



AOA Positioning Base Station

AG2 product manual

V1.1



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1. Product Description

The AG2 AOA Positioning Base Station by Suzhou Xunxi Electronic Technology Co., Ltd. adopts 2.4GHz Bluetooth AoA arrival angle precise positioning technology, combined with high-precision positioning antenna array, and self-developed high-precision Self-Adaptation algorithm, with real-time positioning accuracy up to sub-meter level.

This product uses standard Ethernet data communication and 802.3af/at standard POE power supply.

Note: The AG2 AOA Positioning Base Station is only a part of the information seeking electronic Bluetooth AoA positioning system. For the overall installation, deployment, and debugging guidelines of the Open Platform, positioning engine, and other components involved in the Bluetooth AoA positioning system, please refer to other documents. This article will not elaborate.



Figure 1 AG2 AOA Positioning Base Station

2. Product features

Rounded square ceiling design, beautiful and technologically advanced, easy to install.

A single locator can achieve high-precision two-dimensional positioning.

Standard POE power supply, no need for additional wiring power supply.

3. Product parameters

Table 1 AG2 AOA Positioning Base Station parameters

	Positioning locator
Model	AG2
Shell material	ABS+PC
Shell color	White
External dimensions	230*230*50mm
Product weight	About 650g
Use power	POE power supply
Supply voltage	POE 48V
Antenna category	PCB Antenna
Power consumption of the whole machine	≤2W
Working temperature	-20°C~+60°C
Storage temperature	-40°C~80°C
Operating humidity	0%~90%
Communication protocol	2.4GHz and above BLE4.2
Operating frequency band	2.401~2.481GHz

Location coverage	2H (open environment)
Installation height range	H : 1m~10m
Positioning accuracy	0.1m~1m
Data postback	IEEE802.3 af/at
Network interface	10/100Mbps RJ45
Network indicator light	Support

* Indicator at 25 °C

4. Installation instructions

4.1 Interface description

RJ45 interface: POE power supply and data postback interface, which can be connected to standard POE switch through network cable to realize power supply network.

Reset button: Restore factory settings button, press and hold for 3 seconds, the green light of the locator will flash 5 times, indicating that the factory settings have been successfully restored.

The specific interface is shown in the following figure:

Reset button

RJ45 interface



Figure 2 Schematic diagram of AG2 positioning locator interface

4.2 Installation instructions

* Before installation, please confirm that the fixed position can withstand a weight of 2KG or more.

Install the mounting bracket firmly on the ceiling using M4 bolts as shown in the figure below.

Connect the network cable to the RJ45 interface of the locator.

Align the mounting bracket buckle position and push the locator into the mounting bracket buckle.

The installation bracket is shown in the figure below.



Figure 3 Schematic diagram of AG2 positioning locator installation bracket

4.3 Instructions for use

After the locator is properly installed and connected to the POE switch, the locator will start automatically. After starting, the operating status of the locator can be judged by the indicator light. The indicator light rules are shown in the following table:

Table 2 AG2 positioning locator indicator light description

Serial number	Status	Description
1	Green light flashing	Locator start
2	Red light flashing slowly	Getting IP Address
3	Green light flashing slowly	Get IP Address Successfully
4	The green light is always on	Connected positioning engine successfully
5	The traffic lights are not on	Locator failure

4.4 Precautions

1. AG2 positioning locators must use the specified standard POE power supply equipment for power supply (PSE equipment that complies with IEEE 802.3af/at protocol).
2. The locator is a wireless communication device that operates at -20 ° C to + 60 ° C, with a humidity of 0 to 90% in a non-condensing indoor environment. It should avoid rain or prolonged outdoor exposure, stay away from fire sources and strong electromagnetic interference sources, and try to avoid contact with high-voltage environments to avoid affecting normal function and damaging equipment.
3. Do not subject this product and its accessories to strong shocks or vibrations to avoid damaging this product and its accessories and causing malfunctions.
4. Please use original accessories (antenna, power supply, etc.). The use of non-original accessories may damage the equipment or affect performance. If there are changes to product specifications and accessories, the actual product shall prevail without further notice.

Statement: The content of this manual is for reference only. If there are any changes, no further notice will be given. Suzhou Xunxi Electronic Technology Co., Ltd. has the final interpretation right of the content of this manual.

Revision record

Revision date	Revised version	Reviewers	Modify the content
2021/7/31	V1.0	Lina Xu	New regulations made
2022/5/16	V1.1	Lina Xu	Modify shell details, parameter confirmation

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.

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.