



Product Name	GAOTek Mini Portable Smart USB Healthcare
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GAOTek Mini Portable Smart USB Healthcare

The Mini Portable Smart USB Healthcare is a Bluetooth Low Energy gateway device, it is designed to scan nearby bluetooth beacon advertising package, can be used for asset tracking, people tracking, pet tracking, sensor data collecting, SOS button signal collecting, etc.

1. FEATURES

- Support customized firmware.
- -91 dBm sensitivity.
- 13 mA peak RX.
- 10.5 mA peak TX (0 dBm).
- 2.4G WIFI.
- Easy to print the logo.



2. SPECIFICATION

Compatibility	Compatible with all Bluetooth 4.0 and above BLE advertising devices.
No battery, powered by USB port	The USB port provide power
Soft Reboot	Not supported
OTA and J-Link	<ul style="list-style-type: none"> ▪ Upgrade via Over-The-Air supported. ▪ Reserved J-Link port on the board for programming.
Configurable Parameters	Customized firmware for client's requirements.
Transmission Power Levels	-30, -20, -16, -12, -8, -4, 0, +4dBm.
Security	AES HW encryption
Install	Plug into computer USB port.
Working Mode	Always scan nearby ble advertising package and report to computer.



3. DATA PROTOCOL

	Message	Direction	Data format	Note
1	CC_GS_ GatewayStatus Report	Gateway ->Server By UDP	Communicate code (2 bytes) =0x03, 0x03 Message length (1 byte) =7 Gateway Mac (6 bytes) Gateway Battery percent (1 byte)	To tell server this gateway's workingstatus every one minute.
2	CC_GS_ ScanReport_i Beacon	Gateway ->Server By UDP	Communicate code (2 bytes) =0x04, 0x02 Message length (1 byte) =34 Gateway Mac (6 bytes) iBeacon Mac (6 bytes) iBeacon UUID (16 bytes) iBeacon Major id (2 bytes) iBeacon Minor id (2 bytes) iBeacon Battery percent (1 byte) iBeacon Rssi (1 byte)	When iBeacon is scanned by gateway, gateway will report event to server immediately.
3	CC_GS_ ScanReport_TS ensor	Gateway ->Server By UDP	Communicate code (2 bytes) =0x04, 0x03 Message length (1 byte) =24 Gateway Mac (6 bytes) T-Sensor Mac (6 bytes) T-Sensor Rssi (1 byte) Sensor data (11 bytes)	When T-Sensor is scanned by gateway, gateway will report sensor data to server immediately.



3.1. Example code to calculate rssi value from rssi byte

- `int rssiByte = receiveBytes[rssiByteIndex]`
- `int rssiSign = (rssiByte & 0x80) == 0x80 ? (-1) : (1)`
- `int rssiABS = (~rssiByte) & 0x7F`
- `Int rssiValue = rssiSign * rssiABS`

4. CONFIG WORKING PARAMETERS

- 1 | You can specify your server IP & UDP port, WIFI SSID name and password, we will preset them in gateway when production.
- 2 | You can change above parameters via app 'Joyway Beacon'.
- 3 | You can update gateway firmware via app 'Joyway Beacon'.

5. ELECTRONIC PARAMETERS

Item	Value	Remarks
Case Color	Black	
Battery Model	No battery	
Operation Voltage	5V	DC
Transmission Current	10.5mA (Max.)	Test at 0dBm transmission power
Transmission Range	50 meters	Depend on beacon transmitting power
Antenna	50ohm	
Net Weight	26g	
Size	10.5x2.5x5cm	



6. PACKING INFORMATION

Details	PP Bag	Carton
Quantity (JW1401GW)	5pc	200pcs
Net Weight	130g	5.2kg
Gross Weight	132g	5.5kg
Size	14x9x3cm	430mmx210mmx270mm

7. DECLARATION

The contents of this datasheet are subject to change without prior notice for further improvement.