

Features

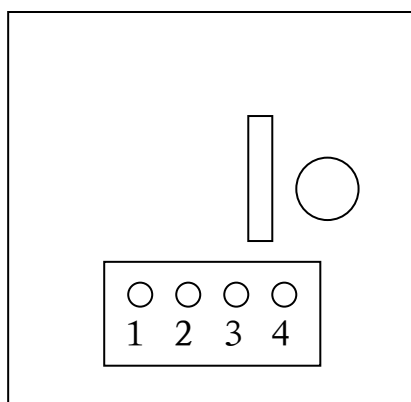
- ◇ DC Power Supply, No Battery
- ◇ Compatible for iOS7/Android4.3
- ◇ Quick response
- ◇ Low energy Working Mode
- ◇ Bluetooth4.0 technology
- ◇ High Sensitivity
- ◇ 365days work continuously
- ◇ 86 Panel mounting



Technical

指标	参数
Size	86mm*86mm*17mm
Input Voltage Range	5~12 V DC
Input Current	9 mA
Receiving Sensitivity	-90 dBm ~ -35 dBm
Weight	60 g
Case Temperature	0°C~45°C
Relative Humidity	0%~93% RH
IP Level	--
Interval of Scanning	1000mS
Communtion Interface	RS-485 Half duplex
Baud Rate	9600bps, n, 8, 1

Pin Defination



Back View

- 1: GND
- 2: RS485-B
- 3: RS485-A
- 4: POWER 5-12V

Protocol

1. Overview

The iReceptor-86C have total of 5 protocol.

Has two kinds of work mode, Single mode and bus mode, can Switching by protocol.

Current work mode can query by protocol.

Only receptor one UUID at the same time.

2. Communication Interface

RS-485 Half duplex interface, baud rate 9600, No parity, 8bit Data, 1bit Stop, (9600,n,8,1).

3. Process

Both single mode and bus mode, the iBeacon-86C only answer the data packet, never send any data pack initiative. First power on work in Single mode, the mode don't check address Byte in data packet. In Bus mode answer the address matching data packet only. The iBeacon-86C from Single mode switch to Bus Mode answer anything.

4. Packet

To improve the reliability of communication, data put in packet. The packet by the head, aim address, source address, data length, data, check, tail, six part.

Head	Aim add	Source add	Data length	data	Check	Tail
1Byte	2Byte	2 Byte	1 Byte	N Byte	1 Byte	1 Byte
0xEB	0xxxxx	0xxxxx	0xxx	0xxx	0x7E

The aim address and source address are both 2Byte. Address 0x0000 is communication initiator named host.

Check byte use checksum, no include packet head and itself.

Data length, no include itself

Address mark in product shell.

5. Data and length

5.1. **Work mode setup:** length 2Byte

Data 1st Byte: 0xA0

Data 2nd Byte: 0x00= Single mode, 0x01=Bus mode

Function: Switch the work mode, single mode to bus mode has no answer. bus mode to single mode answer the same data back.

5.2. **Work mode check:** length 1Byte

Data 1st Byte: 0xB0

Function: Check current work mode, answer 0xB0+0x00 or 0x10, total 2byte data, 0x00= Single mode, 0x01=Bus mode

5.3. **UUID setup:** length 17Byte

Data 1st Byte: 0xA1

Data 2nd -17th Byte: UUID

Function: Setup UUID , answer the same data packet back, save the data in flash, Power fail without losing.

5.4. **UUID check:** length 1Byte

Data 1st Byte: 0xB1

Function: Check UUID, answer 0xB1+ 16Byte UUID, total 17Byte.

5.5. **Receptor:** length 1Byte

Data 1st Byte: 0xB2

Function: Perception of the surrounding iBeacon signal, answer the iBeacon information in 1second, include a lots of packet, the data is 0xB2+ 2Byte Major+ 2Byte minor+ 1Byte RSSI. At the end Scan, answer 0xB3 as data 1Byte packet to indicate.

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