

INDUSTRIAL PRODUCT DATASHEET

# SenseCAP BC03 Indoor Bluetooth Beacon for Tracker

SenseCAP BC03 Indoor Bluetooth Beacon for Tracker delivers Bluetooth® LE 5.0, over 5-year battery life, up to 130-meter range, UV protection, and meter-level indoor positioning when used with SenseCAP T1000/T2000 Trackers.

| SKU       | UPDATED             | PRICE              |
|-----------|---------------------|--------------------|
| 100085893 | 2026-09-09 12:16:42 | \$12.00(Excl. VAT) |



# Overview

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The SenseCAP BC03 Indoor Bluetooth Beacon for Tracker features Bluetooth® LE 5.0, a replaceable Li/SOCl<sub>2</sub> battery with more than 5 years of life (0dBm/500ms in default configuration), up to 130 meters transmission in open areas, UV protection, and a high-gain omni-directional BLE antenna with enhanced broadcasting and LED status. It supports BLE indoor positioning with 2-3 meter accuracy when combined with SenseCAP T1000 Tracker or SenseCAP T2000 Tracker, and is suitable for stores, schools, offices, conferences, logistics, and home automation.

# Key Features

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- **Bluetooth® LE 5.0**
- **Long battery life:** Replaceable Li/SOCI2 battery, more than 5 years (0dBm/500ms in default configuration).
- **Long-distance transmission:** Up to 130 meters in open areas.
- **Simple Installation :** Pull out the insulating film and it can be pasted and installed, reducing construction costs.
- **UV Protection:** Suitable for UV-sterilization lamps and similar scenarios, without altering appearance.

BC03 has a high-gain omni-directional BLE antenna, low-power consumption, and user interaction:

- **Enhanced Beacon Broadcasting Capability**

Optimized BLE advertising stability and RSSI consistency, improving indoor positioning accuracy and robustness in complex environments.

- **Antenna Design**

Excellent radiation efficiency and directional consistency, onboard antenna, thus achieving a longer communication range and more stable communication without precise adjustment of the installation direction.

- **Longer Battery Life**

Further optimized low-power design. Under the same configuration (0 dBm / 500 ms), BC03 achieves large-scale and long-term deployment.

- **LED Status Added**

A blue LED provides intuitive device status feedback during power-on and operation, display the device's power-up and upgrade status.

- **BLE Indoor 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](#) or [SenseCAP T2000 Tracker](#) to build an indoor positioning solution.

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.

[SenseCAP T1000 Tracker](#) and [SenseCAP T2000 Tracker](#) are LoRaWAN® tracker that utilizes GNSS/Wi-Fi/Bluetooth for precise indoor & outdoor location tracking. It's ideal for a variety of location-based applications.

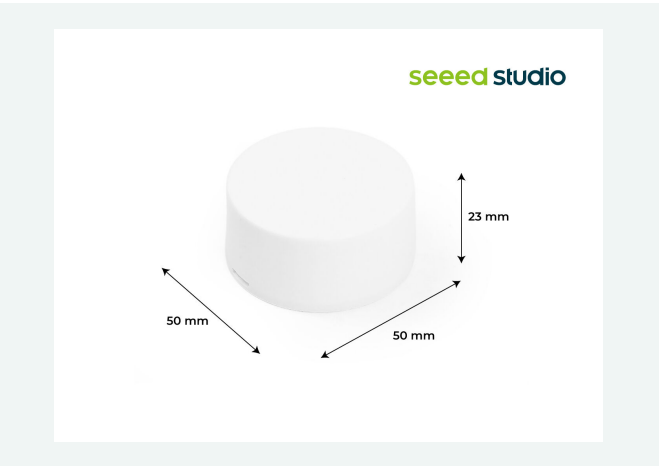
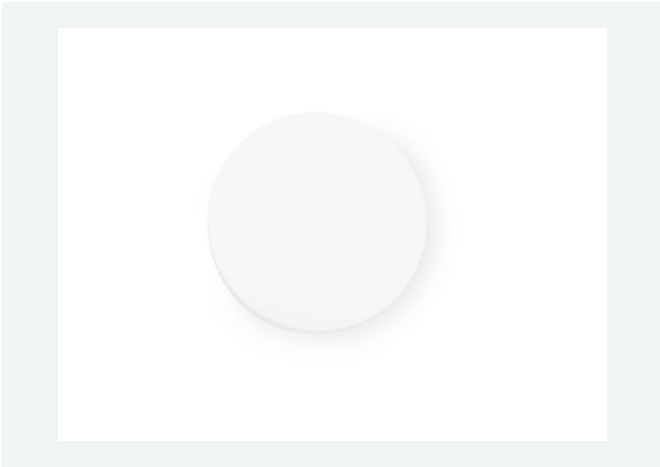
We provide a **open-source Bluetooth indoor positioning system** designed to work seamlessly with SenseCAP **BLE Beacons** and **SenseCAP LoRaWAN Trackers**.

This solution is fully open-source and customizable, allowing users to build, modify, and integrate their own backend services based on our GitHub repository.

## NOTE:

The default UUID of BC03 is different from that of BC01 and BC02. If you are using these models together in the same deployment, please be aware that filtering beacons using two different UUIDs simultaneously is not supported. To ensure compatibility in a mixed environment, please modify the beacons to use the same UUID.

# Product Gallery



## Specification

| Parameter | Specification |
|-----------|---------------|
| Material  | ABS (Anti-UV) |
| Color     | White         |

|                     |                                                             |
|---------------------|-------------------------------------------------------------|
| IP rate             | None                                                        |
| Dimension(L*W*H)    | Φ50*20.5mm                                                  |
| Weight              | 45g(include battery)                                        |
| Battery             | Li/SOCI2 battery, 2400mAh                                   |
| Chip                | nRF52 series                                                |
| Bluetooth Version   | BLE 5.0                                                     |
| Bluetooth Protocol  | iBeacon                                                     |
| Sensors             | Accelerometer, Optional                                     |
| LED                 | 1 × Blue LED                                                |
| APP                 | SenseCraft APP                                              |
| Working Temperature | -20~60°C                                                    |
| Battery Life        | More than 5 years<br>(0dBm/500ms in default configuration). |

|                 |                                                         |
|-----------------|---------------------------------------------------------|
| Parameters      | Default Value                                           |
| UUID            | 5EEEDBCA-AC02-43B0-B0CF-C6EB07647825                    |
| Major           | Assigned from the device MAC address<br>(lower 2 bytes) |
| Minor           | Assigned from the device MAC address<br>(upper 2 bytes) |
| Measured power  | -59dBm                                                  |
| Tx Power        | -40 ~ +4 dBm, default 0 dBm                             |
| Adv Interval    | 20ms ~ 30s, default 500ms                               |
| Password        | 12345678                                                |
| Device Name     | 03                                                      |
| Battery Service | Battery icon display                                    |

|              |                                                                                                       |
|--------------|-------------------------------------------------------------------------------------------------------|
| System       | Devices                                                                                               |
| BLE          | BLE 5.0+                                                                                              |
| iOS 7.0+     | iPhone 4S, iPhone 5/5C/5S, iPhone 6/6Plus/6S/6S Plus, iPhone 7/7Plus, iPad mini/mini2/4/Air/Pro, etc. |
| Android 4.3+ | Samsung, XIAOMI, HUAWEI, ONEPLUS, vivo, OPPO, etc.                                                    |

# Hardware Overview



# Applications

- Stores
- School
- Offices
- Conferences
- Logistics
- Home Automation

# Part List

|                              |    |
|------------------------------|----|
| Indoor Bluetooth Beacon BC03 | x1 |
| 3M Sticker (Pre-taped)       | x1 |
| Insulating film              | x2 |

## Compliance & Logistics



|          |            |
|----------|------------|
| HSCODE   | 9014800090 |
| USHSCODE | 9014801000 |
| UPC      |            |
| EUHSCODE | 9405413910 |
| COO      | CHINA      |

### FCC Requirement

Any 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.
- 15.21

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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.

If not installed and used in accordance with the instructions, it 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.

## Resource Links

- <https://www.seeedstudio.com/Indoor-Bluetooth-Beacon-BC03-p-6732.html>
- [BC03BeaconSpecificationV1.1](#)

### Seeed Technology Co.,Ltd.

9F, Building G3, International E City,  
Zhongshanyuan Road, Nanshan, Shenzhen, China

**Tel:** +86 0755-80695676

**Web:** [www.seeed.cc](http://www.seeed.cc)

**Shop:** [www.seeedstudio.com](http://www.seeedstudio.com)