User Guide

Low Frequency Microchips Handheld Reader

CT-003

1. Outline

CT-003 is a hand-held reader for low-frequency RFID tags reading. The reader supports FDX-B, FDX-A, HDX protocols tags reading in compliance with ISO 11784/11785 international standards. The product uses a 1.54-inch color high-definition display with up to 240*240 pixels.In addition, the product also has a Bluetooth wireless communication function, which is convenient for real-time communication with the mobile phone, and the device can be controlled in all directions through the mobile APP.The user can also communicate with the desktop devices through the USB data cable.The product has stable performance, simple operation, and is suitable for livestock animals and pets traceability applications.

II. Specifications

Functionality and Parameters

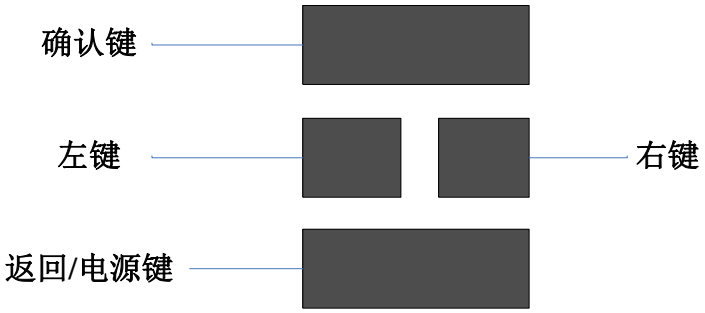
Working frequency	134.2Khz
Chips types	ISO 11784/11785 Standardcompliance:FDX-B，FDX-A，HDX microchips such as: ● EM41XX ● EM42XX ● EM4305 ● ATMEL 5575-5577 ● NXP Hitag S ● SIC7888 ● SIC 7999
Reading Performance	HDX ø27mm eartag: max 28cm Eartag FDX-B ø27mm: max 25cm Glasstag FDX-B 2.12x12mm: max 15cm
Reading time	<1s
Screen	Color TFT 1.54 inch. Pixel 240*240
Indicators	Buzzer, lignt
Power	3.7V@1500mAlithiumbattery
Consumption	Working current：400mA (Max)
Memory storage	30 000 lines (Time+tag ID codes). Extensible by customer’s request.
Data communication	USB cable.Bluetooth4.0 HID/BLE switchable.
Battery endurance	16 hours in continuos use.
Menu language	English (Foreign language customizable upon customer’s request)
Weight	105 grams
Size	167*37*20mm
Resistance	IP54. Anti-choc against 1 meter height free fall.
Operation temperature	-20～80℃

Certification	CE, FCC, RoHS

3. FUNCTIONS AND OPERATION

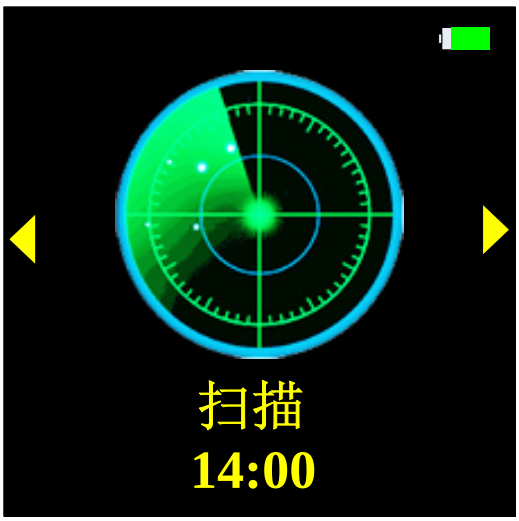
3.1 Keys layout

The reader has four buttons.The big button at the top is the confirmation button; the big button at the bottom is the power button and the return key multiplexing keys; the left and right small buttons are the page turning keys for the previous/next item.As shown below:



3.2Start working

In the shutdown state, short press the power button to boot. After booting, enter the scan icon interface, as shown in Figure 2:



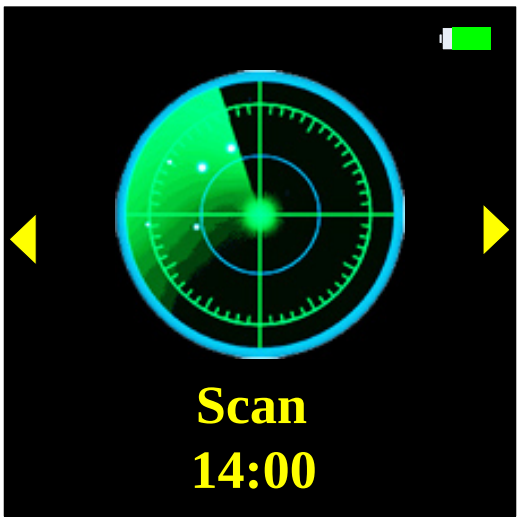
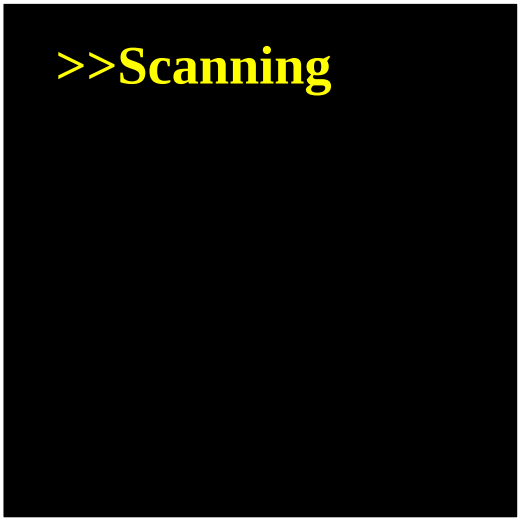


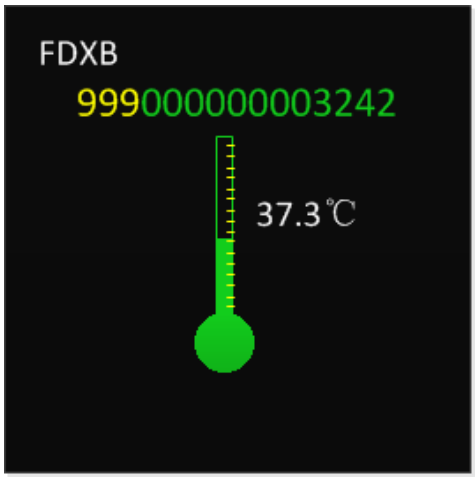
Figure2

To read a tag, press the Right >key to enter the record icon page, or press the OK key to start reading the tag.

3.3 Shutdown

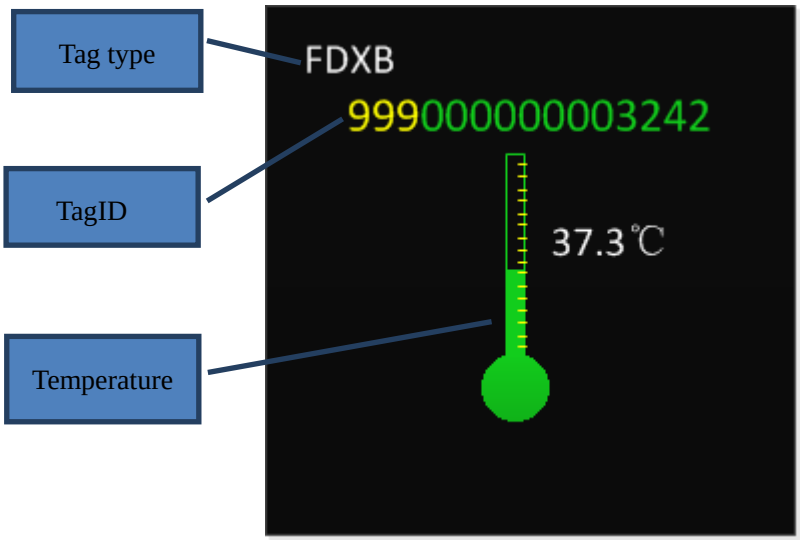
Long press the power button for 3 seconds on any page, the reader will shut down. If there is no key operation for 1 minute, the reader will automatically shut down. (the power on duration can be configurated by our Windows Setup software provided to the customers)





3.4 Tags Reading

In the SCAN menu, press the OK button to start reading the tag, as shown in Figure 7. When the tag is read, the tag ID (usually) and tag type will be displayed on the screen. If the chip has a temperature measure, the temperature will displayed on the same screen,



When the reader is in the card reading state, you can press the return key to exit the card reading and return to the scan icon interface.After the label is read, it will be recorded in the reader's memory.

3.5 Record review

From Scan page, press the right page key to enter into the Record sub-menu. By pressing the confirm button, you will find the table list of the codes recorded. The record details page displays the total number of records and the current one-screen record. Each screen displays up to 5 records.It is displayed in the order of time from back to front, and you can press the left and right keys to scroll forward or backward to query.Press the Return key to return to quit the record review.

Record
FDXB:999073987392283 --2021/10/20 21:08:09
FDXB:999073987392283 --2021/10/20 21:05:09
FDXB:999073987392283 --2021/10/20 21:04:09
FDXB:999073987392283 --2021/10/20 21:03:09
FDXB:999073987392283 --2021/10/20 21:01:09
Total:180,Page:35/36

Remarks: Readers with the premise of correct recording of label data need to be connected to the management tool to empty and format the storage space once.

3.6 Bluetooth modes switch

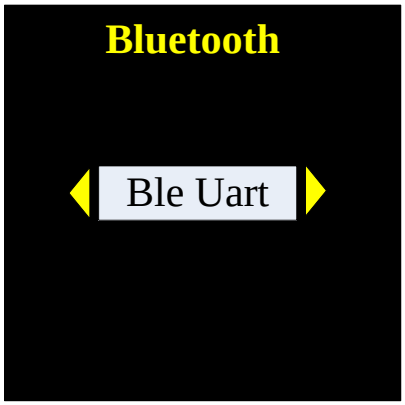
In the Bluetooth menu, press the Enter key to select the Bluetooth options. Press the left and right buttons to select

- Bluetooth "Off",
- Serial mode (Serial port)
- Keyboard mode (HID)

Then press the OK key to confirm the setting.


蓝牙开关
14:00

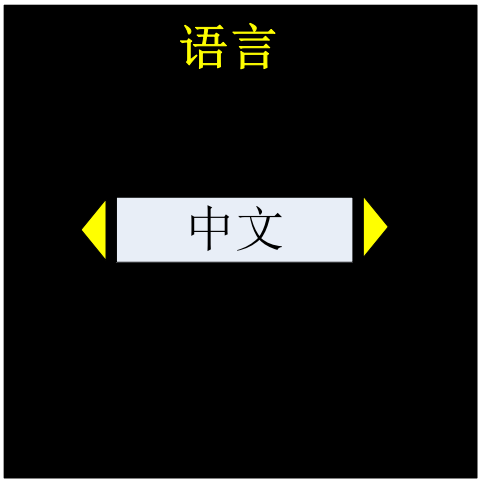

Bluetooth
14:00

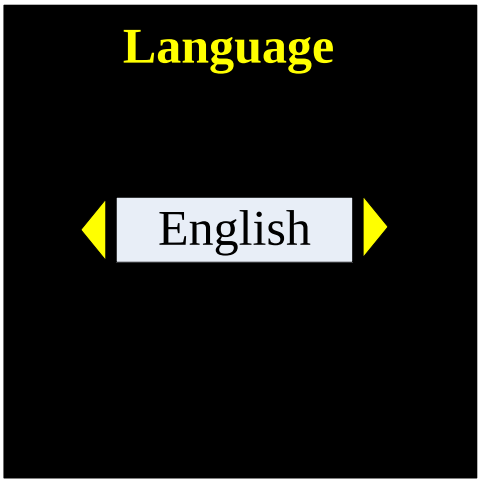

Bluetooth
Ble Uart


蓝牙开关
串口模式

3.7 Language selction

In the language page, press the OK key to select the language. Press the left < or >right keys to select the interface language.After selection, you need to press the OK key to confirm the configuration.





3.8 Bluetooth function

The Bluetooth 4.0 BLE of this device has a serial port mode and a keyboard mode (BLE and HID mode). The serial port mode refers to transparent data transmission, and the keyboard mode is a Bluetooth HID keyboard.

Select the Bluetooth serial port mode, the blue indicator light will flash. At this time, you can use the APP of the Bluetooth host (mobile phone or laptop) to search for Bluetooth. After you find the Bluetooth device named "RFID Uart" and connect successfully, the blue indicator light of the reader is always on and the card is read. ,

You can display data in the APP. Select the Bluetooth keyboard mode, the blue

indicator light will flash. At this time, you can use the Bluetooth host (mobile phone or laptop) to search for Bluetooth devices. After you find the Bluetooth device with the name "RFID_Keyboard" and connect successfully, the blue indicator light is frozen on.

3.9 Charging the device

Plug in the USB power cord, the red light on the tail is on, indicating that it is charging, and the light will go out when it is fully charged.

4. Matters need user's attention

1. This product is an electronic product and is transported and stored in accordance with conventional electrical equipment.
2. Avoid dropping or impacting the reader from a high place.
3. Do not place the reader in a high temperature, humid or corrosive environment.
4. Non-authorized person do not open the housing of the reader.
5. Please use the provided data cable for desktop operation.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.