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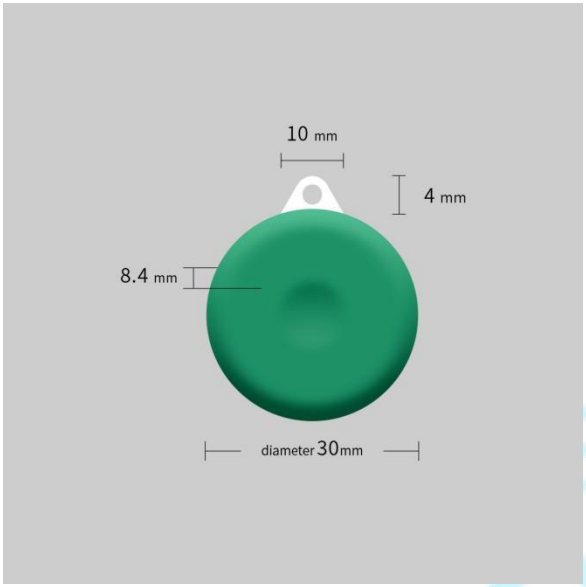
BLE sensor user manual

(module: HOLYIOT-21061)

1. Introduction

HOLYIOT-21061 BLE sensor has good performance at ultra-low power consumption, stable Bluetooth , small size and waterproof. The accelerometer and gyroscope sensor, magnetometer sensor, temperature and humidity sensor, barometer sensor are optional. With the APP 'BLESensor', it is convenient for customers to test. It can meet various needs in different environmental conditions.

Product shape and size:



2. Features

2.1 Physical characteristics

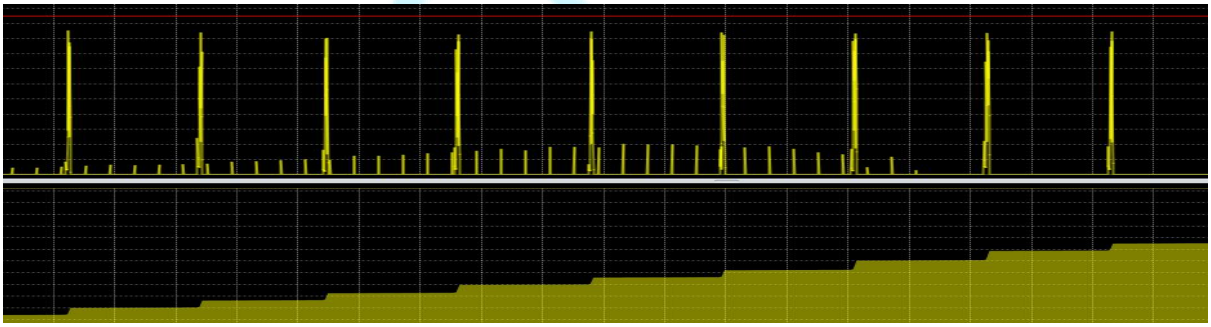
Product	HOLYIOT-21061
Bluetooth version	BLE5.0
Chip	nRF52832
Configure APP	BLE Sensor
Battery	CR2032
Supply voltage	2.2 - 3.6V
Waterproof	IP67
Size	(diameter)30mm*(thickness)8.4
Weight	6.5g

2.2 Electrical characteristics

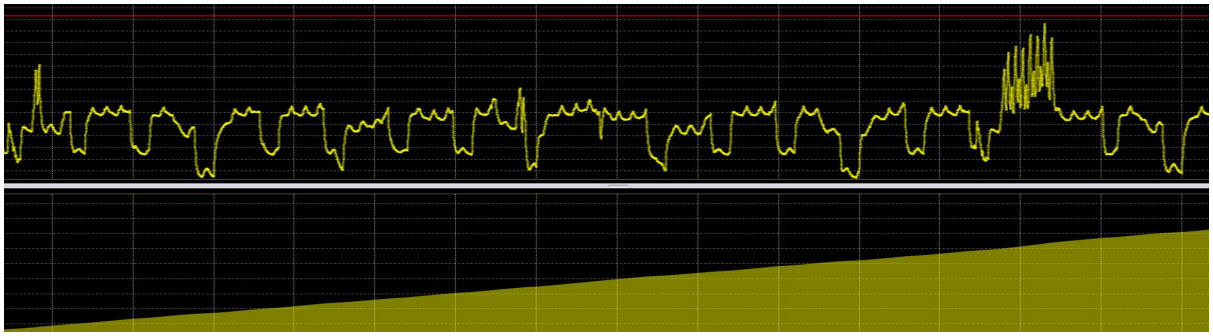
Standby power consumption	10uA
Bluetooth high frequency advertising (+4dB/100ms) average current	158uA
Connect the APP, the average current when the sensors are all turned on	8.75mA
Battery capacity	220 mAh
Standby time	900 days
Working Temperature	-20℃ ～ 60℃

2.3 Example of average current data

1. Standby



2. Bluetooth high frequency advertising



3. Bluetooth connection, all sensors are turned on

Sensor Optional	(accelerometer + Gyro)	(accelerometer + Gyro + magnetometer)	(accelerometer + Gyro + magnetometer + barometer)	(accelerometer + Gyro + magnetometer + barometer + temperature and humidity sensor)
Working Power Consumption	5.58mA	8.25mA	8.71mA	8.75mA

Use the duration calculation formula:

Use time (days) = battery capacity (mA h) / static average current (mA) / 24H;

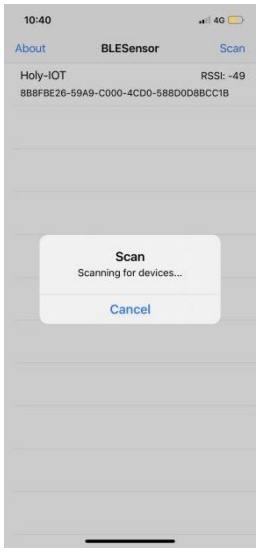
2.4 Technical parameters

Communication and Protocol	Bluetooth5.0
Bluetooth Advertising Name	Holy-IOT
Radio transmit power	+4dB
Radio transmission time interval	100mS
Wireless transmission distance	50 meters in open space
Supporting Device	IOS7.0 and Android4.3 above
Optional peripheral	Accelerometer & gyroscope, magnetometer, temperature & humidity, barometer sensor

3. How to use APP"BLE-sensor"

1. download APP: search “ BLESensor" for ios to download.

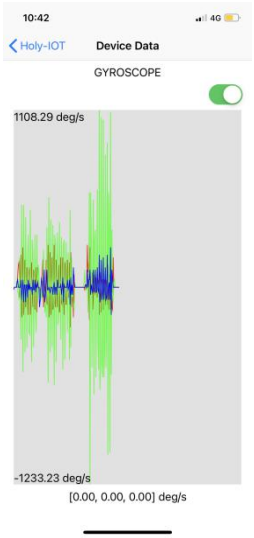
2. Power on the sensor, after initializing the sensor, the device enters standby mode, short press the button, the LED flashes, the device enters the Bluetooth high-frequency advertising mode, then open the APP "BLESensor" and click "Scan", start searching for nearby eligible devices. You can repeat and click "Scan" and wait repeatedly until the device information appears

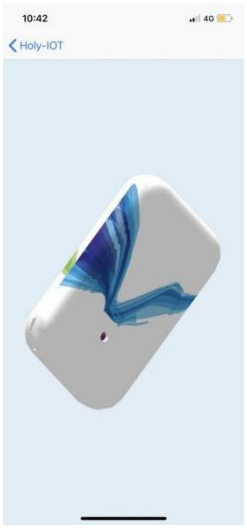


3. Click the device list, we will conduct data interaction through Bluetooth connection.

4. You can turn on the data switch on the right side of each item to observe the changes in the data.


10:41
4G
Back
Holy-IOT
ActionSheet
BAROMETER
101971 Pa
SFL
[1.00, -0.01, -0.00, -0.07]
MAGNETOMETER
[-21, -39, -84] uT
GYROSCOPE
[0.00, 0.00, 0.00] deg/s
ACCELEROMETER
[0.00, -0.00, 1.00] g
TEMPERATURE
22.63 °C
HUMIDITY
54.69 %


10:42
4G
Holy-IOT
Device Data
GYROSCOPE
1108.29 deg/s
-1233.23 deg/s
[0.00, 0.00, 0.00] deg/s


10:42
4G
Holy-IOT