ZiGMA BlueHalo L1 Smart Gateway Instructions

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ZiGMA

ZiGMA BlueHalo L1 Smart Gateway

Product Information

Product Overview

The Smart Gateway is an IoT device designed for specific scenarios and is an important part of the IoT architecture. It uses Bluetooth+2.4g wifi technology to connect a variety of sensors and devices to achieve data collection and transmission functions. It supports a variety of communication protocols and network transmission methods, provides rich application interfaces, and applies to various IoT scenarios.

Functional Features

- **Communication Method:** WIFI + BLEMesh
- **Communication Protocols:** Websocket, HTTP, TCP/UDP, SSL
- **Network Transmission Method:** Wi-Fi, Bluetooth
- **Effect Realization:** Node networking, node control, data transmission, processing, and storage
- **Security Mechanisms:** Encrypted transmission, permission control, anti-attack, and stable operation
- **Support Cloud Platform Access:** Can be controlled remotely and through voice speakers

Technical Parameters

- **Communication:** WIFI, Low-power Bluetooth
- **Operating System:** FreeRtos
- **Programming Language:** C language programming
- **Input Voltage Range:** DC 5V from Wireless charging or 3.7V from battery
- **Processor:** Dual-Core Processor
- **Output Voltage:** DC 5V/2A
- **Internal Memory Size:** 8MB
- **Size:** 135 mm x 100 mm x 25 mm

Data Processing and Analysis Functions

- Data Pre-processing: Supports data cleaning, de-duplication, format conversion, and other processing
- Data Filtering: Supports data filtering based on rules, time ranges, etc.
- Data Analysis: Supports data aggregation, statistics, analysis, and other operations
- Data Storage: Supports storage to local, cloud database, etc.

International/National Standards and Certifications

- **CE certification:** Complies with EU EMC and RoHS directives
- **FCC certification:** Compliant with US FCC standards

Application Examples
Smart gateways are widely used in a range of life scenarios such as smart homes. For example, intelligent management of home equipment can be achieved by connecting sensors, control panels, intelligent devices, such as intelligent lighting control, curtain control, home appliance control, etc.

Disclaimer
This product can only be used in the normal use environment and not for military and other illegal purposes and scenes. The company does not assume any responsibility for the consequences caused by the illegal use of this product.

Product Usage Instructions

Before using the Smart Gateway, please ensure that the input voltage range is either DC 5V from wireless charging or 3.7V from the battery.

To use the Smart Gateway:

1. Connect sensors and devices to the Smart Gateway using Bluetooth+2.4g wifi technology.
2. Configure communication protocols and network transmission methods to achieve data collection and transmission functions.
3. Use the rich application interfaces to process and analyze data.
4. Store data locally or on cloud databases.
5. Control the Smart Gateway remotely or through voice speakers.

Product Overview

Smart Gateway is an IoT device for specific scenarios, which is an important part of IoT architecture through various communication technologies to achieve interconnection between devices. This product adopts Bluetooth+2.4g wifi technology, which can connect a variety of sensors and devices to achieve data collection and transmission functions, support a variety of communication protocols and network transmission methods, provide rich application interfaces, and apply to various IoT scenarios.

Functional Features

This product has the following main functional features:

1. Support Blemesh communication protocol: easy access to various sensors and devices
2. Data processing and analysis: integrated with rich data processing and analysis functions, supporting data pre-

processing, filtering, analysis and storage, etc.;

3. Security and reliability: multi-layer security mechanisms are adopted, including encrypted transmission, permission control, anti-attack and stable operation, etc., to ensure safe and reliable data;
4. Internet cloud platform access: support access to the cloud platform, convenient for users to carry out Internet-based management and operation and maintenance.
5. 2.1-inch 480*480 resolution high resolution screen with knob control, easy for user interaction

Technical parameters

The following are the basic technical parameters of this product:

Communication method	WIFI + BLEMesh
Communication protocols	Websocket HTTP TCP/UDP ssl

Network transmission method	Wi-Fi Bluetooth
Effect realization	Node networking, node control, data transmission, processing and storage
Security Mechanisms	Encrypted transmission, permission control, anti-attack and stable operation
Support cloud platform access	Can be controlled remotely and through voice speakers

Technical Specifications

Communication protocols supported	WIFI Low-power Bluetooth	Operating System	FreeRtos
Programming Language Support	C language programming	Input Voltage Range	DC 5V from Wireless charging or 3.7V from battery
Processor	Xtensa® 32-bit LX7 Dual-Core Processor	Output Voltage	DC 5V/2A
Internal Memory	8MB	Internal Memory	8MB
Size	135 mm x 100 mm x 25 mm		

Data processing and analysis functions

This product supports the following data processing and analysis functions:

Data pre-processing	Support data cleaning, de-duplication, format conversion and other processing
Data Filtering	Support data filtering based on rules, time ranges, etc.
Data Analysis	Support data aggregation, statistics, analysis and other operations
Data Storage	Support storage to local, cloud database, etc.

International/national standards and certifications
This product is required to meet the following international/national standards and certifications:

- **CE certification:** Complies with EU EMC and RoHS directives;
- **FCC certification:** Compliant with US FCC standards;

Application Examples
Smart gateways are widely used in a range of life scenarios such as smart homes, for example:

- **Smart Home:** Intelligent management of home equipment can be achieved by connecting sensors, control panels, intelligent devices, such as intelligent lighting control, curtain control, home appliance control, etc.

Disclaimer
This product can only be used in the normal use environment, not for military and other illegal purposes and scenes, for the consequences caused by the illegal use of this product, the company does not assume any responsibility.

Installation & Use

How to configure each device

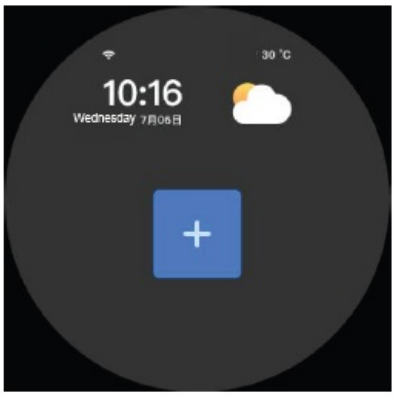
- **Wall Switches:** After power on, press and hold any button for 3~5s, hear a ticking sound (or the indicator light flashes once) to enter the network distribution state.
- **Thermostat:** After power on, turn on the machine and then long press the set button (like a gear) for 3~5s, and hear the ticking sound to enter the distribution state.
- **Bulb lamp:** After power on, switch three times. The bulb color is orange warm light effect that is to enter the distribution network state.
- **Curtain:** After power on, use a thin object (e.g. paperclip, pen) to press the switch of the motor for a long time, the red light constant is to enter the distribution state.

Instruction

Gateway Features and Pages Introduction

NO.	Operation method	Functions realized by each interface
1	Click	Main screen, main menu – OK option Device control interface – turn on and off the corresponding device
2	Double-click	Main Screen – Shutdown When the version number of device control interface and gateway is selecte d – upgrade the corresponding device and gateway
3	Press and hold	Main interface – enter the main menu Main menu and submenu, each device control interface – return to the previ ous interface or enter the main menu
4	Rotation	Select each device or control equipment

Main Screen

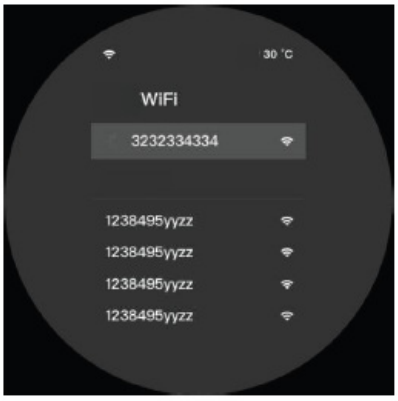


Device control page

Main Menu

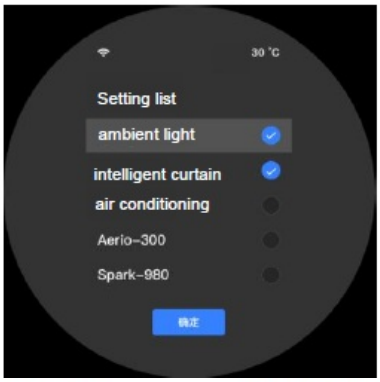
Device Management - Add

WiFi settings page

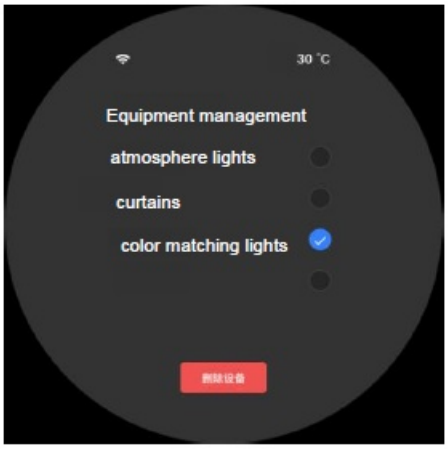


About this machine page

Gateway binding page



Device Management - Delete



Gateway setting language

First-time use:
After power on, it will automatically enter the language setting and wifi setting, after the configuration is finished, it will enter the main interface; if you want to skip the wifi setting, you can press and hold 3~5s on the wifi setting page to enter the main interface. To change the language for subsequent use: you need to enter the main menu page. Select “About this machine”, rotate and select “Restore factory settings”, and then you will enter the steps for first-time use.

Specific operating instructions:

1. In the off state, press and hold the screen for 3~5s to turn on the phone
2. After powering on, you can select the language directly for the first time or for the second time Press and hold the screen for 3~5s on the main page to enter the main menu.
3. Rotate and select “About this machine” click, enter the page, rotate and click to select restore factory settings, agree to restore factory settings to reset the language.

Gateway setup WiFi
First-time use: After powering on, it will automatically enter the language setting and wifi setting, after the configuration is finished, it will enter the main interface; if you want to skip the wifi setting, you can press and hold 3~5s on the wifi setting page to enter the main interface.
If you need to change wifi for subsequent use: you need to enter the main menu page. Select “Set wifi” and enter the corresponding password to complete the wifi setting.

Specific operation instructions:

1. In the off state, press and hold the screen for 3~5s to turn on the phone
2. After powering on, you can configure wifi directly for the first time or in subsequent use Long press the screen for 3~5s on the main page to enter the main menu
3. Select and click “Set wifi”, rotate and click the corresponding hotspot name, rotate and click the corresponding wifi password character, click “√” to verify the wifi password, and finish the wifi configuration after it is correct.

Configuration/control/deletion of gateway devices

Gateway configuration-related equipment
When the gateway configures the relevant device, you need to activate the relevant device first to make it enter the configuration state; then control the gateway, search for the corresponding device, and click Add to complete the configuration of the device.

Specific operating instructions:

1. Activate the device to be configured (see “How to configure each device” in this manual for the activation method)
2. Select “+” in the main interface or long-press the screen for 3~5s in the main interface to enter the main menu, rotate to select and click “Device Management”
3. After entering the device management page, select and click to add the corresponding device, select and click “Add Device” below, and wait for the device configuration to complete

Gateway control devices
The devices displayed in the main interface of the gateway are the added devices, rotate to select and click the corresponding device to enter the operation page of the corresponding device, you can send the corresponding command to complete the device control

Specific operating instructions:

1. Power on and select the configured device.
2. Click the corresponding device icon to enter the operation page of the corresponding device.
3. After the control is completed, long press 3~5s on the current page to exit the operation page and enter the

main interface.

Gateway Delete Device
If the gateway has added settings that are no longer needed, you can enter the main menu, rotate and click on “Device Management”, and then delete the corresponding device.

Specific operation instructions:

1. Turn on the computer and long press the screen in the main interface for 3~5s
2. Go to the main menu, rotate to select and click “Device Management”
3. After entering the device management page, select and click to add the device to be deleted, select and click “Device Delete” below, agree to delete and then wait a few seconds.

Gateway and APP binding

1. You need to open the “Zigma” app, scan the code and add the gateway. Specific operating instructions:
    1. Download and open the “Zigma” App on your cell phone, click on the “+” in the upper right corner of the home page.
    2. The gateway needs to long press the screen for 3~5s in the main interface to enter the main menu.
    3. Rotate to select and click “Bind APP” to show the QR code of APP connection.
    4. Mobile phone can scan the QR code on the gateway to complete the connection.
2. **Gateway firmware upgrade**
   Press and hold the screen for 3~5s after power on, rotate and click “About this machine”, then rotate and select “Firmware version”, double click the screen to start upgrading the gateway.

Frequently Asked Questions

How does the gateway configure the network?
Turn on the phone, long press to enter the settings page, select wifi settings and select standalone, turn the knob to select the corresponding wifi, and then enter the password; the first time you use it will directly enter the language selection and wifi configuration.

How does the gateway configure the associated Bluetooth devices?

- Activate the device to be added and make it enter the distribution status; select “+” on the home page of the gateway and click or go to the settings page and select Device Management, and then select the corresponding device to add after entering the Device Management page.

How does the gateway connect to Zigma-APP?

- With the phone on and connected to the Internet, press and hold to enter the settings page, select the APP connection, then open the downloaded Zigma-APP, click the “+” in the upper right corner of the home page to add the code directly.

Why can’t the gateway be configured for the network?

- Need to select 2.4g-wifi

After-sales service
This product comes with a free 1-year warranty and can be contacted by the user through the following

- **Tel:** 13302948759
- **E-mail:** support@zigma.co
- **Address:** Unit D,16/F, One Capital Place,18 Luard Road, Wan Chai, Hong Kong.

Cautions

- Please take good care of this manual
- Please do not modify or disassemble this product by yourself
- Please avoid using this product in places with high temperature, humidity or harmful atmosphere
- Please pay attention to safety and protection of personal privacy when using this product.

FCC Warnings

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference,
2. This device must accept any interference received, including interference that may cause undesired operation.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device,pursuant to part 15 of the FCC Rules.These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates,uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions,may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

Conclusion

This product has powerful communication and data processing capabilities, and provides a variety of access methods and application interfaces, which is one of the important devices in the field of Internet of Things. We will continue to optimize and improve the performance of the product to bring more perfect service and experience for users. If you have any questions or suggestions in the process of use, please contact us in time, thank you!

Documents / Resources

	ZiGMA BlueHalo L1 Smart Gateway [pdf] Instructions 2AW74-L1, 2AW74L1, BlueHalo L1 Smart Gateway, BlueHalo Smart Gateway, L1 Smart Gateway, Smart Gateway, L1 Gateway, Gateway

References

- Zigma.Home | Zigma | Robot Vacuums | Air Purifier For home