ATID Co.,Ltd

XC1003-1 RFID Demo Guide Manual

Android Demo Guide Manual

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Document Revision Record

Version	Date	Revision[1]	Description of change[2]	Writer
V1.0	2014-04-23	New	N/A	Y.H.Park
V2.0	2015-06-30	Added	Selection Mask, Read Memory, Write Memory, Lock Memory description added	Y.H.Park

[1] Revision : Define the contents are addition/ modification/ deletion.

[2] Description : Describe revised page number and contents.

Table of Contents

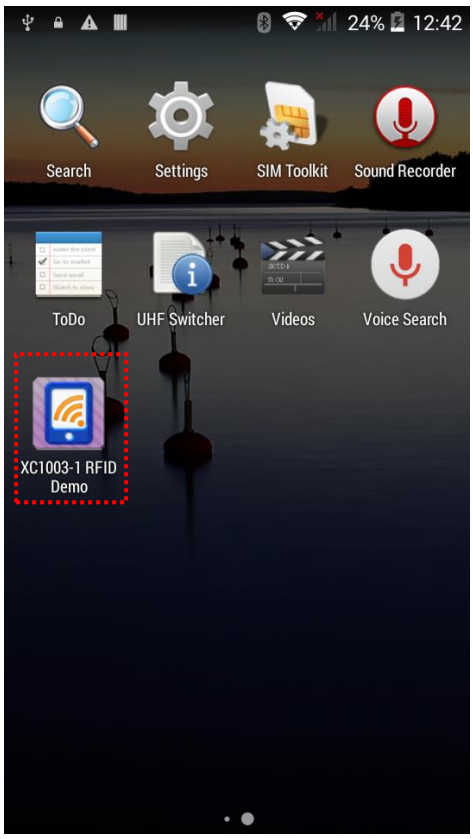
1. Intro

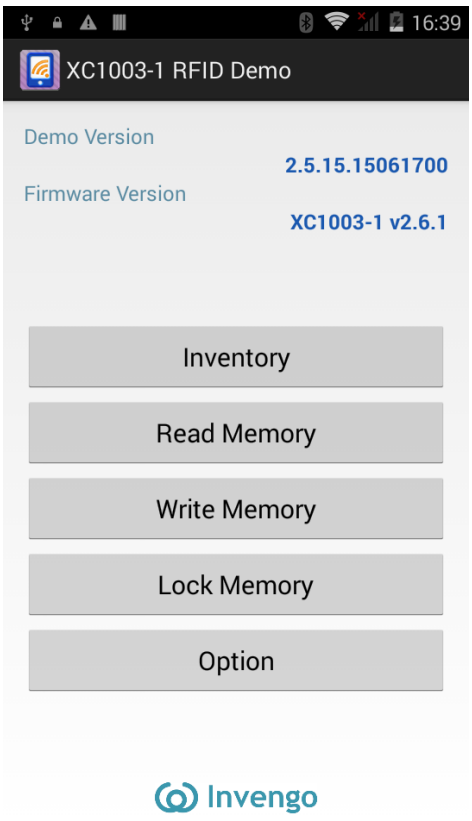
This User Guide for Android is intended to explain how to use the XC1003 RFID Demo program on Android operating system.

2. RFID Demo

2.1. RIFD Demo App Launch

XC1003 device can recognize RFID by equipping with RFID device. XC1003 provides RFID Reader application supporting the Inventory function of ISO18000 6C Tags.



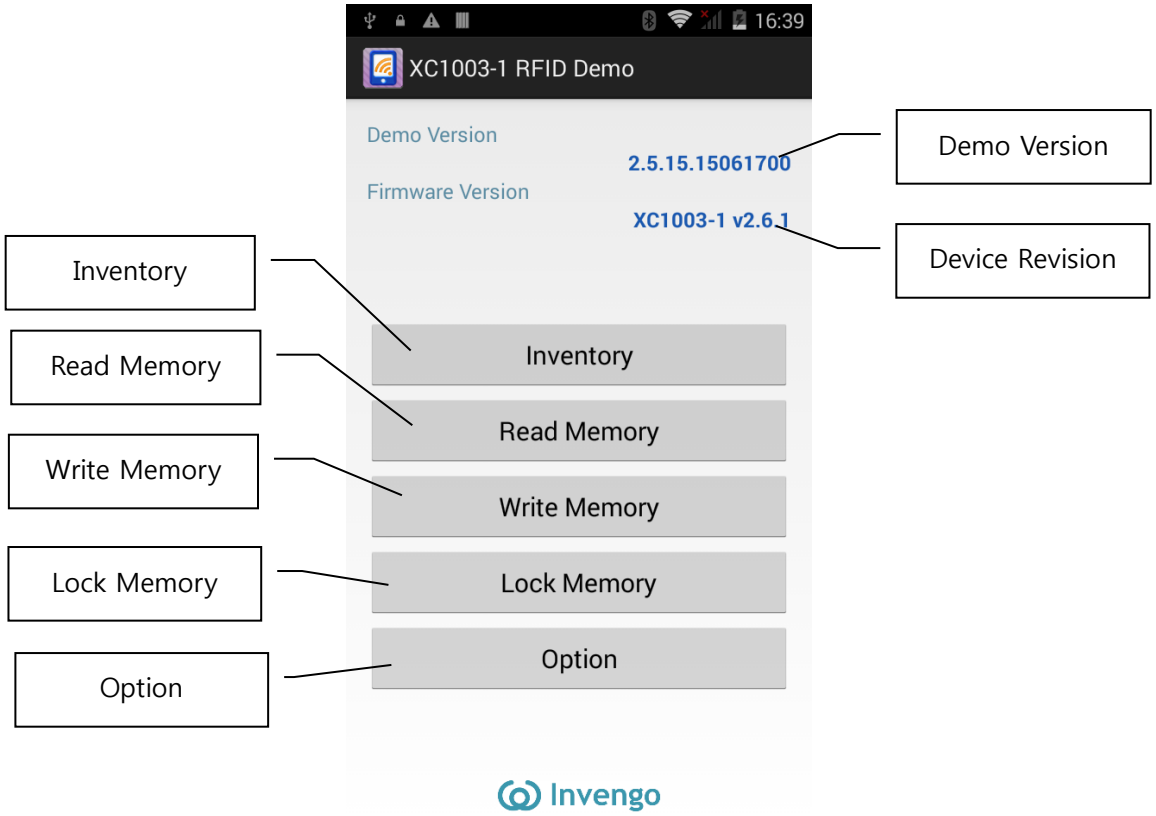


I. Select the menu button and run "XC1003-1 RFID Demo"

II. XC1003-1 RFID Demo will display Inventory, Read Memory, and Write Memory etc. As shown above .

2.2. RIFD Demo App

Initial display of XC1003-1 RFID Demo is shown as below.



i. **Demo Version :** Displays the version of XC-1003-1 RFID Demo App.

ii. **Firmware Version :** Displays the firmware version of RFID Module in XC103-1.

iii. **Inventory :** Displays the Inventory screen of RFID Tags. (Anti-Collision)

iv. **Read Memory :** Displays the Read Memory screen of RFID Tag.

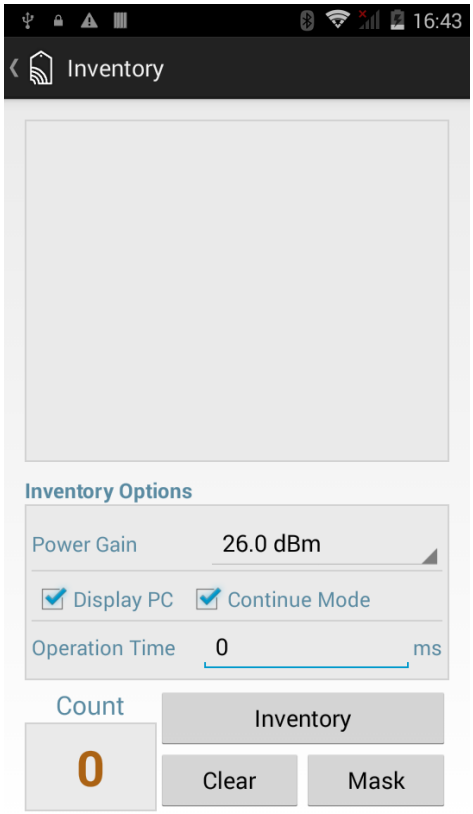
v. **Write Memory :** Displays Write Memory screen of RFID Tag.

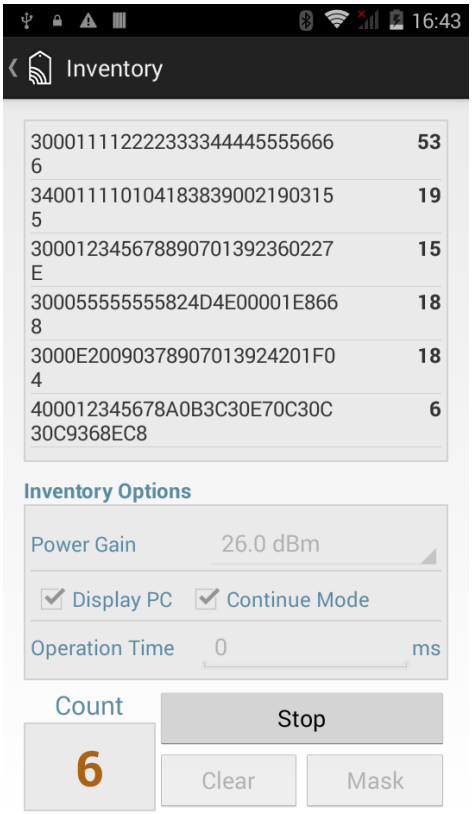
vi. **Lock Memory :** Displays Lock/Unlock Memory screen of RFID Tag.

vii. **Option :** Displays the Option screen of XC1003-1 RFID demo.

2.2.1. Inventory

Inventory function can read the EPC (Tag ID) of tag and is displayed as below





Inventory screen is consisted of Tag list (displays the reading Tags) Option (manages inventory setting), Output part, and menu part

2.2.1.1. Tag List

Displays the recognized tags when running Inventory. When the same type of the tag is read, the number of the tag on the right side of the screen increases. When Display PC is check in inventory option, PC value and EPC value are displayed together with the tag value. If it is not checked, only EPC value is displayed.

2.2.1.2. Inventory Option

- **Power Gain :** Sets the antenna power when performing Inventory.
- **Display PC :** Sets whether or not to display the PC value in the Tag List.
- **Continue Mode :** When performing Inventory, decides whether to apply only one tag or many different tags.
- **Operation Time :** Sets the duration of the active time for Inventory.

2.2.1.3. Tag Count

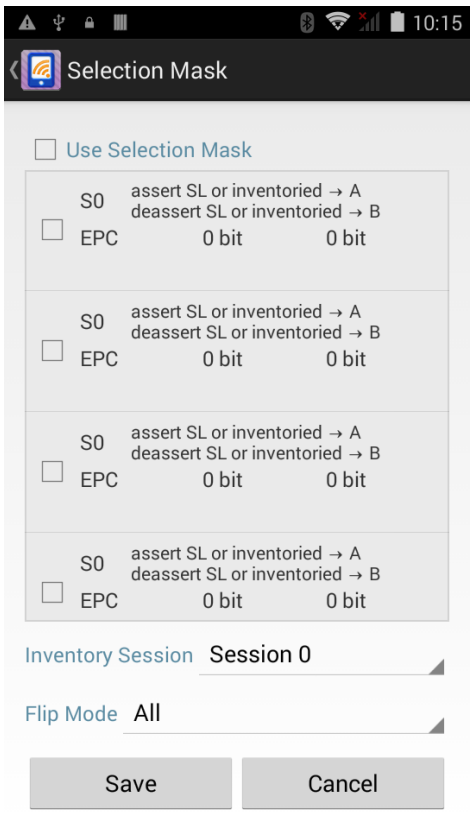
Displays the number of tags that are read by the reader when running inventory. If the same tag is read more than once, it will only be displayed once Inventory.

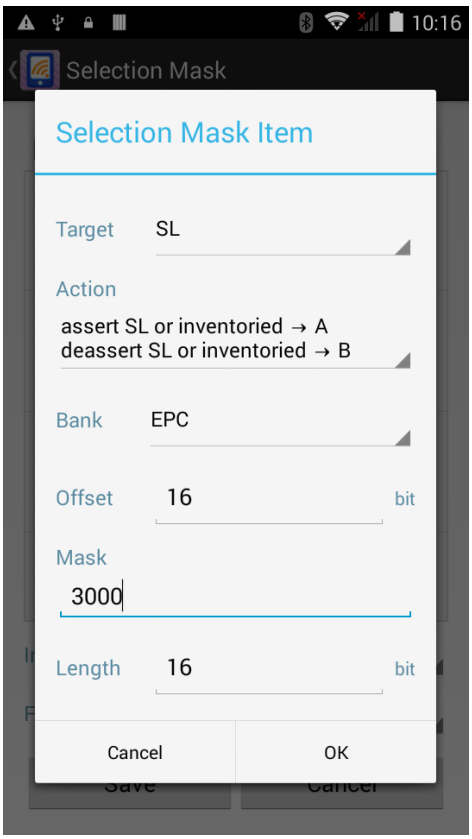
2.2.1.4. Menu Buttons

- **Inventory / Stop :** Performs/stops Inventory.
- **Clear :** Clears the Tag List and resets the Tag count to 0.
- **Mask :** Displays the screen for Selection Mask settings.

2.2.2. Selection Mask

Selection Mask sets the particular condition on the accessing tags. If the Mask button is selected from Inventory, Read Memory, Write Memory or Lock Memory screen, Selection Mask screen is displayed.





Selection Mask screen sets the condition on the accessing tags or when performing Inventory. And it is consisted of Selection Mask List, Selection Option, and Menu button.

2.2.2.1. Selection Mask List

- **Use Selection Mask :** Selects to use or not use Selection Mask.
- **Selection Mask List :** Sets the condition on Selection Mask. When touched for a few seconds, details of Selection Mask condition can be set. Maximum of 8 Selection Masks can be set. It can be applied by selecting the CheckBox.

2.2.2.2. Selection Mask Item

- **Target :** Action, which is set according to Mask condition, selects the Session of the Tag
- **Action :** Selects the action to be taken.
- **Bank :** Selects the Memory Bank of the Tag where Mask condition is compared

- **Offset :** Sets the starting address of Memory bank in Bit value.
- **Mask :** Enters the Mask value in Hex type string.
- **Length :** Sets the length of the Mask value in Bit value.

2.2.2.3. Selection Option

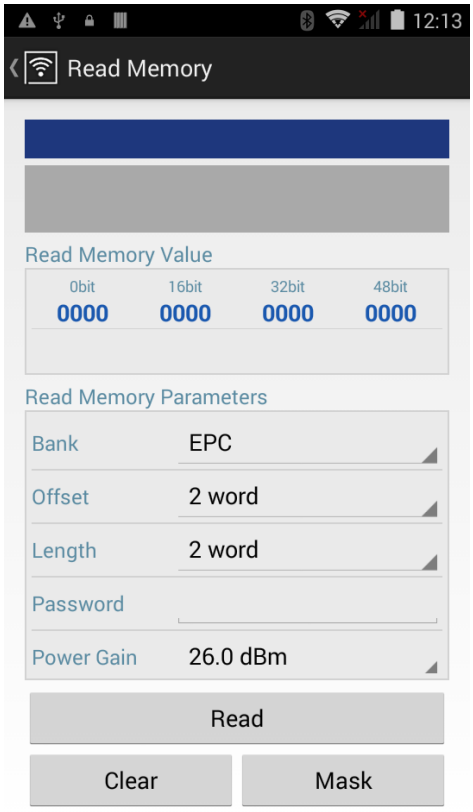
- **Inventory Session :** If the tag (corresponding to the Selection Mask condition) is set according to Target Session, UHF Reader sets the Target Session.
- **Flip Mode :** Sets the value of the Tag's Target Session.

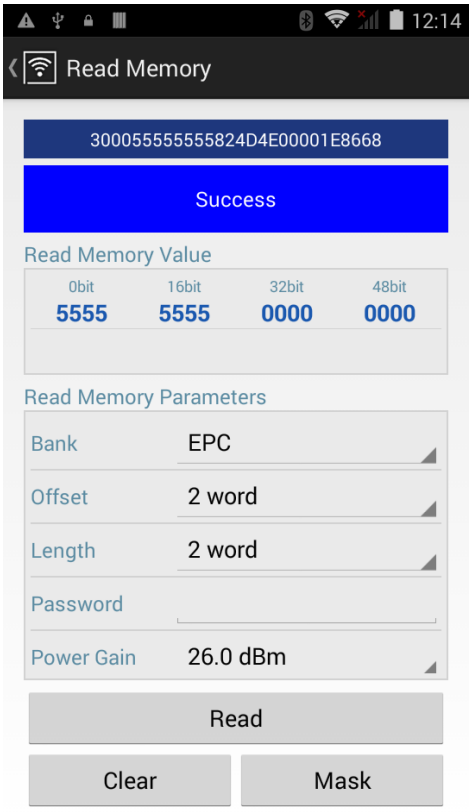
2.2.2.4. Menu Buttons

- **Save :** Saves and applies the Selection Mask settings to Reader Module.
- **Cancel :** Cancels the Selection Mask settings.

2.2.3. Read Memory

Read Memory can read a particular part of the Tag's Memory.





Read Memory screen is consisted of Read Memory Value (displays the results), Read Memory Parameters (sets the parameter values), and Menu buttons.

2.2.3.1. Display Output

- **Access Tag EPC :** Displays the EPC of the accessing tags.
- **Access Result :** Displays the results of Read Memory.
- **Read Memory Value :** Displays the Tag's data obtained via Read Memory.

2.2.3.2. Read Memory Parameters

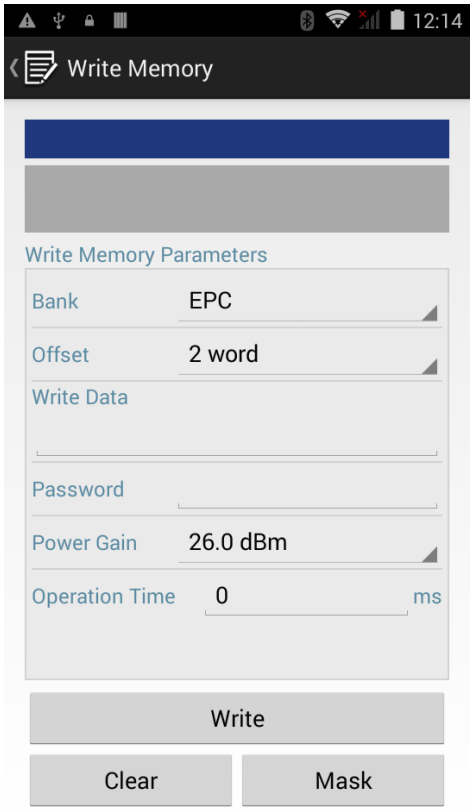
- **Bank :** Sets the Memory Bank of the Tag
- **Offset :** Sets the starting address of the reading Memory Banks in Word.
- **Length :** Sets the length of the data to be read in Word
- **Password :** Sets the Access Password for accessing Tags
- **Power Gain :** Sets the power output of the antenna
- **Operation Time :** Sets the duration of the active time for Read Memory.

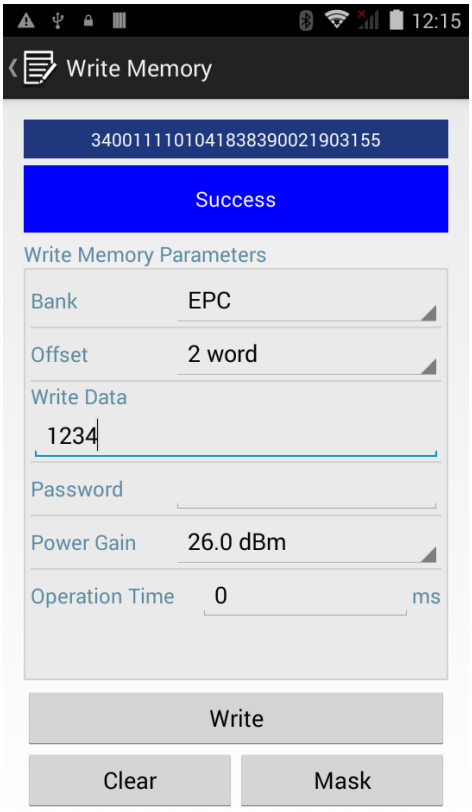
2.2.3.3. Menu Buttons

- **Read / Stop :** Performs or stops Read Memory.
- **Clear :** Clears the results displayed
- **Mask :** Displays the Selection Mask screen.

2.2.4. Write Memory

Write Memory can write a particular part of the Tag's Memory





Write Memory screen is consisted of Write Memory Value (displays the results), Write Memory Parameters (sets the parameter values), and Menu buttons.

2.2.4.1. Display Output

- **Access Tag EPC :** Displays the EPC of the accessing tags.
- **Access Result :** Displays the results of Write Memory.

2.2.4.2. Write Memory Parameters

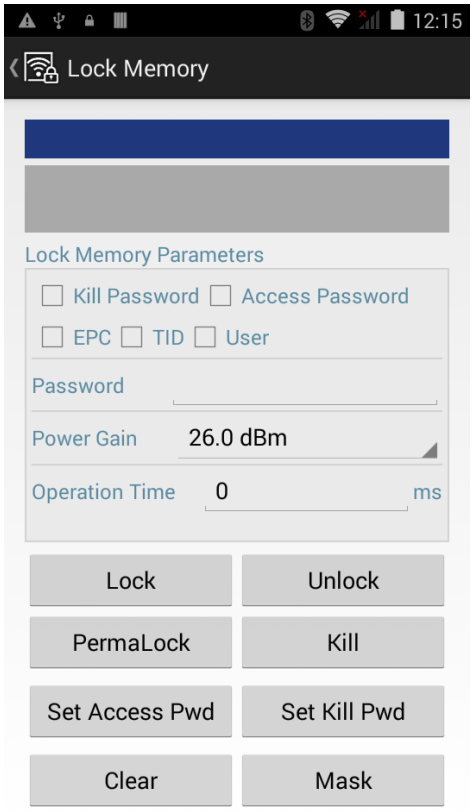
- **Bank :** Sets the Memory Bank of the Tag
- **Offset :** Sets the starting address of the reading Memory Banks in Word.
- **Write Data :** Enters the data in Hex string Word that will be written in the selected Memory Bank
- **Password :** Sets the Access Password for accessing Tags
- **Power Gain :** Sets the power output of the antenna.
- **Operation Time :** Sets the duration of the active time for Write Memory.

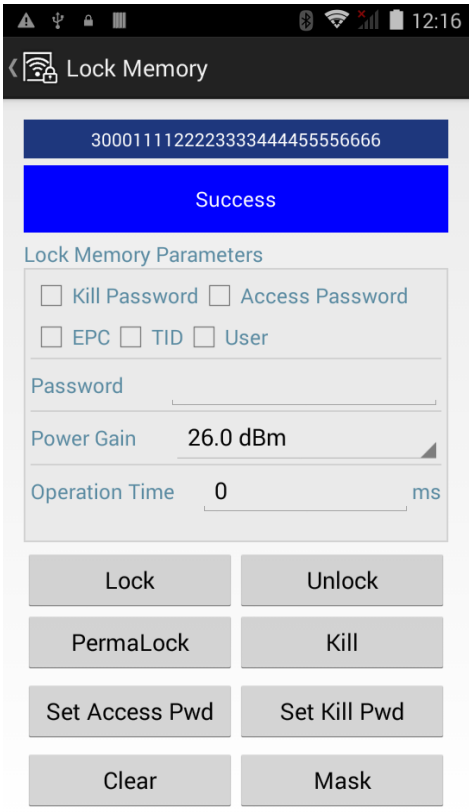
2.2.4.3. Menu Buttons

- **Write / Stop :** Performs or stops Write Memory.
- **Clear :** Clears the results displayed.
- **Mask :** Displays the Selection Mask screen.

2.2.5. Lock Memory

Lock Memory can lock or unlock a particular part of the Tag's Memory.





Lock Memory screen is consisted of Lock Memory Value (displays the results), Lock Memory Parameters (sets the parameter values), and Menu buttons.

2.2.5.1. Display Output

- **Access Tag EPC :** Displays the EPC of the accessing tags.
- **Access Result :** Displays the results of Lock Memory.

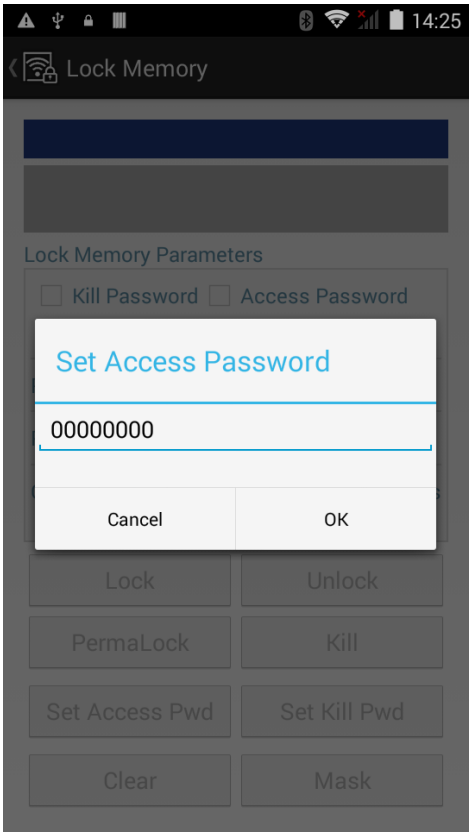
2.2.5.2. Lock Memory Parameters

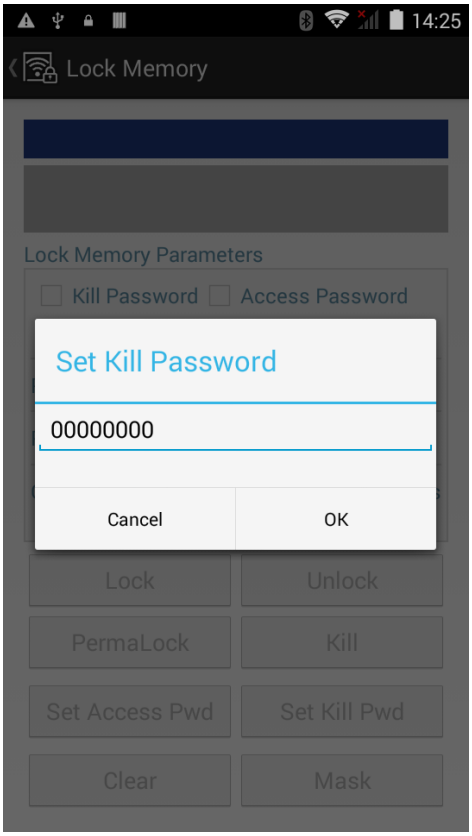
- **Kill Password :** Select whether to lock or unlock the Kill Password part of the Tag.
- **Access Password :** Select whether to lock or unlock the Access Password part of the Tag.
- **EPC :** Select whether to lock or unlock EPC Memory Bank part of the Tag.
- **TID :** Select whether to lock or unlock TID Memory Bank part of the Tag.
- **User :** Select whether to lock or unlock User Memory Bank part of the Tag.
- **Password :** Sets the Access Password or Kill Password of the accessing Tag.
- **Power Gain :** Sets the power output of the antenna.

- **Operation Time :** Sets the duration of the active time for Lock Memory.

2.2.5.3. Menu Buttons

- **Lock / Stop :** Locks or stops the selected part of the accessing Tag.
- **Unlock / Stop :** Unlocks or stops the selected part of the accessing Tag.
- **Permalock / Stop :** Permanently locks or stops the selected part of the accessing Tag.
- **Kill :** Kills the Tag.

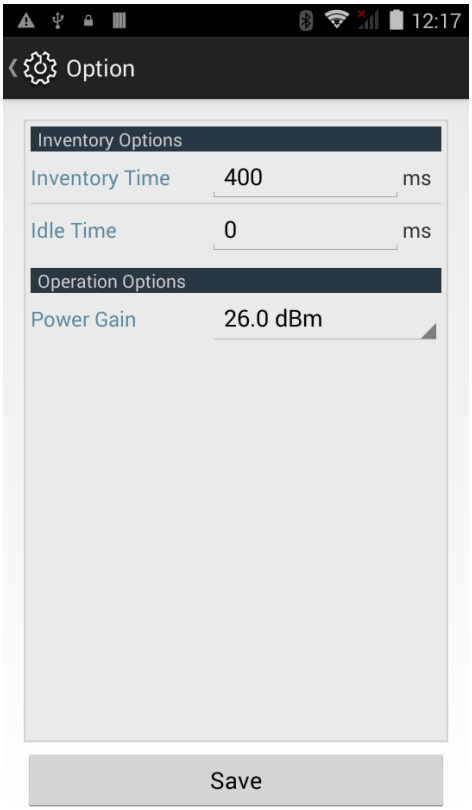




- **Set Access Password :** Sets the Access Password of the Tag.
- **Set Kill Password :** Sets the Kill Password of the Tag.
- **Clear :** Clears the results displayed.
- **Mask :** Displays the Selection Mask screen.

2.2.6. Option

Option screen displays the settings of RFID Module function and is shown as below.



Option screen is consisted of Inventory options (for performing Inventory) and Operation options (for setting the Module property).

2.2.6.1. Inventory Options

- **Inventory Time :** Sets the actual Inventory time for performing Inventory.
- **Idle Time :** When RFID Module is performing Inventory, the idle time is set to prevent the overheating of Reader Module. Inventory Time and Idle Time together cannot be set over (400ms).

2.2.6.2. Operation Options

- **Power Gain :** Sets the power of the Antenna when Reader module is active.

2.2.6.3. Menu Buttons

- **Save :** Saves and applies the settings.