

Bluetooth Gateway

UG2000-ID

User Manual

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- During the use of the device, operators should be reminded that the presence of assistance tools shall not reduce their safety awareness. Regular device inspections are required. If you encounter any problems, please don’t hesitate to contact us at Info@blueiot.com for prompt repairs or replacements.

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1. Product Introduction

1.1. Product Overview

UG2000-ID features continuous monitoring and reporting capabilities for Bluetooth broadcasts. Specially designed for indoor beacon and tag positioning devices, it uploads Bluetooth ranging and monitoring data from positioning terminals to the platform server via wired Ethernet. It boasts extensive coverage, low latency, high concurrency and superior stability.

The UG2000-ID universal Bluetooth gateway supports dual power supply via PoE/DC, Suitable for a wide range of indoor environments, it meets the requirements for personnel and asset tracking as well as environmental data collection. It serves as an ideal solution for industries including healthcare, warehousing, transportation and manufacturing.



1.2. Functional Features

Wide-area communication, supporting up to 180 meters coverage in open environments

Extremely high label scanning capacity, with single-channel scanning capacity exceeding 300 broadcast packets per second

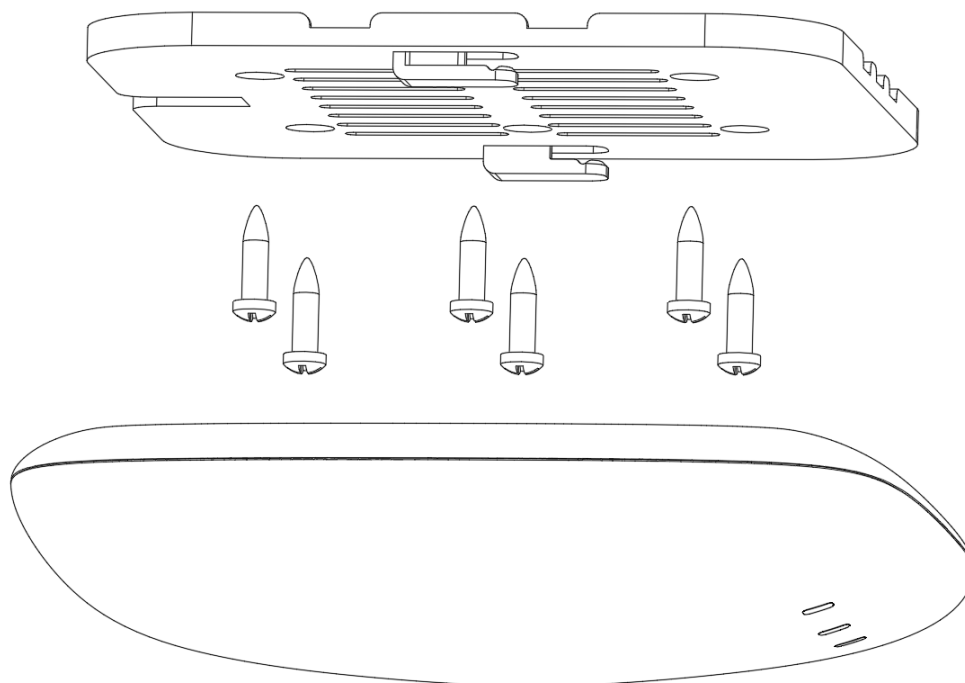
The single gateway supports two mainstream Bluetooth positioning methods simultaneously: Beacon TAG three-point positioning and Bluetooth gateway RSSI positioning.

Supports label configuration, automatic content deduplication, and batch settings to facilitate rapid on-site deployment.

2. Instructions for Use

2.1.install

The UG2000-ID gateway is typically installed as a ceiling-mounted unit; alternatively, it can be mounted using suspension or wall mounting methods depending on the specific structural characteristics of the buildings ceiling.



The Bluetooth gateway captures Bluetooth signals, so it has strict requirements for installation location and surrounding environment: the gateway must be installed correctly with its front facing downward. It should not be installed vertically or at an angle.

The Bluetooth gateway must not be obstructed, and its visible coverage area should be maximized. It is prohibited to install the Bluetooth gateway above obstructions such as ceilings (including metal materials like aluminum panels and non-metallic materials like gypsum boards or glass panels), low-voltage cable trays, fire protection pipelines, air conditioning ducts, or indoor greenery.

The Bluetooth gateway should be positioned away from objects that may cause signal reflection, such as large metal surfaces or large screens.

2.2. supply electricity

- Supports POE power supply.
- Supports AC 200V~240V input and DC 12V/1.5A output adapter power supply.
- Under both power supply modes, DC power supply takes precedence.
- Note: Always power the device using the provided adapter.

2.3. Network Connection

2.3.1 Wired Network

- There are two common wired connections between the anchor and the server, as shown in figures 2.3.1 and 2.3.2:

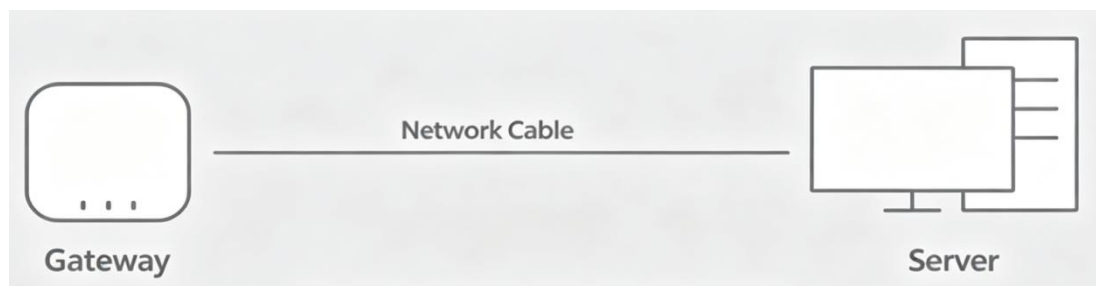


Figure 2.3.1 Direct connection via network cable

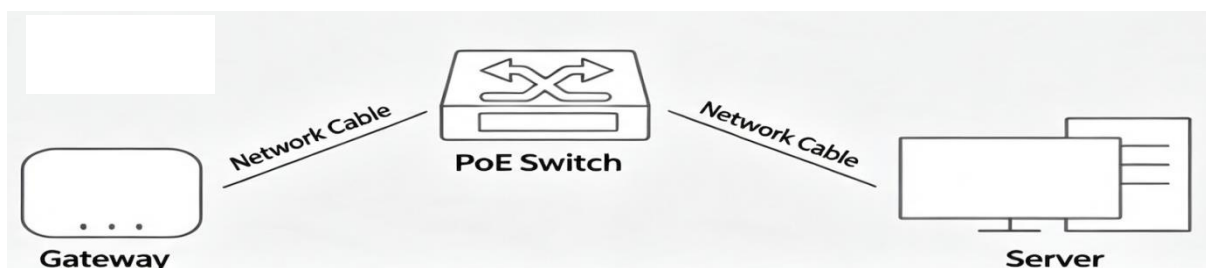


Figure 2.3.2 Connection via switch or router

2.4 Network Configuration

The anchor uses fixed IP address to access the network, and does not support DHCP function. The default factory IP address of the anchor is “192.168.1.X” and it uses port “48395” to communicate. The last “X” in the IP address is related to the Anchor ID, which equals to the remainder of (Anchor ID+11)/256.

For example, the anchor ID is 1272, $X = \text{mod}[(1272+11)/256] = 3$, so the IP address of the anchor is 192.168.1.3.

Before modifying the network settings of the anchor, you should first modify the IP address of the computer so that it can be in the same network segment as the anchor. It is recommended that the computer's network be configured as follows:

IP address: 192.168.1.11

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.1

The specific parameter configuration of the anchor network needs to be completed through the “Location Configuration”- “Anchor Settings” module in the BlueIOT Positioning Engine Management Software. The specific operation method can be found in the relevant instructions of the software. Configuration can also be done through BlueIOT Network Configuration Tool.

2.5. Server and Backup Server IPs

The gateway can upload data to two IP addresses simultaneously and is typically used in dual-server hot standby systems. The backup servers IP address is determined by subtracting 1 from the last segment of the primary servers IP address. For example, if the primary servers IP address is 192.168.1.11, the backup servers IP address automatically becomes 192.168.1.10.

Enable the backup server service using the Localsense device configuration tool. As shown in Figure 2.5.1:

- (1) In Zone 1, select the gateway whose settings need to be modified.

(2) In Zone 2, select "Enable" in the Backup Server field and click Selected Gateway to complete the configuration of the selected gateway.

Clicking "All Gateways" will configure all gateways found in Zone 1 in bulk.

3. Maintenance and Care

Avoid placing the product in humid, dusty, extremely hot, extremely cold, strongly magnetic, or corrosive environments. Do not position the product near other heat sources or electromagnetic-sensitive equipment.

Do not strike or impact this device forcefully, and avoid using hard objects to pierce or scratch it.

This product should be transported and stored in its original packaging.

4. Precautions

Do not arbitrarily replace any components or structural elements that may compromise explosion-proof performance, as this could jeopardize the safety features.

The parameter data are sourced from Blue Creation Laboratory and may vary depending on product differences, usage habits, and environmental factors. Please refer to actual usage conditions for accuracy.

If the device is malfunctioning, contact the manufacturer. Do not disassemble or modify the device yourself in any way.

5. Warranty Details

The product comes with a 1-year warranty from Blue Chuangyuans after-sales service, covering malfunctions under normal usage conditions starting from the purchase date.

Non-Warranty Regulations:

Unauthorized maintenance, misuse, impact, negligence, abuse, fluid injection, accident, or modification;

Using non-original accessories for this product incorrectly;

Human-induced surface damages, such as scratches, dents, or depressions;

Damages caused by force majeure.

Attachment: Specification Parameters

product size	220mm × 220mm × 32mm
way to install	For ceiling-mounted or side-wall installations, the maximum height is 20 m.
network interface	RJ45
power rating	3W
Positioning diameter	≥25m
compatibility	Compatible with BLE 4.0 and above devices
Antenna Type	Built-in Antenna
Radio Frequency Range	2.4GHz ~ 2.4835GHz
levels of protection	IP65
power supply mode	IEEE 802.3af PoE 48V
working temperature	-40℃~80℃
Working Humidity	5% – 95% non-coagulating

FCC Caution.

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, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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

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 equipment should be installed and operated with minimum distance 20cm between the radiator & your body.