BC02 BLE Beacon

Specification

V1.0

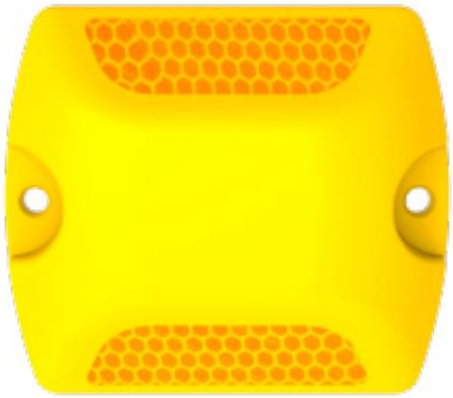
 www.seeedstudio.com

Content

1 Introduction

This Bluetooth beacon features a high-performance, low-power Bluetooth chip and a large-capacity battery, delivering a service life of over 7 years under low-power broadcasting conditions. Its robust internal and external structural design leverages reliable engineering to enhance pressure resistance and environmental protection, making it ideal for maintenance-free, outdoor deployments in demanding conditions. The beacon's signals can be detected by Bluetooth-enabled devices such as the SenseCAP T1000 Tracker , enabling accurate proximity detection for indoor positioning, asset tracking, and other location-based applications.

1.1 Features



- **Bluetooth® LE 5.0**
- **Long battery life**: More than 7 years (In default configuration)
- **Rugged and Durable**: IP68 waterproof and IK08 impact-resistant for harsh conditions
- **Long-distance transmission**: Up to 75 meters in open areas

1.2 BLE Indoor/Outdoor Positioning System

GPS has proven its ability to locate outdoors. Now, we also tend to move to indoor positioning, and Bluetooth beacons make indoor precise positioning possible. Combine with SenseCAP T1000 Tracker to build an indoor positioning solution.

SenseCAP T1000 is a compact LoRaWAN® tracker that utilizes GNSS/Wi-Fi/Bluetooth for precise indoor & outdoor location tracking. It's ideal for a variety of location-based applications.

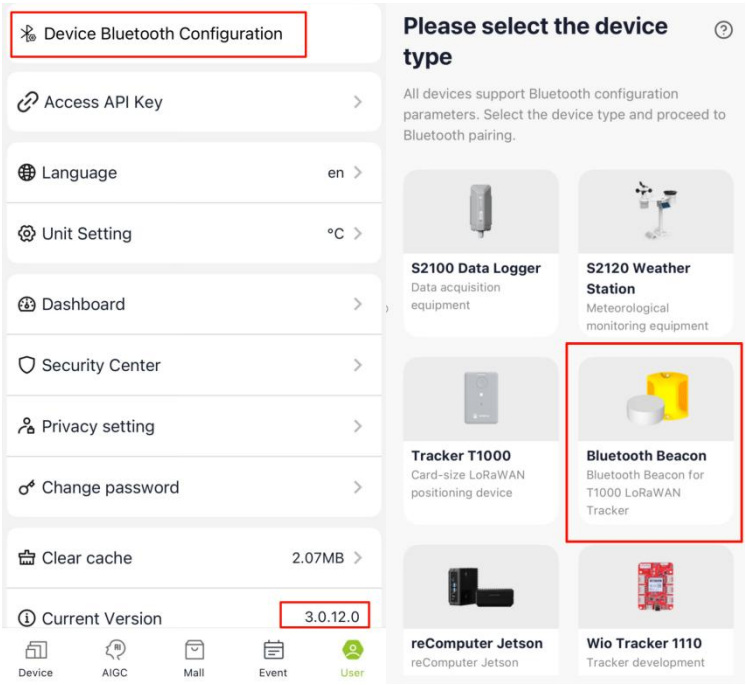
Deploy Bluetooth beacons in your target area, the tracker receives the signal sent by the beacon, and the positioning accuracy is at the meter level (2-3 meters). It can realize functions such as asset tracking, route planning, reverse car search, etc., and can be integrated into applets and APPs.

1.3 Power On/Off Description

Note: This product is shipped powered on by default and **Does Not Support Shutdown.**
You can view/configure device information through the SenseCraft APP.

1.4 Configuration

Parameter Viewing and Configuration with SenseCraft APP(IOS>3.0.12, Android>3.0.11)



2 Specification

2.1 General Specification

Material	ABS+PC
IP rate	IP68
IK rate	IK08
Dimension(L*W*H)	115*100*29 mm
Weight	169.1g (include battery)
Battery	Lithium-ion battery, 4000mAh
Battery life	More than 7 years (In default configuration)
Working temperature	-40~85°C
Working Humidity	0~95%RH, no condensation
Bluetooth Version	BLE 5.0
Bluetooth Protocol	iBeacon
Broadcasting Power	-40~+4dBm
Broadcasting Frequency	100ms~5s
Broadcasting Distance	Up to 75 meters in open areas

2.2 Default broadcast parameters

Parameters	Default Value
UUID	FDA50693-A4E2-4FB1-AFCF-C6EB07647825
Major	10001
Minor	19641
Measured power	-59dBm
Transmission Power	0dBm
Broadcasting Interval	300ms
Password	seeed123

2.3 Compatibility information

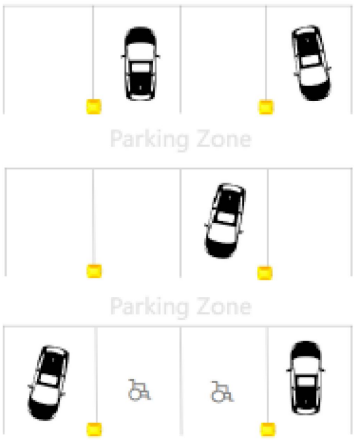
System	Devices
IOS 10.0+	iPhone 6/6Plus/6S/6SPlus ,iPhone 7/7Plus, iPhone 8/8Plus, iPhone x/xr/xs/xs max, iPhone SE/SE2, iPhone 11/111pro/11 pro max
Android 4.3+	Samsung, XIAOMI, HUAWEI, ONEPLUS, ViVO, OPPO ,etc.

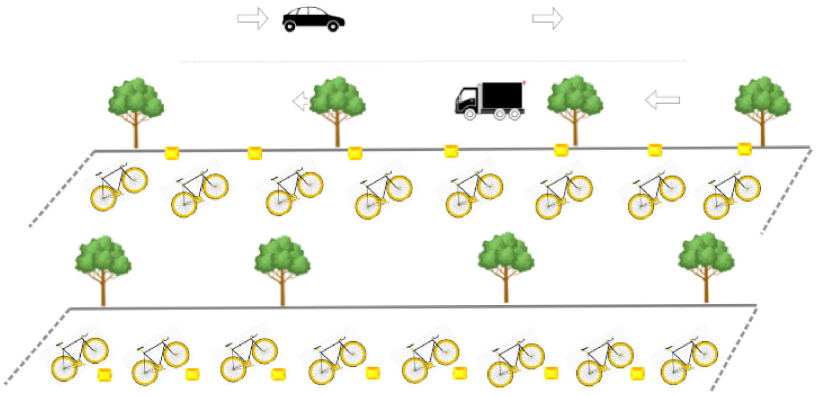
3 Deployment

Screw installation instructions

According to the deployment needs, the road surface at the installation location should be cleaned and kept away from low-lying and easily flooded roads as much as possible. Try to avoid being crushed by wheels or other obstacles, and avoid being deployed at the rear of the vehicle, between vehicles, and under the entire vehicle to prevent the device signal from being affected.

Make installation positioning marks, use a suitable impact drill bit to drill holes on the surface to be installed, place the expansion plug first, and then use the stainless steel screws in the accessories to lock and fix the device.





FCC Certifcation

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.

