




# Bluetooth BLE Beacon RS-232 Reader

**“Uconnect”, “iBeacon”, “Eddystone” or “Altbeacon”**

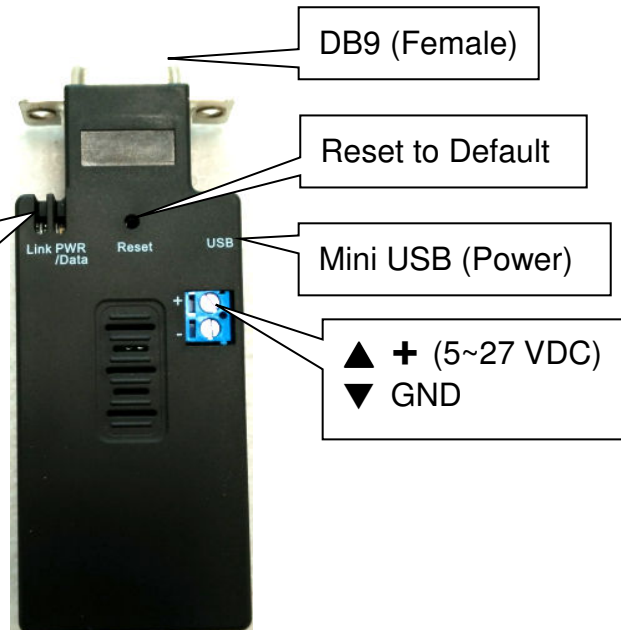
Model: BLE-232R

## 1. Package content:

<p>BLE Beacon RS-232 Reader</p>  <p>White Box Dimension: 11 x 6 x 5 (cm) Total Package Weight: 105 g</p> 	<p>Package Contents:</p> <ul style="list-style-type: none"> <li>● BLE RS-232 adapter x 1</li> <li>● Screw x2, Screw nut x 2</li> <li>● A4 User manual x 1</li> <li>● Mini USB Cable x 1</li> </ul> 
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## 2. Profile:

### 2.1 Top view:



DB9 (Female)

Reset to Default

Mini USB (Power)

▲ + (5~27 VDC)  
▼ GND

LED:

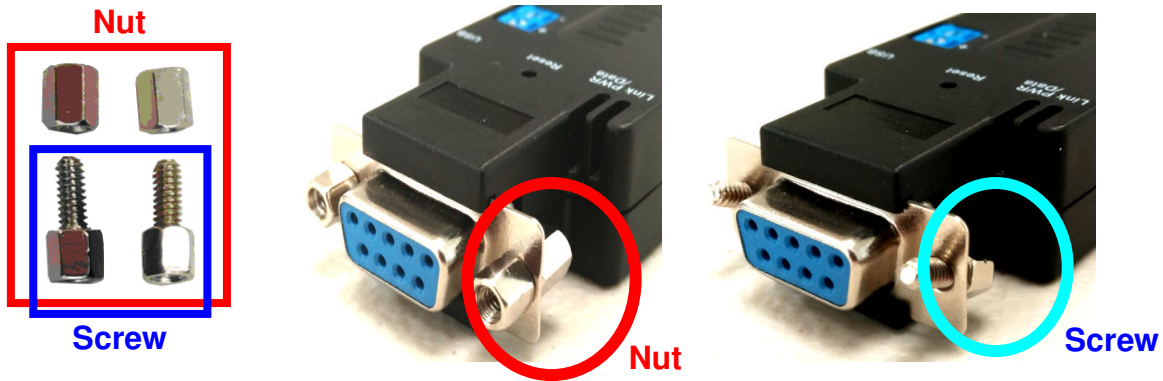
Link: Blue

PWR/Data: Red

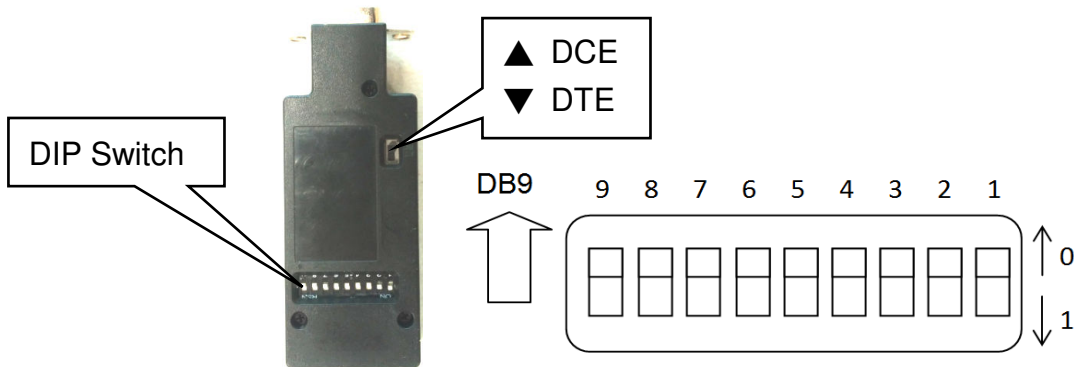
LED	Description
Blue	Flash when data received
Red	Solid when power on

### 2.2 DB9 connector:

There're 2 screws and 2 nuts inside the package, the screw or nut are available.



2.3 Rear Side:



3. Packet Format:

3.1 All DIP switch is “0” by default. The reader will filter “Uconnect”, “iBeacon”, “Eddystone” or “Altbeacon”.

\$<msg type>,<reader id>,<tag type>,<tag id>,<battery>,<button>,<G-sensor>,<sensor>,<RSSI>#

Field	Description
\$	start of report
msg type	Type of message ex. 0: reserved, 1: Uconnect tag 2: iBeacon, 3: Eddystone, 4: Altbeacon
reader id	6 bytes ID of reader in hex => 12 chars
tag type (*)	type of tag ex. 1: tag w/o g-sensor, 2: tag w/ g-sensor ..
tag id	6 bytes ID of tag in hex => 12 chars
tag batt (*)	batt voltage of tag in 1/10 volt unit
tag button status (*)	button status ex. 0: released, 1: pushed
tag motion status (*)	motion status ex. 0: non-moving, 1: moving
Sensor (*)	Various sensor data (11 bytes)
tag rssi	tag read rssi
#	end of report

Remark (\*): The message is “0” for iBeacon, Eddystone and Altbeacon beacon.

Example:

```
$1,00A05053849D,1,00A050172A2C,30,0,0,-71#
$2,00A05053849D,0,58E72F0CEF88,0,0,0,0,-48#
$3,00A05053849D,0,772BB24ADC36,0,0,0,0,-48#
$4,00A05053849D,0,012AC345EB45,0,0,0,0,-49#
```

3.2 DIP No. 1 is set to “1” (On): Raw packet data

Prefix: “\$”

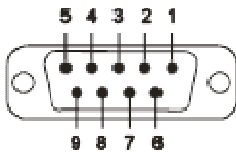
Raw packet data is between “\$” and “CR”

Suffix: Carriage Return

EX:

```
$1EFF0600010920008DC8BE90AEB3B032E0B9F89A0CCED9FFFAE3BDBFB2DB75
$0201061BFF570100F8398F0A43BE1D146A75669AC8FB3A7601E1917E545CAB
$1EFF0600010920008DC8BE90AEB3B032E0B9F89A0CCED9FFFAE3BDBFB2DB75
$1EFF060001092000111B6E4CE83EB1E445E8B104838CB749E14A8BE404CB4A
```

#### 4. RS232 Interface (Female)



Pin	Signal	DTE Direction	DCE Direction	Description
1	N/A			
2	TxD	Output	Input	Transmitted data
3	RxD	Input	Output	Received data
4	N/A			
5	GND			Ground
6	N/A			
7	N/A			
8	N/A			
9	VCC			Power Input (5~27 VDC)

#### 5. Power supply:

5.1 Voltage: 5~27 VDC, **Don't exceed the limit.**

5.2 There're 3 ways to power the adapter: Mini USB, Terminal Block and pin9 of DB9, please choose one. **Don't power the adapter by more than one source.**

5.3 The mini USB cable is inside the standard package.

#### 6. Wireless or Wire communication integration: (option, please contact the supplier)

6.1 WiFi RS-232 (Model: WA-232E)



6.2 Ethernet RS-232 (Model: EA-232)



### 6.3 Bluetooth V2.1 SPP RS-232 (Model: BT-232B or BT-232B-E)



### 6.4 LoRa or Wi-Sun RS-232 converter (Model: LORA-232, Wi-Sun-232)



The reader will connect with one of the above communication to bridge the tag data to the controller.

## 7. Customization: please contact the supplier

7.1 Tag format

7.2 Packet format of the reader

7.3 Reader bridge for communication