



Datasheet

AoA Locator

Light Up Your Map
Model: AR1



AoA TECHNOLOGY OVERVIEW

The Angle of Arrival (AoA) positioning technology is a typical ranging-based algorithm across some devices to sense the arrival direction of the transmitting node signal, and calculate the relative position or angle between the unknown node and the anchor node; then use the triangulation or other methods to calculate the location of the unknown node. Compared to other technical types, AoA indoor positioning has advantages of higher precision, larger coverage, better penetration, and easier maintenance at a lower cost.

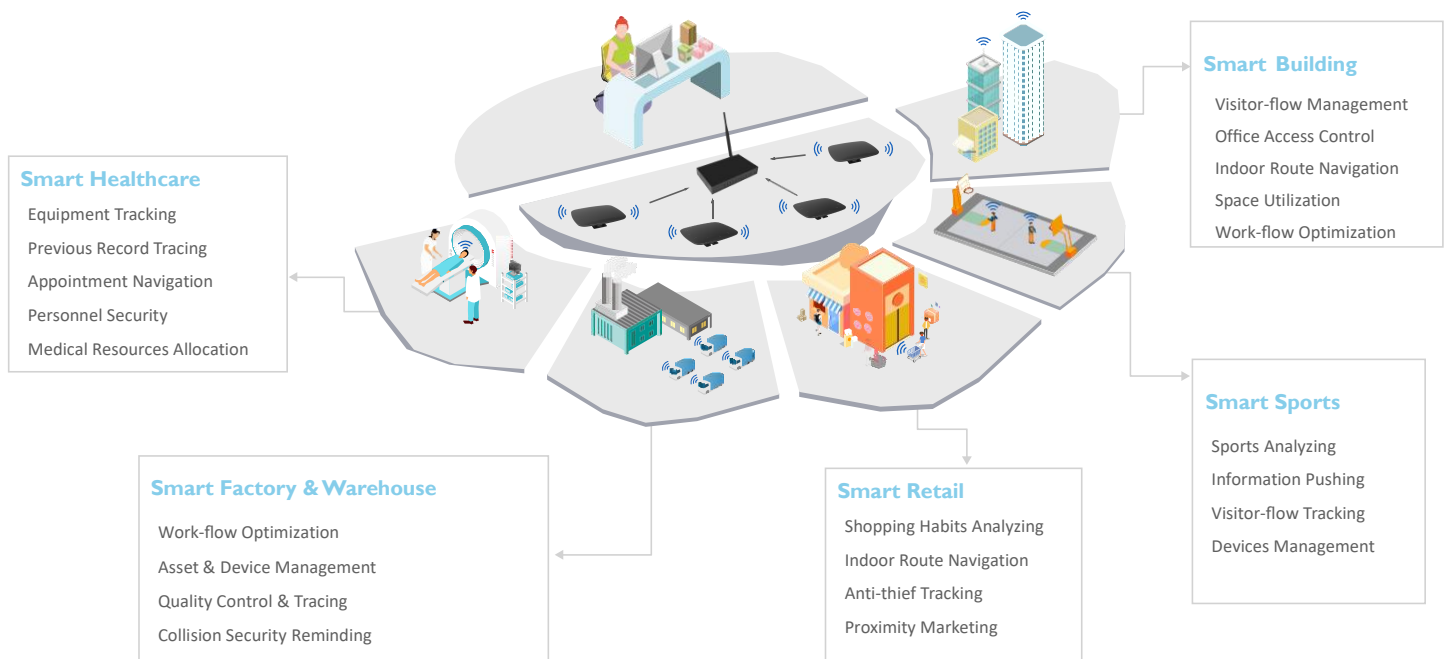
AoA LOCATOR

The AoA Locator is the newest & high-accuracy indoor positioning locator designed by Minew for enterprise-level users, based on Minew AoA protocol and AoA positioning technology. It has up to 2152~4305 ft² coverage range and provides a sub-meter positioning service. Besides, providing faster and safer assurance in terms of data transmission even using in the harsh environment.

KEY FEATURES

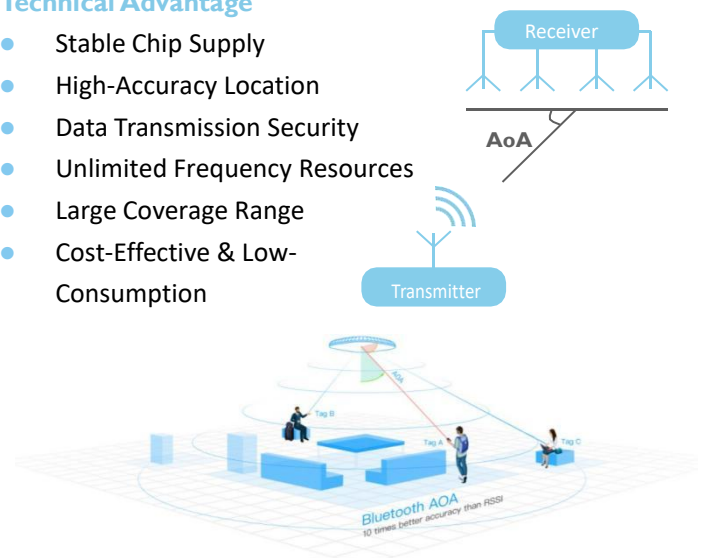
- High-Accuracy Location
- 2152~4305 ft² Coverage Range
- Real-time Data Transmission
- Long Service Life Than Ever

APPLICATION CASES



Technical Advantage

- Stable Chip Supply
- High-Accuracy Location
- Data Transmission Security
- Unlimited Frequency Resources
- Large Coverage Range
- Cost-Effective & Low-Consumption



Picture 1 Bluetooth® LE AoA High-Accuracy Technology

MARKET APPLICATIONS



Industry 4.0



Smart Building



Smart Warehouse



Smart Retail



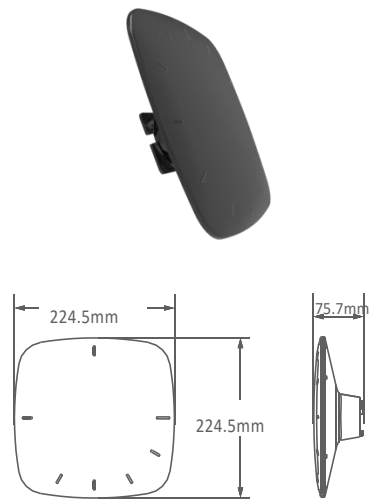
Smart Healthcare



Smart Sports

TECHNICAL SPECIFICATIOS

Basic Specifications	
Model	AR1
Material	ABS + PC
Color	Black
Size (L * W * H)	24.5 * 224.5 * 75.7 mm 70 * 70 * 8 mm (Bracket)
Weight	535 g
Operating environment	Indoor
Coverage range (Ref.)	2152 ~ 4305 ft ² (4 locators)
Installation	Screw



Bluetooth Specifications	
Bluetooth frequency	2.4-2.4835GHz
Bluetooth modulation	GFSK
Bluetooth bandwidth	1 Mbps, 2 Mbps
Receiving sensitivity	-96 dBm @1Mbps, 0.1 %BER
Antenna gain	
Numbers of received broadcast packets	About 1000 packets/ second (4 Locators)
Scan coverage	2152 ~ 4305 ft ² (4 Locators)

INSTALLATION & CAUTIONS

Recommended Environment: Indoors

Installation Options: With screws, as picture 6 shows

Step Details:

First, installing the AR1 bracket on the ceilings with screws.

Second, rotating the AR1 locator into the base (rotate after the short clamping position of the bracket aligning with the short clamping hole of the locator).

PRECAUTIONS

- The AR1 locator needs to point in the same direction, which can be identified by the longest slot on the locator shell.
- The cable sequence of both interfaces between the AR1 locators and gateway must be consistent to avoid data collection errors.
- The cable connecting the gateway and AR1 locators should be less than 20 meters to ensure normal transmission and location accuracy.
- Please contact our sales team if there are other installation requirements.

QUALITY ASSURANCE

The factory has already obtained the certification of ISO9001 Quality System. Each product has been strictly tested (tests include transmission power, sensitivity, power consumption, stability, aging, etc.).

Warranty Period: 12 months from the date of shipping (Battery and other accessories excluded).

DECLARATION

Statement of Rights:

The contents of this manual belong to the Manufacturer of Minew Technologies Co., LTD, Shenzhen, and are protected by Chinese laws and applicable international conventions related to copyright laws. The contents can be revised by the company according to the technological development without prior notice. Anyone, companies, or organizations cannot modify the contents and cite the contents of this manual without Minew's permission, otherwise, Violators will be held accountable according to law.

Disclaimer:

Minew team reserves the right to the final explanation of the document and product differences. The Minew group is not responsible for liability of property or personal injury with the wrong operation if users develop related products without checking the technical specifications of this manual.

FCC Requirement

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, and
- (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.

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.

CONTACT INFORMATION

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