GBeacon

GB2110 Datasheet

GLOWBIRD

1. Description

GBeacon GB2110 is 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 GBeacon 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, GBeacon SDK compiled app is available to download from both the iOS and Android platform (search 'GBeacon' to download).

2. Features

- Bluetooth 5.1 Compliant
- Pre-programmed with Glowbird Standard Beacon Firmware
- Up to 10 slots of Advertising Frames
- Portable Smart Beacon with 5 Years Battery Life (by Default Settings)
- Configurable by Free GBeacon Mobile App and SDK
- Customizable Color, Logo, Hardware, Software

3. Functional Specifications

Item	Description
Advertising Format	Eddystone (URL/ UID/ TLM), iBeacon, AltBeacon
Configuring Method	GBeacon SDK compiled app (e.g. GBeacon 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 (Tx Power = 5 dBm, in open area)
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	F-shape PCB antenna
Power Supply	2 * AAA (LR03), battery is not included in the package
Battery Life	5 Years (ADV Interval = 1300 ms; TX Power = 0 dBm)
Material	ABS plastic
Color	White or customized
Size	Diameter 62.2 mm, height 18.8 mm
Net weight	46g
Protection	IP40
Operating temperature	-20°C to +60°C
Certification	TELEC

5. Battery Life & Cover Range Estimation+

Tx Power (dBm) / Advertising Interval (ms)	-21	-9	0	3	5
100	238	225	189	178	162
150	356	328	288	261	256
200	477	444	387	359	351
300	710	562	546	520	500
400	899	793	707	680	658
550	1142	1030	923	840	827
750	1499	1347	1222	1176	1165
850	1580	1443	1287	1278	1201
1000	1834	1702	1580	1436	1401
1300	2163	2024	1841	1668	1577
2000	2856	2717	2565	2370	2278
3000	3762	3479	3201	3021	2952
4000	4255	4026	3704	3534	3398
5000	4651	4398	4237	4006	3882
6000	4682	4513	4281	4108	3971
7000	4975	4570	4521	4296	4188
10000	5325	5236	5051	5045	4902

Notes: Battery life in **days** when Applying 2 * AAA. 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 GBeacon SDK compiled app (e.g. GBeacon app), feel free to download GBeacon app from Google Play App Store or iOS App Store.

Parameter		Description
Device Name		UTF-8 string, Default: GB2110-XXXXXX
Pin Code		Access password to GB2110 Default: 000000, Range: 000000 ~ 999999
Advertising Interval		Default: 1300 ms, Range: 100 ~ 10000 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 (GB2110), 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 (GB2110), 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 (GB2110), 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 (GB2110), 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

TELEC Certificate

CERTIFICATE OF COMPLIANCE

R210-149177 / 4 Nov 2020 / Rev A

for Radio Equipment in JAPAN

Product Name:
Bluetooth Beacon

Product Model Numbers: **FSC-BP104**

Brand Name: **Feasycom**

Approval Holder:	Shenzhen Feasycom Technology Co.,LTD, Room 2004A, 20th Floor, Huichao Technology Building, Jinhai Road, Xixiang, Baoan District, Shenzhen, China
Test Lab:	Shenzhen Tongzhou Testing Co.,Ltd, 1th Floor, Building 1, Haomai High-tech Park, Huating Road 387, Dalang Street, Longhua, Shenzhen, China

Standards

Group

Article 2 paragraph 1 item (19)

Description of Apparatus

Company Name	Shenzhen Feasycom Technology Co.,LTD
Certification No.	R210-149177
Issue Date / Rev	4 Nov 2020 / Rev A
Equipment Description	Bluetooth Beacon
Brand Name	Feasycom
Hardware Version	FSC-BP104 V1.4
Firmware Version	5.2.1

Emission Information

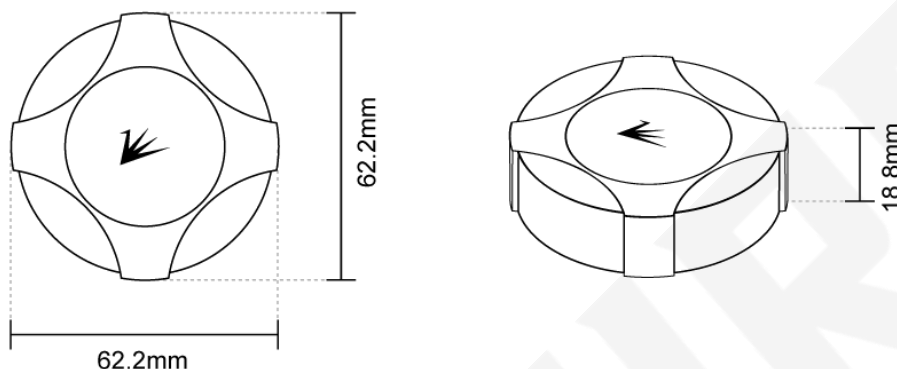| Technology	Frequency Range		Emission Designator	RF Power		Field Strength		Antenna Power
	From	To		Max.	Type	dBuV/m	@Dist.	
Bluetooth LE	2402MHz	2480MHz	2M16F1D	7mW	Conducted	--	--	--

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8. Dimensions

9. Declaration

The contents of this datasheet are subject to change without prior notice for further improvement. Glowbird 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 Glowbird sales team or visit https://www.glowbird.com/ to get more related information if needed.

10. Contact Information

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Sales Service: sales@glowbird.com

Revision History

Version	Changes	Author
1.0	Initial Release	Fish
1.7	Update specifications	Sara
1.8	Update description Update specifications Document reorganization	Jerry
1.9	Update specifications	Tim
2.0	Update specifications	Tim
2.1	Update battery life description, Add TELEC Certificates	Fish
2.2	Update Address	Selina
2.3	Modify Bluetooth Version: Upgrade from BT 5.0 to BT 5.1	Marsh

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