

# FeasyBeacon

## FSC-BP108 Datasheet PMN: Bluetooth Beacon



## 1. Description

FeasyBeacon FSC-BP108 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)
- 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 0 dBm
Antenna	Ceramic 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-BP108 Default: 000000, Range: 000000 ~ 999999
Advertising Interval		Default: 1300 ms, Range: 100 ~ 10000 ms
Tx Power		Maximum Tx power: 0 dBm Default: 0 dBm, Range: -19.5 ~ 0 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-BP108), 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-BP108), 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-BP108), 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-BP108), 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

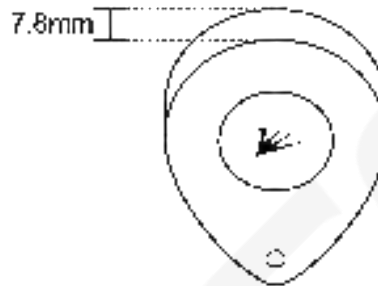
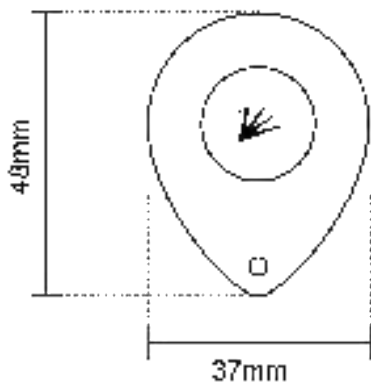
## 6. Battery Life & Cover Range Estimation

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
<b>Notes:</b> Battery life in <b>days</b> 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. 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.

## 9. Contact Information

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## Revision History

Version	Changes	Author
1.0	Initial Release	Devin
1.1	Update Description Update Specifications	Jerry
1.2	Update Description	Tim
1.3	Update Description Update Specifications	Tim

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.

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

NOTE: 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 and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

#### Radiation Exposure Statement

The device has been evaluated to meet general RF exposure requirement. in portable exposure condition without restriction.

Ce matériel est conforme à la partie 15 des règles FCC [et aux critères d'exemption des licences industrielles canadiennes (RSS)]. L'opération doit satisfaire aux deux conditions suivantes: 1) l'équipement ne doit pas causer d'interférences nuisibles; et 2) l'équipement doit accepter toute interférence reçue, y compris toute interférence pouvant conduire à des opérations indésirables