FeasyBeacon

FSC-BP108B Datasheet

1. Description

FeasyBeacon FSC-BP108B is an innovative waterproof IP67 Bluetooth 5.1 Low Energy smart beacon, it simultaneously supports iBeacon, Eddystone (e.g. URL, UID, TLM), AltBeacon for broadcasting and provides 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 and Outdoor 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

- Waterproof, IP67
- Locator-Shape Bluetooth Beacon with design patent
- Bluetooth 5.1 Compliant
- Pre-programmed with Feasycom Smart Beacon Firmware
- Up to 10 slots of Advertising Frames
- Portable Smart Beacon with 6 Years Battery Life (by Default Settings)
- Battery can be Replaced when it is Exhausted
- 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 100 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 400m (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 serpentine antenna
Power Supply	CR3032
Battery Life	6 Years (ADV Interval = 1300 ms; TX Power = 0 dBm)
Material	ABS plastic
Color	White, Blue, Yellow, or customized
Size	48(L)mm x 37(W)mm x 7.8(H) mm
Net weight	15 g
Protection	IP67
Operating temperature	-20°C to +60°C

5. 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.

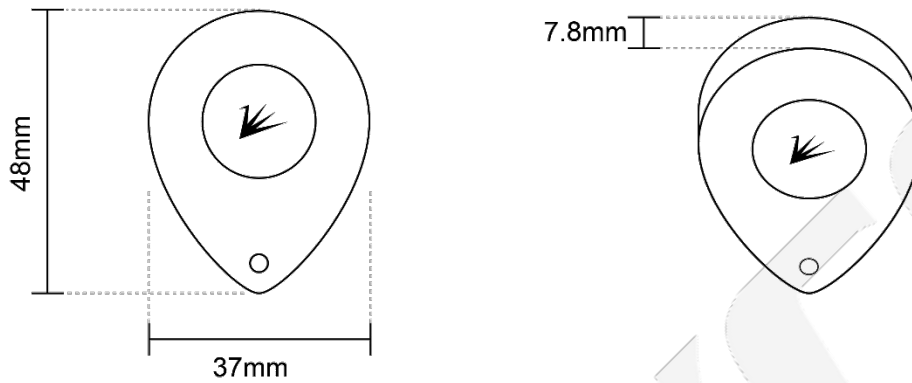| Parameter		Description
Device Name		UTF-8 string, Default: FSC-BP108-XXXXXX
Pin Code		Access password to FSC-BP108B Default: 000000, Range: 000000 ~ 999999
Advertising Interval		Default: 1300 ms, Range: 100 ~ 10000 ms
Tx Power		Maximum Tx power: +2.5 dBm Default: 0 dBm, Range: -19.5 ~ 2.5 dBm
Eddystone-URL	URL	URL that needed to be advertising
	RSSI at 0m	A 1-byte value representing the average received signal strength at 0m from the advertiser (FSC-BP108B), 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-BP108B), 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-BP108B), 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-BP108B), range: 0 ~ -127
	Manufacturer ID	The beacon device manufacturer's company identifier code
	Manufacturer Reserved	Reserved for use by the manufacturer to implement special features

6. Battery Life & Cover Range Estimation

Tx Power (dBm) / Advertising Interval (ms)	-19.5	-7	-3.5	0	2.5
100	466	374	325	271	232
200	821	739	539	491	435
400	1552	1347	1076	993	821
1000	3095	2664	2296	2091	1936
2000	4984	4313	3579	3501	3036
5000	7110	6677	6237	5692	5397
7000	7832	7440	7110	6510	6091
10000	8573	8267	7716	7494	6898
Cover Range(m)	25	170	230	385	400

Notes: Battery life in **days** when Applying CR3032 (500 mAh, see reference photo down below). These values are tested or estimated in the laboratory, the battery life might be different in different environments or conditions.
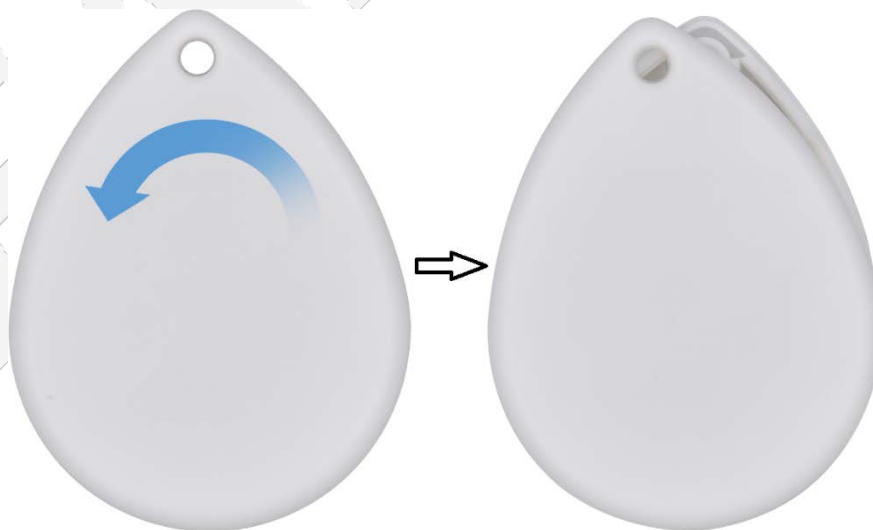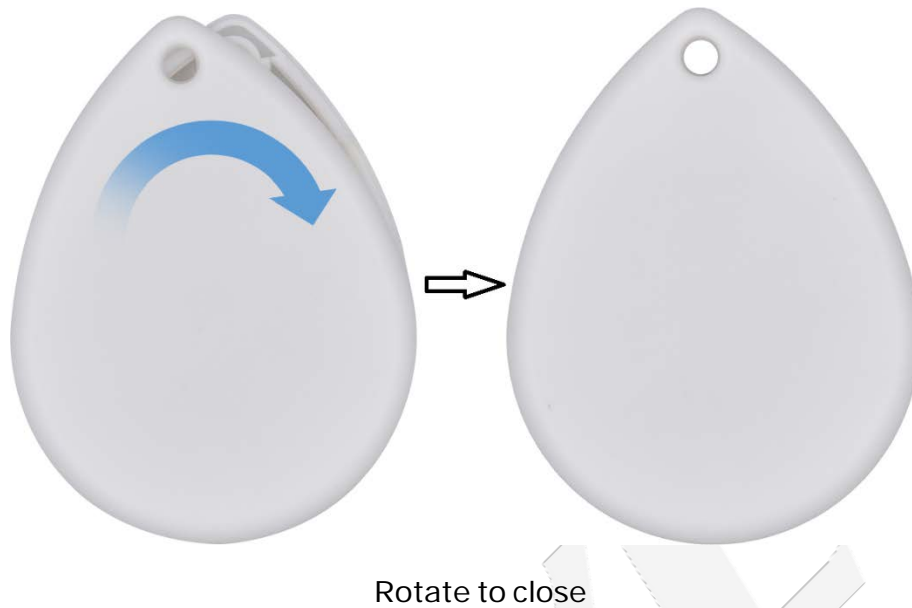
CR3032

7. Dimensions

8. Open And Close The Cover

When the battery is used up, you can replace it with a new one. The diagram of opening or closing the cover is given below

Rotate to open

Rotate to close

9. Declaration

The contents of this datasheet are subject to change without prior notice for further improvement. Feasycom team reserves 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.

10. Contact Information

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Revision History

Version	Changes	Author
1.0	Initial Release	MO