RFID-Demo User Manual

Version V25

UROVO TECHNOLOGY CO., LTD.
November 1, 2023

Statement

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This document is the functional operation instructions of RFID-Demo. The specific operation is subject to the functions of the user's handheld device. Read the instruction manual in detail before use, and make operation in accordance with standards.

Version	Date	AMD	Revised by	Description
V1.0	January 29, 2021	A	Gong Yi	
V1.1	April 13, 2021	M	Gong Yi	1.pop-up window that indicates unsuccessful RFID connection is added. 2.Options of long- and short-distance module are added.
V1.2	September 15, 2021	A	Qiu Yangfang	1.A handle indicator initialization button is added for products with a removable handle.
V1.3	June 15,2022	M	Qiu Yangfang	Read and write label modification, before can read multiple, after modification, can only read one by one.
V22	June 1,2023	M,D	Qiu Yangfang	1.Remove the mode selection; 2. Remove the settings interface (connecting serial port, antenna sensitivity, quick reading of TID tags, reader status reader identification, reader RS-485 address); 3. Add the function of setting custom parameters in the settings interface; 4.Two new query methods have been added to the scanning interface; 5.Inventory data can be returned to

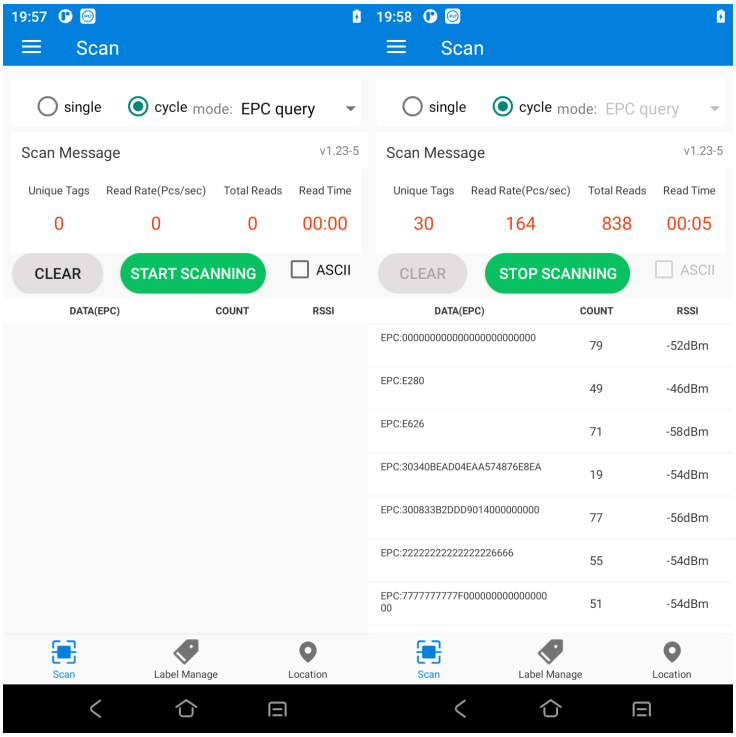
				TID; 6.Modify the data selection methods for read/write, lock, and destroy interfaces; 7.Added InventoryLed function;
V24	November 1,2023	A,M	Qiu Yangfang	1.Change the scanning interface to manual clearing; 2.Added the function of rfid range Settings; 3.Added EPC area ascll code scanning, read/write; 4.The SQ53S model is compatible with the 1.3SQ53R handle

(A-Add, M-Modify, D-Delete)

contents

I. Scan

Visit the main page of the App by clicking the RFID icon, and you will be required to choose a UHF RFID module for your first visit. Choose the module appropriate to your product type as instructed and then click the START SCANNING button to start RFID label scanning with default settings.



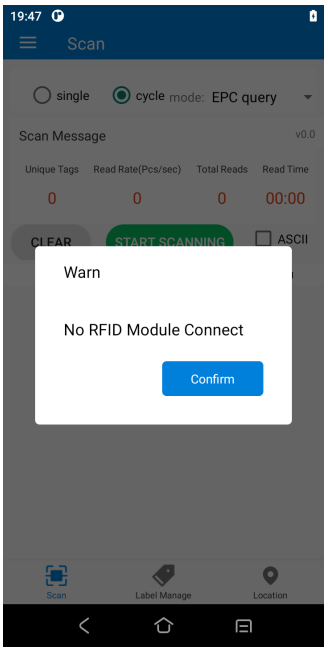
The meaning of the data displayed is as follows:

V0.00-?	Module firmware version number (?=7, 5, 3, R, C, M correspond to E710/E510/E310/R2000/C6/M100 respectively).
Unique Tags (Pcs)	The count of unique tags that have been scanned in total since tapping the Start Scanning button.
Read Rate (Pcs/sec)	The rate of tag read.
Total Reads	One tag EPC is recorded as one piece of tag data. Here shows the counted total numbers of data in real time, including the data of the same tag read repeatedly.
Read Time	The total read duration since tapping the Start Scanning button.
ASCLL	Convert the data in the EPC area to the corresponding Ascll code characters.

The fields in the tag list have the following meanings:

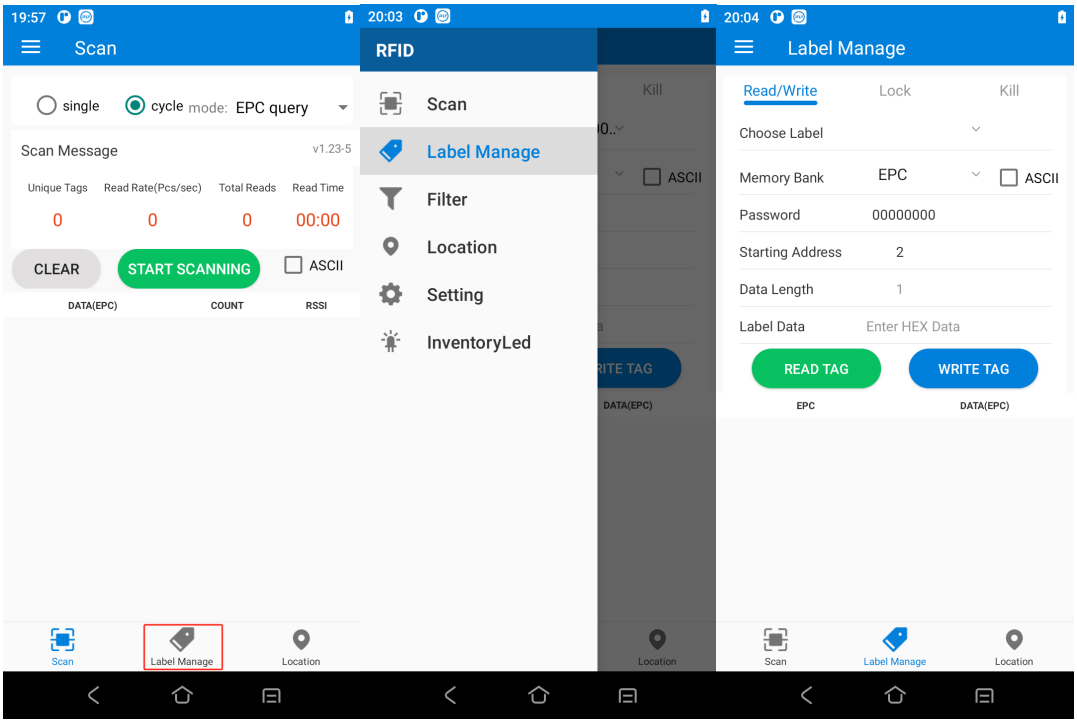
DATA(??)	The specific data scanned in the area (?? depending on the scan area selected, the corresponding area is displayed)
COUNT	Number of times of tag being recognized
RSSI	Signal intensity at the last time of tag being recognized

Note: A pop-up window as shown below will appear when you open the App if there is no RFID module or the RFID module is failed to be connected.



II. Tag Management

The tag management page can be accessed through the Tag Management / Sidebar at the bottom of the home page. The main functions of the module are to read, write, lock and kill tags.



2.1 Read/Write

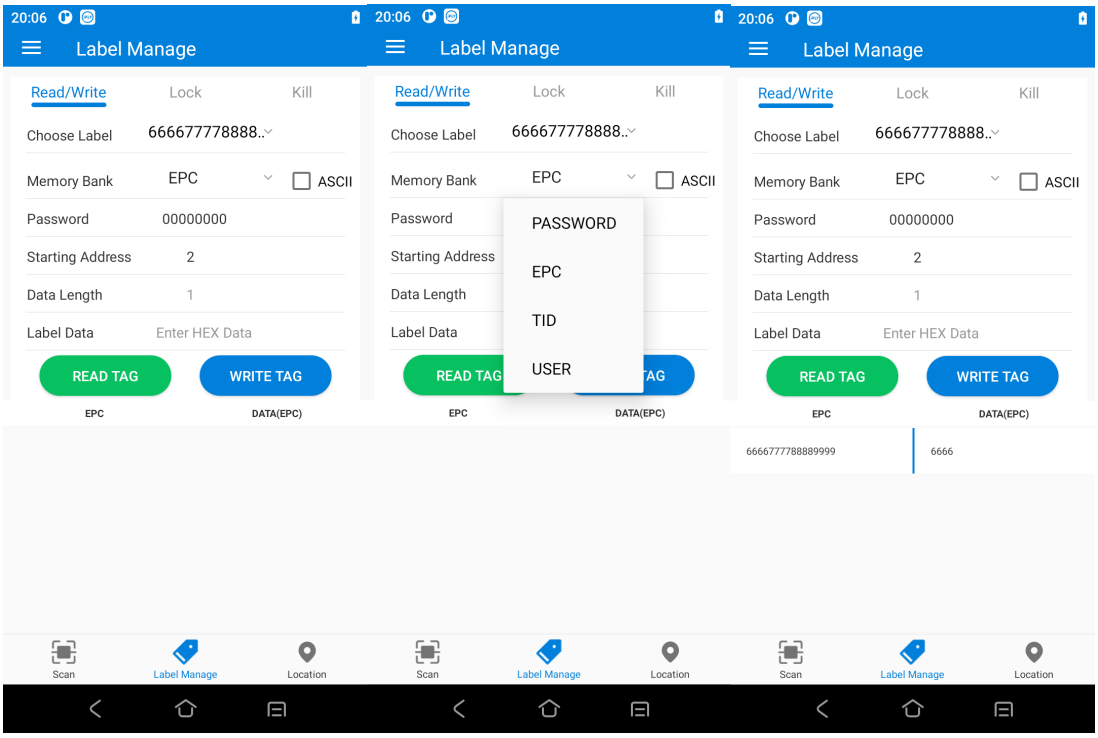
Before reading labels, scan and take inventory on the label scanning interface. After the inventory is complete, click Label Management and select the labels to be read and written to write labels or labels.

To read a tag, three parameters need to be entered: the tag area to be read, the starting address and the data length.

Note that the input parameters should be in accordance with the tag specifications. Otherwise, an error message will be prompted.

The interface for writing tag is in the same area as the reading, except that the writing requires the access password and the data to be written.

(The default access password is 00000000)



Note: The maximum writing length at one time is 32 words (64 bytes, 512bits).

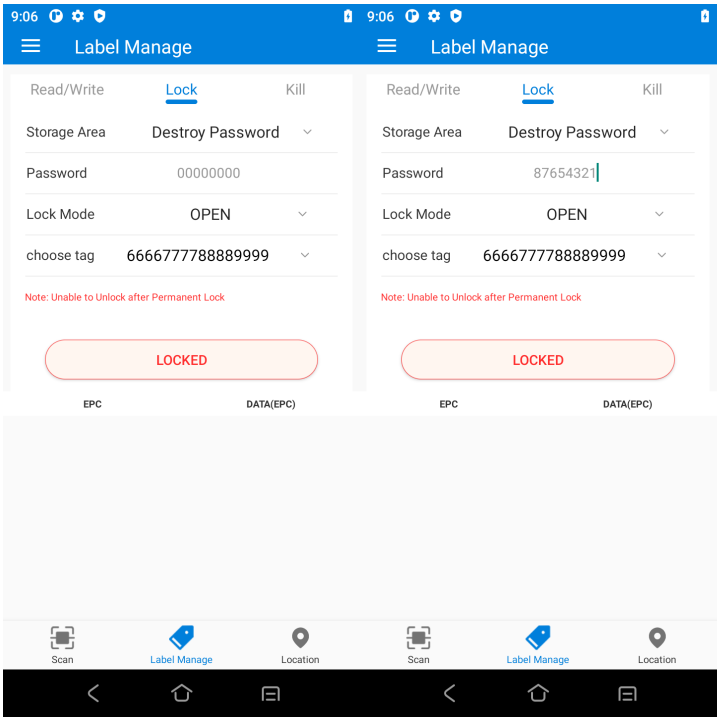
2.2 Lock

The operation interface for locking tags is as follows:

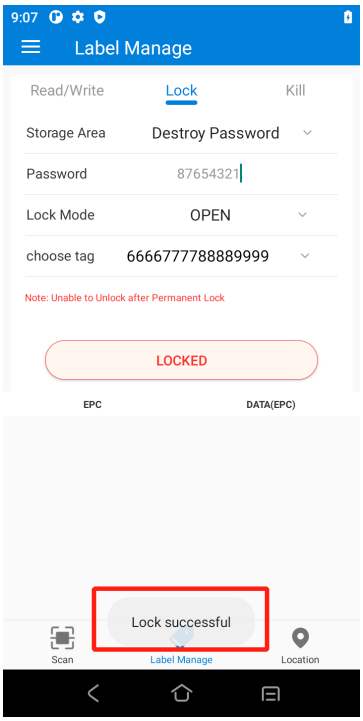
An access password must be provided to lock the tag.

1. Select the storage area that needs to be locked;
2. Fill in the access password for the label;
3. Select the locking method;
4. Select the label that needs to be locked;

Note: The original password is not valid for locking. It is recommended that the user change the access password before locking the tag.



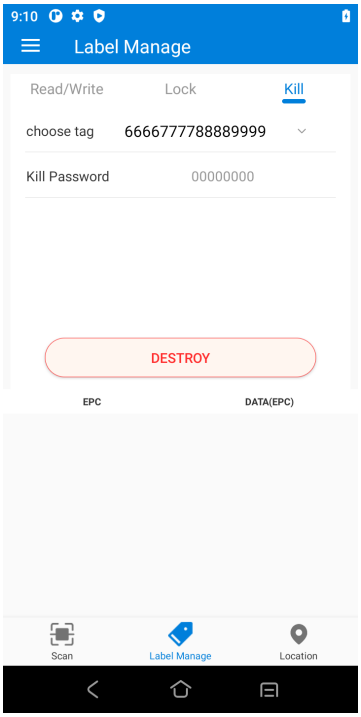
After successful operation, the following information will be returned.



2.3 Kill

The operation interface for destroying tags is as follows:

To destroy a tag, the kill password must be provided, and the kill password cannot be 00 00 00 00. So to destroy a tag, you must first modify the content of the kill password in the password area by the command to write tag.



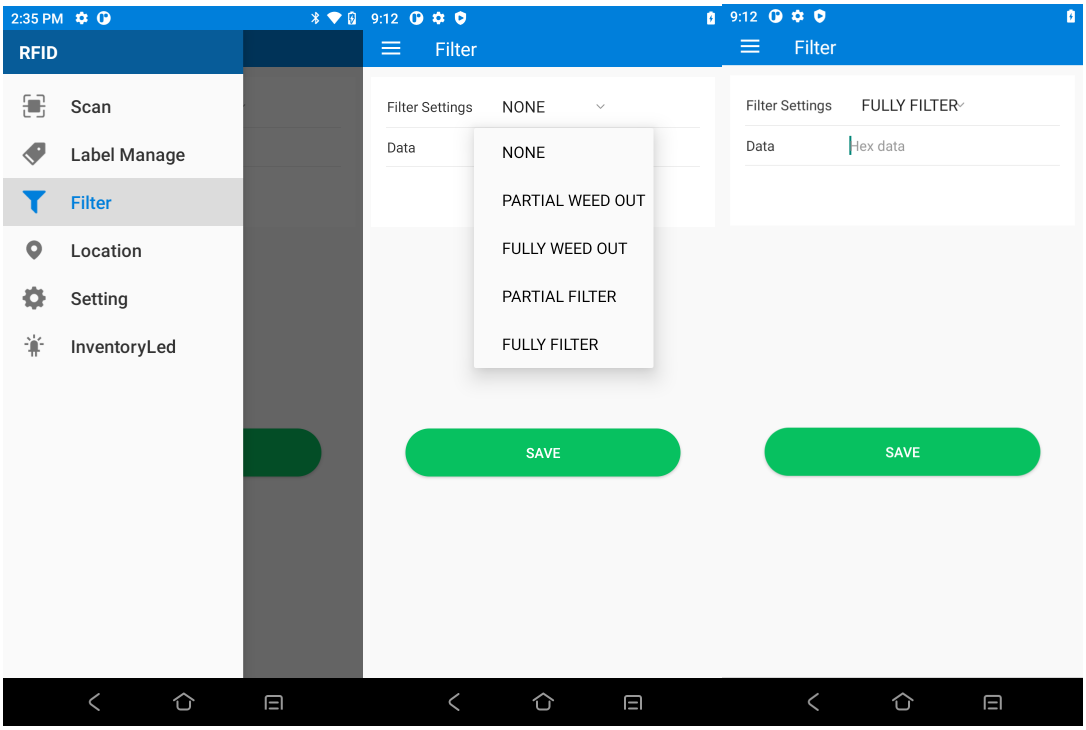
III. Filter

Tap sidebar Filter to enter the filter settings page, and main functions of the module is to filter and weed out the content of the tag scanning.

Filtering settings include 4 types: Partial Filter, Fully Filter, Partial Weed out, Fully Weed out

1. Partial Filter: If the input data information and tag information are partially continuously overlapped, then filter out accordingly (for example: input 123, filter tag 123455, 645674123; retain: 14552443)
2. Fully Filter: If the data information and tag information are identical, filter out (for example: input 123456, filter: tag 123456, retain: 123456789, 33123456, 1233456)
3. Partial Weed out: If the data information and tag information are partially continuously overlapped, weed out and display these tags
4. Fully Weed out: If the data information and tag information are identical, weed out and display these tags

Note: The starting address can be set for Fully Filter and Fully Weed out

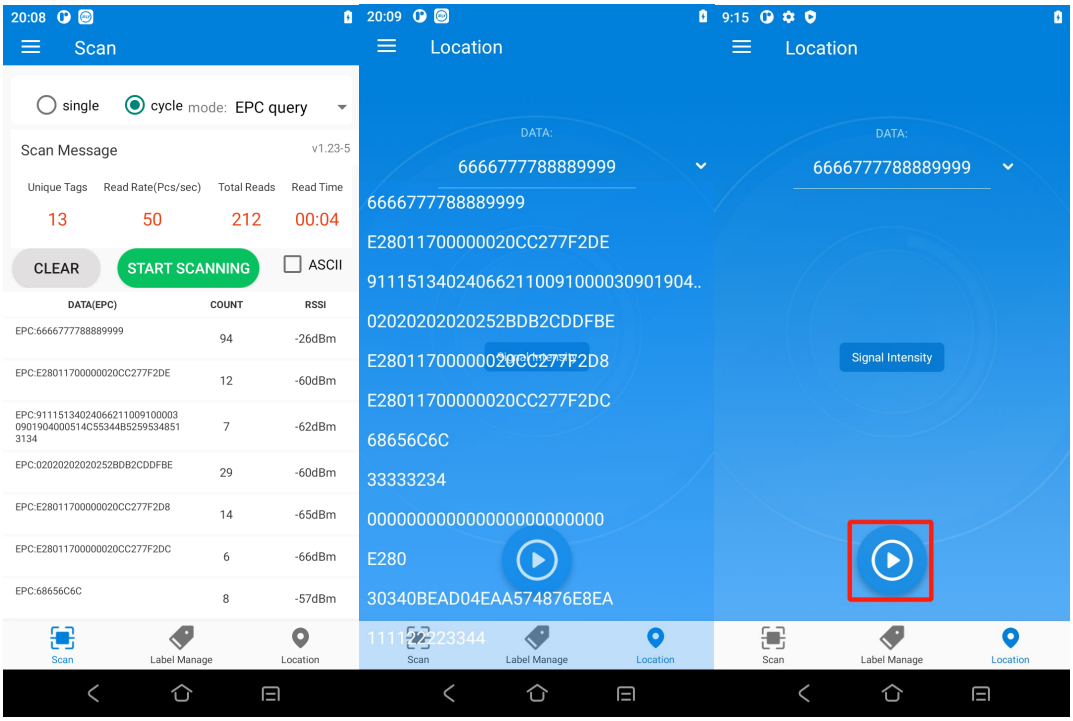


IV. Location

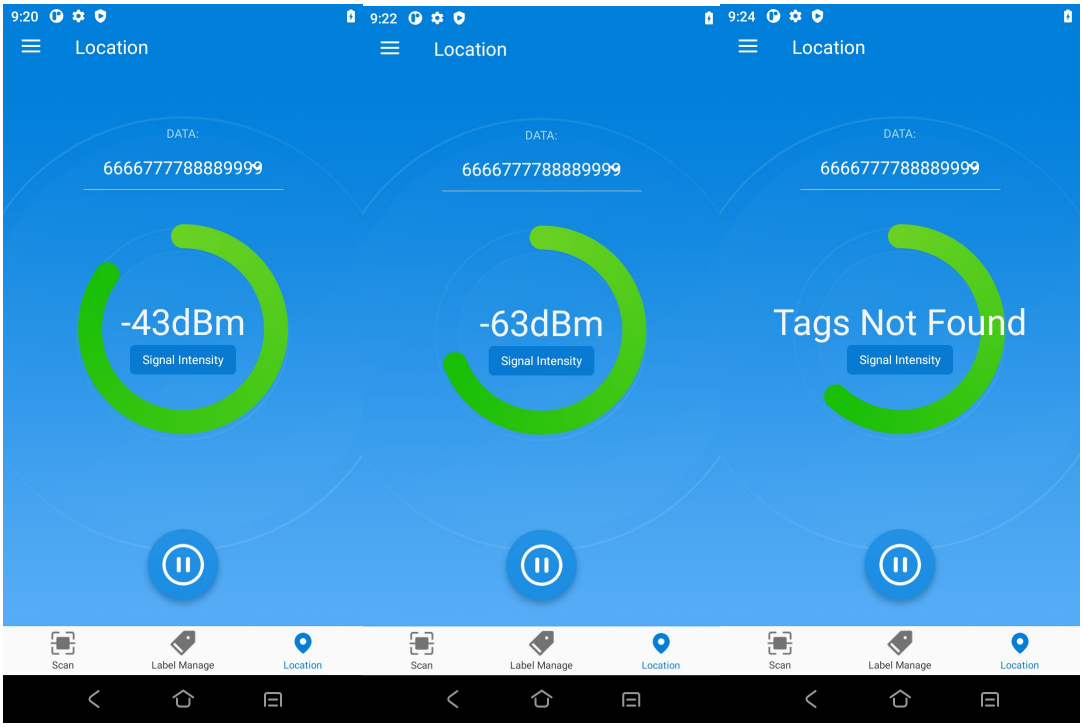
The main purpose of this function is to display the relative positional relationship between the RFID Reader and the tag.

First scan the tags, then select a particular tag.

Switch to the Location page (the tag just selected will be displayed above) and click the start button.

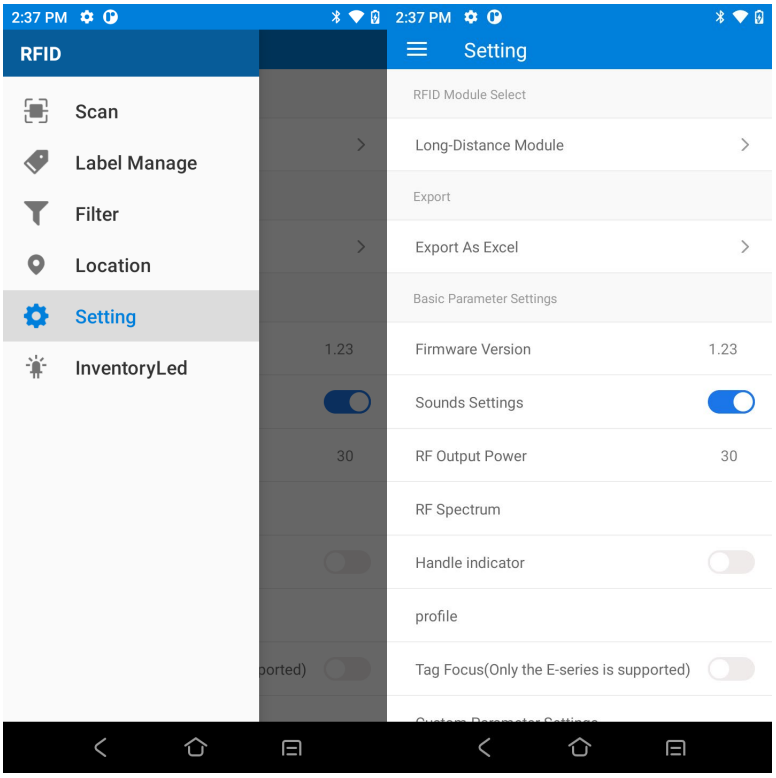


After starting, the page will display the Signal Intensity in real time. The larger value means the stronger signal and closer to the tag

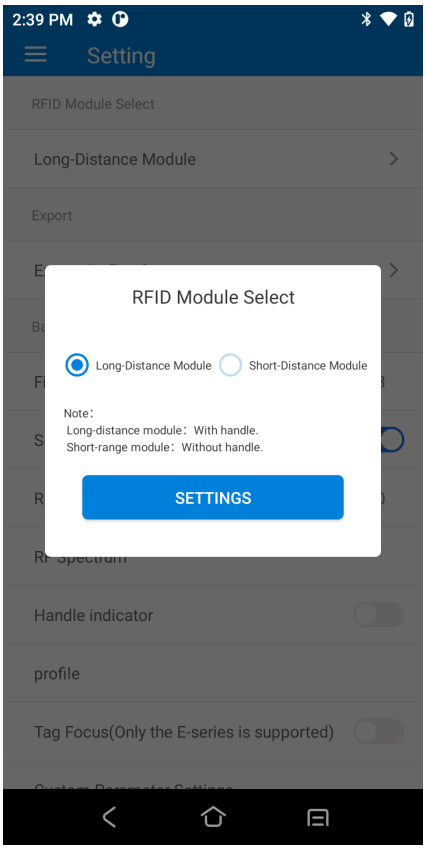


V. Settings

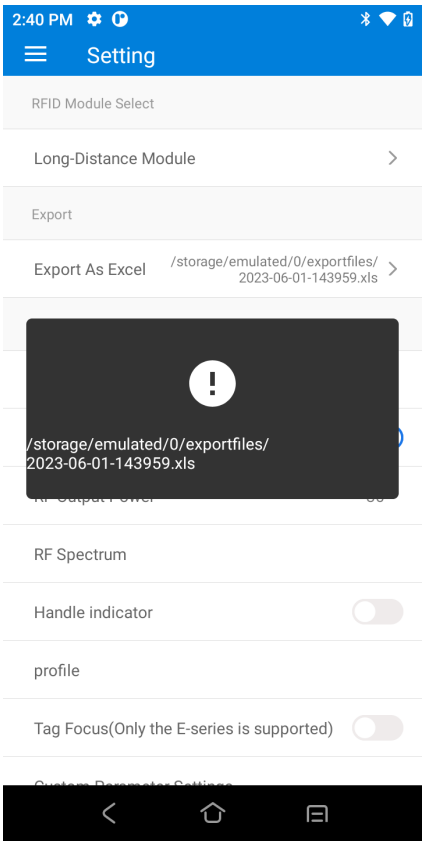
Tap sidebar Setting to enter the setting page, mainly for the configuration of the RFID Reader.

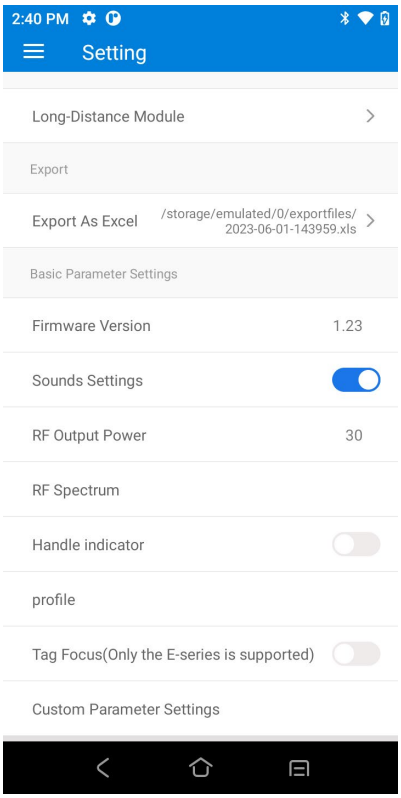


Options of UHF RFID Module: Automatically select corresponding modules based on device type.



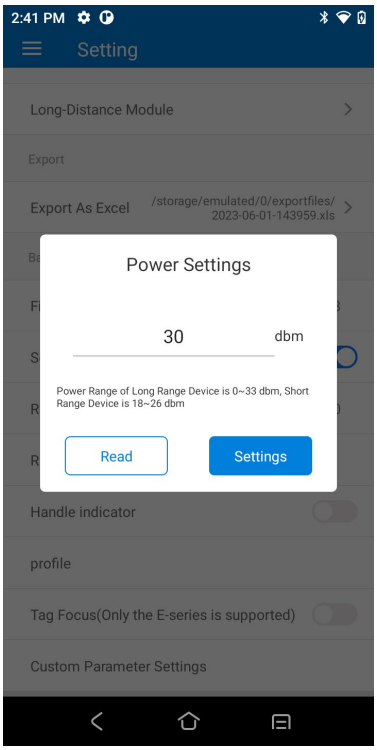
Connect Serial Number: It can be used by default and does not need to be modified
Export: The current tag scanning data can be exported to Excel



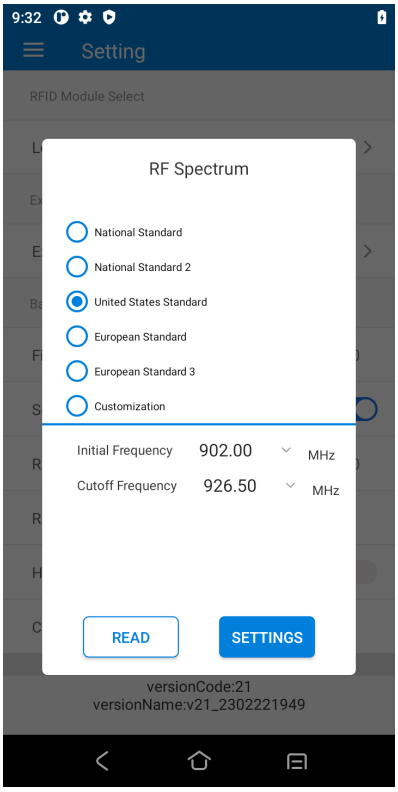


Basic Parameter Settings:

1. Firmware Version: Display the current firmware version
2. Sounds Settings: Set whether to beep during scanning, which is enabled by default
3. RF Output Power: The default is as follows, which can be read and set

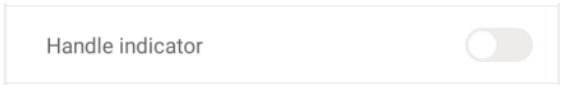


4. RF Spectrum: The default is as follows, which can be read and set



Note: When setting the frequency band, it is necessary to determine whether the antenna is a European standard antenna or an American standard antenna. Setting it incorrectly may result in the tag not being read.

5. Handle indicator: for products with a removalble handle, the second indicator on the right side of the removalble handle will flash when you scan if it is turned on. To turn it off, click it again.



6.Profile

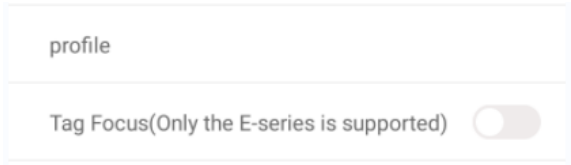
In the profiles supported by the E-series:

Mode 13: 160k, M8, 20us (farther distance when reading a single card)

Mode 15: 640k, M4, 7.5us (better group reading effect)

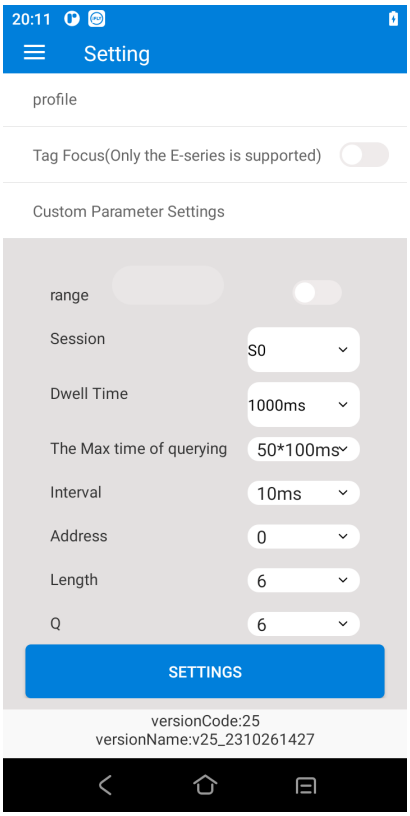
7. Tag Focus (only supports E-series)

This function only supports the use of E-series module devices;



Read more tags in a shorter time, such as 400 tags. At the same reading time, if not opened, 200 tags may be read, but if opened, 400 tags can be read.

8. Custom parameter settings: Customize parameter configurations according to requirements.



The following modes have been added to the Session

Auto1: S2/S3 alternating operation

Auto2: Extreme Inventory Mode

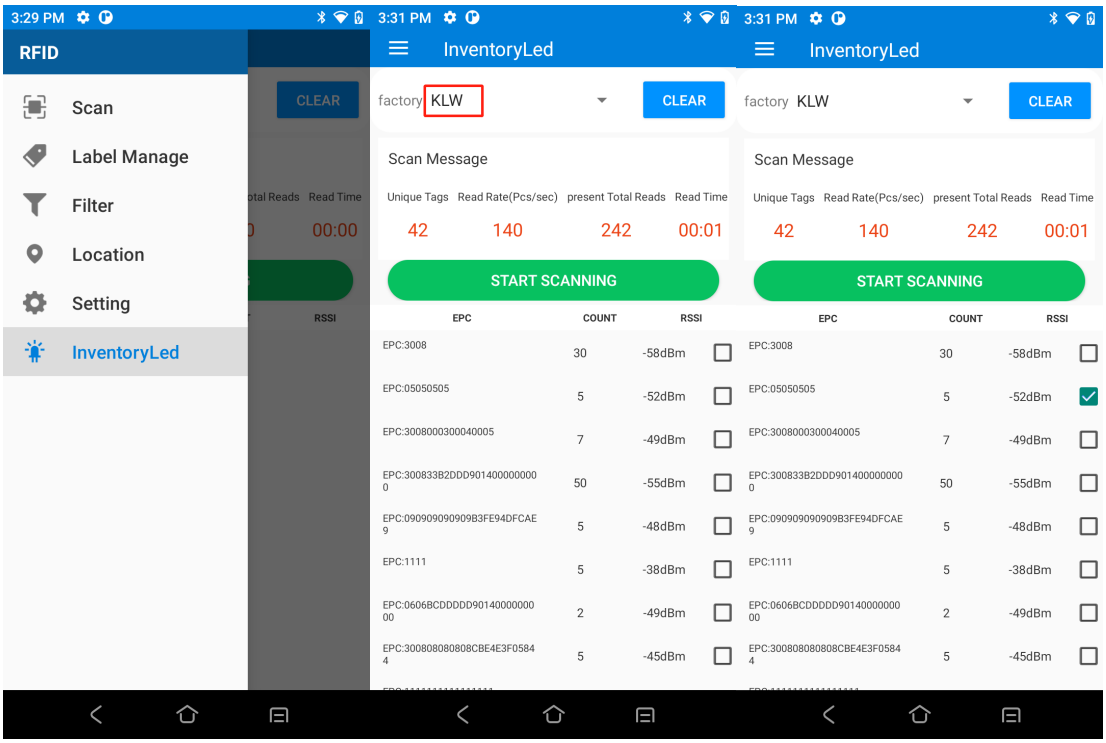
Auto3: Fast limit inventory mode

Range：Reading distance control (short range reading control, power set between 10-15dBm, read distance is controlled by adjusting the range, the smaller the range value, the closer the reading distance)

VI. InventoryLed

This feature supports the manufacturer labels of Kailuwei and Yilian. Select the label that needs to be inventoried, and the inventoried label will follow the flashing light of the disk.

To select the manufacturer who needs to read the label, first inventory the label, select and check the checkbox to the right of the label that needs to be read, and click Inventory;



The inventory label indicator light will follow the disk reading and light up.