

FeasyBeacon

FSC-BP108N Datasheet



1. Description

FeasyBeacon FSC-BP108N is an innovative waterproof IP67 Bluetooth 5.0 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 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
- Locator-Shape Bluetooth Beacon with design patent
- Bluetooth 5.0 Compliant
- General/NFC/G-sensor optional
- Pre-programmed with Feasycom Smart Beacon Firmware
- Up to 10 slots of Advertising Frames
- Portable Smart Beacon with 2 Years Battery Life (by Default Settings)
- 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 500m (open area) |
| Firmware Upgrading | OTA (upgrade firmware over the air) |

4. Product Specifications

| Item | Description |
|-----------------------|--|
| Chipset | nRF52832 |
| Bluetooth Version | Bluetooth 5.0 |
| TX power | -40 dBm to +4 dBm |
| Antenna | Ceramic antenna |
| Button | Long press central area for power on/off |
| G-sensor | Optional |
| NFC | Optional |
| Power Supply | CR3032 |
| Battery Life | 2 Years (ADV Interval = 1300 ms; TX Power = 0 dBm) |
| Material | ABS plastic |
| Color | White or customized |
| Size | 48(L)mm x 37(W)mm x 7.8(H) mm |
| Net weight | 14g |
| 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.

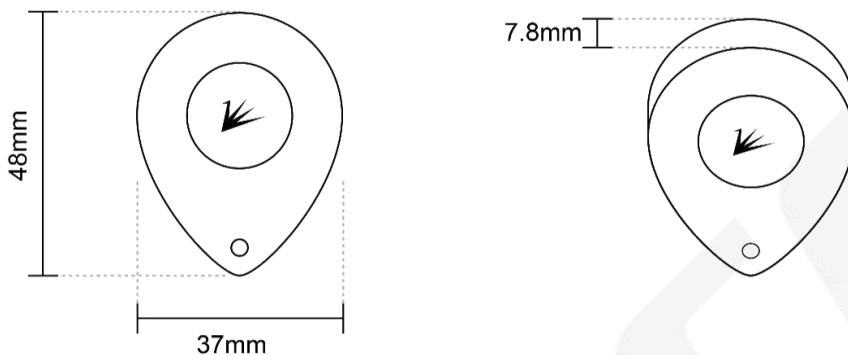
| Parameter | | Description |
|----------------------|-----------------------|--|
| Device Name | | UTF-8 string, Default: FSC-BP108N-XXXXXX |
| Pin Code | | Access password to FSC-BP108N Default: 000000, Range: 000000 ~ 999999 |
| Advertising Interval | | Default: 1300 ms, Range: 100 ~ 10000 ms |
| Tx Power | | Maximum Tx power: +4 dBm Default: 0 dBm, Range: -40 ~ 4 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-BP108N), 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-BP108N), 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-BP108N), 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-BP108N), 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) | -40dBm | -20dBm | -12dBm | -4dBm | 0dBm | 4dBm |
|---|--------|--------|--------|-------|------|------|
| 100ms | 178 | 165 | 160 | 133 | 125 | 91 |
| 150ms | 244 | 226 | 223 | 181 | 177 | 138 |
| 200ms | 305 | 284 | 277 | 235 | 221 | 187 |
| 300ms | 403 | 382 | 379 | 321 | 305 | 253 |
| 400ms | 486 | 451 | 398 | 394 | 365 | 296 |
| 550ms | 566 | 523 | 496 | 457 | 447 | 349 |
| 750ms | 650 | 623 | 600 | 564 | 506 | 430 |
| 850ms | 685 | 646 | 637 | 593 | 565 | 460 |
| 1000ms | 723 | 695 | 682 | 655 | 607 | 515 |
| 1300ms | 779 | 759 | 744 | 723 | 668 | 571 |
| 2000ms | 869 | 855 | 839 | 804 | 735 | 704 |
| 3000ms | 941 | 924 | 915 | 899 | 886 | 783 |
| 4000ms | 973 | 957 | 949 | 945 | 927 | 863 |
| 5000ms | 1002 | 985 | 975 | 968 | 938 | 886 |
| 6000ms | 1020 | 1003 | 989 | 975 | 962 | 930 |
| 7000ms | 1051 | 1017 | 1008 | 1002 | 985 | 954 |
| 10000ms | 1067 | 1039 | 1029 | 1016 | 998 | 989 |

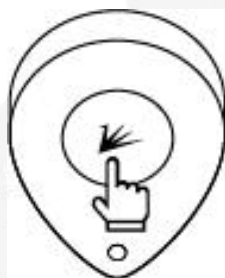
Notes: Battery life in **days** when Applying CR3032. These values are tested or estimated in the laboratory, the battery life might be different in different environments or conditions.

7. Dimensions



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

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



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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Revision History

| Version | Changes | Author |
|---------|-----------------|--------|
| 1.0 | Initial Release | Fish |
| 1.1 | Update Address | Selina |