深圳天圆数码科技有限公司
TZONE DIGITAL TECHNOLOGY CO..LTD

TZ-BT05

--- User guide v1.1

1 Product Overview

TZ-BT05 is a low power consumption Bluetooth data logger, using the latest Bluetooth 4.0 technology, Nordic N51822 chip development and design, through Bluetooth 4.0 collecting the surrounding environment temperature, and recording and preservation of historical data, can store up to 15,000 pieces temperature data, Bluetooth 4.0 can be downloaded over the phone APP configuration tools,to achieve full stage real-time temperature recording. It has the small size, light weight, easy to carry, high accuracy and other characteristics, widely used in various other areas of refrigerated storage and transport, archives, experimental (test) rooms, museums and other temperature testing.

2 Applications

1. Refrigerated storage and transportation;
2. Archives;
3. Experimental (test) rooms;
4. Workshop;
5. Museums;;
6. Pharmaceutical environment;
7. Fresh transport.

3 Product Features

1. Real-time display of parameters;
2. The high precision and high stability;
3. Bluetooth 4.0;
4. The long-distance wireless communication;
5. Built-in high sensitivity temperature and humidity sensor;
6. Can store 15,000 temperature and humidity data;
7. You can set the alarm temperature range;
8. The temperature graph can be automatically generated in the APP

Table 4.1 DZ-BT05 product specification table

Item	Feature
Frequency signal transmission	2.400 - 2.4835GHz
Protocol	Bluetooth 4.0
Modulation	GFSK
Transmission interval	2S
Internal battery	CR2450
Output power	-4dBm, adjustable
Maximum transmission distance	55 meters（-4db）

Storage	256K,can store 15000 pieces data
Battery life	1 year (depends on working mode,can replace battery)
Net weight	25g
Dimension	50mm*35mm*15mm
Temperature detecting range	-20℃~+60℃
Temperature detecting accuracy	±1℃

5 Caution

1,Away from metal objects, not placed in a sealed metal and small space;
2,Note that the distance between the TZ-BT05 and the receiver to ensure the reception accuracy;
3, Away from water and corrosive materials.

6 Switch Instructions

Operation	LED light instruction	Instructions
Under unopened state, long press button for 3 seconds, release the button	Flashes 3 times, then flashes once every 10 seconds	Data logger starts, start the real-time temperature record
Open state, long press the button for 3 seconds, release the button	Flashes 2 times, then off	Close data logger, keep record of temperature data
In any state, long press the button more than 6 seconds, until the indicator light flashes rapidly, release the button	Fast blinking 3 seconds	Restart the data logger,data formatting and restart to record the temperature

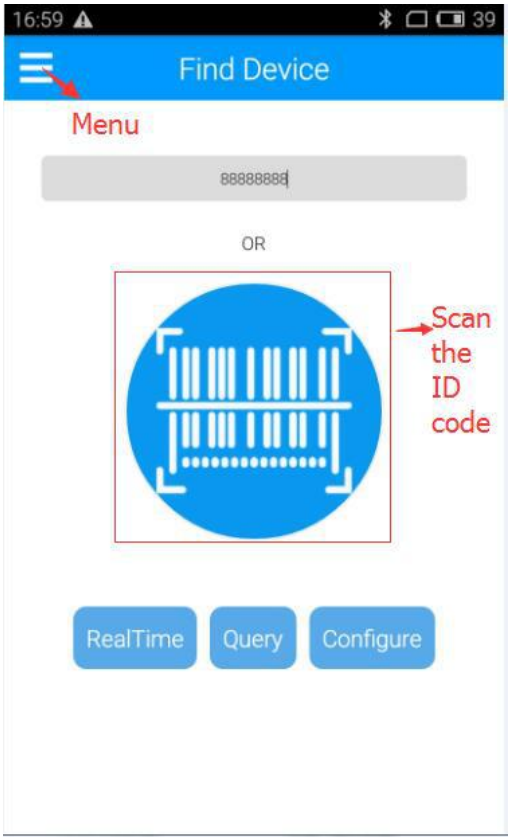
7 APP software

‘Temperature data logger’ is a free mobile applications which provided by our company to the users, can connect the BT05 through the Bluetooth of the mobile devices and do the settings and data transmission, recording, synchronization,

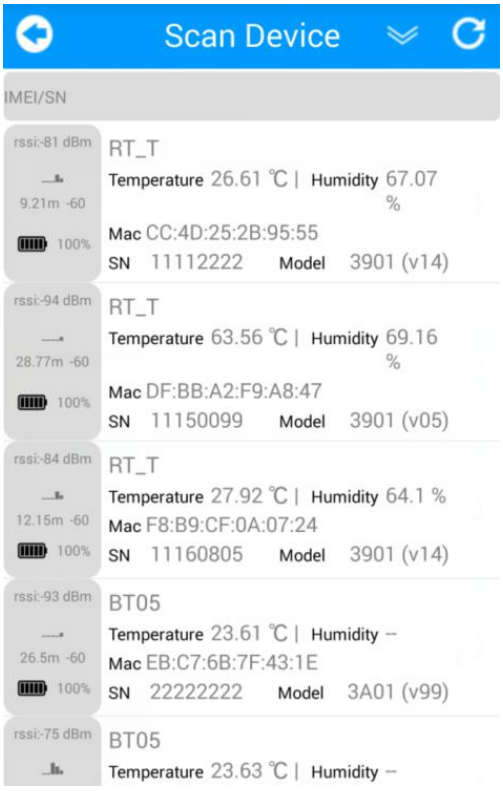
uploaded to the server. Apply the Bluetooth BLE way, so you can use Android, IOS phone, even use Windows 10 PC for temperature monitoring.

Open the 'Temperature data logger' software, the first to see is the scan code interface; there are three interface buttons, they are 'real time data', 'data extraction', 'Configure Devices'; and the upper-left corner of the menu button. Whether you need to enter which interface of this three interface, devices are required SN code, SN code can be scanned or entered directly using the phone keypad. Android phone 'temperature data logger' App use.

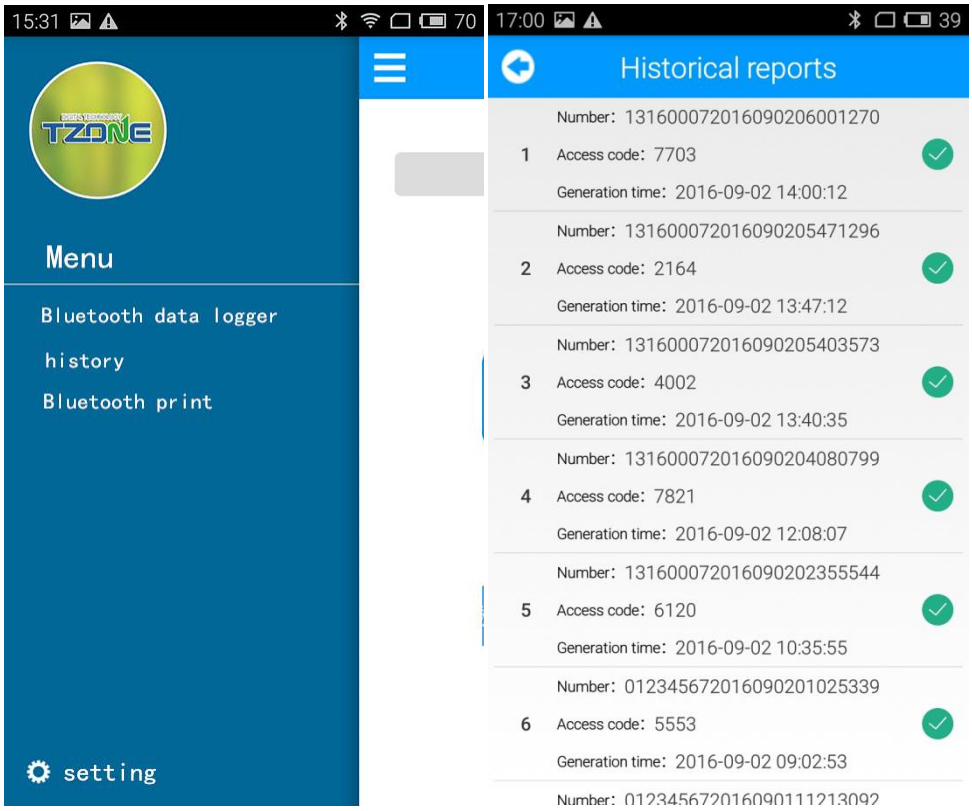
As shown below picture:

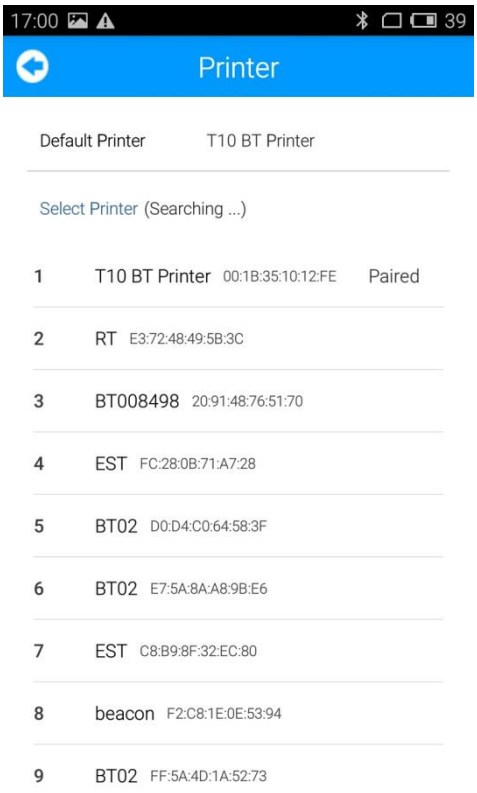


If you no scan or enter ID , you can directly click Real time/Query/Configure and see the device list as the picture below shown :



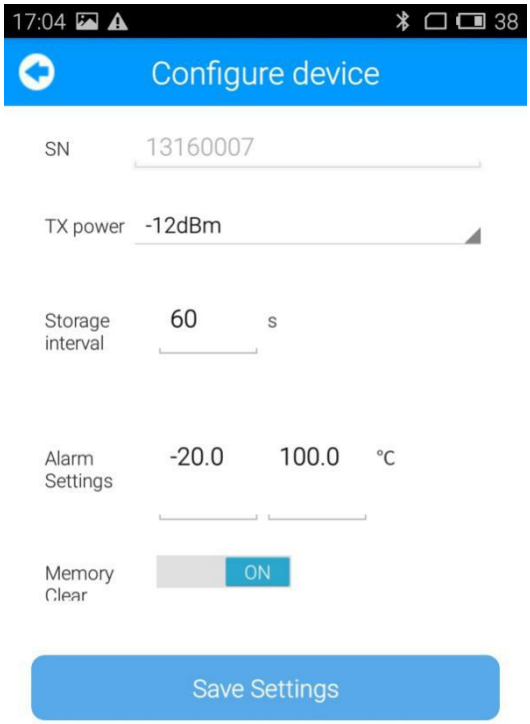
Press the Menu key to query historical data extraction, pairing a Bluetooth printer, etc., as shown below:





7.1 Configure logger

After entering the SN code or scanning device , or directly click ‘Configure Devices’ and select the device, on the home page, or enter the configuration interface, as shown below:



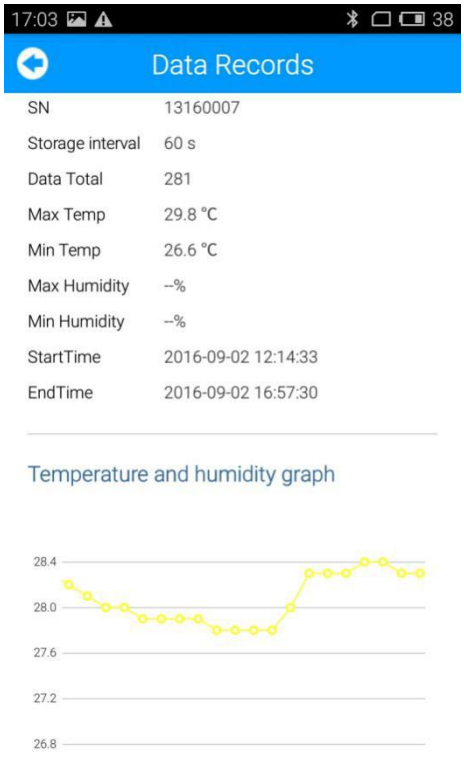
The interface can be configured BT05 transmit power, storage space, and the upper and lower temperature limits, empty stored data .The appropriate value of the transmit power can be selected in the drop-down list; storage interval and alarm settings directly enter numbers according to individual needs(the storage time of the default is 60 seconds when alarm); memory is cleared, you can choose to open or close(open will clear historical data). According to individual requirements click Save Settings then can write in, if save successfully, will be prompted the 'Save Configuration successful.'

7.2 Real time data

'Real time data' displays the device name,real-time temperature and power, the interface for viewing real-time temperature, if the temperature exceed the limits then the figure change to be red, or else black font, this interface does not provide editing function . As shown below:

7.3 Query data

'Query Data' screen, displays the current temperature, SN code, collection interval, the total number of data recorded ,the maximum and minimum temperature during recording, start time, end time, temperature graph and Bluetooth printing, the interface is mainly used for reading temperature data recorded in a specific time period. The interface does not provide editing function. As shown below:



FCC WARNING

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.