

# RP70A BIO User's Guide



**Gen2Wave Co.,Ltd**

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# 1. Overview

## 1) Specifications

Model	Performance	Wireless	Display / Touch	Data Capture Options	Operating System
RP70A	CPU : Hexa-core (Dual 1.8GHz and Quad 1.4GHz) RAM : 4GB ROM : 32GB	WWAN 4G LTE : 800, 900, 1800, 2100, 2600MHz 3G HSPA+ : 900, 2100MHz 2G GSM/GPRS : 900, 1800MHz WLAN : IEEE 802.11 a/b/g/n/ac Bluetooth : Class2, V4.2 BLE	Display : 7Inch WXGA(1280x800) Touch : Capacitive Touch	Camera : Front(13MP), Rear(2MP) Scanner : 2D Imager NFC : 13.56Mhz MRZ Reader : Passport, ID Card Finger Printer : FAP20 Smart Card Reader	Android 8.1.0 Oreo

## 2) Package



RP70A BIO



Adapter, AC Cord, USB Cable



Stylus Pen, String, Quick Manual



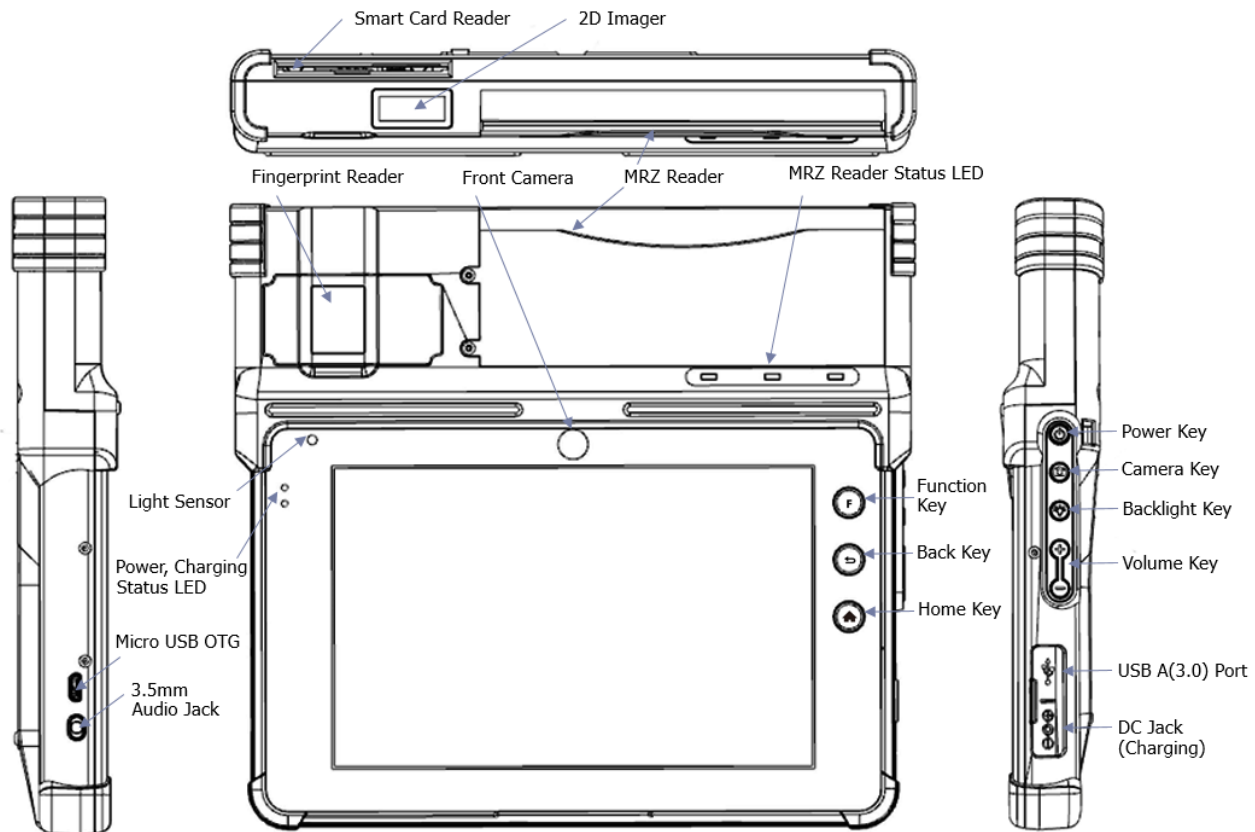
Handstrap



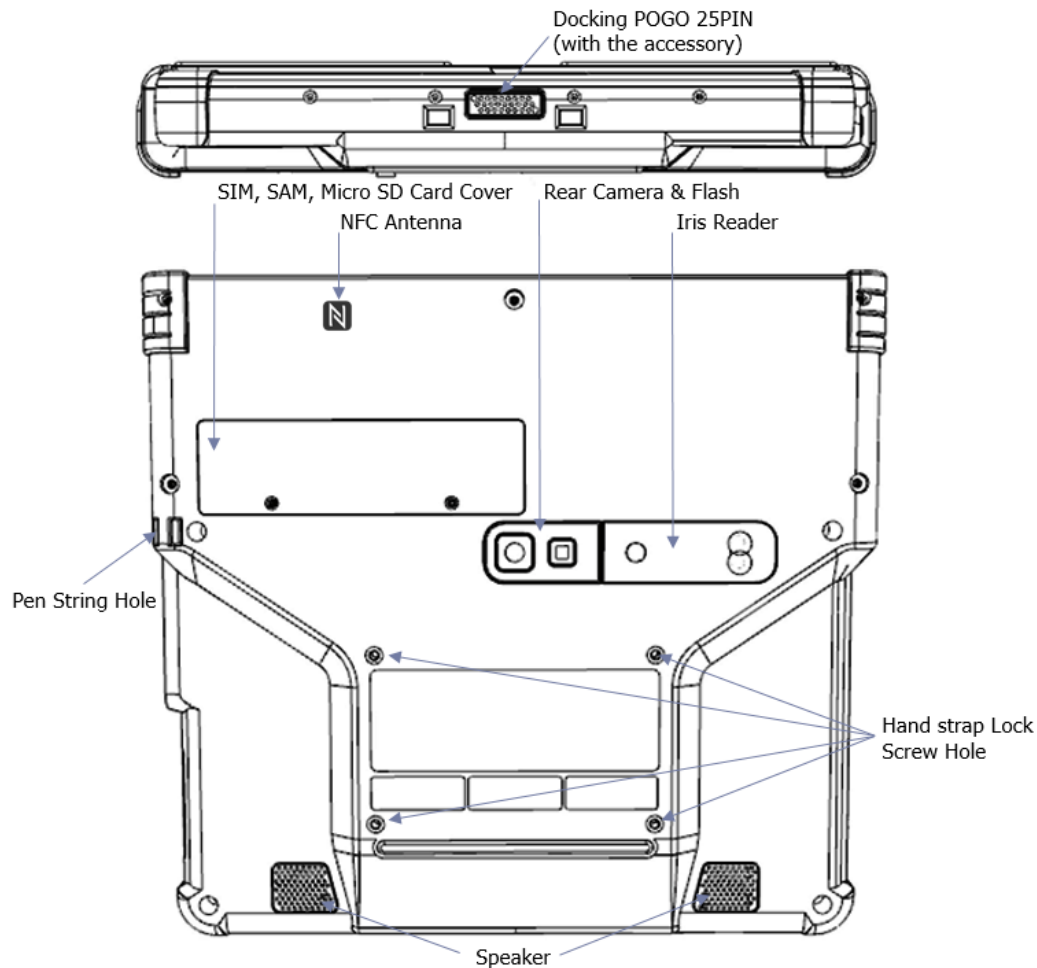
Leather Case (optional)

**NOTE: Items in the box may be changed according to the purchase order.**

### 3) Device Features



Item	Description
2D Imager	Scans and reads barcodes
Smart Card Reader	Smart Card information can be read by inserting a Smart Card
MRZ Reader	MRZ information can be read by inserting a Passport or ID Card
Fingerprint Reader	Fingerprint information can be read by putting a Fingerprint
Volume Key	Press the left side to reduce the volume. Press the right side to increase the volume
Backlight Key	Reduces the backlight level 0 and/or turns on the backlight
Camera Key	Take picture
Power Key	Power is turn off : power on / Power is turn on : enable sleep mode
Power, Charging Status LED	Power status LED (OFF : Power off, Hibernation / Green : Power ON, Sleep) Charging status LED (OFF : Not charging / Red : Charging / Green : Fully charged)
Light Sensor	Recognizes the ambient light and adjusts the display brightness (if enabled)
Front Camera	Captures images and video (2.0 Megapixels)
Microphone	Use for voice communications
Front Key	Function Key (Default : Function, Back, Home)
Micro USB OTG	Micro 5PIN USB port (Charge, OTG)
3.5mm Audio Jack	Use to connect headset with microphone
USB 3.0 A Port	Provides USB communication with a host computer
DC Jack	Provide charging with the power supply (DC 5V, 5A)



Item	Description
Docking POGO 25PIN	Interfaces with the accessory (Charging, USB Host, RS232, HDMI ... )
Rear Camera	Auto-focus camera for high resolution images and video (13 Megapixels)
Flash	Provides illumination for the camera
Iris Reader	Iris information can be read by recognizing a Iris.
NFC antenna	NFC antenna position (Use to read NFC cards and RFID tags)
SIM, SAM, Micro SD Card Cover	Removing the cover allows you to insert a card. (1 Micro SIM Slot, 2 Micro SAM Slot, 1 Micro SD Card Slot)
Pen String Hole	Can be connected to a pen string
Hand strap Lock Screw Hole	Can be connected to a hand strap
Speaker	Output sound

## 2. Getting Started

### 1) Installing Cards

There are 4 slots to insert 1 micro SIM, 2 micro SAM and 1 micro SD cards in the back of your device.

A. Micro SD card is required for external storage.

B. Micro SIM card is required for using mobile services.

C. Micro SAM card is required for security transactions that are made through your device.

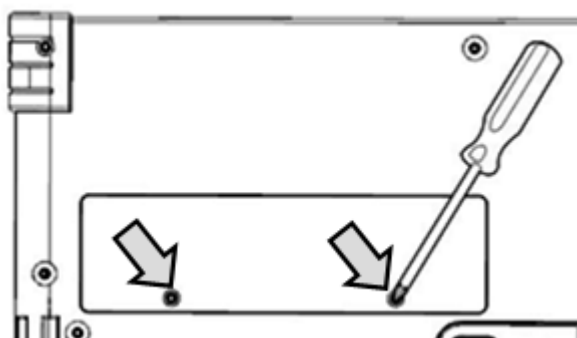
#### **IMPORTANT:**

All cards should be purchased separately if necessary. The specifications may differ from the countries where the device is purchased.

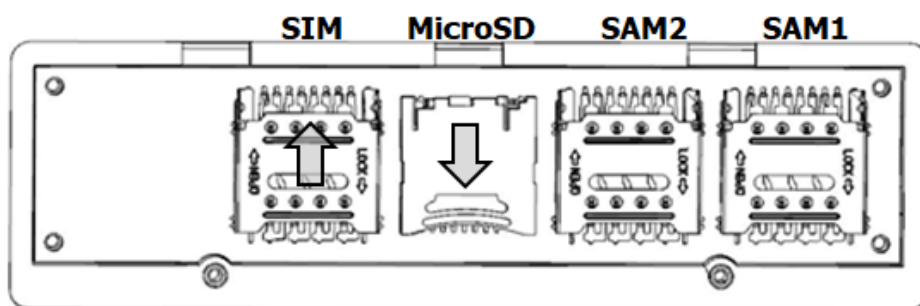
Contact your sales representative for more information.

#### A. How to Insert SIM/SAM cards and a MicroSD card

- (1) Remove the two screws on the SIM, SAM, Micro SD Card Cover. (Driver Plus Type)

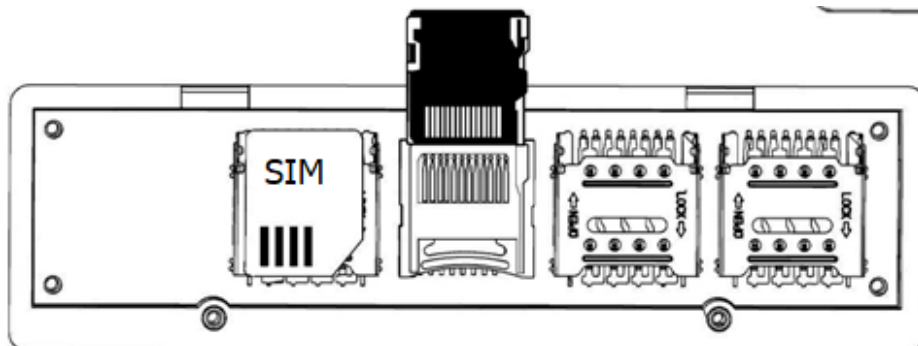


- (2) Slide the locker of "SIM, SAM or Micro SD cards" upwards until you hear a "click" sound and then open the locker .



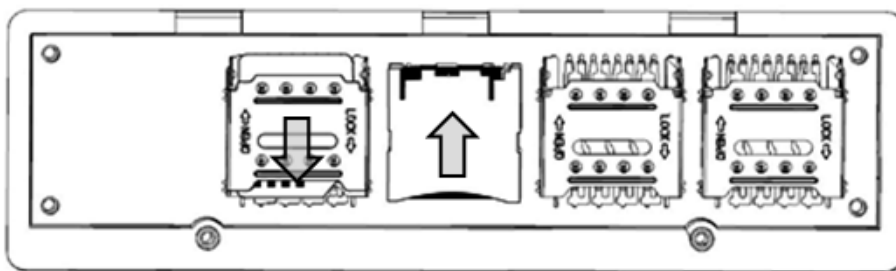
Slide the cover upwards to open

- (3) Slide the "SIM, SAM or Micro SD cards" into the card slot as shown in the picture.



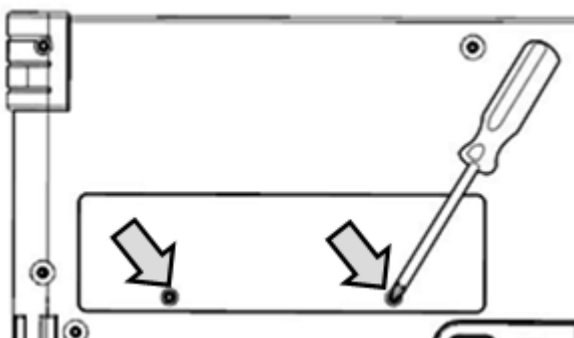
Install the "SIM, SAM or SD cards" as shown in the picture.

(4) Cover the locker and slide it downwards to lock it until when you hear a “click” sound.



Cover the locker and slide it downwards

(5) Put the cover on the RP70A BIO and tighten the screws.



B. “SIM, SAM or Micro SD cards” can be removed in the reverse order.

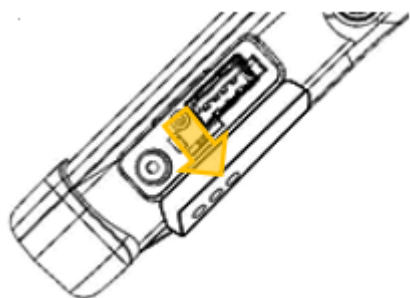
**Caution : If you install or change SIM card when device is turned on, you should reboot the device afterward.**

### 3) Charging the Device

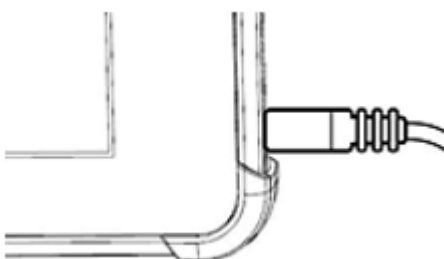
Before using the RP70A device for the first time, charge the main battery until the green Charging/Battery Status LED remains lit (see below picture for charge status indications). To charge the device, use a cable or a cradle with the appropriate power supply.

A. To charge with the direct DC jack.

(1) Open the “USB & DC Jack” Cover.



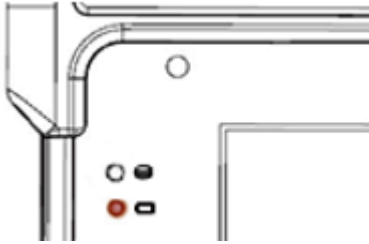
(2) Insert the DC Jack in the DC Jack hole.





(3) Battery LED indicates as follows

OFF : Not Charging    Red LED : Charging    Green LED : Fully Charged



### CAUTION

Do not use any other charger except one (5.0V / 5.0A) provide.

Make sure to handle it gentle; damage with excessive force may cause no warranty.

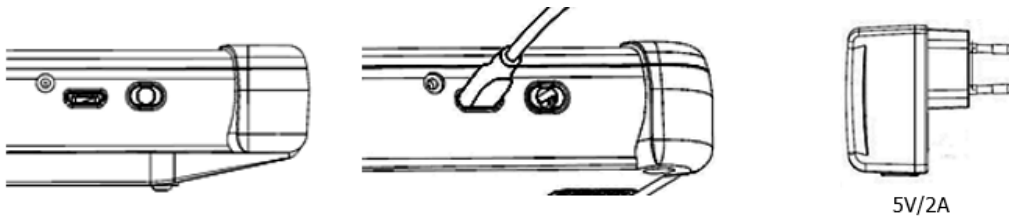
Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

When attached battery is completely discharged, plug charger to main body, then reset the device to check if screen is back on.

B. To charge with the direct Micro USB.

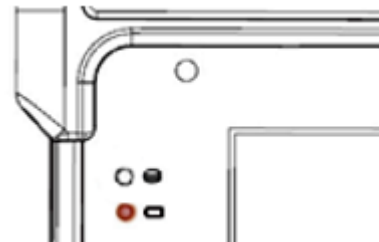
(1) Use a USB charger to charge the terminal from a power outlet or connect the cable to a high-power USB port to charge from a host device.

(2) Insert the micro 5pin jack in the micro 5pin hole.



(3) The Charging/Battery Status LED red while charging, then turns LED green when fully charged.

OFF : Not Charging    Red LED : Charging    Green LED : Fully Charged



### CAUTION

Adapter voltage must be 5V and current is 2A or higher recommended.

Charging the battery though a USB port of PC or laptop, or using non recommended output adaptor takes more time.

When you use the device for the first time or after not using for long period of time, please charge enough time before using.

Even though you connect the charger, the device may not turn on in the very low voltage state.

Please charge the device for 30 minutes ~ 1 hour first.

The device will turn on automatically and the charge LED will turn on red.

## 4) Power

A. Power on the Device

Press the Power button to turn on the device.

Android Logo appear on a screen, and the Power LED turns on after a short while.

#### B. Power off the device

Press the Power Button until the menu appears and touch Power off.

#### C. Soft Reset

Press and hold the power button to perform a Soft Reset and touch Restart.

#### D. Hard Reset

Press and hold the power button for approximately 7 seconds to perform a Hard Reset.

(Perform a Hard Reset if a Soft Reset is not working)

#### E. Factory Reset

Follow the below steps to perform a Factory Reset.

- Path : Settings > System > Reset options > Erase all data (factory reset) > RESET TABLET

#### **CAUTION**

The Factory reset process erases the device memory, including all applications and data files in the object store.

### **5) Manage Battery**

#### A. Power management

You can make battery-related settings in Settings> Battery.

(1) Battery save : When activated, the mode is optimized to save battery power.

(2) Battery percentage : The status bar indicates the battery as a percentage.

(3) Adaptive brightness : Automatically adjusts the screen brightness according to the brightness of the ambient light.

(4) Sleep : If there is no input for the set time, it automatically enters the sleep mode.

#### B. Low Battery Notification

(1) When the battery charge level drops below 10% and 5%, the device displays a Low Battery Notification.

(2) When the battery charge level drops below 2%, the device displays a Low Battery Notification and turns off automatically.

### **6) Settings the Date&Time / Language**

#### A. Automatic Settings

##### (1) Date&Time

The date and time is automatically synchronized using a NITZ server when the RP Series is connected to a cellular network. The user is only required to set the time zone or set the date and time when not connected to a cellular network or if the wireless LAN does not support Network Time Protocol (NTP).

##### (2) Language / Input

When installing a SIM Card, the device set language automatically in accordance with information of a SIM Card.

#### B. Manual Settings

##### (1) Date&Time

- Settings > System > Date & time > Automatic date & time to disable automatic date and time synchronization.

- Set date > Select the month, date and year.

- Set Time > Select the hour, minutes and part of the day.

- Select time zone > Select the current time zone from the list.

##### (2) Language / Input

- Settings > System > Language & input > Select the Language form the list

\*\* SIP is changed to the basic form according to the language setting.

### **7) Display**

#### A. Brightness

(1) Settings > Display > Brightness level

(2) In the display menu, enable Adaptive brightness to set the RP Series to automatically adjust the brightness using the built-in light sensor. Disable Adaptive brightness to set the brightness manually. Use the slider to set a brightness level.

#### B. Screen Rotation

By default, screen rotation is disabled. To enable screen rotation :

- (1) Settings > Display > Advanced > Auto-rotate screen
- (2) Check Auto-rotate screen to set the RP Series to automatically switch orientation when the RP Series is rotated.

\*\* The Home screen does not rotate

#### C. Screen Timeout (To set the screen sleep time)

- (1) Settings > Display > Sleep
- (2) Select one of the sleep values
  - 15 seconds, 30 seconds, 1 minute, 2 minutes (Default), 5 minutes, 10 minutes, 30 minutes, Keep Screen Turned ON

\*\* Set "Keep Screen Turned ON" that can reduce battery life significantly.

#### D. Font Size

- (1) Settings > Display > Advanced > Font size
- (2) Select one of the font size values.
  - Small, Normal (Default), Large, Largest

### 8) Sound

Use the Sounds settings to configure media and alarm volumes.

Settings > Sound

#### A. Volumes

- Use to change the volume of Media, Alarm, Notification.

#### B. Do not disturb preferences

- Set automatic rules turned on.

#### C. Advanced

- (1) Default notification sound
  - Touch to select a sound to play for all system notifications.
- (2) Default alarm sound
  - Touch to select a sound to play for all alarm.
- (3) Screen lock sound
  - Check to play a sound when locking and unlocking the screen.
- (4) Charging sounds
  - Check to play a sound when charging.
- (5) Touch sounds
  - Check to play a sound when making screen selections
- (6) Vibrate on touch
  - Check to have the device vibrate when touching soft key and on certain screen interactions

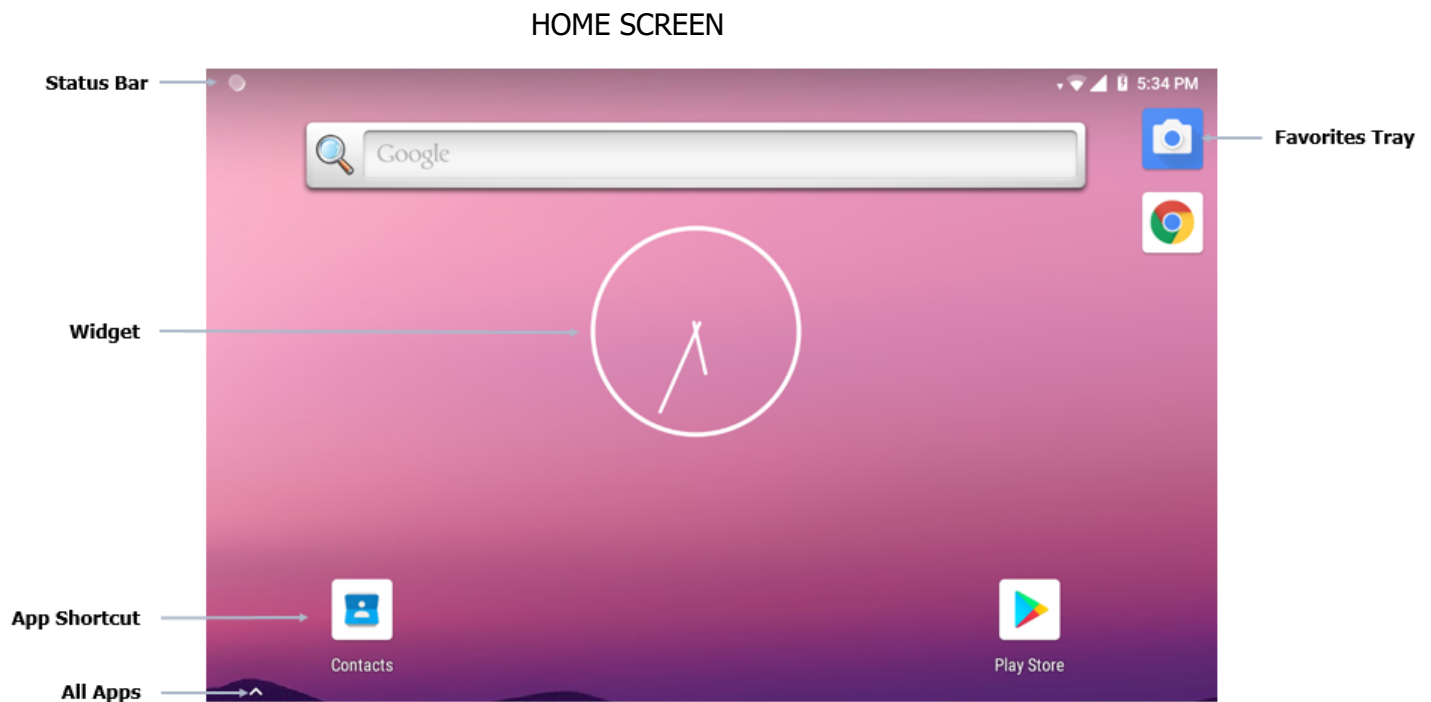
# 3. Basic Function

## 1) Home Screen

You can personalize the panels with your choice of shortcuts, apps, folders and widgets. The Favorites tray, located at the right of the screen, is visible from any of the home screen panels. You can modify the apps in the Favorites tray to include the apps you use most.

If you want to view all the apps and widgets available on the terminal, drag up screen. Drag the screen up and select application. The Home screen provides additional screens for placement of widgets and shortcuts. Swipe the screen left or right to view the additional screens.

Notifications and status indicators appear at the top of the screen. Notifications appear on the left, status indicators for various system function on the right with the current time. You can press the Home button on the front of the terminal to return to the Home screen from any open app.



## 2) Accessing the Status Bar

Notification icons report the arrival of new messages, calendar events, alarms, and ongoing events. When a notification occurs, an icon appears in the Status bar with a brief description. for a list of possible notification icons and their description. Open the Notification panel to view a list of all the notifications.

To open the Notification panel, drag the Status bar down from the top of the screen.

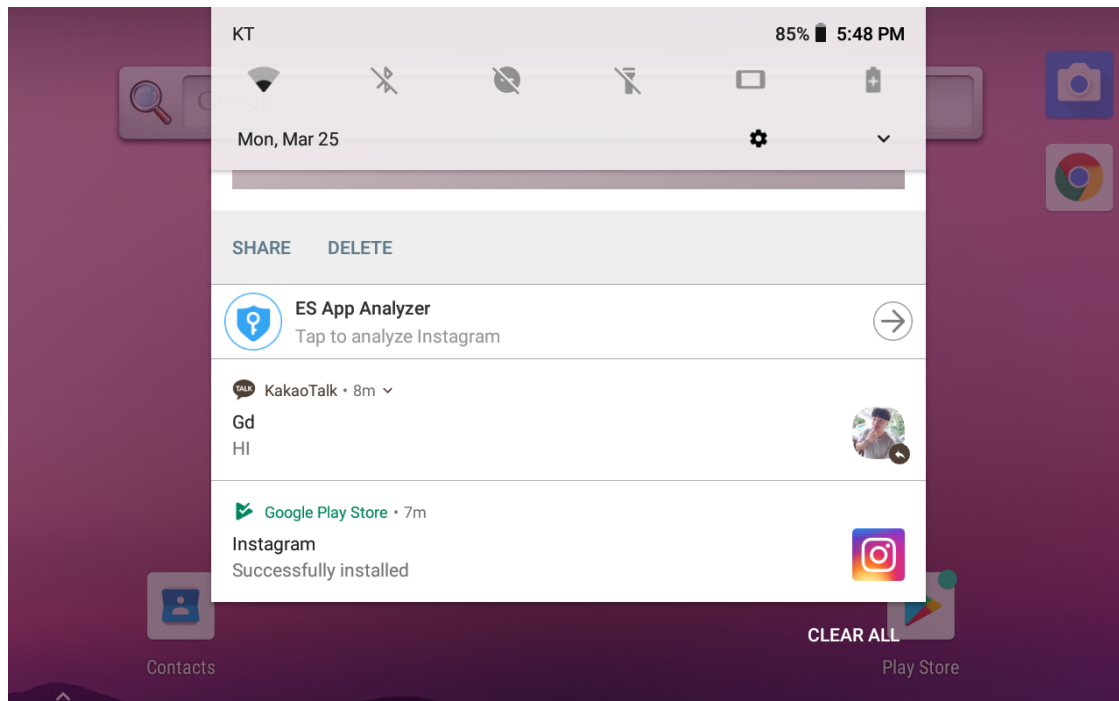
To respond to a notification, open the Notification panel and then touch a notification. The Notification panel closes and the corresponding app opens.

To clear all notifications, open the Notification panel and then touch "CLEAR ALL".

All event-based notifications are removed.

Ongoing notifications remain in the list.

To close the Notification panel, swipe the Notification panel up.



**Notification Panel**

### 3) Common Status and Notification Icons

Notifications and status indicators appear at the top of the screen



**Notification on the left**

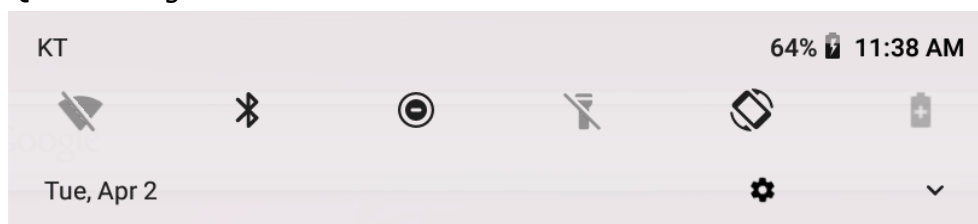
**Status and Time on the Right**

Icon	Meaning	Icon	Meaning	Icon	Meaning
	Vibrate mode is turned on		Do Not Disturb Mode		Battery saver is turned on
	Battery Status		Battery is charging		Airplane mode is turned on
	USB debugging enabled		Bluetooth is turned on		Ethernet network connected
	Wi-Fi is turned on (Connect)		GPS is turned on		WWAN is turned on
	WWAN is turned on (Data connect)		Hotspot turned on		Data saver is turned on

### 4) Quick Access panel

Use the Quick Access panel to access frequently used settings.

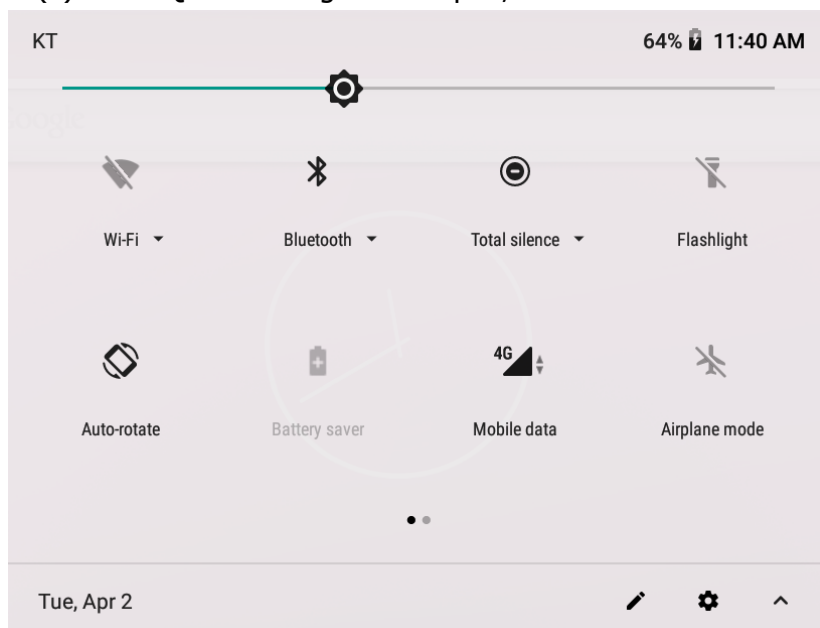
Quick Settings Bar



A. To see the full Quick Access panel

- (1) If the device is locked, swipe down once.
- (2) If the device is unlocked, swipe down once with two fingers, or twice with one finger.

(3) If the Quick Settings bar is open, touch the Down arrow.



B. To change a setting, touch the icon.

- (1) Display brightness : Use the slider to decrease or increase the brightness of the screen.
- (2) Wi-Fi network : Turn Wi-Fi on or off, To open Wi-Fi settings, touch the Wi-Fi network name
- (3) Bluetooth settings : Turn Bluetooth on or off, To open Bluetooth settings, touch Bluetooth.
- (4) Do not disturb : Control how and when to receive notifications.
- (5) Mobile data : Turns cellular radio on or off. To open Mobile data settings, touch and hold.
- (6) Airplane mode : Turn Airplane mode on or off. When Airplane mode is on the device does not connect to Wi-Fi or Bluetooth.
- (7) Auto-rotate : Lock the device's orientation in portrait or landscape mode or set to automatically rotate.
- (8) Flashlight : Turn flashlight on or off. Turn camera flash on or off.
- (9) Hotspot : Turn on to share the device's mobile data connection with other devices.
- (10) Cast : Share phone content on Chromecast or a television with Google Cast built-in.  
Touch cast screen to display a list of devices, then touch a device to begin casting.

## 5) Function Buttons

The Device has function buttons.

Button		Function
	Home	One Click : Return to the Home screen Double Click : Recent apps view
	Back	Back to the previous screen
	Function	User customization (Default Scanner button)
	Power	Power Menu / Sleep On, Wake Up
	Camera	Capture Image
	Backlight	Backlight control
	Volume	Raises or lowers the volume of the active speaker.

## 6) Connecting the Device to a Computer(PC) via a USB connection

You can transfer files between your computer and the terminal using the supplied USB Charge / Communication cable or a device with a standard USB cable

\*\* The device supports USB 2.0(Hi-Speed) communication.

- A. Connect the device(micro 5pin) to your PC using the USB Charge/Communication cable supplied.
- B. If a USB connection automatically establishes, a notification briefly appears at the top of the Screen on the terminal (Connected as a MTP)

If a USB connection does not automatically establish

(1) Path : Settings > Connected devices > USB

(3) Select either Connected as a "Transfer files" or "Transfer photos (PTP)".

Your selection is stored as the default but is easy to change by accessing the Notification panel.

Swipe down from the Status/Notification bar at the top of the screen to view USB connection details and change the type

## 7) App Shortcut and Widgets

App shortcuts placed on the Home screen allow quick and easy access to apps.

Widgets are self-contained apps placed on the Home screen to access frequently used features..

A. Adding an app shortcut to the Home screen

- (1) Go to the desired Home screen.
- (2) Swipe up from the bottom of the screen.
- (3) Scroll through the list to find the app icon.
- (4) Touch and hold the icon until the Home screen appears.
- (5) Position the icon on the screen and then release.

B. Adding a Widget to the Home screen

- (1) Go to the desired Home screen.
- (2) Touch and hold until the menu appears.
- (3) Touch Widgets.
- (4) Scroll through the list to find the widget.
- (5) Touch and hold the widget until the Home screen appears.
- (6) Position the widget on the screen and then release.

C. Moving items on the Home screen.

- (1) Touch and hold the item until it floats on the screen.
- (2) Drag the item to a new location. Pause at the edge of the screen to drag the item onto an adjacent Home screen
- (3) Lift finger to place the item on the Home screen.

## 8) Folders / Home screen Wallpaper

Use Folders to organize similar applications together. Tap the folder to open and display items in the folder.

A. Creating a Folder

There must be at least two app icons on the Home screen.

- (1) Go to the desired Home screen.
- (2) Touch and hold one app icon.
- (3) Drag the icon and stack on top of another icon.
- (4) Lift and release.

B. Naming Folders

- (1) Touch the folder
- (2) Touch the title area and enter a folder name using the keyboard.
- (3) Touch on the keyboard.
- (4) Touch anywhere on the Home screen to close the folder. The folder name appears under the folder.

C. Removing a Folders

- (1) Touch and hold the folder icon until it enlarges.
- (2) Drag the folder to X Remove and release.

D. Home screen Wallpaper

- (1) Touch and hold the screen until the menu appears.
- (2) Touch WALLPAPERS.

- (3) Touch Photos or Gallery to select a photo or select one of the pre-installed wallpapers.
- (4) Touch Set wallpaper.

## **8) Using the File Browser on the Device**

File Browser provides a graphical utility to browse the files stored on the device and the microSD card.

A. Path : Menu > ES File Explorer

B. Touch a folder name or file name to open the folder or file.

\*\* Due to system permissions, some files cannot be opened. Depending on the associated application, a choice of applications may be available to open the file.

## **9) Using the Touchscreen**

Use the multi-tap sensitive screen to operate the device.

A. Tab

- (1) Select items on the screen.
- (2) Type letters and symbols using the on-screen keyboard.
- (3) Press on-screen buttons.

B. Tap and Hold

- (1) An item on the Home screen to move it to a new location or to the trash.
- (2) An item in Apps to create a shortcut on the Home screen.
- (3) The Home screen to open a menu for customizing the Home screen.
- (4) An empty area on the Home screen until the menu appears.

C. Drag

- (1) Tap and hold an item for a moment and then move finger on the screen until reaching the new position.

D. Swipe : Move finger up and down or left and right on the screen to

- (1) Unlock the screen.
- (2) View additional Home screens.
- (3) View additional application icons in the Launcher window.
- (4) View more information on an applications screen.

E. Double-tap

- (1) Tap twice on a web page, map, or other screen to zoom in and out.

F. Pinch

- (1) In some applications, zoom in and out by placing two fingers on the screen and pinching them together (to zoom out) or spreading them apart (to zoom in).

## **10) Using the On-screen Keyboard**

Use the on-screen keyboard to enter text in a text field. To configure the keyboard settings, Settings > Language & input > Virtual keyboard and then select keyboard settings.

A. Editing Text

- (1) Edit entered text and use menu commands to cut, copy, and paste text within or across applications. Some applications do not support editing some or all of the text they display; others may offer their own way to select text.

B. Entering Numbers, Symbols, and Special Characters

- (1) Touch and hold one of the top-row keys until menu appears then select a number or special character.
- (2) Touch the shift key once for a single capital letter. Touch the shift key twice to lock in uppercase. Touch the shift key a third time to unlock capslock
- (3) Touch "?123" to switch to the numbers and symbols keyboard.
- (4) Touch the "=\<" key on the numbers and symbols keyboard to view additional symbols.

## **11) Switching between recent applications**

A. Press the home button twice in succession.

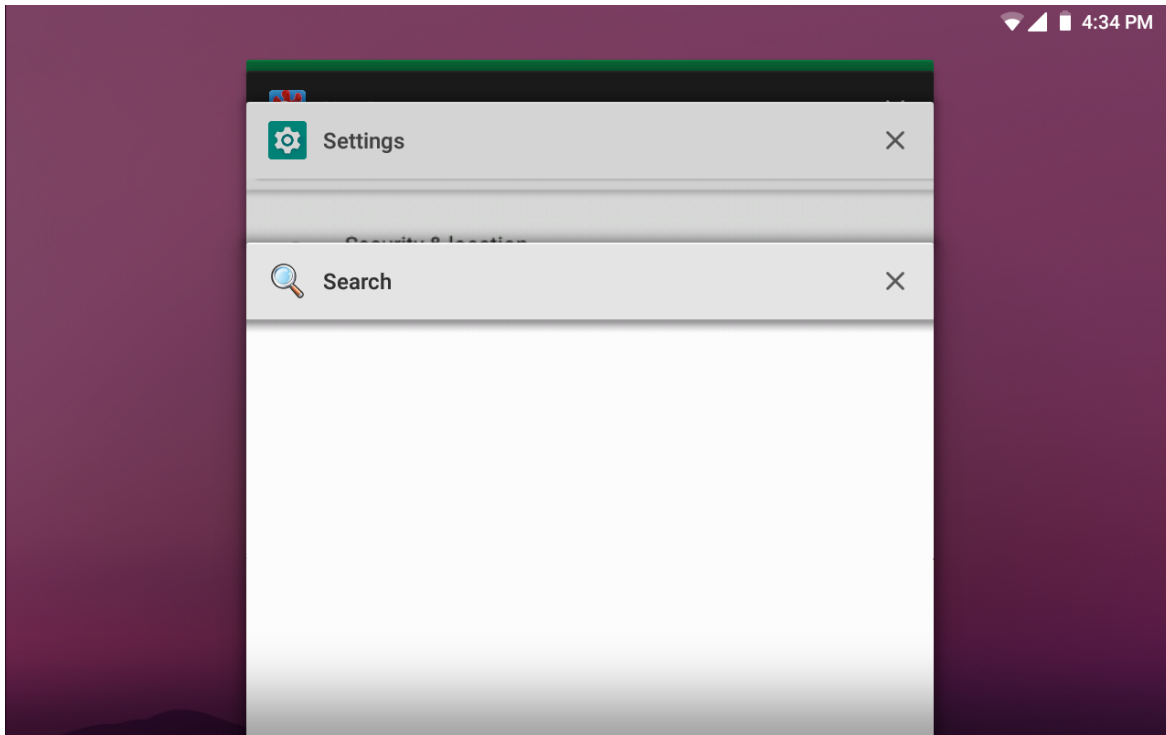
B. Windows appears on the screen with icons of recently used applications.

C. Slide the windows up and down to view all recently used applications.

D. Swipe left or right to remove application from the list and force close the application.



E. Touch an icon to open it or back button to return to the current screen.



# 4. Applications

This section describes the applications installed on the device.


## 1) Contacts

Use the contacts application to manage contacts.


From a Home or Apps screen, touch Contacts to open to the main list of contacts.

Contacts are listed in alphabetical order. Swipe up or down to scroll through the list.


### A. Adding a Contacts

- (1) In the Contact app, Touch .
- (2) If there are mor than one account with contacts, touch the one to use.
- (3) Type the contact's name and other information. Touch a field to start typing, and swipe down to view all categories.
- (4) To open a menu with preset labels, such as Home or Work for an email address, touch the label to the right of the item of contact information. Or, to create your own label, touch Custom in the menu.
- (5) Touch the check mark next to Add New Contact.

### B. Editing Contacts

- (1) In the Contacts app, touch a contact name to edit.
- (2) Touch .
- (3) Edit the contact information.
- (4) Touch SAVE.

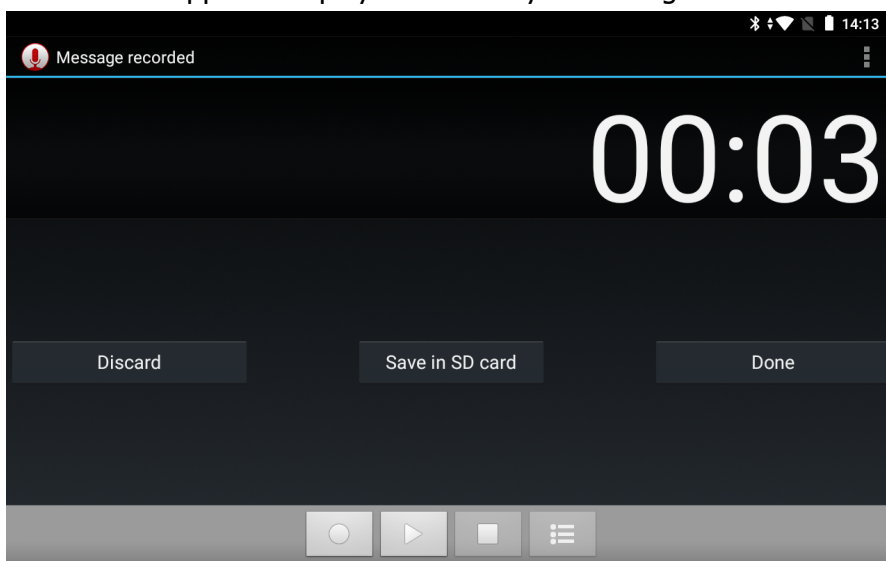
### C. Deleting Contacts

- (1) In the Contacts app, touch a contact name to delete.
- (2) Touch .
- (3) Touch Delete.
- (4) Touch DELETE to confirm.

## 2) Sound Recorder

Use Sound Recorder to record audio messages.

Recording are saved on the microSD card(if installed) or the Internal Storage and available in the Music application playlist titled "My Recordings"



### 3) Gallery

The device support the following image formats : jpeg, gif, png, bmp.

The device support the following video formats : H.263, H.264, MPEG4 simple profile.

Use Gallery to

- A. View photos
- B. Play videos
- C. Perform basic editing of photos
- D. Set photos as wallpaper
- E. Set photos as a contact photo
- F. Share photos and videos

To open the Gallery application, touch  or in the camera application touch the thumbnail image at the top right.

Gallery presents all photos and videos stored on the microSD card and internal memory.

### 4) Bug History

Use Bug History to capture log files for diagnostics.

A. Path : Menu > Bug History

B. Touch 

C. Input SUBJECT(bug name)

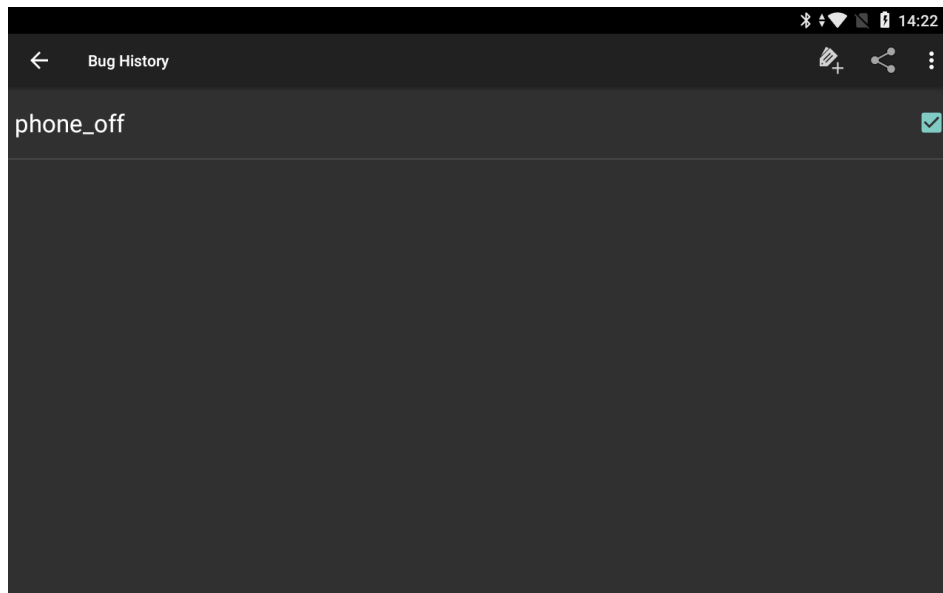
D. Touch 

E. Check SUBJECT

F. Touch 

G. Touch Export

H. Select export storage : Only available for external memory (USB Memory, MicroSD Card)



## 5) G2W TEST

It is available for users to test main functions of the device.

### A. Touch G2W TEST

### B. Test

Select each test item to check each function is working properly or not.

< Test1

LCD	<input type="checkbox"/>	Flash	<input type="checkbox"/>
Key	<input type="checkbox"/>	Vibration	<input type="checkbox"/>
Speaker	<input type="checkbox"/>	Receiver	<input checked="" type="checkbox"/>
Battery	<input type="checkbox"/>	Touch	<input type="checkbox"/>
Backlight	<input type="checkbox"/>	Record	<input type="checkbox"/>
Accelerator	<input type="checkbox"/>	Compass	<input type="checkbox"/>

Next

< Test2

Proximity	<input checked="" type="checkbox"/>	Light	<input type="checkbox"/>
Sleep	<input type="checkbox"/>	Bluetooth	<input type="checkbox"/>
WLAN	<input type="checkbox"/>	Scanner	<input type="checkbox"/>
Camera	<input type="checkbox"/>	GPS	<input type="checkbox"/>
IC Card	<input type="checkbox"/>	MRZ	<input type="checkbox"/>
NFC	<input type="checkbox"/>	FingerPrinter	<input type="checkbox"/>
HotSwap/RTC	<input checked="" type="checkbox"/>	USB SAM	<input type="checkbox"/>

Clear

Result

Finish

### C. Information

View basic information about the device.

# 5. Using the Scanner

## 1) Overview

The RP Series device includes a image engine that instantly read popular 1D and 2D barcodes and supports decoding for greater flexibility in real-world settings.

## 2) Scanner Engine Specifications.

	2D Imager		
Model	Zebra SE4710		
Decoding	Software decoder		
Interface	MIPI / Image Resolution (1280 horizontal x 800 vertical pixels)		
Typical Performance Narrow Width (1D Barcode)	Symbology	Near Distance	Far Distance
	4 mil (Code 39)	8.4 cm / 3.3 in	22.4 cm / 8.8 in
	5mil (Code 128)	7.1 cm / 2.7 in	20.8 cm / 8.2 in
	20 mil (Code 39)	5.08 cm / 2.0 in	76.2 cm / 30.0 in
Typical Performance Narrow Width (2D Barcode)	5 mil (PDF 417)	7.9 cm / 3.1 in	21.3 cm / 8.4 in
	10 mil (DataMatrix)	7.4 cm / 2.9 in	25.7 cm / 10.1 in

## 3) How to use scanner

### A. 2D Imager

- The LED aimer should be on the center of the barcode to get a successful read.



Good



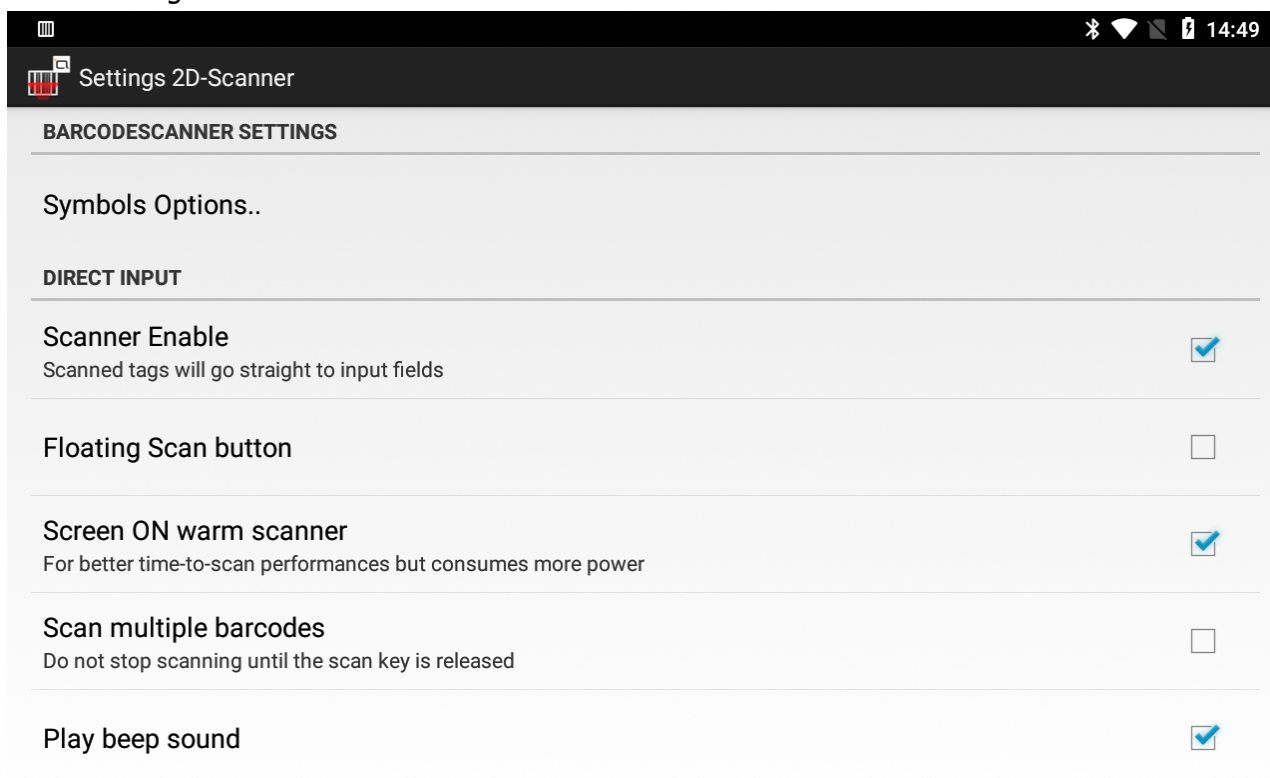
Bad



## 4) How to Scan direct input

Scan direct input is a utility that adds advanced bar code scanning capability to any application without writing code. It runs in the background and handles the interface to built-in barcode scanners. The captured bar code data is converted to keystrokes and sent to the target application as if it was typed on the keypad.

## A. Path : Settings > Barcode



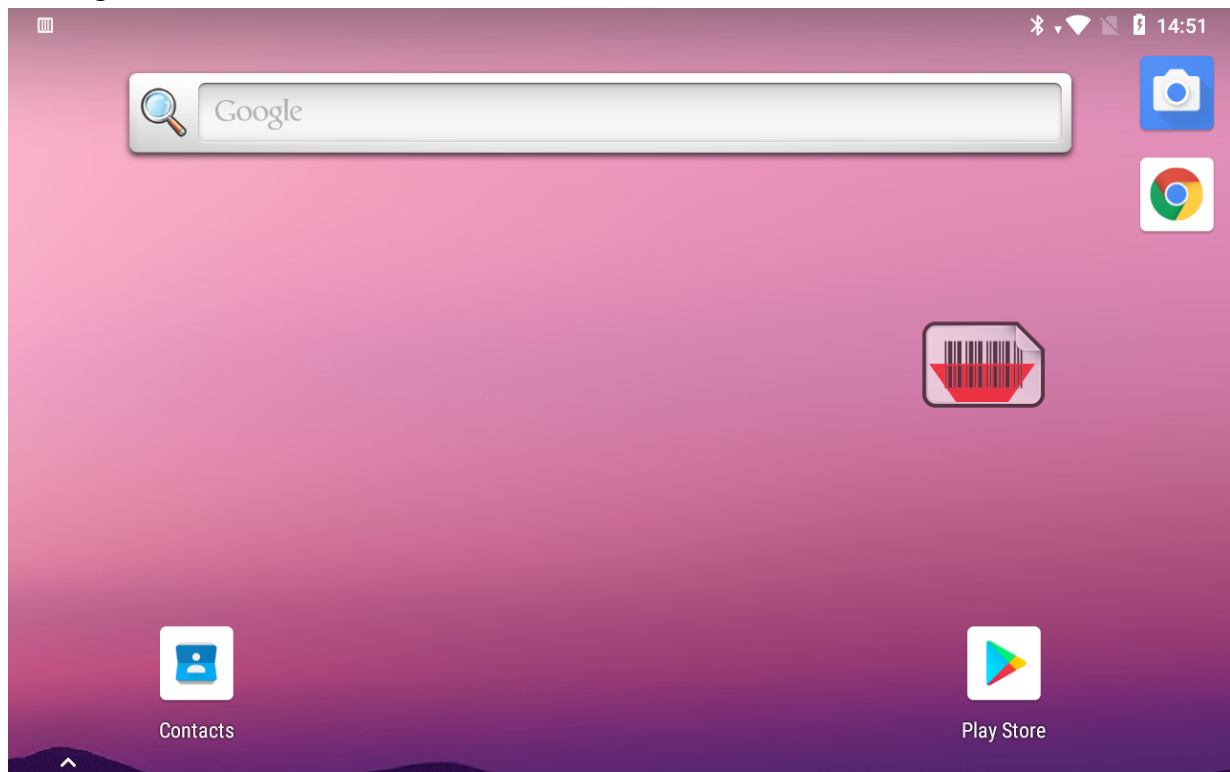
The screenshot shows the 'Settings 2D-Scanner' app interface. At the top, there's a status bar with icons for signal, Wi-Fi, battery, and the time 14:49. Below the title bar, the section 'BARCODESCANNER SETTINGS' is displayed. Under 'Symbols Options..', there's a 'DIRECT INPUT' section. The settings listed are: 'Scanner Enable' (checked), 'Floating Scan button' (unchecked), 'Screen ON warm scanner' (checked), 'Scan multiple barcodes' (unchecked), and 'Play beep sound' (checked). Each setting has a brief description below it.

BARCODESCANNER SETTINGS	
Symbols Options..	
DIRECT INPUT	
Scanner Enable	<input checked="" type="checkbox"/>
Scanned tags will go straight to input fields	
Floating Scan button	<input type="checkbox"/>
Screen ON warm scanner	<input checked="" type="checkbox"/>
For better time-to-scan performances but consumes more power	
Scan multiple barcodes	<input type="checkbox"/>
Do not stop scanning until the scan key is released	
Play beep sound	<input checked="" type="checkbox"/>

## B. Functions

Function	Description
Symbols Options..	Symbols Options
Enable Direct Input	Scanned tags will go straight to input fields
Screen ON warm scanner	For better time-to-scan performances but consumes more power
Scan multiple barcodes	Do not stop scanning until the scan key is released
Play beep sound	Enable/Disable scan sound
Vibrate	Enable/Disable vibrate
Append ENTER to tags	Enter after Scan
Send TAB key event after reading	TAB after Scan
Floating Scan Button	Screen Scan Button
Tag prefix / suffix	\r, \n, \t, \\
Number removed from head/tail	Can erase the data by the number entered. (Head or Tail)
Split scanned result by a delimiter	One barcode data can be separated into two.
Output	Direct to edit text or Through clipboard

### C. Floating Scan Button



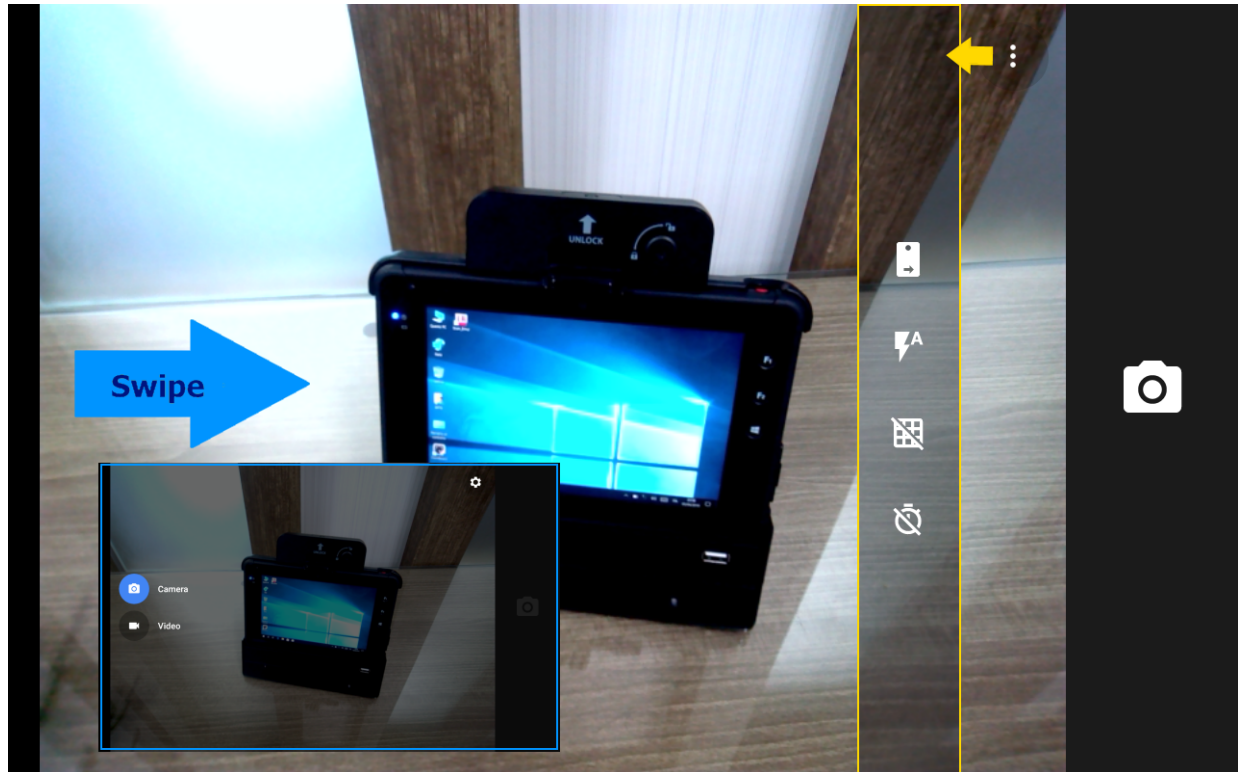
# 6. Using the Camera

## 1) Overview

Taking photos and recording videos using the integrated digital cameras.

## 2) Opening the Camera app and adjusting the settings

To open the Camera app, touch camera on the Home screen.



### A. Taking a photo

- (1) Open the Camera app.
- (2) Verify single photo mode is selected.
- (3) Center the object you want to take a photo of on the live preview screen.
- (4) Touch capture icon to capture the photo.
- (5) Swipe left on the touch screen to view the captured photo. From the film strip screen you can
  - View the captured photo.
  - Touch More to access editing options, delete, view details.
  - Swipe left or right to scroll through your other photos or videos.
- (6) Press the Back button to return to the Camera app.

### B. Recording video

- (1) Open the Camera app.
- (2) Swipe right on the touch screen to select video mode.
- (3) Point the camera lens at the scene or object you want to capture in video.
- (4) To start capturing video, touch right icon.
- (5) To stop capturing video, touch right icon.
- (6) Press the Back button to return to the Camera app.

### C. adjusting the settings


The camera/video settings are adjustable from within the Camera app.

#### (1) Zoom

- To zoom in or out, press two fingers on the display and pinch or expand fingers. The zoom controls appear on the screen. (capacitive touch panel only)



## (2) More Settings

- Touch  to access the additional settings options.



Change camera : Front, Rear



Flash mode : Auto, On, Off

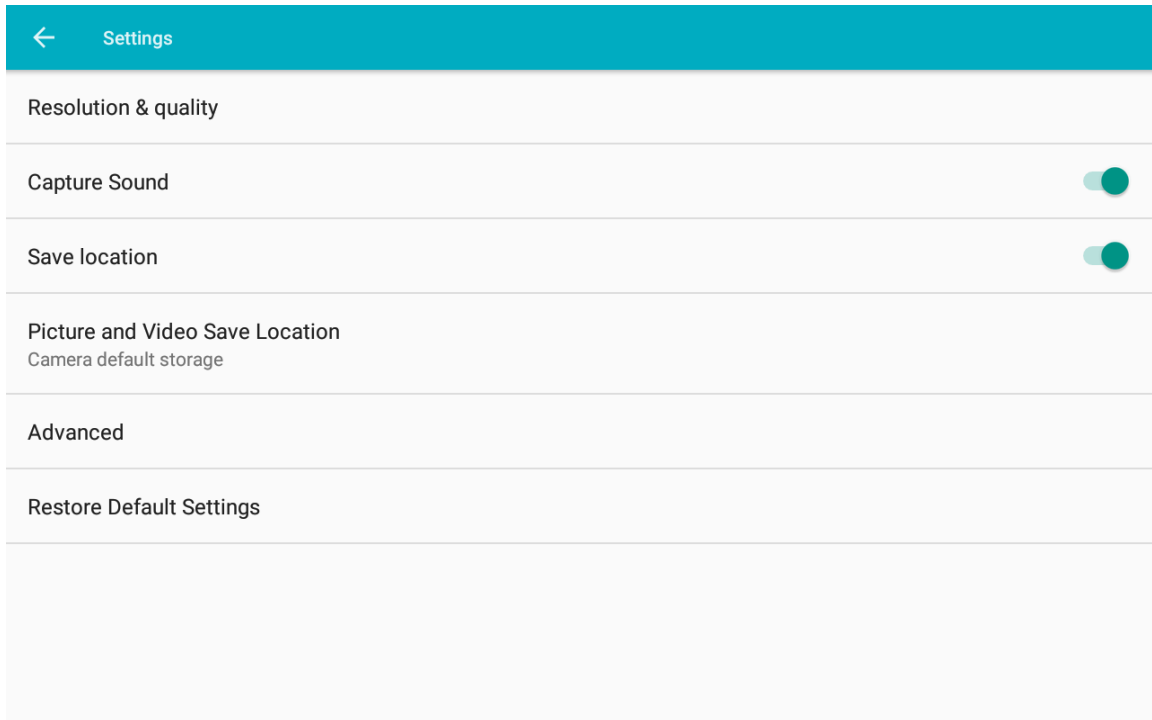


Grid lines link : On, Off



Time : Off, 3s, 10s

- Swipe right on the touch screen. Select each settings icon  to access different option menus.



# 7. Using the MRZ / NFC / Smart Card

## 1) Overview

To read cards, use Machine-Readable Zone (MRZ)/ Near Filed Commucation (NFC)/ Smart Card

\*\* MRZ/ NFC/ Smart Card is only available for the models with MRZ/ NFC/ Smart Card installed.

MRZ/ NFC/ Smart Card can be installed to your device only through our service center.

Contact your sales representative for more information

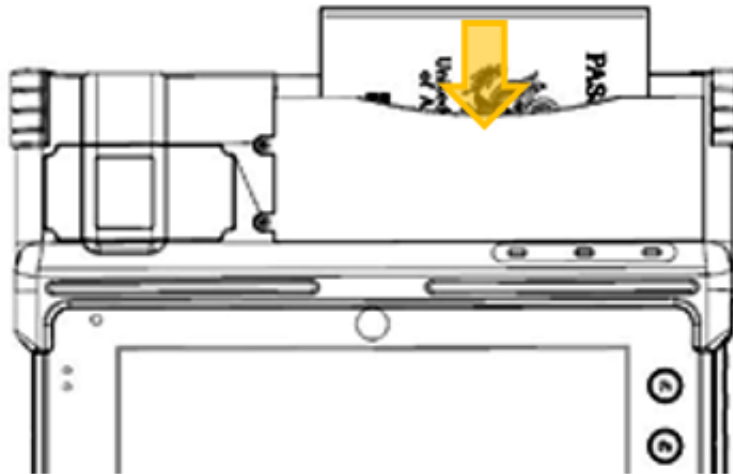
## 2) To read a card using MRZ(Machine-Readable Zone) / Smart Card

Scans 1 line MRZ (IDL, CAN...), 2 lines MRZ (ID2 cards, ePP) or 3 lines MRZ (eID), reads ISO7816 Contact & ISO14443 Contactless (RFID) chip content.

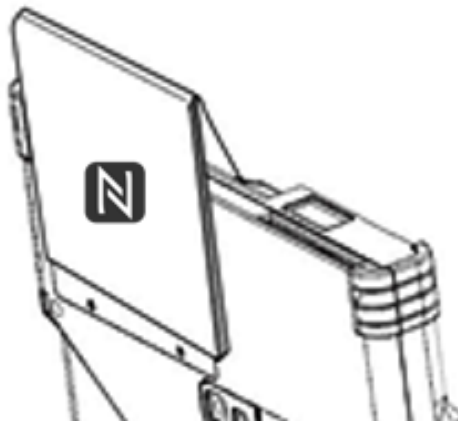
Reads all ePassports and ID documents such as national ID cards, driver's licenses, residence permits and others.

### A. Reading Passport or ID Card

(1) Insert the Passports or ID cards with the OCR printed page facing the back of the terminal as shown.

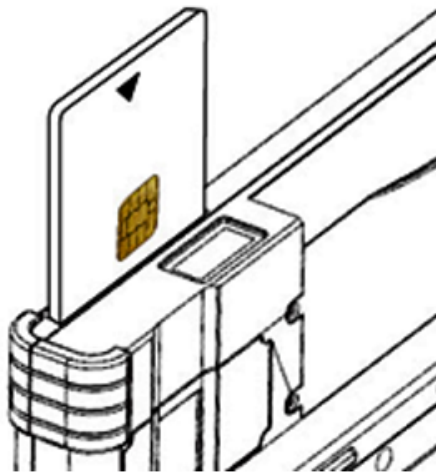


(2) For passports, match the NFC chip of the passport to the NFC antenna on the device as shown.

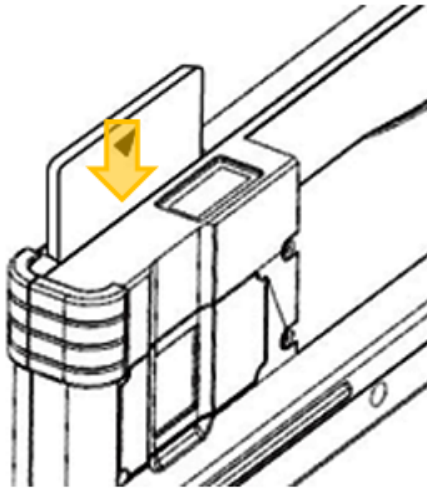


## B. Reading Smart Card

(1) Insert the Smart Cards with the metal contacts in the direction of the picture.



(2) Press the Smart Cards downward until it clicks.



# 8. Using the Fingerprint / Iris

## 1) Overview

To read cards, use Fingerprint / Iris

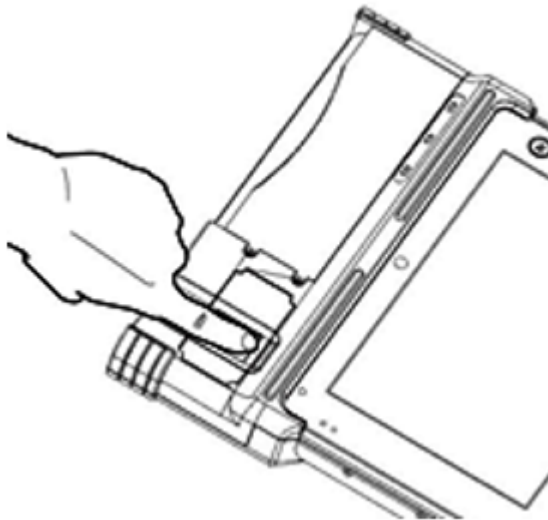
\*\* Fingerprint/ Iris is only available for the models with Fingerprint/ Iris installed.  
Fingerprint/ Iris can be installed to your device only through our service center.  
Contact your sales representative for more information

## 2) To read a card using Fingerprint / Iris

Reads all Fingerprint and Iris.

### A. Reading Fingerprint

Scan your finger on the fingerprint reader as shown.



### B. Reading Iris

Place both eyes on the screen and adjust the distance to the front and back until it recognize the IRIS.



# 9. Wireless

This section provides information on the wireless features

- Wireless Wide Area Network (WWAN)
- Wireless Local Area Network (WLAN)
- Bluetooth

## 1) Wireless Wide Area Networks

Use Wireless wide area networks(WWANs) to access data over a cellular network.

### A. Sharing the mobile data connection

The tethering & portable hotspot settings allow you to share your data connection. You can share the RP Series mobile data connection with a single computer via bluetooth tethering. You can also share the data connection with up to eight devices at one, by turning it into a portable W-Fi hotspot. While the RP Series is sharing its data connection, an icon appears at the top of the screen and a corresponding message appears in the notification list.

#### (1) Bluetooth tethering

Use Bluetooth tethering to share the data connection with a host computer.

\*\* Configure the host computer to obtain its network connection using Bluetooth.

For more Information, see the host computer's documentation.

- Pair the RP Series with the host computer.
- Path : Settings > Network & Internet > Hotspot & tethering.
- Check Bluetooth tethering

The host computer is sharing the device data connection.

\*\* To stop sharing the data connection, uncheck Bluetooth tethering.

#### (2) Portable Wi-Fi hotspot

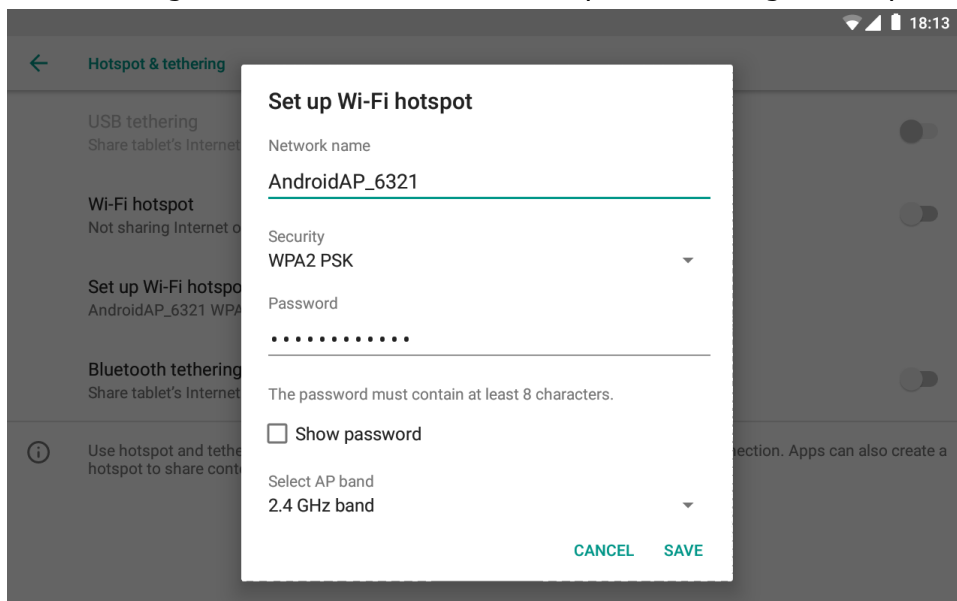
- Path : Settings > Network & Internet > Hotspot & tethering.
- Check Portable Wi-Fi hotspot.

After a moment, the RP Series starts broadcasting its Wi-Fi network name(SSID), so you can connect to it with up to eight computers or other device.

\*\* To stop sharing the data connection, uncheck Portable Wi-Fi hotspot.

- Configure the Wi-Fi Hotspot settings.

Path : Settings > Network & Internet > Hotspot & tethering > Set up Wi-Fi hotspot.



> In the Network SSID text field, edit the network name.

> Touch the Security option and select a security method from the drop-down list.

None, WPA2 PSK

- > In the Password text field, enter a password
  - \*\* If None is selected in the Security option, a password is not required.
- > Select AP Band. (2.4 GHz, 5 GHz)
- > Save

### (3) USB tethering

- Connect your RP70A and PC via USB. (RP70A : Micro 5pin port, PC : USB Port)
- Path : Settings > Network & Internet > Hotspot & tethering.
- Check Portable USB tethering.
  - \*\* NOTE: USB tethering is not supported on computers running Mac OS.
  - If the computer is running Windows or a recent version of Linux (such as Ubuntu), follow these instructions without any special preparation.
  - If running a version of Windows that precedes Windows 7, or some other operating system, you may need to prepare the computer to establish a network connection via USB.

### B. Disabling data when roaming

To prevent the device from transmitting data over other carriers' mobile networks when leaving an area that is covered by the carrier's networks. This is useful for controlling expenses if the service Plan does not include data roaming.

- (1) Path : Settings > Network & Internet > Mobile network
- (2) Un-check Roaming.

### C. Preferred Network Type

Use to change the network operating mode.

- (1) Path : Settings > Network & Internet > Mobile network > Advanced > Preferred network type
- (2) In the Preferred network type dialog box, select a mode to set as default
  - 4G, 3G, 2G

### D. Locking the SIM card



Locking the SIM card requires the user to enter a PIN every time the device is turned on. If the correct PIN is not entered, only Emergency calls can be made.

- (1) Path : Settings > Security & location > SIM card lock
- (2) Check Lock SIM card
- (3) Enter the PIN associated with the card. Touch OK

### E. Editing the APN(Access Point Name)


To use the data on a network the user configure the APN information.

\*\* Generally when SIM Card is mounting in the device, APN configuration is set automatically.

- (1) Path : Settings > Network & Internet > Mobile network > Advanced > Access point names
- (2) Touch 
- (3) Touch each APN settings and enter the appropriate data obtained from the wireless service provider.
- (4) Touch 
- (5) Touch Save
- (6) Touch the radio button next to the new APN name to start using it.

### F. Settings Data Usage Warning

To set a warning alert when the device has used a certain amount of mobile data. When the usage reaches the set level, a notification appears.

- (1) Path : Settings > Network & Internet > Data usage
- (2) Touch Mobile data usage >  > Set data warning.
- (3) Touch Data warning
- (4) Enter a number. To switch between megabytes (MB) and gigabytes (GB), touch the down arrow.
- (5) Touch SET.

## G. Settings Data Limit

To set a data limit when the device has used a certain amount of mobile data.

When the limit is reached, data automatically turns off and a notification appears.

(1) Path : Settings > Network & Internet > Data usage

(2) Touch Mobile data usage >  > Set data limit.

(3) Touch Set data limit

(4) Enter a number. To switch between megabytes (MB) and gigabytes (GB), touch the down arrow.

(5) Touch SET.

## 2) Wireless Local Area Networks

Wireless local area networks (WLANs) allow the RP Series to communicate wirelessly inside a building. Before using the RP Series on a WLAN, the facility must be set up with the required hardware to run the WLAN (sometimes known as infrastructure). The infrastructure and the RP Series must both be properly configured to enable this communication.

Refer to documentation provided with the infrastructure (access points, access ports, switches, Radius servers, etc.) for instructions on how to set up the infrastructure.

Once the infrastructure is set up to enforce the chosen WLAN security scheme, use the Wireless & networks settings configure the RP Series to match the security scheme.

The RP Series supports the following WLAN security options

- Open
- Wireless Equivalent Privacy (WEP)
- Wi-Fi Protected Access (WPA) / WPA2 Personal (PSK)
- Extensible Authentication Protocol (EAP)

The status bar displays icons that indicate Wi-Fi network availability and Wi-Fi status.

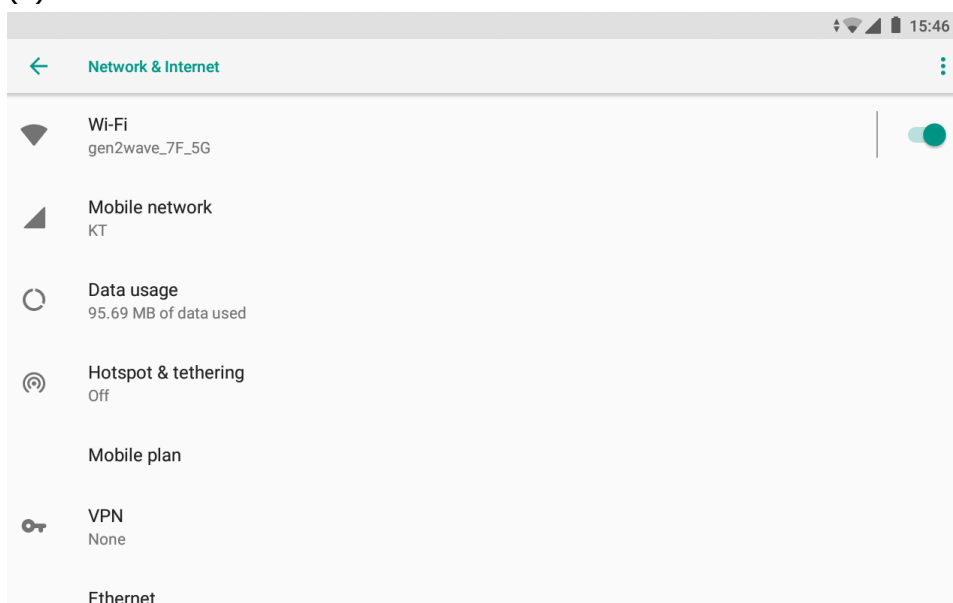
\*\* Turn off Wi-Fi when not using it, to extend the life of the battery.

## A. Scan and connect to a Wi-Fi network

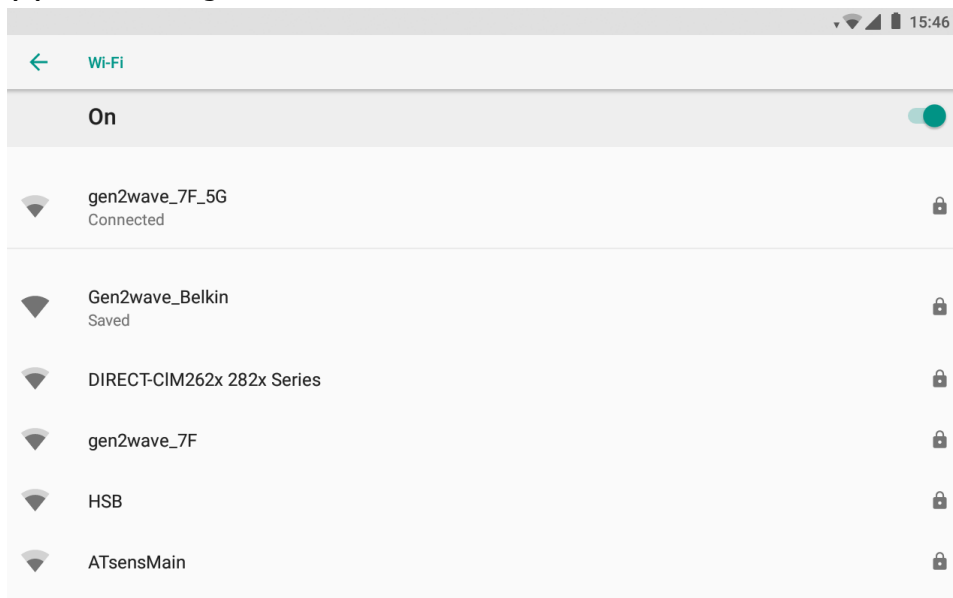
(1) Path : Settings

(2) Slide the Wi-Fi switch to the ON position

(3) Touch Wi-Fi. The RP Series searches for WLANs in the area and lists them.



(4) Scroll through the list and select the desired WLAN network.



(5) For open networks, touch profile once or press and hold and then select connect to network or for secure networks enter the required password or other credentials then touch connect. See the system administrator for more information.

The RP series obtains a network address and other required information from the network using the dynamic host configuration protocol (DHCP) protocol. To configure the RP Series with a fixed internet protocol (IP) address.

(6) In the Wi-Fi settings field, Connected appears indicating that the RP Series is connected to the WLAN.

## B. Configuring the Wi-Fi network

To set up a Wi-Fi network

(1) Path : Settings

(2) Slide the switch to the ON position.

(3) The device searches for WLANs in the area and lists them on the screen.

(4) Scroll through the list and select the desired WLAN network.

(5) Touch the desired network. If the network security is Open, the device automatically connects to the network. For all other network security a dialog box appears.

(6) If the network security is WEB or WPA/WPS2 PSK, enter the required password and then touch Connect.

(7) If the network security is 802.1x EAP

- Touch the Phase 2 authentication drop-down list and select an authentication method.

- If required, touch CA certificate and select a Certification Authority (CA) certificate. Certificates are installed using the Security settings.

- If required, touch User certificate and select a user certificate.

User certificates are installed using the Location & security settings.

- If required, in the Identity text box, enter the username credentials.

- If desired, in the Anonymous identity text box, enter an anonymous identity username.

- If required, in the Password text box, enter the Password for then given identity.

(8) Touch Connect.

\*\* By default, the network Proxy is set to None and the IP settings is set to DHCP.

## C. Manually adding a Wi-Fi network

Manually add a Wi-Fi network if the network does not broadcast its name(SSID) or to add a Wi-Fi network when out of range.

(1) Path : Menu > Settings > Wi-Fi

(2) Slide the Wi-Fi switch to the On position.

(3) Touch + at bottom of the screen.



- (4) In the Network SSID text box, enter the name of the W-Fi network.
- (5) In the Security drop-down list, select the type of security.
  - Options : None, WEP, WPA/WPA2 PSK, 802.1x EAP
- (6) If the network security is None, touch Save.
- (7) If the network security is WEP or WPA/WPA2 PSK, enter the required password and then touch Save.
- (8) If the network security is 802.1x EAP
  - Touch the Phase 2 authentication drop-down list and select an authentication method.
  - If required, touch CA certificate and select a Certification Authority (CA) certificate. Certificates are installed using the Security settings.
  - If required, touch User certificate and select a user certificate. User certificates are installed using the Location & security settings.
  - If required, in the Identity text box, enter the username credentials.
  - If desired, in the Anonymous identity text box, enter an anonymous identity username.
  - If required, in the Password text box, enter the Password for then given identity.
- (9) Touch Connect.
  - \*\* By default, the network Proxy is set to None and the IP settings is set to DHCP.

The screenshot shows the 'Add network' screen with the following fields and options:

- Network name:** WPA2
- Security:** WPA/WPA2 PSK (selected from a dropdown menu)
- Password:** (empty text field)
- Show password:** ☐
- Advanced options:** (dropdown menu, currently closed)
- Buttons:** CANCEL and SAVE

The screenshot shows the 'Add network' screen with the following fields and options:

- Network name:** EAP
- Security:** 802.1x EAP (selected from a dropdown menu)
- EAP method:** PEAP (selected from a dropdown menu)
- Phase-2 authentication:** None (selected from a dropdown menu)
- CA certificate:** Please select (selected from a dropdown menu)
- Identity:** (empty text field)
- Buttons:** CANCEL and SAVE

#### D. Configuring for a proxy server

A proxy server is a server that acts as an intermediary for requests from clients seeking resources from other servers. A client connects to the proxy server, requesting some service, such as a file, connection, web page, or other resource, available from a different server.

The proxy server evaluates the request according to its filtering rules. For example, it may filter traffic by IP address or protocol. If the request is validated by the filter, the proxy provides the resource by connecting to the relevant server and requesting the service on behalf of the client. It is important for enterprise customers to be able to set up secure computing environments within their companies, and proxy configuration is an essential part of doing that. Proxy configuration acts as a security barrier ensuring that the proxy server monitors all traffic between the Internet and the intranet. This is normally an integral part of security enforcement in corporate firewalls within intranets.

- (1) In the network dialog box, touch a network.
- (2) Touch Show advanced options checkbox.
- (3) Touch Proxy settings and select Manual.
- (4) In the Proxy hostname text box, enter the address of the proxy server.
- (5) In the Proxy port text box, enter the port number for the proxy server.
  - \*\* When entering proxy addresses the Bypass proxy for field, do not use spaces or carriage returns between addresses.
- (6) In the Bypass proxy for text box, enter addresses for web sites that do not require to go through the proxy server. Use the separator "|" between addresses.
- (7) Touch Connect.

#### E. Configuring the device to use a static IP address

By default, the device is configured to use Dynamic Host Configuration Protocol (DHCP) to assign an Internet protocol (IP) address when connecting to a wireless network. To configure the device to connect to a network using a static IP address

- (1) In the network dialog box, touch a network.
- (2) Touch Show advanced options checkbox.
- (3) Touch IP settings and select Static.
- (4) In the IP address text box, enter an IP address for the device.
- (5) If required, in the Gateway text box, enter a gateway address for the device.
- (6) If required, in the Network prefix length text box, enter a the prefix length.
- (7) If required, in the DNS 1 text box, enter a Domain Name System (DNS) address.
- (8) If required, in the DNS 2 text box, enter a DNS address.
- (9) Touch Connect.

#### F. Advanced Wi-Fi settings

Advanced Wi-Fi settings are for the device not for a specific wireless network.

Use the Advanced settings to configure additional Wi-Fi settings. From the Wi-Fi screen, touch Wi-Fi preferences > Advanced to view the advanced settings.

- (1) Open network notification
  - When enabled, notifies the user when an open network is available.
- (2) Keep Wi-Fi on during sleep
  - Opens a menu to set whether and when the Wi-Fi radio turns off.
  - Always ON : The radio stays on when the device enters suspend mode.
  - Only when plugged in : The radio stays on while the device is connected to external power.
  - Never (increases data usage) : The radio turns off when the device enters suspend mode
- (3) Avoid poor connections
  - Don't use a Wi-Fi network unless it has a good Internet connection.
- (4) Wi-Fi frequency band
  - Use to select the frequency band.
  - Options : Auto(Default), 5 GHz only or 2.4 GHz only.
- (5) Wi-Fi region code
  - Displays the current region code.
- (6) Available Channels(2.4 Ghz / 5 Ghz)
  - Defines the 2.4Ghz or 5Ghz channels to be scanned.
- (7) Wi-Fi Power Save Mode
  - You can select the Power mode of Wi-Fi.

- OFF(CAM) Mode : Constantly awake mode (Battery life drops faster)
- FAST(Default) Mode : awake periodically
- MAX Mode : Maximum power savings
- (8) Wi-Fi Roaming Trigger
  - When current AP is weaker than Roam trigger, it starts to roaming.
- (9) Wi-Fi SSID Lock
  - It only connects APs which are defined by users.
- (10) Install Certificates
  - Touch to install certificates.
- (11) Wi-Fi optimization
  - Touch to minimize battery usage when Wi-Fi is on

#### G. Remove a Wi-Fi Network

To remove a remembered or connected network

- (1) Path : Settings
- (2) In the Wi-Fi networks list, touch and hold the name of the network.
- (3) In the menu, touch Forget network.

### 3) Bluetooth

Bluetooth-equipped devices can communicate without wires, using frequency-hopping spread spectrum (FHSS) radio frequency (RF) to transmit and receive data in the 2.4 GHz Industry Scientific and Medical (ISM) band (802.15.1). Bluetooth wireless technology is specifically designed for short-range (10 meters (32.8 feet) ) communication and low power consumption.

Devices with Bluetooth capabilities can exchange information (e.g., files, appointments, and tasks) with other Bluetooth enabled devices such as printers, access points, and other mobile devices.

#### A. Bluetooth profiles

The device supports the following Bluetooth services:

- (1) Service Discovery Protocol (SDP)
  - Handles the search for known and specific services as well as general services.
- (2) Serial Port Profile (SPP)
  - Allows use of RFCOMM protocol to emulate serial cable connection between two Bluetooth peer devices. For example, connecting the device to a printer.
- (3) Object Push Profile (OPP)
  - Allows the device to push and pull objects to and from a push server.
- (4) Advanced Audio Distribution Profile (A2DP)
  - Allows the device to stream stereo-quality audio to a wireless headset or wireless stereo speakers.
- (5) Audio/Video Remote Control Profile (AVRCP)
  - Allows the device to control A/V equipment to which a user has access. It may be used in concert with A2DP.
- (6) Personal Area Network (PAN)
  - Allows the use of Bluetooth Network Encapsulation Protocol to provide L3 networking capabilities over a Bluetooth link. Only PANU role is supported.
- (7) Human Interface Device Profile (HID)
  - Allows Bluetooth keyboards, pointing devices, gaming devices and remote monitoring devices to connect to the device.
- (8) Headset Profile (HSP)
  - Allows a hands-free device, such as a Bluetooth headset, to place and receive calls on the device.
- (9) Hands-Free Profile (HFP)
  - Allows car hands-free kits to communicate with the device in the car.
- (10) Dial-up Networking (DUN)
  - Allows the device to access the Internet and other dial-up services using a Bluetooth enabled mobile phone.
- (11) Out of Band (OOB)
  - Allows exchange of information used in the pairing process. Pairing is completed using the

Bluetooth radio, but requires information from the OOB mechanism. Using OOB with NFC enables pairing when devices simply get close, rather than requiring a lengthy discovery process.

#### B. Bluetooth radio power

Turn off the Bluetooth radio to save power or if entering an area with radio restrictions.

When the radio is off, other Bluetooth devices cannot see or connect to the device. Turn on the Bluetooth radio to exchange information with other Bluetooth devices (within range). Communicate only with Bluetooth radios in close proximity.

**\*\* To achieve the best battery life turn off radios when not in use.**

#### C. Turning the Bluetooth radio On or Off

(1) Path : Settings > Connected devices

(2) Touch the Bluetooth OFF/ON toggle box off to turn the radio on.

Once the Bluetooth radio is activated, the terminal automatically starts searching for discoverable devices.

#### D. Pairing and trusted devices

The terminal supports pairing with other devices using Bluetooth technology. Pairing happens during general connection setup. Paired devices are "trusted" device. This means that there is unrestricted access to all services (including services that require authorization and authentication).

#### E. Connecting to other bluetooth devices

To connect to other bluetooth devices, you need to perform a device search, select a discovered device, and then connect to the selected device. Pairing happens as part of the connection process.

(1) Make sure the bluetooth devices you are attempting to connect to is in range and set to be discoverable by other devices using Bluetooth technology.

(2) Settings > Connected devices > Verify the Bluetooth radio is activated ON.

(3) Touch Bluetooth

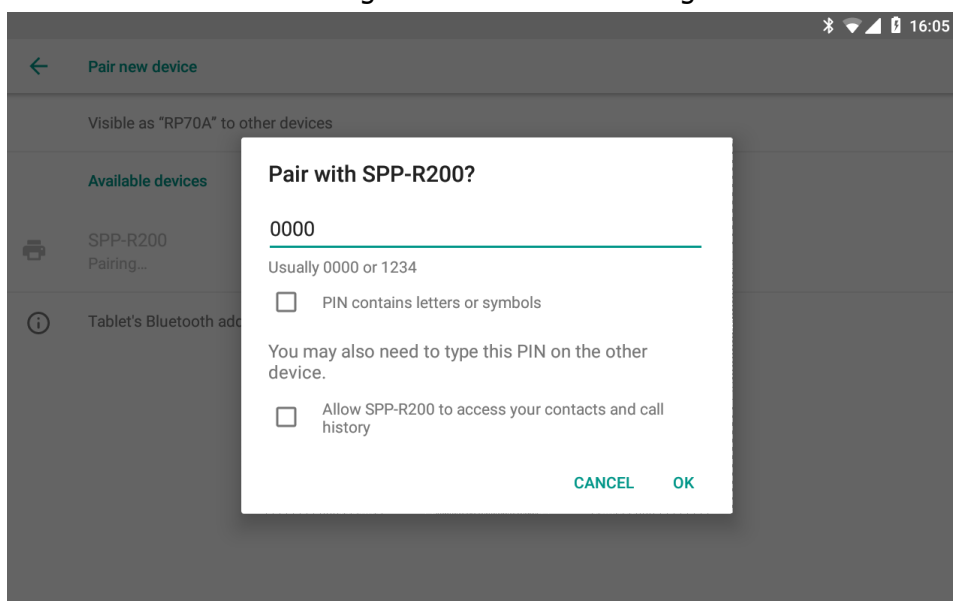
(4) Touch Pair new device to refresh the scan started when the bluetooth radio was first activated.

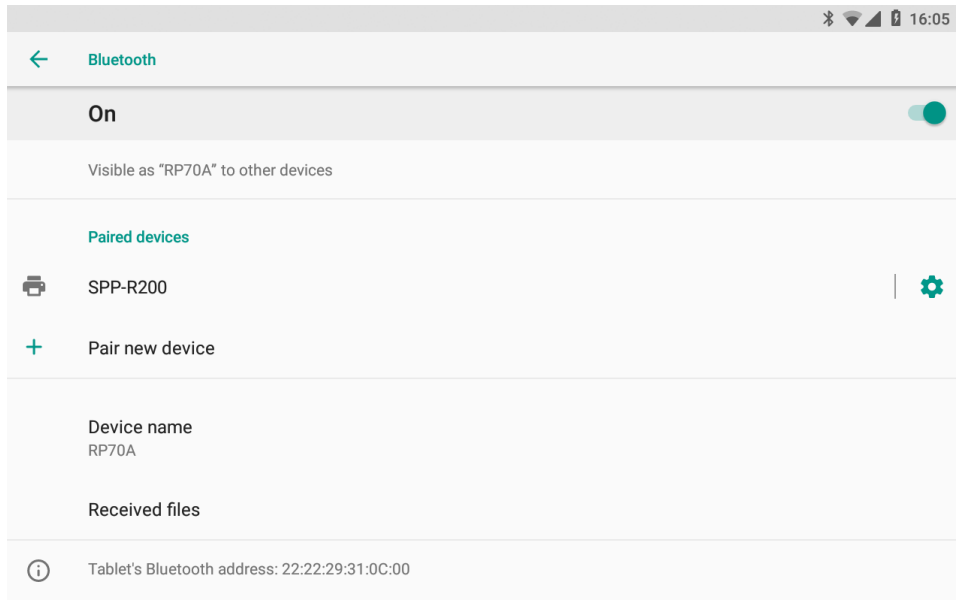
(5) Touch on the name of the device you want to connect to on Available Devices list.

(6) The bluetooth radio attempts to connect with the device. If the device has a specific passcode. enter it when prompted.


**\*\* When attempting to connect to a printer or headset with bluetooth capabilities, the passcode may default to either 1234 or 0000. If there is no default, consult the device literature for the number.**

(7) When the devices are paired successfully, the device name is displayed under the "Paired Devices" heading on the bluetooth settings screen.





#### F. Configuring or unpairing bluetooth devices

- (1) Settings > Connected devices > Verify the Bluetooth radio is activated ON.
- (2) Touch Bluetooth
- (3) On the Paired Devices list touch the settings  next to name of the device you want to disconnect.
- (4) Touch Rename, FORGET profile from the Profiles list available for the paired device.

#### G. Making the device discoverable

By default, the device is not discoverable, which means that the terminal will not be found by other bluetooth devices.

- (1) Menu > Settings > Verify the Bluetooth radio is activated ON.
- (2) Touch Bluetooth

#### H. Bluetooth menu options

You can access additional configuration options from the Bluetooth screen.


- (1) Rename phone
  - Change the default device name to a custom name of your choice. Enter the new name and then select Rename.
- (2) Received files
  - Lists statistics on received files.

# 10. Settings

## 1) Ethernet

By default, the RP Series is configured to obtain IP addresses automatically via DHCP server. This means that in most cases you would simply plug-and-play the unit.

### A. Connecting the device to the ethernet accessories

- (1) Plug the ethernet accessories(ethernet cradle, ethernet vehicle cradle) into the RJ45 connector on the back of the ethernet accessories.
- (2) Plug the ethernet cable into the network.
- (3) Insert the device into the terminal well.
- (4) Check the box to Turn on Ethernet. When an Ethernet connection is established the status icon  at the top of the screen

### B. Ethernet menu options

- (1) Path : Settings > Network & Internet > Ethernet
- (2) Touch and hold "Ethernet Ip mode".
- (3) Static IP
  - Select Static IP under Connection Type, and then input the IP address and any additional information based on you network configuration.
- (4) PPPoE
  - Enter the ID and password.

## 2) Security

Use this Security settings to set a lock screen and change settings to secure your device.

Path : Settings > Security

### A. Screen security

- (1) Screen lock
  - None : The screen is unlocked at all times. When you press the Power button, the Home screen appears.
  - Swipe : Drag the lock icon and release to unlock.
  - Pattern : Draw a pattern to unlock.
  - PIN : Enter a PIN to unlock.
  - Password : Enter a password to unlock.
- (2) Screen lock option : When you set the pattern, PIN, or password lock screen, the following options appear.
  - Make pattern visible : Tap and select the checkmark to make the pattern visible when they are drawn.
  - Automatically lock : Tap to select the length of time the device waits before turning off the screen and locking itself
  - Power button instantly locks: Tap and select the checkmark to set to enable the Power button to lock the device instantly
  - Lock screen message : Shows the message entered in screen lock mode.

### B. Encryption & credential storage

By default, the device is Encrypted.

- (1) Trusted credentials : Tap to view and disable or enable the trusted system CA certificates.
- (2) Install from SD card : Tap to install certificates from the SD card.
- (3) Clear credentials: Tap to remove all certificates.