Card Beacon

DS-Beacon-05 A/B

User Manual

Product name	Card iBeacon
Product model	DS-Beacon-05 A/B
Versions	V1.0
Release time	2020/11/9

Version information

Revise	Revised proposal	Data	Comment
V1.0			Initial release

catalogue

Ⅰ. Product Introduction：

The card DS-Beacon-05A/B developed by DEASINO Technology supports acceleration sensor selection, multiple RFID(DS-Beacon-05B), a button switch and an indicator light. The product uses iBeacon/Eddystone broadcast by default and supports multi-channel broadcast. Each channel can customize broadcast power, broadcast interval and channel parameters, configurable broadcast trigger mode (acceleration / double click / triple click). The shell of the product is processed by ultrasonic welding, and supports IP65 waterproof and dustproof. IC card appearance, key operation, easy to carry.

56mm

86mm

6mm

Model:beacon–05A
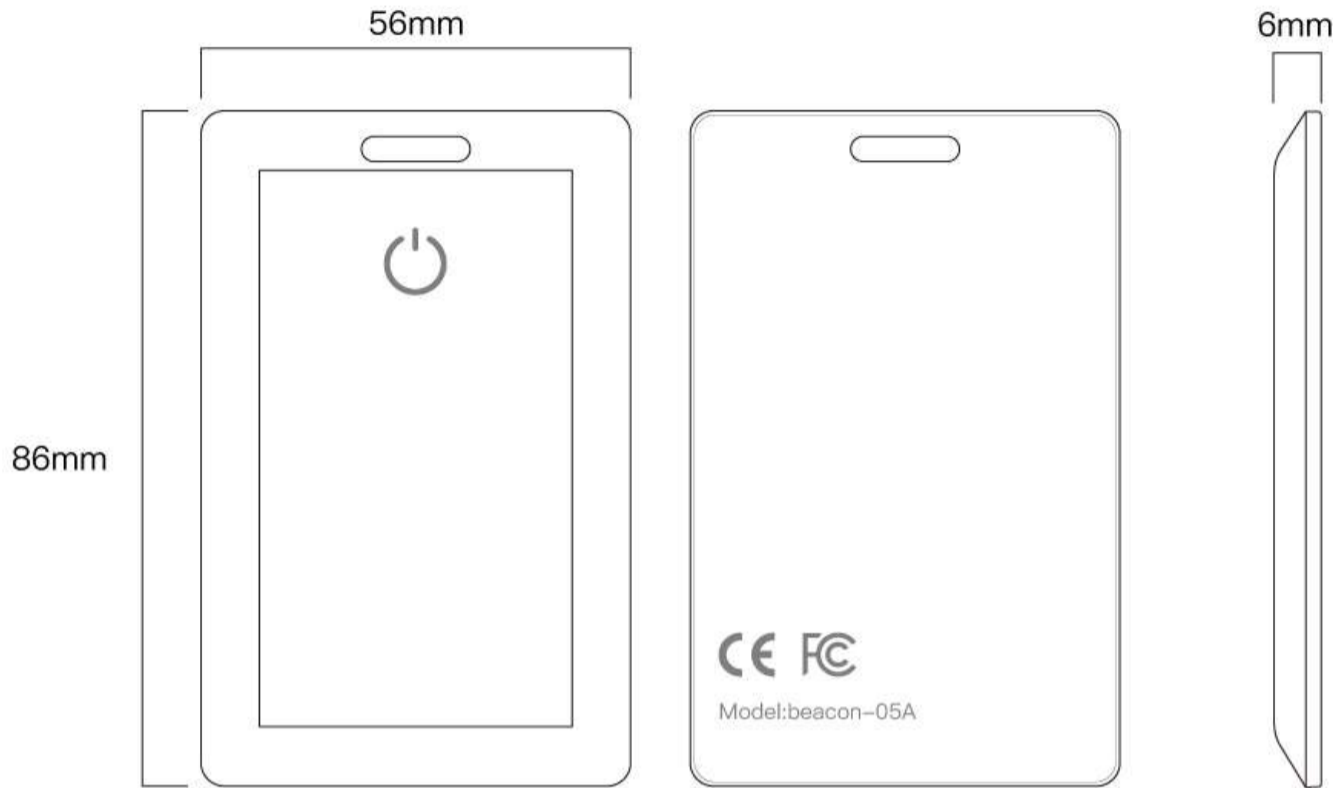
Product appearance drawing

Ⅱ. Product Features:

- ✧ Support iBeacon/Eddystone Protocol
- ✧ Use nRF52 Series Chip
- ✧ The broadcasting distance can reach 100 M
- ✧ Switching function、Low voltage alarm function、Support Accelerometer
- ✧ Support 13.56MHz RFID（Only DS-Beacon-05B）
- ✧ IP65 waterproof and dustproof.

Ⅲ. Application Range:

Asset tracking, personnel tracking, etc., For example: Indoor positioning of shopping malls, airports and other large public places; Online explanation of tourist attractions, museums, etc., Check in for exhibitions, forums and offices; Location based real-time message push, such as live information, conference process sharing, etc., Audience interaction such as concerts and large-scale events.

Ⅳ. Physical Property：

Model	DS-Beacon-05A/B
Size	86×56×6 mm
Product Weight	24 (g)
Battery Types	Disposable lithium-manganese dioxide batteries
Supply Voltage	DC 3.0 V
Housing Material	ABS
Housing Color	White

Ⅴ. Electrical Specification：

Quiescent Current	≤3 uA
Peak Current	5.5 mA
Average Current	22.5 uA
Battery Model	CR2025
Battery Capacity	600 mAh
Operating Temperature	-20°C ~+60°C
Working Hours	Three years
Bluetooth Stack	5.2
Broadcasting Power	0 dBm
Broadcast Frequency	100ms
Transmission Distance	100M in open environment
Security	The default connection password is 000000

Ⅵ. Technical Parameters：

Communication Protocol	Bluetooth Low Energy 5. 2
Broadcasting Power	-40 +4dBm, Default 0 dBm
Broadcast Frequency	100ms~10s, Default 1000ms
Broadcasting Distance	About 100M (in open environment)
Security	Support password modification parameters、Restart and unconnected mode、Support app shutdown、Anti malicious connection function
RFID Sensing Distance	＞30mm（Desktop card reader）

Ⅶ. Default Parameters:

1. iBeacon Program default parameters

| Parameter	Name	Default
UUID	Device ID	184f2020-1013-44C3-87A5-F6D0BD9C5D00
Major	Major	0
Minor	Minor	1
Measured power	Power Adjustment	-59dBm
Transmission Power	Transmitted Power	0dBm
Change Password	Change Password	000000 (only support for ASCII Character)
Broadcasting Interval	Broadcasting period	500ms
iBeacon Name	Device Name	3 characters, 05A/B
Connection Mode	Connection mode	Yes (Connectable mode) No (Unconnectable mode)
Soft Reboot	Software reset	000000 (Same as password)
Battery Service	Battery Level	Battery icon display, real-time detection, full charge is 100%

2.DS-Beacon-05A/B Program default parameters

Frame category	Frame information	Frame content（Default value）	Frame configuration	Default value
iBeacon	UUID	184f2020-1013-44C3-87A5-F6D0BD9C5D00	Broadcast interval	1000ms
	Major	0	Calibration distance	-59dBm
（open）	Minor	1	Broadcast power	0dBm
UID	Name Space ID	Random	Broadcast interval	1000ms
	Instance ID	Random	Calibration distance	-24dBm
（open）			Broadcast power	0dBm
URL	URL		Broadcast interval	1000ms
		http://www.deasino.com/	Calibration distance	-24 dBm
（open）			Broadcast power	0dBm
TLM	Battery Level mV	Built-in system	Broadcast interval	1000ms
	Uptime	Built-in system	Calibration distance	-24dBm
（open）	PDU Packets	Built-in system	Broadcast power	0dBm
INFO	Device ID	Plus	Broadcast interval	1000ms
	Battery Level %	Built-in system	Calibration distance	-24dBm
（open）	MAC Address	Distribution plant	Broadcast power	-8dBm
Sensor	ACC	Sensor data	Broadcast interval	/
			Calibration distance	/
Password	000000 (default)		Connection mode	1Connectable

Ⅷ. App usage and support devices:

1、App usage，Bluetooth scanning->Enter password connection->Configuration information
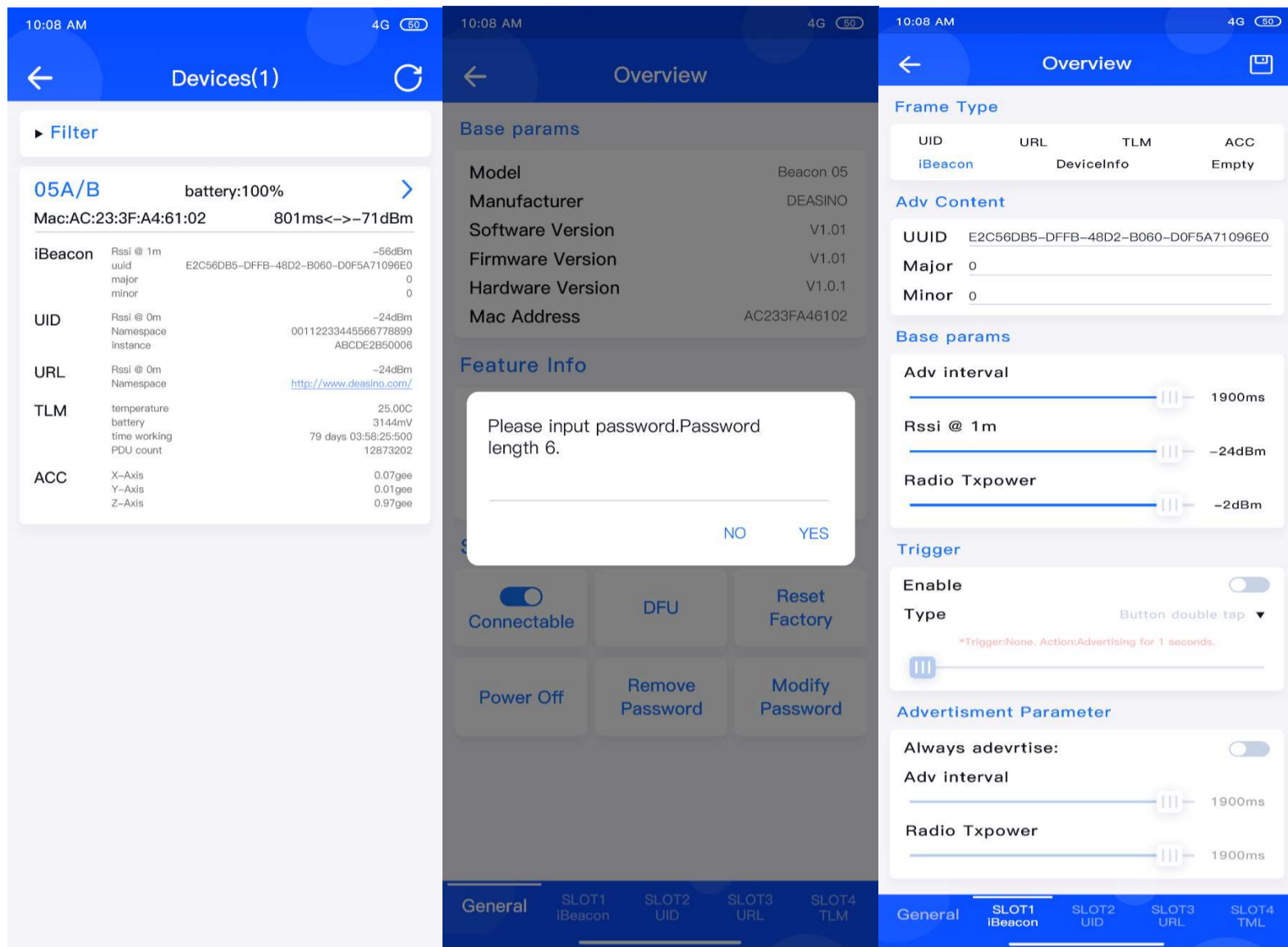
2、Support devices

Support equipment system	Support equipment model
IOS 7.0 and above	iPhone 4S, iPhone 5/5C/5s, iPhone6/6Plus/6S/6SPlus, iPhone 7/7Plus, iPad mini/mini2/4/Air/Pro
Android 4.3 and above	Samsung S4/S5/S6/S7, Note 3/4/5... Xiaomi M3/4/5… Huawei P7/8/9, Honor6/7/8… Bluetooth 4.0 and Android 4.3 or above are supported

Ⅸ. Functional Description：

1. On/off function: long press for 3 seconds, startup succeeds, blue light flashes 3 times; Under the power on state, hold down for three seconds and the blue light will flash five times. During the blue light flashing, click the button, the light will be on for one second and the power off will be successful.
2. In the power on state, the functions of single click, double click and three click can be customized, and the default is to trigger the broadcast to close.
3. Connected to Bluetooth successfully, LED flash twice; Disconnect Bluetooth and the LED light will flash three times.
4. Low power prompt, double flash 3 times per minute, 10 seconds interval

Ⅹ. Certification information:

CE Certificate number: (Application, update after completion)
FCC ID Number: 2AV9TDS-Beacon-05

Ⅺ. product claims:

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NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to
try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.