FeasyBeacon

FSC-BP107D Datasheet



1. Description

FeasyBeacon FSC-BP107D is an innovative waterproof IP67 Bluetooth 5.1 Low Energy wearable wristband 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
- Bluetooth 5.1 Compliant
- Work distance up to 400m in open area
- 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	Ceramic antenna		
Power Supply	CR3032		
Battery Life	6 Years (ADV Interval = 1300 ms; TX Power = 0 dBm)		
Material	ABS plastic (shell), silicone (wristband)		
Color	Black, White, Blue, Yellow, or customized		
Size	Wristband length: 255mm;		
	Main body size: 44.5(L)mm x 39.5(W)mm x 9.8 (H) mm		
Net weight	36g		
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.

Parar	neter	Description			
Device	Name	UTF-8 string, Default: FSC-BP107D-XXXXXX			
Pin Code		Access password to FSC-BP107D Default: 000000, Range: 000000 ~ 999999			
Advertisin	a Interval	Default: 1300 ms, Range: 100 ~ 10000 ms			
Advertising Interval					
Tx Power		Maximum Tx power: +2.5 dBm			
	<u> </u>	Default: 0 dBm, Range: -19.5 ~ 2.5 dBm			
	URL	URL that needed to be advertising			
Eddystone-URL	RSSI at 0m	A 1-byte value representing the average received signal strength			
		at 0m from the advertiser (FSC-BP107D), range: 0 \sim -127			
	Namespace	10-byte Namespace			
	Instance	6-byte Instance			
Eddystone-UID	Reserved	Reserved for future use			
	RSSI at 0m	A 1-byte value representing the average received signal strength			
		at 0m from the advertiser (FSC-BP107D), range: 0 \sim -127			
	UUID	16-byte UUID, e.g. FDA50693A4E24FB1AFCFC6EB07647825			
	Major	2-byte Major, range: 0 ~ 65535			
iBeacon	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-BP107D), range: 0 \sim -127			
	ID1	Beacon Identifier 1			
	ID2	Beacon Identifier 2			
	ID3	Beacon Identifier 3			
Alt-Passan	RSSI at 1m	A 1-byte value representing the average received signal strength			
AltBeacon		at 1m from the advertiser (FSC-BP107D), range: 0 \sim -127			
	Manufacturer ID	The beacon device manufacturer's company identifier code			
	Manufacturer	Reserved for use by the manufacturer to implement special			
	Reserved	features			



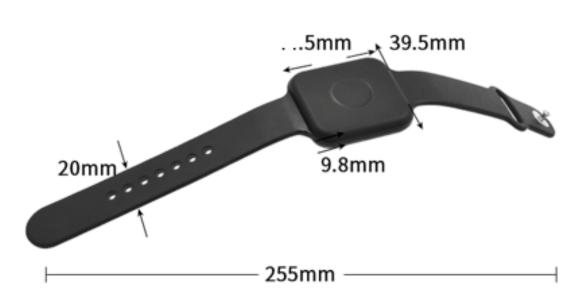
6. Battery Life & Cover Range Estimation

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.



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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10. Revision History

Version	Changes	Author
1.0	Initial Release	Devin
1.1	Parameters Modification	Selina