



# **User Guide for Zebra Bluetooth 123RFID**

## **Mobile iOS**

Version: 1.1.77

March 2025

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# 1. Introduction

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## 1.1 Purpose

This chapter describes the enhanced version of the 123RFID Mobile Application for iOS, which demonstrates the device's capabilities and tag operation functionality.

This application is also available as part of App Store at: <https://apps.apple.com/lk/app/123rfid-mobile/id996761433> .

## 1.2 Installing the 123RFID Mobile Application for iOS

Install the 123RFID Mobile Application on the mobile computer from zebra.com/support or from the App Store. The procedure to install the software on an iOS device is dependent upon the iOS version.

## 1.3 123RFID Mobile Application for iOS

Install This application runs on iOS mobile devices and demonstrates capability and tag operation functionality.

The application allows for navigating to all screens at any time, however, some actions are not permitted while the device is charging. These actions include any operation that involves Tag reading or writing (for example: Rapid Read, Inventory, Locate Tag, etc.).

Navigate to all screens when the inventory/locate operation is in progress. When the operation is in progress, the device displays Operation in Progress if additional operations are initiated.

## 1.4 Using the 123RFID Mobile Application for iOS

To use the application for RFID operations:

1. Launch the 123RFID Mobile Application for iOS on the mobile device.
2. From the Readers list, tap on the available device listed under Available Readers to connect and view the Rapid Read screen.
3. Tap Settings > RFID > Advanced Reader Options > Antenna.

Power Level is set to 27.0 dBm by default. However, it is shown as 270 dbm because the value used is in units of tens of dBm. Japan units are set to a different default power level depending on the SKU type.

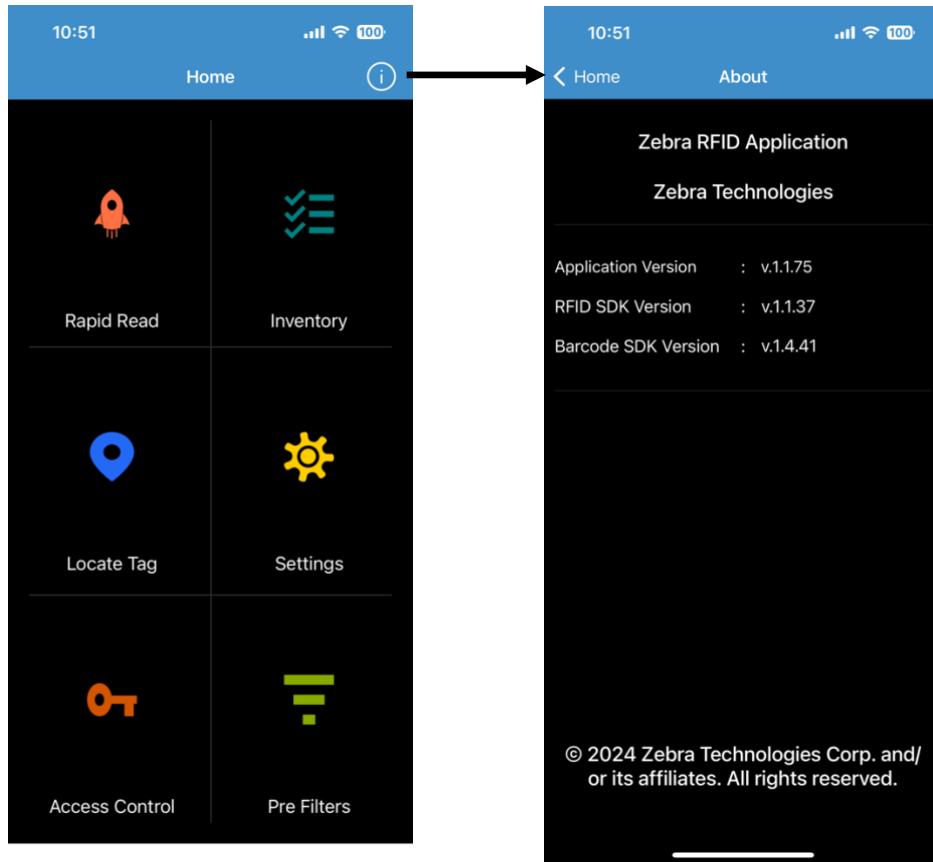
4. Tap the Back button and select Regulatory to set the region in which the device is operating.

## 2. Navigating 123RFID Mobile

Navigate using the home screen or bottom tab bar. Switch between the Inventory screen and the Locate screen or the Inventory screen and the Rapid Read screen with a single tap of the appropriate icon.

### 2.1 Home Screen

This is the initial screen of the 123RFID mobile app.



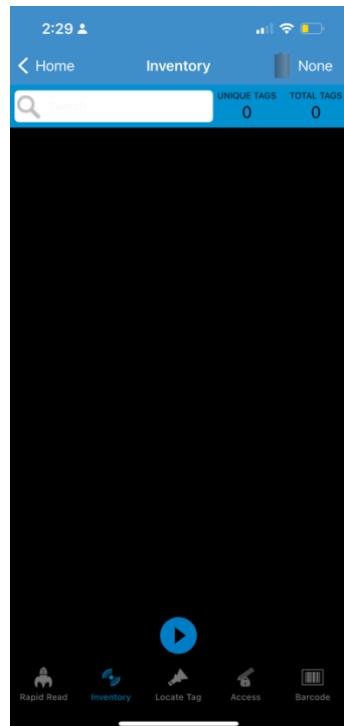
#### Home

- Rapid Read
- Inventory
- Locate Tag
- Settings
- Access Control
- Pre Filters
- About

## Tab Bar

If you click one of the menu items (except Settings.) on the home page and you can see the tab bar at the bottom of the screen. The tab bar contains the following items.

- Rapid Read
- Inventory
- Locate Tag
- Access
- Barcode



### 3. Readers List

The Readers list displays connected readers and available readers. After pairing the device in the Bluetooth setting in the iOS device, the device will appear in Reader List.



- **Connected Readers** - Lists the readers that are already connected and ready for use.  
Available options include:
  - Disconnect
- **Available Readers** - Lists the readers that are already connected and ready for use.  
Available options include:
  - Connect
  - Show the details of the reader after connectingNote: You can only connect to one device at a time. The model's name and description are displayed under the reader's name after connecting.

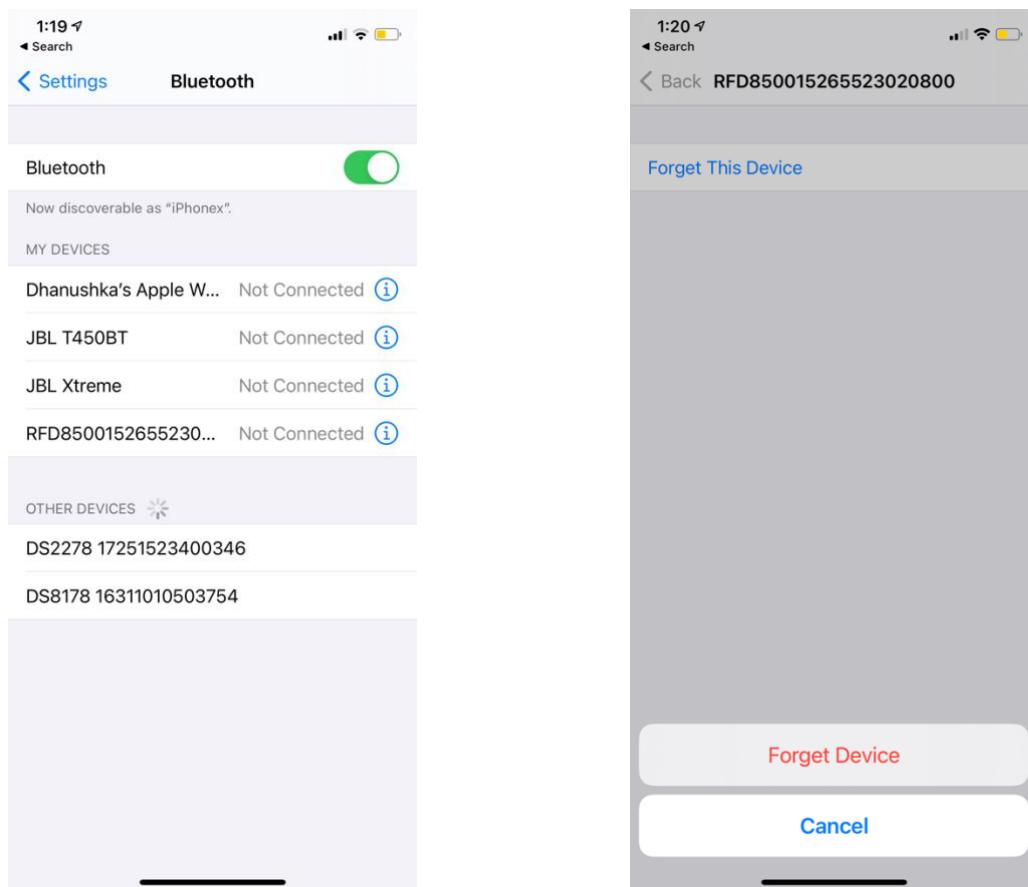
## 4. Pairing the device

### 4.1 Pair by Scan

Pair by Scan will provide a faster way to connect to the MFI scanner. This solution provides pair with an MFI scanner inside the sample app, by using a camera view in the iPhone inbuilt camera scan the device barcode image and get the serial number and try to connect with that device.

### 4.2 Steps

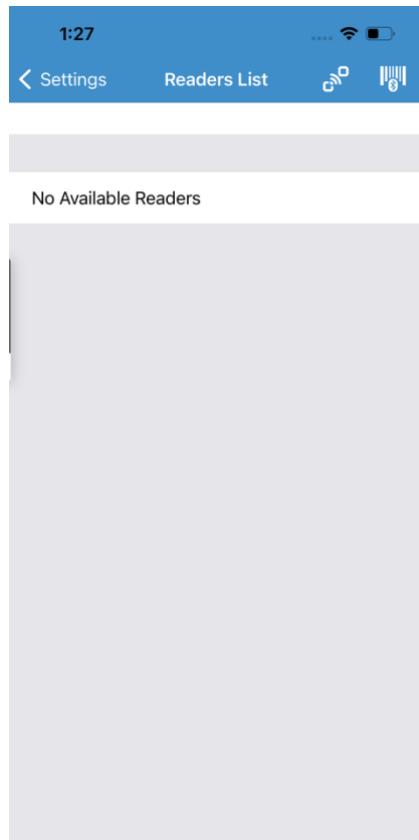
Before following the below steps first unpair the RFD8500/RFD40+ device (the device you want to pair) from Bluetooth settings



## 4.3 RFD8500

### Step 1

Open the 123RFID mobile app and go to “Reader list page” and click the pair by scan icon which is in the navigation bar right corner. Then camera view will appear as below.



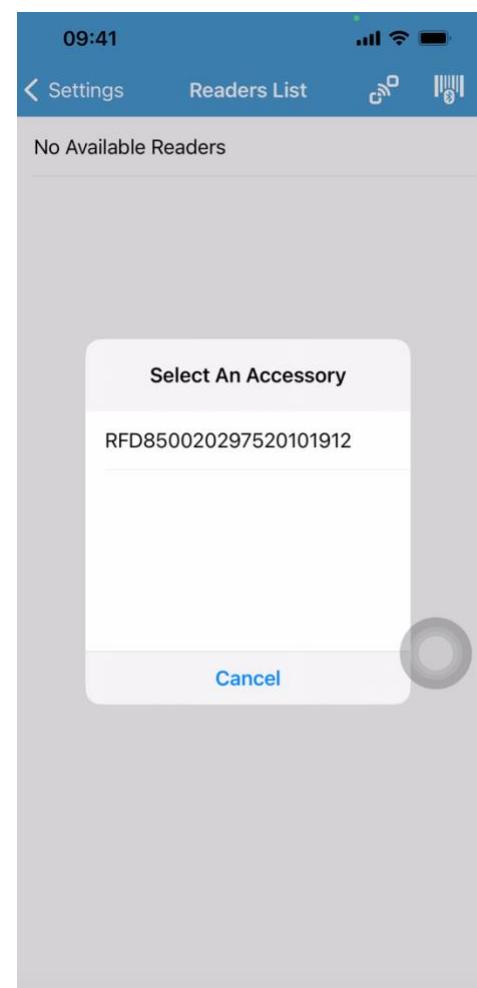
## Step 2

After opening the camera view scan the device barcode. Before doing this, the RFD8500 Bluetooth indicator led should blink. Otherwise, the device does not appear in the picker list.



## Step 3

Click the device which you want to pair and press the RFD8500 trigger to pair when the Bluetooth LED starts flashing fast. You will get a beep sound once it is paired successfully.



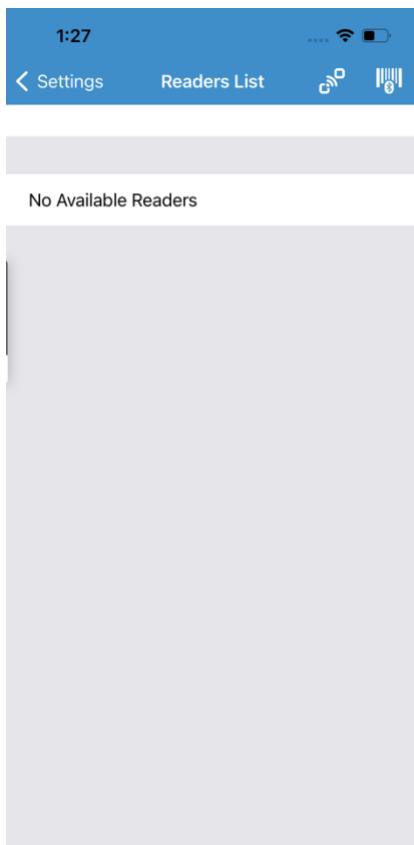
**123RFID Mobile APP:**

## 4.4 RFD40+

### Step 1

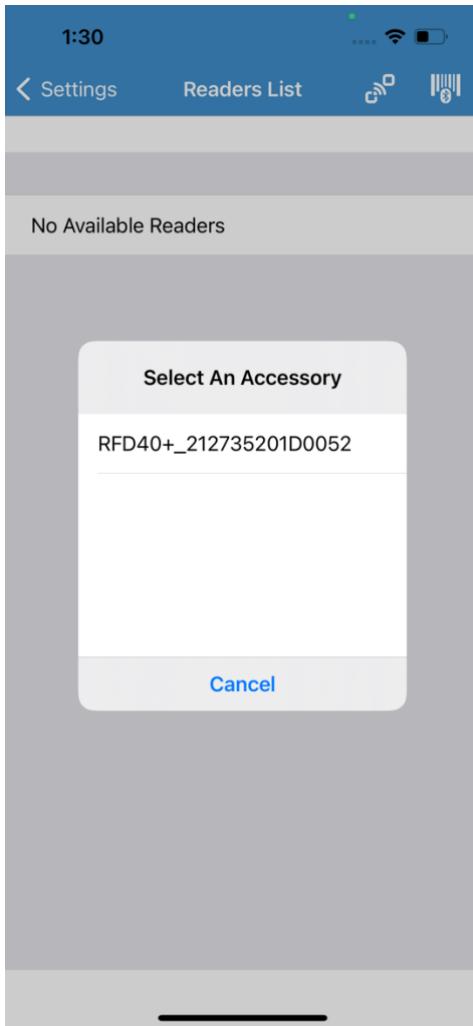
Open the 123RFID mobile app and go to “Reader list page” and click the pair by scan icon which is in the navigation bar right corner. Then camera view will be appeared as below.

#### 123RFID Mobile APP:



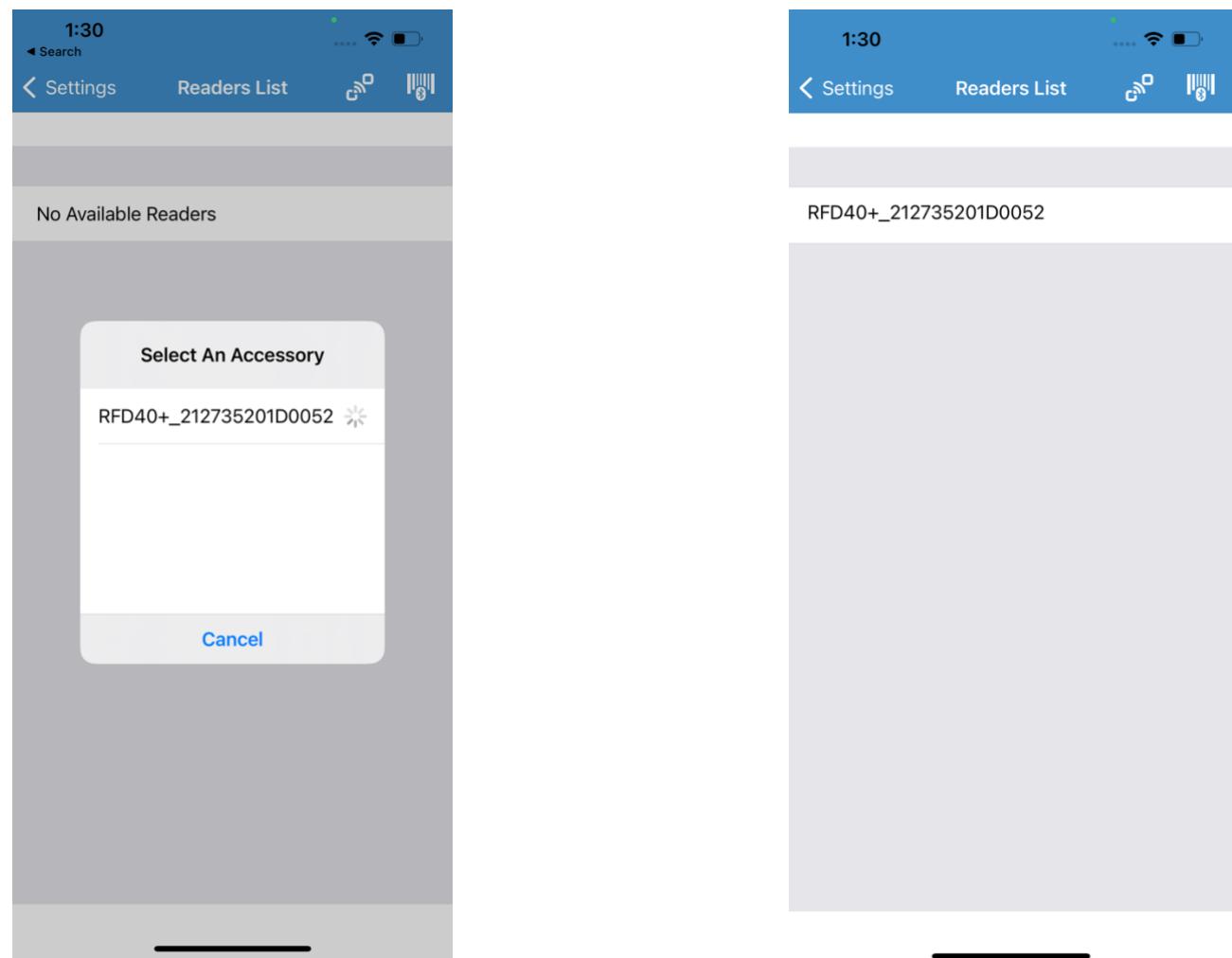
## Step 2

After opening the camera view scan the device barcode. Before doing this, the RFD40+ Bluetooth indicator led should blink. Otherwise, the device does not appear in the picker list.



### Step 3

Click the device which you want to pair and press the RFD40+ trigger to pair when the Bluetooth LED starts flashing fast. You will get a beep sound once it is paired successfully.

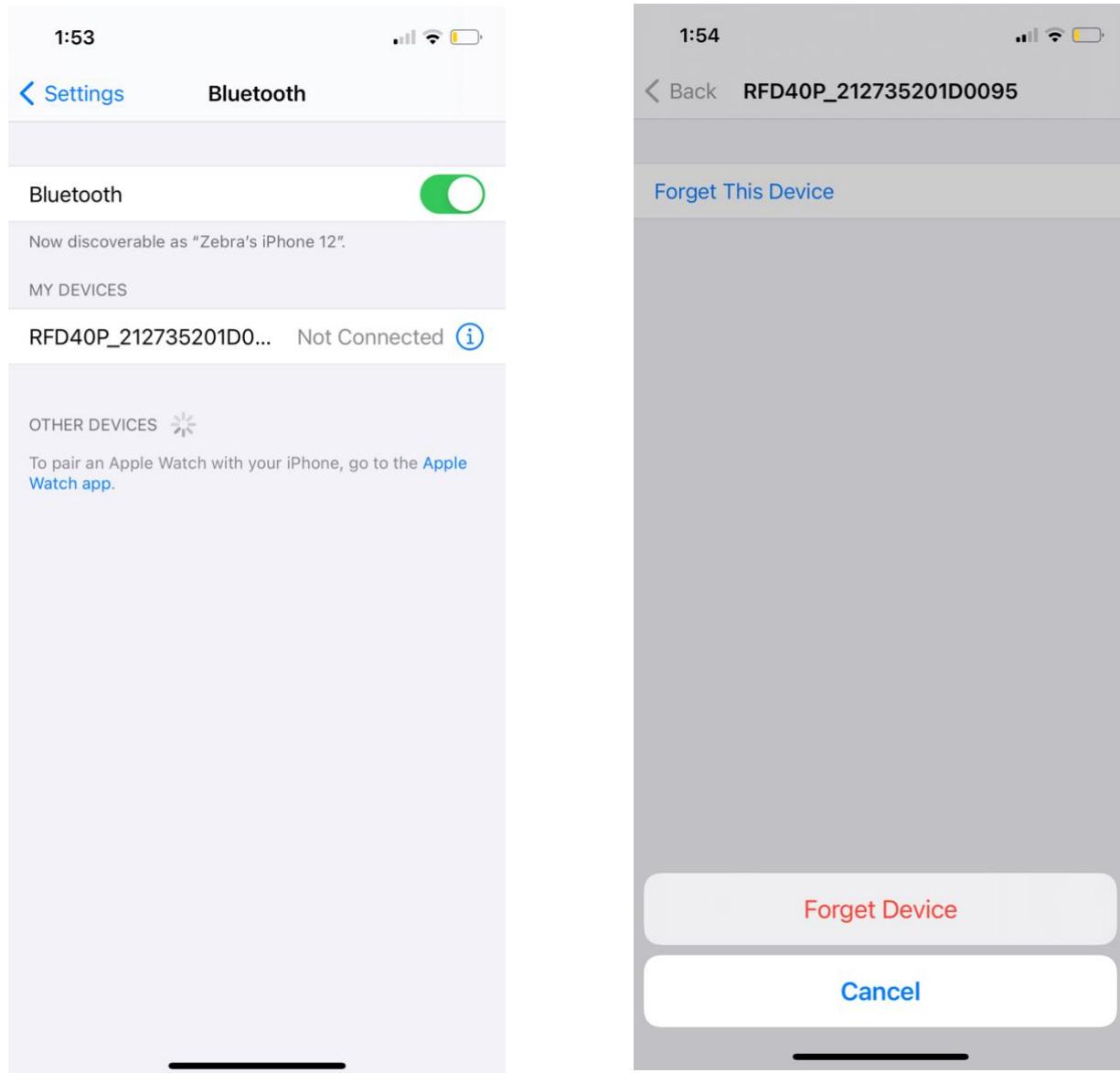


## 4.5 Setting up the NFC based tap to pair

Tap to Pair will provide a faster way to connect to the MFI scanner. This solution provides pair with an MFI scanner inside the sample app, by using NFC in the iPhone's inbuilt NFC reader the device's NFC tag and get the serial number from NDEF records and try to connect with that device.

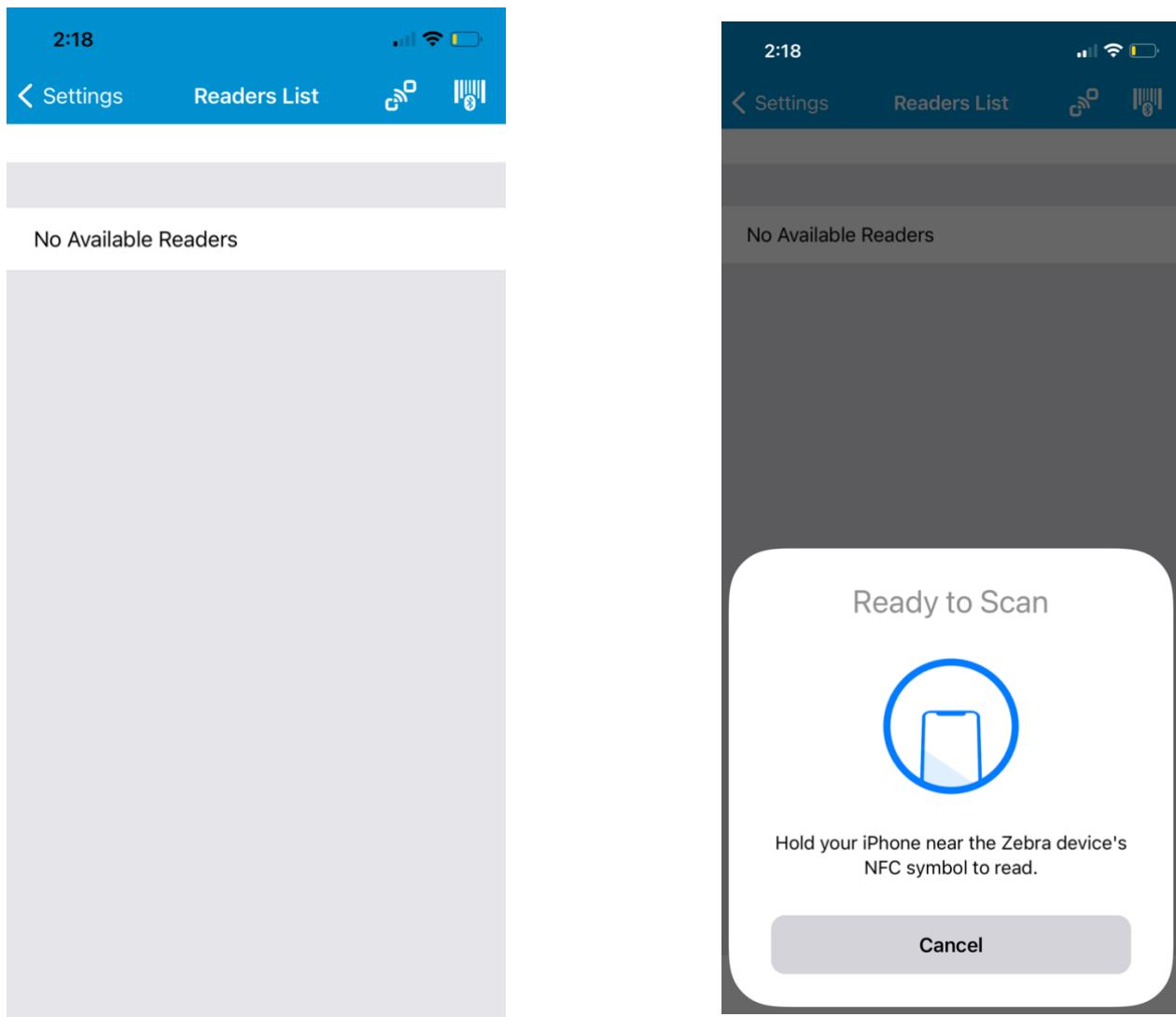
### Steps

Before starting NFC based pairing step first unpair the device that you want to pair from the iOS system Bluetooth settings. (Ex: RFD40P\_XXX...X)



## Step 1

Open the 123RFID mobile app and go to the “Reader list page” and click the NFC icon which is in the navigation bar right corner. The NFC reader view appears as below.



NFC ready to scan View

Readers List

**Step 2**

After opening the NFC ready to scan view hold your iPhone near the Zebra device's NFC symbol to read. Make sure the RFD40 device indicates Bluetooth led otherwise device does not appear in the picker list.

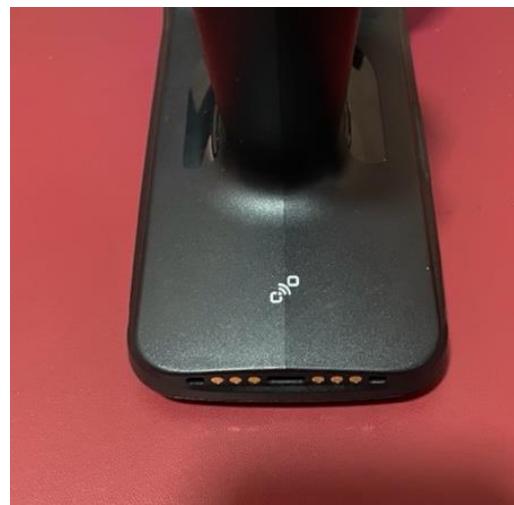
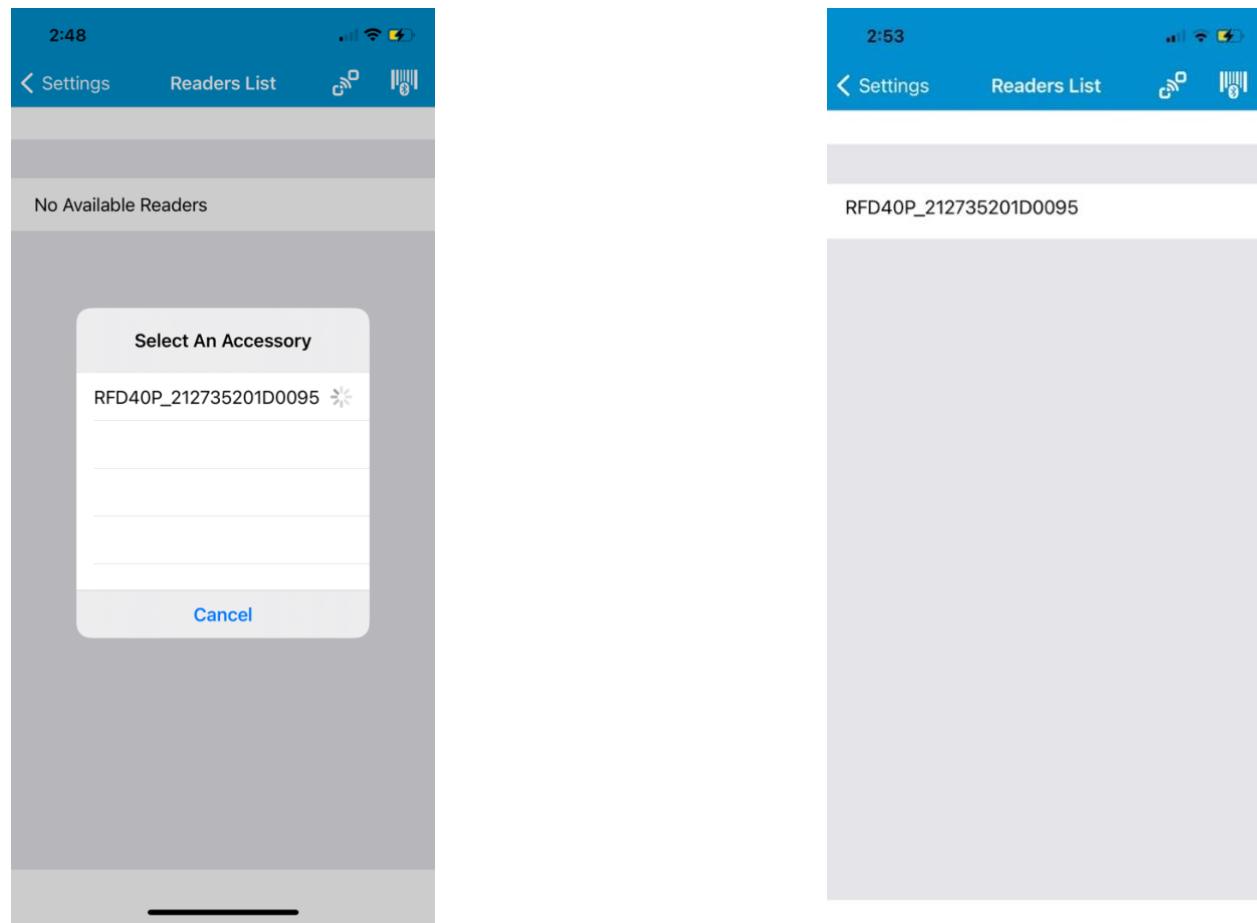


Figure 1 Zebra device's NFC symbol

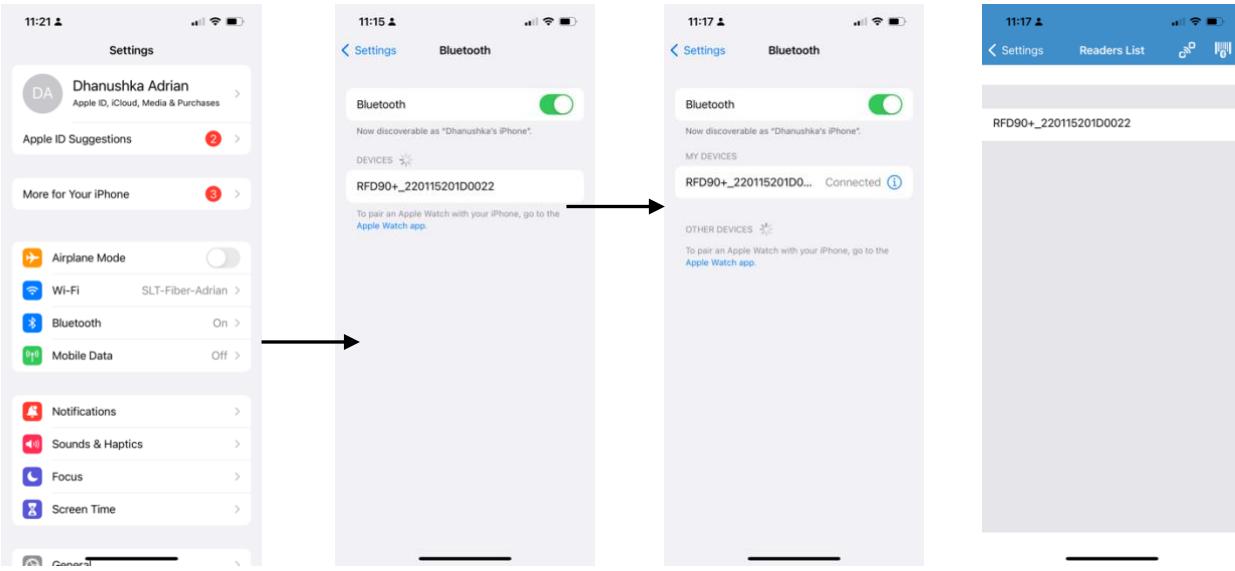
### Step 3

Click the device which you want to pair. You will get a beep sound once it is paired successfully.



## 4.6 Manual Pair

Go to the Setting in the iOS device and click Bluetooth → enable the Bluetooth → Click the Reader.



## 5. RFID Operations

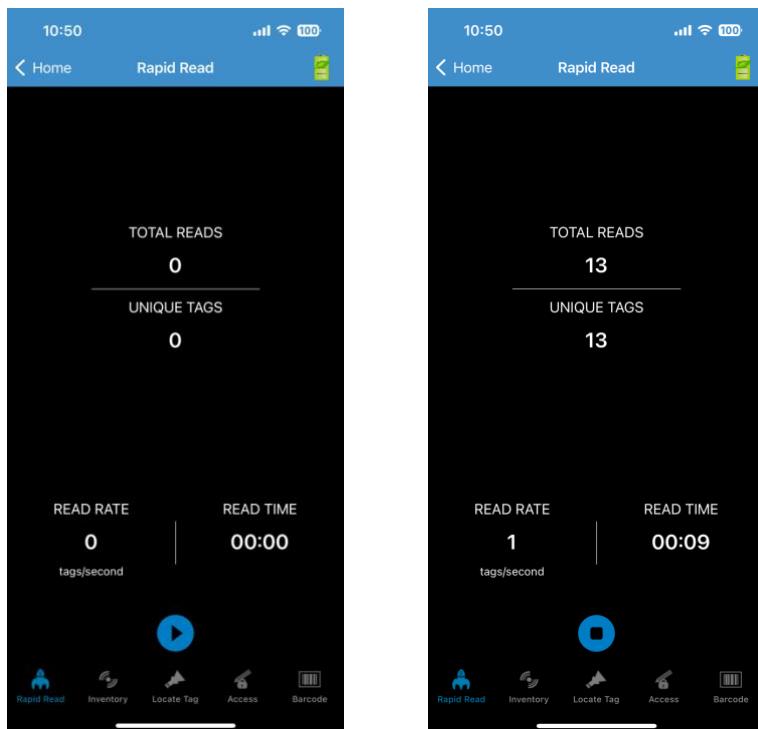
Access RFID operations for the following:

- Rapid Read - Displays a view of the inventory operation on the reader, including total reads, unique tag count, tag read rate, and read time.
- Inventory - Displays tag details, once tag reading begins.
- Locate Tag - Locates a single tag or multiple tags. Can be accessed from the Inventory screen.
- Tag Write - Allows you to write data to specified tags. Can be accessed from the Inventory screen.
- Pre-Filters - Allows you to set filters for tag data. Can be accessed from the Inventory screen.
- RFID Settings - Allows you to configure specific reader and antenna settings. Can be accessed from the Rapid Read and Inventory screens, as well as from Settings.

### 5.1 Rapid Read

The Rapid Read screen displays the following data:

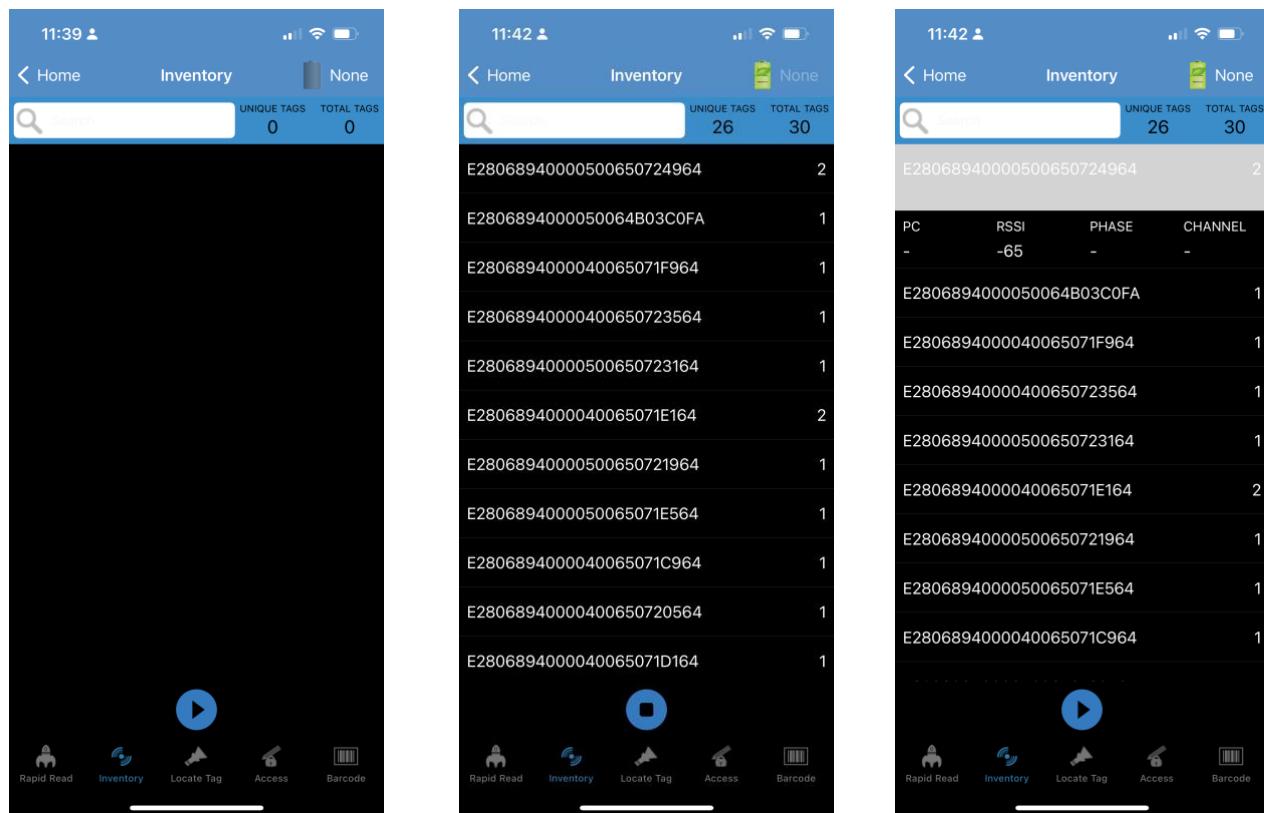
- Total Reads
- Unique tag count
- Read Time (mm: ss)
- Tag read rate (tags/sec)



The **Rapid Read** and **Inventory** screens present two different views of the inventory operation on the reader. The Start/Stop functionality can be used interchangeably on both screens. For example, when operation starts on the Rapid Read screen and you navigate to the Inventory screen, the button available on the Inventory screen is Stop. The same is true when the operation starts on the Inventory screen. During the rapid read process, you can navigate to the Inventory screen to view tag details along with tag counts for each tag. The statistics displayed are maintained on the Rapid Read and Inventory screens regardless of the screen used to start the process.

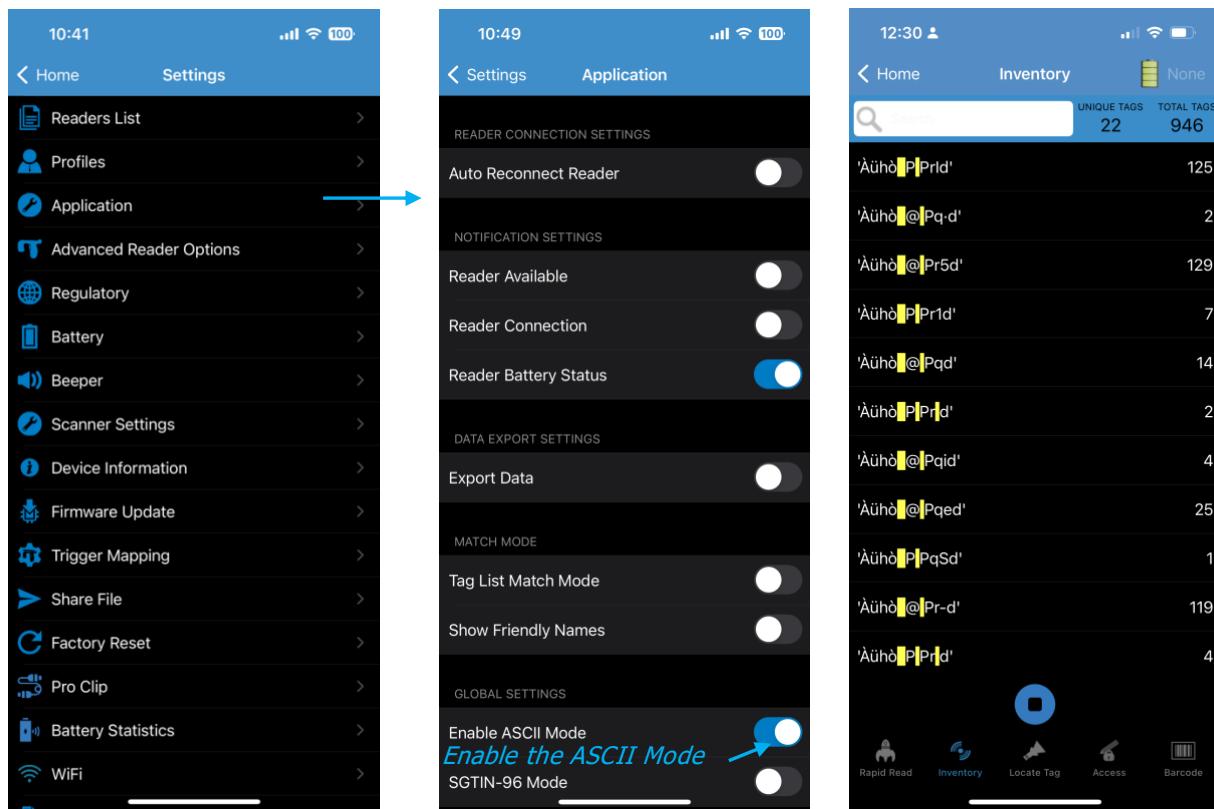
## 5.2 Inventory

Once tags begin reading, the tag details populate the Inventory screen. Tag reading is started and stopped on this screen as well as on the Rapid Read screen. When the process starts, tag information displays on the screen. The scan trigger on the device can also start and stop the inventory operation. Press the trigger to start, continue to hold and release to stop.



**NOTE:** When the tag does not have printable ASCII data when in ASCII mode, a yellow highlighted background displays on the Inventory screen.

## ASCII mode

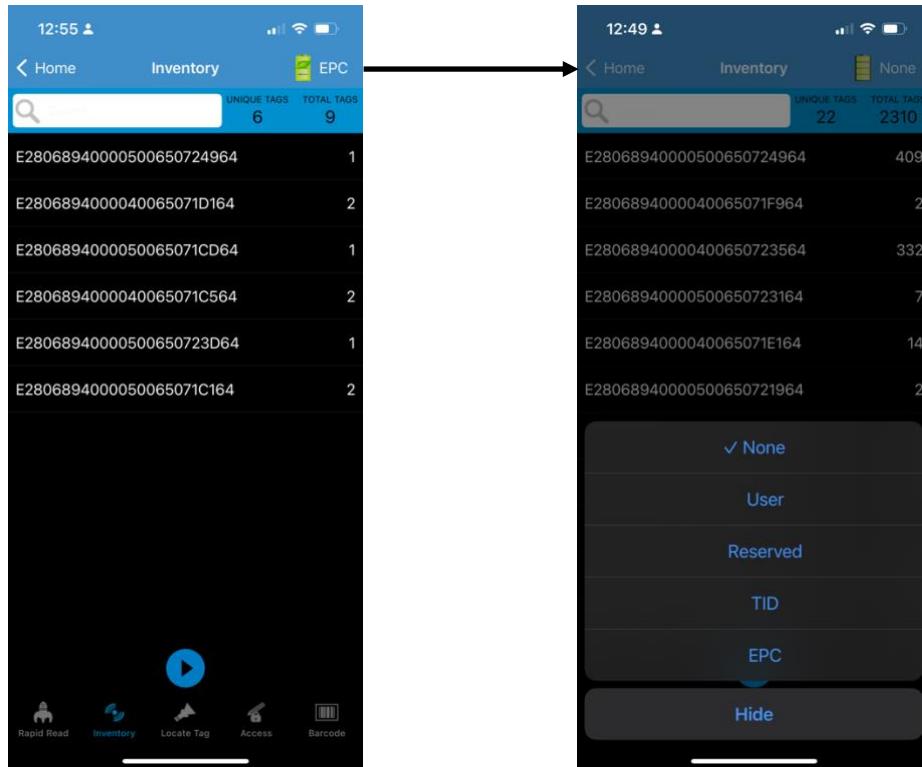


## Inventory Screen Features

### Memory Bank

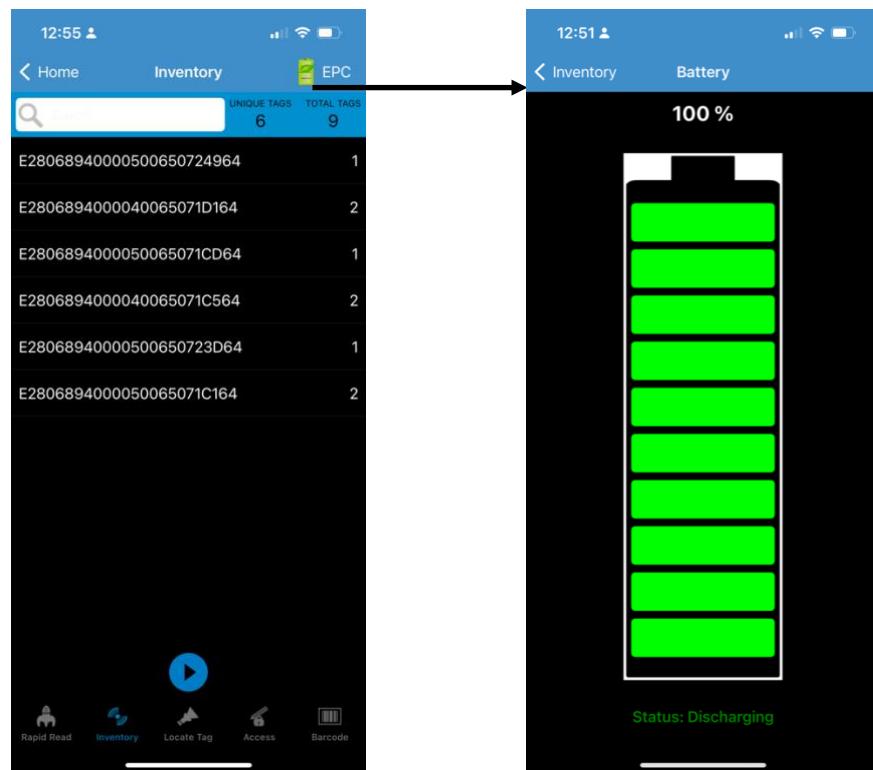
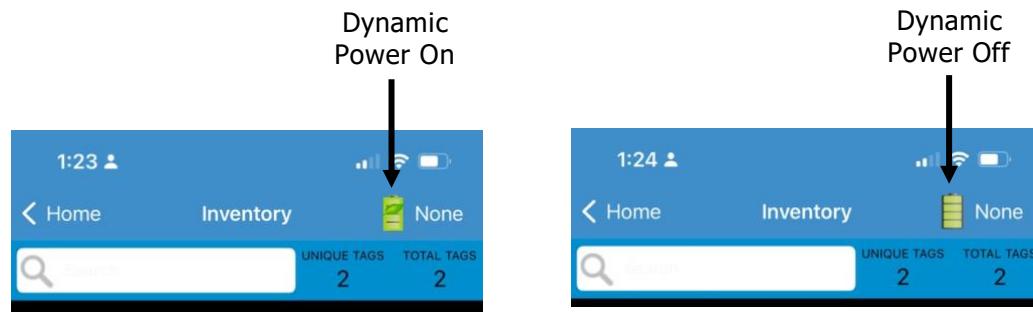
Tap Memory Bank to select one of the following memory bank options from the action sheet menu:

- None - Defaults to EPC.
- User - Allows reading user memory bank data when the tag is inventoried.
- Reserved - Allows reading reserved memory bank data when the tag is inventoried.
- TID - Allows reading TID memory bank data when the tag is inventoried.
- EPC - Allows reading EPC memory bank data when the tag is inventoried. When the next inventory operation starts, the details from the selected memory bank displays. This menu is inactive if there is an ongoing operation on the connected reader.
- Default Display - None.



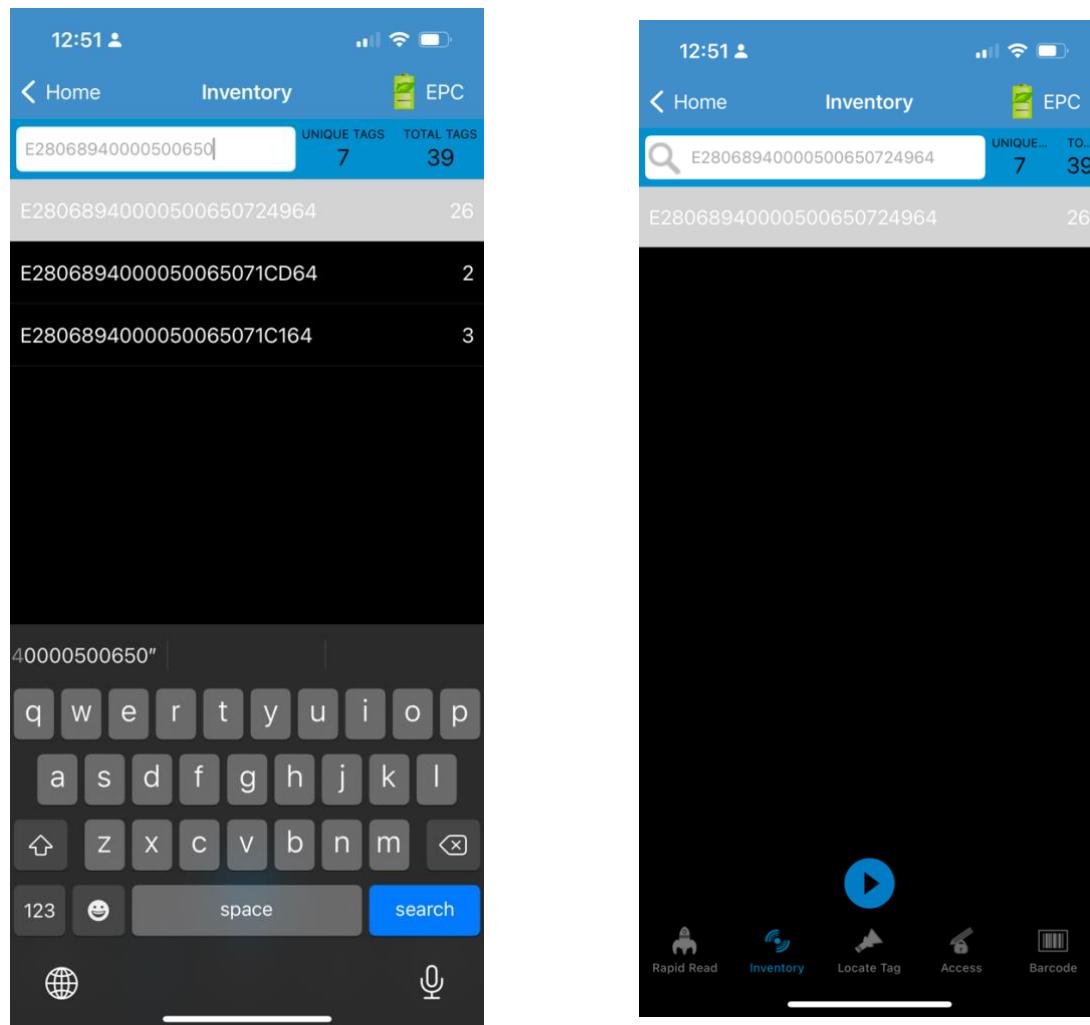
## Power Management

Icon indicates if Dynamic Power is on. See Power Management. Tap the Power Management icon to open the Battery Status screen.



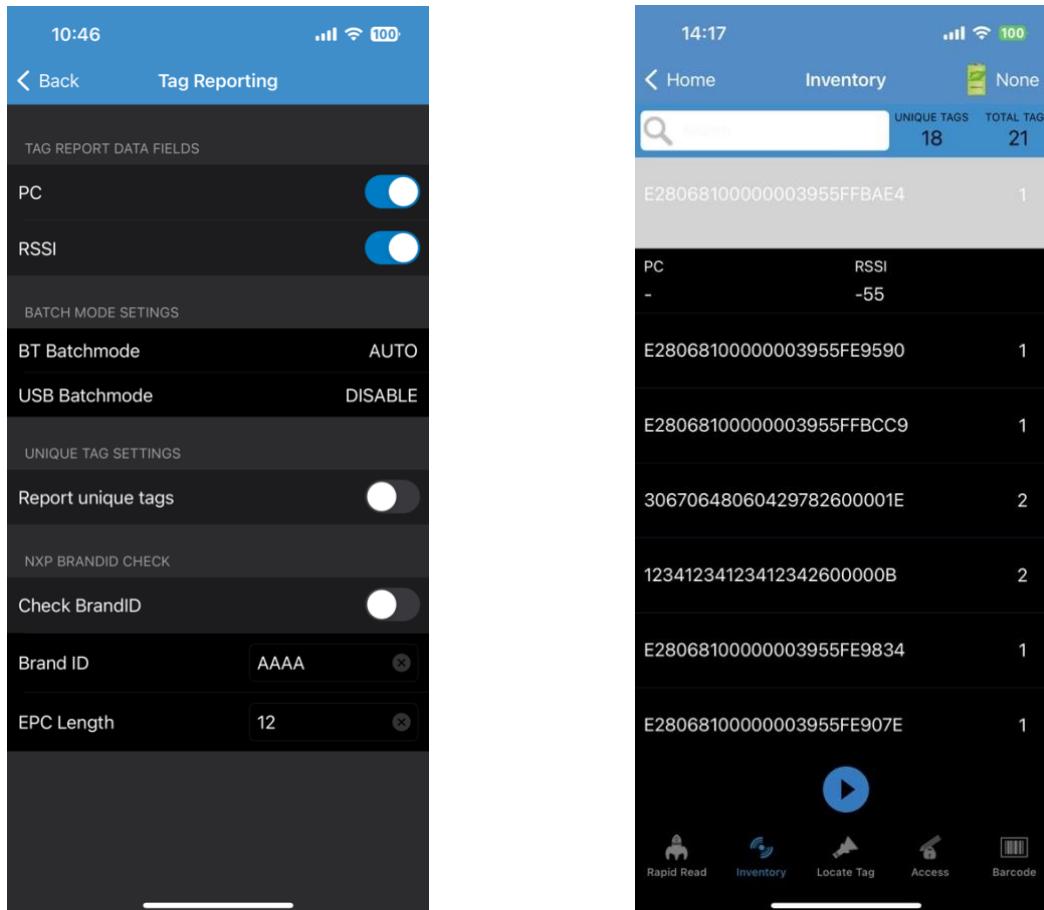
## Search a TAG

Tap the Search icon and enter a tag ID. Tags that match the entry display in the content area.



## Content Area (select a tag)

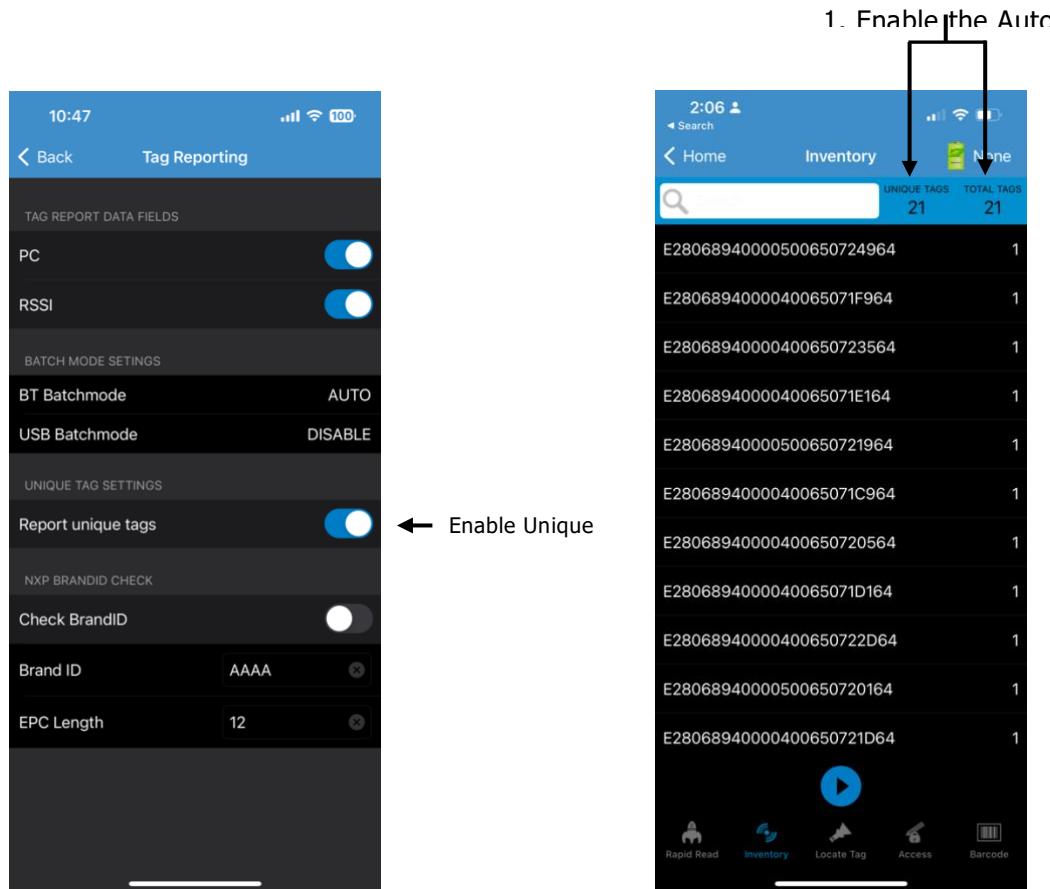
Expanded tag detail can only display when the inventory operation is stopped. Memory bank data is shown only when inventory is complete. The tags displayed in this area are based on the option selected from **Home > Settings > Advanced Reader Options > Tag Reporting**. Tap the tag ID again to collapse details.



## Unique Tag Reporting

When Report Unique Tags is enabled on the Tag Reporting screen, the reader reports only unique tags based on the options below.

- The tag count cannot be greater than one because the unique tags are only reported one time.
- When the Matching option is not selected, the list displays unique and total reads. The tag count cannot be greater than one because the unique tags are only reported one time.



## NXP BrandID Check

When **Check BrandID** is enabled on the Tag Reporting screen, the reader reports only tags based on the brand options below.

- Brand ID
- EPC Length

After enabling the **Check BrandID** settings, you can start the inventory. If the tag has a matching brand ID, the inventory list displays tag data in blue.



## 5.3 Locate Tag

Use Locate Tag to locate a single tag or multiple tags (Multi Tag). From the Inventory screen, tap and select **Locate Tag**.

### Locate Single Tag

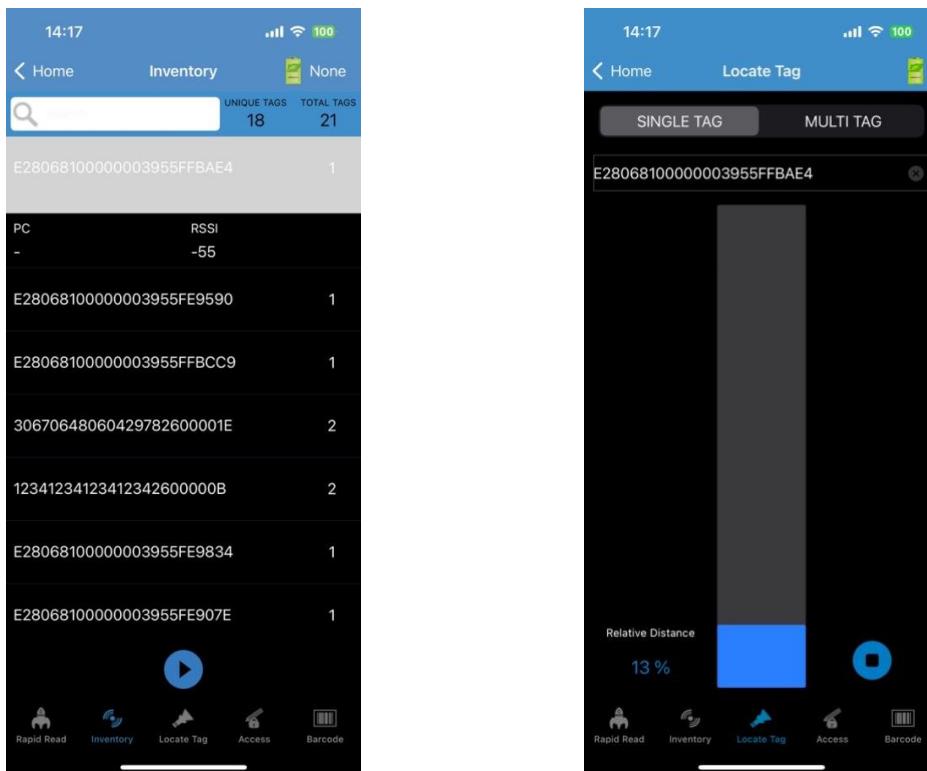
To locate a single tag:

1. Tap Locate Tag from the Home or Menu screen.
2. Enter the Tag ID in the text area or select a tag from the Inventory screen to pre-populate the Tag ID to search.
3. Tap Start to start the locate tag operation.
4. Tap Stop to stop the locate tag operation.

**NOTE:** The scan trigger on the device can also start and stop the locate tag operation. Press the trigger to start, continue to hold, and release to stop.

The Locate Tag screen displays a color bar graph showing the proximity % (relative distance) of the tag. The % gives the relative distance, for example, from 0% to 100% where the tag is very far or very close respectively,

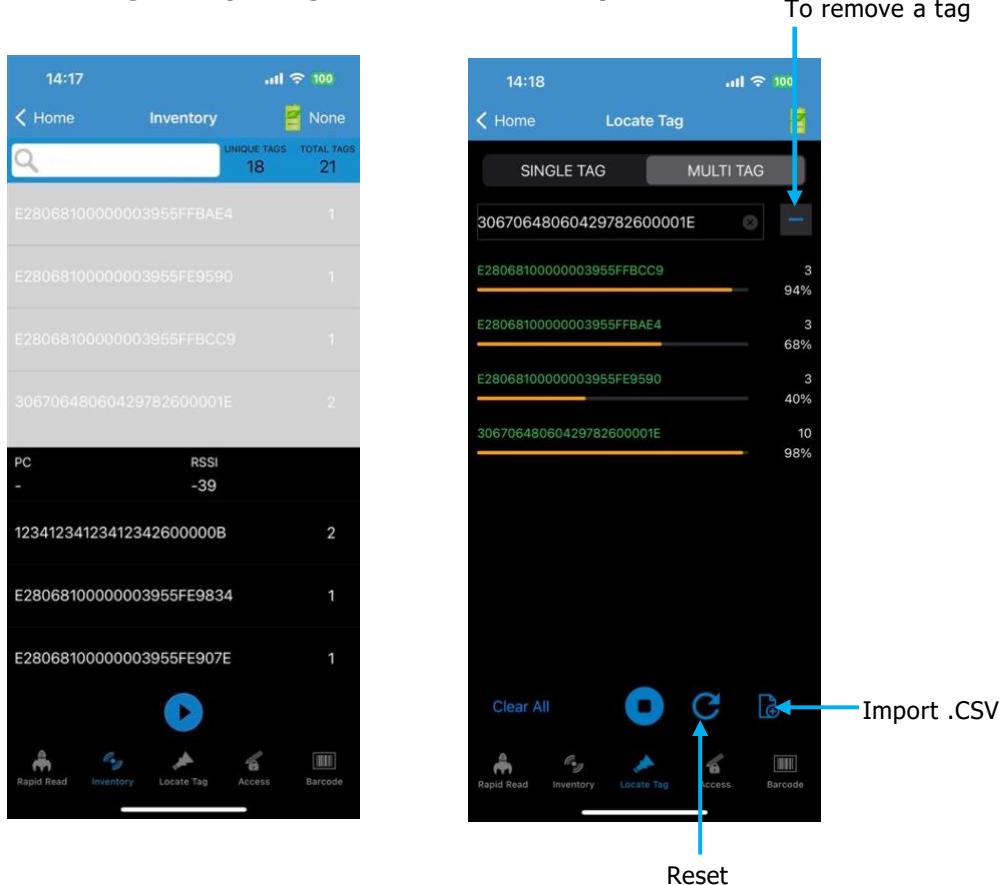
Progressing to another screen does not halt the operation until Stop is selected. However, attempting to make changes or perform another operation while the locate tag operation is in process results in an error.



## Locate Multi Tag (Multi Tag)

Locate multiple tags by importing a CSV file or selecting multiple tags from inventory.

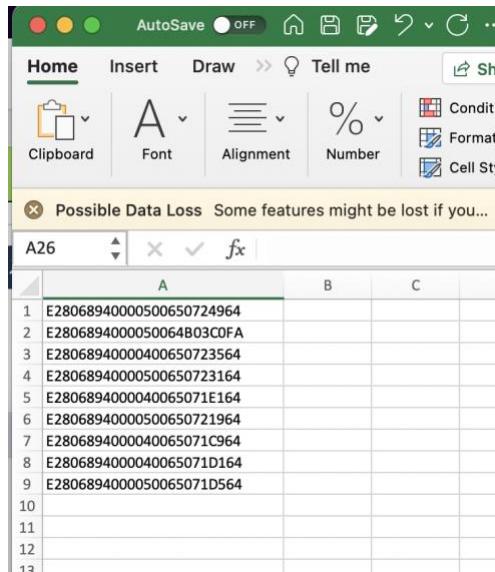
### Selecting multiple tags from the inventory



### Selecting multiple tags from the ".CSV" file

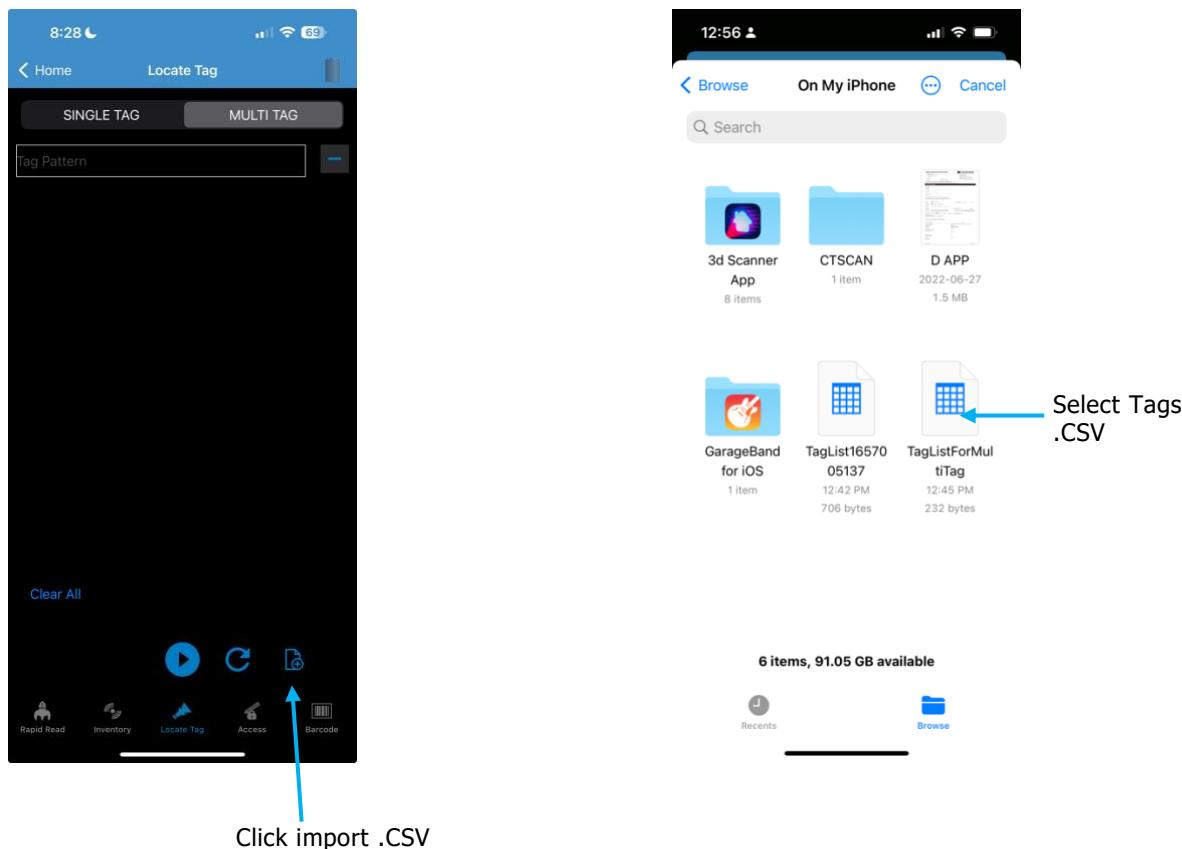
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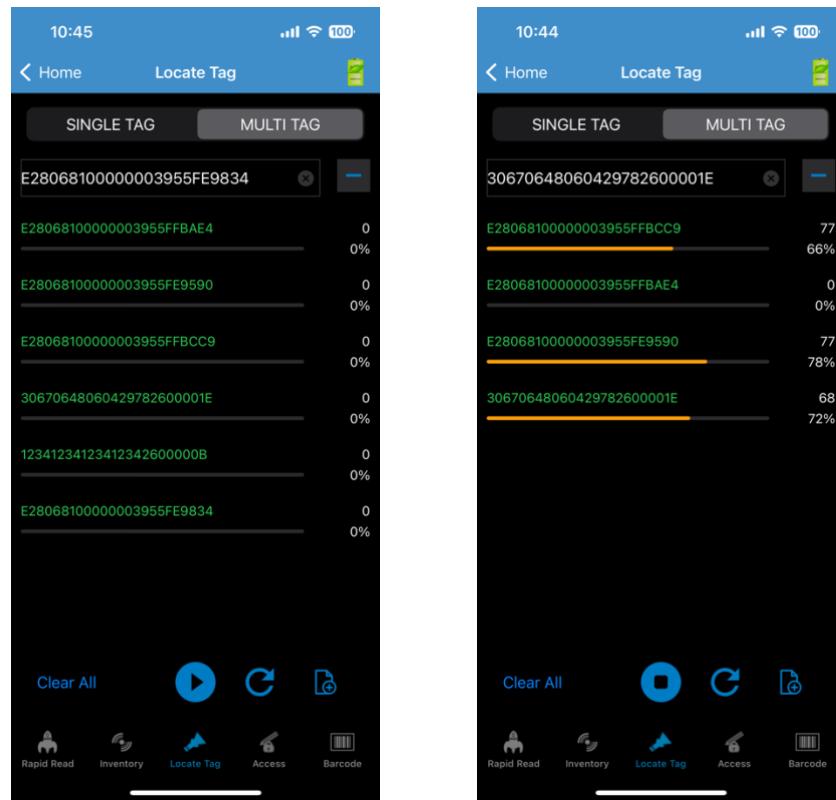
List all tags which you want to perform multi tags in ".CSV" file. And copy this file into



A screenshot of a Microsoft Excel spreadsheet titled "Sheet1". The spreadsheet has three columns labeled A, B, and C. Column A contains 12 rows of data, each starting with "E28068940000500650724964" followed by a unique identifier. The rows are numbered 1 through 12. The top menu bar shows "AutoSave OFF", "Home", "Insert", "Draw", "Tell me", and "Sh". The ribbon tabs include "Clipboard", "Font", "Alignment", "Number", "Conditions", "Format", and "Cell Styles". A message at the top says "Possible Data Loss Some features might be lost if you...".

Go to the inventory page and perform inventory and navigate to the multi-tag page and click "import .csv file" button and select the .csv file.





## 5.4 Prefilter

To set a prefilter, we can set the following property.

**Memory Bank:** EPC, TID, and USER.

**Offset (words):** Offset in the memory bank is specified in words. Select non-matching

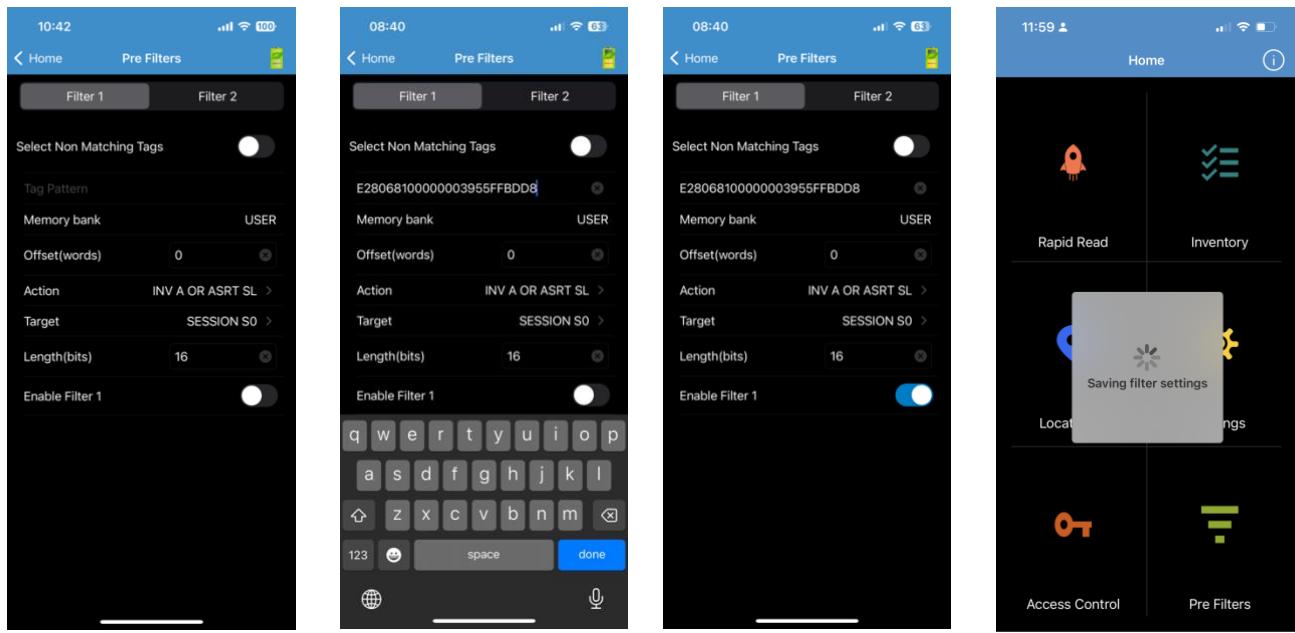
**TAGs:** Inventory shows tags which are not matching with Tag pattern entered.

**Action:**

- INV A NOT INV B or ASRT\_SL\_NOT\_DSRT\_SL
- INV A or ASRT SL
- NOT INV B or NOT DSRT SL
- INV A2BB2A NOT INV A or NEG SL NOT ASRT SL
- INV B NOT INV A or DSRT SL NOT ASRT SL
- INV B or DSRT SL
- NOT INV A or NOT ASRT SL
- NOT INV A2BB2A or NOT NEG SL

**Target:** SESSION S0, SESSION S1, SESSION S2, SESSION S3 & SL FLAG.

**NOTE:** Up to two pre-filters can be enabled.



## 5.5 Tag Access Operation

By clicking Access Control on the Home screen, you can navigate to Access Control page.

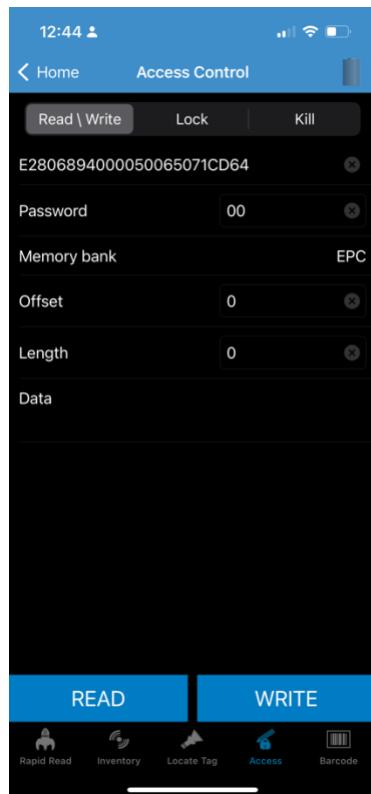
### Read/Write

The Tag Pattern area is automatically filled in when a tag is selected in the Inventory screen. The Read/ Write access operation is simplified with offset and length fields are hidden.

Memory Bank options now have extended menu options to choose directly interested area of memory bank. This avoids typing of offset and length etc.

Read/Write options are:

- Tag ID and Password values are in hex. Tag ID is edited.
- Memory Bank options - EPC, TID, USER, PC and CRC, Access Password, Kill Password.
- Offset and Length values are in 16-bit words. This is only available after tapping the Advanced Options icon. To toggle visibility, tap Advanced Options again.
- Access operation screen maintains edited tag ID.

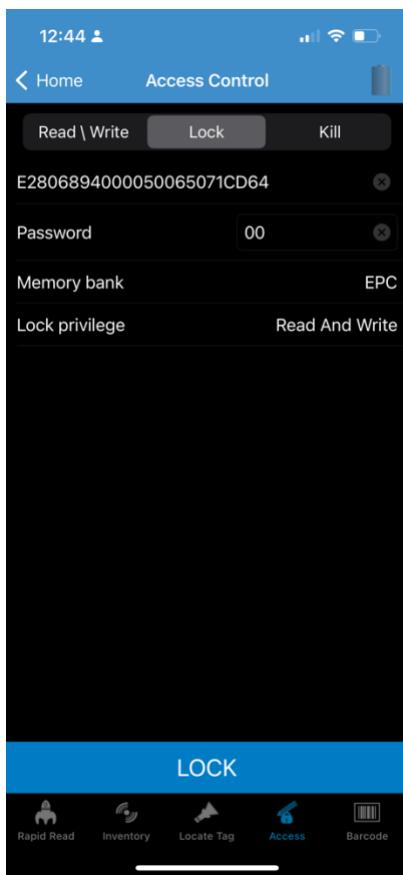


## Lock

### The Tag Pattern

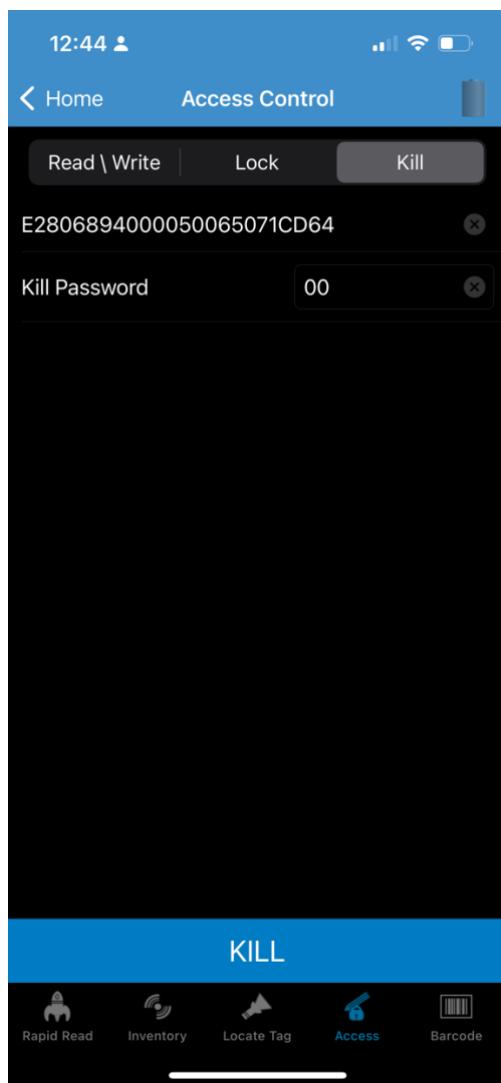
Lock privilege options are as follows:

- Read and Write
- Permanent Lock
- Permanent Unlock
- Unlock



## Kill

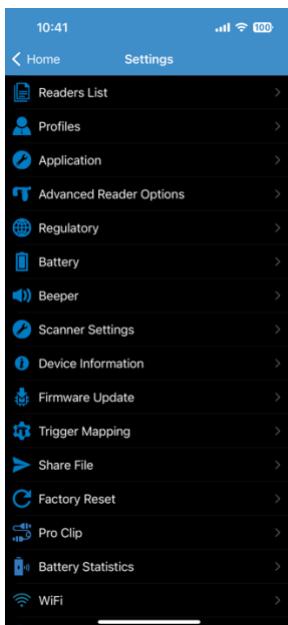
Permanently renders the tag unusable. A kill password must be provided.



## 6. Settings

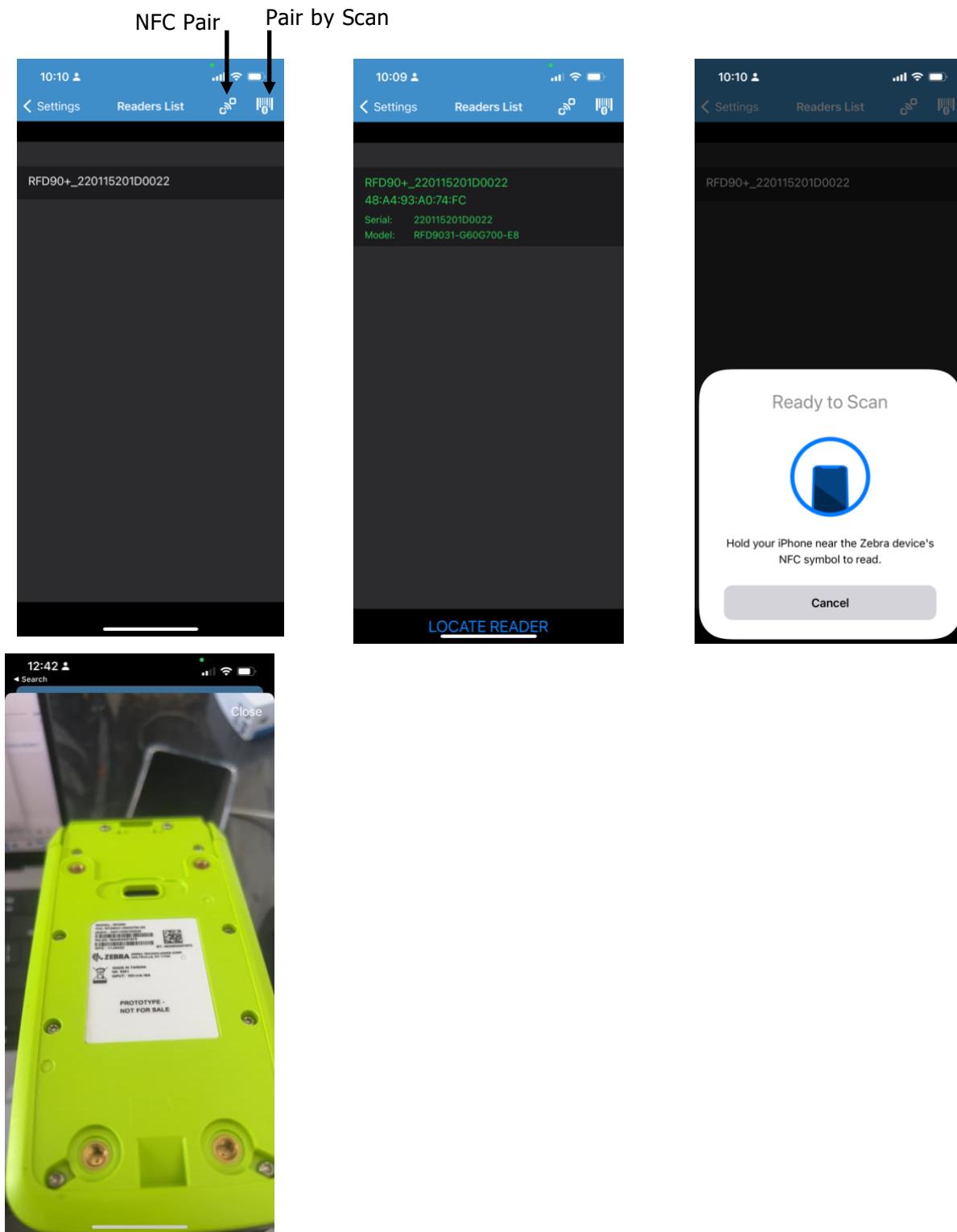
Settings page contains the following options.

- **Reader List:** To display the reader list
- **Application:** To display application settings
- **Profiles:** To display the list of profiles.
- **Advanced Reader Options:** To set advanced reader options (Antenna, Singulation Control, Start/Stop Trigger, Tag Reporting, Save Configuration, Power Management)
- **Regulatory:** To set regulatory options
- **Battery:** To display the battery power level
- **Beeper:** To set beeper options
- **Scanner Settings:** To access Scan Settings
- **Device Information:** View information such as friendly name, serial number, and RFID/scan settings.
- **Firmware Update:** Update the firmware on the reader
- **Trigger Mapping:** Change the mapping for the upper and lower trigger and designate the Upper Trigger for RFID decode and the Lower Trigger for Host Scan or the Upper Trigger for Host Scan and the Lower Trigger for RFID decode.
- **Share File:** Share a file with a paired device
- **Factory Reset:** Reset file settings on the reader to factory defaults.
- **Battery Statistics:** Share a file with a paired device
- **WIFI:** To display WIFI settings
- **Certificates:** To display certificates settings
- **Endpoint Configuration:** To display Endpoint configuration settings



## 7. Reader List

This screen shows available devices to connect

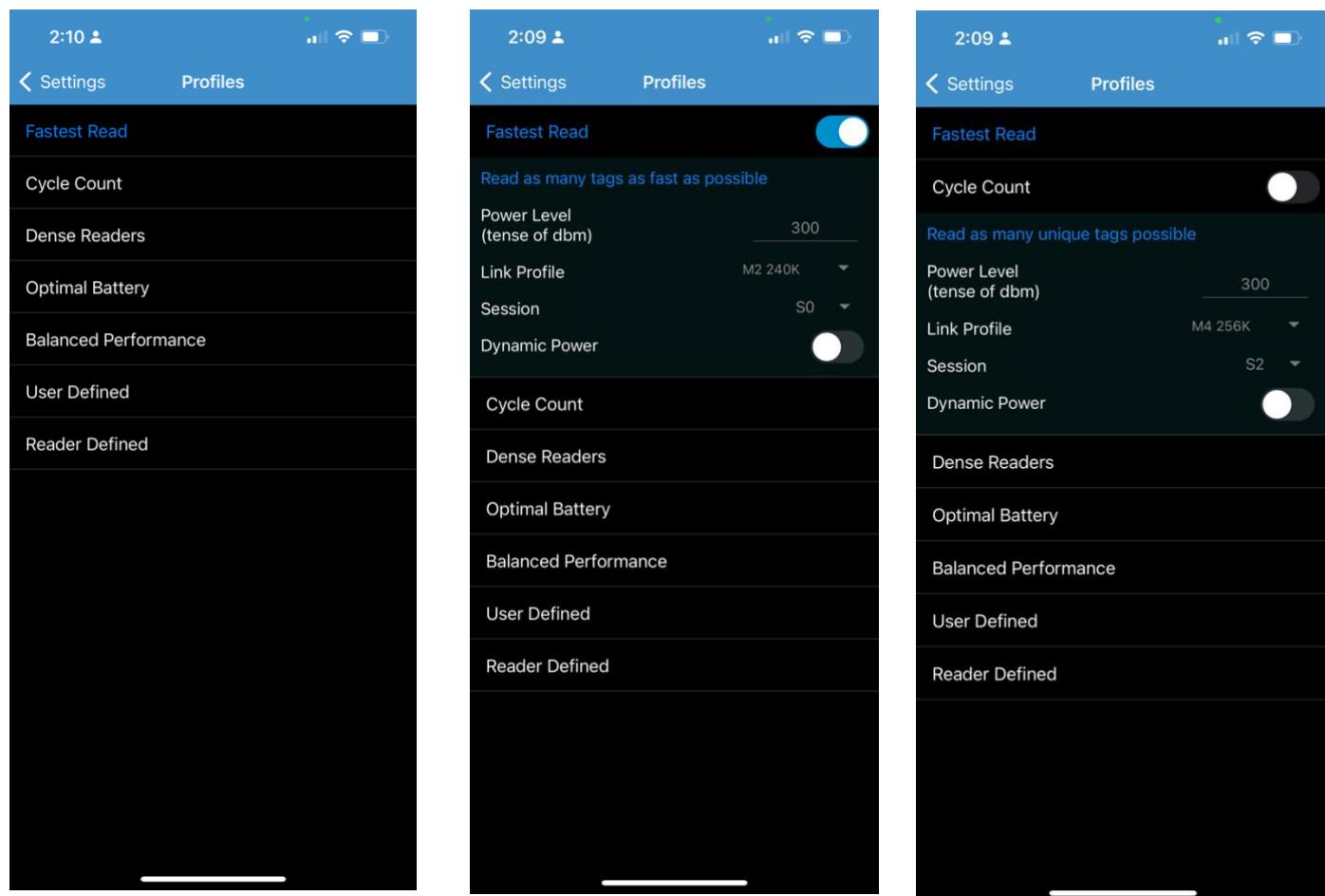


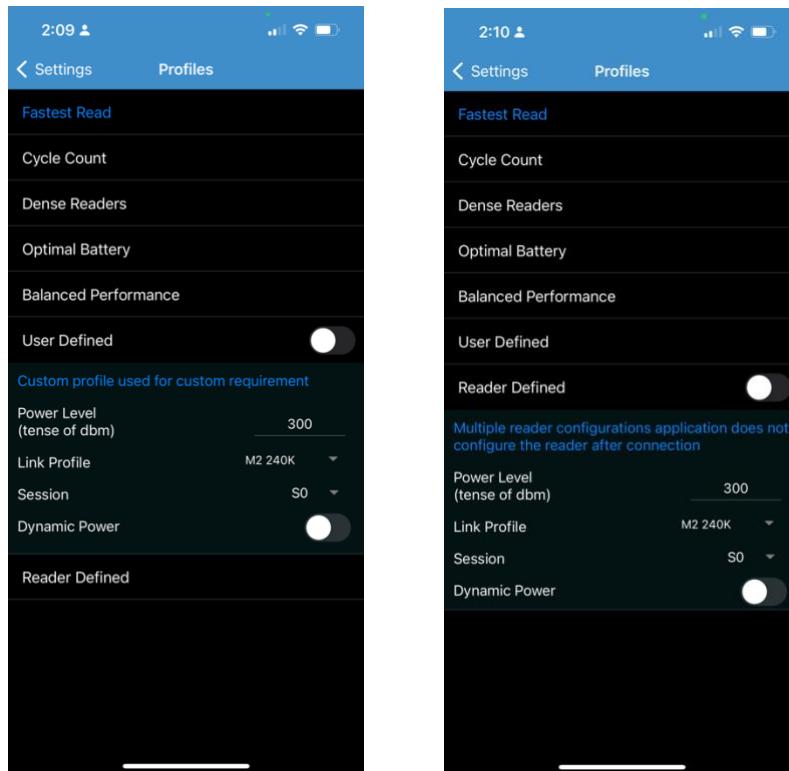
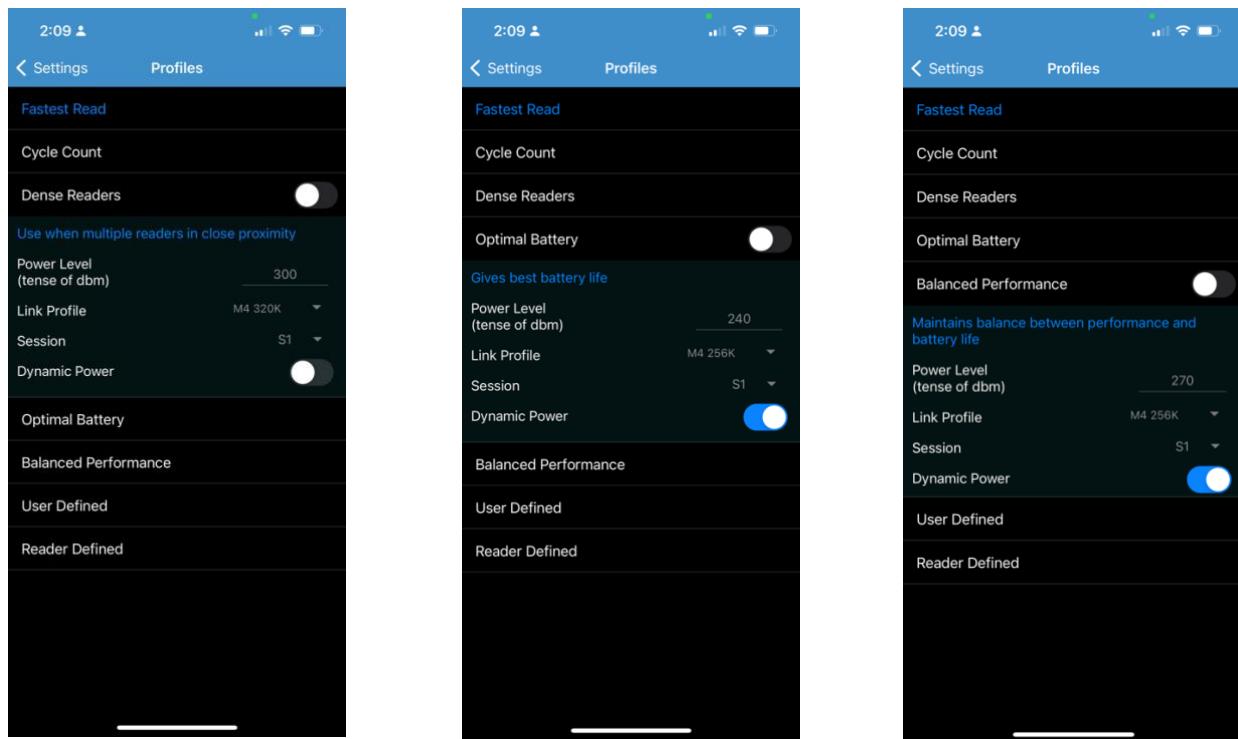
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## 8. Profiles

- The currently selected profile is highlighted in Blue.
- Tap profile item to expand the profile and view applicable configurations.
- Profiles can be selected or disabled by using the slider switch to the right of the profile name.

**NOTE:** If Power Level, Link Profile, Session, or Dynamic Power are modified from each respective screen, then the currently selected profile changes to User Defined profile and profile item values are modified with same values.

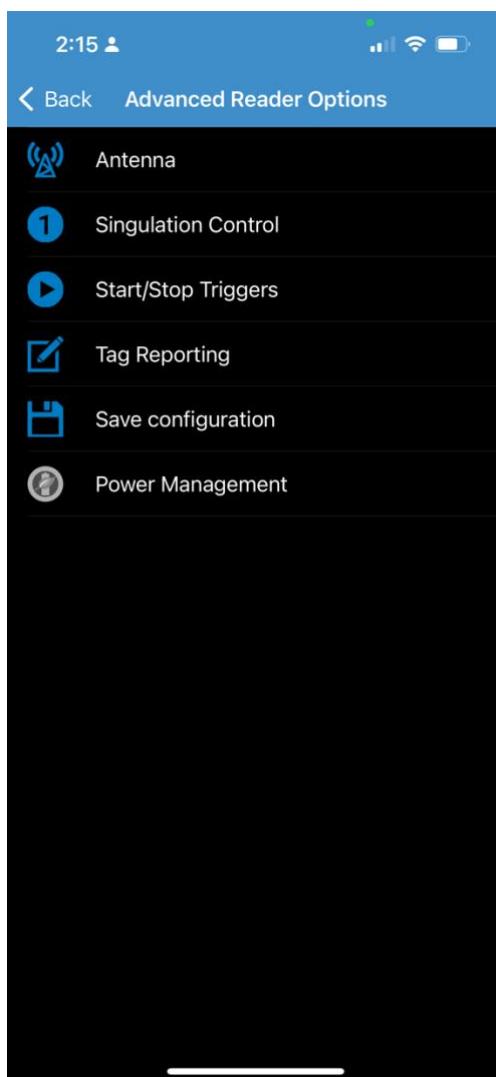




## 9. Advance Reader Options

Advanced Reader Options include:

- Antenna
- Singulation Control
- Start/Stop Triggers
- Tag Reporting
- Save Configuration
- Power Management



## 9.1 Antenna

The Antenna screen displays the following:

- Power Level - Displays the current selection and a text box for available power levels (as reported by the device). The default setting is 27.0 dBm (shown as 270; the value displayed is in units of tens of dBm). Japan units are set to a different default power level depending on the SKU type. The minimum power level when DPO is enabled is 3.1 dBm. When DPO is disabled, the minimum power level is 0 dBm.
- Link Profile - Displays the current selection and includes a drop-down list of available link profiles (reported by the device). Link Profile display format is as follows: Return link bit data rate in bis per second (e.g., 60000 -> 60 Kbs); Miller Value (e.g., MV\_4 -> Miller 4); thus profile name M4 240K (240K becomes BLF) modulation type (PR ASK is the only one supported).
- PIE value has no units and is either 1500 or 2000 minimum.
- Tari applicable Tari value in thousands of microseconds (e.g., 6250 -> 6.25 microseconds).

**NOTE:** By default, the fastest read profile is selected and configures the reader for the maximum power level allowed based on the read profile. However, the dBm can be limited due to the regulatory requirements of the specified region in which the sled is being used.



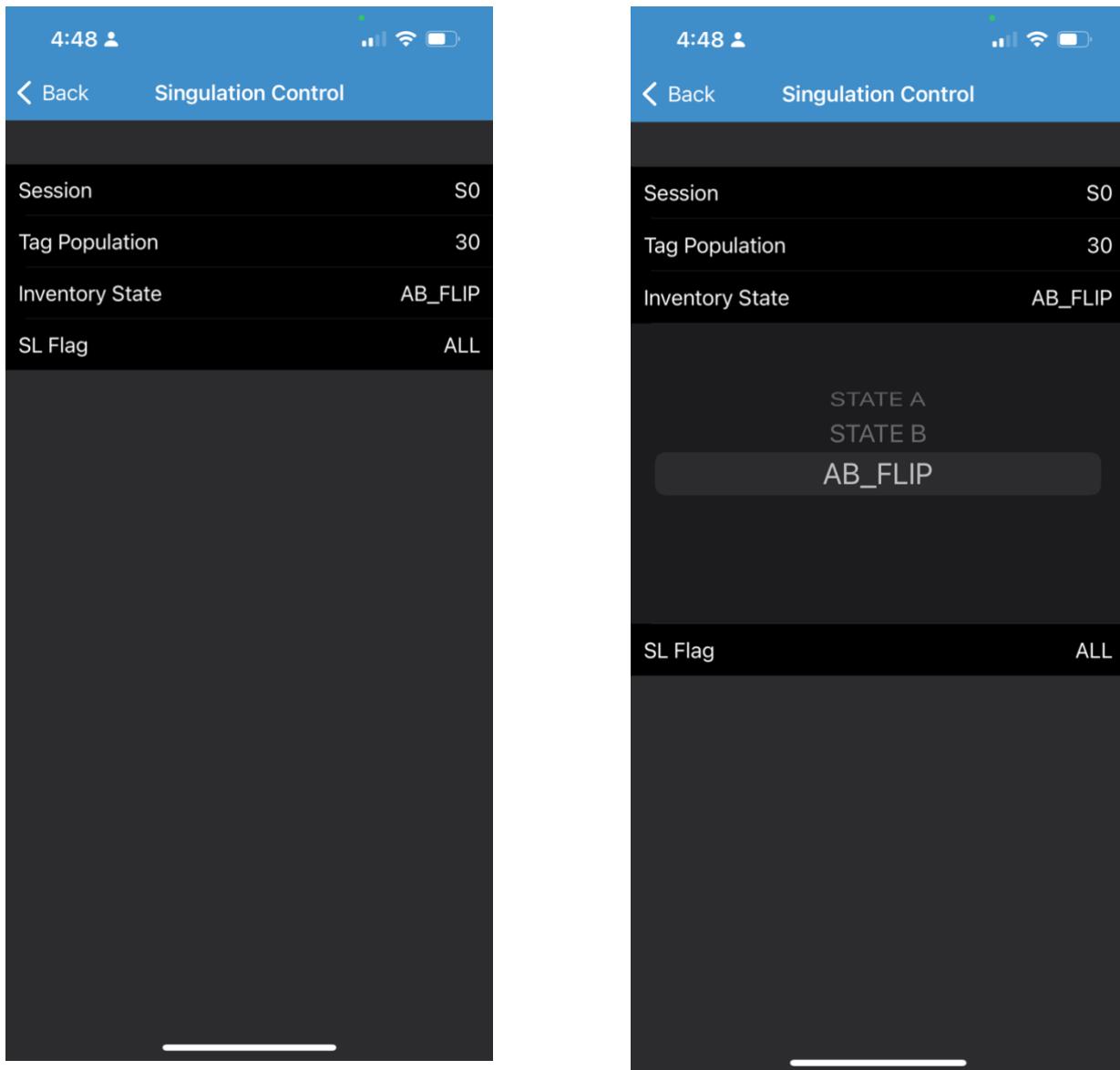
**NOTE:** The Power Level and Link Profile are blank when there is no connection to the reader.

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## 9.2 Singulation Control

View or configure the singulation control settings for each antenna.

- Session - The drop-down list includes the available session options (S0, S1, S2, S3).
- Tag Population - A numeric value of the estimated number of tags in the Field of View (FOV). Values shown are 30, 100, 200, 300, 400, 500, 600.
- Inventory State - State A, State B, AB Flip.
- SL flag - ALL, DEASSERTED, ASSERTED.



## 9.3 Start/Stop Trigger

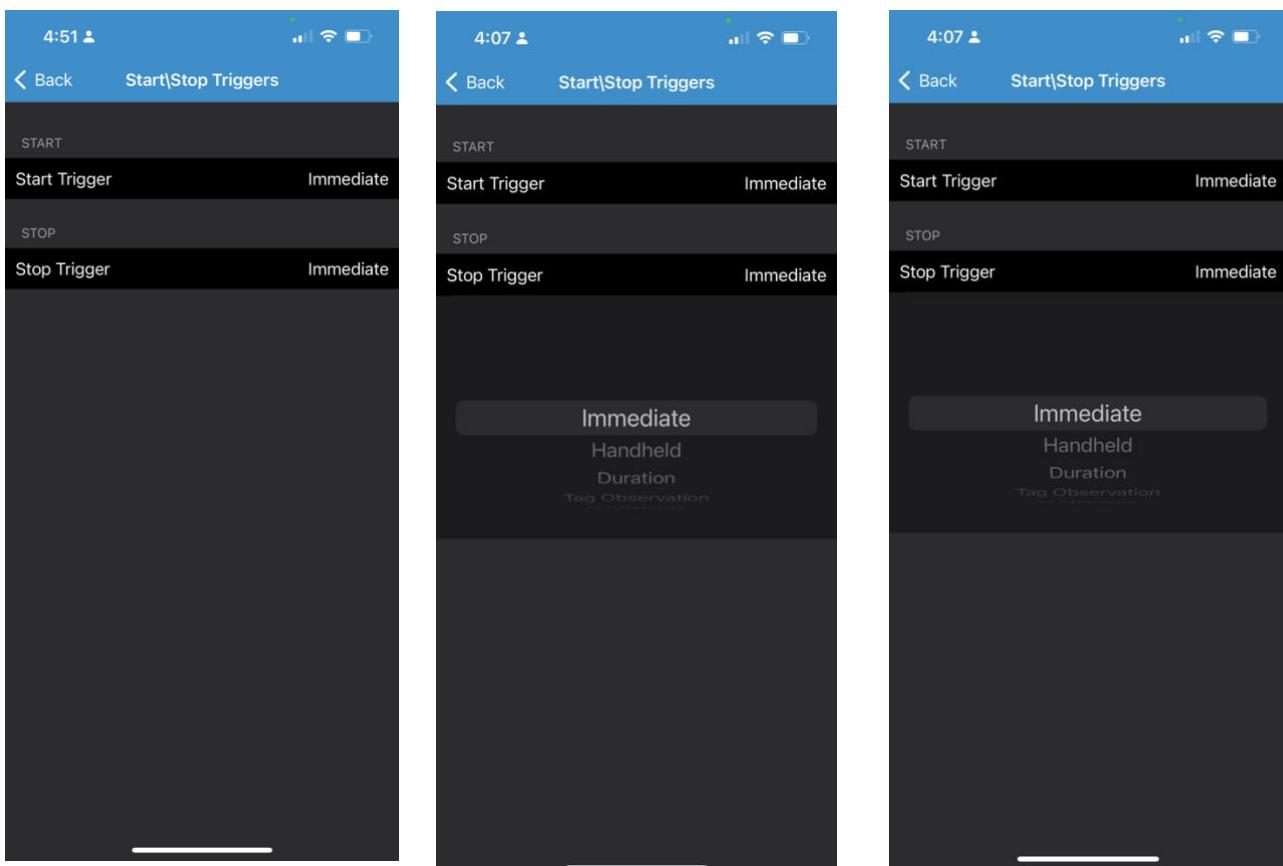
The Start Trigger Periodic displays the Period input box (in milliseconds).

The Stop Trigger Duration, Tag Observation and N attempts display numeric value input boxes.

All time entries are in milliseconds All the required details for saving triggers to the reader must be entered or the application does not save the trigger settings to the reader.

Required input for Start/Stop Trigger settings are as follows:

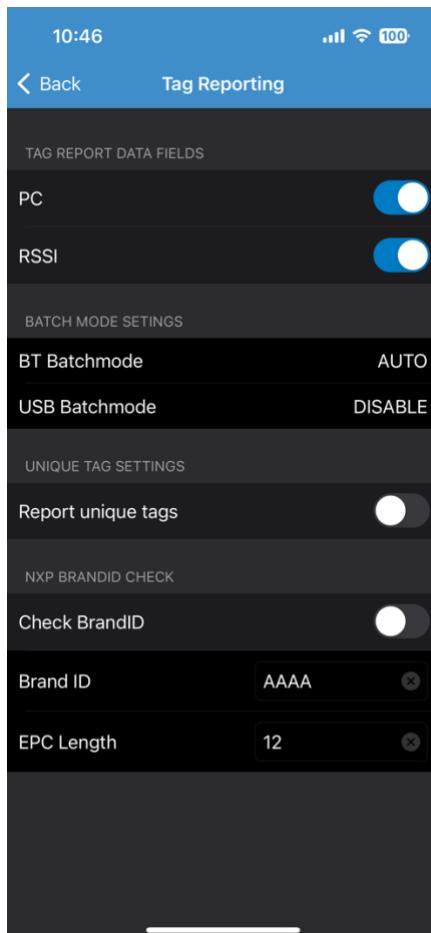
- Start Trigger
  - Immediate(default)
  - Handheld - Select either the Trigger Pressed or Trigger Released check box.
  - Periodic - Enter the period of time in milliseconds.
- Stop Trigger
  - Immediate(default)
  - Hand-held - Select either the Trigger Pressed or Trigger Released check box along with Timeout in milliseconds.
  - Duration - Enter duration in milliseconds.
  - Tag Observation - Enter the tag count along with timeout in milliseconds.
  - N Attempts - Enter the number of attempts along with timeout in milliseconds.



## 9.4 Tag Reporting

Tag Reporting screen options include:

- **Report Unique Tags** - When this option is enabled, the reader reports only unique tag reads. The Unique Tag reporting feature can be enabled when using Tag List Match mode.
- **Check BrandID** - Check box to enable the Brand ID option.
- **Brand ID** - Perform NXP BrandID check (supported only on NXP U-Code 8 and above tags that supports this functionality). Brand ID check can be initiated by enabling BrandID. Reader performs an inventory operation with additional verification on whether or not the tag inventoried matches the BrandID and reports.
- **EPC Length** - The EPC length provided will consider the length of EPC data to be matched for Brand ID tags from offset 0.
- **PC** - Select to allow reporting the PC as part of the Tag Data.
- **RSSI** - Selection indicates whether or not the RSSI (Received Signal Strength Indication) is reported as part of the Tag Data.

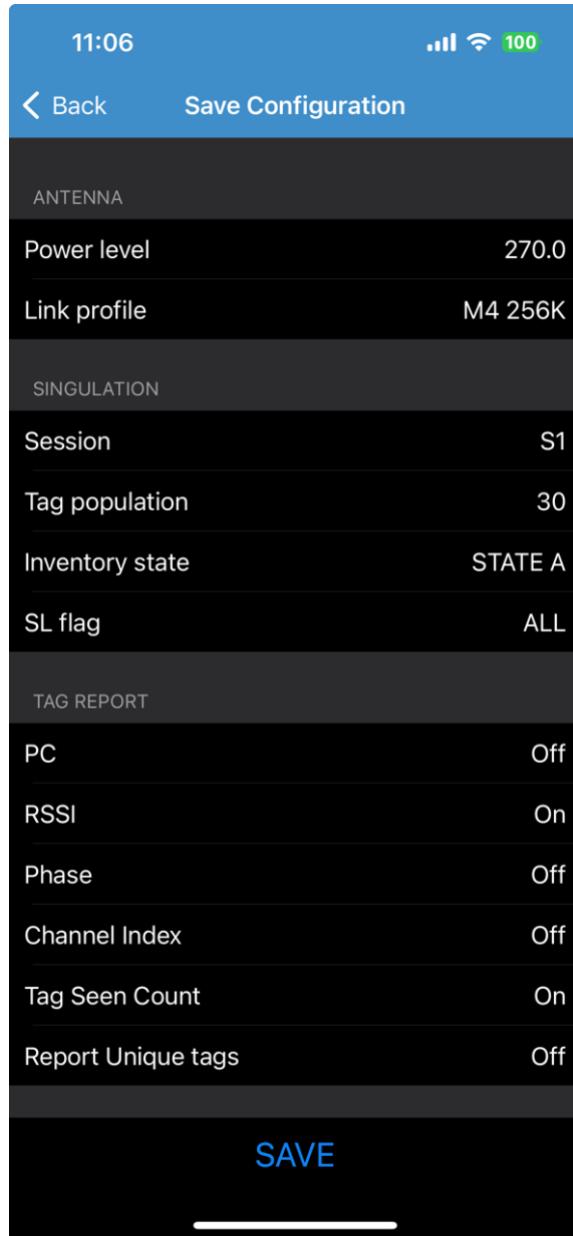


## 9.5 Save Configuration

This screen is used to save the settings and displays the current settings on the device.

The settings are saved on the device until a reset to factory defaults is performed on the unit (see [Settings](#)).

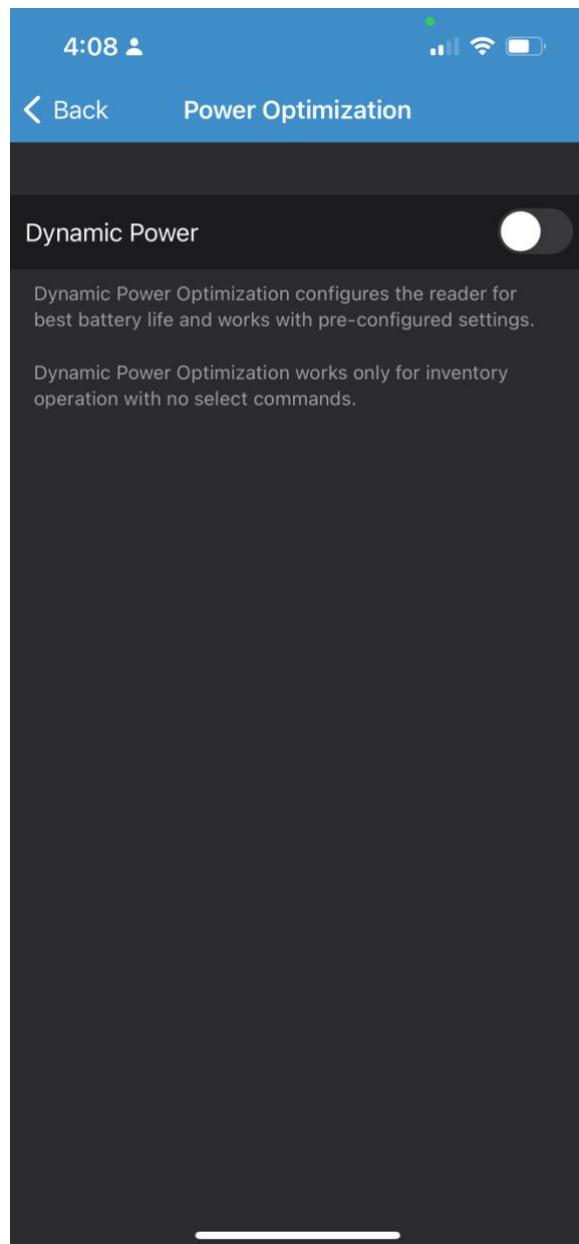
The Tag Pattern form field is automatically populated with tag data when a tag is selected from the [Inventory Screen](#).



## 9.6 Power Management

This screen provides an option to enable Dynamic Power Optimization (DPO) in the reader. Enabling DPO enhances battery life during inventory operations.

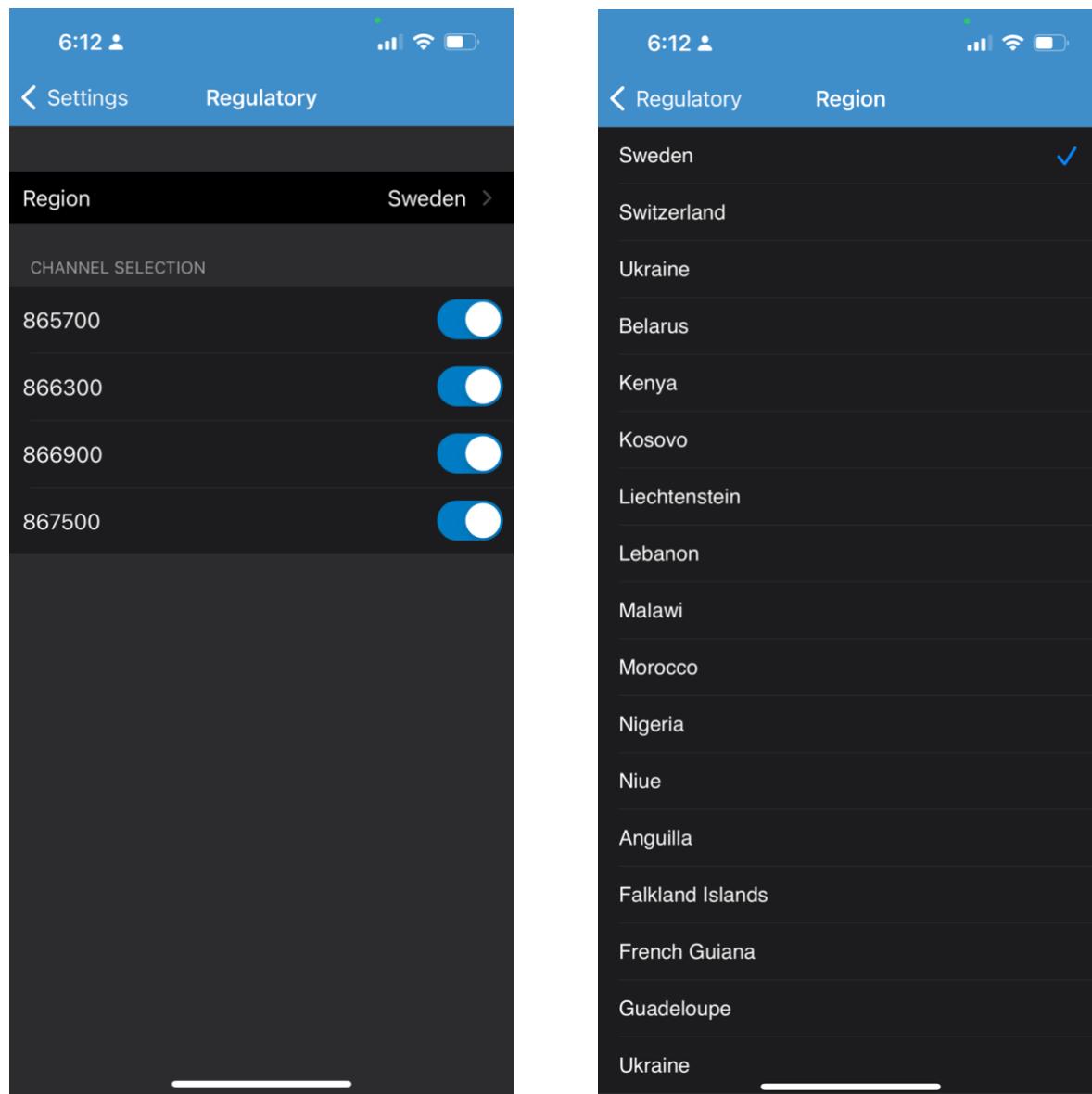
If Dynamic Power is On, a green battery icon appears in the title bar of the application. Tapping on this opens the Battery Status screen.



## 10. Regulatory

To set regulatory options, from the bottom navigation bar, tap **Settings > Regulatory**.

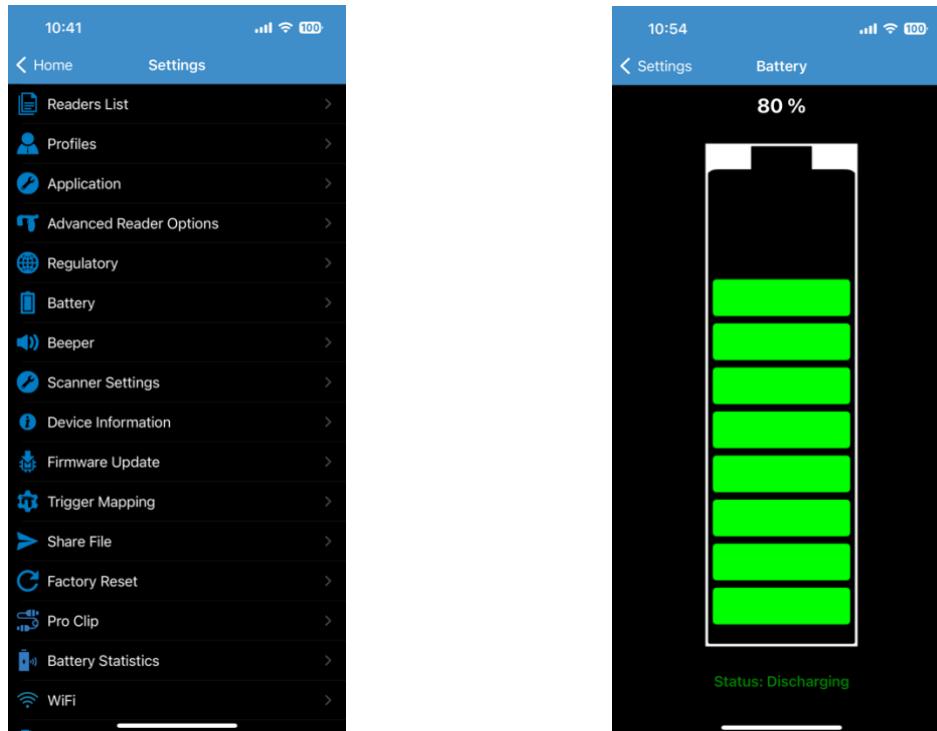
**WARNING:** Select only the country in which you are using the reader. Then select the region from the drop-down list.



# 11. Battery Status

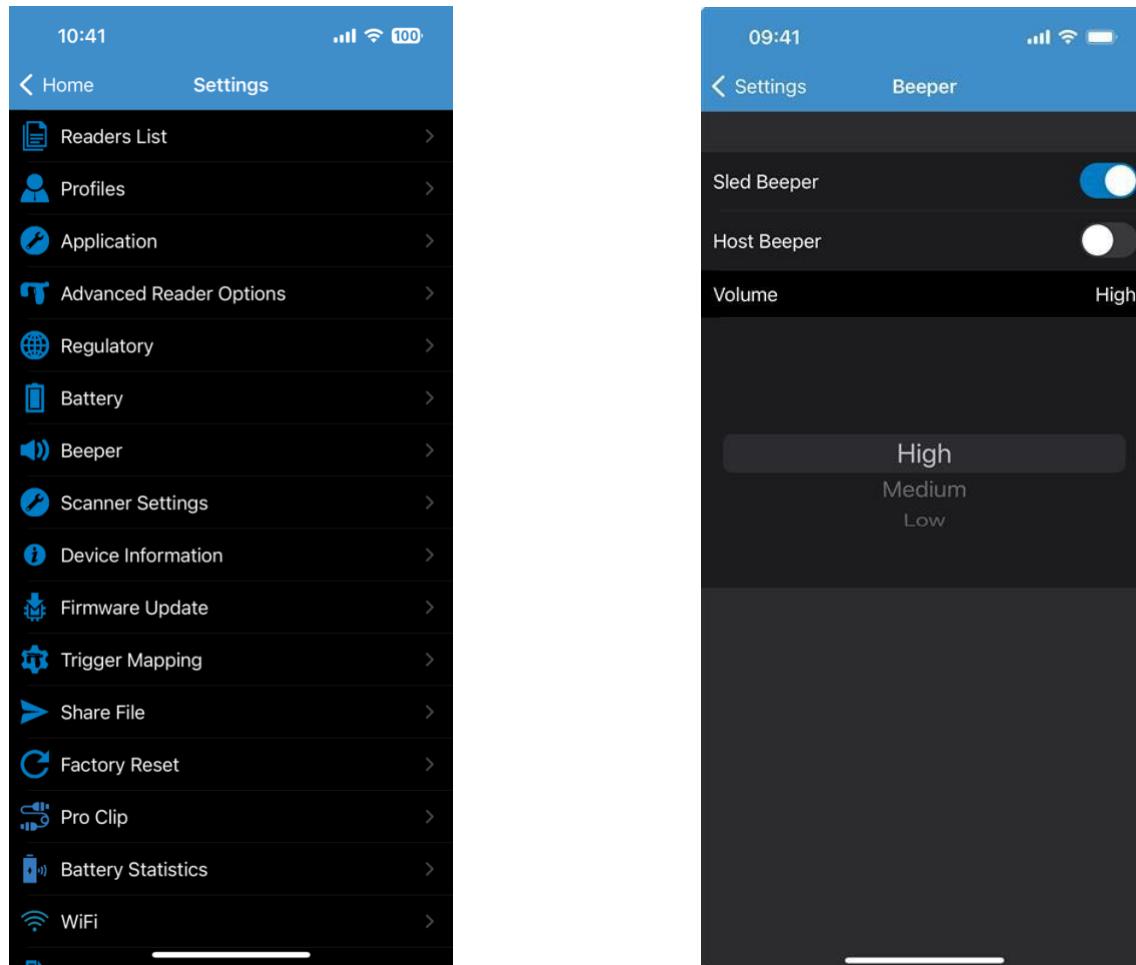
## 11.1 Knowing Battery Status

A particular active RFID reader could send an asynchronous notification regarding battery status. The SDK will inform the application about received asynchronous battery status event if the application has subscribed for events of this type. The SDK also provides an ability to cause a particular active RFID reader to immediately send information about current battery status. The following example demonstrates both requesting and processing of asynchronous battery status related notifications.



## 12. Beeper Settings

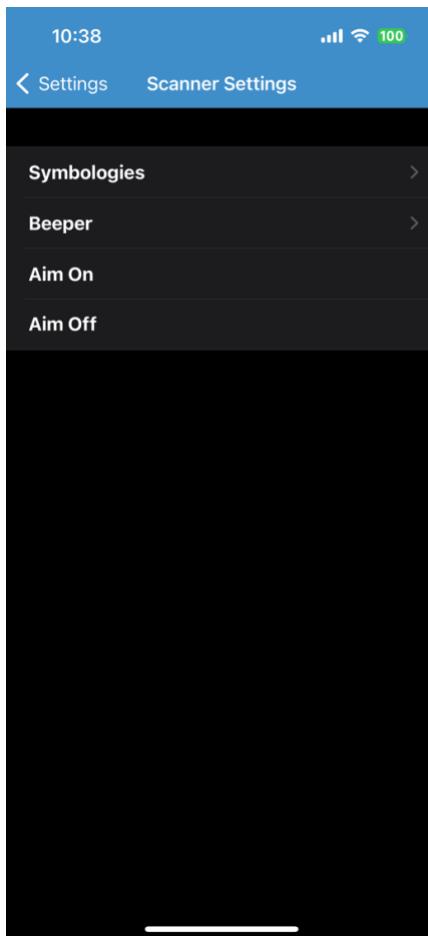
The SDK provides an ability to configure a beeper of a particular active RFID reader. The beeper could be configured to one of predefined volumes (low, medium, high) or be disabled.



## 13. Scanner Settings

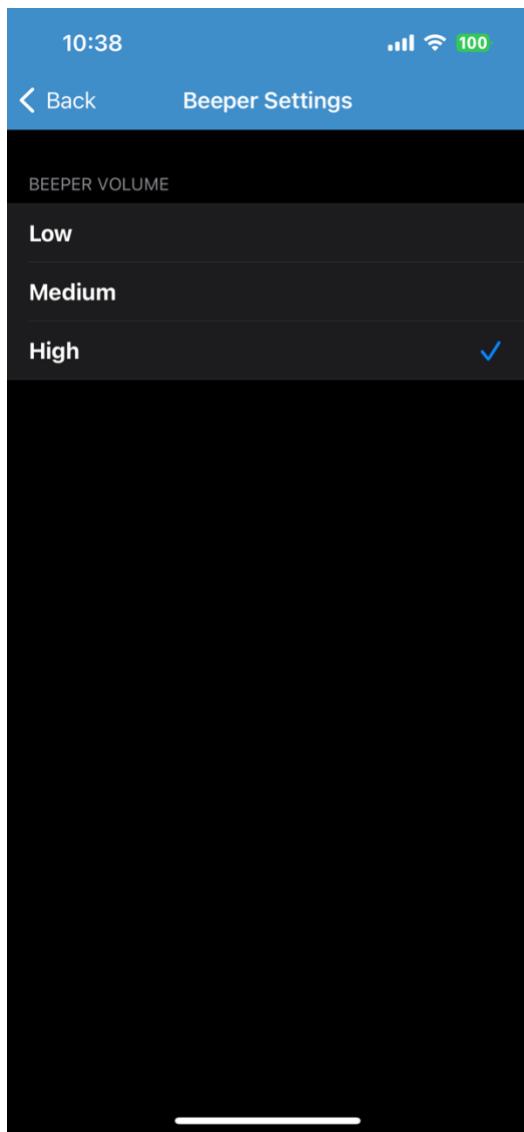
Scan Settings options include:

- **Beeper:** this allows you to change the beeper volume. Provides the option to change the scanner beeper volume to high, medium, or low.
- **Symbologies** - Allows user to select/enable specific barcode types. Supported symbologies include: UPC-A, UPC-E, UPC-E1, EAN-8/JAN8, EAN-13/JAN13, Bookland EAN, Code 128, GS1-128, Code 39, Code 93, Code 11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, Code 32, Data Matrix, PDF417, ISBN, UCC Coupon Extended Code, ISSN EAN, ISBT 128, Trioptic Code 39, Matrix 2 of 5, GS1 DataBar-14, GS1 DataBar Limited, GS1 DataBar Expanded, MicroPDF417, Maxicode, QR Code, Aztec, Han Xin Code, Australian Post, US PLANET, Netherlands KIX, UK Postal, Japan Post, MicroQR, Composite C, Composite AB, TLC39, Dotcode.  
Note: This feature is not supported by the 'RFD40 Standard' devices.
- **Aim On/Off** - Provides an aimer light that can be switched on or off.  
Note: This feature is not supported by the 'RFD40 Standard' devices.



## 13.1 Beeper

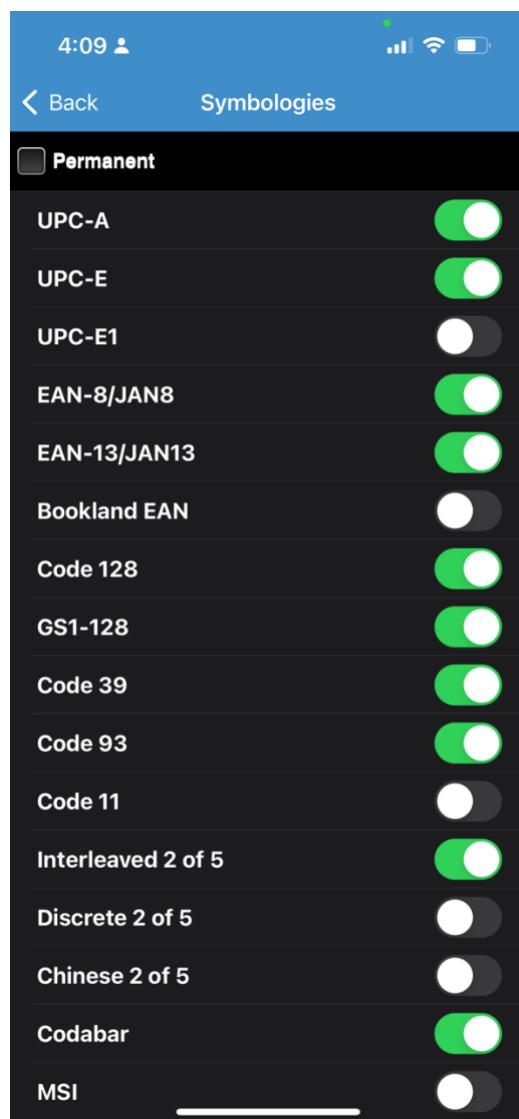
This allows you to change the beeper volume. Provides the option to change the scanner beeper volume to high, medium, or low.



## 13.2 Symbologies

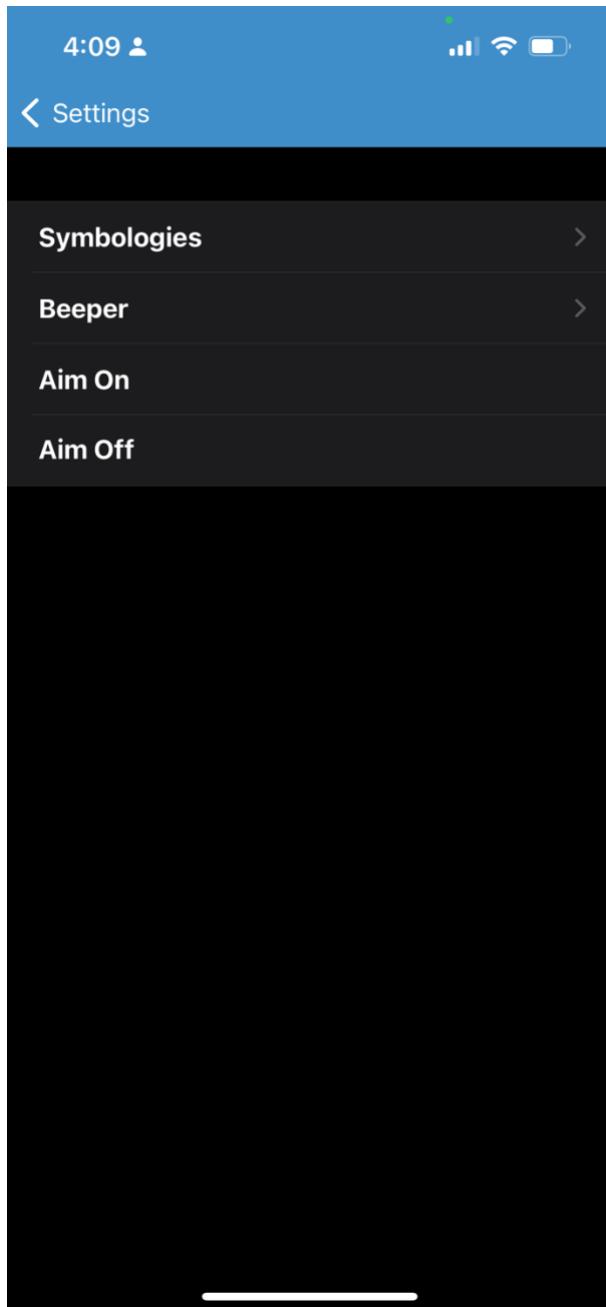
This allows users to select/enable specific barcode types.

Note: This feature is not supported by the 'RFD40 Standard' devices.



### 13.3 Aim ON/Off

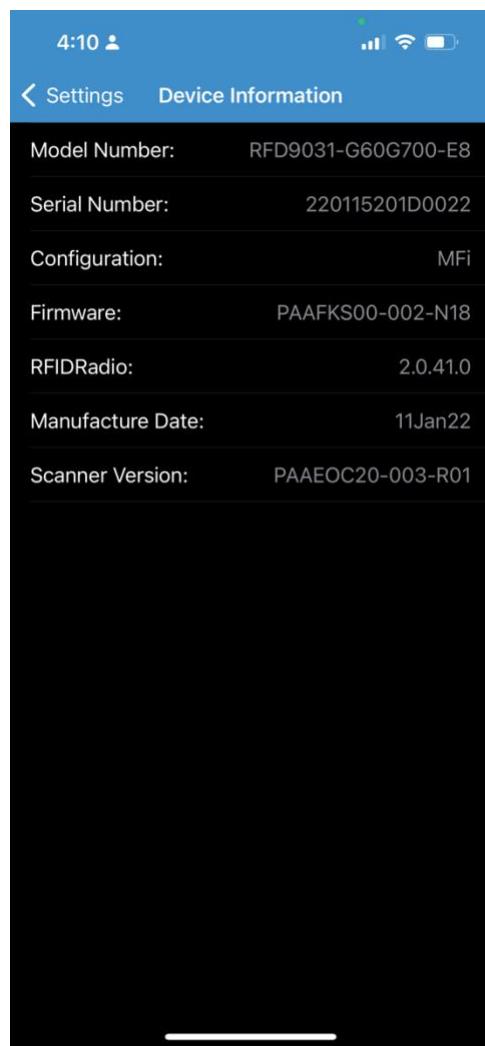
Provides an aimer light that can be switched on or off.



## 14. Device Information

Device Info displays the following:

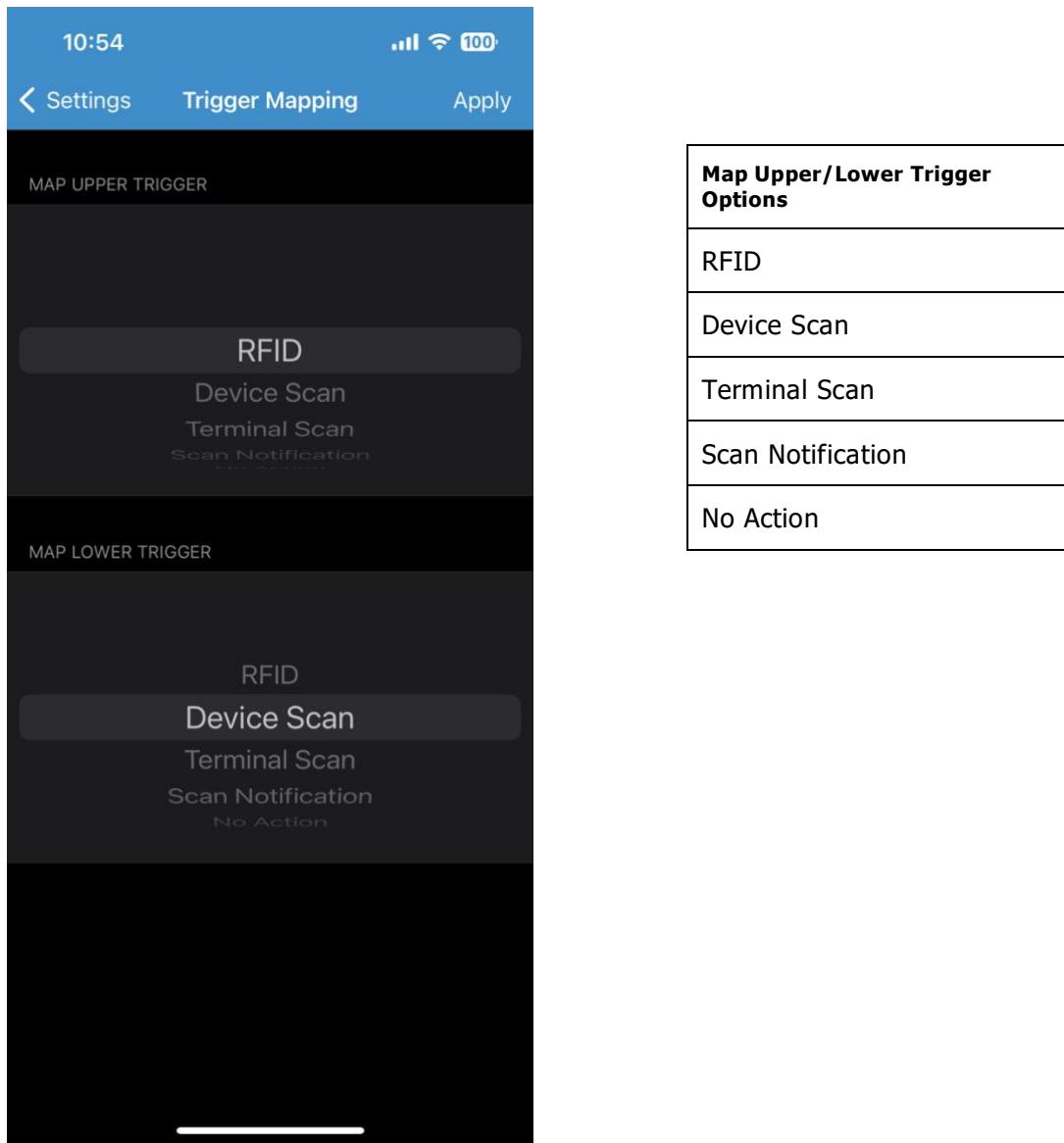
- Model Number
- Serial Number
- Configuration
- Firmware
- RFID Radio
- Manufacture Date
- Scanner Version



## 15. Trigger Mapping

Change the mapping for the upper and lower trigger.

- **Upper trigger:** Use the upper trigger for RFID and Scanning operations
- **Lower trigger:** Use a lower trigger for RFID and Scanning operations



# 16. Firmware Update

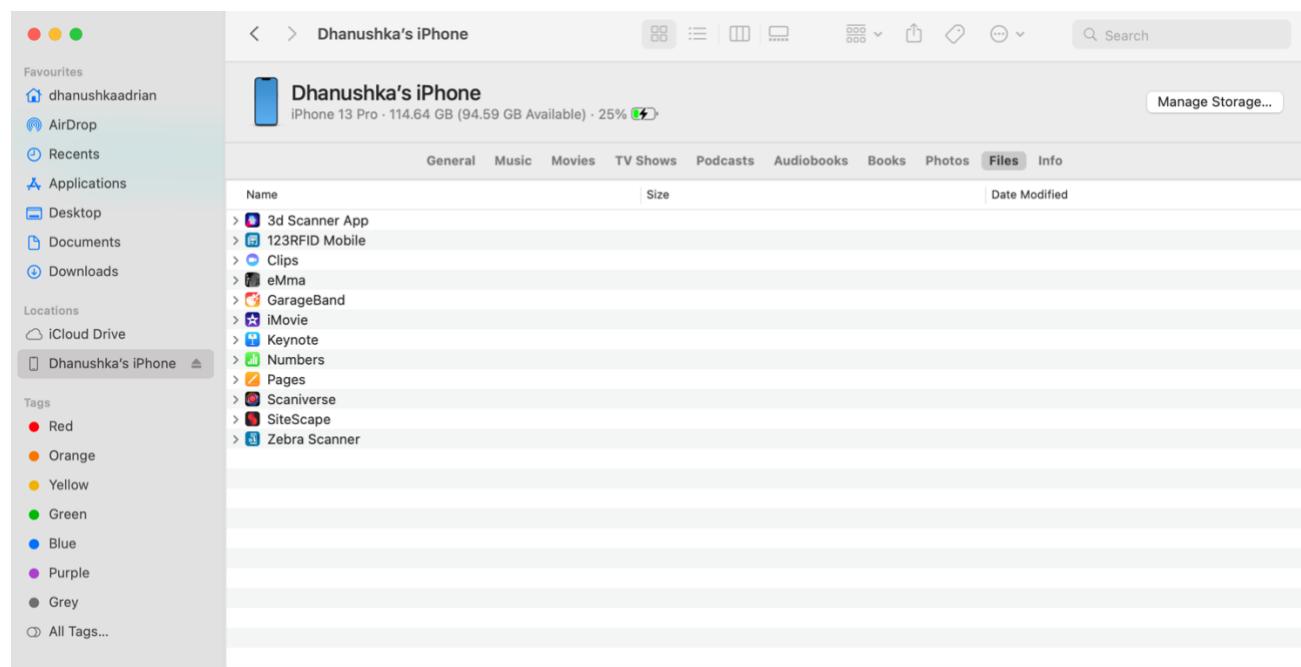
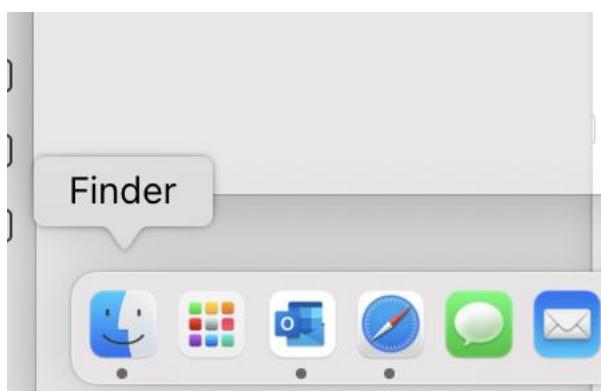
## 16.1 Overview

To do a firmware update in the 123RFID mobile app, you needed a firmware file in ".dat" format.

## 16.2 Firmware Update Steps

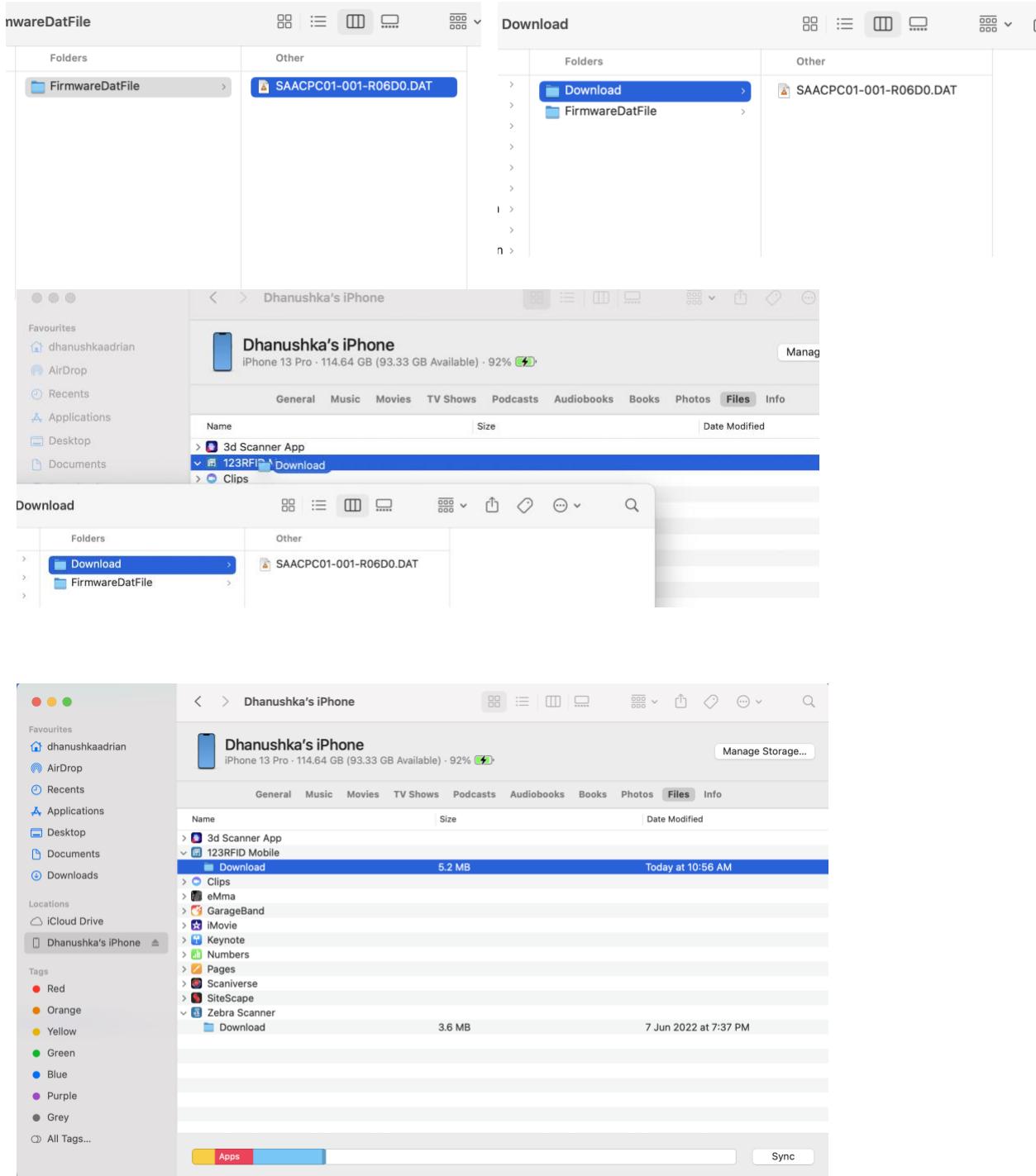
### Step 1

Open Finder on Mac and click the "Files" tab.



## Step 2

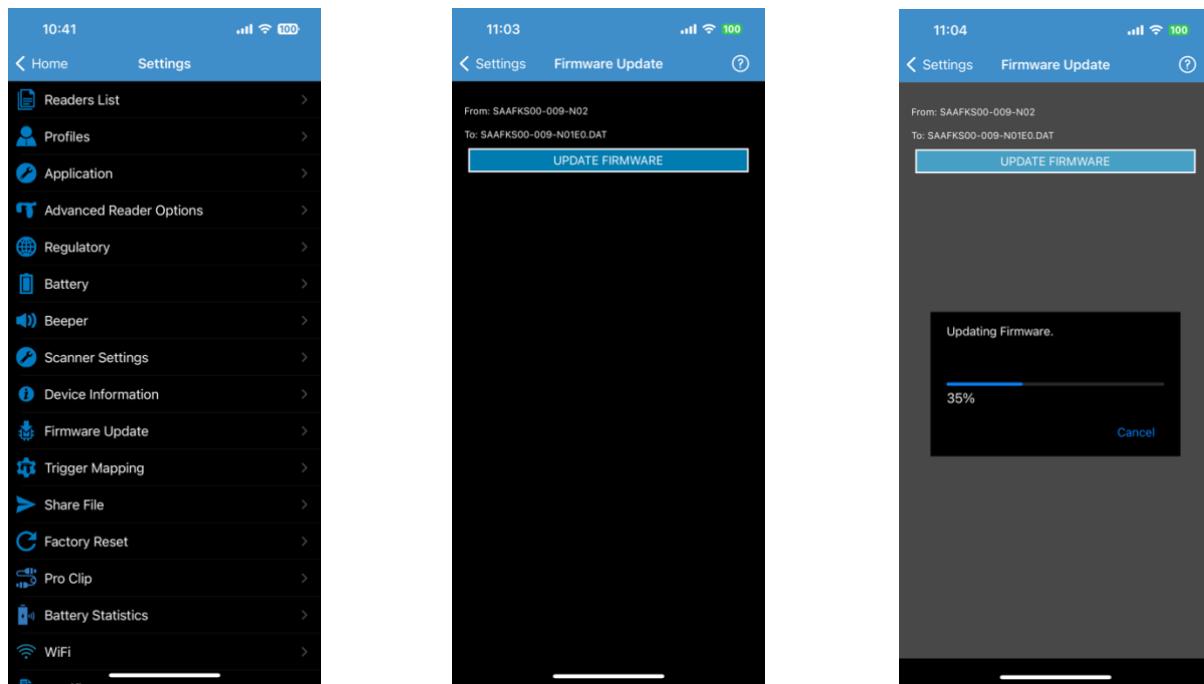
Create the “Download” folder on Mac and add the firmware file into the “Download” folder. Then drag and drop the “Download” folder into the “123 RFID Mobile” app in the finder.



### Step 3

Navigate to Firmware Update screen in “123 RFID Mobile” app and click “Update Firmware” button.

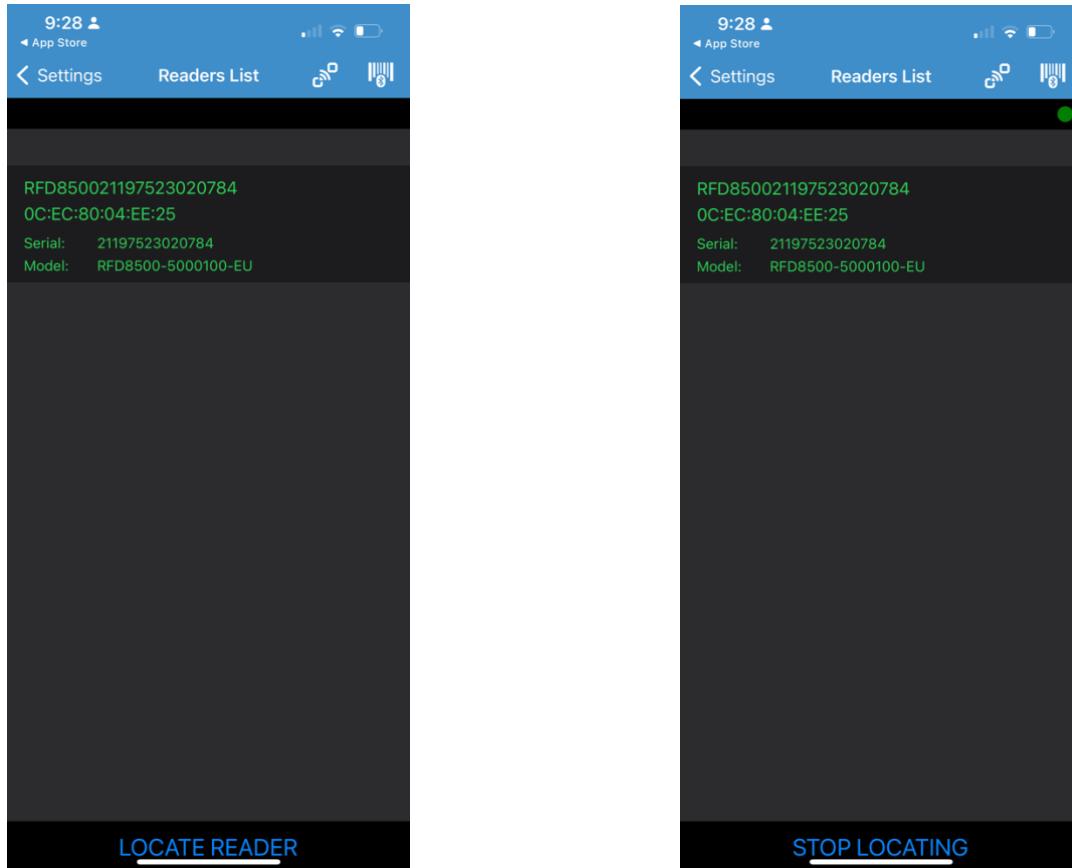
#### 123RFID Mobile APP:



## 17. Locate Reader

To find the reader, go to the reader list page and connect the reader and press the “Locate Reader” button. You can hear a beep sound from the reader.

**Note:** Make sure your reader is enabled for the beep.



## 18. Batch Mode

When the RFID reader is configured to operate in batch mode, it is capable of reading RFID tag data without being connected to a host device.

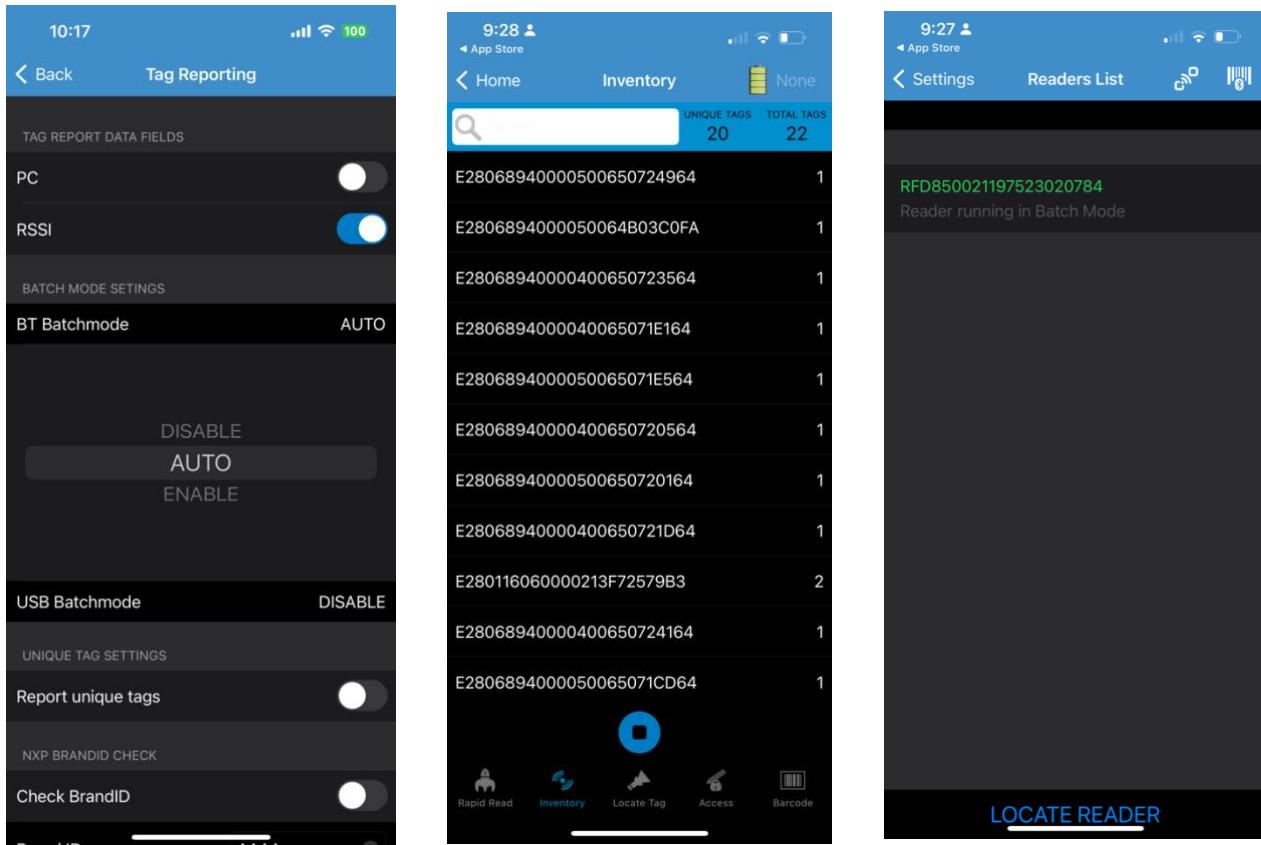
There are two types of batch mode:

1. Bluetooth Batch Mode
2. USB Batch Mode (The RFID reader should connect to the iOS device through a pro-clip adapter.)

MODE	Description
BATCH_MODE.DISABLE	Tags are reported in real time as they are inventoried. No data is preserved if the application disconnects.
BATCH_MODE.ENABLE	Tags are stored in an internal database maintained in the reader and are not returned to host in real time. While in batch mode, the reader will continue to perform inventory even if the reader is disconnected from the host.
BATCH_MODE.AUTO	Tags are reported in real time while the application that initiated performing inventory is still connected. If the reader is disconnected, the tag data is stored in an internal database maintained in the reader. To retrieve the stored tags, inventory must be stopped, and the reader will get the stored tag Data.

**Note:** To test batch mode, you can quit the “123 Rfid mobile iOS” app, when starting an inventory (Don’t press stop).

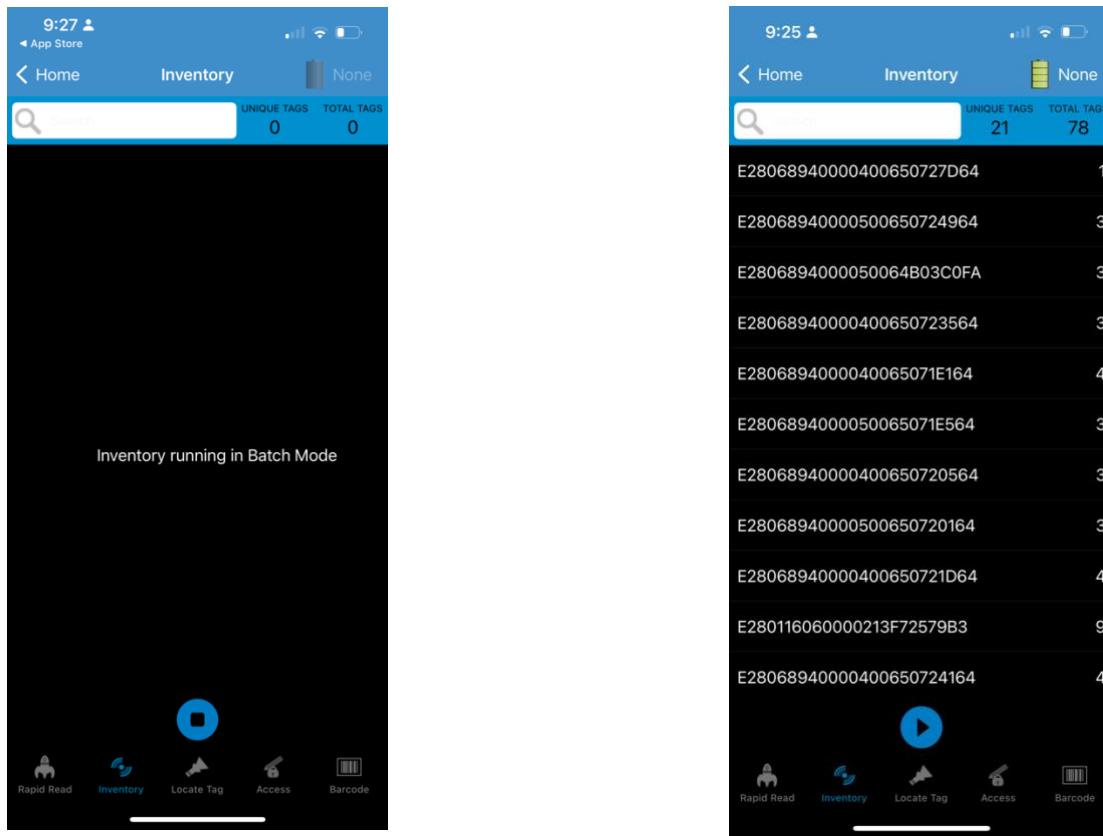
## 18.1 Batch Mode Auto



1. Set Batch Mode to Auto

2. Start Inventory and quit the App

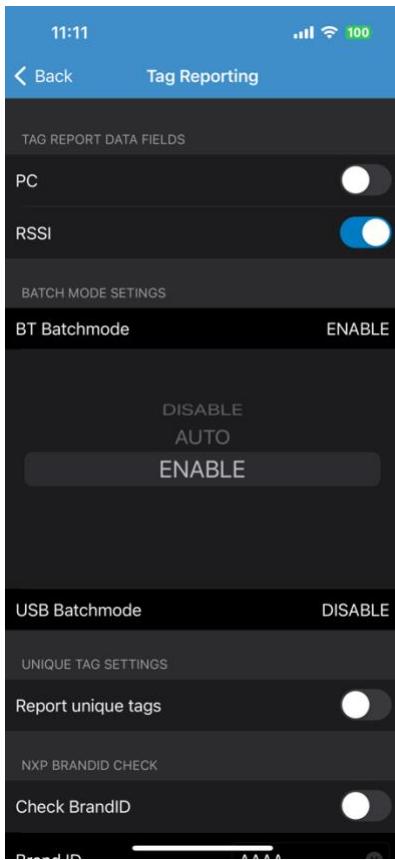
3. Connecting reader (After Bluetooth out of range)



4.Go to inventory page and press stop

5.After press stop, app will show tags which are read in Bluetooth out of range

## 18.2 Batch Mode Enable



1. Set batch mode enable

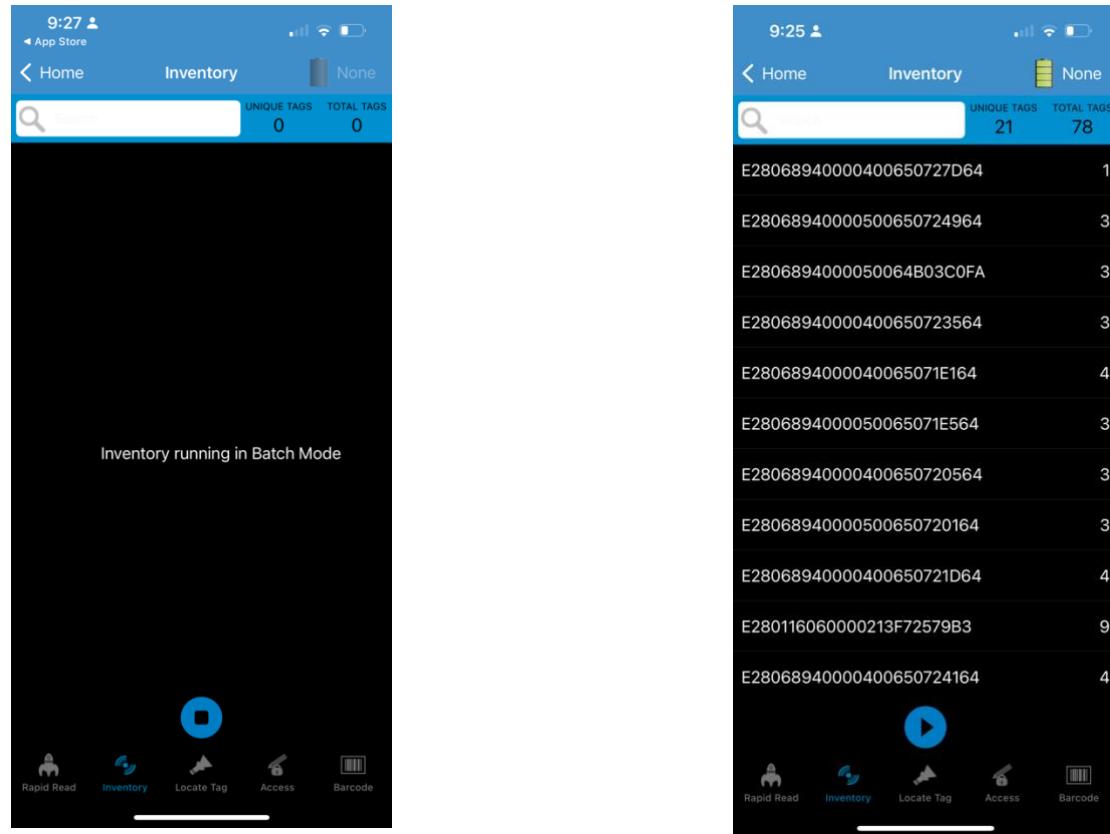


2. Start inventory and quit the app



3. After connecting reader  
(After Bluetooth out of range)

**Note:** The same steps need to be followed in USB Batch Mode.

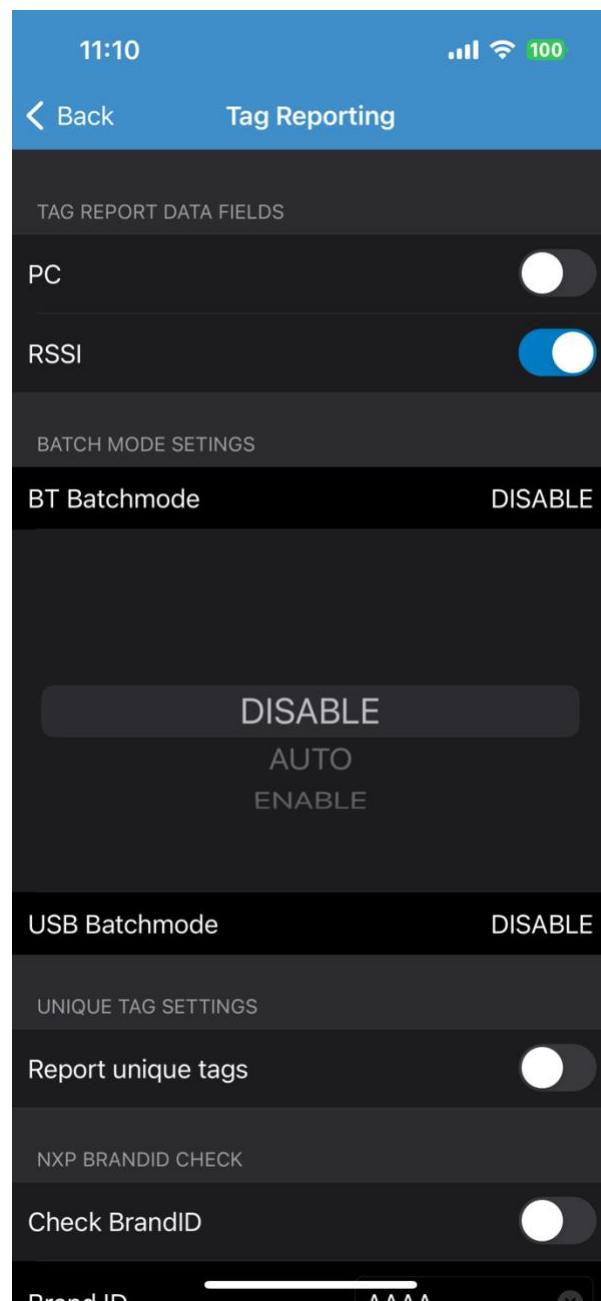


4. Press Stop

5. After press stop, app will show tags which are read in Bluetooth out of range

## 18.3 Batch Mode Disable

Tags are reported in real time as they are inventoried. No data is preserved if the application disconnects.

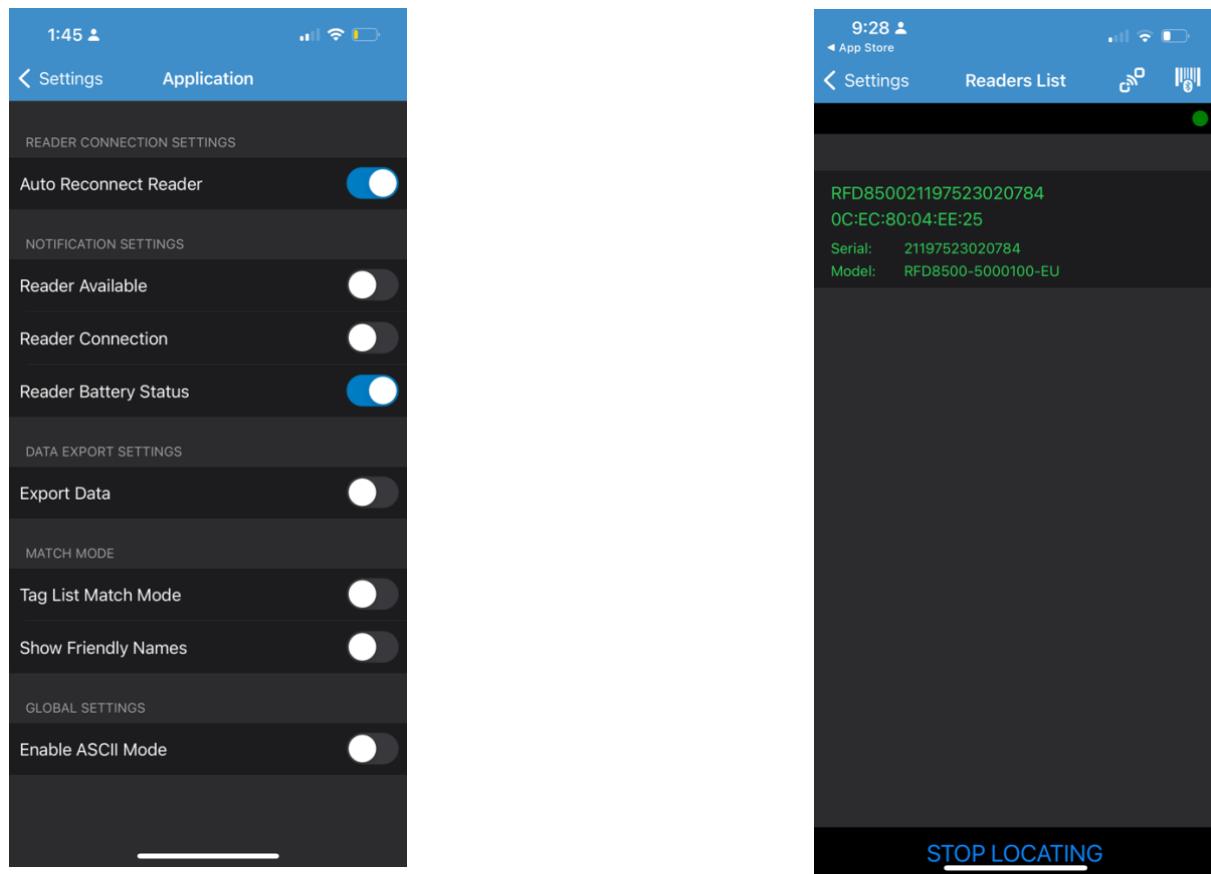


**Note:** The same steps need to be followed in USB Batch Mode.

## 19. Auto Reconnect

If the option is enabled the SDK will automatically establish a communication session with the last active RFID reader that had unexpectedly disappeared once the RFID reader will be recognized as available.

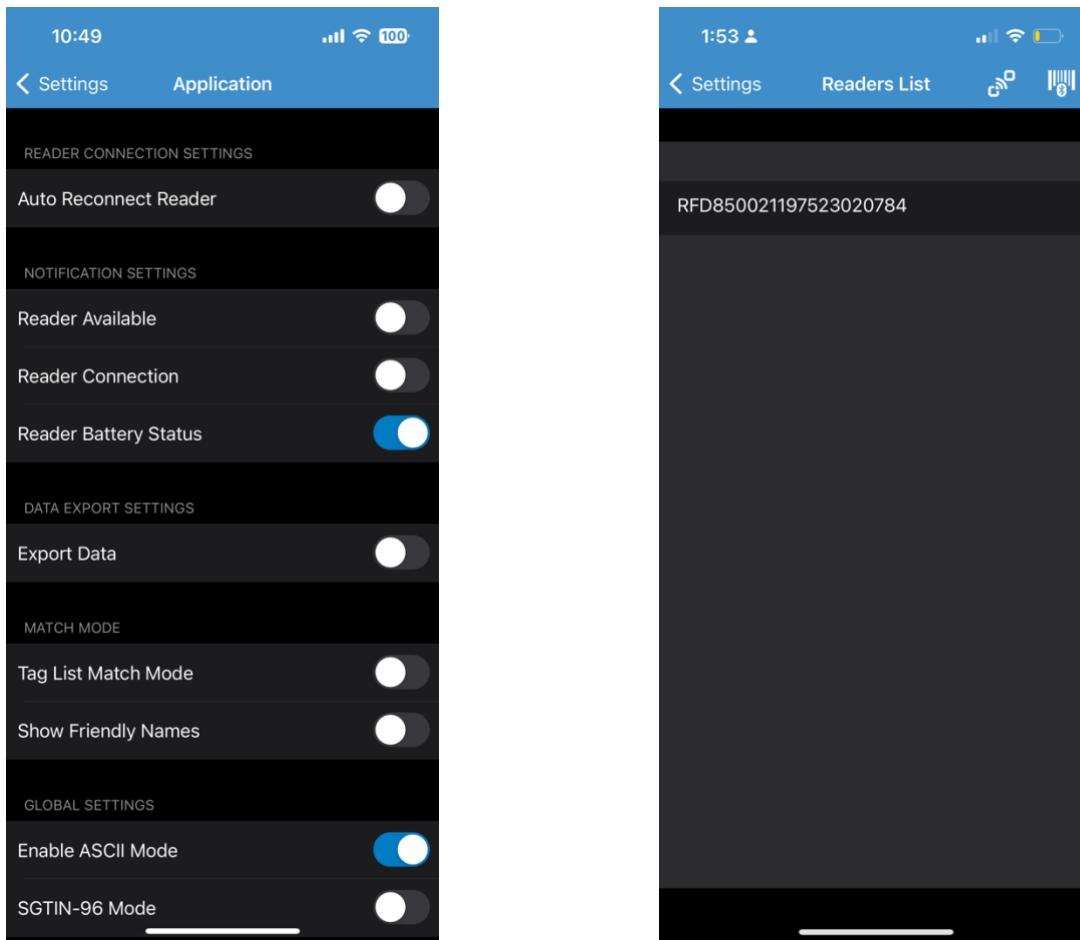
### 19.1 Auto Reconnect Enable



Unique Tag = Total Tag

2. Quit the app and go to the reader list, the reader automatically connects

## 19.2 Auto Reconnect Disable



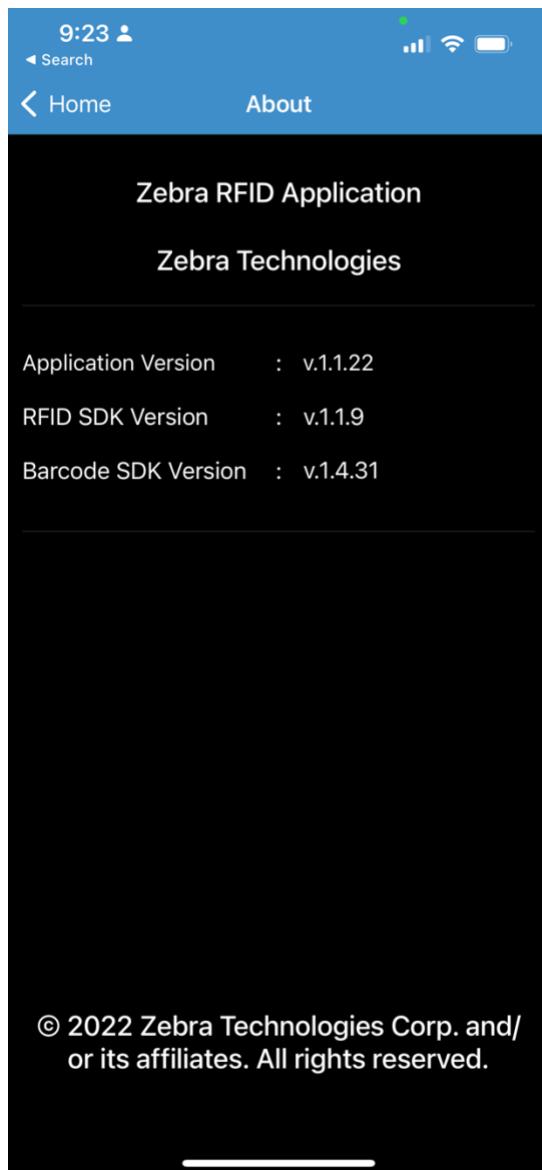
1. Disable the Auto Reconnect Reader

2. Quit the app and go to the reader list, now you must connect reader manually

## 20. About

This screen will display

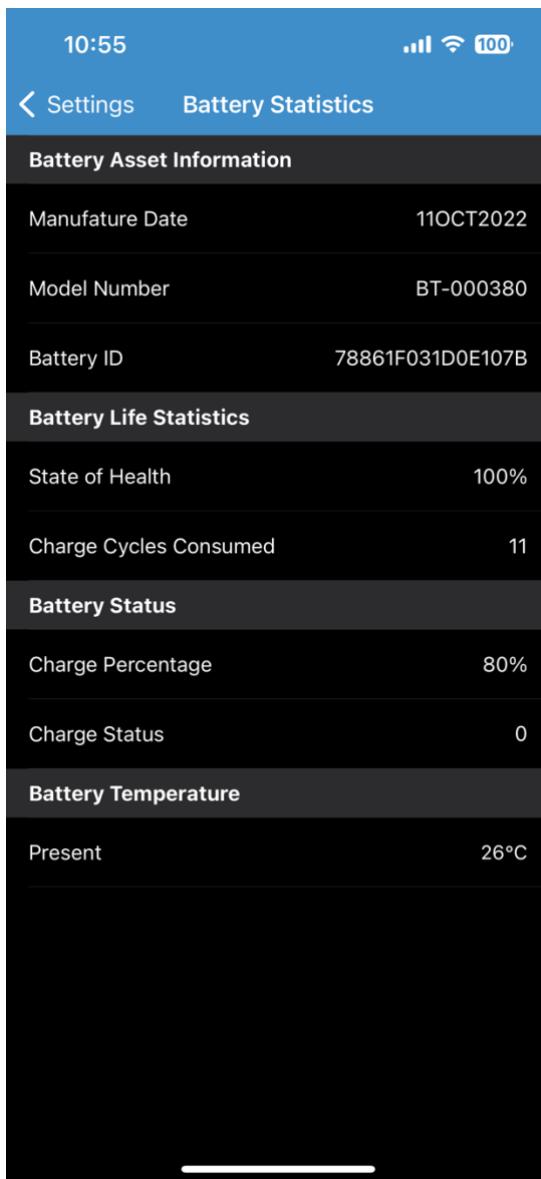
- Application Version
- RFID SDK Version
- Barcode SDK Version



## 21. PP+ Battery Support

This screen will display Battery details. Go to the “Setting” and press the “Get Battery Status” item, then the following screen will appear.

Note: This feature is not supported for RFD 8500.

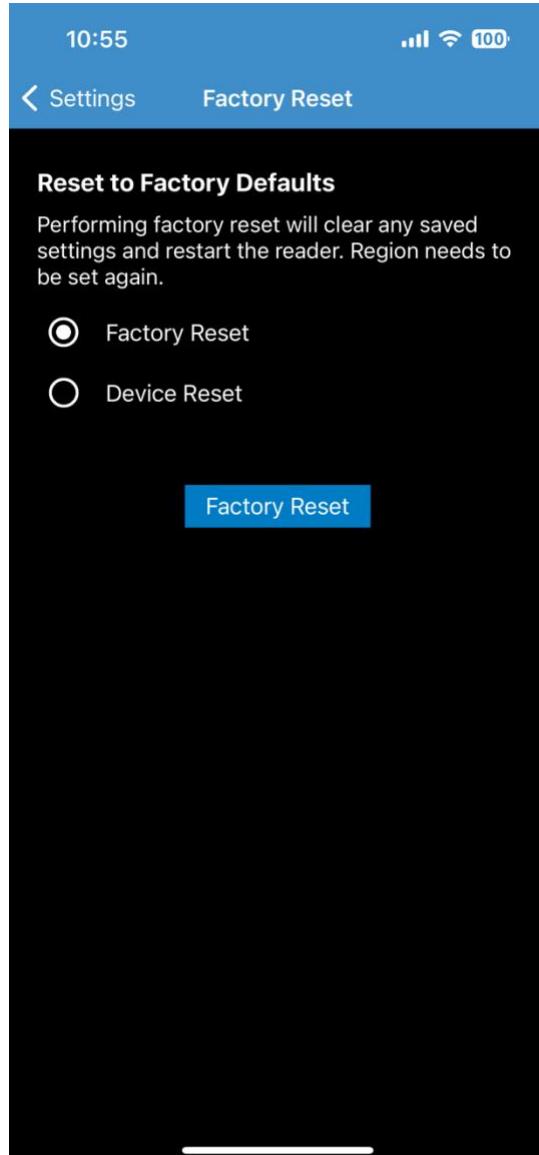


## 22. Factory Reset

Go to the “Setting” and press the “Factory Reset” item, then the following screen will appear.

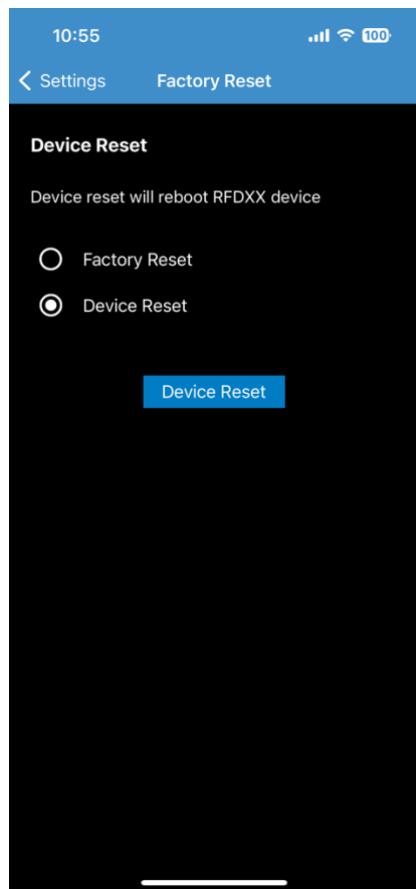
### 22.1 Factory Reset

Performing a factory reset will clear any saved settings and restart the reader. The region needs to be set again, and the profiles need to be set to the reader.



## 22.2 Device Reset

Performing a device reset will reboot the reader. No need to set the region and profiles again to the reader.

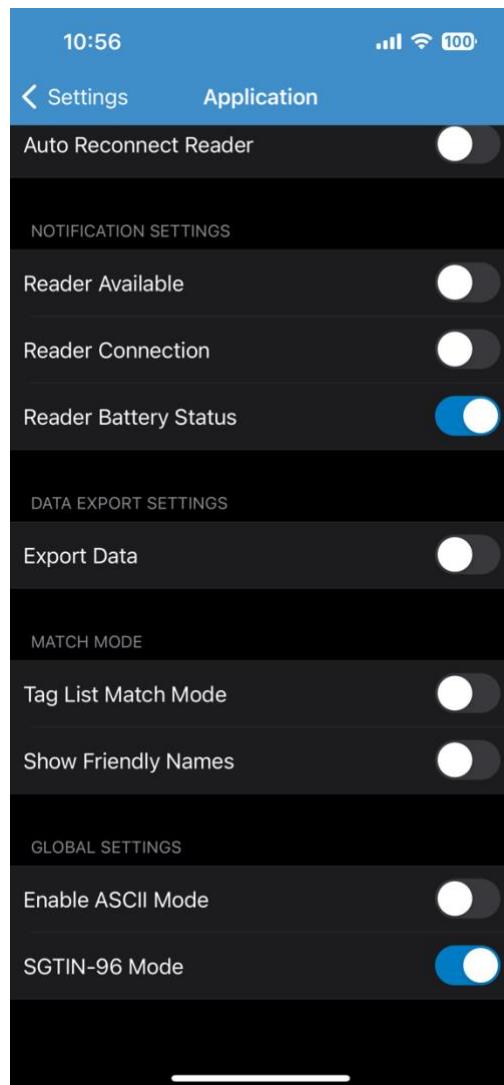


## 23. SGTIN-96 Encoding

SGTIN-96 is an encoding scheme that stands for Serialized Global Trade Identification Number and is sometimes called a serialized GTIN. The 96 in the name refers to the number of bits in the final EPC binary form, and there are three options - 64, 96, 198.

An SGTIN-96 is typically used for global trade items and is used most frequently in the retail sector. It is used in both barcodes and RFID tags and an item is typically assigned an SGTIN-96 at the manufacturer level, and that item keeps the same SGTIN throughout the supply chain. An SGTIN is a subcategory of the broader category GTIN, which is also a very popular, general encoding scheme that is used for identifying medical devices, consumer goods, and raw materials.

After connecting the device, to enable SGTIN encoding, go to “Settings” → “Application” → and under “GLOBAL SETTINGS,” enable “SGTIN-96 Mode”.



Then, in the “Inventory” page, when you run an inventory, if there are any SGTIN-96 supported tags, they will be encoded.



## 24. Scanner Batch Mode

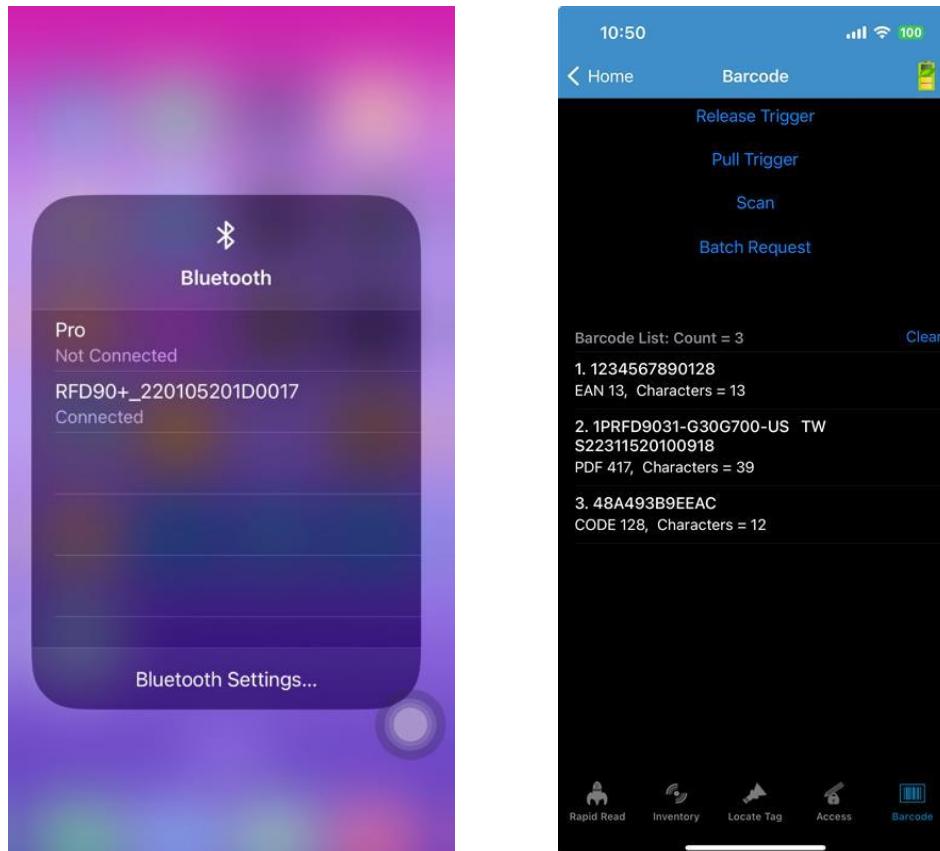
Scanner batch mode is a feature which you can scan barcodes without connecting to the mobile app and once you connect to the mobile app, all the scanned barcodes will be visible in the app's barcode section.

First you must turn off the Bluetooth on your mobile device to remove the connectivity between the mobile device and the scanner device. Then you can start scanning barcodes with the scanner device.

Once you are done scanning, First connect the device from Bluetooth menu of the mobile device.

Next go to "Settings" → "Readers List" and connect the device. Then go to "Inventory" → "Barcode." The scanned barcodes will be there.

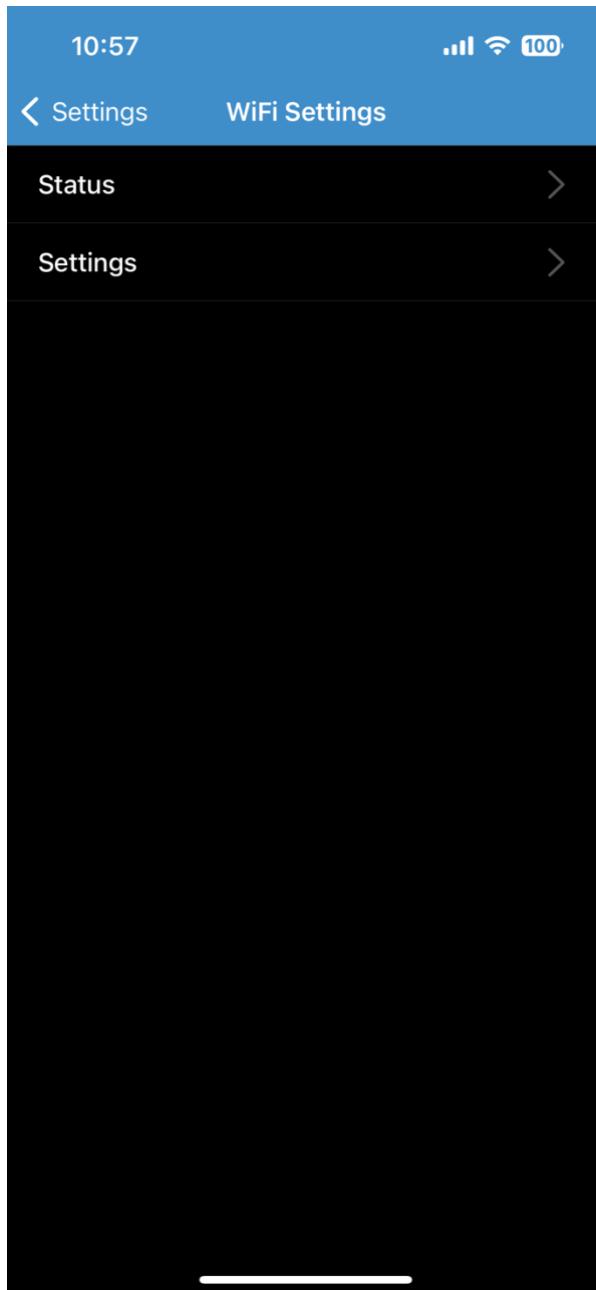
Note: These features are not supported by the 'RFD8500' and 'RFD40 Standard' devices.



## 25. WLAN

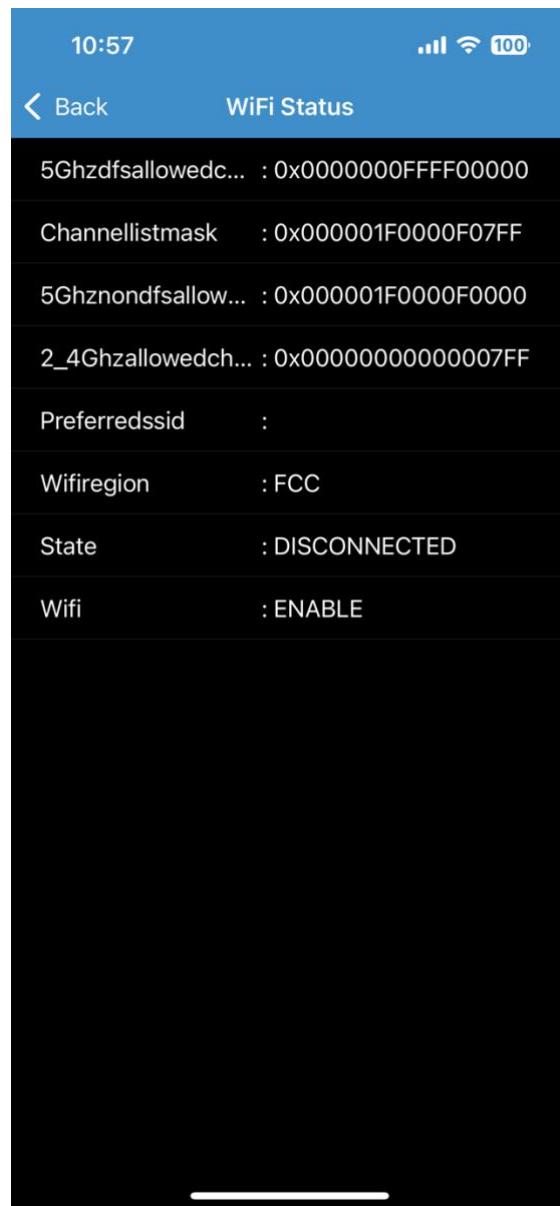
Go to the “Setting” and press the “WiFi” item, then the following screen will appear.

Note: These features are not supported by the ‘RFD8500’ and ‘RFD40 Standard’ devices.



## 25.1 Status

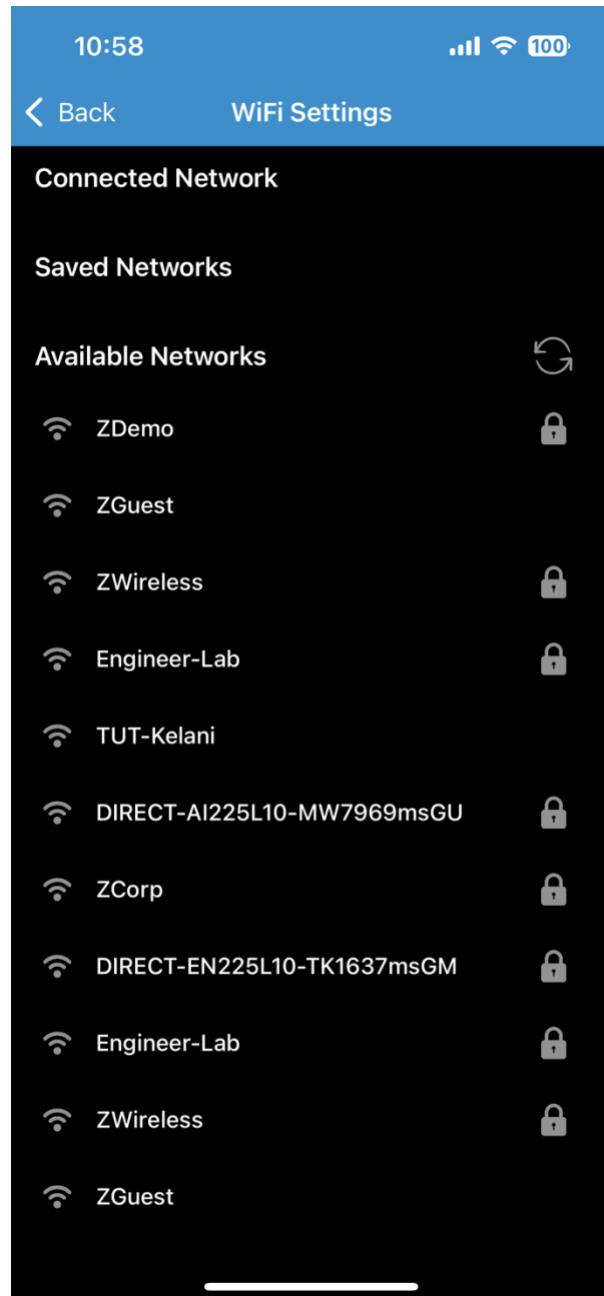
WiFi status will give the status of the WiFi, it will show all details of the connected network.



## 25.2 WLAN Settings

When we access the WiFi Settings page, the app will automatically scan for WLAN networks and list them under Available Networks.

### 25.2.1 WLAN Scan

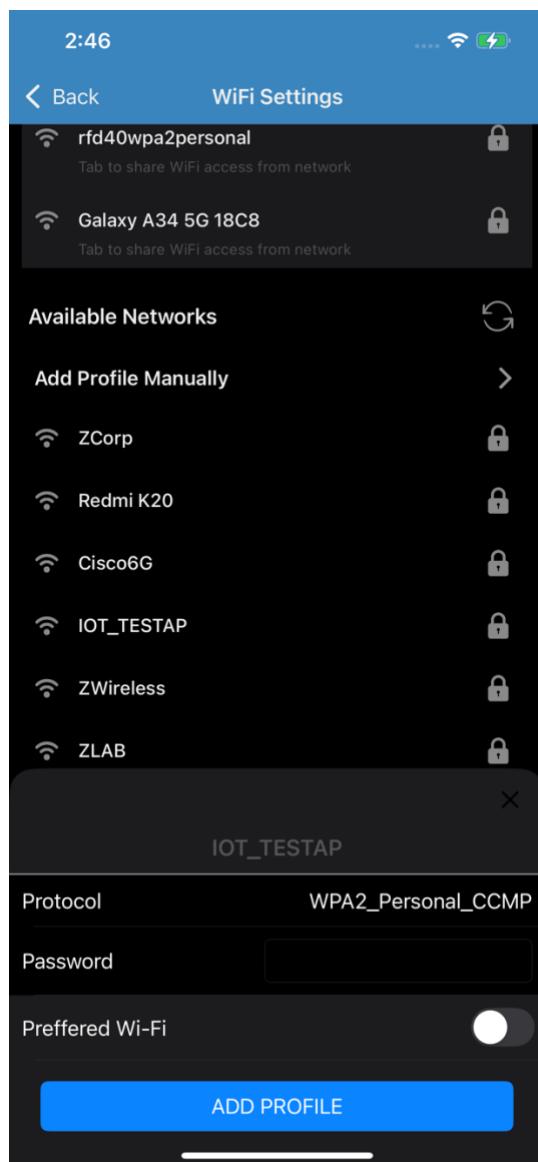


## 25.2.2 WLAN Add Profile

We have three different types of profiles Personal, Enterprise and No\_Encryption.

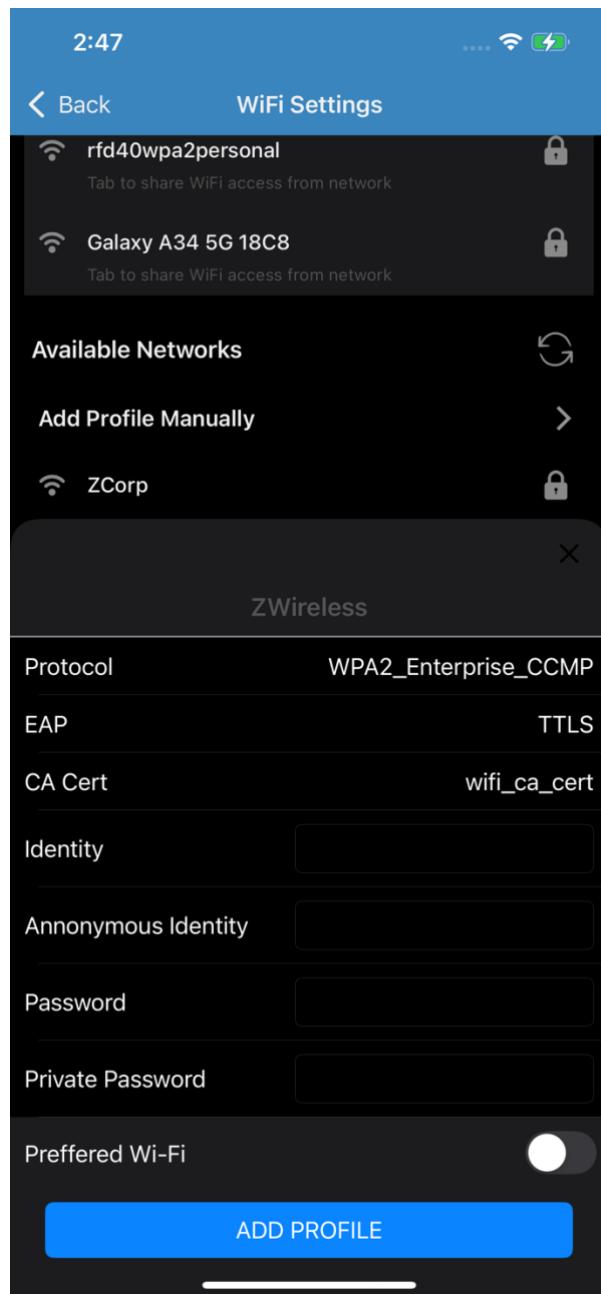
### 25.2.2.1 Personal

Select your desired WLAN personal profile, input the password, and click on the 'Add Profile' button.



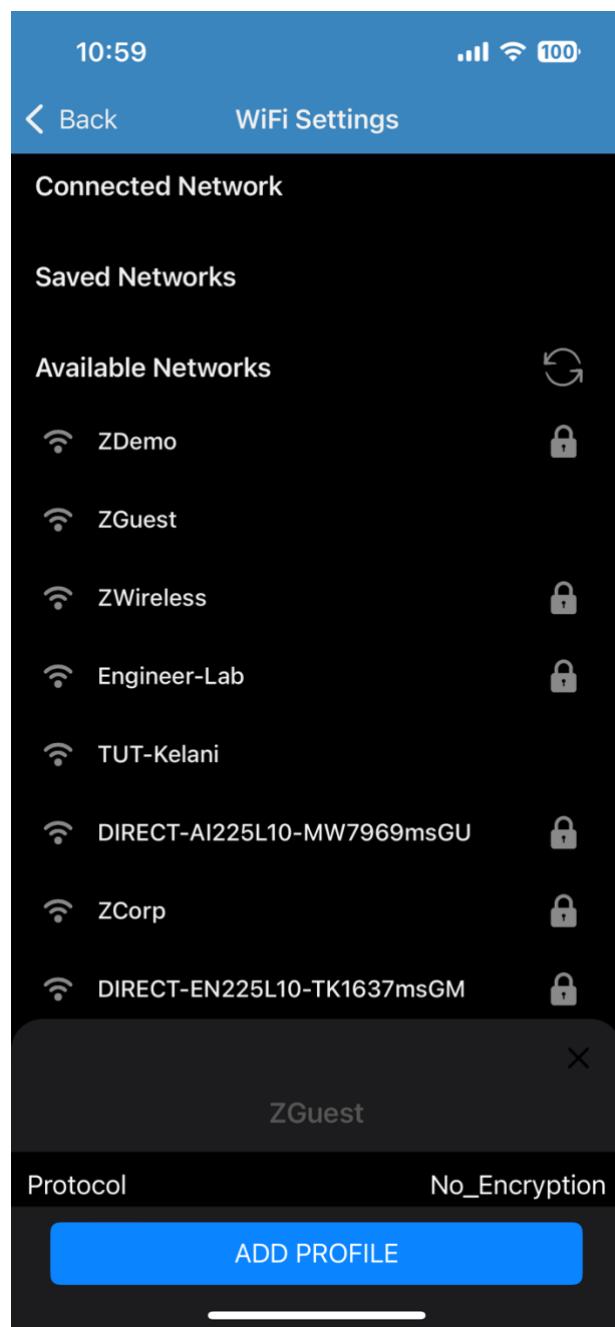
### 25.2.2.2 Enterprise

Select your desired WLAN Enterprise profile, enter the required details and select the protocol, EAP and certificates and click on the 'Add Profile' button.



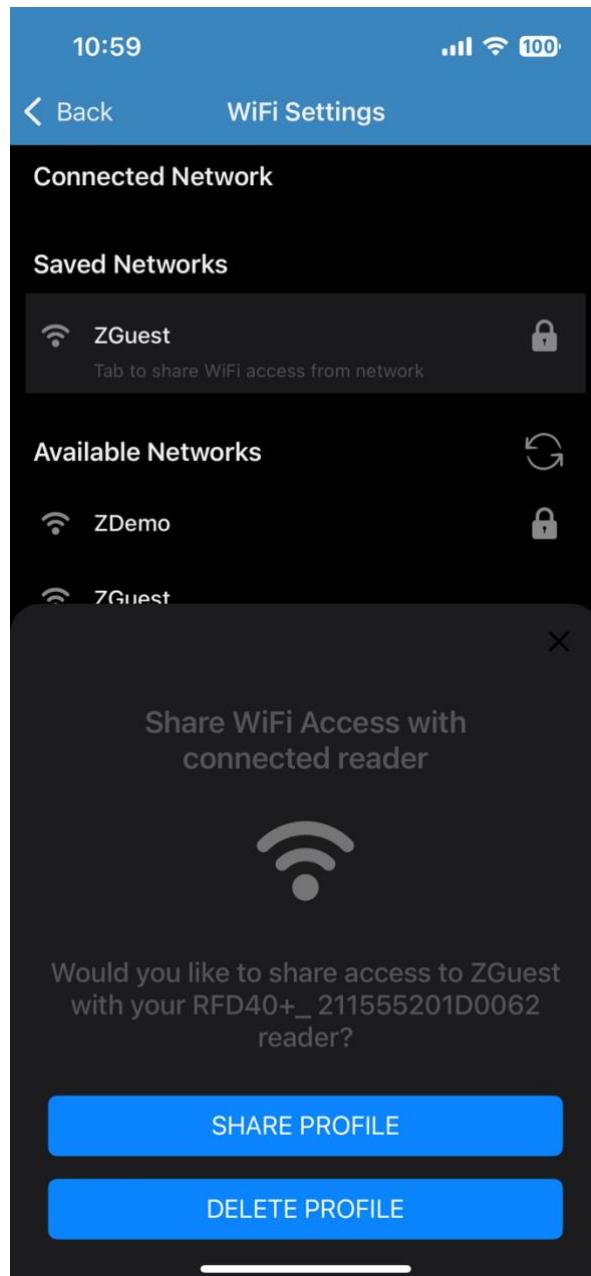
### 25.2.2.3 No Encryption

Select your desired WLAN no\_encryption profile and click on the 'Add Profile' button.



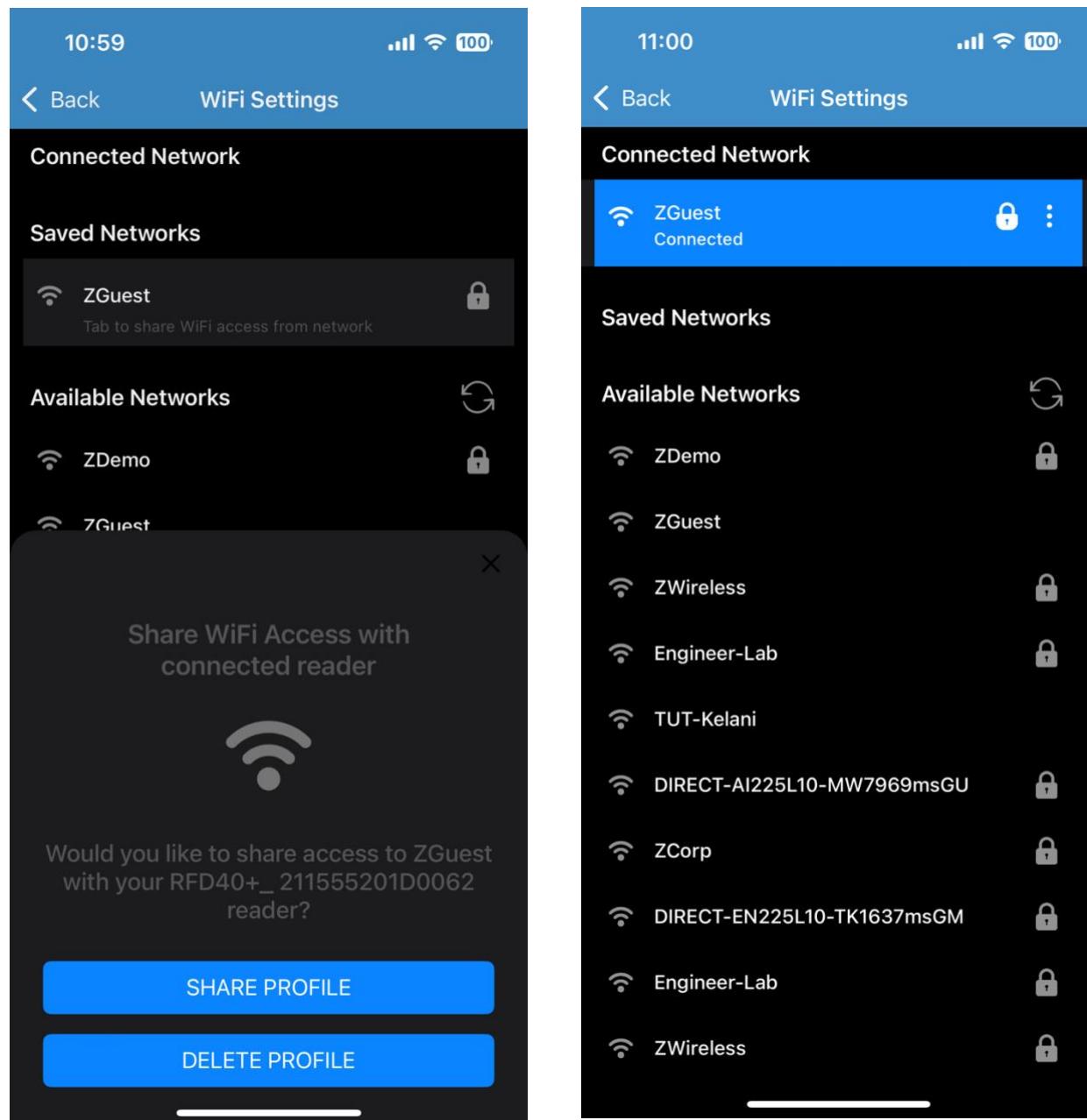
### 25.2.3 WLAN Delete Profile

Choose the desired WLAN profile from the saved networks and click the 'Delete Profile' button to remove a profile from saved networks.



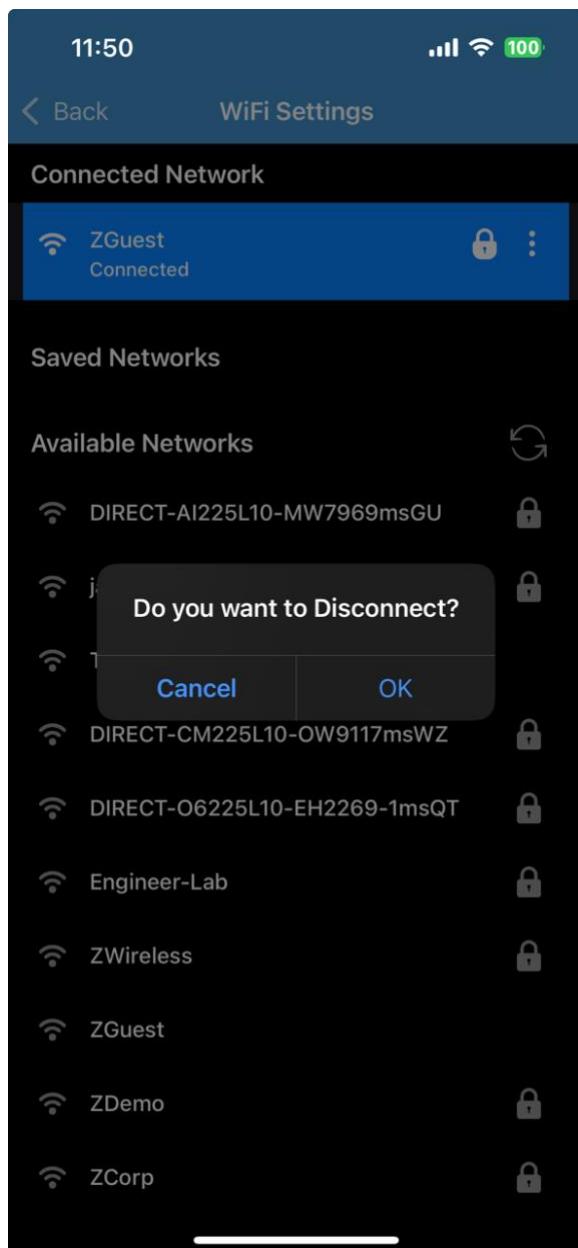
## 25.2.4 WLAN Connect Profile

Choose the desired WLAN profile from the saved networks and click the 'Share Profile' button to establish a connection.



## 25.2.5 WLAN Disconnect Profile

Click on the 3 dots of the connected WLAN profile from the connected networks to disconnect.



## 25.3 Endpoint Configuration

Go to 'Settings', select the 'Endpoint Configuration' item, then the following screen will appear.

Note: These features are not supported by the 'RFD8500' and 'RFD40 Standard' devices.



### 25.3.1 Add Endpoint Configuration

To add a new endpoint

#### 25.3.1.1 SOTI:

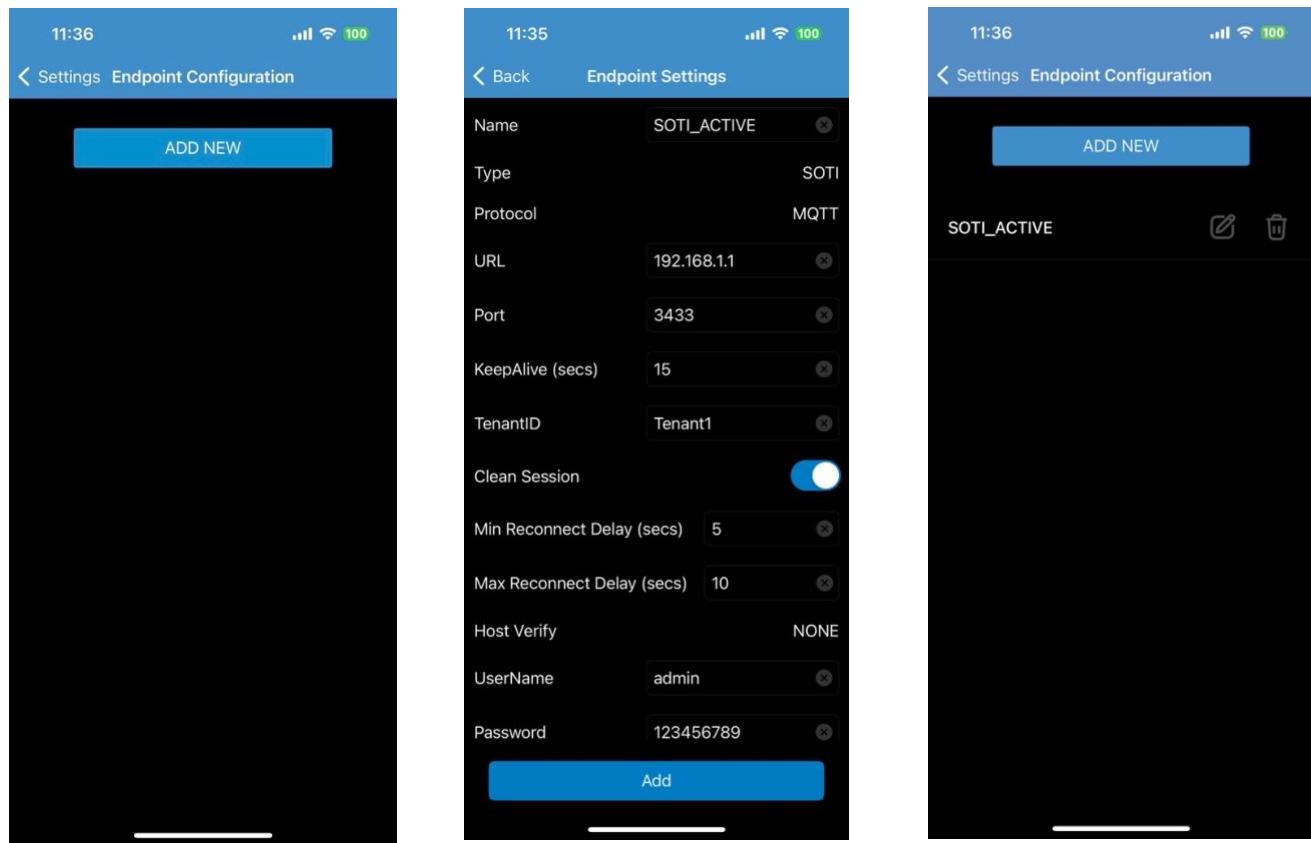
SOTI is the pioneer of the mobility management industry – delivering security and management solutions for mobile devices even before Mobile Device Management (MDM) was a defined market. Then, as applications and content became a vital aspect of business mobility, SOTI helped steer the market toward Enterprise Mobility Management (EMM). Today, SOTI is leading the industry toward Unified Endpoint Management (UEM) and will continue to secure and manage the Internet of Things (IoT).

SOTI removes the complexity from managing a multi-OS, multi-vendor, and multi-purpose mobile business environment. SOTI MobiControl is an end-to-end EMM solution that manages mobile devices, applications, content, and security from within a single management console.

1. Tap on the Add New Button. It will take you to the Endpoint Settings screen
2. Enter the endpoint name
3. Endpoint type
  - a. SOTI
4. Select the protocol
  - a. MQTT
  - b. MQTT\_TLS

Note: We have more options, but the supported ones are MQTT and MQTT\_TLS.

5. Enter port
6. Enter Keepalive
7. Enter TenantId
8. Give the Min Delay timer for Reconnect in Min Reconnect Delay Settings
9. Give the Max Delay timer for Reconnect in Max Reconnect Delay Settings
10. Select Host verify from the dropdown
11. Enter Username
12. Enter the password



### 25.3.1.2 MDM:

MDM is part of the enterprise mobility management (EMM) family, which also includes mobile application management (MAM), identity and access management (IAM), and enterprise file syncing and sharing. With mobile device management (MDM), you can securely configure both user- and organization-owned devices by sending profiles and commands to the devices through wired, Wi-Fi, or cellular connections.

1. Tap on the Add New Button it will take you to Endpoint Settings screen
2. Enter the endpoint name
3. Endpoint type
  - a. MDM
4. Select the protocol
  - a. MQTT
  - b. MQTT\_TLS

Note: We have more options, but the supported ones are MQTT and MQTT\_TLS

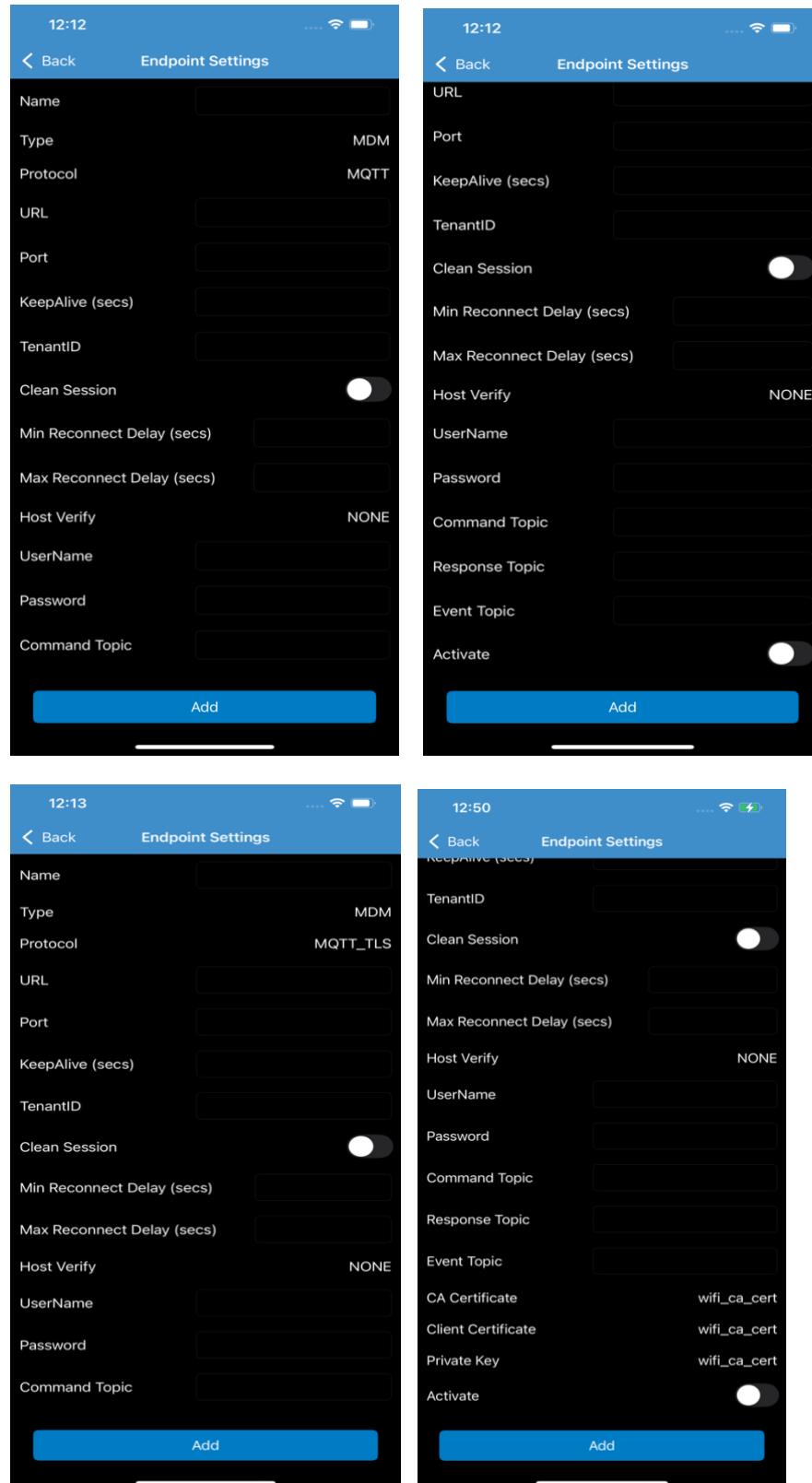
5. Enter URL/server address.
6. Enter port
7. Enter Keepalive
8. Enter TenantId
9. Give the Min Delay timer for Reconnect in Min Reconnect Delay Settings
10. Give the Max Delay timer for Reconnect in Max Reconnect Delay Settings
11. Select Host verify from the dropdown
12. Enter Username
13. Enter the password

For MDM and MQTT, we have to add the below parameters

14. Command topic
15. Response topic
16. Event topic

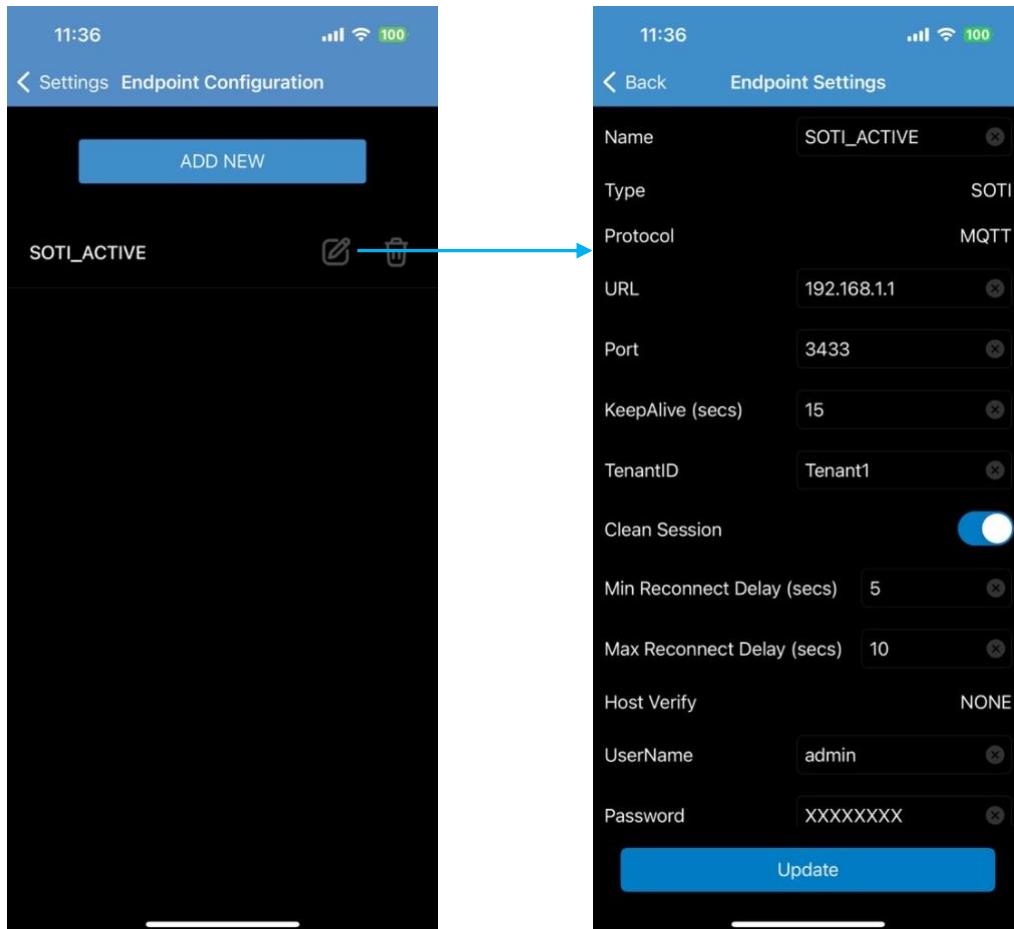
For MDM and MQTT\_TLS, we have to add the below parameters

17. CA Certificate
18. Client certificate
19. Private key



### 25.3.2 Edit Endpoint Configuration

Go to the 'Endpoint Configurations' and press the 'Edit' icon; then the 'Endpoint Settings' screen will appear



### 25.3.3 Delete Endpoint Configuration

Go to the 'Endpoint Configurations' and press the 'Delete' icon; then the 'Pop-up' will appear. Press 'Yes' to confirm deletion.

