

AprilBeacon 241

1.Introduction

The AprilBeacon 241 is developed and produced including hardware and firmware all provide by AprilBrother LLC. It is built - in a CR2450 battery holder. It can work as a standalone system. The AprilBeacon 241 is based on CC2541 BLE 4.0 module.



Guide	Remarks
Name	AprilBeacon
Model	241
Operation Voltage	2V—3DC
Operation Current	4uA
TX current	18.6mA （3V supply）
Operatation Temperature	-20 — 60 ℃

2.Specifications

- *Built - in firmware named AprilBeacon
- *Built - in a CR2450 battery holder
- *Bluetooth Low Energy technology compatible
- *Excellent link budget (up to 97dB)
- *Suitable for long distance applications

- *Accurate digital RSSI
- *High performance and low power 8051 core MCU
- *AES security coprocessor

3. iBeacon Descriptions

- *Application for advertisement and location
- *Built - in pairing password to prevent others to modify the settings
- *Support customize your own iBeacon configuration including UUID etc.
- *Tx Power configurable
- *Advertising frequency configurable
- *Support upgrade firmware through OAD (air upgrade)
- *Built - in JTAG port for customized other application firmware as a standalone system

4. Default Settings

- * Model Name: AprilBeacon
- * ProximityUUID: E2C56DB5-DFFB-48D2-B060-D0F5A71096E0
- * Major and Minor: 0, 0
- * Measured power: -59 (Numeric only)

5. Electronic Parameters

Item|Value|Remarks

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Firmware|iBeacon|Version 2.0.1

Battery model|CR2450 | Coin battery, 3.0Vdc, 1pc

Operation Voltage|2.0-3V|DC

Operation Frequency|2400-2483.5MHz|Programmable

Frequency Error|+/- 20KHz|

Modulation|Q-QPSK|

Standby current|100uA|Depends on duty cycle / broadcasting frequency

Broadcasting Frequency|900mS|Duty cycle

Output Power|0 dBm|Default setting, programmable

Receiving Sensitivity|-93dBm|High gain mode

Transmission distance|30 meters|BER<0.1%, Open space

Antenna|50ohm|On board / PCB Antenna

Size|31mm x 31mm x 9mm|

Battery Assembly



Please note the right direction control of the battery .

6. APP INSTALL

System requirement: iOS7.0 or Android 4.3, Bluetooth 4.0(please make sure the Bluetooth is turned on)

App download: <http://www.aprbrother.com/en/service.htm>, users can download AprilBeacon App for testing beacons.

7.iBeacons firmware upgrade

Upgrade step please see <http://wiki.viewc.com/ibeacons-oad-upgrade-en.html>

8.APP APRILBEACON INSTRUCTION

When the firmware is AprilBeacon 2.0 and over, users can use AprilBeacon to modify parameters: For

iOS instruction: <http://blog.aprbrother.com/p/41>

For Android instruction: <http://blog.aprbrother.com/p/79>

9. OTHER

Support Forum:<http://bbs.aprbrother.com>