

FeasyBeacon

FSC-BP103B Datasheet



1. Description

FeasyBeacon FSC-BP103B is a Bluetooth 5.1 low-energy smart beacon, it supports iBeacon, Eddystone (such as URL, UID, TLM), AltBeacon for broadcasting, and can promote up to 10 advertising frame slots.

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

- Bluetooth 5.1 Compliant
- With CE, FCC, IC Certification
- Pre-programmed with Feasycom Standard Beacon Firmware
- Up to 10 slots of Advertising Frames
- Portable Small-sized Beacon with 3 Years Battery Life (by Default Settings)
- Variety of Additional Components (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 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 160m (open area)
Firmware Upgrading	OTA (upgrade firmware over the air)
Button	Power ON/OFF
LED	Status

4. Product Specifications

Item	Description
Chipset	Dialog DA14531
Bluetooth Version	Bluetooth 5.1
TX power	-19.5 dBm to +2.5 dBm
G-Sensor	Optional
Buzzer	Optional
Power Supply	CR2032
Power On	Long press central area for power on / off
Battery Life	3 Years (ADV Interval = 1300 ms; TX Power = 0 dBm)
Certification	CE, FCC, IC
Material	ABS plastic
Color	White or customized
Size	37.8(L)mm x 33.8(W)mm x 7.9(H)mm
Net weight	6.4g
Protection	IP42
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-BP103B-XXXXXX
Pin Code		Access password to FSC-BP103B 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-BP103B), 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-BP103B), 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-BP103B), 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-BP103B), 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	210	168	146	122	104
150	307	243	203	174	143
200	369	332	242	221	196
300	591	464	369	351	290
400	698	606	484	446	369
550	864	763	611	556	505
750	1160	997	776	751	669
850	1266	1100	849	835	732
1000	1393	1198	1033	941	871
1300	1695	1483	1182	1109	999
2000	2242	1940	1610	1575	1366
3000	2815	2314	2121	2069	1867
4000	3004	2717	2520	2221	2155
5000	3199	3004	2806	2561	2428
6000	3472	3073	2966	2798	2506
7000	3524	3348	3199	2929	2741
10000	2858	3720	3472	3372	3104

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.

7. Certification

FCC Certificate

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**

TCB

**Certification
Issued Under the Authority of the
Federal Communications Commission**
By:

**Eurofins Product Service GmbH
Storkower Strasse 38c
D-15526 Reichenwalde,
Germany**

**Date of Grant: 01/28/2021
Application Dated: 01/28/2021**

**Shenzhen Feasycom Technology Co.,Ltd
Room 2004A, 20th Floor, Huichao Technology
Building, Jinhai Road, Xixiang, Baoan District,,
Shenzhen,
China**

Attention: Wan Zhifu

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: 2AMWO-FSC-BP103B
Name of Grantee: Shenzhen Feasycom Technology Co.,Ltd
Equipment Class: Digital Transmission System
Notes: Bluetooth Beacon

Grant Notes	FCC Rule Parts	Frequency Rangs (MHZ)	Output Watts	Frequency Tolerance	Emission Designator
	15C	2402.0 - 2480.0	0.0017		

Output Power listed is peak conducted.



CE Certificate

Shenzhen Tongzhou Testing Co.,Ltd

VERIFICATION OF CONFORMITY

Registration No. : TZ210101918-C
Applicant : Shenzhen Feasycom Technology Co.,LTD
Address : Room 2004A, 20th Floor, Huichao Technology Building, Jinhai Road, Xixiang, Baoan District, Shenzhen, China
Product : Bluetooth Beacon
Trademark : Feasycom
Model(s) : FSC-BP103B
Manufacturer : Shenzhen Feasycom Technology Co.,LTD
Address : Room 2004A, 20th Floor, Huichao Technology Building, Jinhai Road, Xixiang, Baoan District, Shenzhen, China

Essential Requirement	Applied Specifications/ Standards	Documentary Evidence	Result
EMC	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09) EN 55032:2015 EN 55035:2017 EN 61000-3-2: 2014 EN 61000-3-3: 2013	Report TZ210101918-RE	Conform
Radio	ETSI EN 300 328 V2.2.2 (2019-07)	Report TZ210101918-BLE	Conform
Health	EN 62479:2010	Report TZ210101918-EMF	Conform
Safety	EN 62368-1:2014+ A11: 2017	Report TZ210101918-S	Conform

The EUT described above has been tested by us with the listed standards and found in compliance with the council RED 2014/53/EU. It is possible to use CE marking to demonstrate the compliance with the Directive. The scope of evaluation relates to the submitted documents only.



Andy Zhang

For Chief Executive
January 20, 2021



IC Certificate

		Project No: 87822101-0073 Date: 2021-01-29 Page 1 of 2	
Product Service			
<h2>Technical Approval Certificate</h2> <h3>Certificat d'Approbation Technique</h3>			
based on the Comprehensive Economic and Trade Agreement (CETA) between the European Community and Canada <i>en se basant l'accord Économique et Commercial Global (CETA) entre la Communauté Européenne et le Canada</i>			
Eurofins Product Service GmbH CAB Identifier: DE0004			
CERTIFICATE NUMBER (TAC No.) <i>Numéro de certicate (N° CAT)</i>		DE-04-01321W	
CERTIFICATION NO. <i>Numéro de certification</i>		IC: 23872-FSCBP103B	
TYPE OF CERTIFICATION SERVICE <i>Type de service de certification</i>		New Single Certification	
CERTIFICATE HOLDER <i>Titulaire du certificat</i>		Shenzhen Feasycom Technology Co., LTD Room 2004A, 20th Floor, Huichao Technology Building, Jinhai Road, Xixiang, Baoan District, Shenzhen China	
TYPE OF EQUIPMENT <i>Genre de matériel</i>		Spread Spectrum or Digital Device (2400-2483.5 MHz)	
HARDWARE VERSION IDENTIFICATION NUMBER (HVIN) <i>Numéro d'identification de la version du matériel (NIVM)</i>		FSC-BP103B	
PRODUCT MARKETING NAME (PMN) <i>Nom de marque du produit (NMP)</i>		Bluetooth Beacon	
FIRMWARE VERSION IDENTIFICATION NUMBER (FVIN) <i>Numéro d'identification de la version du logiciel (NIVL)</i>		N/A	
HOST MARKETING NAME (HMN) <i>Nom de marque de l'hôte (NMF)</i>		N/A	
TESTING LABORATORY <i>Coordonnées du laboratoire d'essai</i>		SHENZHEN TONGZHOU TESTING CO., LTD 1st Floor, Building 1, Haomai High-tech park, Huating Road 387, Dalang street, Longhua, Shenzhen P.R.C.	Contact details: Andy Zhang Phone: +- Fax: +- Email: Andy.Zhang@setz-testing.com
WIRELESS DEVICE TESTING LABORATORY ID (ISED#) <i>Laboratoire d'essais des appareils sans fils ID (ISDE#)</i>		22033	
NOTES:		+-	
Technical Specifications – please refer to the following page(s).			
Eurofins Product Service GmbH Storkower Strasse 38c, 15526 Reichenwalde, Germany Phone +49 33631 888 000 Fax +49 33631888 650. E-Mail: certifiers@eurofins.com			

T03_V07

		Product Service		
CERTIFICATE NUMBER (TAC No.) Numéro de certificat (N° CA7)		DE-04-01321W		
STANDARD / ISSUE Cahiers des charges/ Numéro d'émission	FREQUENCY RANGE Gamme de fréquences	EMISSION DESIGNATION (TRC-43) Désignatif d'émission (CRT-43)	R.F. POWER RATING / FIELD STRENGTH Puissance RF transmise / Intensité de champ	ANTENNA INFORMATION Informations sur l'antenne
RSS-247 Issue 2	2402-2480 MHz	1M07FXD	0.0017 W	Internal Antenna, 2 dBi

Project No: KTM22101-0073
Date: 2021-01-29
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LABELLING OF CERTIFIED RADIO EQUIPMENT:
EQUIPMENT THAT HAS RECEIVED CERTIFICATION BUT IS NOT LABELLED WITH THE MODEL NUMBER AND THE CERTIFICATION NUMBER AS OUTLINED ABOVE IS NOT CONSIDERED CERTIFIED.

Étiquetage du matériel radio homologué:
Le matériel pour lequel une certification a été obtenue mais qui n'est pas étiqueté conformément aux exigences ci-dessus (numéro de modèle et numéro de certification) n'est pas considéré comme certifié.

CERTIFICATION OF EQUIPMENT MEANS ONLY THAT THE EQUIPMENT HAS MET THE REQUIREMENTS OF THE ABOVE-NOTED SPECIFICATION. LICENCE APPLICATIONS, WHERE APPLICABLE TO USE CERTIFIED EQUIPMENT, ARE ACTED ON ACCORDINGLY BY THE ISSED ISSUING OFFICE AND WILL DEPEND ON THE EXISTING RADIO ENVIRONMENT, SERVICE AND LOCATION OF OPERATION. THIS CERTIFICATE IS ISSUED ON CONDITION THAT THE HOLDER COMPLIES AND WILL CONTINUE TO COMPLY WITH THE REQUIREMENTS AND PROCEDURES ISSUED BY ISSED. THE EQUIPMENT FOR WHICH THIS CERTIFICATE IS ISSUED SHALL NOT BE MANUFACTURED, IMPORTED, DISTRIBUTED, LEASED, OFFERED FOR SALE OR SOLD UNLESS THE EQUIPMENT COMPLIES WITH THE APPLICABLE TECHNICAL SPECIFICATIONS AND PROCEDURES ISSUED BY ISSED.

La certification du matériel signifie seulement que le matériel a satisfait aux exigences de la norme indiquée ci-dessus. Les demandes de licences nécessaires pour l'utilisation du matériel certifié sont traitées en conséquence par le bureau de délivrance d'ISSE et dépendent des conditions radio ambiantes, du service et de l'emplacement d'exploitation. Le présent certificat est délivré à la condition que le titulaire satisfasse et continue de satisfaire aux exigences et aux procédures d'ISSE. Le matériel à l'égard duquel le présent certificat est délivré ne doit pas être fabriqué, importé, distribué, loué, mis en vente ou vendu à moins d'être conforme aux procédures et aux spécifications techniques applicables publiées par ISSE.

I HEREBY ATTEST THAT THE SUBJECT EQUIPMENT WAS TESTED AND FOUND IN COMPLIANCE WITH THE ABOVE-NOTED SPECIFICATION.
J'atteste, par la présente, que le matériel a fait l'objet d'essai et a été jugé conforme à la spécification ci-dessus.

Reichenwalde, 2021-01-29
Place, Date of Issue
Lieu, date de délivrance



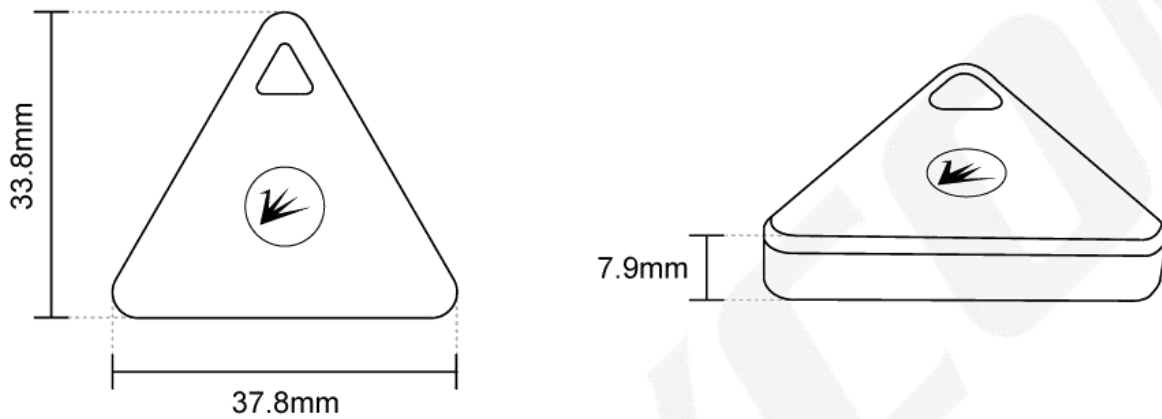
Deutsche
 Akkreditierungsstelle
 D-ZE-12092-01-00


 Signed by / Signataire Jörg Kusig
 Foreign Certification Body (FCB)

Eurofins Product Service GmbH
 Storkower Strasse 38c, 15526 Reichenwalde, Germany
 Phone +49 33631 888 000 Fax +49 33631888 650, E-Mail: certifiers@eurofins.com

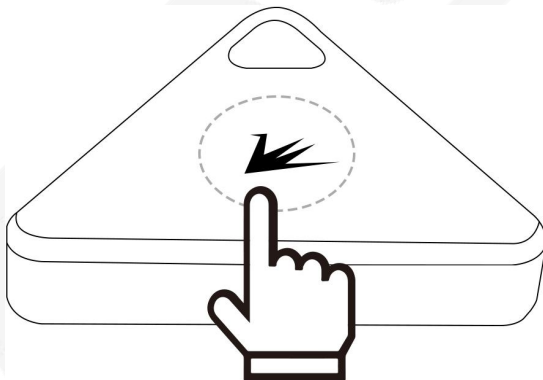
T03_V07

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

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Telephone: 86-755-23062695

Support: support@feasycom.com

Sales Service: sales@feasycom.com

Revision History

Version	Changes	Author
1.0	Initial Release	Fish
1.2	Update Address	Selina