

FeasyBeacon

FSC-BP110 Datasheet



1. Description

FeasyBeacon FSC-BP110 is a battery-powered Bluetooth 5.1 Low Energy proximity-beacon, it simultaneously supports iBeacon, Eddystone (e.g. URL, UID, TLM), AltBeacon for broadcasting and providing the ability to advertise up to 10 slots of advertising frames.

With the iOS & Android FeasyBeacon SDK, the developers can take advantage of the flexibility of the SDK and focus on their own application, such as Broadcast, Proximity Marketing, Digital Signage, Indoor Location, Asset Tracking, Vehicle Tracking, etc. Meanwhile, FeasyBeacon SDK compiled app is available to download from both the iOS and Android platform (search 'FeasyBeacon' to download).



2. Features

- Bluetooth 5.1 Compliant
- Pre-programmed with Feasycom Standard Beacon Firmware
- Up to 10 slots of Advertising Frames
- Portable Small-sized Beacon with 3 Year Battery Life (by Default Settings)
- Variety of Additional Components (e.g. G-sensor)
- Configurable by Free FeasyBeacon Mobile App and SDK
- Customizable Color, Logo, Hardware, Software

3. Functional Specifications

Item	Description
Advertising Format	Eddystone (URL/ UID/TLM), iBeacon, AltBeacon
Configuring Method	FeasyBeacon SDK compiled app (e.g. FeasyBeacon app)
Advertising Interval	Default 1300 ms, range from 0 ms to 10000 ms
Security	Access password required, Default Pin Code 000000
Max Number of Broadcast	10 Slots configurable advertising frames
Default Broadcast Interval	1300 ms for iBeacon & Eddystone
System Compatibility	iOS 7.0+, Android 4.3+
Advertising Distance	Up to 500m (open area)
Firmware Upgrading	OTA (upgrade firmware over the air)

4. Product Specifications

Item	Description
Chipset	DA14531
Bluetooth Version	Bluetooth 5.1
TX power	-19.5 dBm to + 2.5 dBm
Antenna	PCB Coil antenna
G-Sensor	Optional
Power Supply	CR2032
Power On	Long press central area, the light flashes 3 times
Power off	Long press central area, the light keeps on then off
Battery Life	3 Year (ADV Interval = 1300 ms; TX Power = 0 dBm)
Material	ABS+PC plastic
Color	White or customized
Size	50*50*13mm
Net Weight	18.6g
Operating temperature	-20°C to +60°C

5. Battery Life & Cover Range Estimation

Tx Power (dBm) Advertising Interval (ms)	-19.5	-3.5	0	1.5	2.5
100	213	140	119	102	95
200	401	274	227	206	181
400	762	502	424	370	346
750	1182	867	734	679	643
1000	1451	1061	948	862	778
1300	1729	1327	1163	1064	1012
2000	2170	1656	1557	1460	1370
5000	3199	2741	2611	2367	2297
7000	3537	3135	2995	2798	2741
10000	3842	3720	3336	3266	3210

Notes: Battery life in **days** when Applying CR2032 (225 mAh, check reference photo down below). These values are tested or estimated in the laboratory, the battery life might be different in different environments or conditions.

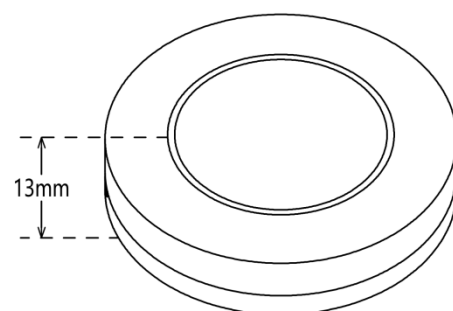
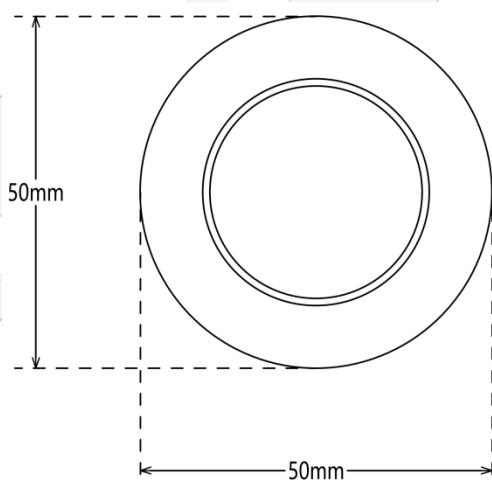
6. Configurable Parameters

Parameters in the below table are configurable by FeasyBeacon SDK compiled app (e.g. FeasyBeacon App), feel free to download FeasyBeacon App from Google Play App Store or iOS App Store.

Parameter		Description
Device Name		UTF-8 string, Default: FSC-BP110-XXXXXX
Pin Code		Access password to FSC-BP110 Default: 000000, Range: 000000 ~ 999999
Advertising Interval		Default: 1300 ms, Range: 100 ~ 10000 ms
Key	Temporary short advertising interval	Temporary short advertising interval after button pressed, this feature is useful when the normal advertising interval set to a very long time (which makes it hard to create connection with the beacon), Default: 100 ms, Range: 100 ~ 10000 ms
	Restore Time	The time that temporary short advertising interval taking effect, Default: 35000 ms, Range: 100 ~ 65535 ms

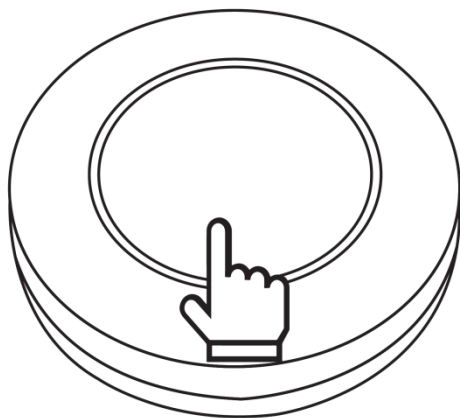
Tx Power		Maximum Tx power: +2.5 dBm Default: 0 dBm, Range: -19.5 ~ 2.5 dBm
Eddystone-URL	URL	URL needed to be advertising
	RSSI at 0m	A 1-byte value representing the average received signal strength at 0m from the advertiser (FSC-BP110), Range: 0 ~ -127
Eddystone-UID	Namespace	10-byte Namespace
	Instance	6-byte Instance
	Reserved	Reserved for future use
	RSSI at 0m	A 1-byte value representing the average received signal strength at 0m from the advertiser (FSC-BP110), Range: 0 ~ -127
iBeacon	UUID	16-byte UUID, e.g. FDA50693A4E24FB1AFCFC6EB07647825
	Major	2-byte Major, Range: 0 ~ 65535
	Minor	2-byte Minor, Range: 0 ~ 65535
	RSSI at 1m	A 1-byte value representing the average received signal strength at 1m from the advertiser (FSC-BP110), Range: 0 ~ -127
AltBeacon	ID1	Beacon Identifier 1
	ID2	Beacon Identifier 2
	ID3	Beacon Identifier 3
	RSSI at 1m	A 1-byte value representing the average received signal strength at 1m from the advertiser (FSC-BP110), Range: 0 ~ -127
	Manufacturer ID	The beacon device manufacturer's company identifier code
	Manufacturer Reserved	Reserved for using by the manufacturer to implement special features

7. Dimensions



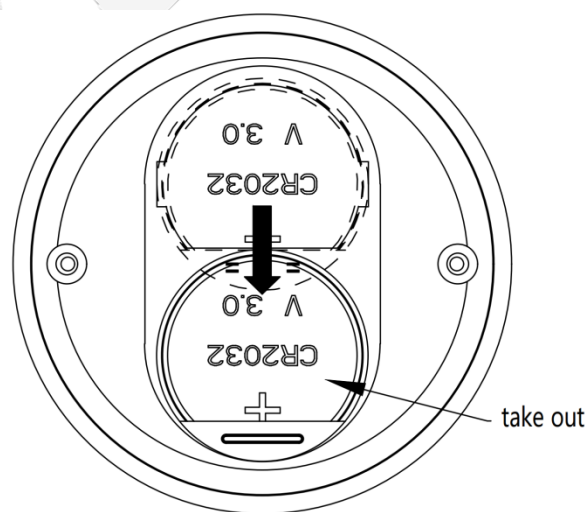
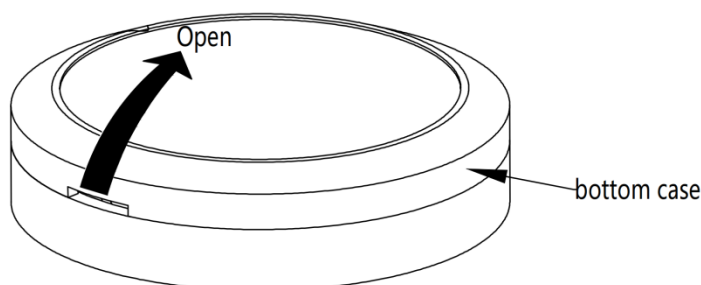
Power on: Long press central area, the light flash 3 times

Power off: Long press central area, the light keeps on then the device turns off



Battery Replacement Method:

Remove the plastic case along the bottom case snap, push out the battery and take it out to replace.



8. Declaration

The contents of this datasheet are subject to change without prior notice for further improvement. Feasycom team reserve all the rights for the final explanation.

iBeacon is a trademark of Apple Inc., Eddystone is a trademark of Google Inc.

Please contact Feasycom sales team or visit <https://www.feasycom.com/> to get more related information if needed.

9. Contact Information

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Revision History

Version	Changes	Author	Data
1.0	Initial Release	Zoe	2024-11-02