IoT Sensor

ROOQ

- Ultra-Low-Power:

  1.71 V to 3.6 V power supply;

  13 nA shutdown mode;

  600 nA Standby mode + RTC + 32 KB RAM;

  Radio: Rx 4.5 mA / Tx at 0 dBm 5.2 Ma.

- Supports Bluetooth Low Energy and 2.4 GHz proprietary/custom protocols

  RX Sensitivity: -96 dBm (Bluetooth® Low

  Energy at 1 Mbps), -100 dBm (802.15.4)

- Equipped with the latest Bluetooth 5.0 chip, the transmission data is further improved, and the connection is faster and more stable.

- Use more accurate 3-axis accelerometer and 3-axis gyroscope to make punch recording more accurate.

- Compact body, built-in large-capacity battery, with large-capacity MCS, longer battery life.

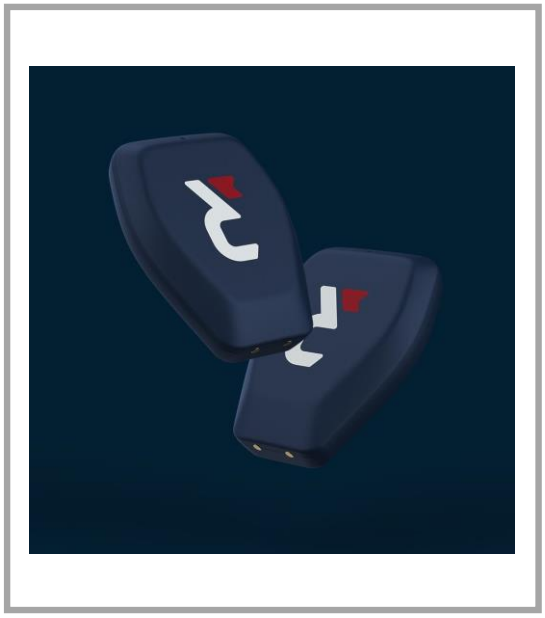
- Different status of the sensor corresponds to different status light display, which is more intuitive.

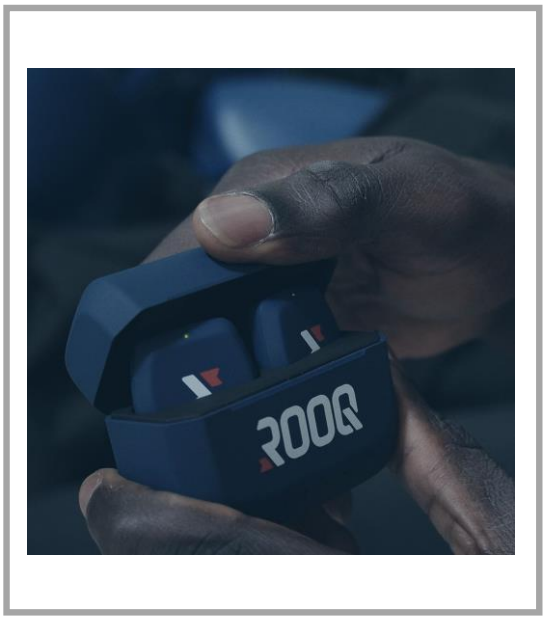
  MCS has a more accurate battery display, so you know it well.

- Restricts Bluetooth access to trustworthy users who presents a real digital identity.

- Provide complete quality assurance, after-sales service and technical support.

Product Specification





Processor specification	
CPU	Arm®-based Cortex®-M4
CPU Frequency	64MHz
Internal Storage	64Mbyte of flash memory
OS	Support FreeRTOS
Connective	BT5.0
OTA	Suports
Multi-Sensor	
3-axis accelerometer	Range: 0-10000g
3-axis gyroscope	Sensitivity : 16.4 LSB/(deg/s)
Basic parameters	
Single Sensor Net Weight	~10 g
Total weight with MCS	~75 g
Sensor battery life	~10 h
Including MCS battery life	~25 h
Single Sensor battery capacity	100mAh Li-on
MCS battery capacity	1000mAh Li-on
Sensor size	31.9mm*8.9mm*42.0mm
MCS size	74.9mm*35.5mm*54.6mm
Sensor charging time	~1.5 h
MCS charging time	~1.5 h
Power consumption	
Single Sensor sleep mode	~7.5mA
Single Sensor working mode	~9mA
MCS working mode	~150mA

Importer:
Geniatech Europe GmbH
Address: Kaiserstrasse 100 (TPH 3) 52134 Herzogenrath, Aachen, Germany

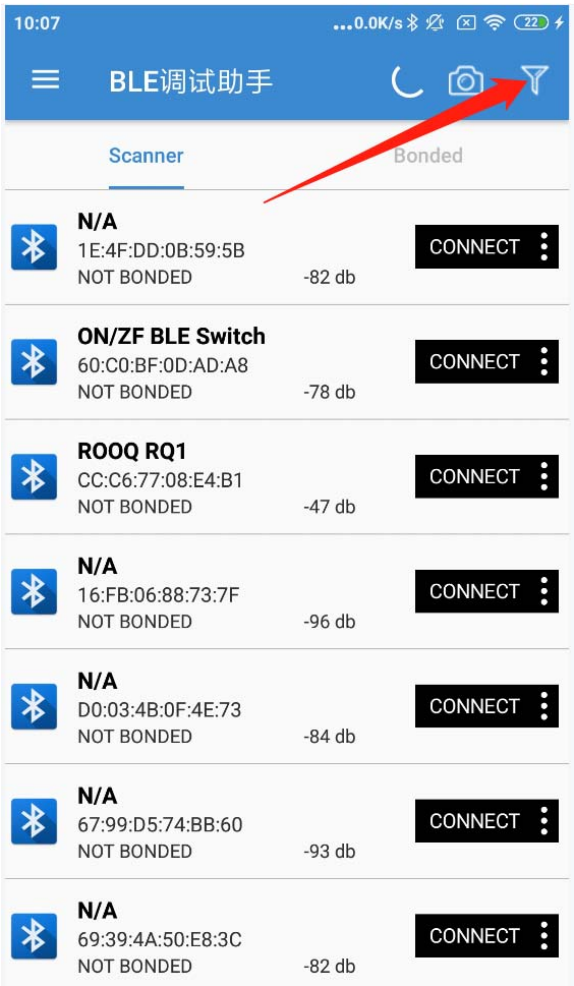
1. Sensor signal test

1.1 Install BLE debugging assistant (base.apk)

1.2 Filter settings

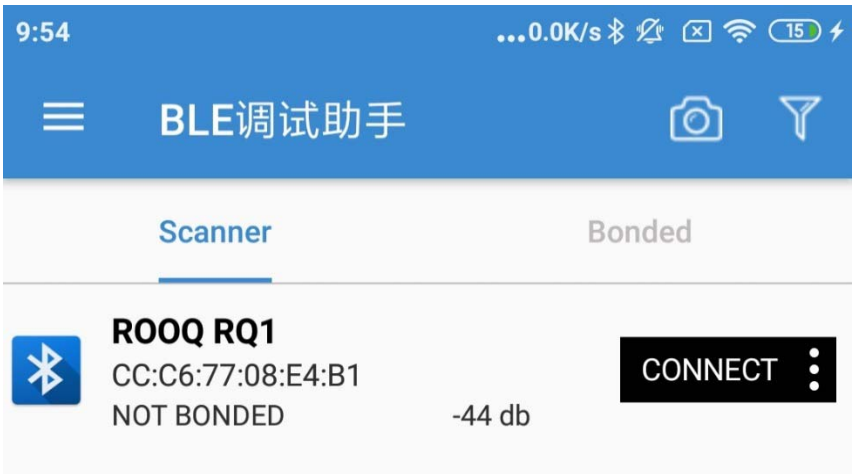
Purpose: Screen out ROOQ sensors to be tested：

- Click the filter button



- Set the filter name to ROOQ and RSSI to -45db

- After the setting is completed, refresh, the scanned ROOQ sensor is within 10cm of the mobile phone



FCC Warning Statement Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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 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.

The device has been evaluated to meet general RF exposure requirement.