FeasyBeacon

FSC-BP103 Datasheet

1. Description

FeasyBeacon FSC-BP103 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 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 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 1 Year Battery Life (by Default Settings)
- Variety of Additional Components (e.g. Button, G-sensor/Buzzer Optional)
- 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 130m
Firmware Upgrading	OTA (upgrade firmware over the air)

4. Product Specifications

Item	Description
Chipset	TI CC2640R2F
Bluetooth Version	Bluetooth 5.1
TX power	-21 dBm to +5 dBm
Antenna	PCB Coil antenna
G-Sensor	Optional
Buzzer	Optional
Power Supply	CR2032
Power On	Long press central area for power on / off
Battery Life	1 Year (ADV Interval = 1300 ms; TX Power = 0 dBm)
Material	ABS plastic
Color	White or customized
Size	37.8 * 33.8 * 7.9 mm
Net weight	6.4g
Protection	IP40
Operating temperature	-20°C to +60°C
Certification	FCC, CE, SRRC

5. Battery Life & Cover Range Estimation

Tx Power (dBm) Advertising Interval (ms)	-21	-9	0	3	5
100	44	40	36	34	32
150	65	58	54	49	56
200	88	79	74	69	64
300	128	118	108	99	98
400	165	148	136	133	127
550	209	191	178	160	158
750	272	250	230	210	189
850	298	272	247	233	232
1000	356	319	298	293	266
1300	414	369	364	341	330
2000	577	513	498	485	468
3000	726	682	650	598	594
4000	833	801	768	727	695
5000	946	884	878	827	786
6000	951	929	920	850	799
7000	999	965	944	929	889
10000	1132	1070	1057	1017	1008

Notes: Battery life in **days** when Applying CR2032. 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-BP103-XXXXXX
Pin Code		Access password to FSC-BP103 Default: 000000, Range: 000000 ~ 999999
Advertising Interval		Default: 1300 ms, Range: 0 ~ 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: 0 ~ 2000 ms
	Restore Time	The time that temporary short advertising interval taking effect, Default: 35000 ms, Range: 1000 ~ 60000 ms
Tx Power		Maximum Tx power: +5 dBm Default: 0 dBm, Range: -21 ~ 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-BP103), 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-BP103), 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-BP103), 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-BP103), 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

7. Certification

FCC Certificate

CE Certificate

AGC®
Attestation of Global Compliance

Recognized by China National Accreditation Service for
Conformity Assessment & Taiwan Accreditation
Foundation

T: 0086-755-2908 1955
F: 0086-755-2600 8484
E-mail: agc@agc-cert.com
Web: Http://www.agc-cert.com

1-2/F, Building 19, Junfeng Industrial Park
Chongqing Road, Heping Community, Fuhai Street
Bao 'an District, Shenzhen, Guangdong, China

EU-RED Certificate of Conformity

Radio Equipment Directive (RED) 2014/53/EU

Registration No.	AGC03285190701EE0
Applicant	Shenzhen Feasycom Technology Co., LTD.
	Room 2004A, 20th Floor, Huichao Technology Building, Jinhai Road, Xixiang , Baoan District, Shenzhen, China
Product Designation	Bluetooth Beacon
Brand Name	Feasycom
Model / Series Models	FSC-BP103
Manufacturer	Shenzhen Feasycom Technology Co., LTD.
	Room 2004A, 20th Floor, Huichao Technology Building, Jinhai Road, Xixiang , Baoan District, Shenzhen, China

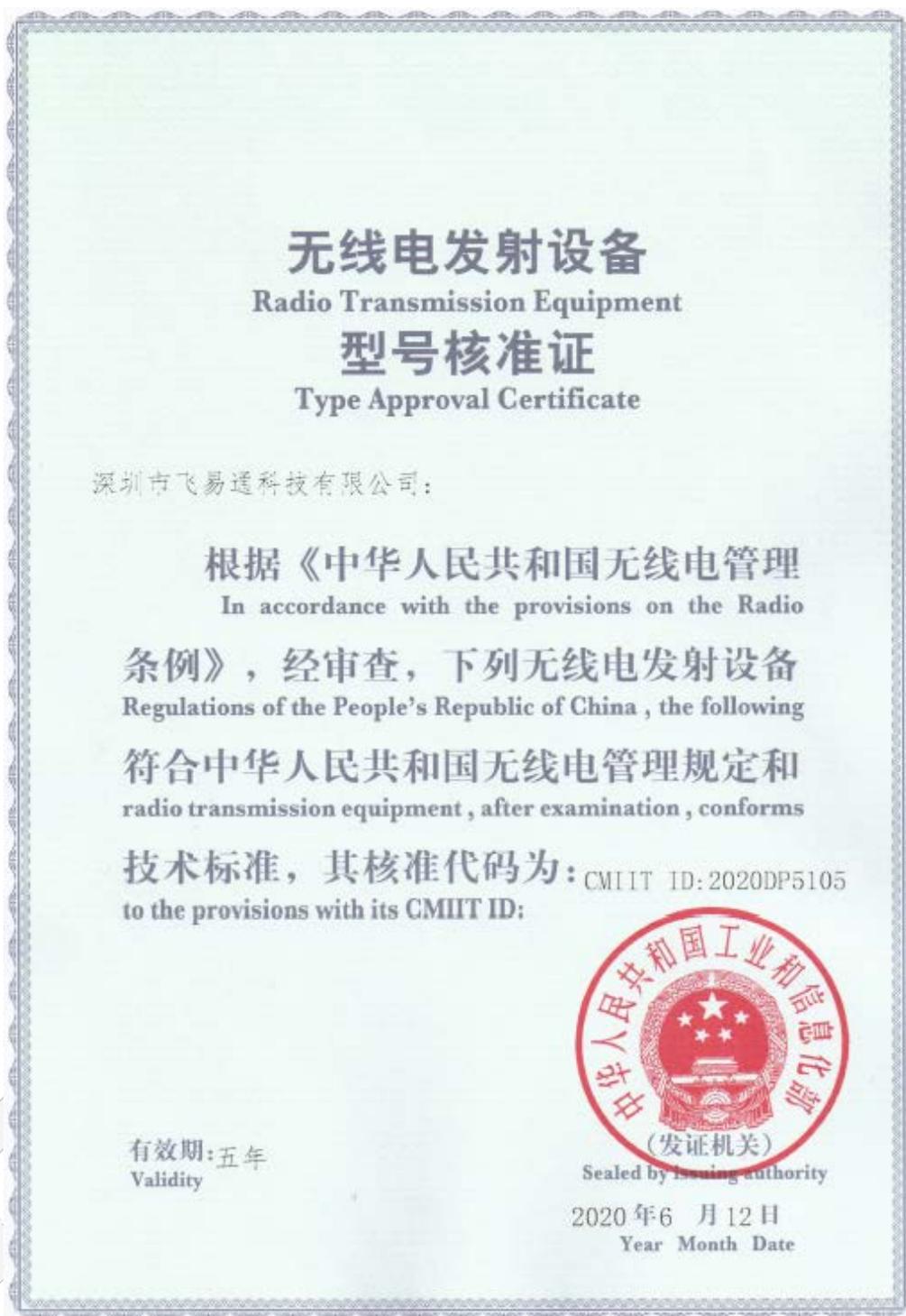| Requirement	Applied Standards	Document Evidence	Result
Art.3.1(a) Health	EN 62479:2010	Test Report: AGC03285190701EH02	Conform
Art.3.1(a) Safety	EN 60950-1:2006+A11:2009 +A1:2010+A12:2011+A2:2013	Test Report: AGC03285190701ES01	Conform
Art.3.1(b) EMC	Draft EN 301 489-1 V2.2.1 Draft EN 301 489-17 V3.2.0	Test Report: AGC03285190701EE01	Conform
Art.3.2 Radio	EN 300 328 V2.1.1	Test Report: AGC03285190701EE11	Conform

CE

Signed by General Manager(King Zhang)
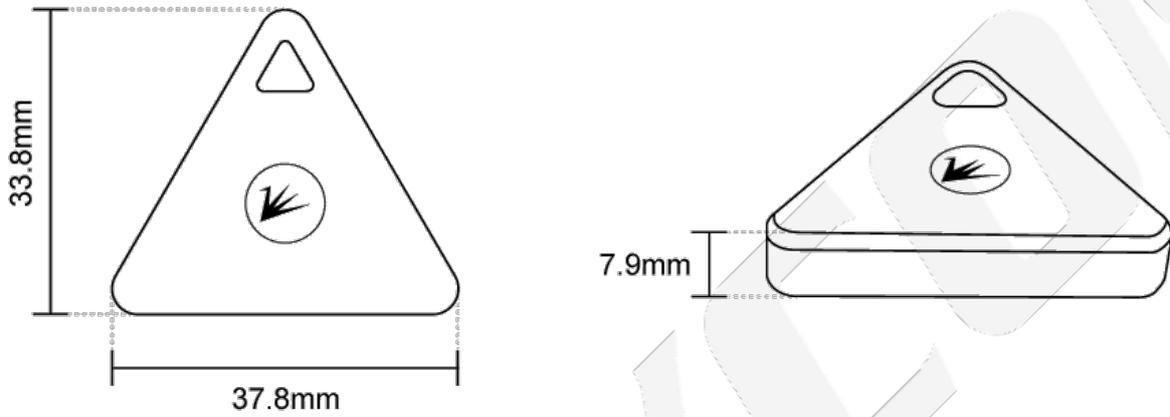Issue Date: Aug. 09, 2019

AGC

Recognized by Attestation of Global Compliance (Shenzhen) Co., Ltd., in accordance with the RED Directive 2014/53/EU. The certificate doesn't imply assessment of the production. The Applicant of the certificate is authorized to use this certificate in connection with EC declaration of conformity to the Directive. The certificate is only applicable to the equipments described above. This certificate shall not be re-produced except in full without the written approval of Attestation of Global Compliance (Shenzhen) Co., Ltd.
Note: This certificate is part of the full test report(s) and should be used in conjunction with it.

Version: 2.0

www.feasycom.com

SRRC Certificate

无线电发射设备
Radio Transmission Equipment
型号核准证
Type Approval Certificate

深圳市飞易通科技有限公司：

根据《中华人民共和国无线电管理
In accordance with the provisions on the Radio

条例》，经审查，下列无线电发射设备
Regulations of the People's Republic of China , the following

符合中华人民共和国无线电管理规定和
radio transmission equipment , after examination , conforms

技术标准，其核准代码为：CMIIT ID:2020DP5105
to the provisions with its CMIIT ID:

有效期：五年
Validity

（发证机关）
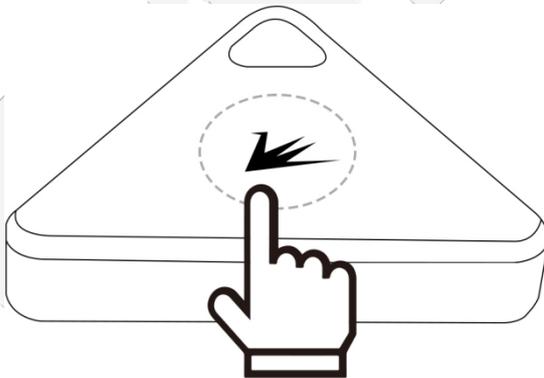Sealed by Issuing authority

2020 年6 月 12 日
Year Month Date

8. Dimensions

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

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

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

Shenzhen Feasycom Technology Co.,LTD

Address: Rm 508, Building A, Fenghuang Zhigu, No.50, Tiezai Road, Xixiang, Baoan Dist, Shenzhen, 518100, China.

Telephone: 86-755-23062695

Support: support@feasycom.com

Sales Service: sales@feasycom.com

Revision History

Version	Changes	Author
1.0	Initial Release	Alex
1.8	Update specifications Add FCC\CE Certificates	Devin
1.9	Update description Update specifications Document reorganization	Jerry
2.1	Update specifications	Tim
2.4	Update battery life description, Add SRRC Certificates	Fish
2.5	Update Address	Selina
2.6	Modify Bluetooth Version: Upgrade from BT 5.0 to BT 5.1	Marsh