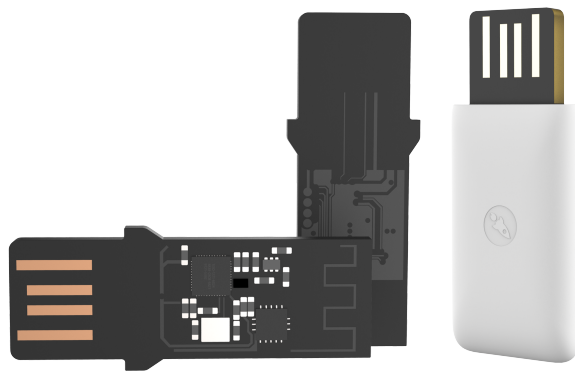


# SmartBeacon-USB/USB-E

## Outlook

The Sensoro SmartBeacon-USB functions as a beacon while connected to a USB port. The device's craftsmanship is both energy efficient and aesthetic.



## Features

### 1. Ease of Use

SmartBeacon-USB is powered by a standard USB port. It can be inserted into any device with USB port, such as a PC, TV, etc.

### 2. Ultra-Low Power

A Bluetooth® 4.0 (Bluetooth® low energy) Nordic NFR51822 chip with ultra-low power consumption is used.

### 3. Compatibility

Software and firmware are fully compatible with Apple's iBeacon and Google's Eddystone (include EID) technical requirements, and can be applied to systems including:

iOS 7.0 or above:

iPhone 4S, iPhone 5, iPhone 5S, iPad 3, iPad mini, iPad air.

Android 4.3 or above:

Samsung Galaxy S III, Galaxy S IV, Galaxy Note II, Galaxy Note III and Motorola RAZR, HTC ONE, etc.

### 4. Demo App and Configuration App

The "Yunzi" (demo) app allows you to experience our beacons, while the "Sensoro" app (configuration tools) puts you in control of all of their features.

Scan the QR code to download:



# Signal Stability and Data Transmission

## 1. Transmission Stability and Distance

To achieve signal stability and long-distance data transmission requirements, the SmartBeacon-USB underwent extensive testing and modification. Its signal remains stable even in complex deployment locations. Radius frequency (RF) power demand configuration can be adjusted to a maximum radius of 80 meters. The RF power demand configuration can reduce its radius to a minimum of 0.15 meters, which covers an area of 0.225 square meters. However, it is possible that no signal will be obtained if the RF power is adjusted to a minimum.

## 2. Enterprise Class Device Management Support for Enterprises

Mass management of device status is an essential component of our enterprise class cloud software solutions. Our patented beacon devices can be deployed to collect bulk data, and using the Sensoro cloud, your organization has the essential tools needed to seamlessly manage large-scale deployments. Centralized management on your phone or computer is made easy by enterprise class software solutions.

## Specifications

Properties	Specifications
External Dimensions	43mm x 17.4mm x 7.4mm (length x width x cross-sectional width)
PCB Board Dimensions	39mm x 12mm x 4mm (length x width x cross-sectional width)
PCB Surface Treatment	Matte black ENIG PCB
Control	Bluetooth low energy SOC Chip
Antenna	2.4 GHz PCB Antenna
LED	1 LED

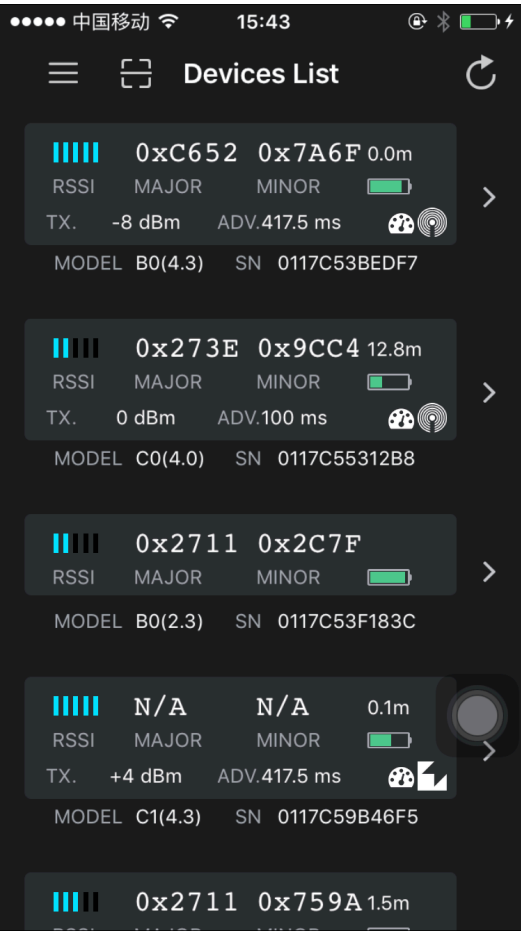
Built-in Sensors	Temperature
Chip	Nordic
Operating Voltage	DC 4.2V ~ 5.5V, Type 5.0V
Operating Temperature	-25°C ~ 75°C
Sleep Mode Power Consumption	40mW
Sleep Mode Current	8mA
Radius Power	-30dBm to +4dBm; applicable for signal coverage optimization
Transmission Range	Up to 80 meters
Environmental Protections	Vibration resistance
Broadcast Frequency	100~1,285 millisecond adjustable time interval
Weight	4g
Power Supply Interface	USB port
Protocol standard	Bluetooth® 4.0, supports iBeacon & Eddystone
System Requirements	iOS 7.0 or above; Android 4.3 or above
Upgrades	Supports over-the-air firmware upgrades
Security	Hardware level password for connection
Power Source	5V DC power

## Sensoro App's Configuration Tools

The Sensoro app is available for developers to check on and configure the parameters of all nearby Sensoro beacons. The Sensoro app is compatible with iOS 7.0 or above (iPhone 4S, iPhone 5, iPhone 5S, iPad 3, iPad mini, iPad air) and Android 4.3 or above (Samsung Galaxy S III, Galaxy S IV, Galaxy Note II, Galaxy Note III and Motorola RAZR, HTC ONE, etc.). Using the Sensoro app, you

can deploy beacons one at a time, and then view all nearby beacons if you want to make changes. If you would like to deploy and configure beacons in bulk, please use the “Deploy” app.

Open the Sensoro app, and the Device List of all nearby beacons will appear. The information for each beacon includes Major, Minor, as well as other basic information including an animated display of the RSSI strength.

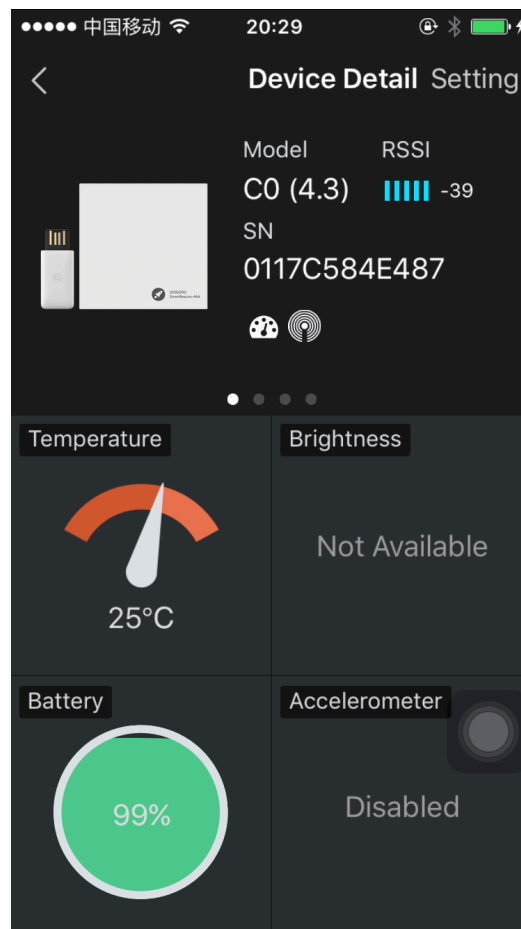


All nearby Sensoro beacons will be listed by order of when the app detected their presence. By changing the Major, Minor values, we can differentiate beacons. Since Major, Minor consists of two values, we recommend grouping associated beacons using the Major value, and labeling individual beacons using the Minor value. For example, beacons at a museum might all have the 00FF code for Major, and each individual beacon placed at different locations throughout the

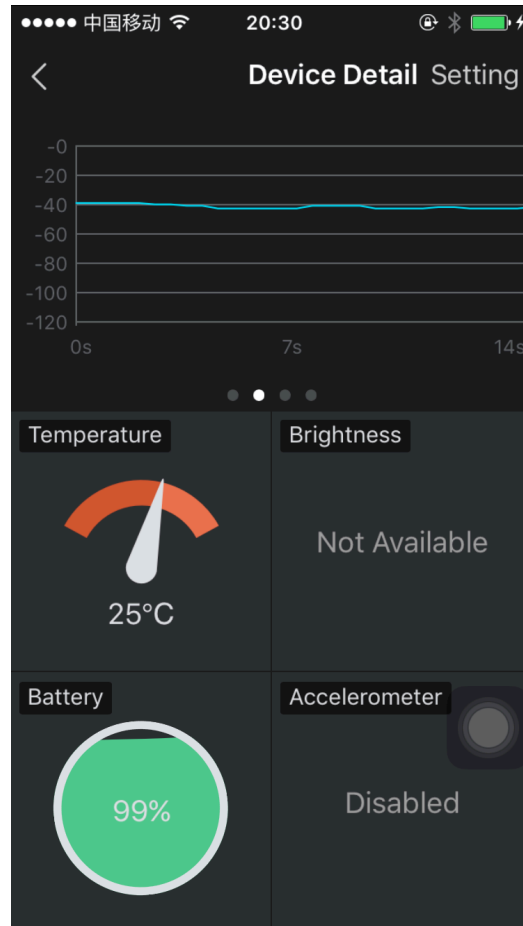
museum would have a unique Minor code. If you would like to view the tags of all devices in range, please log into the Sensoro Cloud on the Inspection app.

The Device Detail page displays the real-time details of each of the beacon's sensors, battery life, and RSSI signal. Touch the device box on the Device List to enter the Device Detail page.

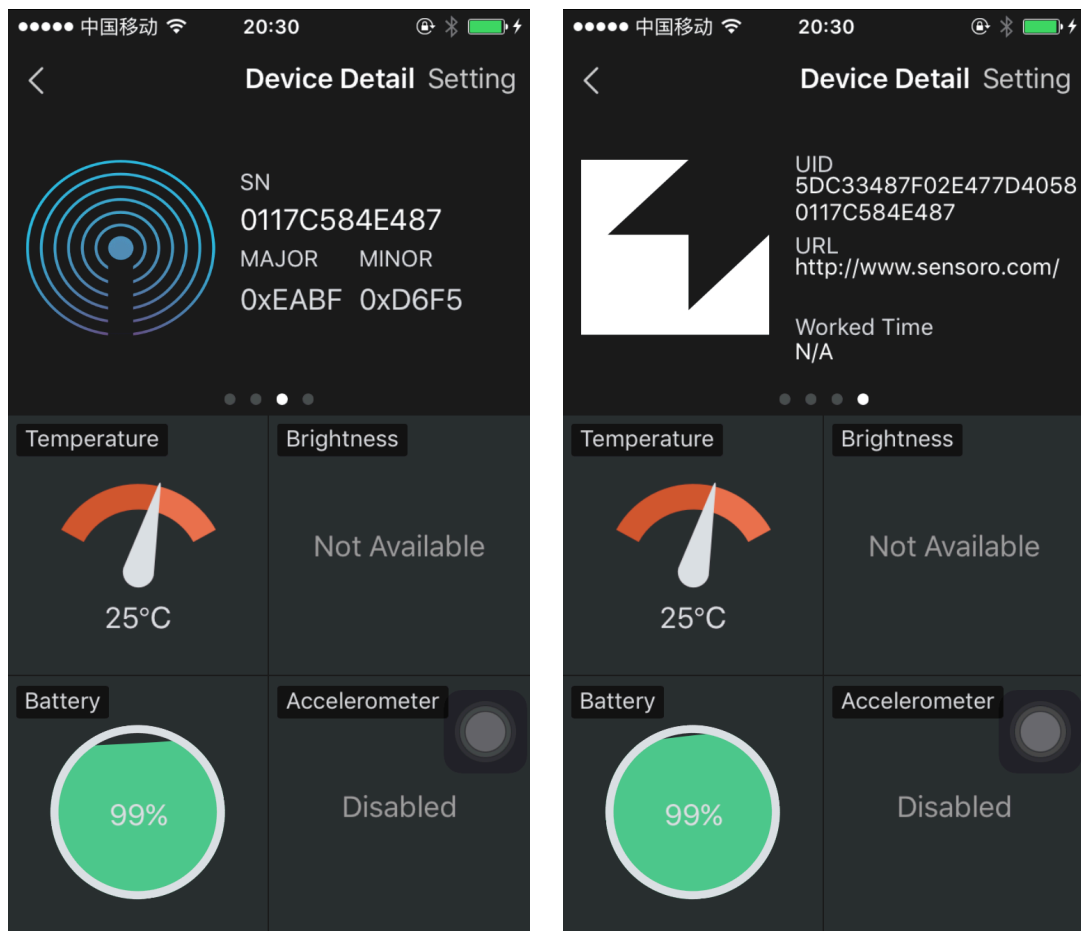
You can also locate an individual beacon on the Device List by scanning the device's QR code. Touch the scanning icon on the top right of the device list. Once the device is scanned, it will take you to the Device Detail page.



Swipe left on the top of the Device Detail page to bring up the real-time RSSI line display graph. This more detailed RSSI graph allows developers to accurately understand the signal changes in the device, as show below.



Swipe left again to view whether the device being viewed is using iBeacon or Eddystone protocol.



The Sensoro app supports setup of beacon's basic information (including UUID, Major and Minor) as well as the modification of device transmitting power, radio frequency, and other parameters.

For Google Eddystone, UID, URL, TLM and EID are fully supported by Sensoro app now. Moreover, you can also use this app to ONE-way-switch the beacon mode into the standard Eddystone Configuration GATT service.



## **\*Notice:**

1. Currently setting up the EID is only available on Android (download link: <http://www.sensoro.com/en/download/>), which needs a full installation of Google-Play-Service and Google Service Framework, and Nexus 5/6 are recommended.

2. We also have another "Full Eddystone GATT" special version firmware available, which was built to work with Google's Beacon Tool App. Please contact our sales team ([seattle@sensoro.com](mailto:seattle@sensoro.com)) if you'd like to order this special version.

Google's Beacon Tool App download links:

iOS:

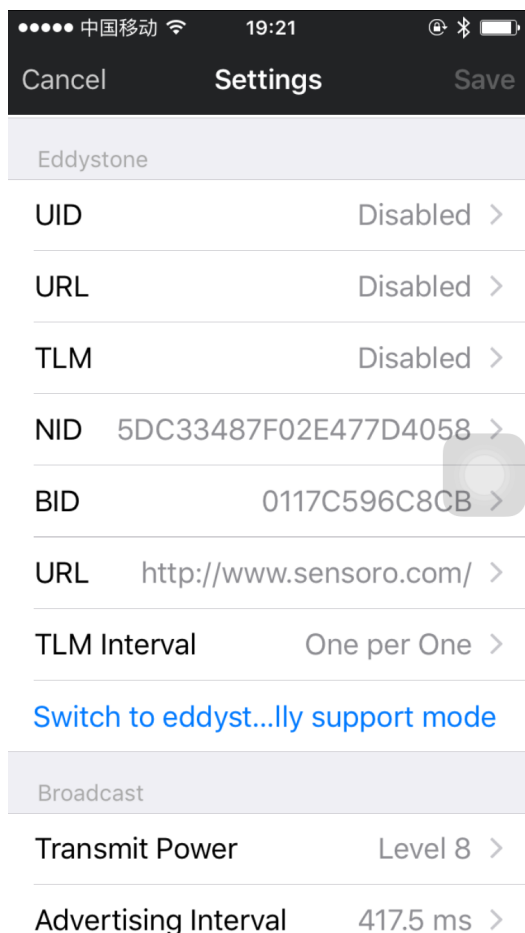
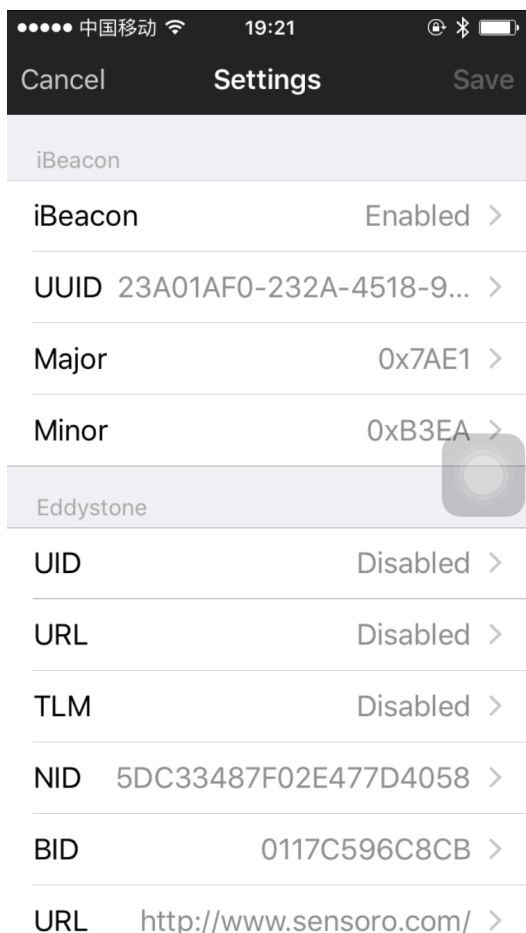
<https://itunes.apple.com/us/app/beacon-tools/id1094371356?mt=8>

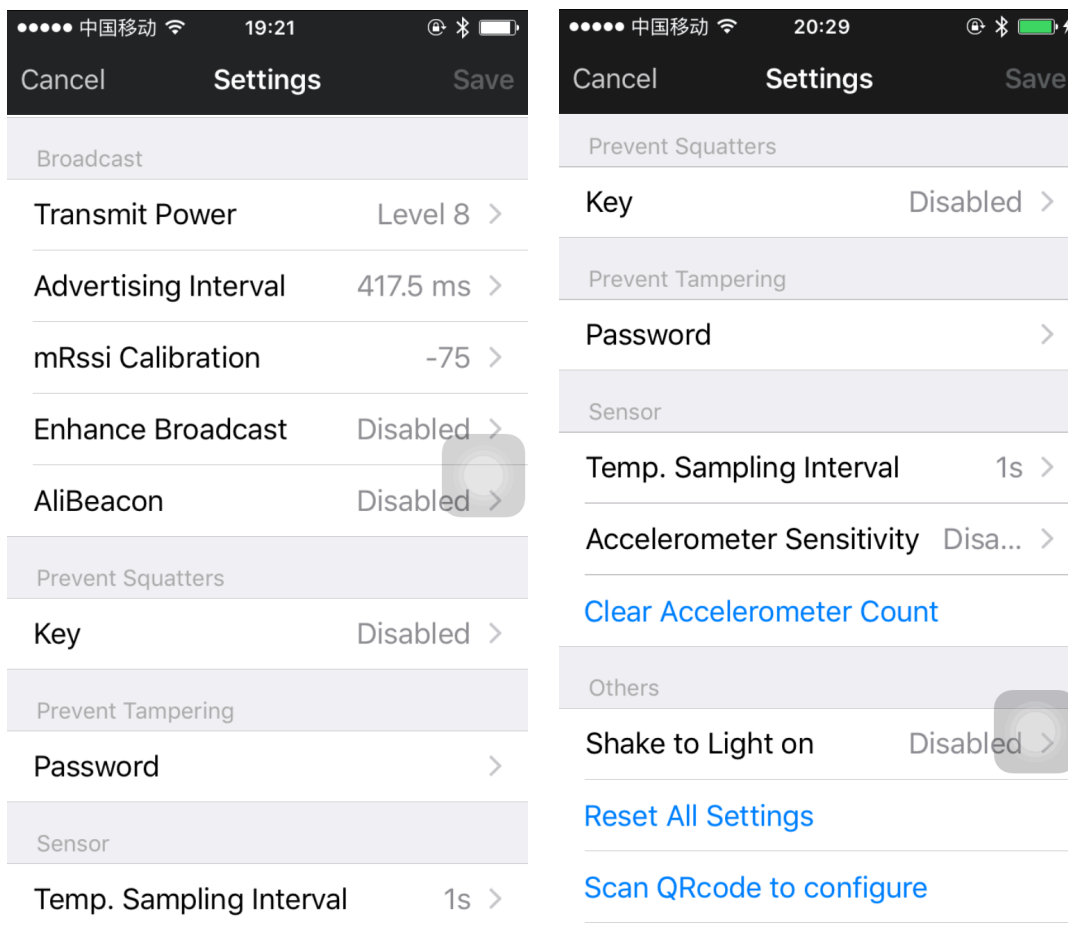
Android:

<https://play.google.com/store/apps/details?id=com.google.android.apps.location.beacon.beacontools&hl=en>

3. Currently switching to the standard Eddystone Configuration GATT service is a ONE way feature, and a third-party tool is needed when switching back to Sensoro Configuration service. Manual for Mode Switch download link:

[http://www.sensoro.com/static/Manual\\_for\\_Mode\\_Switch.pdf](http://www.sensoro.com/static/Manual_for_Mode_Switch.pdf)





## Security

The device is made secure by a hardware level password, used also by the US military, which prevents unauthorized modification of SmartBeacon-USB parameters. SmartBeacon-USB allows you to enjoy rich functionality and stability without security concerns.

## Quality Assurance

### iBeacon, FCC, CE and TELEC

SmartBeacon-USB has been certificated with the FCC (certification number: 2AEG9-D0) and CE. Each device has rigorously undergone factory defect, frequency spectrum, power consumption, and stability testing.



SENSORO  
SmartBeacon  
Model : USB  
**CE 1313**  
FCC ID: 2AEG9-D0

Designed by Sensoro  
Made in China

## Note:

Product Name: SmartBeacon  
Model No: USB/USB-E

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