

Features

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

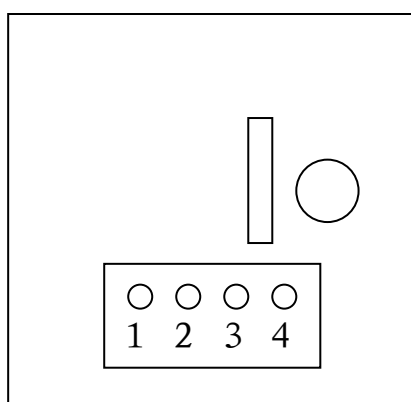


Technical

	Parameters
Size	86mm*86mm*17mm
Input Voltage Range	5~12 V DC
Input Current	9 mA
RF power	-23dbm, -6dbm, 0dbm, +4dbm*
Weight	60 g
Case Temperature	0°C~45°C
Relative Humidity	0%~93% RH
IP Level	--
Packet per second	1~10 pps
Communion Interface	RS-485 Half duplex
Baud Rate	9600bps, n, 8, 1

* Notes:Special order, Strand type the +4dbm are disable.

Pin Defination



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

Back View

Protocol

1. Overview

The iBeacon-86C have total of 4 protocol.

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

Current work mode can query by protocol.

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. **Parameters setup:** length 23Byte

Data 1st Byte: 0xA1

Data 2nd -17th Byte: UUID

Data 18th -19th Byte: Major

Data 20th -21th Byte: Minor

Data 22th Byte: RF power 0x00=-23dbm;0x01=-6dbm;0x02=0dbm;0x03=+4dbm*

Data 23th Byte: Packet per second, 0x01-0x0a, other is unuse

Function: Setup UUID, Major, Minor, RF power, Packet per second, five Parameters, answer the same data packet back, save the data in flash, Power fail without losing.

* Notes:Special order, Strand type the +4dbm are disable.

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

Data 1st Byte: 0xB1

Function: Check UUID, Major, Minor, RF power, Packet per second, five Parameters, answer 0xB1+ 16Byte UUID+ 2Byte Major+ 2Byte Minor+ 1Byte RF power+ 1Byte Packet per second, total 23Byte.

Vlucci reserves the right to ownership of this specification, without our written permission shall not be transmitted, but not for the publishing and advertising purposes.

Vlucci reserves the right to edit the specification, without prior notice to the user rights.

We have done our best to investigation omission in this specification, but still unavoidably in typesetting, copy error occurs, the specification Corrigendum please forgive.