eeLink BT01 IoT Enable Asset Tracker User Manual

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eeLink BT01 IoT Enable Asset Tracker

Introduction

- BT01 is a Beacon with high accurate temperature sensor and BLE5.0. Collect temperature data, broadcast through BLE, we can realize 24 hours real-time monitoring by mobile phone APP or other BLE product. No need to change the battery within 3 to 5 years.
- Can be used together with the host, one host can match with 24 beacons . Upload data to the server through host. Accurate position to some extent.
- When using BT01 separately, a mobile APP is needed, You can get historical information of the device from APP, and judge the position by RSSI signal.
- It can be used to manage your logistics, supply chain, warehouses, yards, and enterprise assets.
- T01 can save 4 days' data package (save one data package every 5 minutes), Data package includes Time+temperature+battery consumption

Broadcasting information via Bluetooth:

1. MAC address of Bluetooth beacon
2. Signal strength RSSI of Bluetooth beacon (Signal strength when scanning the beacon)
3. Bluetooth version, battery voltage, temperature, boot times, Bluetooth UUID
4. Default device name "B1"

Factors on the battery life of Bluetooth beacon
The below factors will affect the battery life: working temperature; connectivity frequency of Bluetooth; data transmission times; frequency of LED light; transmitting power; broadcast time interval and battery capacity.

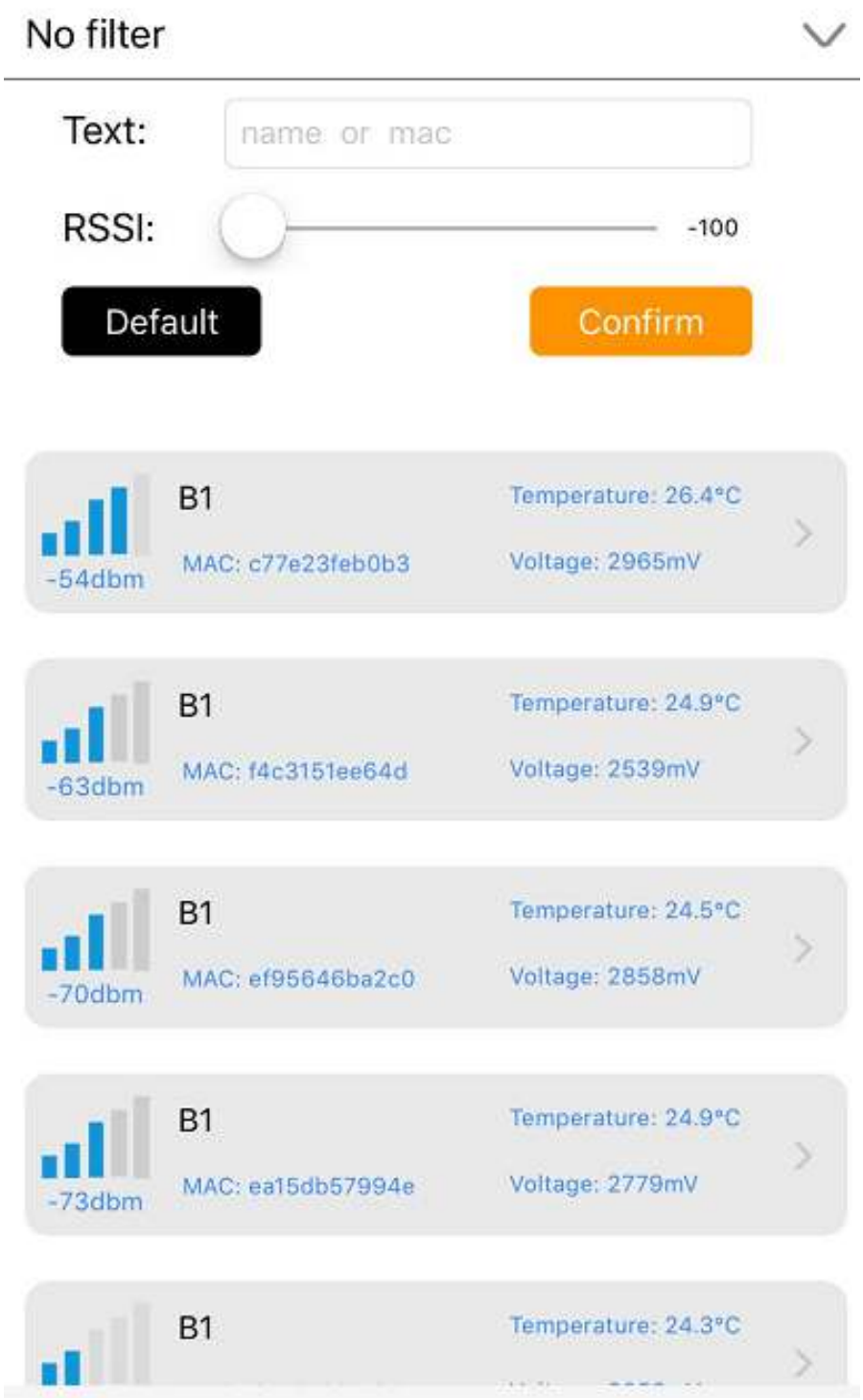
Parameters

- Communication mode: BLE5.0
- Broadcast power:8db
- Broadcast frequency:5s
- Transmission distance:Max 500m in open place

Power on/off and LED light

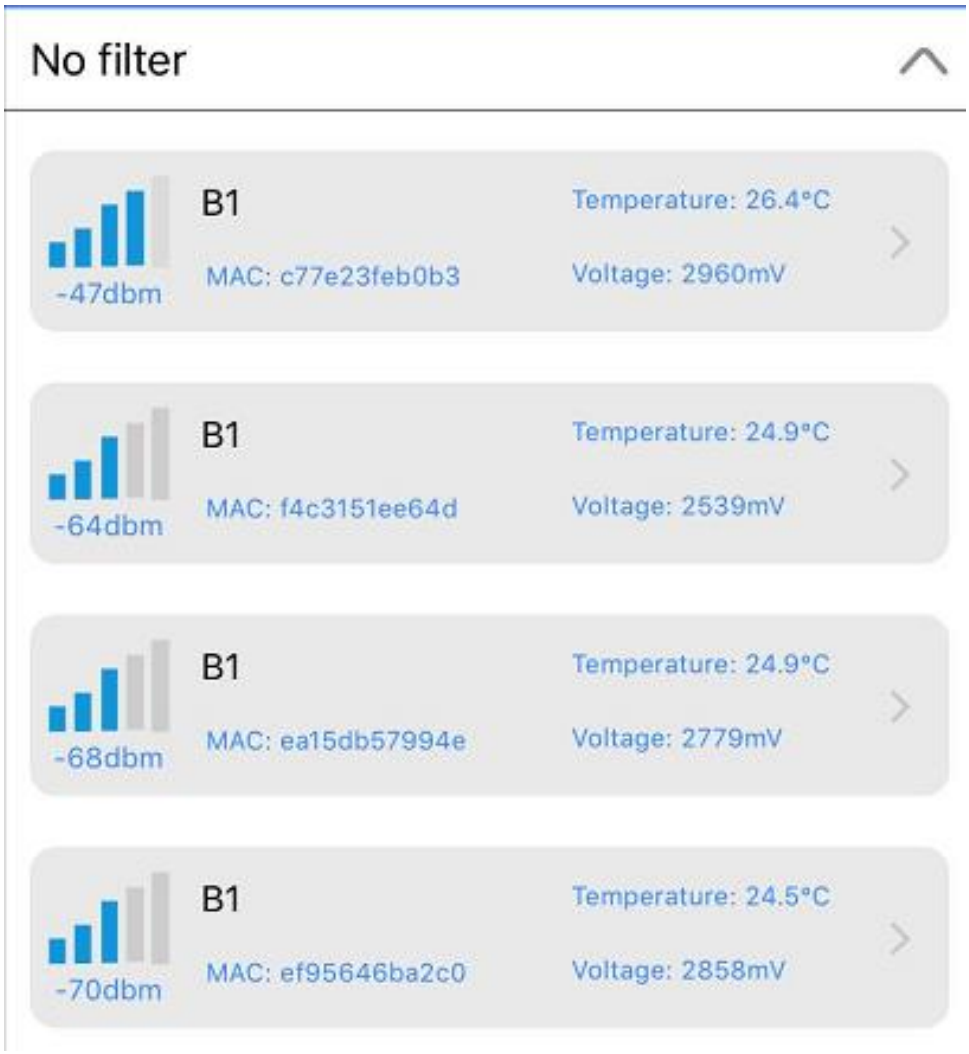
- How to power on:
  The device is OFF when shipment, press“Start” for 3 seconds, device is powered on, STB1 changes to the status of searchable and connectable, blue LED flashes 5 times, from fast to slow, stop flashing after one minute.
- How to power off:
  When the device is ON, press “Stop” for 3 seconds, red LED fast flashes 3 times, device is powered off.
- Others:
  1. When the device is ON, press “Start”, blue LED flashes once which means the device is working
  2. Device is ON, when connecting with APP, blue LED light flashes once which means connected successfully; When the device disconnects with APP, red LED light flashes once .
  3. Device on the status of abnormal, red LED light fast flashes.
- When voltage below 2.5v, device can not work normally.

BLE APP

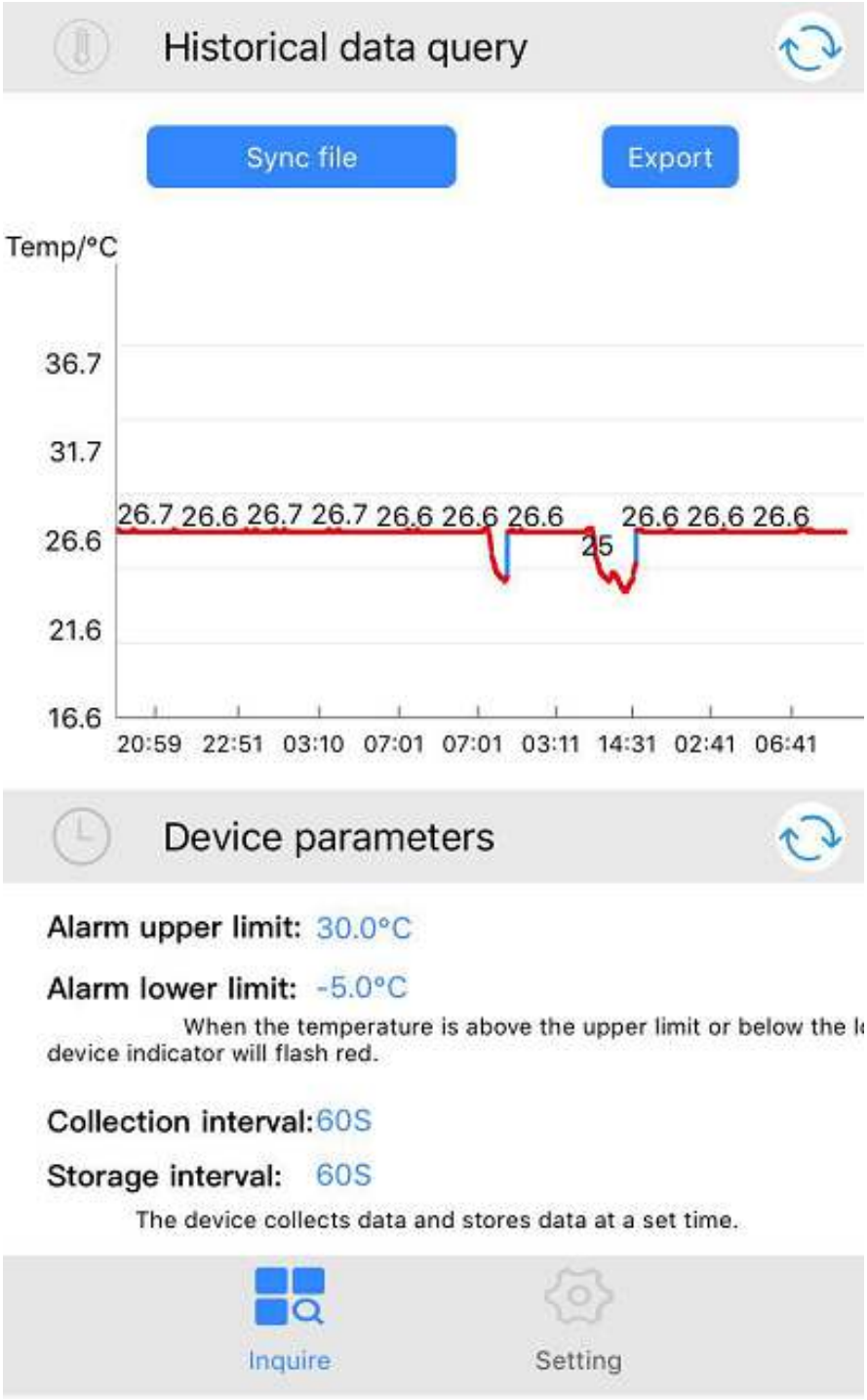


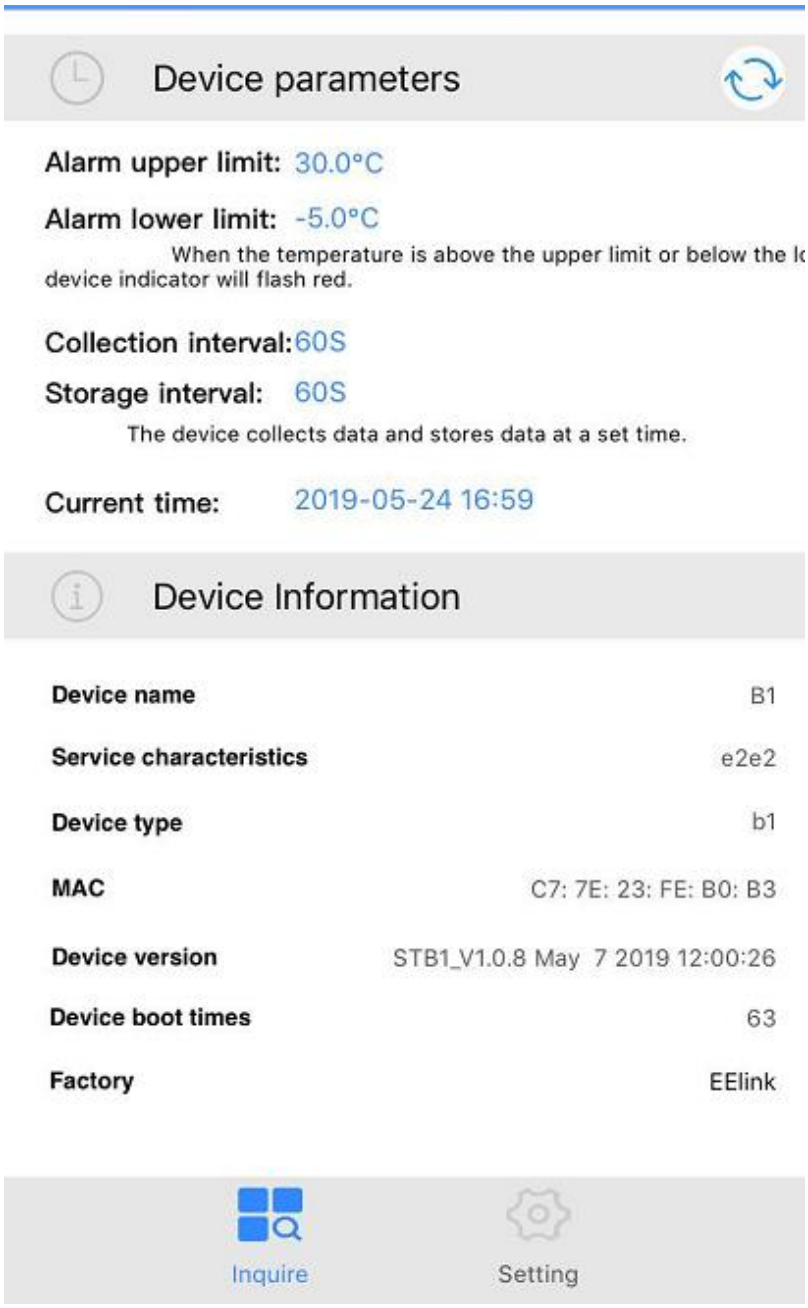
Open BLE of your mobile phone Run the Keelin_Beacon APP Download through official website or app store

- You can scan the broadcast information of BT01 through Keelin_Beacon, including temperature, voltage,Mac address, signal strength
- In the Keelin_Beacon app, You can search the device by signal strength, device name, mac address, check Image 1
    - Enter Part of the MAC address of the device in ie DB6B of DB6BC9F591AC), Click OK it will select the device with this MAC address automatically.
    - RSSI signal strength of the device.The closer the device to the phone, the smaller the number. You can select the right device according to these characteristics. -100db no selection.
    - There is only one MAC address for each device.
- Device list, broadcasting information for each item, see Image 2



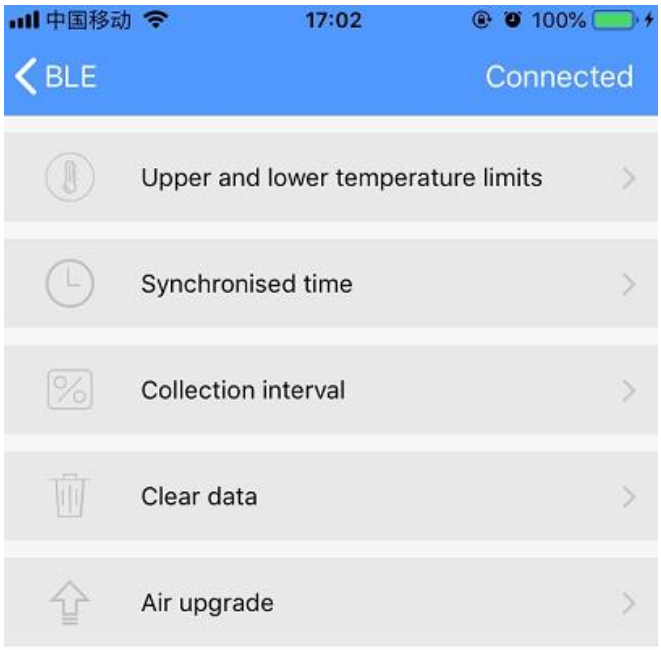
  - Device name B1
  - MAC device address, only one address number
  - signal strength RSSI , the closer device to the mobile phone app, the stronger signal is
  - Temperature: The temperature of the broadcasting time
  - Voltage:Battery voltage of broadcasting time
- Choose the device and set up Bluetooth connecting, and check the data for the device See Image 3 Image4


Historical data query
Sync file
Export
Temp/°C
36.7
31.7
26.6
21.6
16.6
26.7 26.6 26.7 26.7 26.6 26.6 26.6
25
26.6 26.6 26.6
20:59 22:51 03:10 07:01 07:01 03:11 14:31 02:41 06:41
Device parameters
Alarm upper limit: 30.0°C
Alarm lower limit: -5.0°C
When the temperature is above the upper limit or below the l
device indicator will flash red.
Collection interval:60S
Storage interval: 60S
The device collects data and stores data at a set time.
Inquire
Setting



- Historical data query: You can query the cached temperature data curve, Max to 1152 data. After synchronizing files, you can export the latest cached data table.
- Device parameters: current parameter values set by the device, upper and lower limits of the temperature alarm, collection interval, and time of the device.
- Device information

- On interface Image3 and Image4, Click the setting to enter Image5 here to modify the parameters of the device.


中国移动
17:02
100%
BLE
Connected
Upper and lower temperature limits
Synchronised time
Collection interval
Clear data
Air upgrade


Inquire
Setting
Upper and lower temperature limits
Temperature alarm range -20 °C~60 °C
Temperature upper limit
Temperature lower limit
OK
Cancel

- Upper and lower limits of temperature: Set the upper and lower limits of the temperature alarm as shown above. When the temperature exceeds the limits, the device flashes red quickly.
- Sync time: Synchronize the time of the phone with the time of the device.
- Base params: As shown in the above picture, set the collection interval of the device. It can store Max to 1152. If stored one data every 5 minutes, it can save 4 days of cached data.
- Clear data: Clear all cached data. Restart counting.
- Update firmware: When software is updated, you can synchronize to the latest software version through air upgrade.

- Export historical data, export data will be sent or stored in format of cvs. The file is named with exporting time.
- Android system data storage: file management / BleExcel / (device address) /export time. cvs
- Export data table,see Image6

Time	Temperature(℃)	Voltage(mV)
2019-05-02 13:03:53	25.9	3046
2019-05-02 13:08:53	25.9	3045
2019-05-02 13:13:53	25.9	3045
2019-05-02 13:18:53	25.9	3047
2019-05-02 13:23:53	25.9	3048
2019-05-02 13:28:53	25.9	3041
2019-05-02 13:33:53	25.9	3046
2019-05-02 13:38:53	25.8	3043
2019-05-02 13:43:53	25.8	3046
2019-05-02 13:48:53	25.9	3047
2019-05-02 13:53:53	25.9	3047
2019-05-02 13:58:53	25.8	3047
2019-05-02 14:03:53	25.8	3044
2019-05-02 14:08:53	25.8	3047
2019-05-02 14:13:53	25.9	3042
2019-05-02 14:18:53	25.9	3043
2019-05-02 14:23:53	25.9	3044
2019-05-02 14:28:53	25.9	3045
2019-05-02 14:33:53	25.9	3043
2019-05-02 14:38:53	25.9	3045
2019-05-02 14:43:53	25.9	3043
2019-05-02 14:48:53	25.9	3046

Data format: date time + temperature + battery voltage

Documents / Resources

	eeLink BT01 IoT Enable Asset Tracker [pdf] User Manual BT01 IoT Enable Asset Tracker, BT01, IoT Enable Asset Tracker

References

- IoT Devices and Sensors Manufacturers Company - GPS Tracker Devices | Eelink