

# FeasyBeacon

## FSC-BP104D Datasheet



## 1. Description

FeasyBeacon FSC-BP104D is an innovative waterproof IP67 and a super long battery life 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 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 Smart Beacon with up to 10 Years Battery Life (by Default Settings)
- Configurable by Free FeasyBeacon Mobile App and SDK
- Customizable Color, Logo, Hardware, Software
- Waterproof: IP67/IP44 (Optional).

- Up to 400m in open area

### 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 (Tx Power = 2.5 dBm, in open area)
Firmware Upgrading	OTA (upgrade firmware over the air)
Button	Power ON/OFF
LED	Status

### 4. Product Specifications

Item	Description
Chipset	DA14531
Bluetooth Version	Bluetooth 5.1
TX power	-19.5 dBm to +2.5 dBm
Antenna	F-shape PCB antenna
Power Supply	2 * AAA (LR03), battery is not included in the package
Power On	Long press central area for power on / off
Battery Life	Up to 10 Years (ADV Interval = 1300 ms; TX Power = 0 dBm, Battery Capacity=1000mAh)
Certification	CE, FCC, IC
Material	ABS plastic
Color	White or customized
Size	86mm(L)*65.7mm(W)*17.2mm(H)
Net weight	28g ( Without battery)
Options	IP67/IP44

Operating temperature	-20°C to +60°C
* All battery information depends on the usage environment and many other factors, actual results may vary. The battery validity period is usually 10 years.	

## 5. Power consumption

Power Tx Power (dBm)	Advertising Interval (ms)				
	-19.5	-7	-3.5	0	2.5
<b>100</b>	44.62uA	55.67uA	63.98uA	76.62uA	89.60uA
<b>150</b>	30.47uA	38.50uA	46.15uA	53.72uA	65.20uA
<b>200</b>	25.35uA	28.18uA	38.62uA	42.35uA	47.83uA
<b>300</b>	15.85uA	20.20uA	25.36uA	26.68uA	32.30uA
<b>400</b>	13.42uA	15.46uA	19.35uA	20.98uA	25.35uA
<b>550</b>	10.85uA	12.28uA	15.32uA	16.85uA	18.56uA
<b>750</b>	8.08uA	9.40uA	12.08uA	12.47uA	14.00uA
<b>850</b>	7.40uA	8.52uA	11.03uA	11.22uA	12.79uA
<b>1000</b>	6.73uA	7.82uA	9.07uA	9.96uA	10.76uA
<b>1300</b>	5.53uA	6.32uA	7.93uA	8.45uA	9.38uA
<b>2000</b>	4.18uA	4.83uA	5.82uA	5.95uA	6.86uA
<b>3000</b>	3.33uA	4.05uA	4.42uA	4.53uA	5.02uA
<b>4000</b>	3.12uA	3.45uA	3.72uA	4.22uA	4.35uA
<b>5000</b>	2.93uA	3.12uA	3.34uA	3.66uA	3.86uA
<b>6000</b>	2.70uA	3.05uA	3.16uA	3.35uA	3.74uA
<b>7000</b>	2.66uA	2.80uA	2.93uA	3.20uA	3.42uA
<b>10000</b>	2.43uA	2.52uA	2.70uA	2.78uA	3.02uA

## 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-BP104D-XXXXXX
Pin Code		Access password to FSC-BP104D 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-BP104D), 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-BP104D), 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-BP104D), 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-BP104D), 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

TCB

GRANT OF EQUIPMENT  
AUTHORIZATION  
Certification  
Issued Under the Authority of the  
Federal Communications Commission  
By:

TCB

PHOENIX TESTLAB GmbH  
Koenigswinkel 10  
32825 Blomberg,  
Germany

Date of Grant: 04/09/2021  
Application Dated: 04/09/2021

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

Attention: Wan Zhifu

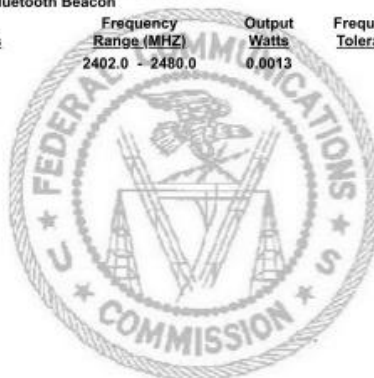
**NOT TRANSFERABLE**

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-FSCBP104  
Name of Grantee: Shenzhen Feasycom Technology Co.,Ltd  
Equipment Class: Digital Transmission System  
Notes: Bluetooth Beacon

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
	15C	2402.0 - 2480.0	0.0013		

Output power listed is max peak conducted.



# CE Certificate



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

T: 0086-755-2523 4088  
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

## Attestation of Conformity

Registration No. AGC03285210301E0

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-BP104

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 EN 50663:2017	Test Report: AGC03285210301EH02	Conform
Art.3.1(a) Safety	EN 62368-1:2014+A11:2017	Test Report: AGC03285210301ES01	Conform
Art.3.1(b) EMC	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09)	Test Report: AGC03285210301EE01	Conform
Art.3.2 Radio	ETSI EN 300 328 V2.2.2 (2019-07)	Test Report: AGC03285210301EE11	Conform




Signed by General Manager (King Zhang)  
Issue Date: April 20, 2021



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

Version: 2.2

## IC Certificate


**TECHNICAL APPROVAL  
CERTIFICATE**

based on the Comprehensive Economic and Trade Agreement  
(CETA) between the European Community and Canada

**CERTIFICAT D'APPROBATION  
TECHNIQUE**

en se basant l'accord Économique et Commercial Global  
(CETA) entre la Communauté Européenne et le Canada

CERTIFICATE NUMBER <i>NUMERO DE CERTIFICAT</i>	21-210351
CERTIFICATION NUMBER <i>NUMERO DE CERTIFICATION</i>	23872-FSCBP104
TYPE OF SERVICE <i>TYPE DE SERVICE</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 MATERIEL</i>	Bluetooth Beacon
PRODUCT MARKETING NAME (PMN) <i>NOM DE MARQUE DE PRODUIT (NMP)</i>	FSC-BP104
HARDWARE VERSION IDENTIFICATION NUMBER (HVIN) <i>NUMERO D'IDENTIFICATION DE LA VERSION DU MATERIEL</i>	FSC-BP104
FIRMWARE VERSION IDENTIFICATION NUMBER (FVIN) <i>NUMERO D'IDENTIFICATION DE LA VERSION DU MICROLOGICIEL</i>	V5.2.9
FREQUENCY RANGE <i>BANDE DE FREQUENCES</i>	2402 – 2480 MHz
RF POWER (WATT) / FIELD STRENGTH (dB $\mu$ V/m) <i>PUISSANCE TRANSMISE HF (WATT) / INTENSITE DE CHAMP (dB<math>\mu</math>V/m)</i>	0.0013 W
EMISSION DESIGNATION (TRC-43) <i>DÉSIGNATION D'ÉMISSION (CRT-43)</i>	1M06F1D
ANTENNA INFORMATION <i>INFORMATION D'ANTENNE</i>	PCB Antenna (2 dBi)
CONTACT INFORMATION OF TESTING LABORATORY <i>COORDONNÉES DU LABORATOIRE D'ESSAI</i>	ATTESTATION OF GLOBAL COMPLIANCE (SHENZHEN) CO., LTD. 1/F., Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, 518012, P.R.C.
COMPANY NUMBER / CAB IDENTIFIER <i>NUMERO DE COMPAGNIE / OEC IDENTIFICATEUR</i>	24842 / CN0063
CERTIFIED TO SPECIFICATION / ISSUE <i>CERTIFIÉ SELON LE CAHIER DES CHARGES / ÉDITION</i>	RSS-247 Issue 2

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 ISDE 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 ISDE. 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 ISDE.

*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'ISDE 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'ISDE. 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 ISDE.*

**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.

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.*

Blomberg, 09 April 2021

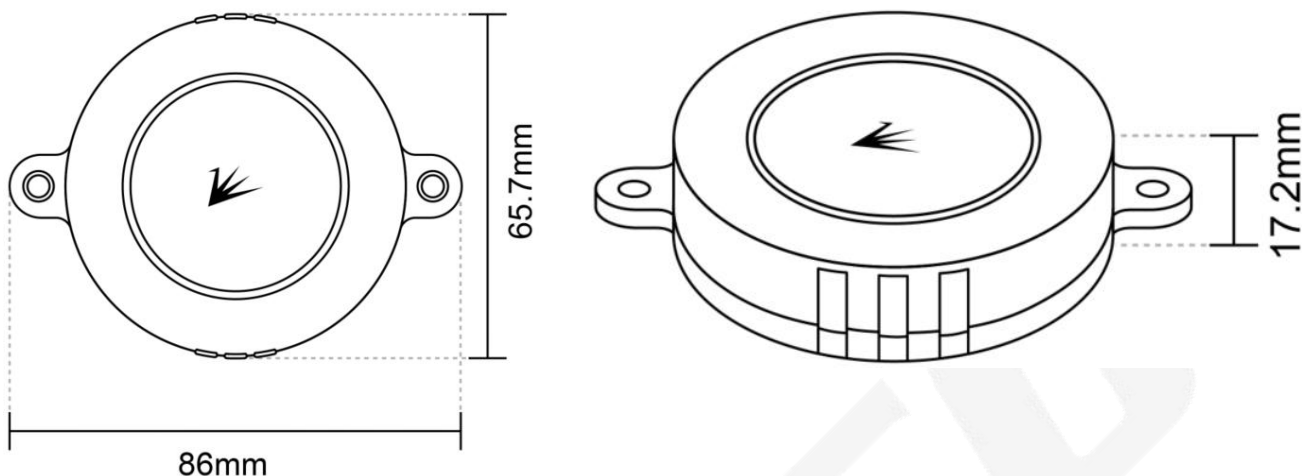


Signed by / Signataire Dirk Brandhorst

CAB identifier: DE0003

Foreign Certification Body (FCB)

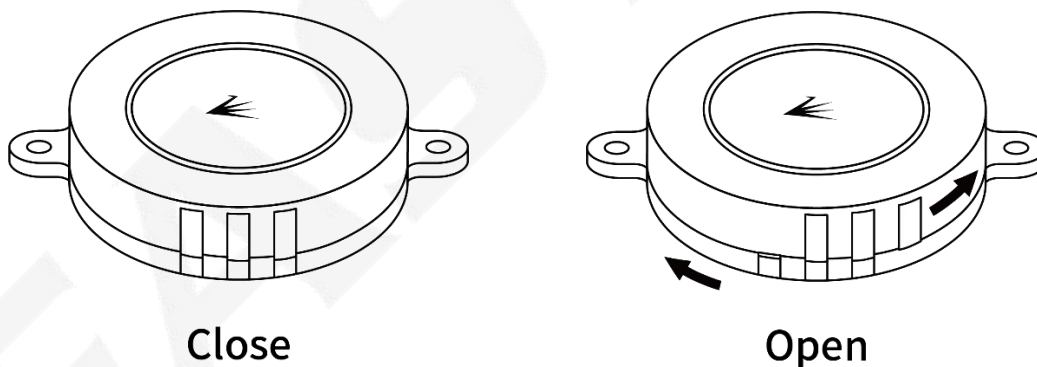
## 8. Dimensions



## 9. Power supply

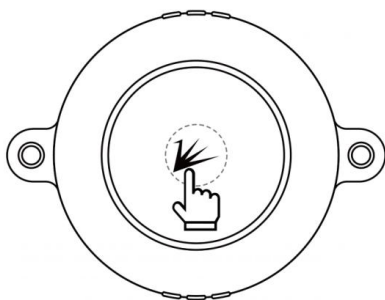
9.1 Hold the handles on both side and rotate the housing the put in 2pcs AAA battery.

Notice: Batteries are to be inserted with the correct polarity



9.2 Long press the central area to power on, the led light flash 3 times.





## 10. 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.

## 11. 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](mailto:support@feasycom.com)

Sales Service: [sales@feasycom.com](mailto:sales@feasycom.com)

## Revision History

Version	Changes	Author
1.0	Initial Release	Marsh
1.2	Update Address	Selina