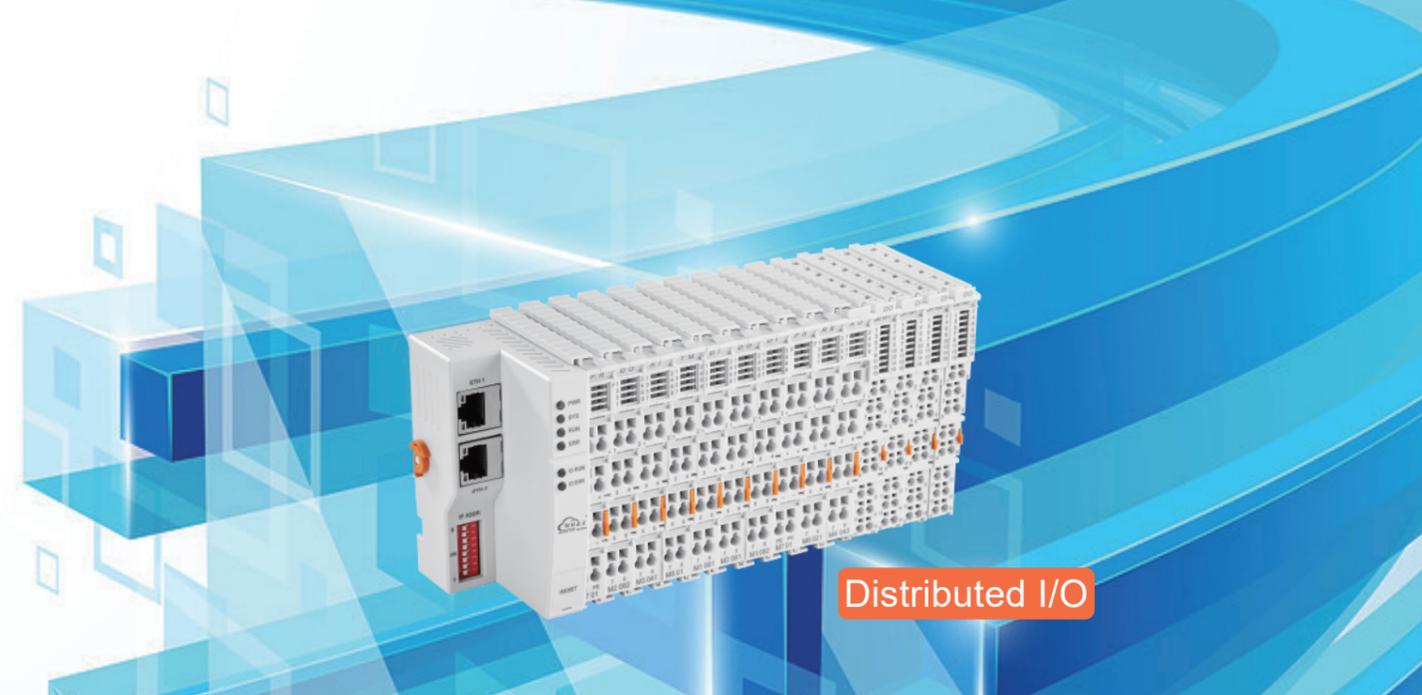




|| SHENZHEN BEILAI TECHNOLOGY CO., LTD. ||



Distributed I/O

Beilai Technology Product Catalog

BLIIoT is your Reliable IIoT Partner

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BLIIoT website



MQTT Gateway



PLC Gateway



IIoT Gateway



About BLIIoT

▲ Shenzhen Beilai Technology was established in 2005, and with currently more than dozen years of experience in R&D, production and sales of IIoT Gateway, 4G Edge Router, Ethernet I/O Module, EdgeIO, 4G RTU, Industrial Computer.

Beilai Technology products are widely applicable to IoT, IIoT, industrial automation, smart city, smart EV Charging, smart water management, smart energy, OEE monitoring, digital factory, building automation, and other industries.

Beilai Technology will continual investing in future research and development of new products in order to meet and keep ahead of real, varied, and potential requirement of clients from more than 200 different countries and regions around the world.

• **Beilai is the pinyin of barium-rhenium in Mandarin. Barium is a lively element, and rhenium is the last element discovered by human beings. The meaning of barium-rhenium is to be brave in innovation and explore the most cutting-edge technology.**

• BLIIoT Your Reliable IIoT Partner



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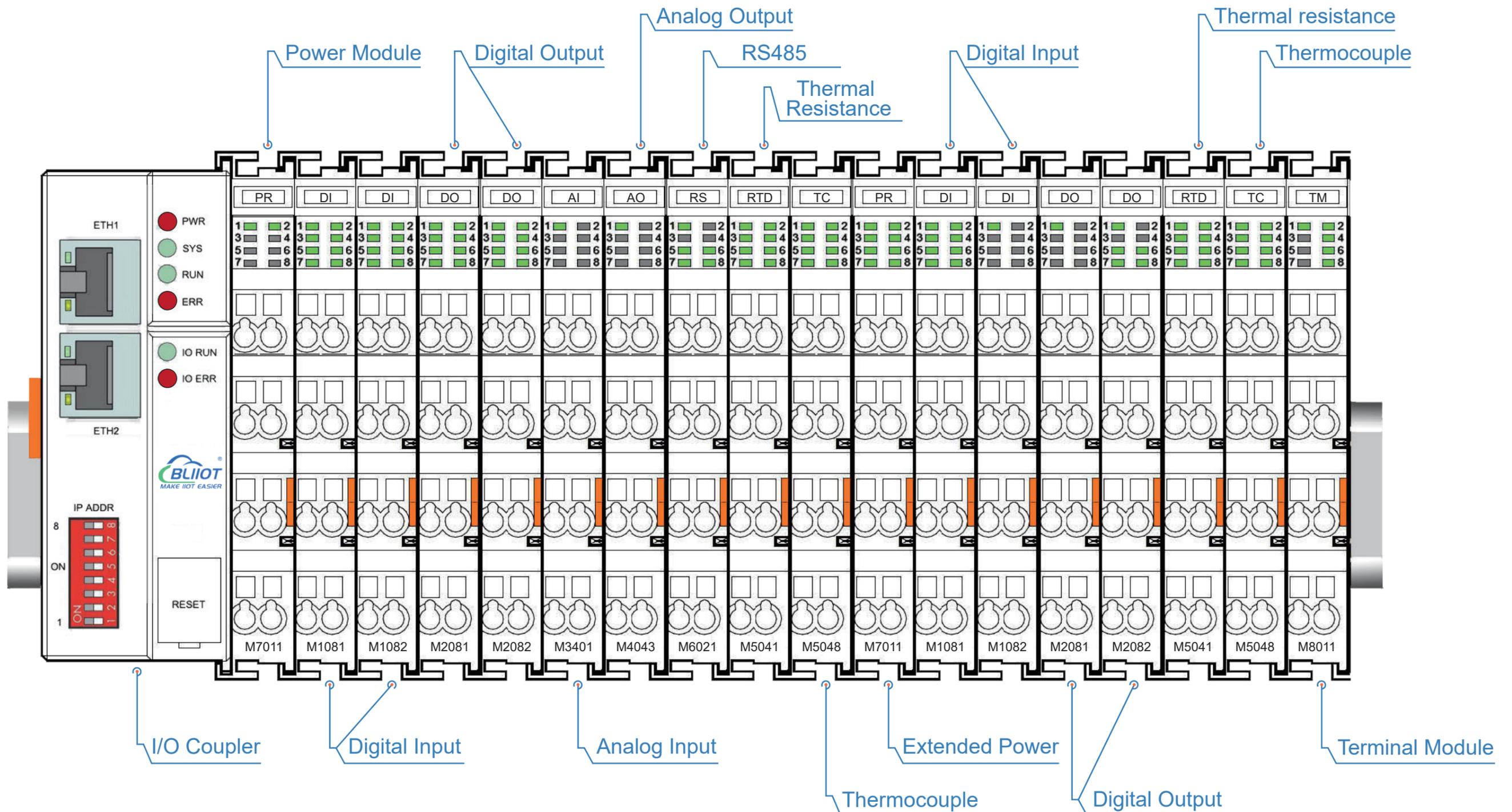
Certifications and Honors



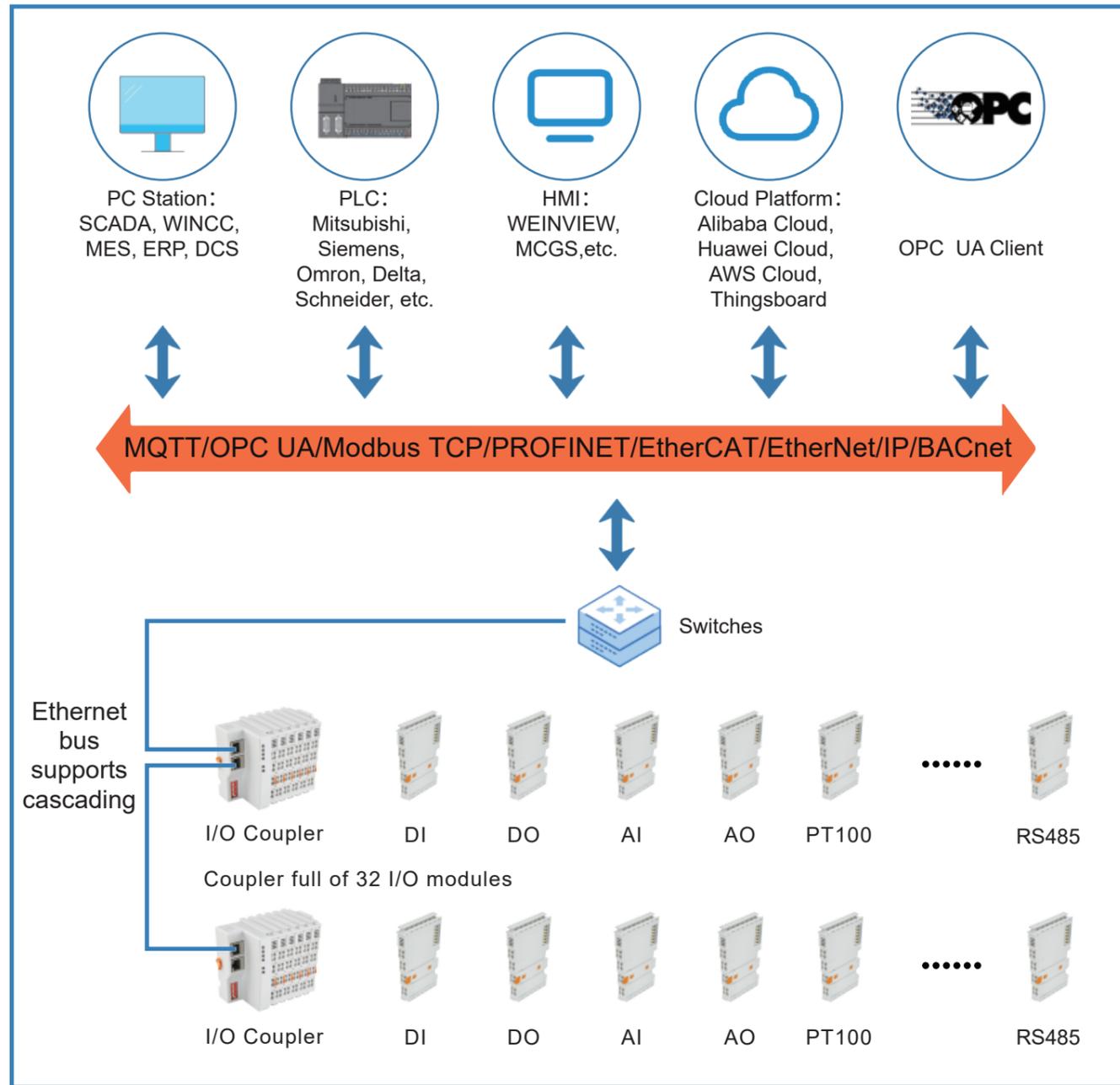
Distributed I/O System

BL200 series Edge I/O System consists of two parts : Edge I/O controller and max 32 I/O modules. Various types I/O modules are optional, such as DI, DO, AI, AO, RTD, TC, etc. The Edge I/O controller supports Modbus TCP, MQTT, OPC UA, PROFINET, EtherCAT, EtherNet/IP, BACnet protocols.

It can quickly access to PLC, MES, SCADA and ERP systems, and also be able to connected to AWS , Thingsboard, Ignition cloud. BL200 supports programmable logic control, edge computing, customization applications, it is very suitable for IIoT and industrial automation.



Application Topology Diagram

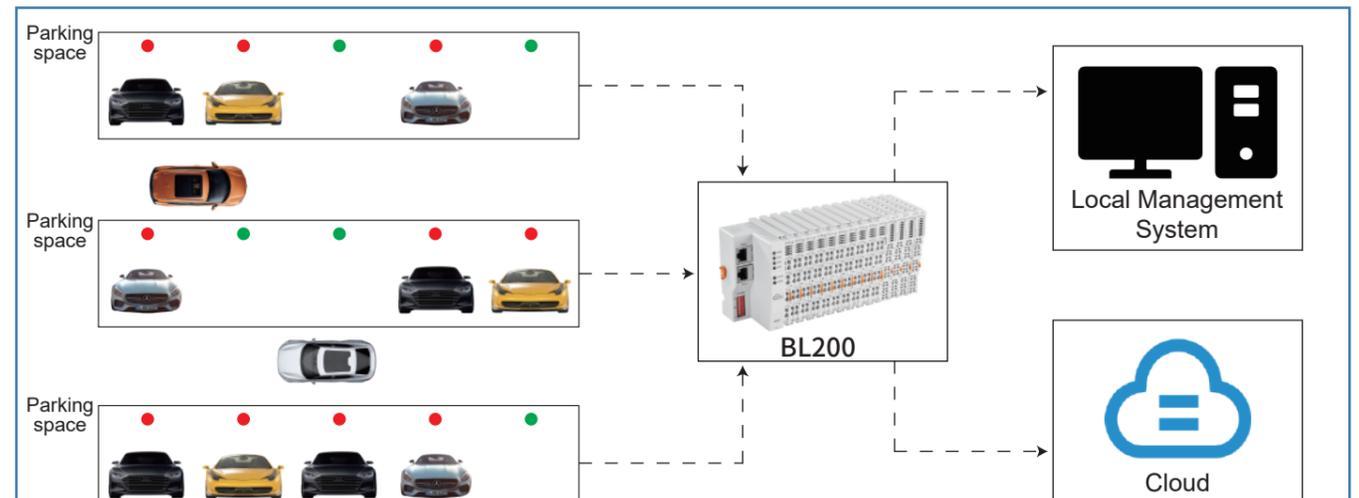


input/output, PT100/PT1000, TC, pulse input/output, RS485 and other I/O signals. BL200Pro supports Modbus TCP, OPC UA, MQTT 3 kinds of communication protocols to connect to the cloud and the host computer, built-in Edge function, without the host computer and the cloud or PLC can realize the local I/O signal linkage control, which greatly improves the response speed of the site and relieves the pressure of data processing of the host computer in the cloud.

Selection table

Model	BL200	BL205	BL206	BL206Pro
Protocols	Modbus TCP	OPC UA	MQTT	Modbus TCP+OPC UA+MQTT
I/O Module	Each controller can accommodate up to 32 I/O modules			
I/O Channels	Each I/O module includes up to 16 channels			
Transmission Medium	Ethernet CAT5 cable			
Connection Method	2 x RJ45			
Transmission Rate	10/100 Mbit/s			
Transmission Distance	100m (Station distance)			
Logic Operations	Built-in logic operation function			
Max. number of links	15			
Electric Isolation	Yes			

Typical Application : Smart Parking Lot Vehicle Occupancy Monitoring



EdgeIO controller, applied to smart parking booth monitoring, the controller provides up to 512 points of parking space occupation status monitoring channel, through the network port can be reported to the local management system and cloud platform at the same time, economical and practical.

EdgeIO Controller

BL200Pro I/O controller is capable of Edge Computing, it is developed by BLIIoT for the next generation of IIoT, which has various functions such as signal acquisition and control, data calculation, logic linkage, data uploading to the cloud and abnormality reporting. The controller adopts pluggable design users can freely combine I/O according to the demand, each I/O controller can accommodate up to 32 I/O modules, each module includes up to 16 channels using high-speed backplane communication, I/O module support digital input/output, analog

BL202 -- EtherCAT Bus Coupler

Bus Protocol	EtherCAT
I/O Module	Maximum 32 I/O modules
Transmission Medium	Ethernet CAT5 Cable
Connection Method	2 x RJ45
Transmission Rate	10/100 Mbit/s
Transmission Distance	100m (Station distance)
Electrical Isolation	Yes



BL203 -- EtherNet/IP Bus Coupler

Bus Protocol	EtherNet/IP
I/O Module	Maximum 32 I/O modules
Transmission Medium	Ethernet CAT5 Cable
Connection Method	2 x RJ45
Transmission Rate	10/100 Mbit/s
Transmission Distance	100m (Station distance)
Electrical Isolation	Yes



BL201 -- PROFINET Bus Coupler

Bus Protocol	Profinet
I/O Module	Maximum 32 I/O modules
Transmission Medium	Ethernet CAT5 Cable
Connection Method	2 x RJ45
Transmission Rate	10/100 Mbit/s
Transmission Distance	100m (Station distance)
Electrical Isolation	Yes



BL207 -- BACnet IP Bus Coupler

Bus Protocol	BACnet IP
I/O Module	Maximum 32 I/O modules
Transmission Medium	Ethernet CAT5 Cable
Connection Method	2 x RJ45
Transmission Rate	10/100 Mbit/s
Transmission Distance	100m (Station distance)
Electrical Isolation	Yes



Technical Parameters

Name	Parameter	Description	
System power supply	Power supply (system)	24 VDC	
	Input current (system)	Max.500 mA@24VDC	
	Internal bus voltage	5VDC	
System	Coupler current consumption	Max.300mA@5VDC	
	I/O module current consumption	Max.1700mA@5VDC	
	Isolation protection	500 V system/supply	
	Power supply (onsite)	24 VDC	
	Power supply cross-contact current (max.)	10 ADC	
	Quantity	2 x RJ45 10/100 Mbit/s	
Environment	Isolation protection	ESD contact: 8KV , Surge: 4KV (10/1000us)	
	Connection technology	Cage-spring connection technology	
	Operating temperature	0 ... 55 °C	
	Storage temperature	-40 ... 70 °C	
	Relative humidity	5 ... 95% No condensation	
	Working altitude	0 ... 2000 m	
Size	Protection type	IP20	
	Coupler size	100mm x 48mm x 69mm	
Certification	Installation method	DIN-35 type rail	
	EMC		EN 55022: 2006/A1: 2007 (CE &RE) Class B
			IEC 61000-4-2 (ESD) Level 4
			IEC 61000-4-3 (RS) Level 4
			IEC 61000-4-4 (EFT) Level 4
			IEC 61000-4-5 (Surge)Level 3
			IEC 61000-4-6 (CS)Level 4
		IEC 61000-4-8 (M/S) Level 4	

Distributed I/O System - Digital Input Modules

Channels	8 /16 Channels
Type	PNP/NPN
Power supply	5V DC
Current consumption	Max. 60 mA@5VDC
Installation method	DIN35 Rail
Isolation protection	2KVrms



Selection

M1081	8 Digital PNP type inputs	M1161	16 Digital PNP type inputs
M1082	8 Digital NPN type inputs	M1162	16 Digital NPN type inputs

Distributed I/O System - Digital Output Modules

Channels	8 /16 Channels
Type	PNP /NPN/ Thyristor /Relay
Power supply	5V DC
Current consumption	Max. 60 mA@5VDC
Installation method	DIN35 Rail
Isolation protection	2KVrms



Selection

M2081	8 Digital PNP type outputs	M2161	16 Digital PNP type outputs
M2082	8 Digital NPN type outputs	M2162	16 Digital NPN type outputs
M2083	8 Digital Thyristor type outputs	M2163	16 Digital Thyristor type outputs
M2084	8 Digital Relay type outputs	M2164	16 Digital Relay type outputs

Distributed I/O System - Analog Input Modules

Channels	2/4/8 Channels
Input method	Single-ended input
Input Type	0 ~20mA / 4 ~ 20mA / 0~5V / 0~10V / -10~10V
Resolution	12 Bit
Accuracy	1 % FSR @ 25 °C
Sampling Cycle	12 ms
Input Impedance	120 Ω



Selection

M3021	2 Analog 4~20mA inputs	M3044	4 Analog 0~10V inputs
M3022	2 Analog 0~20mA inputs	M3045	4 Analog -10~10V inputs
M3023	2 Analog 0~5V inputs	M3081	8 Analog 4~20mA inputs
M3024	2 Analog 0~10V inputs	M3082	8 Analog 0~20mA inputs
M3025	2 Analog -10~10V inputs	M3083	8 Analog 0~5V inputs
M3041	4 Analog 4~20mA inputs	M3084	8 Analog 0~10V inputs
M3042	4 Analog 0~20mA inputs	M3085	8 Analog -10~10V inputs
M3043	4 Analog 0~5V inputs		

Distributed I/O System - Analog Output Modules

Channels	2/4/8 Channels
Output method	Single-ended output
Output Type	0~20mA / 4~20mA / 0~5V / 0-10V / -10~10V
Resolution	12 Bit
Accuracy	1 % FSR @ 25 °C
Conversion time	10ms
Load impedance	≥1KΩ



Selection

M4021	2 Analog 4~20mA outputs	M4044	4 Analog 0~10V outputs
M4022	2 Analog 0~20mA outputs	M4045	4 Analog -10~10V outputs
M4023	2 Analog 0~5V outputs	M4081	8 Analog 4~20mA outputs
M4024	2 Analog 0~10V outputs	M4082	8 Analog 0~20mA outputs
M4025	2 Analog -10~10V outputs	M4083	8 Analog 0~5V outputs
M4041	4 Analog 4~20mA outputs	M4084	8 Analog 0~10V outputs
M4042	4 Analog 0~20mA outputs	M4085	8 Analog -10~10V outputs
M4043	4 Analog 0~5V outputs		

Distributed I/O System - PT100 Modules

Channels	2/4 Channels
Type	PT100/PT1000
Power supply	5V DC
Current consumption	Max.60 mA@5VDC
Installation method	DIN35 Rail
Isolation protection	2KVrms



Selection

M5021	2 PT100 2-wire input	M5041	4 PT100 2-wire input
M5022	2 PT1000 2-wire input	M5042	4 PT1000 2-wire input
M5023	2 PT100 3-wire input	M5043	4 PT100 3-wire input
M5024	2 PT1000 3-wire input	M5044	4 PT100 3-wire input

Distributed I/O System - Serial Port Module

Channels	2/4 Channels
Type	RS485/RS232
Baud rate	1200~230400(Default 9600)
Data bits	8
Check bits	None/Odd/Even
Stop bits	1/2
Cache	16 Byte
Interface Protection	ESD contact: 8KV Surge: 4KV (8/20us)



Selection

M6021	2 x RS485 serial port	M6023	1 x RS485 + 1 x RS232 serial port
M6022	2 x RS232 serial port		

Dual Ethernet I/O Module

Dual Ethernet I/O Module

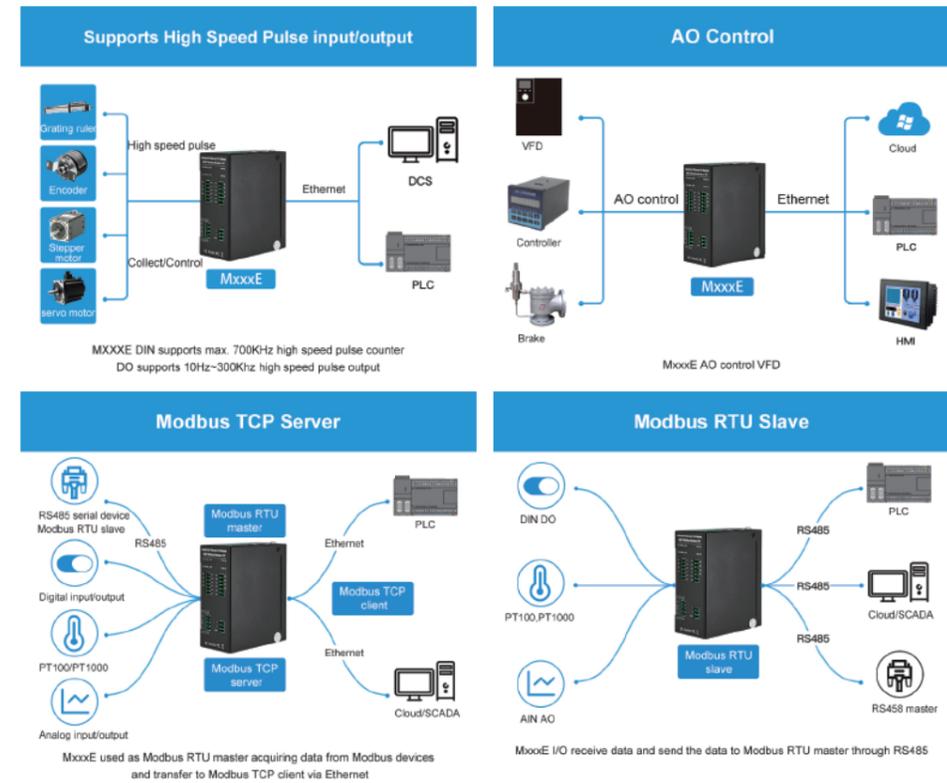
Product Series: MxxxE

MxxxE series dual Ethernet I/O modules are designed for IIoT and automation control systems. The I/O module equipped with 2 Ethernet ports of mac layer data exchange chips, allowing for data to flow freely down to another local Ethernet device or up to a server through a scalable daisy-chained I/O array. Applications such as factory automation, security and surveillance systems, and tunneling communications can utilize daisy-chained Ethernet to build multipoint I/O networks over standard Ethernet cables. The daisy-chaining capability of MxxxE I/O not only increases the scalability and installation possibilities of remote I/O applications, but also reduces overall costs by reducing the need for separate Ethernet switches, labor and wiring costs.



Parameters	Descriptions
Digital Input	Optional wet/dry contact. The first channel can be as pulse counting. Maximum pulse frequency: 700KHz.
Digital Output	The output is triode SINK output. The first DO support pulse output function, pulse output frequency: 10Hz ~ 300KHz.
Analog Input	Supports 12-bit resolution 0~5V, 0~10V, 0~20mA, 4~20mA differential inputs.
Analog Output	Supports 12-bit resolution 0~10V DC.
RTD Input	Supports 12-bit resolution PT100 or PT1000 input.
TC Input	Support B, E, J, K, N, R, S, T thermocouple models
RS485 Serial port	1 RS485, standard Modbus RTU protocol
Ethernet port	2 RJ45, standard Modbus TCP and MQTT protocol, supports 5 TCP client links simultaneously when used as a Modbus TCP server
Communication	Standard Modbus TCP protocol and Modbus RTU over TCP protocol, MQTT protocol
Power consumption	Normal: 50mA@12V, Max: 150mA@12V.
Power supply	Wide working voltage design, support 9~36VDC power supply.
Specification	Size: 82mm x 40mm x 99mm; Metal material; wall-mounted, rail-mounted.
Working environment	Working temperature and humidity: -20~+70 C, 5~95%RH

APPLICATION SCENARIO



Typical Applications

Smart factory, Instrumentation data acquisition, Industrial automation, PLC expansion I/O, SCADA and MES system, etc.

PRODUCT SELECTION TABLE

Model	RJ45	RS485	DIN	DO	AI	AO	PT100/1000	TC
M100E	2	1	2	2	2	×	×	×
M110E	2	1	4	4	×	×	×	×
M120E	2	1	4	4	4	2	×	×
M130E	2	1	8	4	×	×	×	×
M140E	2	1	8	8	×	×	×	×
M150E	2	1	8	4	4	×	×	×
M160E	2	1	8	8	8	×	×	×
M200E	2	1	×	×	×	2	×	×
M210E	2	1	4	×	×	×	×	×
M220E	2	1	×	4	×	×	×	×
M230E	2	1	×	×	4	×	×	×
M240E	2	1	×	×	×	×	4	×
M250E	2	1	×	×	×	×	×	4
M310E	2	1	8	×	×	×	×	×
M320E	2	1	×	8	×	×	×	×
M330E	2	1	×	×	8	×	×	×
M340E	2	1	×	×	×	×	8	×
M350E	2	1	×	×	×	×	×	8
M410E	2	1	16	×	×	×	×	×
M420E	2	1	×	16	×	×	×	×

Ethernet I/O Module

Ethernet I/O Module

Product series: MxxxT

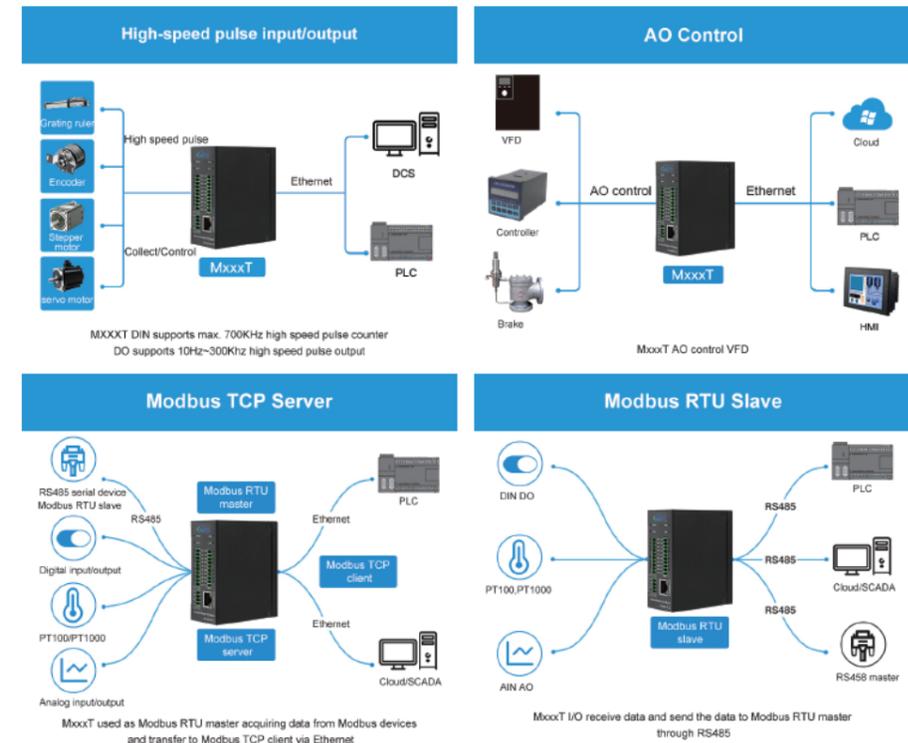
MxxxT series Ethernet I/O Module comes with DI, DO, AO, DO, RTD inputs, TC inputs, and it supports high-speed pulse counting and high-speed pulse output. The I/O module can be used as Modbus RTU master and slave, and it can act as Modbus TCP server and client, allowing 5 clients connected when it acted as server. Besides, it supports MQTT protocol. It is widely used in industrial automation, smart factory, instrumentation data acquisition and control.



Main Function

- DI, AI, DO, AO, Thermocouple, RTD modules available;
- High-speed pulse counting and high-speed pulse output;
- 1 RS485, supports Modbus RTU Master/Slave;
- 1 RJ45, supports Modbus TCP Client/Server, allowing 5 clients connected when it acted as server;
- Supports MQTT protocol, can connect to SCADA, MES, and Cloud platforms

APPLICATION SCENARIO



Typical Applications

Smart factory, Instrumentation data acquisition, Industrial automation, PLC expansion I/O, SCADA and MES system, etc.

Parameters	Description
Digital Input	Optional wet/dry contact. The first channel can be as pulse counting. Maximum pulse frequency: 700KHz.
Digital Output	The output is triode SINK output. The first DO support pulse output function, pulse output frequency: 10Hz ~ 300KHz.
Analog Input	Supports 12-bit resolution 0~5V, 0~10V, 0~20mA, 4~20mA differential inputs.
Analog Output	Supports 12-bit resolution 0~10V DC.
RTD Input	Supports 12-bit resolution PT100 or PT1000 input.
TC Input	Support B, E, J, K, N, R, S, T thermocouple models.
RS485 Serial port	1 RS485, standard Modbus RTU protocol .
Ethernet port	1 RJ45, standard Modbus TCP and MQTT protocol, supports 5 TCP client links simultaneously when used as a Modbus TCP server.
Communication	Standard Modbus TCP protocol and Modbus RTU over TCP protocol, MQTT protocol.
Power consumption	Normal: 50mA@12V, Max: 150mA@12V.
Power supply	Wide working voltage design, support 9~36VDC power supply.
Specification	Size: 82mm x 40mm x 99mm; Metal material; wall-mounted, rail-mounted.
Working environment	Working temperature and humidity: -20~+70℃, 5~95%RH.

PRODUCT SELECTION TABLE

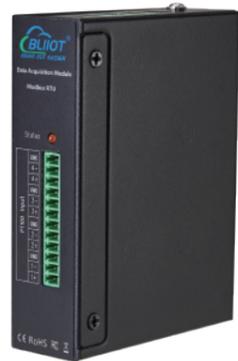
Model	RJ45	RS485	DIN	DO	AI	AO	PT100/1000	TC
M100T	1	1	2	2	2	×	×	×
M110T	1	1	4	4	×	×	×	×
M120T	1	1	4	4	4	2	×	×
M130T	1	1	8	4	×	×	×	×
M140T	1	1	8	8	×	×	×	×
M150T	1	1	8	4	4	×	×	×
M160T	1	1	8	8	8	×	×	×
M200T	1	1	×	×	×	2	×	×
M210T	1	1	4	×	×	×	×	×
M220T	1	1	×	4	×	×	×	×
M230T	1	1	×	×	4	×	×	×
M240T	1	1	×	×	×	×	4	×
M250T	1	1	×	×	×	×	×	4
M310T	1	1	8	×	×	×	×	×
M320T	1	1	×	8	×	×	×	×
M330T	1	1	×	×	8	×	×	×
M340T	1	1	×	×	×	×	8	×
M350T	1	1	×	×	×	×	×	8
M410T	1	1	16	×	×	×	×	×
M420T	1	1	×	16	×	×	×	×
M320R	1	1	×	8 Relay+8 sink	×	×	×	×

Modbus Data Acquisition Module

Modbus Data Acquisition Module

Product series: DAMxxx series

Modbus remote data acquisition module is designed to meet the needs of harsh industrial application environment, providing 2/4 digital input signal acquisition, 2/4 analog and RTD PT100 input signal acquisition, 2 /4 digital relay output control, used as Modbus slave expansion module, with RTU, PLC, HMI and other Modbus master stations to achieve remote digital signal, analog, RTD acquisition and digital relay remote control functions. Widely used in various industrial automation measurement and remote control systems.

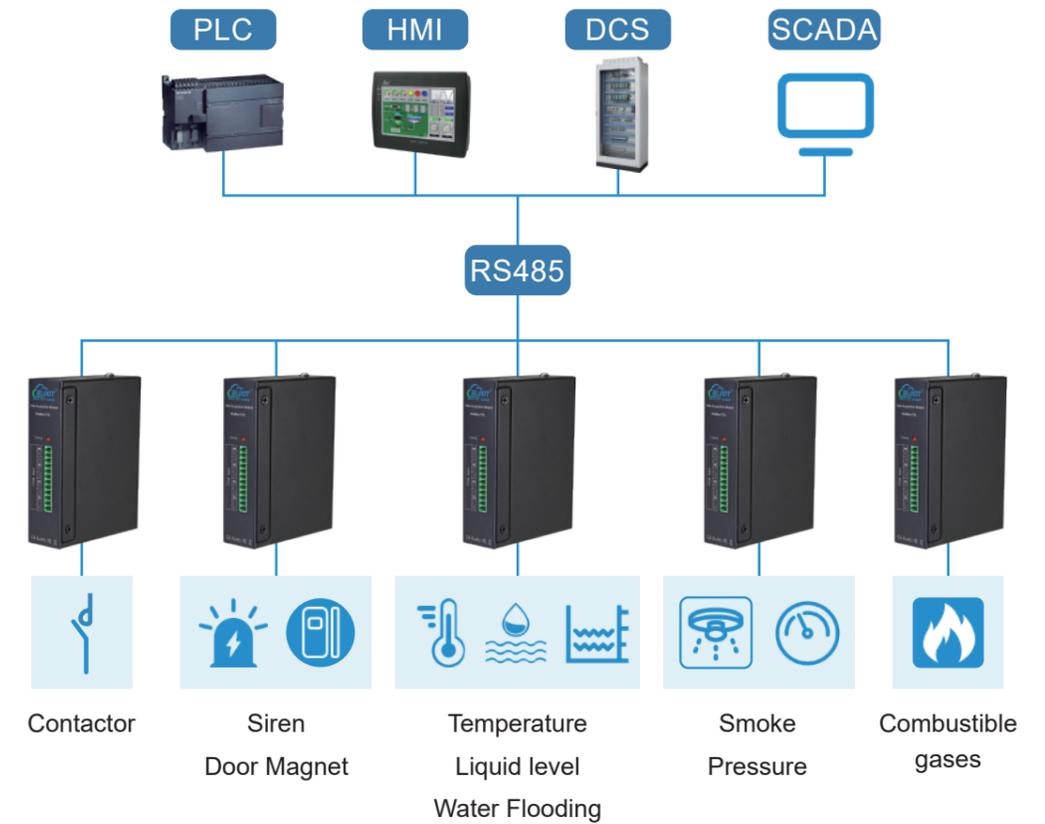


Main Function

- AI, DI, PT100, TC input and DO;
- Pulse counting and TTL/pulse output;
- 1 RS485 support Modbus slave protocol;

Parameters	Description
Digital Input	①2/4 channel, passive contact or voltage type input can be accessed; ②Logic level: 0~0.5V or short circuit is 0, +3~30V or open circuit is 1; ③Input level range: 0~30V, the limit range is -10~40V; ④Counting function: Counting sampling frequency 1KHz, requiring the width of the pulse high and low levels are >1mS; when the module detects a jump from 1 to 0 in each channel, the count value Add 1; each way the maximum count value 4 bytes: FFFFFFFH
Digital Output	①Relay output: 2/4 channel, relay (250V*5A(AC) or 14V*20A(DC)); ②Can be set to level mode or pulse mode output, pulse width can be set from 0.1S to 25S for pulse output; ③Can be set to maintain relay status function after power failure;
Analog Input	AIN input supports 0~5V, 0 ~10V, 0~20mA, 4~20mA input;
RTD Input	PT100 (default), PT1000 optional; signal input: 2 or 3-wire input;
TC Input	Support B, E, J, K, N, R, S, T thermocouple models;
RS485 Serial port	1 RS485 (RS422 optional), supports Modbus RTU standard protocol;
Communication	Standard Modbus RTU protocol;
Power consumption	Typical power consumption: ≤3W;
Power supply	Wide working voltage design, support 9 ~ 36VDC power supply, the peak voltage shall not exceed +40V;
Specification	Size: 70mm × 88mm × 30mm; metal material; net weight 235g; wall-mounted, rail-mounted;
Working environment	Working temperature and humidity: -20~+70℃, 5~95%, no condensation (at 40℃)

APPLICATION SCENARIO



Typical Applications

Smart transportation, smart power, underground corridor monitoring, supply chain automation
Smart factory, environmental monitoring, intelligent agriculture, etc., equipment IO expansion

PRODUCT SELECTION TABLE

Model	RS485	DI	DO	AI	PT100/1000	TC
DAM102	1	2	×	×	×	×
DAM104	1	×	2	×	×	×
DAM106	1	2	2	×	×	×
DAM108	1	4	×	×	×	×
DAM110	1	×	4	×	×	×
DAM112	1	4	4	×	×	×
DAM114	1	×	×	2	×	×
DAM116	1	×	×	4	×	×
DAM118	1	×	×	×	2	×
DAM120	1	×	×	×	4	×
DAM122	1	×	×	2	2	×
DAM124	1	×	×	4	4	×
DAM128	1	×	×	×	×	8

MQTT Gateway

Product Series: BL100

BLIoT BL100 gateway converting RS485 (Modbus RTU) to MQTT, supports 1/2 RS485 Port, Access self-built MQTT cloud, Modbus cloud, Huawei Cloud, Alibaba Cloud and other IoT cloud through 4G network. It is also a DTU, SMS Alarm.

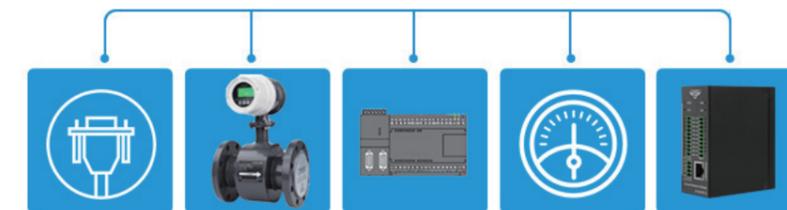
Main Function

- Modbus RTU to MQTT protocol conversion;
- Wireless transparent transmission of various protocols to cloud;
- Can be used as Modbus Master/Slave, 2 RS485 make it possible to providing data to PLC/HMI while collecting RS485 instrument data, and then connect to the cloud platform through 4G;
- SMS alarm will send to users when the communication of the Modbus device is abnormal;
- Support Huawei IoT, Alibaba IoT, BLIoT Cloud, self-built IoT;
- 32 devices and 320 variables collect simultaneously;
- Built-in timer function, supporting timed automatic reporting, timed SMS, timed arming and disarming, timed restart, ect.;
- Support 10 user numbers for receiving SMS alarms for device dropouts, serial data overruns, and abnormalities;
- Local configuration software, remote SMS settings, easy to use;
- Software/hardware watchdog to prevent fake death machines;
- Anti-disconnection mechanism, when device disconnected, it will resend data and notify the user by SMS;



Parameters	Description
Serial Port	1/2 RS485, serial port Baud Rate: 2400bps-115200bps;
Downlink	Modbus RTU (Master/Slave), Serial Transparent Transmission;
Uplink	Modbus RTU over TCP, Modbus TCP, MQTT, Huawei cloud, Alibaba cloud, BLIoT Cloud, Configuration, etc.;
Devices	Support 32 serial ports;
Data Points	Total 320;
Encryption method	Key Encryption;
Configuration method	Local configuration software, SMS settings;
Communication method	4G;
Power	Wide voltage, redundant design, with 2 interface, supports 9-36V DC power supply Normal: 50mA@12V, Max: 150mA@12V;
Specification	Size: 83mm×30mm×100mm(L*W*H); Metal Material, Net weight: 225g Installation method: wall-mounted, rail-mounted;
Working environment	Operating temperature, Humidity:-45~85℃, 5~95%RH; Storage temperature, humidity:-45~105℃, 5~95%RH;

APPLICATION SCENARIO



Serial port device Modbus RTU Sensors PLC Modbus RTU Meters Modbus I/O module

Typical Applications Agriculture, water irrigation, power monitoring, weather and environmental monitoring, etc.

PRODUCT SELECTION TABLE

Model	Downlink			Communication method	Uplink	
	Interface	Protocol	Data points		Protocol	Cloud
BL100	RS485 x 1	Modbus RTU Serial Transparent Transmission	320	4G	MQTT	Self -built cloud Alibaba Cloud Huawei Cloud BLIoT Cloud
BL100Pro	RS485 x 2				Serial Transparent Transmission Modbus TCP	

MQTT & Modbus Gateway

Product Series:BL101

BLIoT BL101 gateway supports Modbus RTU, Modbus TCP, DL/T645 to MQTT, OPC UA, Modbus TCP protocol conversion, RS485/RS232 data acquisition/transparent transmission, transmission via 4G and Ethernet, connect to Huawei/Alibaba IoT, ThingsBoard, AWS, Ignition. It can acquire 4000 data points from 100 devices at the same time. It also comes with VPN network security, TLS/SSL data encryption, data retransmission and other functions.

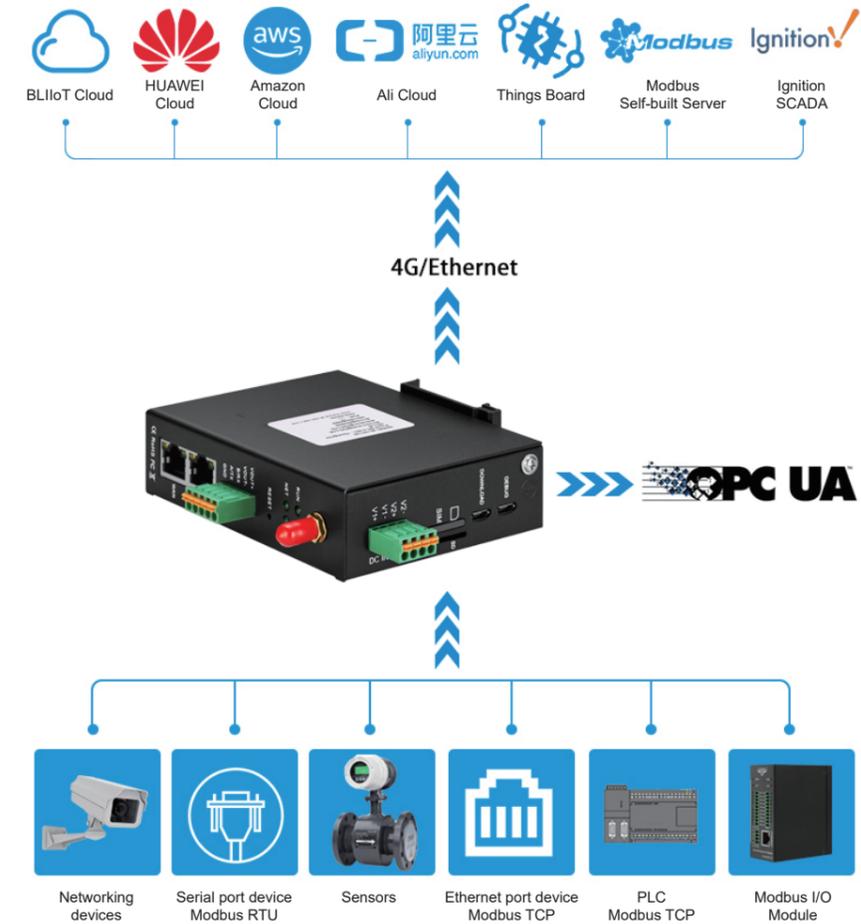
Main Function



- Modbus RTU, Modbus TCP, DL/T645 to Modbus TCP, MQTT, OPC UA protocol conversion;
- Support Huawei IoT, Alibaba IoT, ThingsBoard, Ignition SCADA, SparkplugB, DCS, MES, BLIoT cloud, etc.;
- Acquiring 4000 data points from 100 devices by Ethernet and Serial Ports;
- Connecting 7 cloud platforms and local host systems at the same time;
- Support data TSL/SSL, X.509 certificate, key encryption, OpenVPN, APN private network, offline caching and other security gateway features;
- Integrated router function to provide network to other devices;
- Local task management, threshold alarms, linkage control;
- Wireless remote configuration of parameters, firmware upgrades;
- Software/Hardware watchdog with high reliability;
- Support protocol custom development to meet non-standard equipment data acquisition;

Parameters	Description
Serial port	1 RS232/RS485, Serial port Baud Rate:2400bps-115200bps;
Network port	2 Ethernet port (1WAN+1LAN) , data acquisition from devices directly or from devices connected to cascade switch via WAN/LAN, and it also comes with routing function, providing network to other devices;
Devices	Total 100, including 50 serial port devices and 50 network port devices;
Data Points	Total 4000, including 2000 boolean types and 2000 numeric types;
Downlink	Modbus RTU, Modbus TCP, DL/T645;
Uplink	Modbus TCP, MQTT, OPC UA, Huawei IoT, Alibaba IoT, AWS, ThingsBoard, Ignition SCADA, SparkplugB, DSC, MES, BLIoT Cloud, etc..
Encryption method	TSL/SSL, OpenVPN, X.509 certificate, key encryption, APN private network;
Configuration method	PC software, MQTT subscription, wireless remote configuration;
Communication method	4G, Ethernet;
System	Linux, ARM9 processor, 300Mhz main frequency; 128MB storage (expandable to 1G); 64MB RAM)
Power	Wide voltage, redundant design, with 2 interface, supports 9-36V DC power supply; Normal: 85mA@12V, Max: 117mA@12V;
Specification	Size: 30mm×83mm×110mm(L*W*H); Metal Material, Net weight 291. 2g; Installation method: wall-mounted, rail-mounted;
Working environment	Operating temperature, Humidity:-45 ~ 85°C, 5 ~ 95%RH; Storage temperature, humidity:-45~85°C, 5 ~ 95%RH;

APPLICATION SCENARIO



Typical Applications

Agriculture, water irrigation, power monitoring, weather and environmental monitoring, etc.

PRODUCT SELECTION TABLE

Model	Downlink			Communication method	Uplink	
	Interface	Protocol	Data points		Protocol	Cloud
BL101	RS485/RS232 x 1 RJ45 x 2	Modbus RTU Modbus TCP DL/T645 Transparent transmission	4000	4G Ethernet	MQTT Serial Transparent Transmission Modbus RTU Modbus TCP	Self-built: MQTT, Modbus, BLIoT Cloud, etc. Public Clouds: Huawei Cloud, Alibaba Cloud, AWS Cloud, etc. OpenSource Clouds: ThingsBoard, etc. Configuration: Ignition, WINCC, kingview, etc. Systems: DCS, MES, etc.
BL101E				Ethernet		
BL101UA				Ethernet		
BL101Pro				4G Ethernet	OPC UA, MQTT Serial Transparent Transmission Modbus RTU Modbus TCP	

PLC Gateway

Product Series: BL102

BL102 is PLC Gateway, it supports Siemens, Mitsubishi, Omron, Delta, Schneider PLC data to Modbus TCP, OPC UA, MQTT, Huawei IoT, Alibaba IoT, AWS, Ignition SCADA, ThingsBoard, BLIIoT Cloud.

Main Function

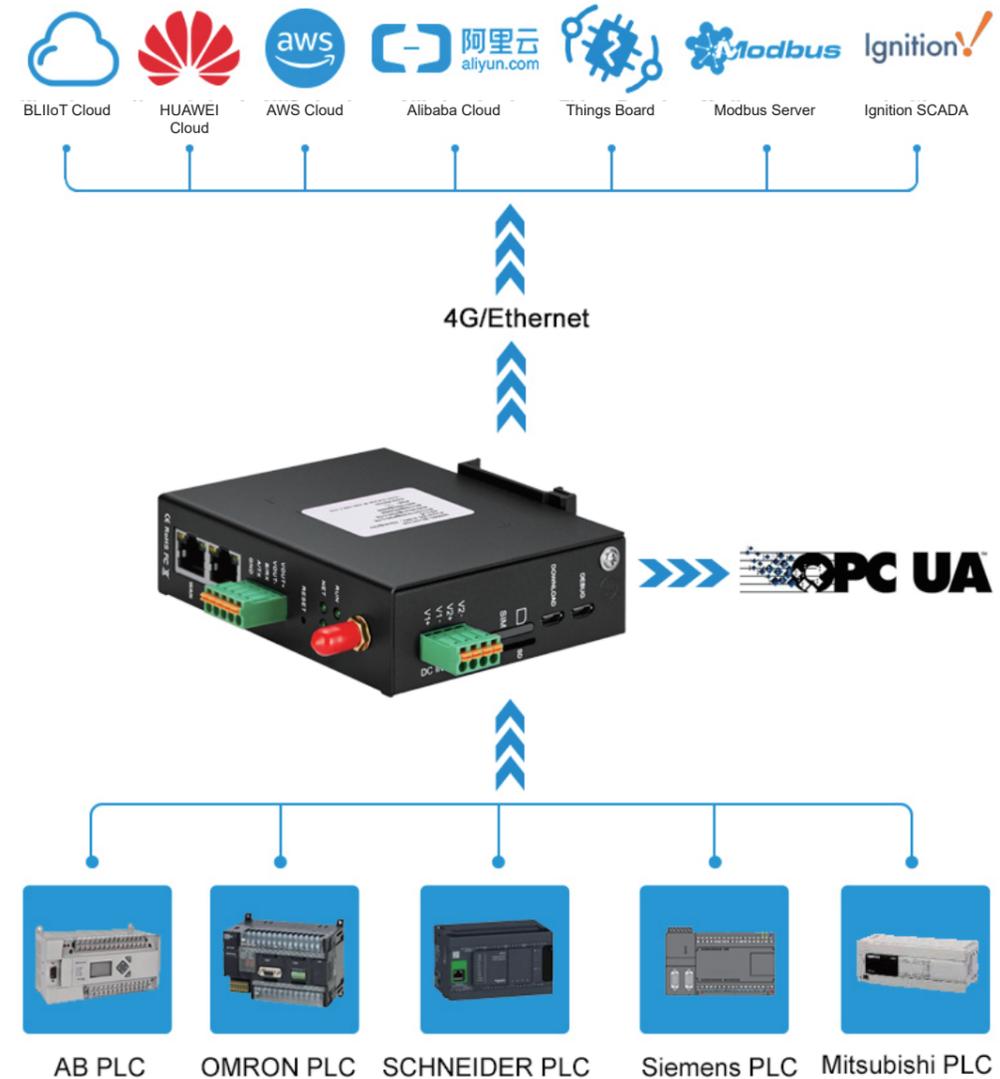
- Connect through PLC protocols directly, no need to programming;
- Data acquisition from different PLCs via Modbus RTU and Modbus TCP simultaneously;
- Support PLC program wireless remote upload and download, convenient debugging management PLC;
- Support Boolean, numeric and other types of data acquisition and control output;
- Protocol Conversion: Support various PLCs such as Siemens, Mitsubishi, Omron, Delta, Schneider, etc. to Modbus TCP, MQTT, OPC UA, support Huawei IoT, Alibaba IoT, ThingsBoard, Ignition SCADA, SparkplugB, DCS, MES, BLIIoT cloud, etc.;
- Support data acquisition of PLC, HMI, RS485 devices, etc. It can acquire 4000 data points from 100 devices by Ethernet and Serial Ports;
- Connecting 7 cloud platforms and local host systems at the same time;
- Support data SSL TLS, X.509 certificate, key encryption, OpenVPN, APN private network, offline caching and other security gateway features;
- Integrated router function to provide network to other devices;
- Local task management, threshold alarms, linkage control;
- Wireless remote configuration of gateway parameters, firmware upgrade;
- Software/Hardware watchdog with high reliability;
- Support protocol custom development to meet non-standard equipment data acquisition;



Parameters	Description
Supported PLC	Siemens (S7-200, S7-200smart, S7-300, S7-400, S7-1200, S7-1500, etc.) Mitsubishi (Q series, L series, FX1S, FX3S, FX2N, expansion board RS232/485BD, FX5U, etc.); Omron, Schneider, Delta, Xinjie, etc.
Serial port	1 RS232/RS485, Serial port Baud Rate: 2400bps-115200bps;
Network port	2 Ethernet port (1WAN+1LAN), data acquisition from devices directly or from devices connected to cascade switch via WAN/LAN, and it also comes with routing function, providing network to other devices;
Devices	Total 100, including 50 serial port devices and 50 network port devices;
Data Points	Total 4000, including 2000 boolean types and 2000 numeric types;
Downlink	Various PLCs, Modbus RTU, Modbus TCP, DL/T645;
Uplink	Modbus TCP, MQTT, OPC UA, Huawei IoT, Alibaba IoT, ThingsBoard, Ignition SCADA, SparkplugB, DCS, MES, BLIIoT cloud, etc.;
Encryption method	TSL/SSL, OpenVPN, X.509 certificate, key encryption, APN private network;

Configuration method	PC software, MQTT subscription, wireless remote configuration;
Communication method	4G, Ethernet;
System	Linux, ARM9 processor, 300Mhz main frequency; 128MB storage (expandable to 1G); 64MB RAM)
Power	Wide voltage, redundant design with 2-way interface, supports 9-36V DC power supply; Normal: 85mA@12V, Max: 117mA@12V;
Specification	Size: 30mm×83mm×110mm(L*W*H); metal material, net weight 291.2g; Installation method: wall-mounted, rail-mounted;
Working environment	Operating temperature, humidity: -40~80℃, 5~95% RH; Storage temperature, humidity: -40~85℃, 5~95% RH;

APPLICATION SCENARIO



Typical Applications

Smart Manufacturing, Digital Factory, Energy Management, Smart Agriculture, Smart Retail, Security Monitoring

PRODUCT SELECTION TABLE

Model	Downlink			Communication method	Uplink	
	Interface	Protocol	Data points		Protocol	Cloud
BL102	RS485/RS232 x 1 RJ45 Ethernet x 2	PLC: Siemens, Mitsubishi, Omron Delta, Xinjie Schneider, etc. Modbus RTU Modbus TCP DL/T645 Transparent transmission	4000	4G Ethernet	MQTT Serial Transparent Transmission Modbus RTU Modbus TCP	Self-built: MQTT, Modbus, BLIIoT Cloud, etc. Public Clouds: Huawei Cloud, Alibaba Cloud, AWS Cloud, etc. OpenSource Clouds: ThingsBoard, etc. Configuration: Ignition, WINCC, kingview, etc. Systems: DCS, MES, etc.
BL102E				Ethernet		
BL102UA				Ethernet	OPC UA, MQTT Serial Transparent Transmission Modbus RTU Modbus TCP	
BL102Pro				4G Ethernet		

BACnet Gateway

Product Series:BL103

BACnet Gateway BL103 is a cost-effective IIoT gateway, commonly used in building automation and HVAC control systems. It supports BACnet MS/TP, BACnet/IP, Modbus RTU, Modbus TCP, DL/T645 to BACnet/IP, Modbus TCP, MQTT, OPC UA protocol conversion, Huawei IoT, Alibaba IoT, AWS, ThingsBoard, Sparkplug B, Ignition SCADA, BLIIoT Cloud.

Main Function

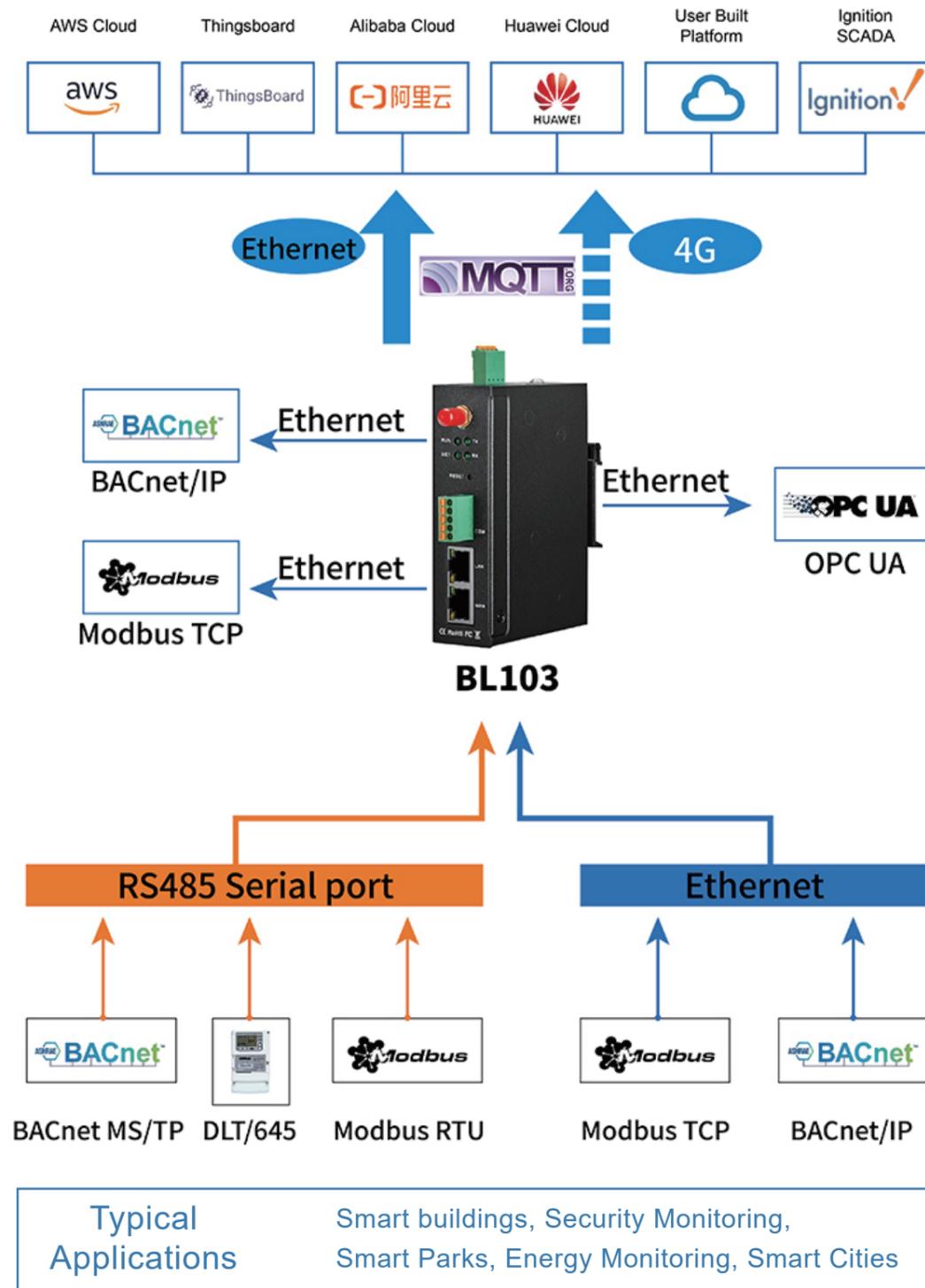
- BACnet/IP, BACnet MS/TP to BACnet/IP, Modbus TCP, MQTT, OPC UA protocol conversion;
- Modbus RTU, Modbus TCP, DL/T645 to BACnet/IP;
- Support Huawei IoT, Alibaba IoT, ThingsBoard, Ignition SCADA, SparkplugB, DCS, MES, BLIIoT cloud, etc.;
- Acquiring 4000 data points from 100 devices by Ethernet and Serial Ports;
- Connecting 7 cloud platforms and local host systems at the same time;
- Support data SSL TLS, X.509 certificate, key encryption, OpenVPN, APN private network, offline caching and other security gateway features;
- Integrated router function to provide network to other devices;
- Local task management, threshold alarms, linkage control;
- Wireless remote configuration of gateway parameters, firmware upgrade;
- Software/Hardware watchdog with high reliability;
- Support protocol custom development to meet non-standard equipment data acquisition;



Parameters	Description
BACnet	BACnet/IP, BACnet MS/TP;
Serial port	1 RS232/RS485, Serial port Baud Rate: 2400bps-115200bps;
Network port	2 Ethernet port (1WAN+1LAN) , data acquisition from devices directly or from devices connected to cascade switch via WAN/LAN, and it also comes with routing function, providing network to other devices;
Devices	Total 100, including 50 serial port devices and 50 network port devices;
Data Points	Total 4000, including 2000 boolean types and 2000 numeric types;
Downlink	BACnet/IP, BACnet MS/TP, Modbus RTU/TCP, DL/T645;
Uplink	BACnet/IP, Modbus TCP, MQTT, OPC UA, Huawei IoT, Alibaba IoT, ThingsBoard, Ignition SCADA, SparkplugB, DCS, MES, BLIIoT cloud, etc.;
Encryption method	TSL/SSL, OpenVPN, X.509 certificate, key encryption, APN private network;
Configuration method	PC software, MQTT subscription, wireless remote configuration;
Communication method	4G, Ethernet;
System	Linux, ARM9 processor, 300Mhz main frequency; 128MB storage (expandable to 1G); 64MB RAM)
Power	Wide voltage, redundant design with 2-way interface, supporting 9-36V DC power supply; Normal: 85mA@12V, Max: 117mA@12V;

Specification	Size: 30mm×83mm×110mm(L*W*H); metal material, net weight 291.2g; Installation method: wall-mounted, rail-mounted;
Working environment	Operating temperature, humidity: -40~80℃, 5~95% RH; Storage temperature, humidity: -40~85℃, 5~95% RH;

APPLICATION SCENARIO



PRODUCT SELECTION TABLE

Model	Downlink			Communication method	Uplink	
	Interface	Protocol	Data points		Protocol	Cloud
BL103	RS485/RS232 x 1 RJ45 Ethernet x 2	BACnet IP BACnet MS/TP Modbus RTU Modbus TCP DL/T645 Transparent transmission	4000	4G Ethernet	BACnet IP MQTT Serial Transparent Transmission Modbus RTU Modbus TCP	Self-built: MQTT, Modbus, BLIIoT Cloud, etc. Public Clouds: Huawei Cloud, Alibaba Cloud, AWS Cloud, etc. OpenSource Clouds: ThingsBoard, etc. Configuration: Ignition, WINCC, Kingview, etc. Systems: DCS, MES, etc.
BL103E				Ethernet		
BL103UA				Ethernet		
BL103Pro				4G Ethernet		

IloT Gateway

Product series: BL110

BL110 IloT gateway comes with 4 serial ports and 2 network ports. Support various PLC protocols, Modbus RTU, Modbus TCP, DL/T645, BACnet/IP, BACnet MS/TP to Modbus TCP, OPC UA, MQTT, BACnet/IP protocol conversion, Huawei IoT, Alibaba IoT, AWS, ThingsBoard, Sparkplug B, Ignition SCADA, BLIoT Cloud. Support custom secondary development.

Main Function

- PLC, BACnet/IP, BACnet MS/TP, Modbus RTU/TCP, DL/T645 to BACnet IP, Modbus TCP, MQTT, OPC UA; Huawei IoT protocol conversion, Alibaba IoT, ThingsBoard, Ignition SCADA, SparkplugB, DCS, MES, BLIoT cloud, etc.;
- Acquiring 4000 data points from 100 devices by Ethernet and Serial Ports;
- Data mapping acquisition and control, transparent transmission and other operating modes;
- Connecting 7 cloud platforms and local host systems at the same time;
- Support data SSL TLS, X.509 certificate, key encryption, OpenVPN, APN private network, offline caching and other security gateway features;
- Integrated router function to provide network to other devices;
- GPS positioning function for easy understanding of equipment distribution and maintenance;
- PLC program remote upload and download, easy to debug PLC;
- Offline cache backup, network recovery replenishment transfer to ensure data integrity;
- Supports the establishment of trusted and secure connections through OpenVPN channels to ensure secure data transmission;
- Active reporting, regular reporting, also has data threshold abnormal alarm, linkage trigger control;
- With local edge task management, flexible setting of gateway timed restart, timed trigger switch type control on and off;
- Multi-topic publishing, free to choose different data points to upload to different IoT platforms;
- Wireless remote configuration of gateway parameters, debugging and maintenance more convenient;
- Wireless remote firmware upgrade;
- APN private network access;
- Cellular signal value monitoring;
- Support software and hardware watchdog, high reliability.
- Support protocol custom development to meet non-standard equipment data acquisition.

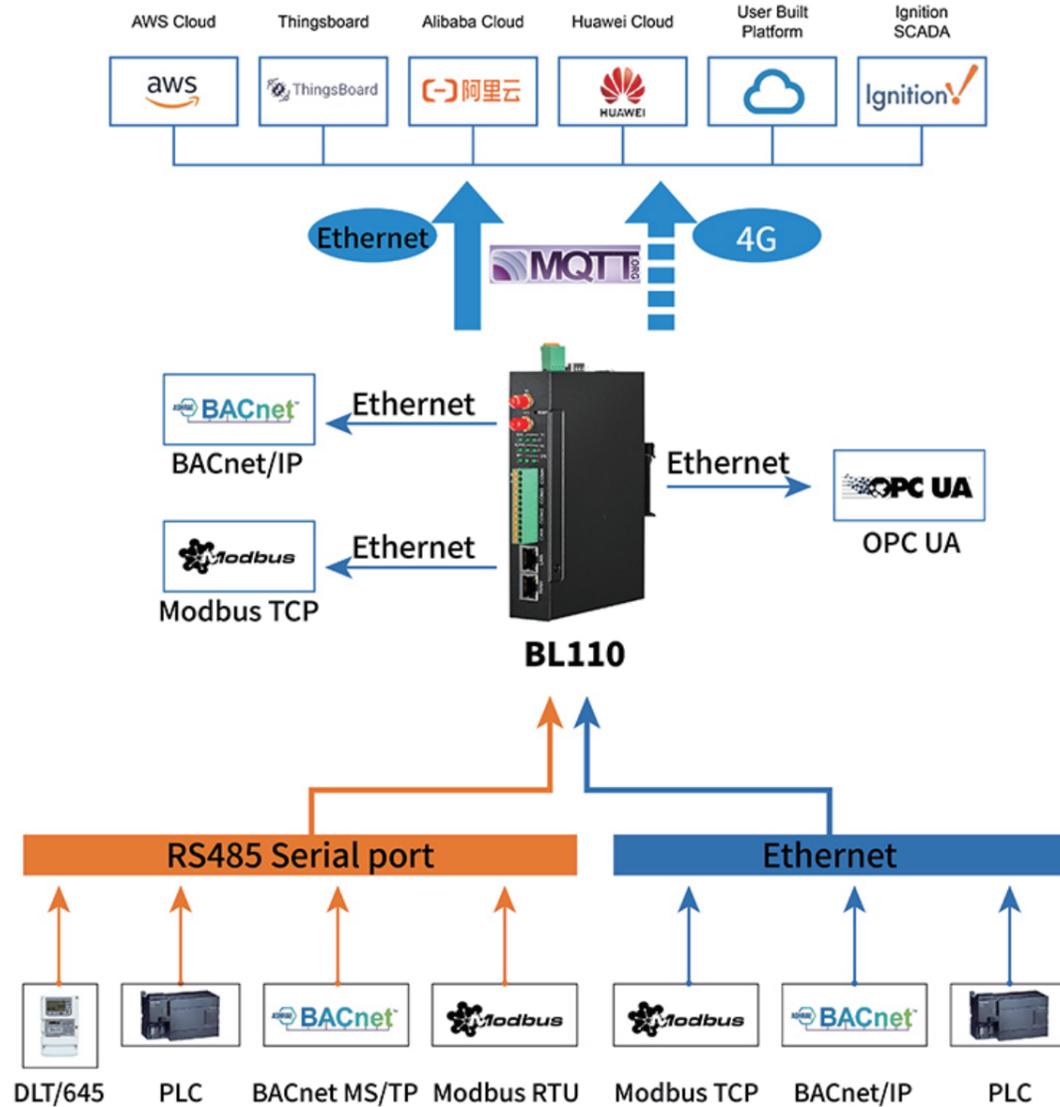


Parameters	Description
Serial Port	1RS232, 3 RS232/RS485 Optional, Serial port Baud Rate: 2400bps-115200bps;
Network port	2 Ethernet port (1WAN+1LAN), data acquisition from devices directly or from devices connected to cascade switch via WAN/LAN, and it also comes with routing function, providing network to other devices;
Devices	Total 100, including 50 serial port devices and 50 network port devices;
Data Points	Total 4000, including 2000 boolean types and 2000 numeric types;
Downlink	Various PLC, BACnet/IP, BACnet MS/TP, Modbus RTU/TCP, DL/T645;
Uplink	BACnet/IP, Modbus TCP, MQTT, OPC UA, Huawei IoT, Alibaba IoT, ThingsBoard, Ignition SCADA, SparkplugB, DCS, MES, BLIoT cloud, etc.;
Supported PLC	Siemens (S7-200, S7-200smart, S7-300, S7-400, S7-1200, S7-1500, etc.). Mitsubishi (Q series, L series, FX1S, FX3S, FX2N, expansion board RS232/485BD, FX5U, etc.); Omron, Schneider, Delta, Xinjie, etc.
BACnet	BACnet/IP, BACnet MS/TP;
Encryption method	TSL/SSL, OpenVPN, X.509 certificate, key encryption, APN private network;
Communication method	PC software, MQTT subscription, wireless remote configuration;
Communication method	4G, Ethernet;
System	Linux, ARM9 processor, 300Mhz main frequency; 128MB storage (expandable to 1G); 64MB RAM)
Power	Wide voltage, redundant design with 2-way interface, supporting 9-36V DC power supply; Normal: 115mA@12V, Max: 168mA@12V;
Specification	Size: 109mm×31mm×145mm(L*W*H); metal material, net weight 291.2g; Installation method: wall-mounted, rail-mounted;
Working environment	Operating temperature, humidity: -40 ~ 80 C, 5 ~ 95% RH; Storage temperature, humidity: -40 ~ 85 C, 5 ~ 95% RH;

PRODUCT SELECTION TABLE

Model	Downlink			Communication method	Uplink	
	Interface	Protocol	Data points		Protocol	Cloud
BL110	RS485/RS232 x 3 RS232(DB9) x 1 RJ45 Ethernet x 2	PLC: Siemens, Mitsubishi, Omron, Delta, AB, Schneider, etc. BACnet/IP BACnet MS/TP Modbus RTU Modbus TCP DLT645 Transparent transmission	4000	4G Ethernet	BACnet/IP MQTT	Self-built: MQTT, Modbus, BLIoT Cloud, etc. Public Clouds: Huawei Cloud, Alibaba Cloud, AWS Cloud, etc. OpenSource Clouds: ThingsBoard, etc. Configuration: Ignition, WINCC, Kingview, etc. Systems: DCS, MES, etc.
BL110E				Ethernet	Serial Transparent Modbus RTU Modbus TCP	
BL110UA				Ethernet	BACnet/IP OPC UA, MQTT Serial Transparent	
BL110Pro				4G Ethernet	Transparent Modbus RTU Modbus TCP	

APPLICATION SCENARIO



Typical Applications

Smart Manufacturing, Digital Factory, Energy Management, Smart Agriculture, Smart Retail, Smart Building, Security Monitoring, Smart Park, Energy Monitoring, Smart City

4G Edge Router

Typical Models: R40B

4G Edge router integrates router, RTU and DTU. It can access cameras, instruments, PLC, DI, DO Relay, AI, RS485/232 devices, and realize wireless remote monitoring through 4G/Ethernet. It supports various VPN, dual SIM card, WiFi, wide voltage, etc. Widely used in smart transportation wireless video monitoring, smart street light environment monitoring, outdoor power line monitoring, water conservancy environment monitoring, etc.

Main Function

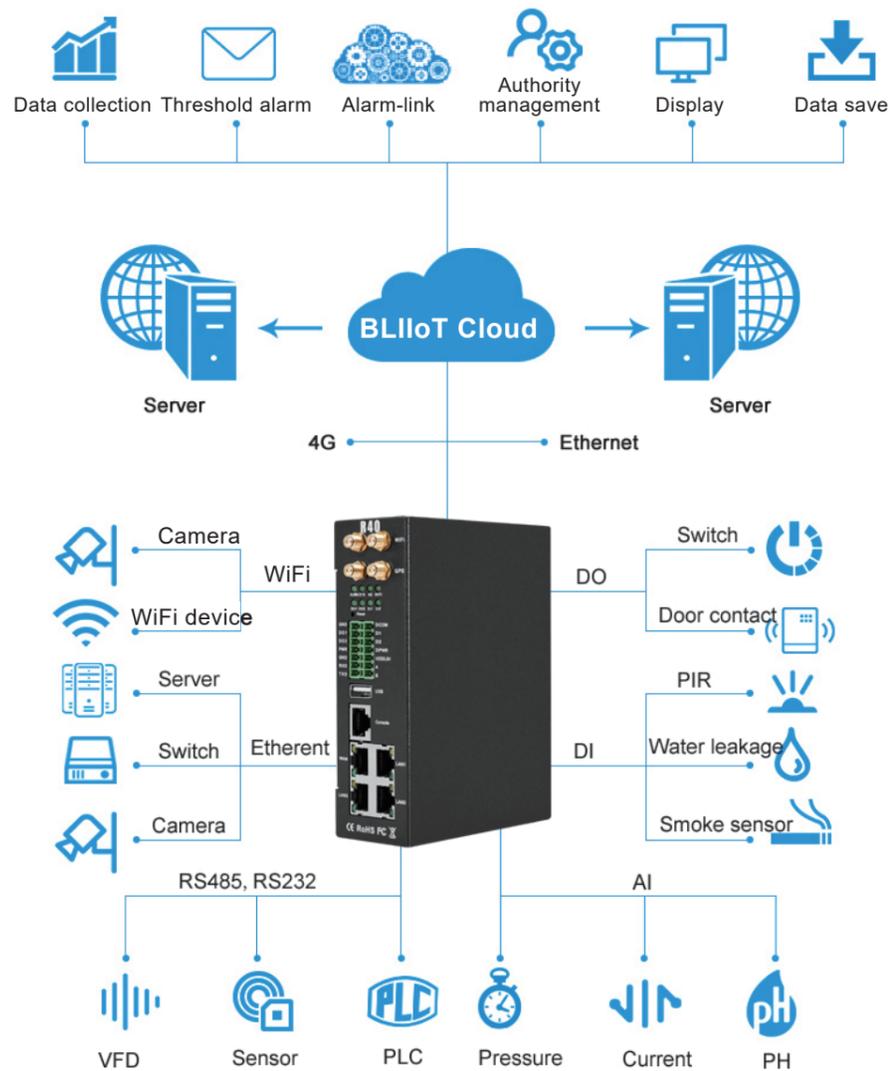
- 4G, Ethernet WAN, WLAN WAN link switching and ICMP detection;
- Support IPsec/OpenVPN/L2TP and other VPN;
- WiFi support AP and client modes (2.4GHz);
- 1 x WAN, 3 x LAN, RJ45 interface type, 10M/100Mbps, self-adaptive MDI/MDIX;
- Equipped with 2DI, 2DO, 4AI;
- 1 x RS485, 1 x RS232, Support command mode and Transparent transmission mode, easy to expand IO, connect PLC, instrumentation;
- Support MQTT, Modbus RTU, Modbus TCP protocols;
- Support Modbus RTU to Modbus TCP/MQTT; Modbus TCP to MQTT multi-protocol conversion;
- Support TCP client/server, UDP;
- DHCP Server Web upgrade firmware SMS, regular reboot;
- Support POE output power supply, save wiring cost;
- Dual SIM card redundancy design, stable and reliable;



Parameters	Description
WAN Port	1 channel, RJ45 interface type, 10M/100Mbps, Self-adaptive MDI/MDIX;
LAN (POE) Port	3 channels, RJ45 interface type, 10M/100Mbps, Self-adaptive MDI/MDIX; Support 3 channel POE power output, compatible with IEEE802.3at/af standard, single channel POE maximum output power 30W, with power management function, voltage range 48~57V;
WiFi	Support AP mode, client mode, support protocol 802.11a/b/g/n (mixed); Security: Open, WPA, WPA2; Encryption: AES, TKIP, TKIPAES; maximum number of connections 16, maximum rate 300Mbps; outdoor unobstructed/open, coverage up to 20 meters;
VPN	Support L2TP, IPSEC, OPENVPN and other VPN protocols;
Communication protocols	PPP, PPPOE, TCP, UDP, DHCP, ICMP, NAT, HTTP, HTTPs, DNS, ARP, NTP, SMTP, SSH2, DDNS, SNMP, etc.
Firewall	DMZ, DOS defense, IP packet, domain and MAC address filtering, port mapping, access control
Analog Input	4 channels, 16bit ADC resolution, support 0~5V, 0~20mA, 4~20mA, can set upper and lower limit value, support alarm trigger;
Digital Output	2 channels, triode SINK output, load voltage max. 50VDC, load current 500mA (Single channel), 625mW; output can be set according to trigger conditions;
Digital Input	2 channels support type: switch contact signal (dry node) or level signal (wet node); input range: high level (digital 1) 5 ~ 30VDC, low level (digital 0) 0 ~ 1VDC; support normally open / normally closed / counting input, counting frequency less than 100Hz, can set the counting threshold value, support abnormal alarm trigger;
Serial Port	1 x RS485, 1 x RS232, support command mode and transmission mode, easy to expand I/O, connect PLC, instrumentation support normally open/normally closed/counting input, counting Frequency is less than 100Hz, counting threshold value can be set, support abnormal alarm trigger;

Support Protocols	Support Modbus RTU, Modbus TCP, MQTT protocol, Transparent transmission;
Protocol conversion	Modbus RTU to Modbus TCP/MQTT, Modbus TCP to MQTT;
Specification	Size: 145mm x 110mm x 45mm; metal material; net weight: 790g; wall-mounted, rail-mounted;
Working environment	Working temperature: -40~85℃; Storage temperature: -40~105℃; Relative humidity: 5~95%RH (No condensation)

APPLICATION SCENARIO



Typical Applications

Smart traffic wireless video monitoring, Smart street light environmental monitoring, Outdoor electric power line monitoring, Water conservancy environment monitoring, etc.

PRODUCT SELECTION TABLE

Model	SIM Card	WiFi	WAN/LAN	LAN	RS232	RS485	DI	DO	AI	GPS	POE	Extended Functions
R10	1	√	1	1	×	×	×	×	×	×	×	
R10A	1	√	1	1	Optional RS232 Default RS485	×	×	×	×	Optional	×	Support Modbus Master/Slave/MQTT
R40	2	√	1	3	1	1	2	2	×	Optional	Optional	Support Modbus Master/Slave/MQTT
R40A	2	√	1	3	1	1	2	2	×	Optional	Optional	Support Modbus Master/Slave/MQTT
R40B	2	√	1	3	1	1	2	2	4	Optional	Optional	Support Modbus Master/Slave/MQTT

4G Wireless IoT Module

Product series: IOT10x

BLIIoT IOT10x series wireless IoT module connects the digital input, analog input, relay output, DS18B20 temperature sensors, temperature&humidity sensors, and RS485 devices to the cloud.

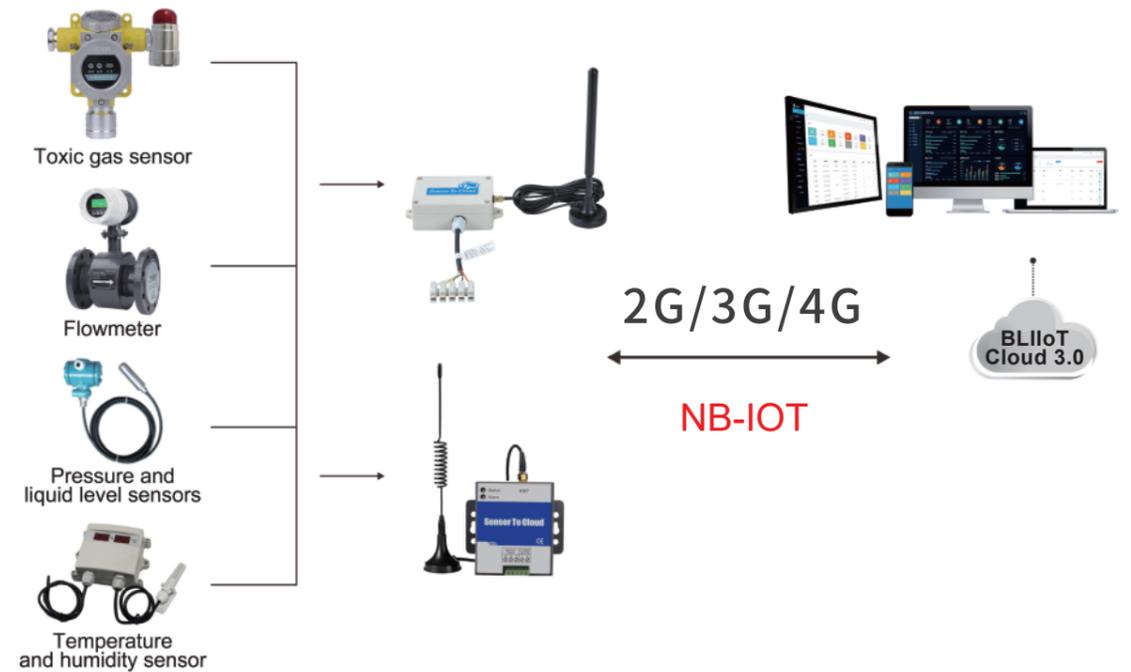


Main Function

- The device can be used directly, or used as a PCBA module for secondary development;
- Two working modes available: Normal mode: data is communicated in real time, allowing users to know the site conditions in a timely manner; Low power consumption mode: ultra-low power consumption design (less than 230uA), suitable for periodic collection of recorded data;
- Multiple communication modes optionals: 2G, 3G, 4G, etc.;
- Multiple functions optionals: digital control, digital monitoring, analog monitoring, temperature&humidity monitoring, RS485 serial transmission, etc.;
- Support 10 user numbers, each number can be individually set to receive specific alarm SMS and alarm calls;
- Support 2 different server centers, can set the IP address or domain name;

Parameters	Description
RS485 serial port	1 channel, data transmission method, up to 250 bytes per packet over RS485 serial port;
Digital Input	1 channel digital input, compatible with dry contact and wet contact, dry contact: open for logic 0, closed for logic 1 Wet contact: 0 to 3VDC for logic 0, 5 to 30VDC for logic 1 DIN pulse counting dithering elimination mode: pulse frequency up to 50Hz; no dithering elimination mode: pulse frequency up to 1KHz;
Digital Output	1 channel OC (open collector) output, maximum load 1.5A/25VDC;
Analog Input	1 channel 4~20mA or 0~5V;
Temperature& Humidity input	1 channel AM230x: temperature measurement range -40℃~80℃, accuracy ±0.5℃, humidity measurement range 0~100%RH, accuracy ±3%RH;
Temperature input	1 channel DS18B20: temperature measurement range -55℃~125℃, accuracy ±0.5℃;
Communication method	Optional GSM, GPRS, 3G, 4G;
Communication protocol	Modbus RTU Over TCP protocol, MQTT protocol, Data Transmissions;
Power consumption	Low power mode standby <230uA; normal mode standby 10mA~30mA; maximum power consumption 230~360mA;
Power supply	Wide working voltage design, support 7~24VDC power supply;
Specification	Size: 101mm x 69mm x 39mm (Waterproof shell, IP66) ; 54mm x 48mm x 19mm (Metal shell) ; 50.3mm x 36.8mm x 1.6mm (PCBA board)
Working environment	Working temperature&humidity: -10~+60℃, 5~95%RH;

APPLICATION SCENARIO



Typical Applications

Instrumentation access to the cloud, Smart grid, Smart transportation, Unattended machine room environmental monitoring, Smart factory, Environmental monitoring, etc.

PRODUCT SELECTION TABLE

Model	I/O type	Communication method (optional)	Communication protocol (optional)
IOT100	RS485 Serial Transparent Transmission	1, 2G 2, 3G 3, 4G	1, Modbus RTU Over TCP 2, MQTT 3, Data Transmissions (RS485)
IOT101	DIN Digital Input		
IOT102	DO-OC Output		
IOT103	AIN 4~20mA or 0~5V analog input		
IOT104	AM2301 temperature&humidity sensor input		
IOT105	DS18B20 temperature sensor input		

Cellular IoT RTU

Typical model:S475

S475 Cellular IoT RTU integrated with 4G and Ethernet module, supporting dual SIM cards, it comes with a variety of I/O interface, 2 RS485 used to acquiring data from SCADA, PLC, HMI. Users can remote monitor and manage the device by SMS, APP, Web, and BLIIoT cloud. It is widely used in unmanned room, water pump control, sewage treatment, weather environment, intelligent breeding and other occasions.

Main Function

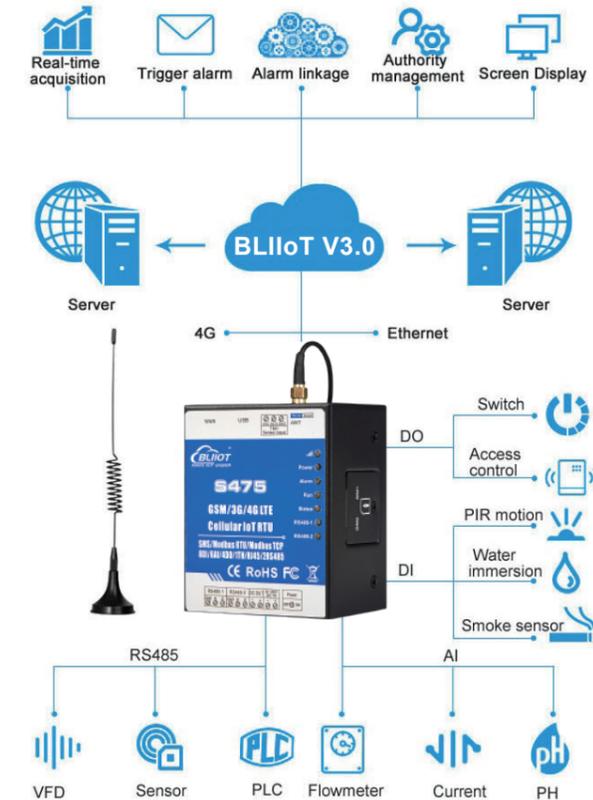
- 8 digital input, 6 analog input and 4 digital output;
- 1 Ethernet port (RJ45), support data acquisition of 5 PLC via Modbus TCP protocol, and upload data to cloud;
- 2 RS485, supports Modbus Modbus RTU Master/Slave, expandable to 320 data points;
- Embedded TCP/IP stack, supporting Modbus RTU/TCP, MQTT and transparent transmission;
- Support Modbus RTU/TCP and MQTT protocol conversion;
- Support dual SIM cards, phone and SMS alarm, remote SMS reboot, device configuration function;
- Built-in TCP port, can be as TCP Server and supports up to 5 terminal accesses;
- Built-in 8G large-capacity SD card for storing history records, history records up to 10,000 events;
- Wide working voltage design, support 9 ~ 36VDC power supply, and with anti-reverse connection protection design;
- Anti-dropout mechanism to ensure the device always online and it comes with data retransmission function;
- Built-in powerful timer function;



Parameters	Description
Digital Input	8 channels, compatible with dry contact and wet contact, logic level 0 to 0.5V normally closed, logic level 3 to 30V considered normally open, the first input can be used as pulse counter, sampling frequency is 1KHz;
Analog Input	6 channels, 24-bit high precision, compatible with 0~5VDC, 0~20mA, 4~20mA transmitter input;
Digital Output	4 channels relay output, rated output 5A@250VAC or 5A@30VDC;
Temperature & Humidity Input	1 channel, the temperature measurement range is -40~80°C, the accuracy is ±0.5°C, the humidity measurement range is 0~100RH%, the accuracy is ±3%;
RS485 Serial Port	2 channels, supports Modbus Modbus RTU Master/Slave, expandable to 320 data points;
Scalable mapping data points	Max. 320 (Boolean, 16-bit, 32-bit, 64-bit)
Network port	1 isolated 10/100M adaptive Ethernet interface with 15KV ESD protection, supporting Server and Client protocols;
Protocols	Modbus RTU over TCP protocol, Modbus TCP protocol, MQTT protocol;
Storage capacity	Built-in 8G SD card Max 100,000 history records;

Battery backup	3.7V/900mA, supports power failure alarm;
Power consumption	Normal 130mA@12V, Max. 500mA@12V;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Specification	Size: 88mm x 70mm x 52mm; metal material; net weight: 350g; wall-mounted, rail-mounted;
Working environment	Working temperature&humidity: -45~85 C , 5~95%RH;

APPLICATION SCENARIO



Typical Applications

Sewage treatment, smart grid, smart transportation, smart site, smart factory, environmental monitoring and other data acquisition and remote monitoring application scenarios.

PRODUCT SELECTION TABLE

Model	2G/3G/4G	Ethernet	Temp & Hum	RS485	DI	AI	DO	Number of mapped data			
								bool	16bit	32bit	64bit
S475	✓	1	1	2	8	6	4	64	128	64	64
S475E	×	1	1	2	8	6	4	64	128	64	64

Note: The S475E without communication module, so it cannot make phone calls, SMS alarms and other functions that require a communication module.

LoRa wireless data acquisition system

Product model: S281

LoRa gateway S281 uses LoRa RF communication technology to transmit equipment data from multiple points in a discrete distribution to the gateway through wireless LoRa nodes, and the LoRa gateway processes the data and transmits it to the server through Ethernet or 4G network, thus realizing remote data acquisition and monitoring. LoRa gateway supports a variety of wireless LoRa nodes, including temperature&humidity, weather, soil, gas, RS485 to wireless module nodes. Support access to the cloud, can realize history record query, high and low temperature over limit abnormal alarm, support voice, WeChat, SMS, APP, WEB monitoring platform, email and other ways to alarm. Widely used in heating, greenhouse planting, breeding, workshop, warehouse, fresh, flow, liquid level, mine and other industries.

Main Function

- Support 50 wireless temperature&humidity, relay, digital input, soil, weather and other types nodes;
- Support 50 RS485 serial wireless module nodes;
- Monitoring radius up to 2KM;
- Support 10 user numbers for receiving specific SMS alarm messages for device daily reports, dropouts, serial data overruns, and abnormal triggers;
- Real-time monitoring of terminal battery power to ensure that device data is not dropped;
- Using local configuration software, remote SMS and APP to set parameters, easy to operate and use.



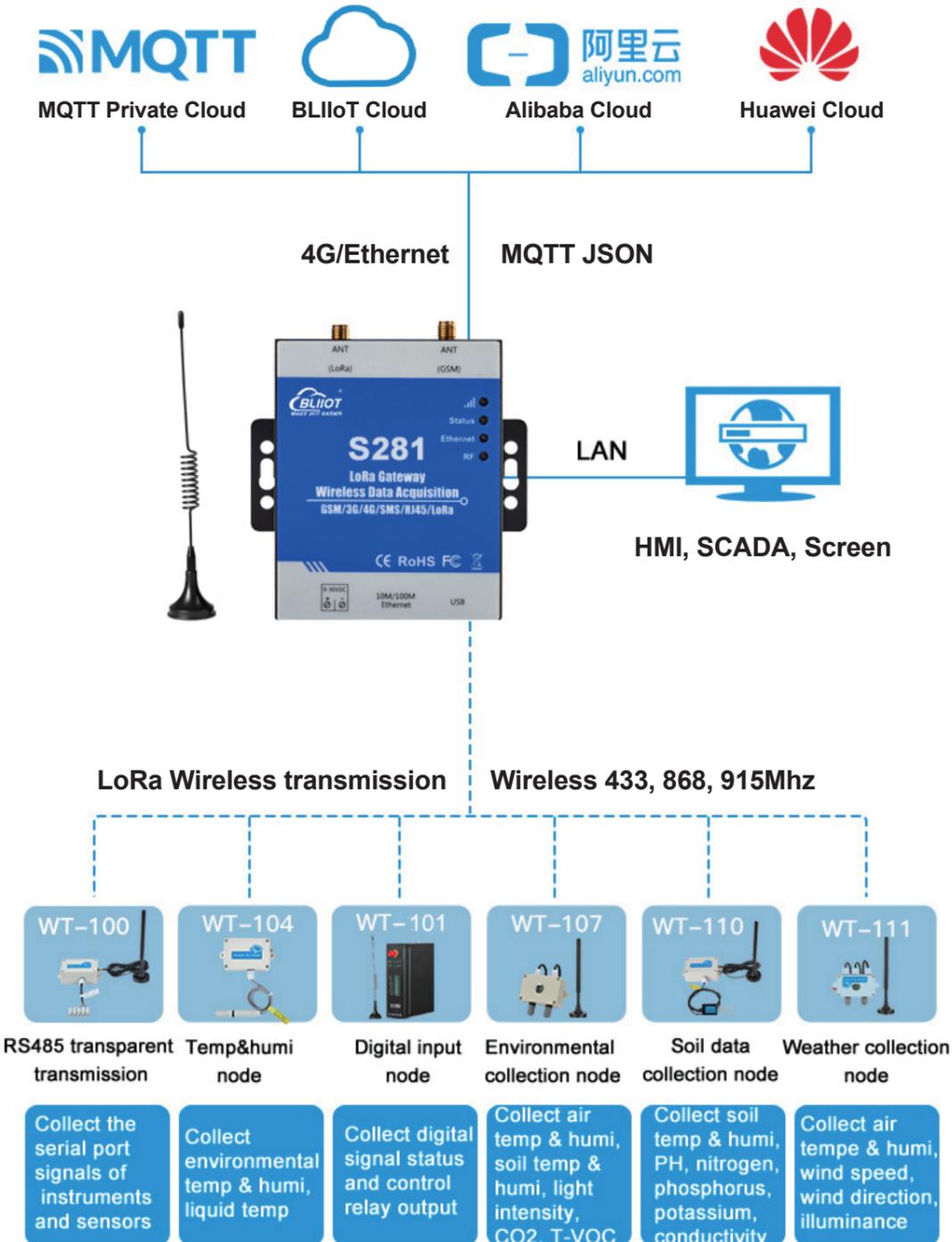
Parameters		Descriptions
LoRa Gateway	Collection distance	Open area up to 2KM;
	Access Nodes	50 RS485 transmissions nodes, 50 for soil, weather, temperature&humidity, relays, digital, etc.
	Communication method	4G, Network port;
	Communication protocols	Modbus RTU, Modbus TCP, Transparent transmission (RS485 node) is compatible for use;
	Frequency band	420MHz~450MHz (Customizable 868MHz and 915MHz)
	Power consumption	Normal: 130mA@12V, Max: 150mA@12V;
	Collection mechanism	Time division multiplexing, multi-channel mount, less interference, more mount nodes;
	Power supply	Wide working voltage design, support 7~24VDC power supply;
	Battery backup	3.7V/900mAh, supports power failure alarm;
	Specification	Size: 88mm x 75mm x 30mm; metal material; net weight: 235g; wall-mounted, rail-mounted;
Working environment	Temperature -45~85℃, humidity 5~95%RH;	

LoRa Nodes	WT100 (RS485 data transmission node)	1 x RS485, support data transmission;
	WT100D (RS485 point-to-point transmission node)	Support a pair of LoRa nodes to transmit RS485 serial data point-to-point;
	WT101 (Digital Input node)	4 DI, compatible with wet and dry contact;
	WT102 (Relay node)	2 relay control;
	WT103 (AM2301 Temp&Humi node)	Temperature measurement range -40℃~80℃, accuracy ±1℃, humidity measurement range 0~100%RH, accuracy ±5%RH;
	WT104 (AM2401 Temp&Humi node)	Temperature measurement range -40℃~80℃, accuracy ±0.3℃, humidity measurement range 0~100%RH, accuracy ±4.5%RH;
	WT105 (DS18B20 Temperature node)	-55~+125℃, accuracy: ±0.3℃;
	WT106 (PT100 Temperature node)	-50~+200℃; accuracy±0.2℃;
	WT107 (Multi-parameter Node)	CO2, TVOC, light level, air temperature&humidity, soil temperature&humidity;
	WT108 (PH node)	Soil PH value, 0~14PH, accuracy: 0.01PH;
	WT109 (EC value node)	Soil EC (electrical conductivity) values, 0 to 2000us/cm, accuracy: ±3% in the range of 0 to 1000us/cm, and ±5% in the range of 1000 to 2000us/cm;
	WT110 (Soil Node)	Soil temperature and humidity, PH value, N, P, K, EC value;
	WT110 (Soil Node)	Air temperature&humidity, wind speed, wind direction, light level;
	Node working mode	Timed wake-up call proactive reporting;
	Node power supply	3 AAA battery power supply (3.3V ~ 5V)
	Node specifications	Size: 101mmX69mmX39mm; plastic waterproof case, IP65;
Working environment	Working temperature&humidity: -10~+60℃, 5~95%RH;	

WIRELESS TRANSMISSION OF RS485 SERIAL PORT DATA



APPLICATION SCENARIO



Typical Applications
 Smart agricultural greenhouse, intelligent breeding, smart workshop, warehouse, underground Pipeline, smart power, environmental monitoring and other distributed and non-wiring scenarios

4G RTU

Typical model: S275

S275 is a 4G RTU with IIoT data acquisition, remote monitoring and control, SMS alarm functions, it is widely used in remote data acquisition and monitoring of various industries, such as smart grid, smart transportation, industrial automation, smart building, firefighting, public safety, environmental protection, meteorology, digital medical, agriculture, forestry, water, coal mining, petrochemical and other fields.

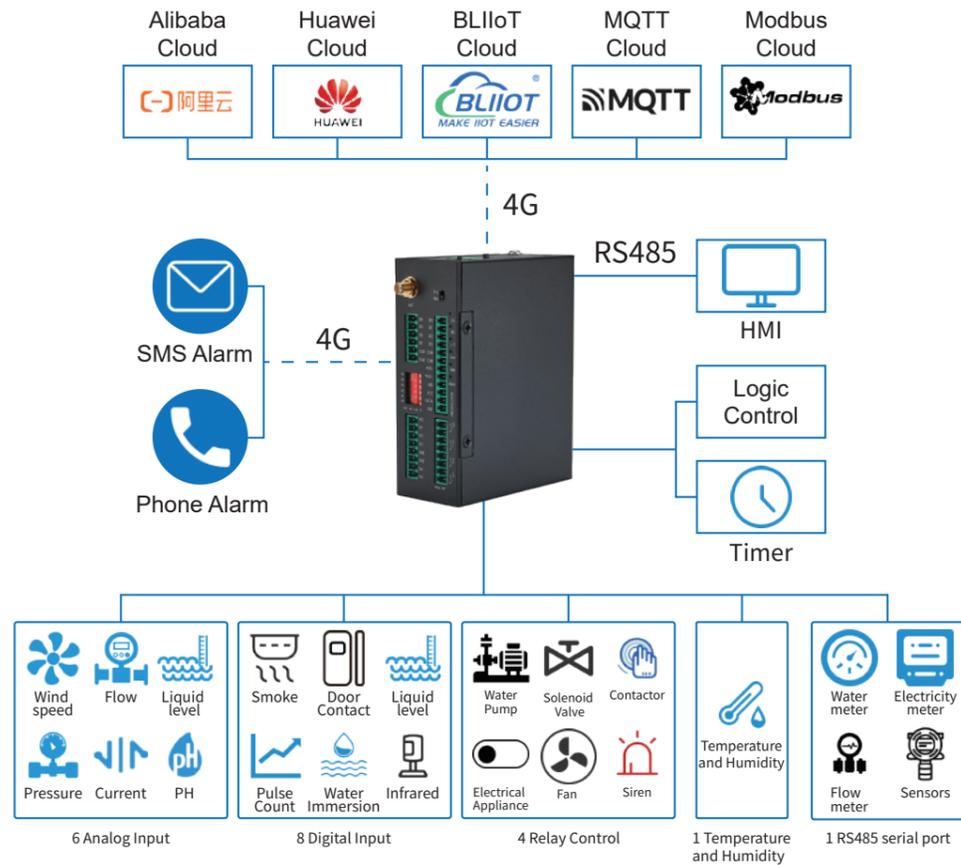
Main Function

- 8 digital input, 4 relay output, 6 analog input and 1 temperature&humidity input;
- 1 RS485 serial port, Modbus RTU (Master/Slave), can expand multiple Modbus Slave devices, Max. 320 data points;
- Embedded TCP/IP stack, supporting Modbus RTU, Modbus TCP and transparent transmission;
- Built-in powerful telephone and SMS alarm function, regular reporting, abnormal upper and lower limit alarm;
- Local logic control of the device, linking relay outputs based on monitoring of digital input and analog value thresholds;
- Anti-dropout mechanism to ensure the device always online and it comes with data retransmission function;
- Support remote configuration, remote management and remote restart by SMS;
- Built-in powerful timer function, support timed automatic reporting, timed daily SMS, timed online, timed offline, timed restart, timed execution relay output, etc.;



Parameters	Description
Digital Input	8 channels, compatible with dry contact and wet contact, logic level 0 to 0.5V normally closed, logic level 3 to 30V considered normally open, the first input can be used as pulse counter, sampling frequency is 1KHz;
Analog Input	6 channels, 24-bit high-precision, compatible with 0~5VDC, 0~20mA, 4~20mA transmitter input;
Digital Output	4 channels relay output, rated output 5A@250VAC or 5A@30VDC;
Serial Port	1 RS485, supports Modbus Modbus RTU Master/Slave, expandable to 320 data points;
Temperature& Humidity Input	1 channel temperature&humidity input, temperature measurement range of -40 ~ 80°C, accuracy of ± 0.5°C, humidity measurement range of 0 ~ 100RH%, accuracy of ± 3%;
Communication protocols	Modbus RTU over TCP protocol, Modbus TCP protocol, MQTT protocol;
Scalable mapping data points	Max. 320 (Boolean, 16-bit, 32-bit, 64-bit)
Storage capacity	Built-in 8G SD card, Max 100,000 history records;
Battery backup	3.7V/900mA, supports power failure alarm;
Power consumption	Normal: 50mA@12V, Max: 150mA@12V;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Specification	Size: 175mm x 88mm x 30mm; metal material; net weight: 350g; wall-mounted, rail-mounted;
Working environment	Working temperature&humidity degree: -45~85°C, 5~95%RH;

APPLICATION SCENARIO



Typical Applications

Smart farming, smart water, smart cities, smart power, small weather station, Unattended room monitoring, smart factory, environmental monitoring, etc.

PRODUCT SELECTION TABLE

Model	2G/3G/4G	Temp&Humi	RS485	DI	AI	DO	Number of mapped data			
							bool	16bit	32bit	64bit
S270	√	1	×	2	2	2	×	×	×	×
S271	√	1	×	4	4	4	×	×	×	×
S272	√	1	1	8	6	4	64	64	×	×
S274	√	1	1	4	×	4	64	128	64	64
S275	√	1	1	8	6	4	64	128	64	64

Serial Server

Model:D224

D224 Serial Server, a converter for converting serial data from industrial devices to Ethernet data. D224 can easily connect serial devices based on RS232, RS485 and TTL protocols such as PLCs, meters and sensors to Ethernet for access to cloud, or allow software to access serial devices from anywhere via local LAN or Internet devices, or for PLC remote downloading and maintenance, long distance communication between PLC and PLC, free choice of data path (including data transmissions between RS232, RS485 and TTL, etc.).



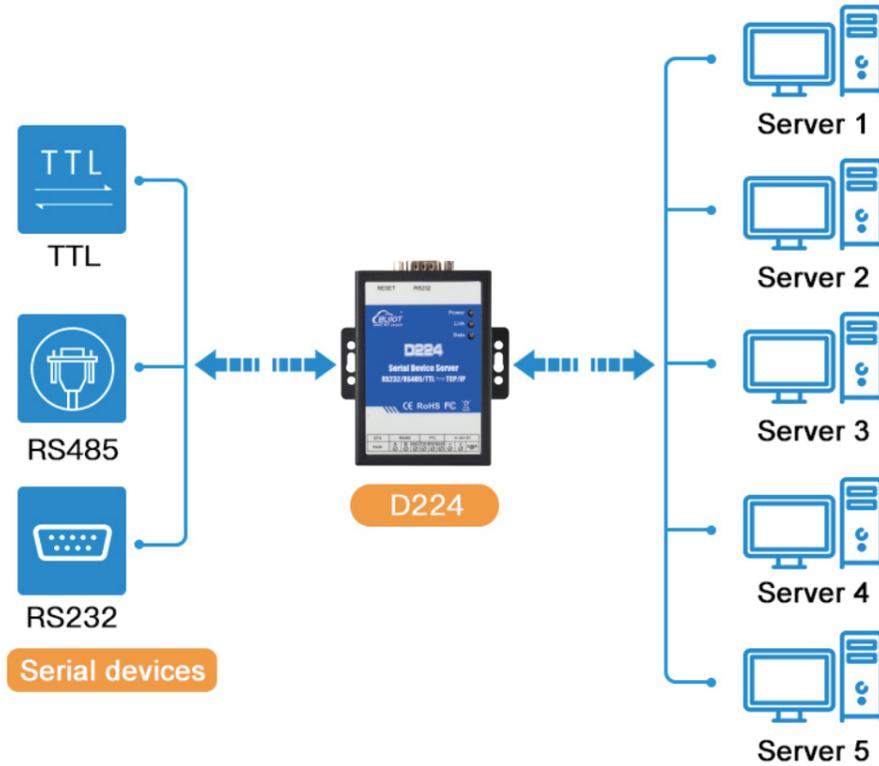
Main Function

- Serial port → Server supports simultaneous pass-through to 5 servers;
- Pass-through between RS485, RS232 and TTL;
- Support Server and Client online at the same time;
- Support registration package and anti-dropout;
- Modbus gateway function, support Modbus RTU and Modbus TCP protocol interchange;
- Customized device names for user identification;
- Support server domain name resolution;

Parameters	Description
Ethernet port	1 x RJ45, 10Mbps, ESD contact: 8KV, Surge: 4KV (10/1000us)
Serial port	1 x RS485, 1 x RS232, 1 x TTL;
Communication protocols	TCP/IP data transit, Modbus RTU to Modbus TCP;
Working mode	Support TCP Server, TCP Client, UDP Server, UDP Client multiple working modes. Functions as a client while acting as a server. Supports access to up to 5 TCP/UDP clients as a server, and up to 5 TCP/UDP target servers as a client.
Serial Port strategy	Support serial port policy function, data path can be freely selected, such as: RS232 and RS485 to each other (RS232 to RS485), RS232 and Server 1 to each other (RS232 to Server 1), RS232 and TTL to each other (RS485 to TTL), etc.
Max. number of links	Supports simultaneous linking of 5 TCP/UDP target servers and 5 TCP/UDP clients;
Data paths	Support custom selection of mutual transmission between RS485, RS232 and TTL;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Power	Size: 96mm x 68mm x 25mm; metal material; net weight: 260g; wall-mounted, rail-mounted;
Working environment	Working temperature and humidity: -35 ~ +75 °C, 5 ~ 95%RH;

APPLICATION SCENARIO

Application Diagram



Typical Applications

Smart factory, Smart grid, Smart transportation, Unattended server room monitoring, Supply chain automation, Environmental monitoring, Smart agriculture, etc.

PRODUCT SELECTION TABLE

Model	2G/3G/4G	Ethernet	RS485	RS232	TTL	DI	CAN	GPS	Note
D223	1	×	Default RS485. Optional RS232/TTL		1	×	×	Not optional	Serial Transparent Transmission (cellular network)
D224	×	1	1	1	1	×	×	Not optional	Serial Transparent Transmission (Ethernet)
BL110	1	1WAN,1LAN	3	1	×	×	1	Optional	Multi-functional IoT Gateway

Network Fault Monitoring RTU

Typical model:RTU5028E

4G wireless remote network fault monitoring terminal RTU5028E can be used for disconnection and power failure network fault monitoring, applicable to the state monitoring of server rooms, base stations, laboratories, network cameras, servers, etc.. It can automatically determine the cause of failure of 7 network devices, distinguish whether the network device failure is caused by network failure or power failure, and can automatically or manually restart the device remotely to solve the failure problem, which greatly improves the efficiency of network equipment operation and maintenance.

Main Function

- Multi-way real-time monitoring of network disconnection + power failure + network cable failure;
- Supports simultaneous monitoring of 7 network devices, including WiFi devices;
- Automatically determine whether a network device failure is caused by a network or a power outage;
- Automatic or manual remote reboot of the device to solve problems quickly;
- Built-in 4G and Ethernet communication method;
- Support BLIIoT Cloud and SCADA and other monitoring centers;



Parameters	Description
Monitoring network	LAN 7-way IP and the ability to monitor the external network;
Network interface	1 RJ45 network port, support DHCP dynamic IP acquisition or static fixed IP;
Digital Input	1 way normally closed relay output, contact capacity 7A/125VAC, 5A/250VAC, 20A/14VDC; can achieve network restart, manual control function;
Communication method	SMS phone, GPRS/3G/4G wireless cellular network, Ethernet wired network;
Network protocols	Modbus RTU Over TCP, Modbus TCP, MQTT;
Storage capacity	The machine can store 100 historical alarm records;
Battery backup	3.7V/900mAh, supports power failure alarm;
Power consumption	Normal standby: 100mA@12V; Maximum power consumption: 380mA@12V;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Specification	Size: 70mm x 88mm x 30mm; metal material; net weight 320g; wall-mounted, rail-mounted;
Working environment	Working temperature and humidity: -10~60℃, relative humidity 95% (no condensation)

APPLICATION SCENARIO

Powerful Network Penetration Function

After multi-level router switch, RTU5028E can still monitor the status of the bottom camera



Typical Applications

Smart traffic, Smart cities, Base stations, Server rooms, Network cameras and other networks equipment disconnection monitoring

PRODUCT SELECTION TABLE

Model	Intranet monitoring IP	Extranet monitoring	Power failure alarm
RTU5028E	7	Support	Support
R40	R40 router under the IP	Support	No support

Power Failure Phase Loss Alarm

Typical model:RTU5029S

RTU502x series products are temperature/humidity/analog/supply voltage/power failure monitoring alarms. The high and low limit alarm values of temperature/humidity/analog/power supply voltage can be set according to the actual application. Once the current value reaches the alarm value, an alarm SMS will be sent and make a call to notify the user. Support Modbus RTU Over TCP and Modbus TCP protocol to connect to the cloud, which can monitor the current status in real time through Web, APP and WeChat. Widely used in farms, warehouses, factories, laboratories and other places that need to monitor power failure and temperature.

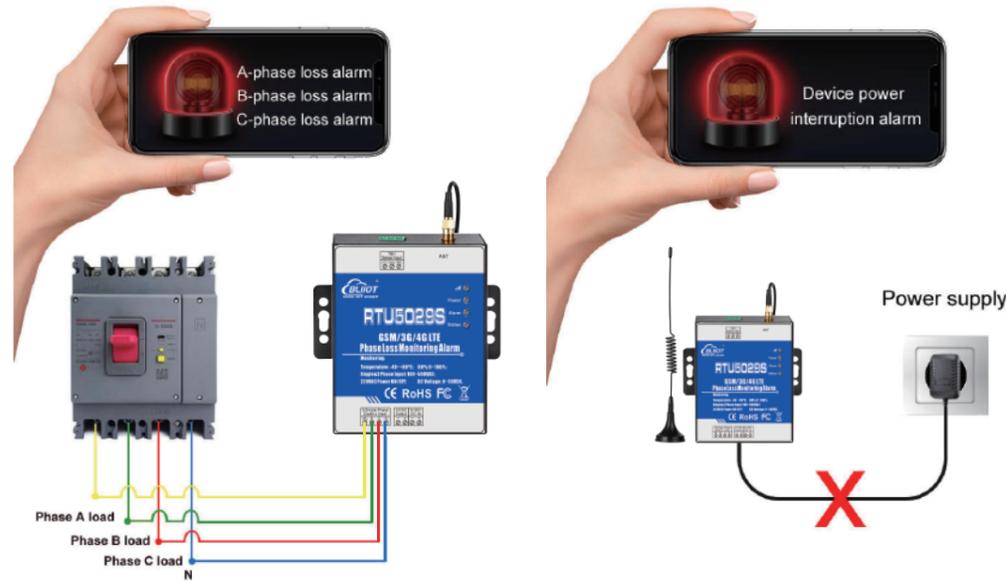
Main Function

- Multiple monitoring types: temperature, humidity, supply voltage, three-phase loss, single-phase power failure, etc;
- Support 10 authorized user numbers, SMS alarm, the last 5 authorized numbers can also receive alarm phone alert;
- Can be set to automatically report the current status to the first user number on a daily scheduled or periodic basis;
- Built-in rechargeable battery can continue to work for 8 hours in case of power failure;
- Support Modbus RTU over TCP and MODBUS TCP protocol;
- Support BLIIoT IOT cloud , Web, APP, WeChat real-time control;



Parameters	Description
Phase power input	Phase voltage: 100~500VAC;
Temperature & Humidity input	AM230x: Temperature measurement range -40℃~80℃, accuracy ±0.5℃, humidity measurement range 0~100%RH, accuracy ±3%RH;
Temperature input	DS18B20: Temperature measurement range -55℃~125℃, accuracy ±0.5℃;
Communication protocols	Modbus RTU Over TCP , Modbus TCP;
Battery backup	3.7V/900mA, supports power failure alarm;
Power consumption	Standby: 20mA@12V; Max power consumption: 150mA@12V;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Specification	Size: 80mm x 88mm x 30mm; metal material; net weight: 320g; wall-mounted, rail-mounted;
Working environment	Working temperature and humidity: -10℃~60℃, relative humidity 95% (no condensation)

APPLICATION SCENARIO



Typical Applications

Smart power, Unattended base stations, Machine rooms, Power distribution cabinets, Smart traffic, Smart farms and other scenarios that require monitoring electricity

PRODUCT SELECTION TABLE

Model	Monitoring Type	2G/3G/4G	Sound and light alarm	SMS App
RTU5023	220V power failure monitoring, DC 9-36V monitoring, 1-way temperature & humidity monitoring	✓	✗	✓
RTU5026	220V power failure monitoring, DC 9-36V monitoring, 1-way temperature & humidity monitoring	✓	✗	✓
RTU5028	220V power failure monitoring, DC 9-36V monitoring, 12V DC output	✓	✓	✓
RTU5029S-A	220V power failure monitoring, 380V three-phase four-wire monitoring, DC 9-36V monitoring, 12V DC output	✓	✓	✓
RTU5029S-B	220V power failure monitoring, 110-250V single-phase monitoring, DC 9-36V monitoring, 12V DC output	✓	✓	✓

Battery pack monitoring module

Typical model: BMS100

Battery pack monitoring module BMS100 is specially developed for battery pack monitoring in unmanned rooms and unattended scenes. It adopts 9-60VDC wide voltage power supply and can measure 12 single battery voltages of 2V, 6V and 12V, and can measure battery packs in groups, up to 6 groups, the total battery pack voltage that can be measured is 300V, and 2 analog inputs are reserved for measuring Battery pack total current total voltage and battery pack temperature. It can be connected to BLIIoT IOT cloud and seamlessly connected to SCADA.

Main Function

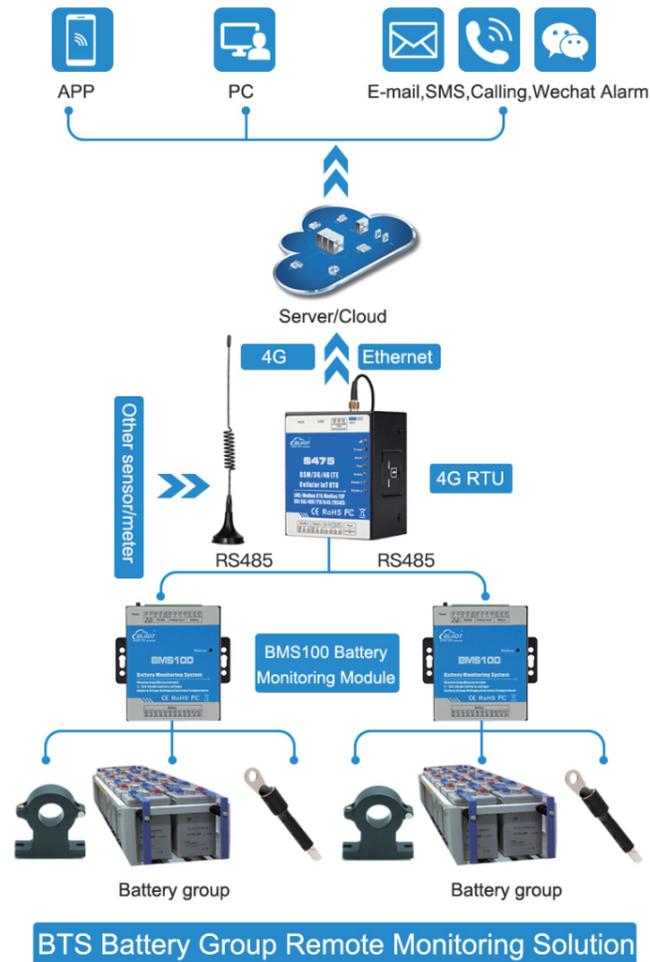
- Can measure 12 way basic voltage, 1 way total voltage; support 12 sections of 2V, 6V, 12V single battery voltage monitoring, total voltage Max. 300VDC;
- Support 2 analog inputs, optional 4-20mA or 0-5V, plus the corresponding instrument supports battery pack total current, total voltage, temperature real-time measurement;
- 1 ESD protection RS485 serial port, support Modbus RTU protocol, add BLIIoT Modbus gateway can upload all the data of the device to the cloud, and realize SMS, phone and WeChat alarm for over limit threshold;
- Support battery series, cascade, parallel, grouping a variety of wiring methods;
- Cascade to monitor small battery packs of more than 12 cells;
- Support group monitoring of battery pack voltage, up to 6 groups.



Parameters	Description
Single cell range	Single cell voltage support 3V, 6V, 15V three stops range, improve voltage measurement accuracy; can measure 2V, 6V, 12V single cell battery type;
Total voltage input	0 ~ 300VDC;
Analog input	2-channel 4-20mA or 0-5V, using 12-bit AD acquisition and processing, high measurement accuracy;
RS485 serial port	1 way RS485 with ESD protection circuit, can be connected to BLIIoT RTU, PLC, SCADA, etc.
Communication protocols	Modbus RTU Slave Protocol;
Wiring method	Support battery series, cascade, parallel, group;
Power consumption	≤0.3W;
Power supply	Wide working voltage design, 9 to 60VDC power supply;
Specification	Size: 70mm×80mm×30mm; metal material; net weight 180g; wall-mounted, rail-mounted;
Working environment	Working temperature and humidity: -10 ~ +60℃, 5 ~ 95%RH;

APPLICATION SCENARIO

Work with BLIIoT 4G Gateway Cloud to Remote Monitor Battery



BTS Battery Group Remote Monitoring Solution

Typical Applications

Single cell voltage support 3V, 6V, 15V three steps range, improve voltage measurement accuracy; can measure 2V, 6V, 12V single cell battery type

PRODUCT SELECTION TABLE

Model	AI	DI	DO	RS485	Temperature & Humidity	Monitoring range
BMS100	2	×	×	1	×	12 channels 0-3V, 0-6V, 0-15V
BMS110	2	2	1	1	1	4 channels 15V

Temperature & Humidity Alarm Controller

Typical model: S265

4G RTU remote temperature&humidity alarm controller S265 is the most cost-effective IoT temperature&humidity data monitoring and control RTU. Users do not need to visit the site, they can set the high limit alarm and low limit alarm threshold of temperature&humidity according to different needs. When the temperature or humidity reaches the set high and low limit alarm threshold, this product will immediately notify users through SMS, call, GPRS, 3G, 4G network as well as transmit data to monitoring center and cloud platform, APP, and at the same time automatically execute the action of shutting down or turning on certain equipment.

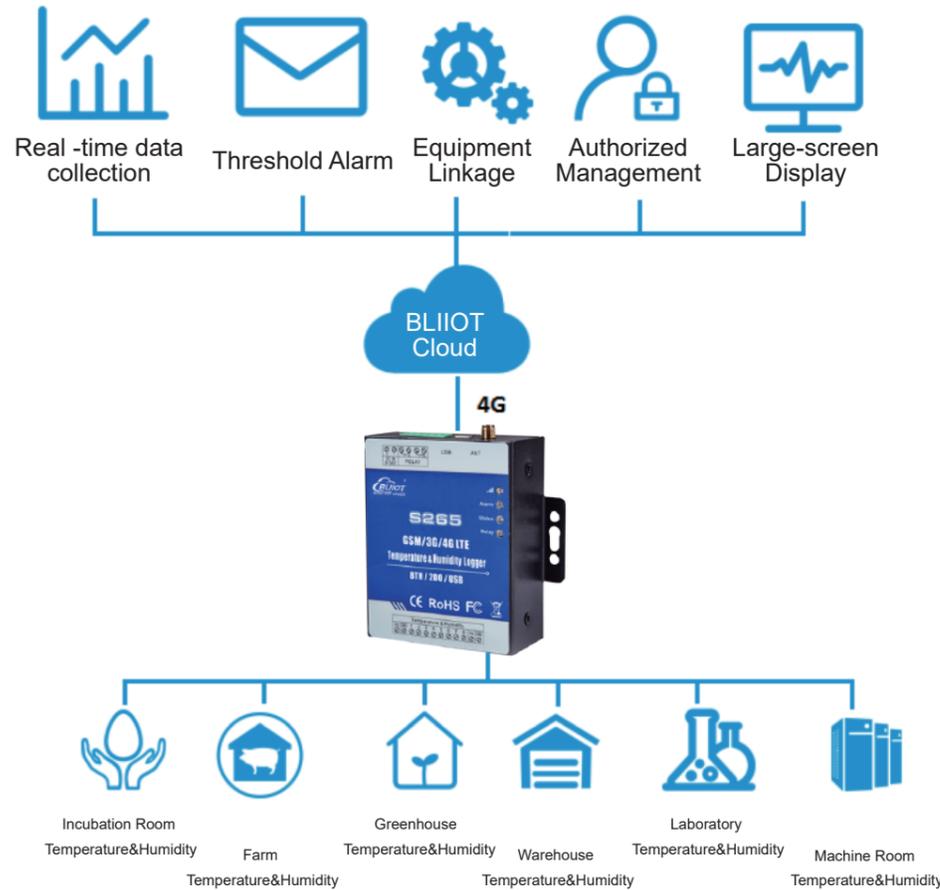
Main Function

- 8 temperature&humidity collection, 2 Relay output, can be set to automatic control or remote control through SMS, GPRS, 3G, 4G network;
- 10 user numbers can be set, and each number can be set to receive only specific SMS alarm messages;
- Support alarm recording, interval recording, large memory can store up to 200,000 historical records;
- Support regular automatic reporting, regular reboot, regular automatic switching device function;
- External power failure alarm, recovery reminder function;
- BLIIoT cloud Web, APP, WeChat real-time control.



Parameters	Description
Temperature & Humidity input	AM230x: temperature measurement range -40 °C ~ 80 °C, accuracy ±0.5 °C, humidity measurement range 0 ~ 100%RH, accuracy ±3%RH;
Temperature input	DS18B20: Temperature measurement range -55 °C ~ 125 °C, accuracy ±0.5 °C;
Digital output	2 Relay output, rated output 7A/125VAC, 20A/14VDC;
Communication method	GSM, 3G, 4G;
Support protocols	Modbus RTU, BLIIoT protocol;
Storage capacity	Up to 200,000 historical records or alarm events can be stored;
Battery backup	3.7V/900mA, supports power failure alarm;
Power consumption	Standby: 12V/16mA; Operating Max: 12V/150mA;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Power output	2 channel 3.3VDC power output for external device power supply;
Specification	Size: 70mm x 88mm x 30mm; metal material; net weight 320g; wall-mounted, rail-mounted;
Working environment	Work temperature and humidity: -10 ~ 60 ° C, 5-95%RH;

APPLICATION SCENARIO



Typical Applications

Classrooms, hospitals, food warehouses, offices, factories, libraries, laboratories Room, etc.

4G SMS Alarm Controller

Typical model: S150

S150 is a cost-effective remote SMS monitoring controllers, supporting 8 digital input alarm, recovery status alarm and 2 relay output. Users can easily achieve remote control (on and off) of equipment, status inquiry, monitoring and anti-theft protection through SMS or cell phone SMS APP software anytime and anywhere.

Main Function

- 8 channels digital input, 1 associated relay output, 1 SMS control relay output;
- SMS arming and disarming;
- Power failure alarm function, automatically send SMS to user's cell phone for alarm when AC power is lost or restored;
- Timing patrol, you can set 0-24 hours host automatic reporting function, so as to avoid the failure of alarm due to the lack of sufficient balance of SIM card in the host.



Parameters	Description
Digital Input	8-way, dry contact, normally open/normally closed, end-of-line resistance 3 wiring modes;
Digital Output	2 relay outputs, rated output 240VAC@3A. 1 associated relay outputs, which can be used to set how long the relay will be closed when a particular input or multiple inputs are triggered. 1 SMS control relay output, the user can use the SMS password + CC to close (i.e. turn on the device) the relay, or use the SMS password + DD to open (i.e. turn off the device) The relay has a powerful built-in timer function;
Battery backup	3.7V/900mA, supports power failure alarm;
Power consumption	Normal: 50mA@12V, Max: 150mA@12V;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Specification	Size: 70mm x 88mm x 30mm; metal material; net weight: 320g; wall-mounted, rail-mounted;
Working environment	Working temperature and humidity: -45 ~ 85 °C, 5 ~ 95%RH;

PRODUCT SELECTION TABLE

Model	2G/3G/4G	Input Type	Measurement range	Relay	Alarm number
S265	√	8 x AM230X Temperature & Humidity Sensor	Temperature measurement range -40 °C ~ 80 °C, accuracy ±0.5 °C Humidity measurement range 0 ~ 100%RH, accuracy ±3%RH	2	10
S266	√	8 x DS18B20 Temperature Sensor	Temperature measurement range -55 °C ~ 125 °C, accuracy ±0.5 °C	2	10

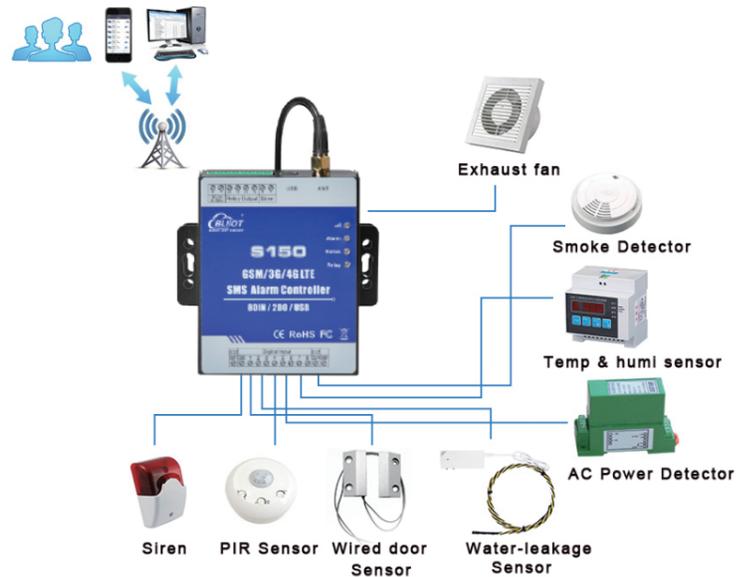
PRODUCT SELECTION TABLE

Model	2G/3G/4G	DI	DO	SMS alarm number	Phone alarm number
S130	√	2	2	3	5
S150	√	8	2	3	5

APPLICATION SCENARIO

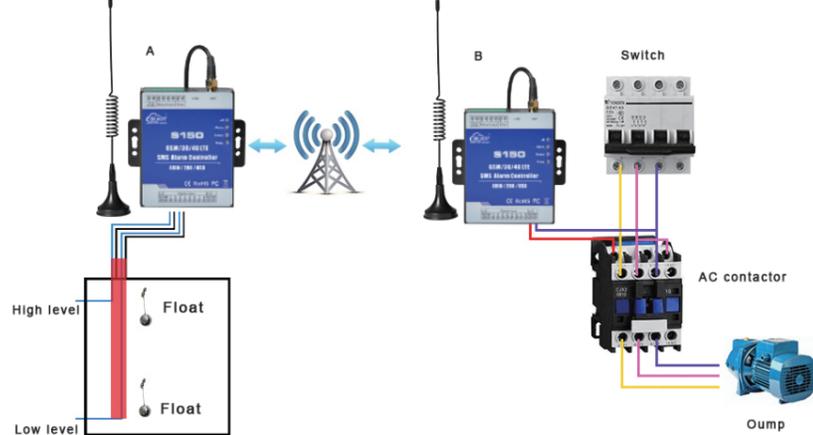
Environmental Automatic Monitoring Alarm

Monitor the Environment by detector, When the detector alarms, it sends a message to the administrator automatically, and can start the device; if the temperature is too high, the air conditioner started, and when the water level is too high, the valve started.



Water/Fuel tank Remote Monitoring Control

Remotely monitor and control the water level in the tank Save labor costs, Solution as follows: Install a S150(A) at the water tank, detect the water level by water sensor WL-04, when detect the water level low level, then S150(A) will send SMS 1234CC to the S150 (B) to start the pump, when detect high level, then S150(A) send SMS 1234DD to S150(B) to close the pump



Typical Applications

Classroom, Hospital, Food warehouse, Office, factory, Library, Laboratory Room, etc.

4G Wireless Relay Controller

Typical model: RTU5022

4G wireless remote relay controller RTU5022 is one of the most cost-effective remote SMS controllers, providing 8 relay outputs for controlling equipment switching or start/stop, widely used in industrial sites, agriculture, pumps, machine rooms and other places for remote equipment control scenes.

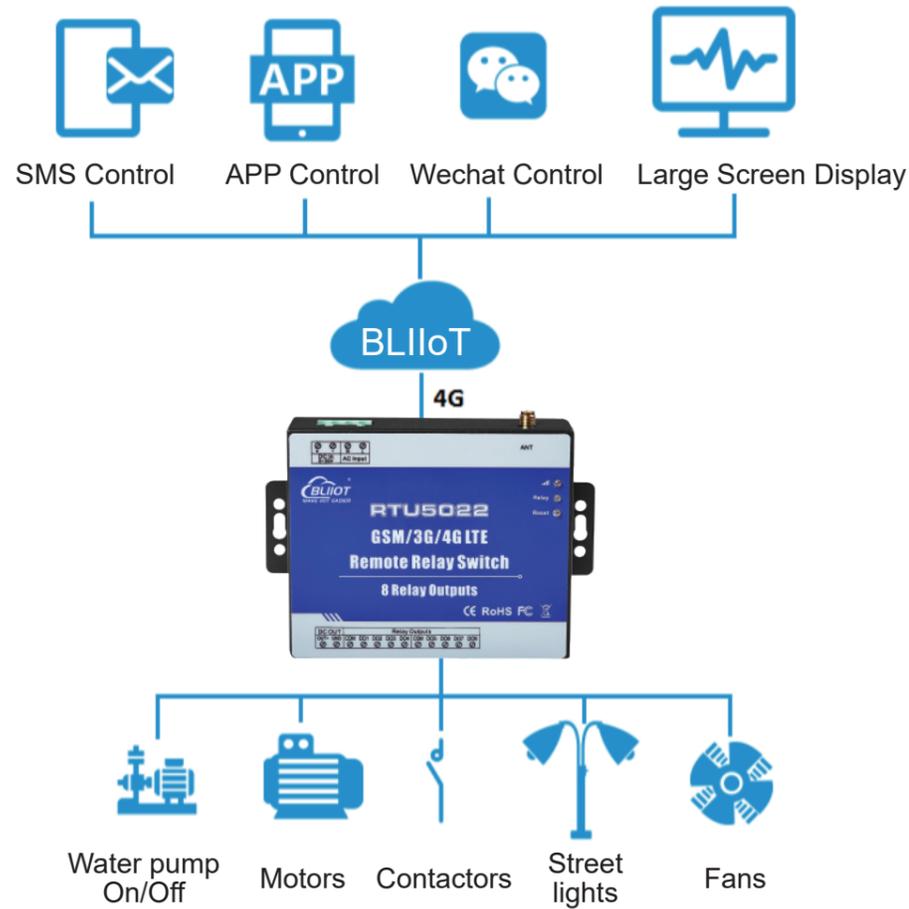
Main Function

- 8 relay output, rated output 7A/125VAC, 20A/14VDC, can be set to automatically turn on and off at regular intervals or controlled remotely via SMS;
- Simultaneous control of one or more relay outputs;
- Normally open, normally closed output and pulse output, etc.;
- Timed automatic reporting, timed reboot, timed automatic switching of equipment functions;
- 10 user numbers can be set to receive daily messages and other notification messages;
- Status memory function, when the external power is restored the relay maintains the state before power failure;
- Support BLIIoT IoT cloud Web, APP, WeChat real-time control.



Parameters	Description
Digital Output	8 relay output, rated output 7A/125VAC, 20A/14VDC;
SMS function	SMS configuration, support regular automatic reporting, regular restart, regular automatic switch, SMS control device function;
Communication protocols	Modbus RTU, BLIIoT protocols;
Settings	Use SMS or SMS APP to set parameters remotely, easy to operate and simple to use;
Battery backup	3.7V/900mA;
Power consumption	Standby: 12V/20mA; working maximum (8 relay closed at the same time): 12V/400mA;
Power supply	Wide working voltage design, support 9~36VDC power supply;
Specification	Size: 105mm x 88mm x 30mm; metal material; net weight: 320g; wall-mounted, rail-mounted;
Working environment	Working temperature and humidity: -10~60 C , relative humidity 95% (no condensation)

APPLICATION SCENARIO



Typical Applications

Remote and automatic control of agricultural production equipment, intelligent breeding equipment, industrial equipment, pumps, gates, etc.; remote control of industrial machine rooms, substation cabinets and other equipment

PRODUCT SELECTION TABLE

Model	2G/3G/4G	DO	SMS&APP
RTU5020	√	2	√
RTU5022	√	8	√

Remote Access Controller

Typical model: RTU5024

Remote Access Controller RTU5024 is simple to use as well as stable and reliable cost-effective remote controller, which can directly support cell phone call-in remote door opening at zero cost and can set 200 users to call-in the door within a limited time period.

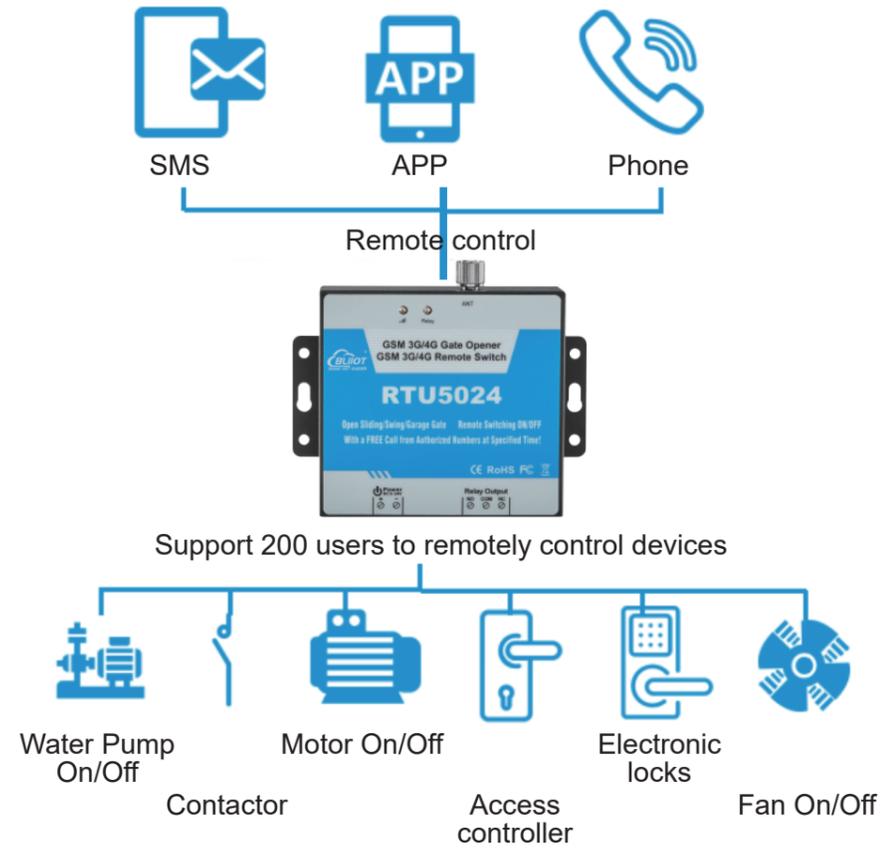
Main Function

- Support 200 sets of numbers, each set of numbers can be set in the prescribed time period to control relay;
- 1 relay output, closed after the number with permission to call in, and automatically disconnected after reaching the set time;
- Action SMS can be sent to the user after the privileged phone control relay;
- Between 0 and 1,999 seconds, the closing time of the relay can be controlled at will, where 0 indicates that the relay is closed after 0.5 seconds;
- You can query the current status of the device through SMS instructions (relay status and GSM signal value);
- The current status of the device can be uploaded regularly by SMS to the first user;
- Use the clock on the module to send yourself a text message to the time after each power-up.



Parameters	Description
Digital Output	8 relay output, rated output 7A/125VAC, 20A/14VDC;
Support number	SMS configuration, support regular automatic reporting, regular restart, regular automatic switch, SMS control device function;
Power supply	Use SMS or SMS APP to set parameters remotely, easy to operate and simple to use;
Working environment	Standby: 12V/20mA; working maximum (8-way relay closed at the same time): 12V/400mA;

APPLICATION SCENARIO



Typical Applications

Control water pumps, street lights, motors, electronic locks, access control machines, etc.

PRODUCT SELECTION TABLE

Model	DI	DO	User Number	Historical Data	Limited Time Access	USB	GPRS	2G/3G/4G
RTU5024	x	1	200	x	√	x	x	√
RTU5034	x	1	200	x	√	x	x	√
RTU5025	2	1	3000	1000	√	√	√	√