

# LA-GWAI-Z

## Smart Gateway



### Overview

LA-SmartG is a high-performance, cost-effective, flexible and scalable IoT gateway system composed of a new generation of dual-core A7 processor platform + deeply optimized Linux system for the following occasions:

Industrial IoT

Smart City

Smart box

Smart Agriculture

Intelligent power management, etc.

### The terminal platform mainly consists of four modules:

- Main control unit: realizes the IoT gateway function
- Broadband switching unit: a cloud platform that can remotely control and configure Ethernet interfaces.
- Intelligent cabinet management (IO) unit: collecting cabinet information, such as door opening and closing, water intake, temperature and controlling necessary mechanisms - alarm indication, fan, etc.
- Power supply management unit: implements power control of other equipment, collection of power consumption information

\* All of these modules are managed by the main module, and accept the unified scheduling, management and remote data visualization of the cloud platform.

## Main Control Module Specification

LA-SmartG-MC	Parameter	Note
Processor	Dual-core Cortex-A7@1GHz	
Storage	1GBit	NAND Flash
RAM	64MByte	DDR2
RS485	1CH	
RS232/485	1CH	
Ethernet Port	1CH	10M/100Mbps
Debug/Test Port	USB TYPE-C	
Antenna Interface	2*SMA	
4G Network	Support	
GPS	Support	
LORA	Support 1CH	
Hardware RTC	Support	
Hardware Watchdog	Support	
Digital Interface	2CH Optocoupler Isolation	Input/Output customization
Power Supply	24VD	
Installation Method	35mm Industrial Din-rail	

## Main Module Features

- Support 2 on the left, 5 on the right, expansion up to 7 modules
- Built-in temperature or temperature/humidity detection
- Support module auto-discovery
- Support module auto-configuration
- Built-in large-capacity energy storage capacitor to ensure that data is not lost when the system is powered off
- RS232/485 auto adaptation
- Industrial-grade interface protection
- Power supply directly from the debug port (When connecting USB to computer, 24VDC can not be powered on.)

## Power Module Specification

LA-SmartG-PM	Type A	Type B
Number of Management Channels	6CH	2~3CH
Voltage Control Capability	24~48VDC or 24VAC	220VAC
Different Voltage Automatic Adaptation	Support	Not Involving
Energy Metering	Independent Per Channel	Support Independent Per Channel
Overcurrent Protection	Support Independent Per Channel	Support
Indicator Light	Support	Support
Input Voltage Detection	Support	
Flow Capacity	Each Channel 3A@12/24, 2A@36/48	<2%
Load Power/Channel	About 60W	35mm Industrial Din-rail
Measurement Accuracy Error	<2%	Support
Installation Method	35mm Industrial Din-rail	Support

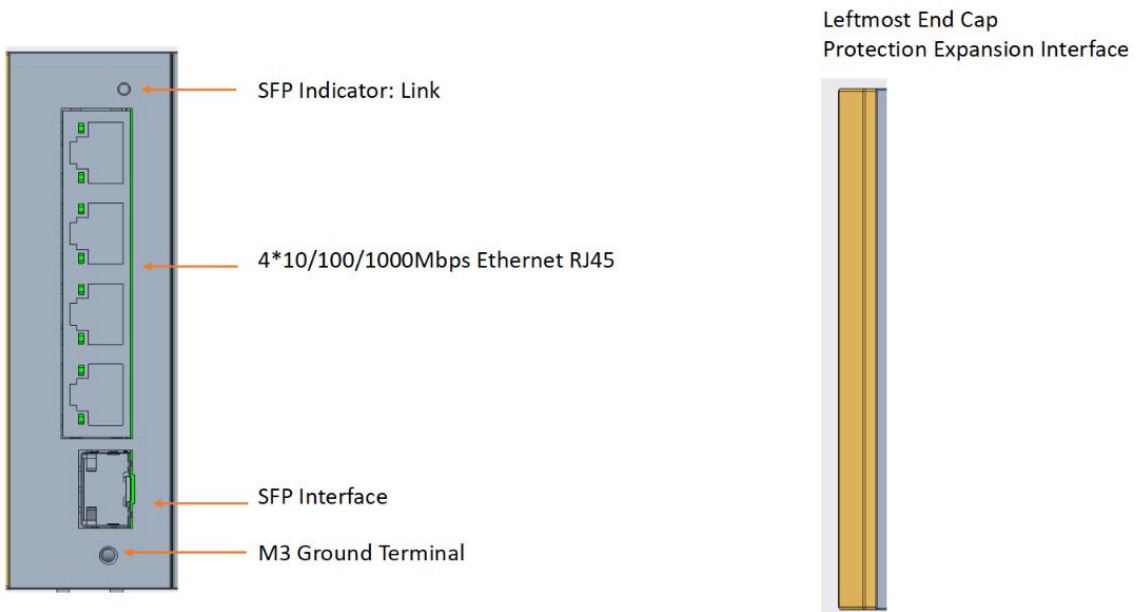
## Smart Box Management Module Specification

LA-SmartG-SBM	Parameter	Note
Auto-recloser Communication	Support	
Lightning Arrester Remote Signaling	Support	
Lightning Strike Count	Optional	
Smart Fan Control	Support	
Immersion Detection	Optional	
Door Open Detection	Support	
Internal Lighting	Support	
Strobe Warning Light	Support	
Automatic Heating	Optional	
Running Light	Support	2
Reserved Relay	Support	2, Stay Open/Closed Optional
Installation Method	35mm Industrial Din-rail	

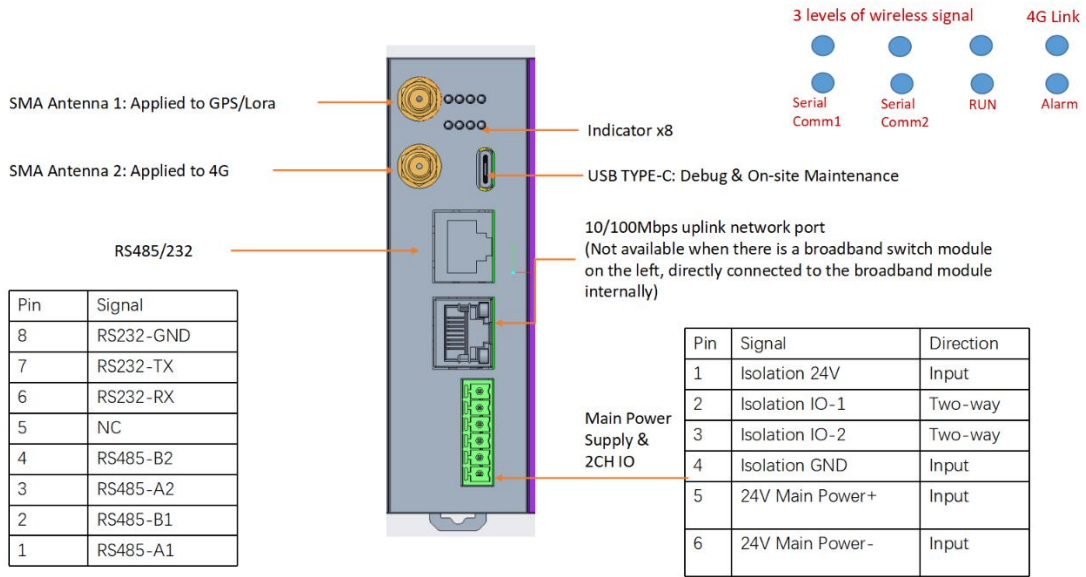
### Broadband Switch Module Specification

LA-SmartG-BS	Parameter	Note
Copper	4 * 10/100/1000Mbps	
SFP	1	
Port Status Monitoring	Support	
Port Enable Control	Support	
Device Access Authentication	Support	Black and White List
Port Remote Configuration	Support	
Installation Method	35mm Industrial Din-rail	

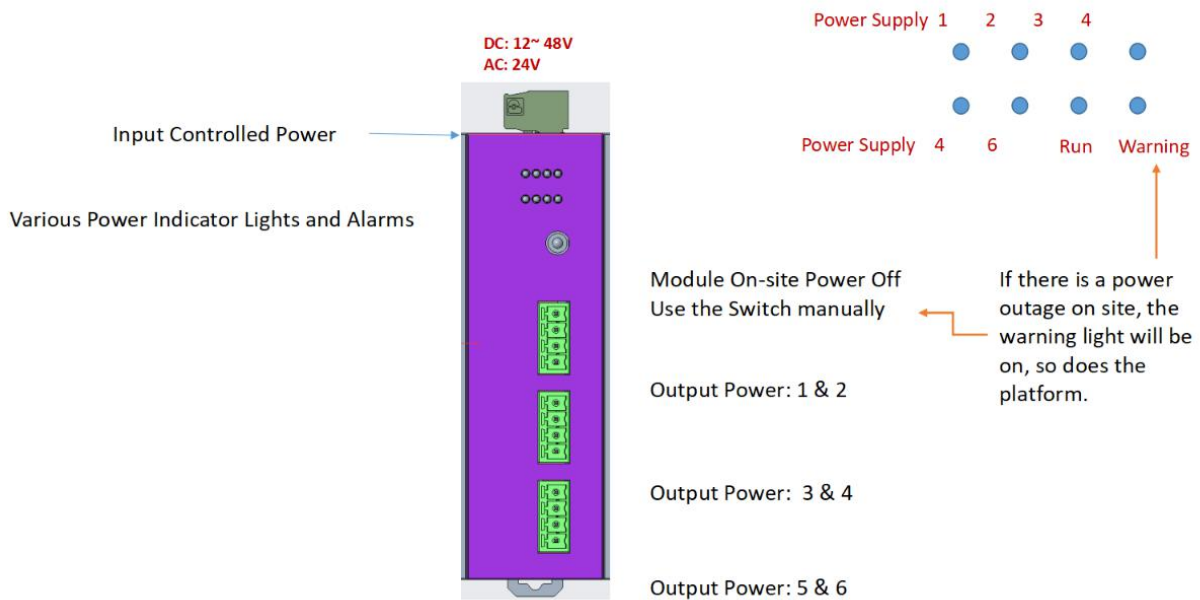
### Broadband Switch Module



## Main Control Module



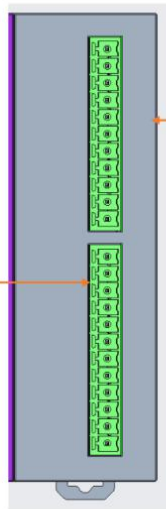
## Power Management Module Type A



### Smart Box Management Module

Pin	Description
1	Cabinet Light 1-
2	Cabinet Light 2-
3	Cabinet Light Public+
4	Fan Output+
5	Fan Output-
6	Illuming & Warning Strobe Lamp Common Output+
7	Illuming Lamp Output-
8	Alarm Strobe Light Output-
9	Heating Relay (COM) Support 220VAC
10	Heating Relay (NC/NO)
11	Reserved Relay (COM) Support 220VAC
12	Reserved Relay (NC/NO)

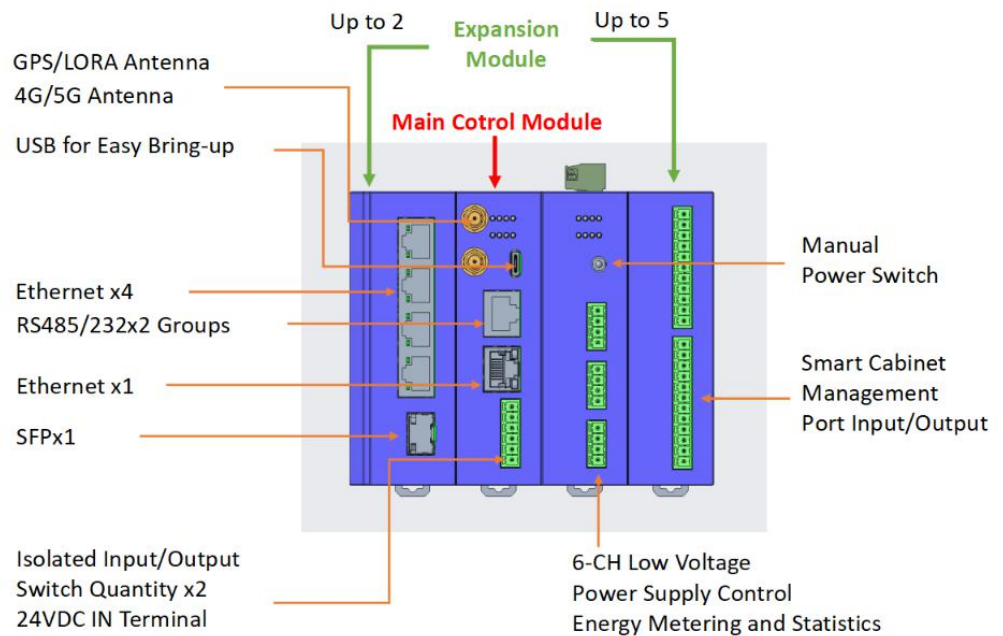
Note: The terminal is the upper 11P, the down 12P, to prevent reverse insertion during maintenance



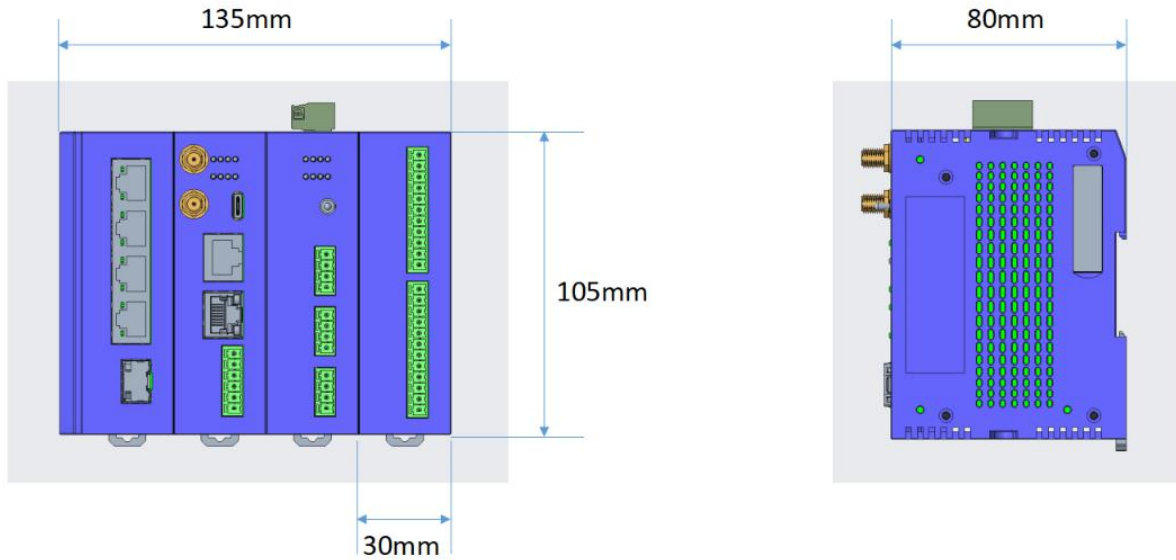
Pin	Description
1	Recloser SO
2	Recloser GND
3	Recloser Communication RS485A/RS232RX
4	Recloser Communication RS485B/RS232TX
5	Lightning Arrester Remote Signal Input+
6	Lightning Arrester Remote Signal Input-
7	Lightning Strike Count Signal Input+
8	Lightning Strike Count Signal Input-
9	Door Open Detection Signal
10	Incoming Water Detection Signal
11	Door opening and water ingress detection in Common Ground

\* The common ground is that the two detected ground wires are screwed to P11

### System Configuration



### Standard Configuration Size



### Ordering Information

PART NO.	DESCRIPTION
LA-SmartG	Standard Gateway Including: 1pc * Control Module (RS485/RS232/RJ45 communication port, 4G Wifi GPS function) 1pc * I/O Module (Detection of System, Light, Fan Temp, Humidity, Lightning) Optional: Switch Module 4*10/100/1000M RJ45+1*GE SFP (For Camera, Wireless AP and other Network Devices) Optional: Power Module 6ch Power for Each Single Module (Sufficient Supply for Cameras/ONU/Heaters/Fans, etc.) Optional: 4G/WIFI/GPS



<https://www.lanaotek.com>



Specifications & design are subject to change without prior notice.

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