Bluetooth localization beacon user's manual

2021.03.03

catalog

1. Product introduction

1.1 Indoor positioning system

Bluetooth localization beacon is a low-power Bluetooth technology for positioning and marketing, which supports IOS system and Android system. This beacon adopts 3M glue mode, which improves the deployment speed by more than 50% compared with the traditional product scheme, and is widely used in large-scale building indoor positioning management scene.

Figure 1   BW1

1.2 Dynamic encryption technology

Dynamic encryption and multi ID technology, which prevent   the nodes from being maliciously counterfeited and embezzled, and fully guarantee the security of location information.

1.3 Snap-in type design

Snap-in type, easy installation by snap locking the two ends together.

1.4 Maximum 4-year endurance

Using advanced power control technology and unique power supply design, which can standby more than 4 years.

1.5 Super supply capability

Mass production management and testing standard system, over ten thousand per day for the production capacity, and can be customized according to customer needs in a short time.

2. Parameter list

Sheet 1   BW1 Parameter list

	BW1
Processor	nRF52810
Protocol	Bluetooth BLE 5.0, standard beacon protocol of Apple Inc.
Battery scheme	Li/SOCI2
TX Power	0dBm ~ -20dBm
Coverage	Up to 60m
Endurance	4 years*
Dimensions	Diameter 48mm, thickness 22mm
Weight	About 35 g
System	Over iOS7.0 and Android 4.3
Safty	Password protection
APP configuration	Support to modify UUID, major, minor, broadcast interval, broadcast power, etc
Others	Support secondary development SDK
Characteristic	Node dynamic encryption technology and Snap-in type design

* According to 500ms broadcast interval and 0dbm power calculation

3. Applet for configuration

Applet can configure ID, TX power, and TX spacing at any time, which has perfect password protection mechanism to prevent illegal modification.

tips：Open the wechat and search the "yu'an configuration tool"

4. Function of Applet

（The yu'an configuration tool is used for configuration of beacon parameters, which is powerful and easy to operate for client. The applet is composed of two function groups: Query and configuration. The main functions are listed in Sheet 2. ）

Sheet 2　Function list

Query function		configuration function	
RSSI	Display signal strength of beacon	**Major**	configurable
Quantity of electricity	Displays the remaining power of beacon	**Minor**	configurable
RSSI sorting	Sort by signal strength	**Broadcast spacing**	range from 10 to 10240 ms
Interface locking	Lock display interface	**Broadcast Power**	range from -40 ～ +8dBm
UUID	Universal single identifier		
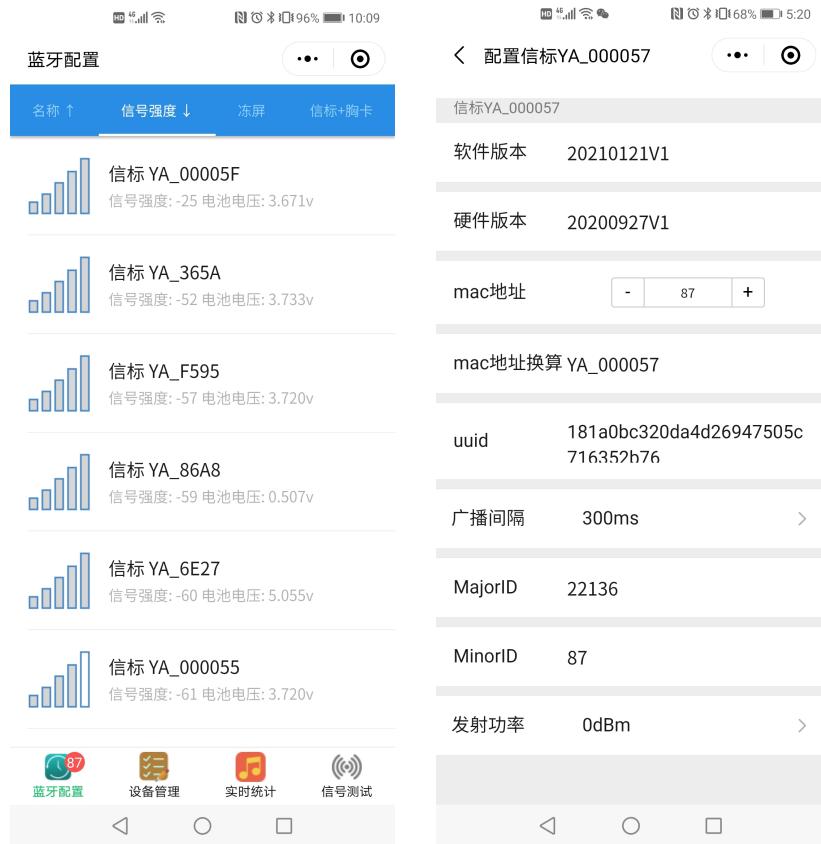
Figure 3　Configuration tool diagram

Revision History

Date	Revision	Name	Content
2021/03/03	V1.0	hww	New

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.

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment