

FeasyBeacon

FSC-BP109 Datasheet



1. Description

FeasyBeacon **FSC-BP109** is a USB powered super long range beacon. It simultaneously supports iBeacon, Eddystone (e.g. URL, UID), AltBeacon for broadcasting and provides the ability to advertise up to 10 slots of advertising frames. Transmit distance up to 4000m.

FeasyBeacon Super BP109 is designed to solve the poor cover range problem, suitable for application scenarios like stadium, museum, exhibition, hotel, restaurant, etc.

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

- Up to 4000m Super Long Range in Open Space
- Qualcomm CSR8811 Chipset, Bluetooth 4.2
- Pre-programmed with Feasycom Standard Beacon Firmware

- Up to 10 slots of Advertising Frames
- Configurable by Free FeasyBeacon Mobile App and SDK
- Customizable Color, Logo, Hardware, Software

3. Functional Specifications

| Item | Description |
|----------------------------|---|
| Advertising Format | Eddystone (URL/ UID), iBeacon, AltBeacon |
| Configuring Method | FeasyBeacon SDK compiled app (e.g. FeasyBeacon app) |
| Advertising Interval | Default 100 ms, range from 100 ms to 2000 ms |
| Security | Access password required, Default Pin Code 000000 |
| Max Number of Broadcast | 10 Slots configurable advertising frames |
| Default Broadcast Interval | 100 ms for iBeacon & Eddystone |
| System Compatibility | iOS 7.0+, Android 4.3+ |
| Advertising Distance | Up to 4000m (open area) |
| Firmware Upgrading | OTA (upgrade firmware over the air) |

4. Product Specifications

| Item | Description |
|-----------------------|------------------------------|
| Chipset | Qualcomm CSR8811 |
| Bluetooth Version | Bluetooth 4.2 |
| TX power | +18.5 dBm |
| Antenna | Whip Antenna (SMA interface) |
| Power Supply | 5V USB |
| MCU Core | ST ARM 32-bit Cortex-M4 CPU |
| Material | ABS plastic |
| Color | Black, or customized |
| Size | 285(L)*38(W)*22(H)mm |
| Net weight | 54 g |
| Protection | IP40 |
| Operating temperature | -20°C to +85°C |
| Certification | CE, ROHS, FCC |

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-BP109-XXXXXX |
| Pin Code | | Access password to FSC-BP109 Default: 000000, Range: 000000 ~ 999999 |
| Advertising Interval | | Default: 100 ms, Range: 100 ~ 2000 ms |
| Tx Power | | Maximum Tx power: +18.5 dBm Default: +18.5 dBm |
| Eddystone-URL | URL | URL that needed to be advertised |
| | RSSI at 0m | A 1-byte value representing the average received signal strength at 0m from the advertiser (FSC-BP109), 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-BP109), 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-BP109), 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-BP109), 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. Certifications

FCC Certificate (USA)

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**

TCB

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

Intertek Testing Services NA, Inc.
 70 Codman Hill Road
 Boxborough, MA 01719

Date of Grant: 12/13/2017
 Application Dated: 12/13/2017

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

Attention: Wan Zhifu

NOT TRANSFERABLE

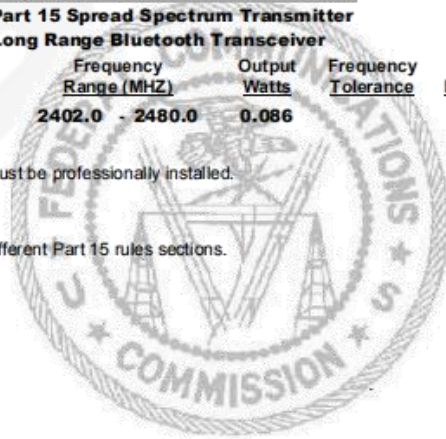
EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: 2AMWO-FSC-BP109
Name of Grantee: Shenzhen Feasycom Technology Co.,Ltd
Equipment Class: Part 15 Spread Spectrum Transmitter
Notes: Long Range Bluetooth Transceiver

| <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> |
|--------------------|-----------------------|------------------------------|---------------------|----------------------------|----------------------------|
| CC | 15C | 2402.0 - 2480.0 | 0.086 | | |

Output power listed is conducted. This device must be professionally installed. The highest reported SAR is 0.71 W/kg.

CC: This device is certified pursuant to two different Part 15 rules sections.



CE Certificate (EU)



Attestation of Global Compliance
 Recognized by China National Accreditation Service for
 Conformity Assessment & Taiwan Accreditation
 Foundation

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2F., Building 2, No 1-No.4, ChaxiSanwei
 Technical Industrial Park, Gushu, Xixiang Street
 Baoan District, Shenzhen, P. R. China (518000)

EU-RED Certificate of Conformity

Radio Equipment Directive (RED) 2014/53/EU

Registration No. AGC01249171001E0
 Certificate Holder Shenzhen Feasycom Technology Co.,LTD
 Room 2004A,20th Floor, Huichao Technology Building,
 Jinhai Road, Xixiang , Baoan District, Shenzhen, China.
 Product Designation Long Range Bluetooth Transceiver
 Brand Name Feasycom
 Model / Series Models FSC-BP109
 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 62209-2:2010; EN 50566:2013 | Test Report: AGC01249171001EH01 | Conform |
| Art.3.1(a) Safety | EN 60950-1:2006+A11:2009 +A1:2010+A12:2011+A2:2013 | Test Report: AGC01249171001ES01 | Conform |
| Art.3.1(b) EMC | Draft EN 301 489-1 V2.2.0 Draft EN 301 489-17 V3.2.0 | Test Report: AGC01249171001EE01 | Conform |
| Art.3.2 Radio | EN 300 328 V2.1.1 | Test Report: AGC01249171001EE04 | Conform |
| | | Test Report: AGC01249171001EE11 | Conform |




Signed by Quality Manager
 Issue Date: Dec. 06, 2017



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

RoHS Certificate(EU)



Attestation of Global Compliance
 Recognized by China National Accreditation Service for
 Conformity Assessment & Taiwan Accreditation
 Foundation

Tel: 0086-755-83563833
 Fax: 0086-755-25316612
 E-mail: agc@agc-cert.com
 Web: Http://www.agc-cert.com

Unit 2, Meihua Road 171,
 Shangmeilin Street, Futian District,
 Shenzhen City, China (518000)

Certification of Product Declarations

Registration No.: A001E20171115042C8
 Certificate Holder: Shenzhen Feasycom Technology Co.,LTD
 Room 2004A,20th Floor,Huichao Technology
 Building,JinhaiRoad,Xixiang ,BaoanDistrict,Shenzhen,China.
 Product Designation: Long Range Bluetooth Transceiver
 Brand Name: Feasycom
 Model / Series Models: FSC-BP109
 Manufacturer: Shenzhen Feasycom Technology Co.,LTD
 Room 2004A,20th Floor,Huichao Technology
 Building,JinhaiRoad,Xixiang ,BaoanDistrict,Shenzhen,China.

| Requirement | Applied Standards | Document Evidence | Result |
|-------------|---|----------------------------------|---------|
| 2011/65/EU | IEC 62321-3-1:2013 Ed 1.0 IEC 62321-5:2013 Ed 1.0 / IEC 62321-4:2013 Ed 1.0 IEC 62321-7-2:2017 Ed1.0 IEC 62321-7-1:2015 Ed1.0 / IEC 62321-6:2015 Ed1.0 | Test Report: A001E20171115042 | Conform |



Lewis

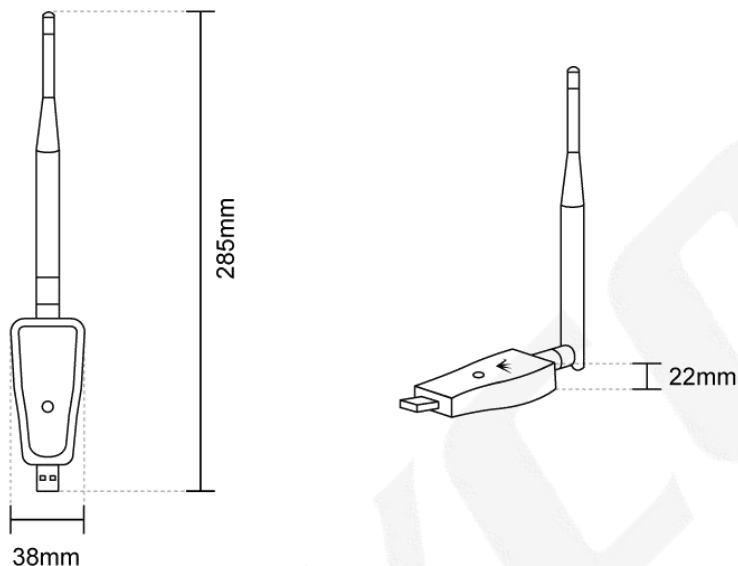
Signed for and on behalf of AGC
 Issue Date: Nov.23, 2017

Recognized by Attestation of Global Compliance (Shenzhen) Co., Ltd. in accordance with the EC Council 2011/65/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:**
1. This certificate is part of the full test report(s) and should be used in conjunction with it.
 2. As specified by client, testing the mandatory requirement section.



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

Shenzhen Feasycom Technology Co.,LTD

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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 | Devin |
| 1.7 | Update specifications | Lynn |
| 1.8 | Update description Update specifications Document reorganization | Tim |