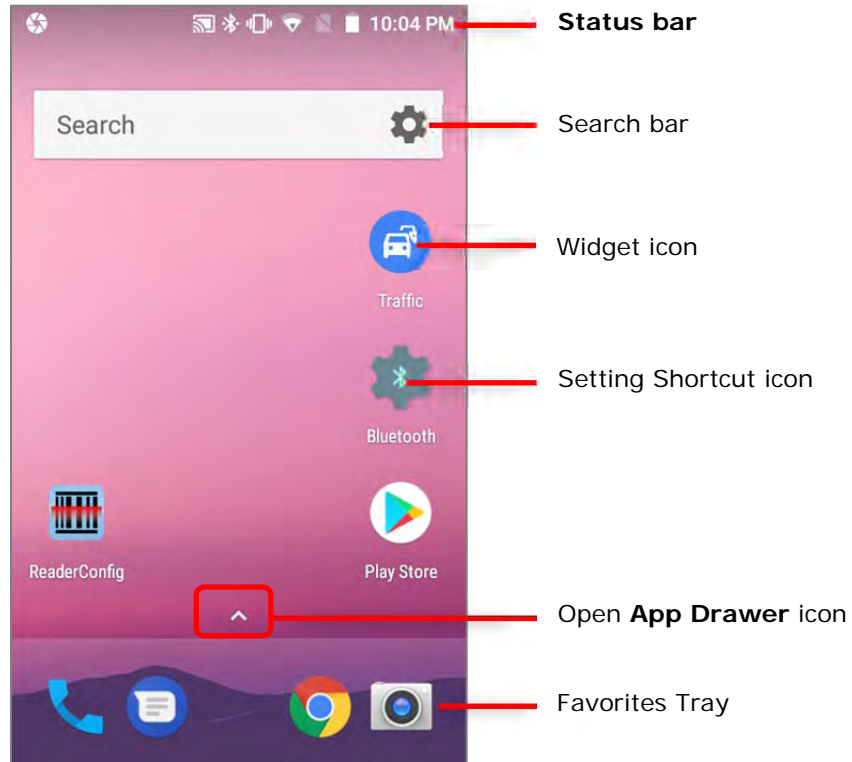
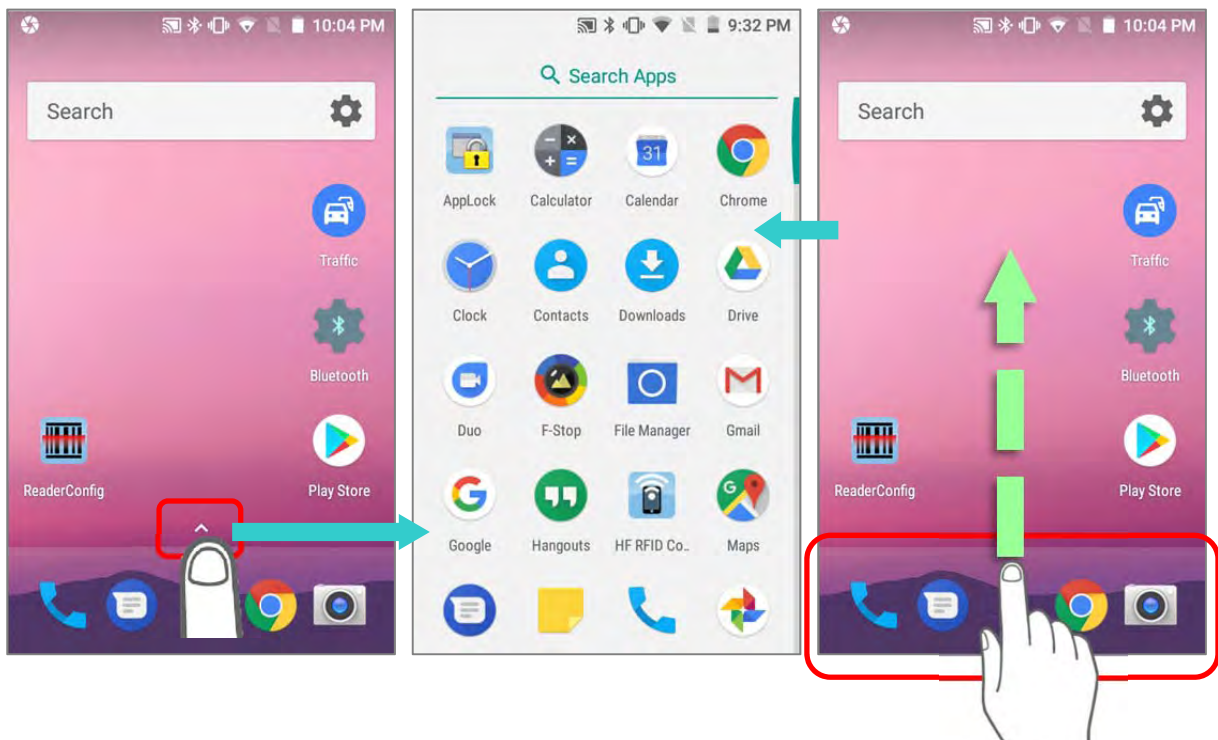


The **Home Screen** appears showing a status bar, shortcut icons, an icon to open **App Drawer**, and the Favorites tray. The home screen allows multiple pages for placing shortcut icons and widgets. You may customize the home screen according to your preferences.




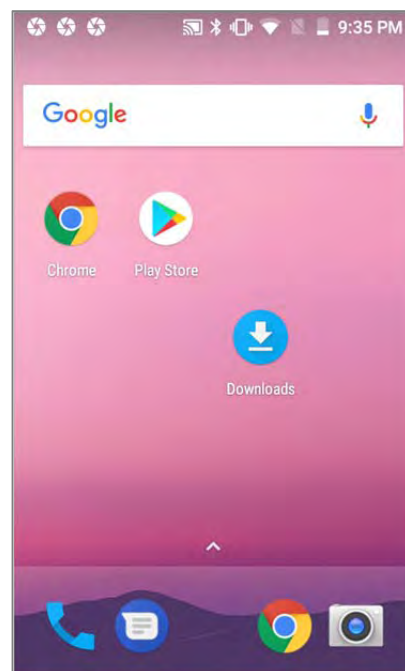
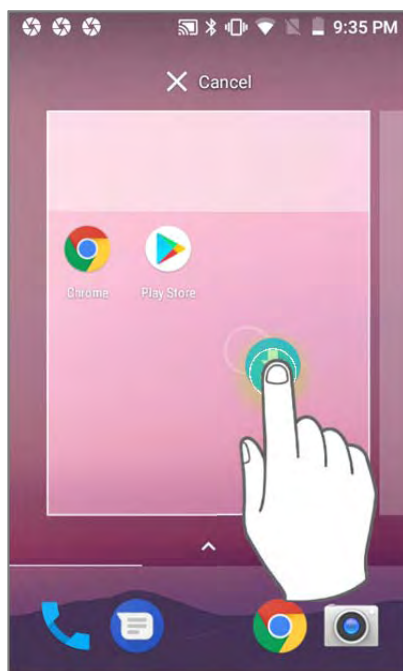
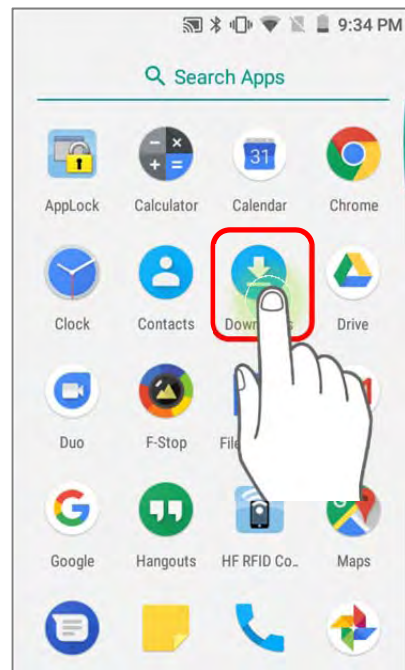
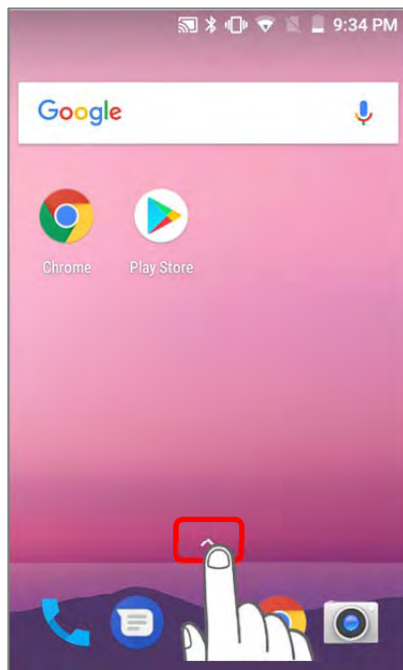
To open App Drawer, please tap  icon, or slide up from the **Favorites Tray**:



### 3.1.1. CUSTOMIZE HOME SCREEN

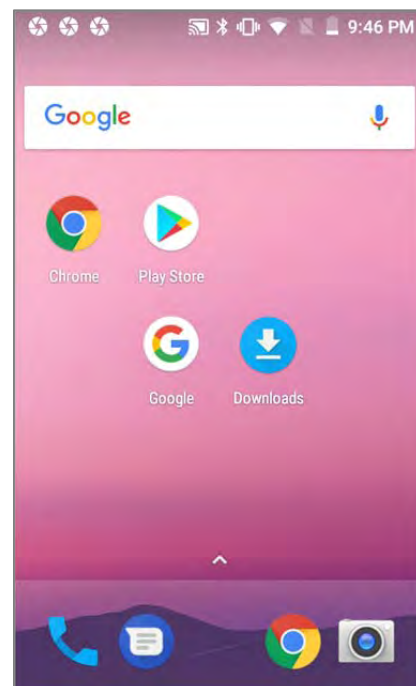
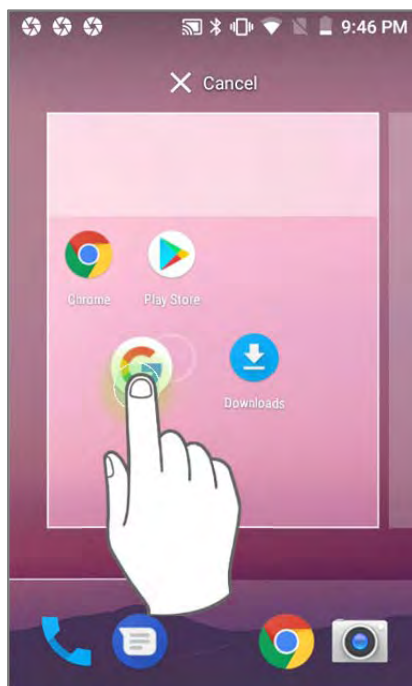
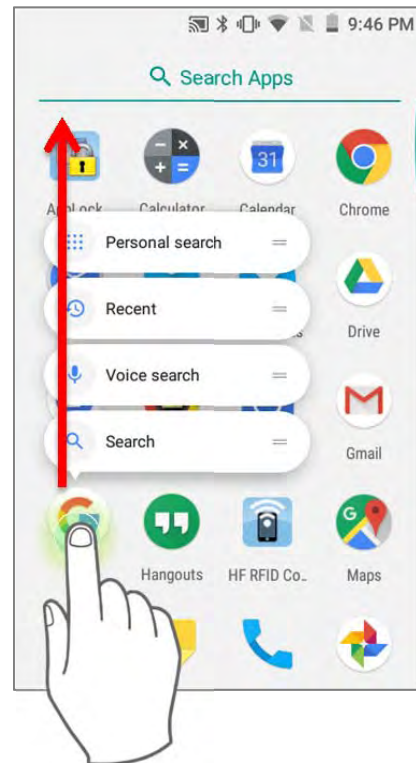
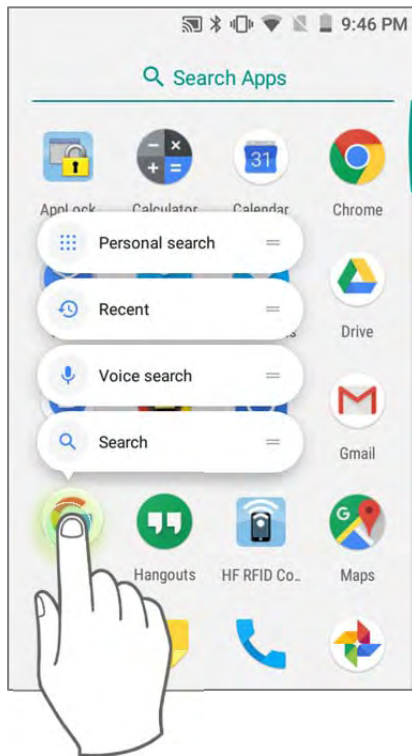
#### ADD APPLICATION SHORTCUT TO HOME SCREEN

- 1) On the home screen you would like to customize, tap open **App Drawer** icon  , or slide up from the Favorites tray.
- 2) Locate the application to add, tap on and hold the application icon.
- 3) The home screen will appear. Drag the application icon to your preferred position and release to have it placed.



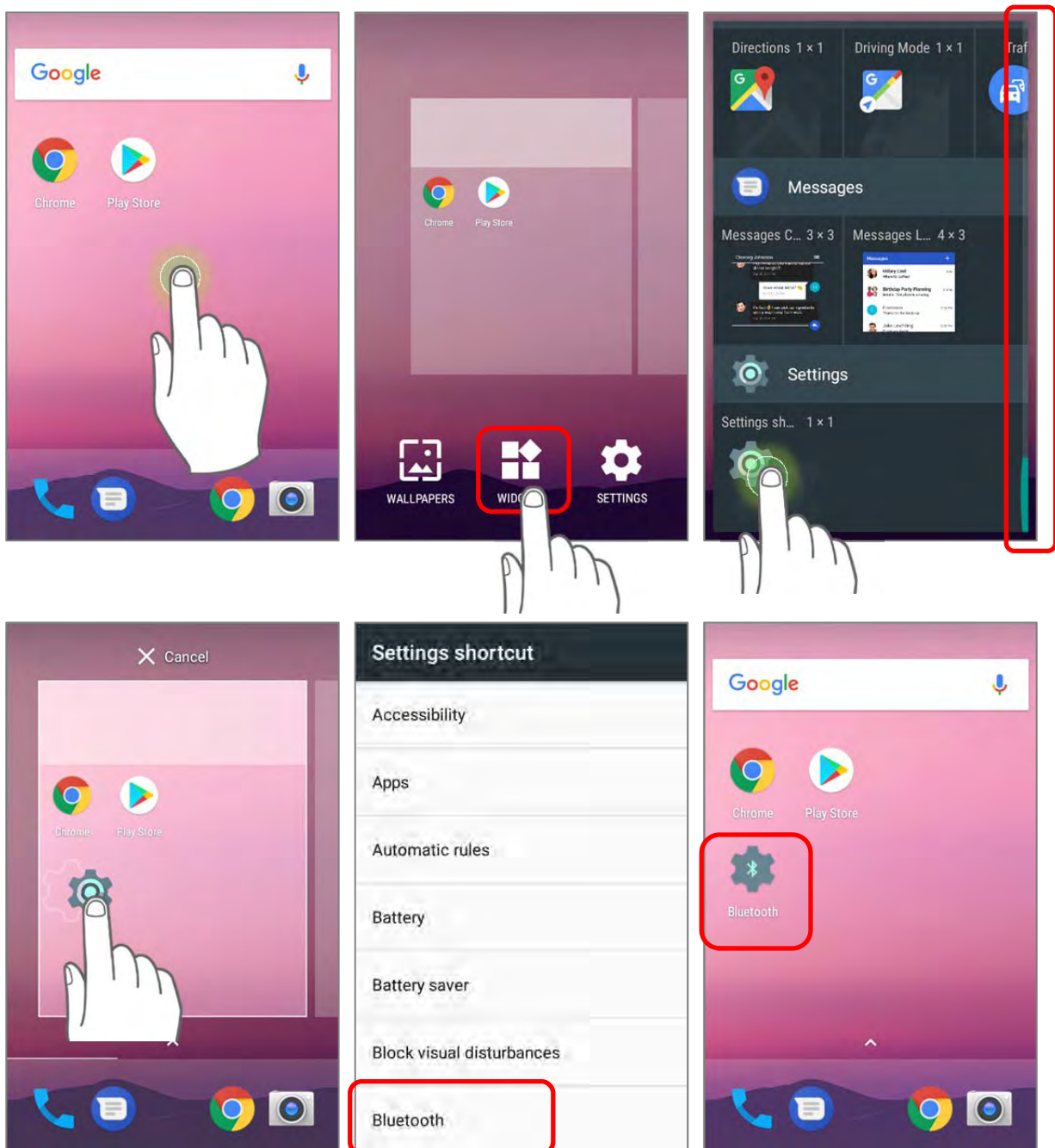
Long pressing certain applications such as Chrome or Gmail may show the **app shortcuts** but not Home screen. To add such applications from App Drawer to Home screen, please:

- 1) Keep tapping and holding the application icon and drag it upward.
- 2) The Home screen will appear. Drag the application icon to your preferred position and release to have it placed.



## ADD WIDGET TO HOME SCREEN

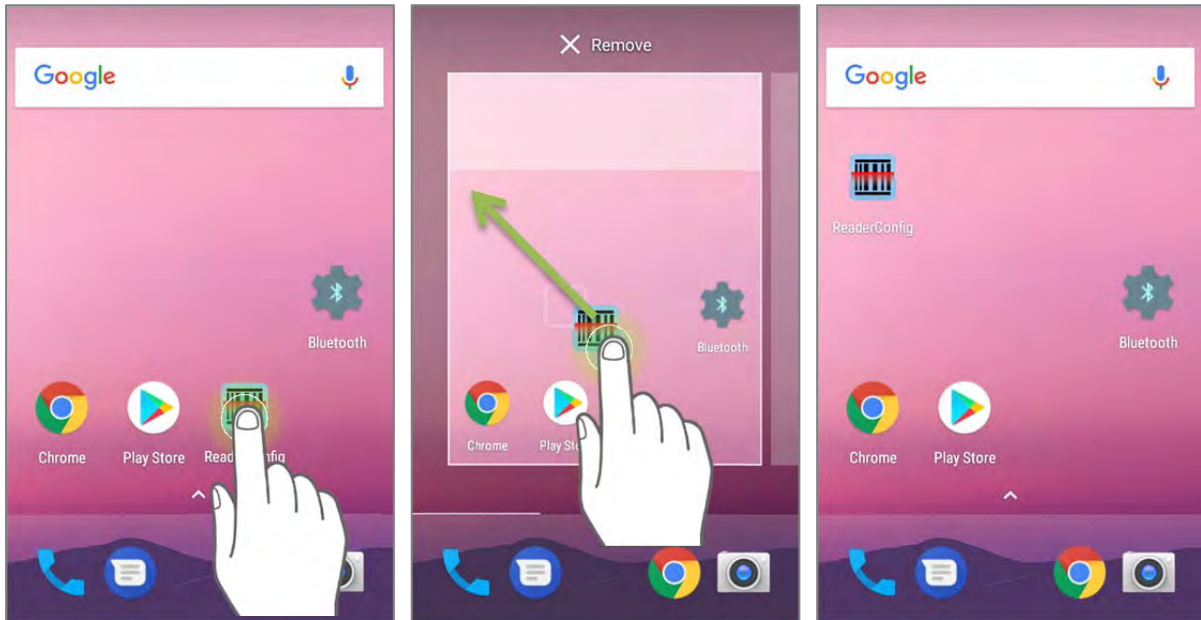
- 1) Tap and hold any empty spot on the home screen.
- 2) The current layout will shrink, and the available options related to home screen appear on the bottom. Tap **Widgets** to enter the widget selection list.
- 3) In the widget selection list, scroll to locate your desired widget.
- 4) Tap and hold the widget until the home screen layout appears. Drag the widget to your preferred position and release to have it placed. For a setting shortcut, you will have to select a specific setting from the shortcuts list.



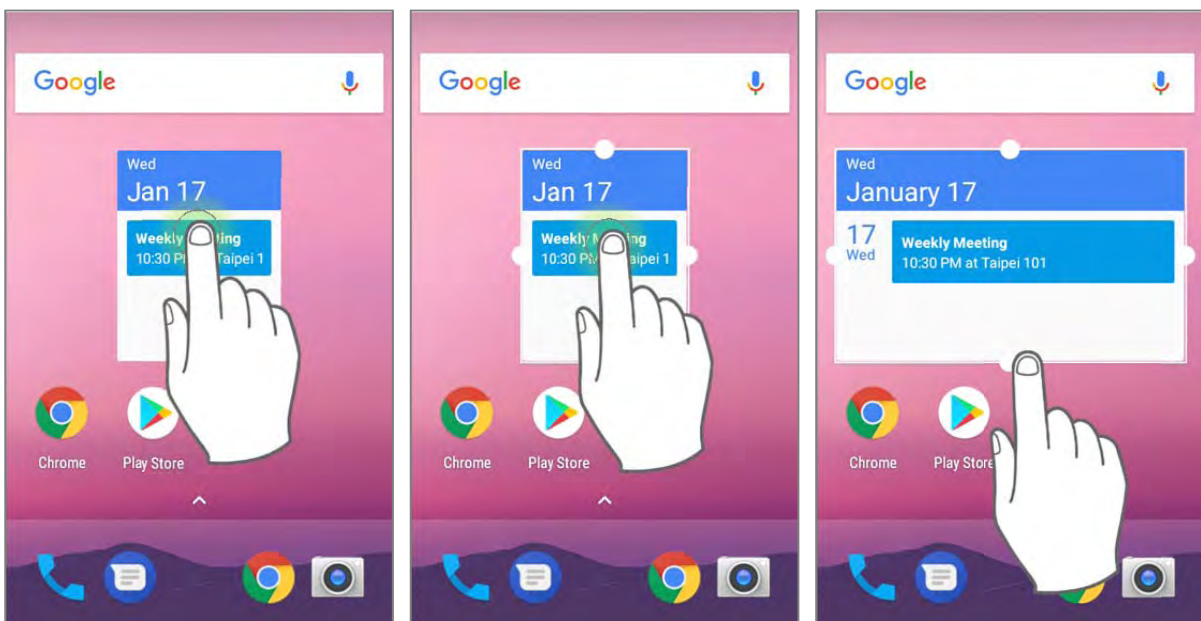


## ARRANGE THE SHORTCUTS AND WIDGETS ON HOME SCREEN

To move or remove a shortcut/widget, on the home screen you would like to customize, tap and hold it to enter layout edit mode, an option “**X Remove**” will appear on top of the screen, to which you can drag the unwanted shortcut/widget to remove it. Drag the icon to the preferred position and release it to have it placed.

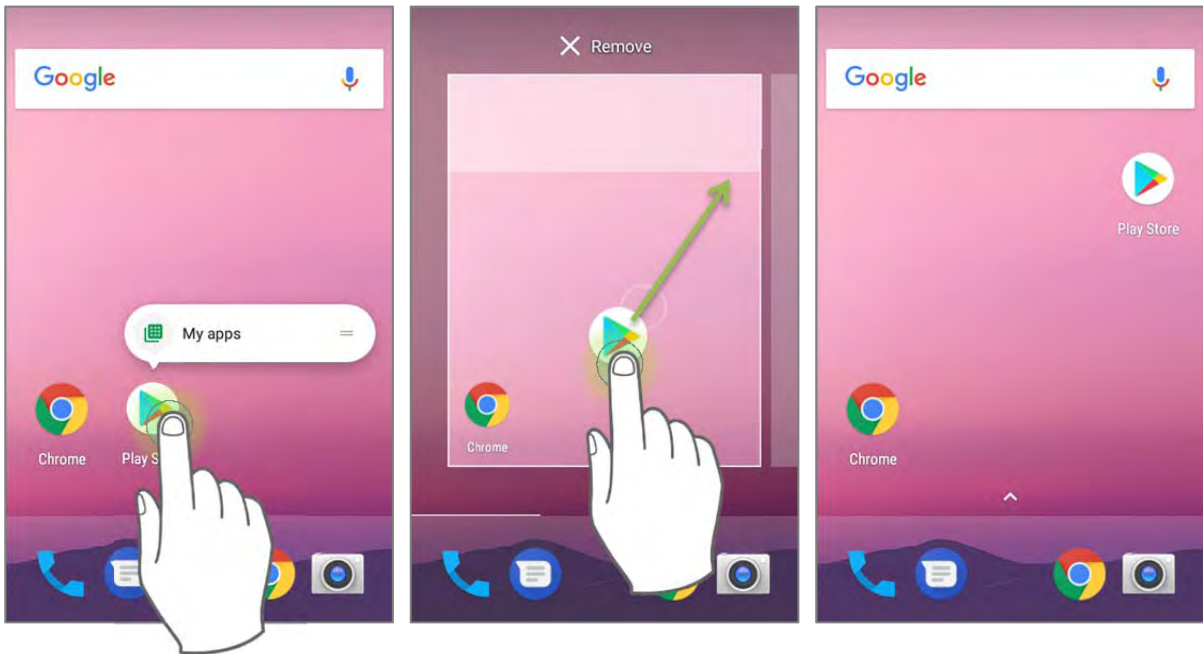


To resize a widget, tap and hold it until a white frame appears. Tap and drag a white dot to re-scale the widget.



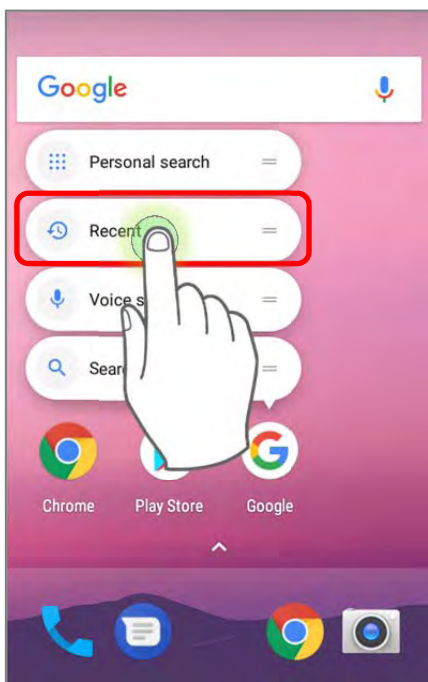
**ARRANGE THE APPLICATIONS WITH APP SHORTCUTS ON HOME SCREEN**

To move or remove those applications which offer app shortcuts, please hold and drag the application icon to anywhere on the screen, and layout edit mode appears. Drag the application icon to "X Remove" on the top of the screen to remove it, or to the preferred position and release it to have it placed.

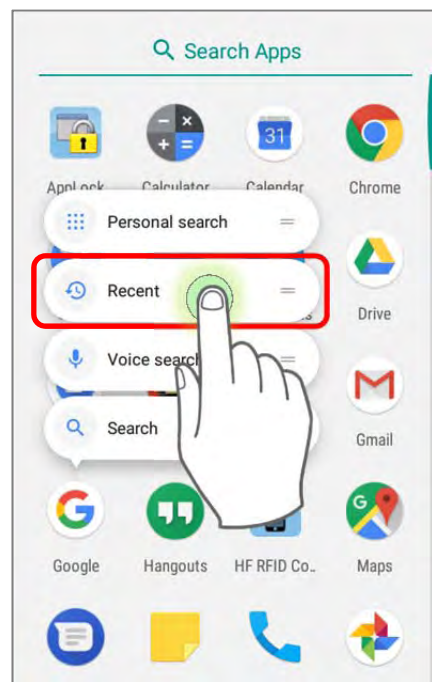


To create an **Action** icon from the **app shortcuts** to Home screen, please:

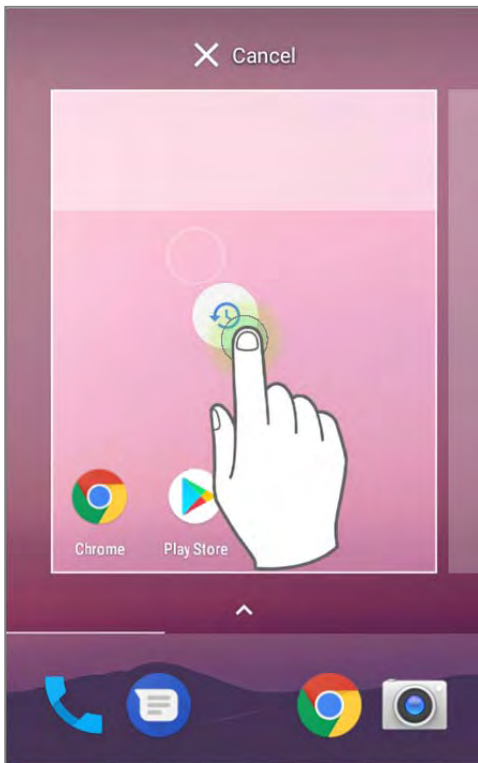
- 1) Long press an application icon (no matter on the **Home** screen or the **App Drawer**) to unfold its **app shortcuts**.



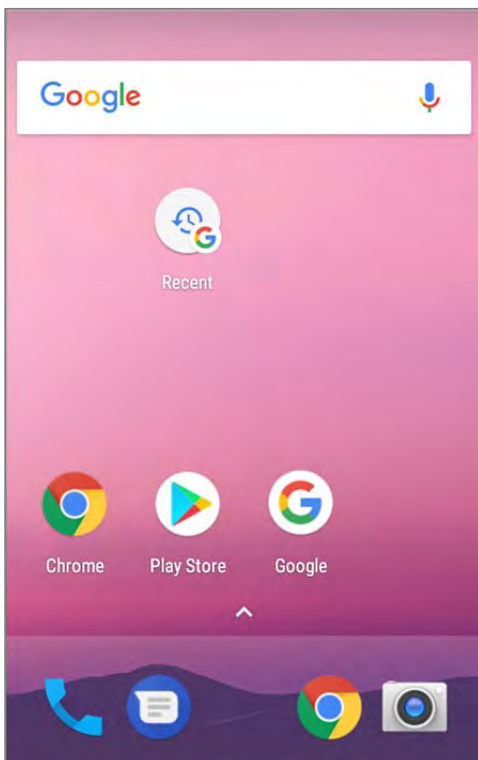
OR



- 2) Tap and hold an **Action** from the **app shortcuts** and drag it to the preferred position on the Home screen.

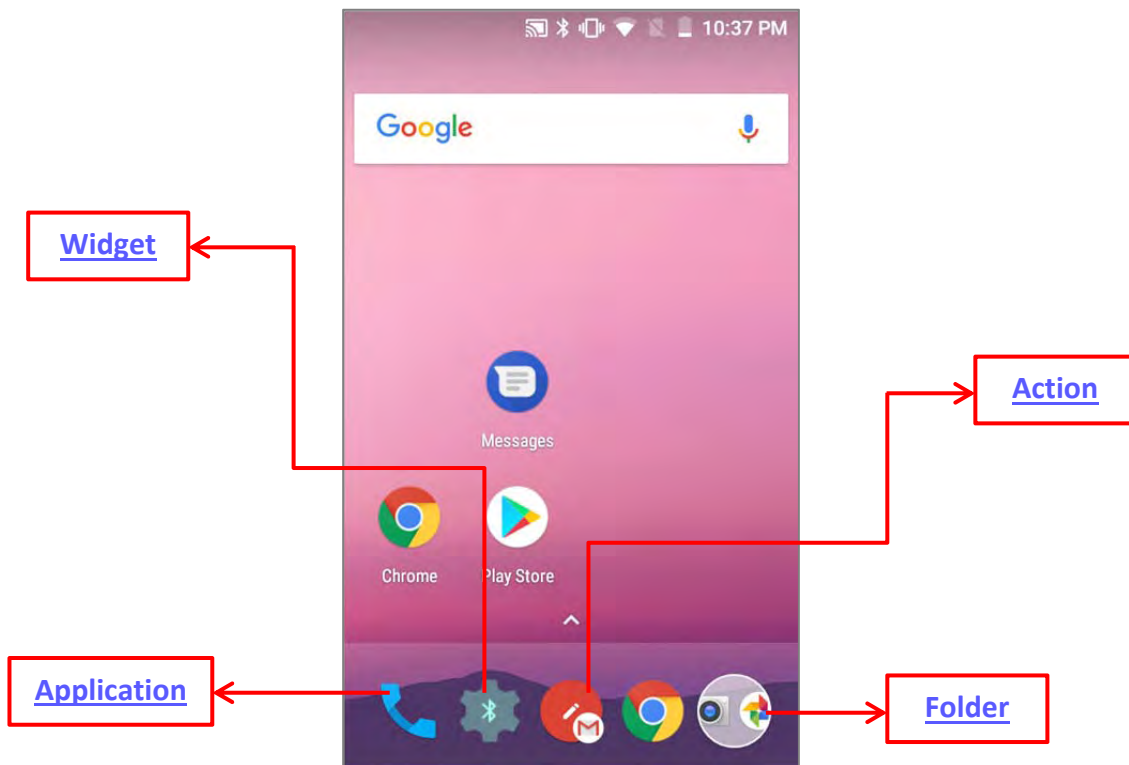


- 3) Release the **Action** icon to have it placed.



## EDIT FAVORITES TRAY

Favorites Tray, which is located in the bottom of Home screen, contains up to 5 icons and appears on every Home screen.



Add **Widgets**, **Applications**, **Actions**, or **Folders** to Favorites Tray, please:

- 1) Tap and hold the icon and drag it to the Favorites Tray.
- 2) Release the icon to have it placed.

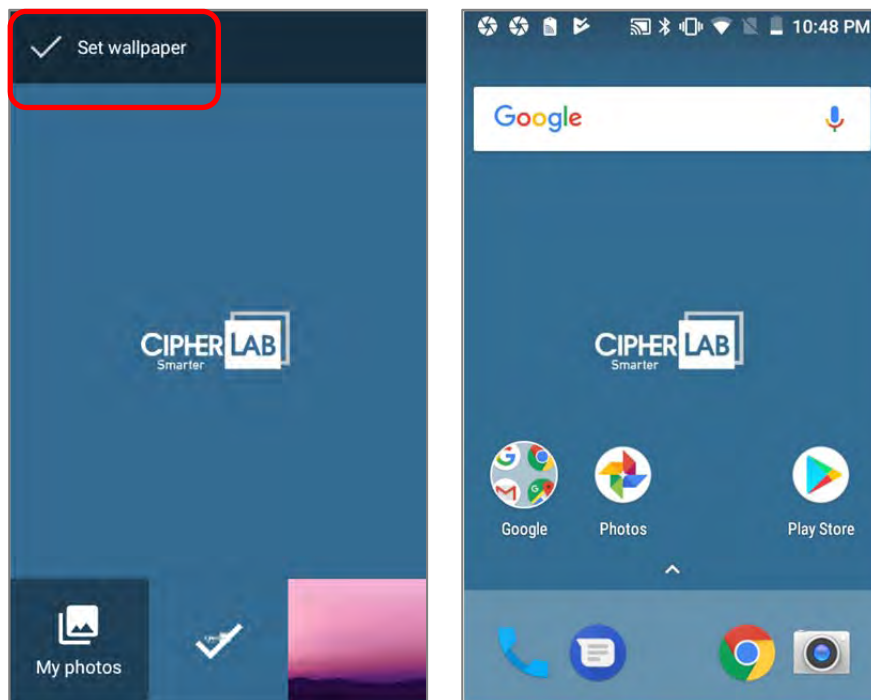
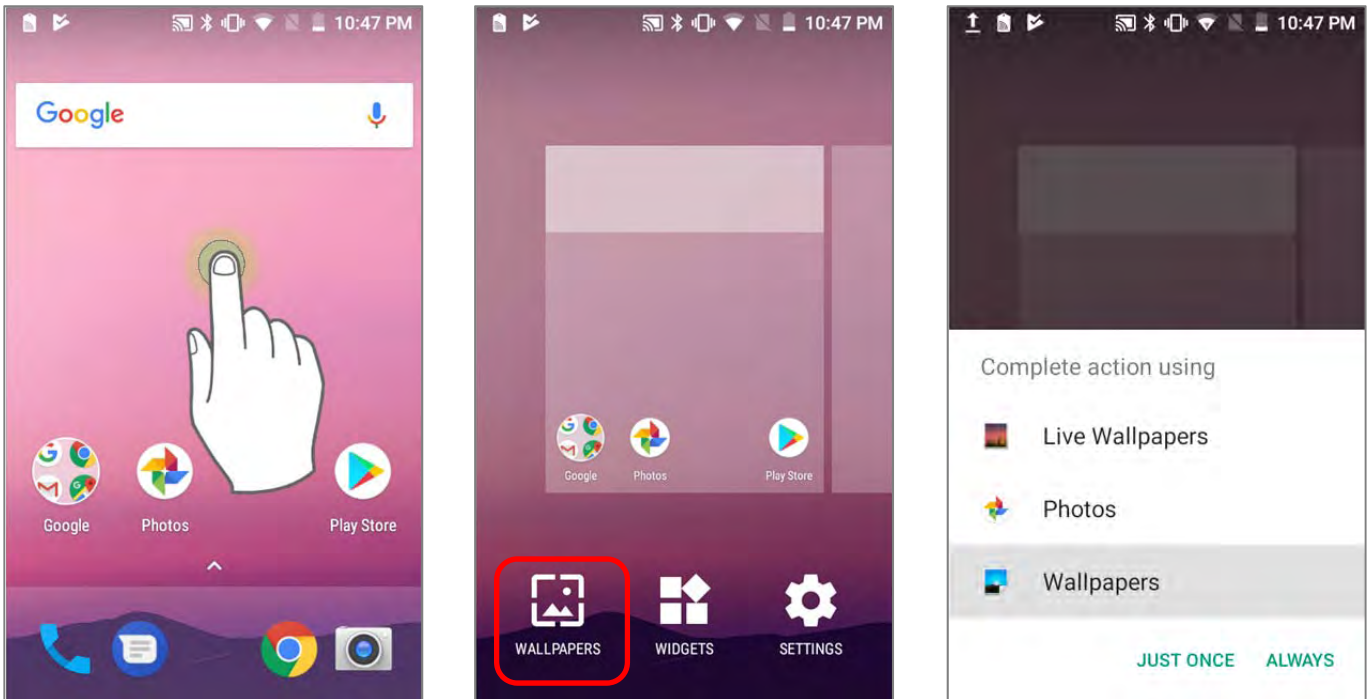
To move/remove an icon of **Widgets**, **Applications**, **Actions**, or **Folders** from the Favorites Tray:

- 1) Tap and hold the icon to enter layout edit mode.
- 2) Drag the icon to the spot where you would like to have it place and release it, or drag it to "**X Remove**" on the top of the screen to delete it.



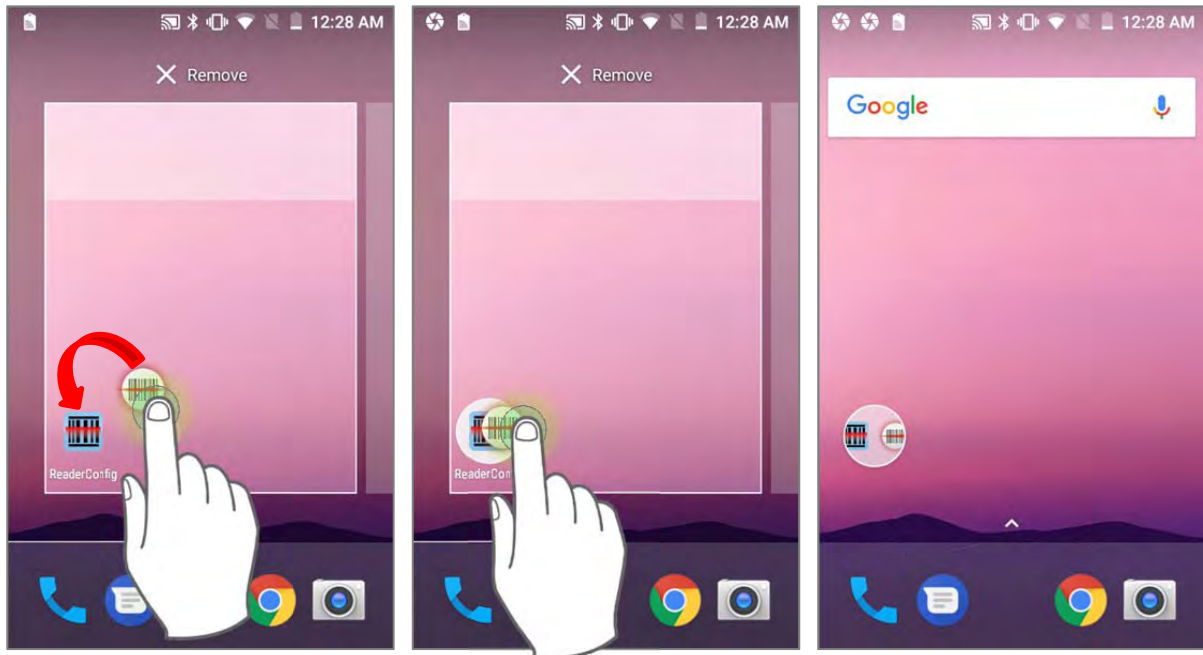
## CHANGE HOME SCREEN WALLPAPER

- 1) Tap and hold any empty spot on the home screen.
- 2) Tap Wallpapers in the menu that appears, and select the app you would like to use.
- 3) Select an image to apply as the wallpaper.
- 4) Tap **Set wallpaper**.




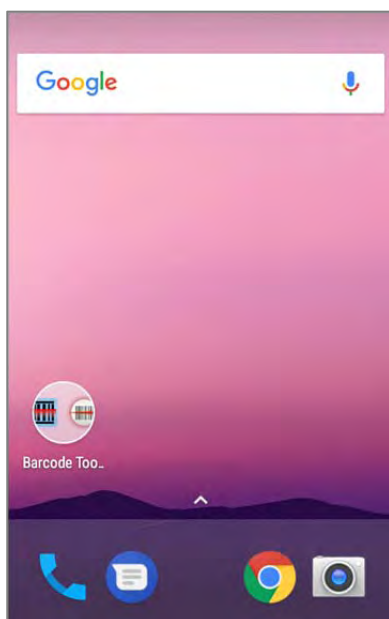
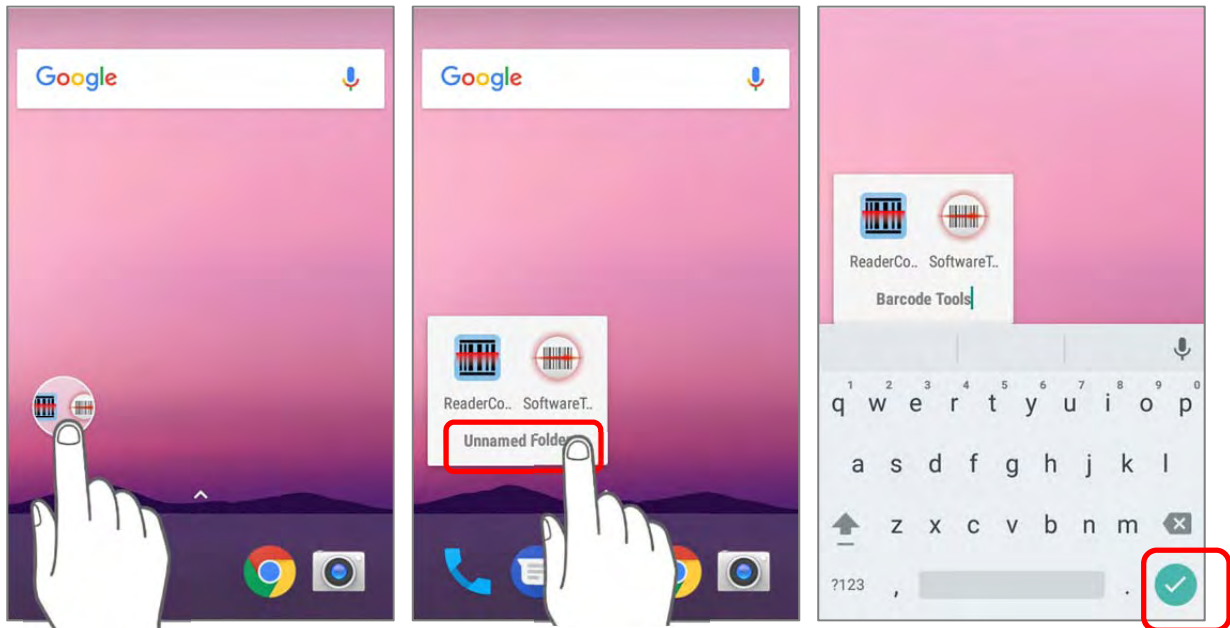
## CREATE FOLDER

- 1) On the home screen you would like to customize, tap and hold the application shortcut you would like to move, drag the icon on the top of another icon to create a folder.
- 2) As these icons overlap, a folder is created.
- 3) After you let go your finger, these icons are enclosed in a circle.



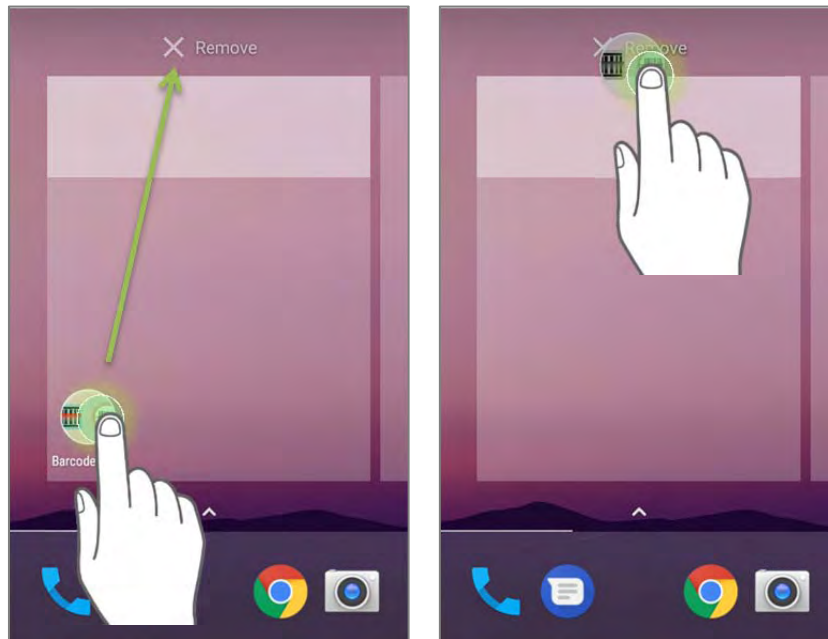
## NAME A FOLDER

- 1) Tap the folder you would like to name.
- 2) The folder will expand from a small circle to a full rectangle to show all the shortcuts in it. Tap "**Unnamed Folder**" and edit the folder name.
- 3) Tap **Done**  on the on-screen keyboard.
- 4) Tap elsewhere on the screen, the folder will shrink to a small circle with its new name.



## REMOVE FOLDER

- 1) Tap and hold the folder you would like to remove.
- 2) Drag the folder to the top of the screen where the option "**X Remove**" is located.



---

### Note:

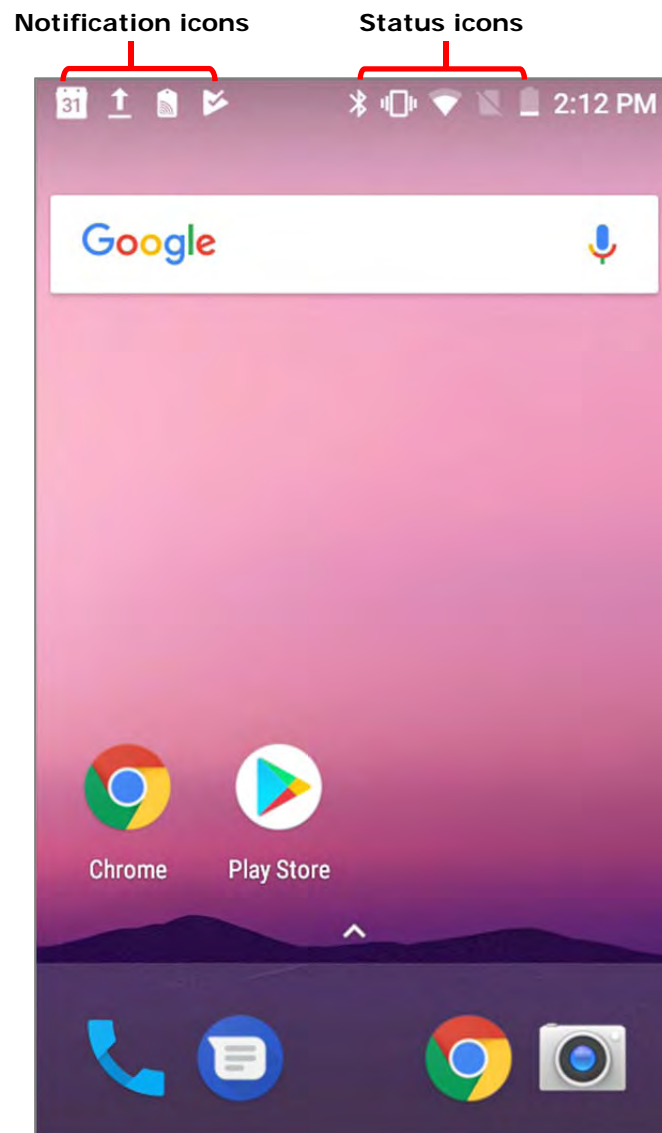
Please note when you remove a folder, the shortcuts contained in it will be removed as well.

---

















### 3.2. STATUS BAR

The left side of the status bar shows **notification icons**, and the right side of the status bar shows **status icons**.



















### 3.2.1. ICONS ON STATUS BAR

#### STATUS ICONS

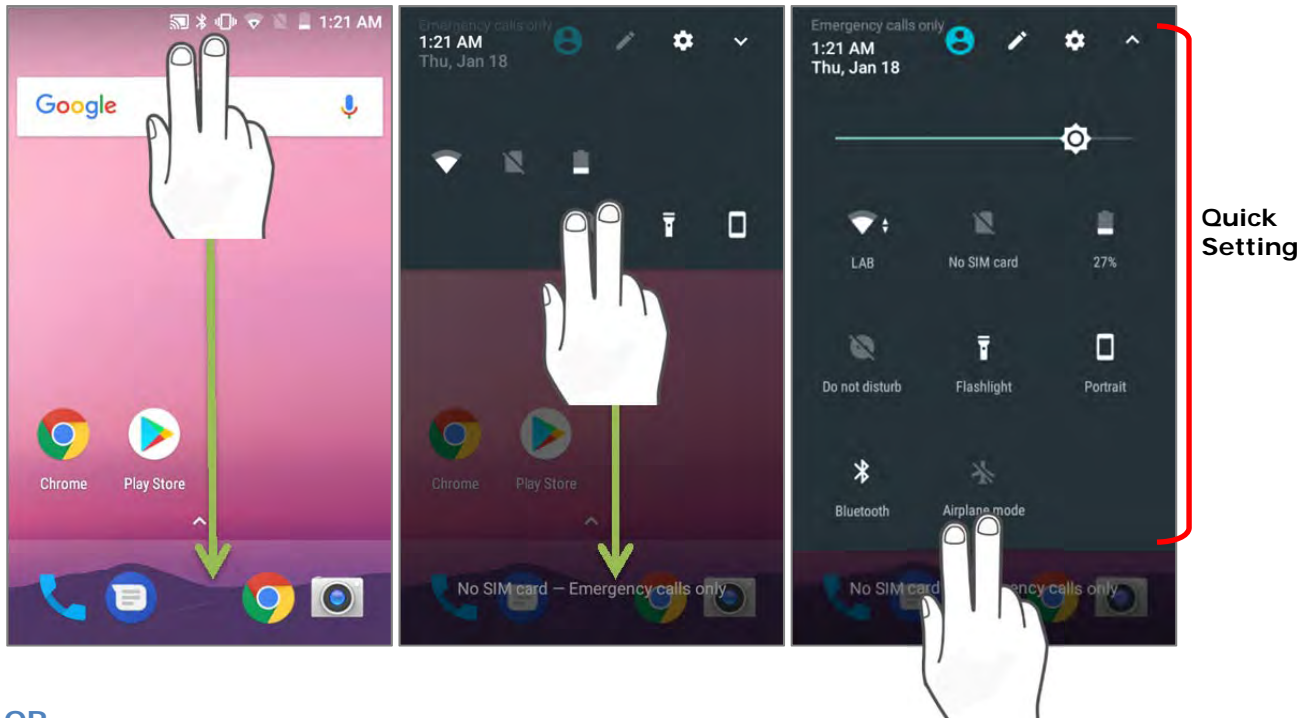
Icon	Description
	Bluetooth is on.
	The device has been connected to a Bluetooth device.
	The device is currently connected to a Wi-Fi network and performing data transmission.
	No mobile network signal
	The device is currently connected to a 4G network. A symbol will be shown on the left to indicate the cellular data connection type (e.g. 3G).
	Full mobile network signal
	Airplane mode is active, which means all radios are inactive now.
	Alarm is active.
	No SIM card is inserted
	All sounds are silent except for alarms (Vibration mode).
	The main battery is fully charged.
	The main battery is partially drained.
	Main battery level is very low and needs charging immediately (<5%).
	External power source is connected and main battery is being charged.

## NOTIFICATION ICONS


Icon	Description
	USB debugging mode is enabled on this device
	The device is performing data synchronization.
	There is an upcoming event.
	The device is downloading data.
	The device is uploading data.
	An open Wi-Fi network is available.
	A memory card has been inserted.
	A new SIM card is detected.
	There has been a problem. Open <a href="#">Notifications Drawer</a> for more details. For example: No SIM card detected in either of the two SIM card slots
	The headset has been inserted.
	The phone call is connected.
	There has (have) been missed call(s).
	The current phone call has been paused.
	Wi-Fi hotspot is active.
	Bluetooth tethering is active.
	USB tethering is active.

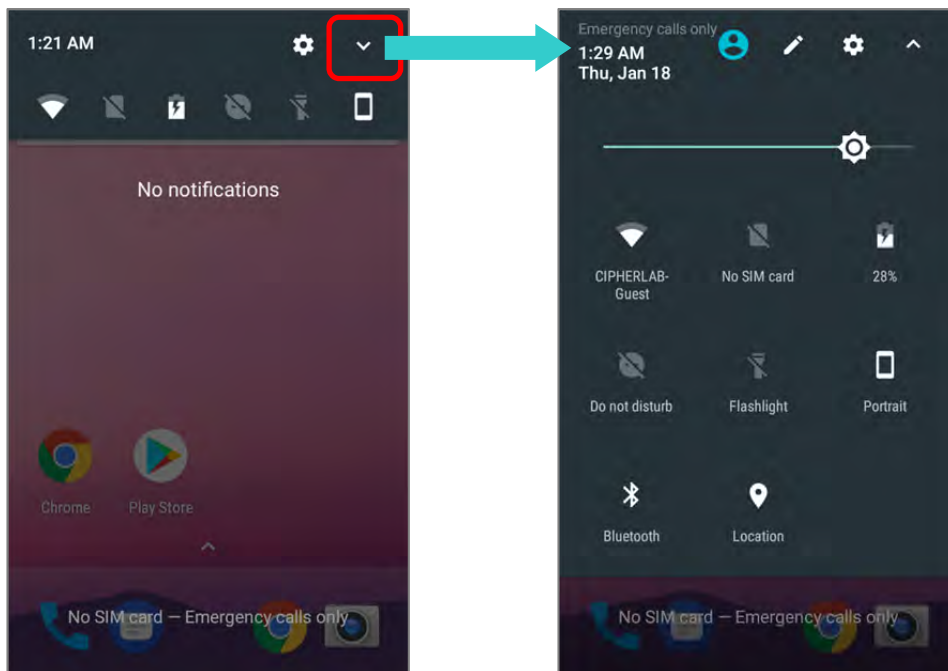
### 3.2.2. OPEN QUICK SETTING MENU

The **status icons** are related to essential settings regarding the device's remaining power, Bluetooth status or Wi-Fi connectivity status. The status bar offers a quick access for you to easily make adjustments of the settings. To open **Quick Setting** menu, use you two fingers, swipe from the top to the bottom of the screen. You can tap on each status icon on the menu to switch among different modes or enter the settings.



OR

- 1) Swipe down from the status bar by one finger to open [Notifications Drawer](#).
- 2) Click  icon to open **Quick Setting** Menu.

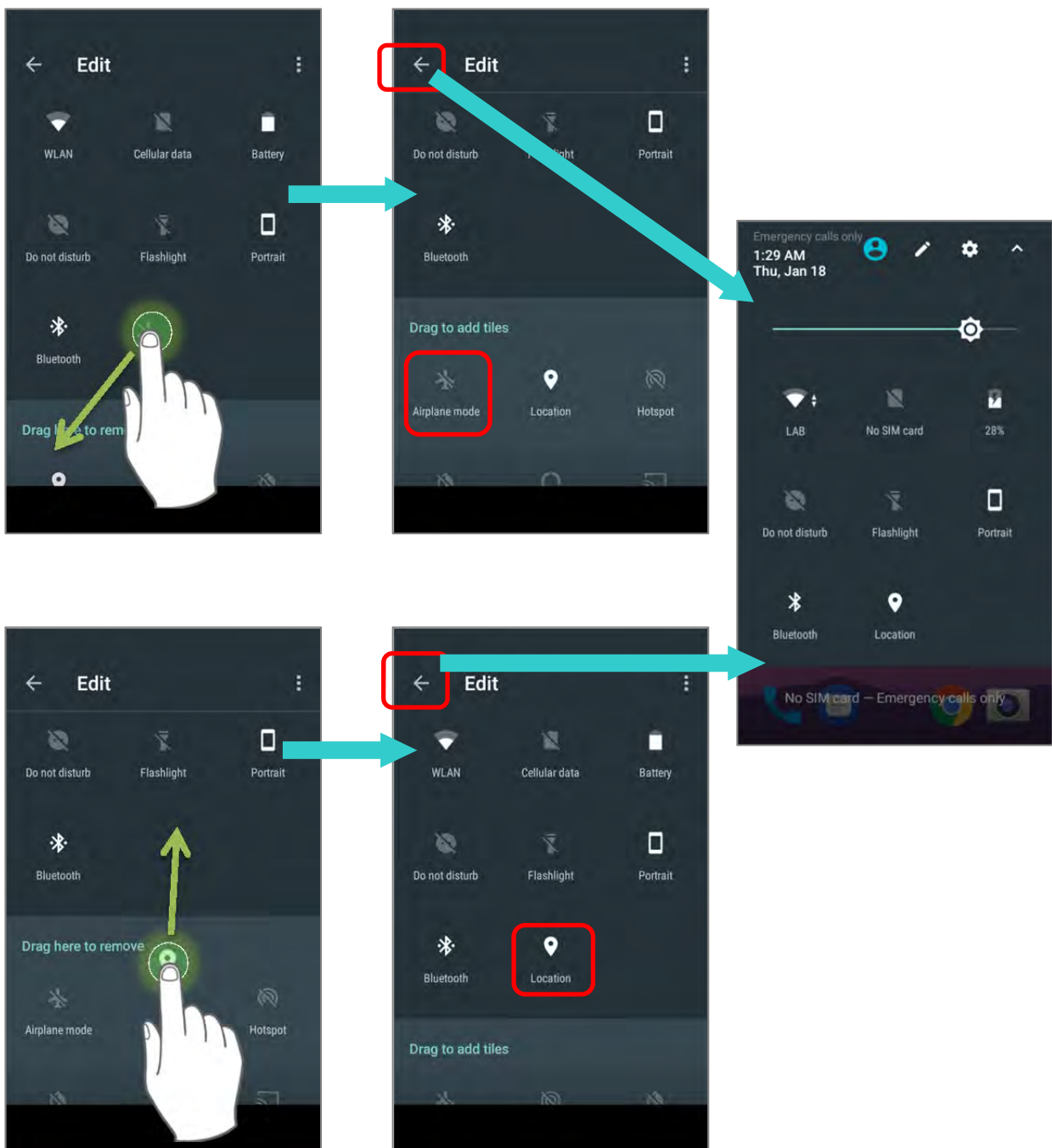






## EDIT QUICK SETTING MENU

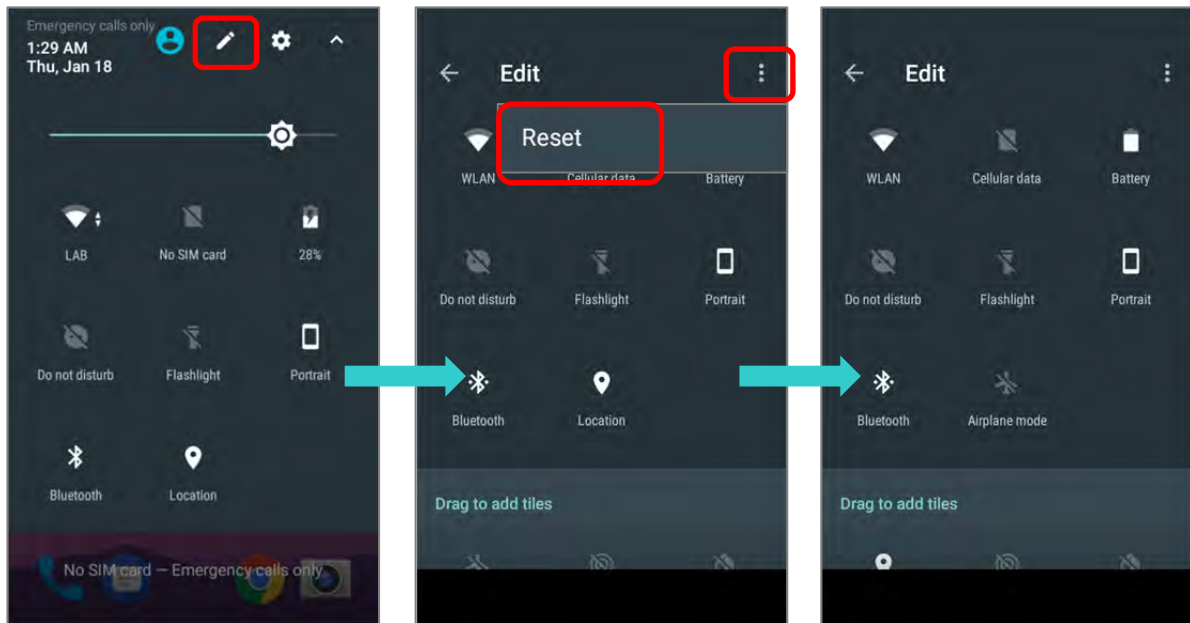
To customize **Quick Setting** Menu, please:

- 1) Click "**EDIT**" to get into **Edit** page.
- 2) Remove: To remove certain item, please tap on and hold the icon to be removed, and drag it to the light gray area and then release it.
- 3) Add: To add certain item, please tap on and hold the icon to be added and drag it to the dark gray area and then release it.
- 4) Return to the **Quick Settings** menu, all the settings are done.



To reset the **Quick Setting** Menu, please:

- 1) Tap  to enter **Edit** page.
- 2) Tap **setting**  icon in the upper-right corner, and tap "**Reset**".

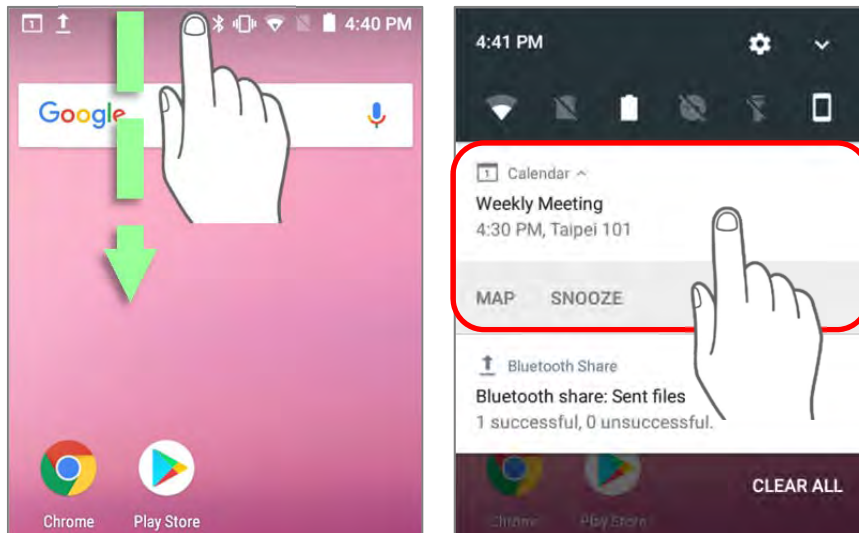


### 3.2.3. OPEN NOTIFICATIONS DRAWER

The **notifications icons** on status bar inform you of the new events such as incoming calls, messages or USB connection.

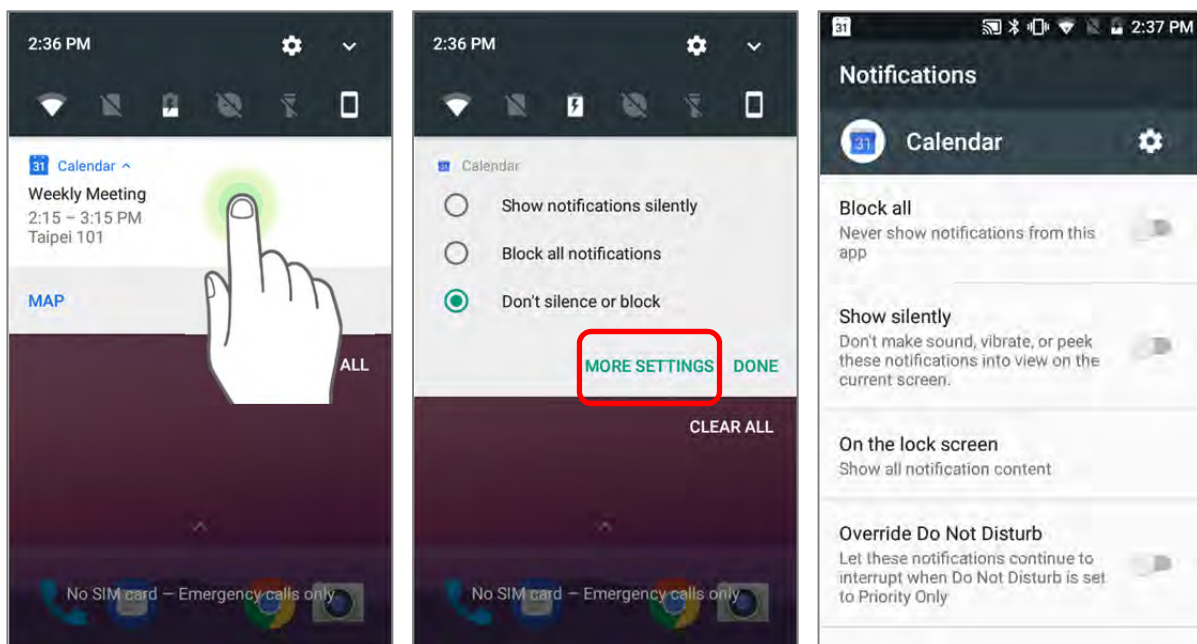
#### CHECK OUT NOTIFICATION

To check out details of the events, swipe down from the status bar to open [Notifications Drawer](#). Tap on the individual notification card to carry out immediate action or to open the corresponding application.



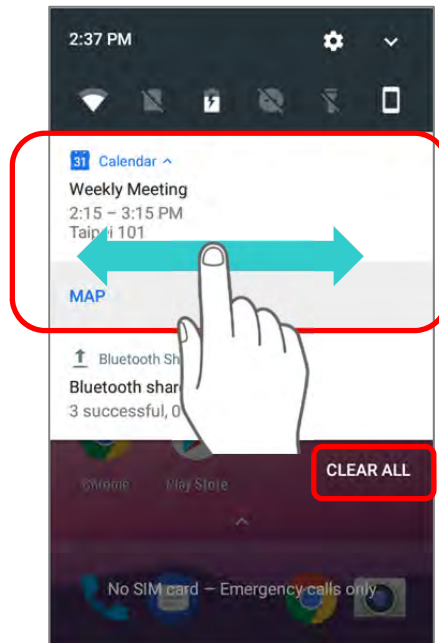
#### DISABLE NOTIFICATION

You can change or turn off the notification of a specific app by tapping and holding on the notifications card until the corresponding app name reveals. Tap **"MORE SETTINGS"** to modify the notification-related setting.



## CLEAR NOTIFICATION

To dismiss a single notification, simply swipe the notification card right or left. You can also dismiss all notifications at a time by tapping **"CLEAR ALL"**. Ongoing notifications and notifications that require subsequent activity to be cleared will remain on the list.


































### 3.3. MANAGE APPLICATIONS


#### 3.3.1. APPLICATION MENU

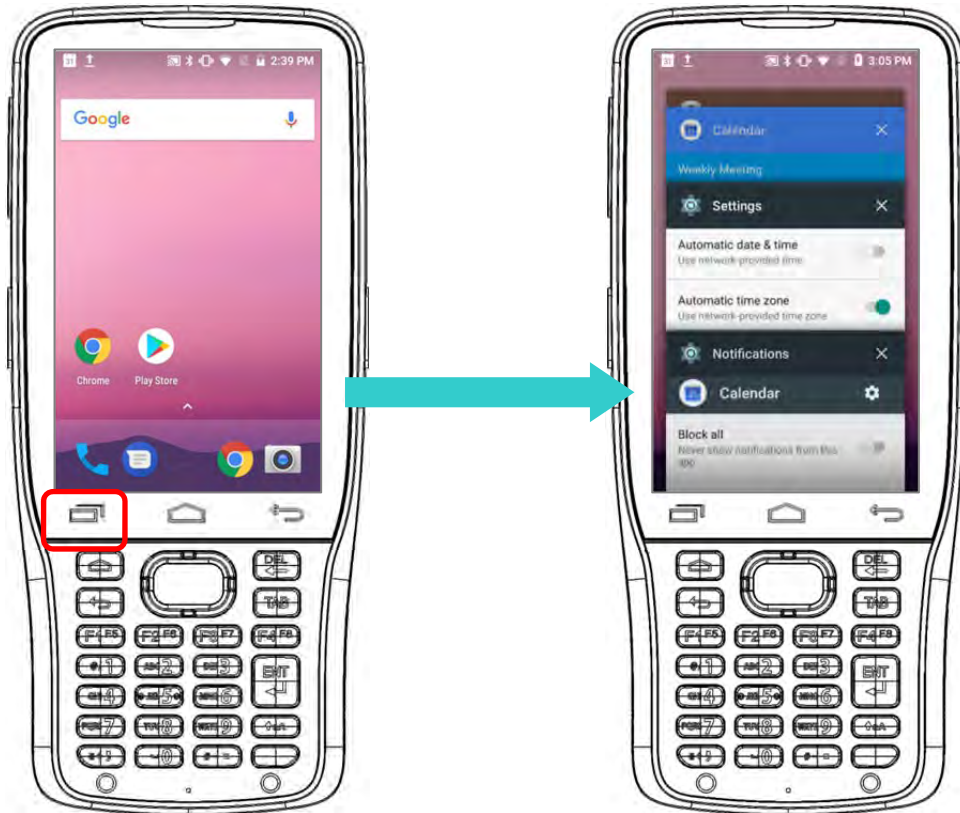
Open [App Drawer](#) to check the applications menu:

Icon	Name	Description
	AppLock	An application used to limit the system resources made available to Users
	Calculator	Performs mathematical calculations.
	Calendar	Creates and manages events, meetings and appointments.
	Chrome	An Android built-in browser application developed by Google.
	Clock	Sets date, time, time zone according to your locale, and sets and manages alarms.
	Contacts	Manages contact information, and shares or exports/imports the information to other devices or SD card.
	Downloads	List all files downloaded on the mobile computer.
	Drive	An Android built-in application for a file storage and synchronization service created by Google.
	Duo	A one-to-one video call application developed by Google.
	File Manager	Browses and manages files on the local storage and storage card.
	Gmail	An Android built-in application for Gmail, a free email service provided by Google.
	Google	An Android built-in application providing you easy access to handy services provided by Google such as searching for nearby restaurants or updates on traffic alerts.
	Hangout	An Android built-in application for a communication platform developed by Google.
	HF RFID Configuration	An application for the configuration of RFID & NFC.
	Maps	An Android built-in app developed by Google.

	Messages	Sends SMS and MMS messages.
	Notes	An application for taking notes.
	Phone	Places and receives calls, accesses voicemail, views call history, manages phone contacts, and adjusts phone settings.
	Photos	An Android built-in application for a photo and video sharing and storage service developed by Google.
	Play Movies & TV	An Android built-in application for an online video on demand service operated by Google.
	Play Music	An Android built-in application for a music streaming service and online music locker operated by Google.
	Play Store	An Android built-in application providing access to a digital distribution service, including a digital media store, <b>Play Store</b> operated and developed by Google.
	Reader Config	Sets scanner preferences, data output format and destination, symbology settings, and reads barcodes.
	Settings	Opens settings to configure the mobile computer.
	Snapdragon Camera	Takes pictures and shoots videos.
	SoftwareTrigger	An application serving as a real trigger key, floating on top of all other programs for convenient trigger control of the barcode scanner.
	Sound Recorder	An audio recording application.
	Voice Search	An Android built-in Google product allowing users to use Google Search by speaking on a mobile phone.
	YouTube	An Android built-in application for a video-sharing service.

### 3.3.2. CURRENT APPLICATIONS

Tap the **Recent Apps** button . The screen will show a list of recently used applications.



On this screen, you can:

#### SWITCH BETWEEN APPLICATIONS

Swipe up or down to check the listed applications, tap on your desired one to open it on the screen.

#### END APPLICATION

Slide an application to the left or right, or tap the **X** on top right to close it.

Note:

Close unused applications in order to release RAM. Remember to save your data or settings before closing any application.

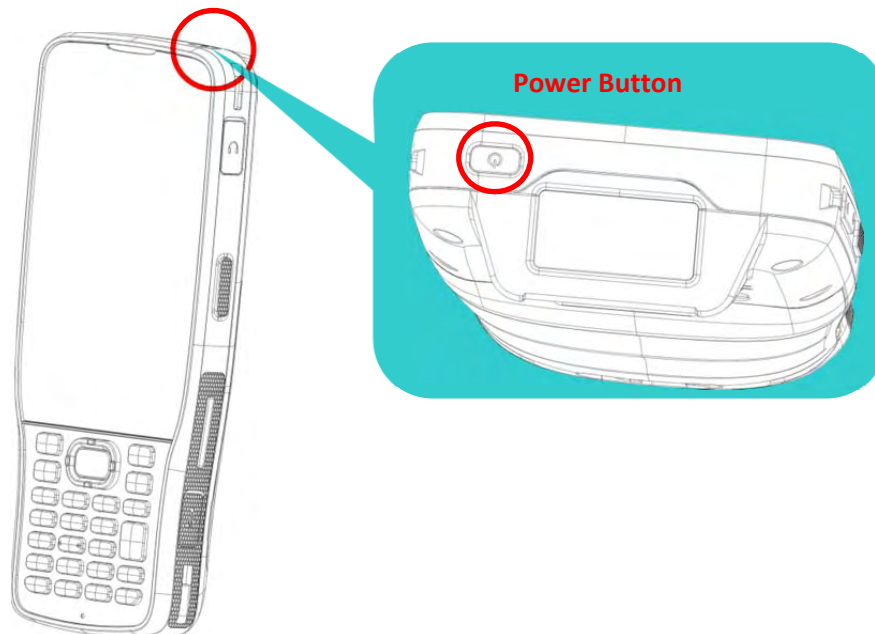
## 3.4. SUSPEND & LOCK

### 3.4.1. SUSPEND DEVICE

The mobile computer operates continuously once it is powered on. To minimize power consumption and prevent unintended operation, suspend the mobile computer if you are not actively using it. The mobile computer can be quickly awoken from suspend mode to operate as needed. When the mobile computer enters suspend mode, the system is in a power-saving status, meaning the device will not respond to screen touch, and volume keys and side buttons will also be unavailable until the device is unlocked.

#### SUSPEND RK25

Press the power button to suspend the mobile computer. The mobile computer will automatically suspend when the time period set in [Screen Timeout Settings](#) has passed without any activity.



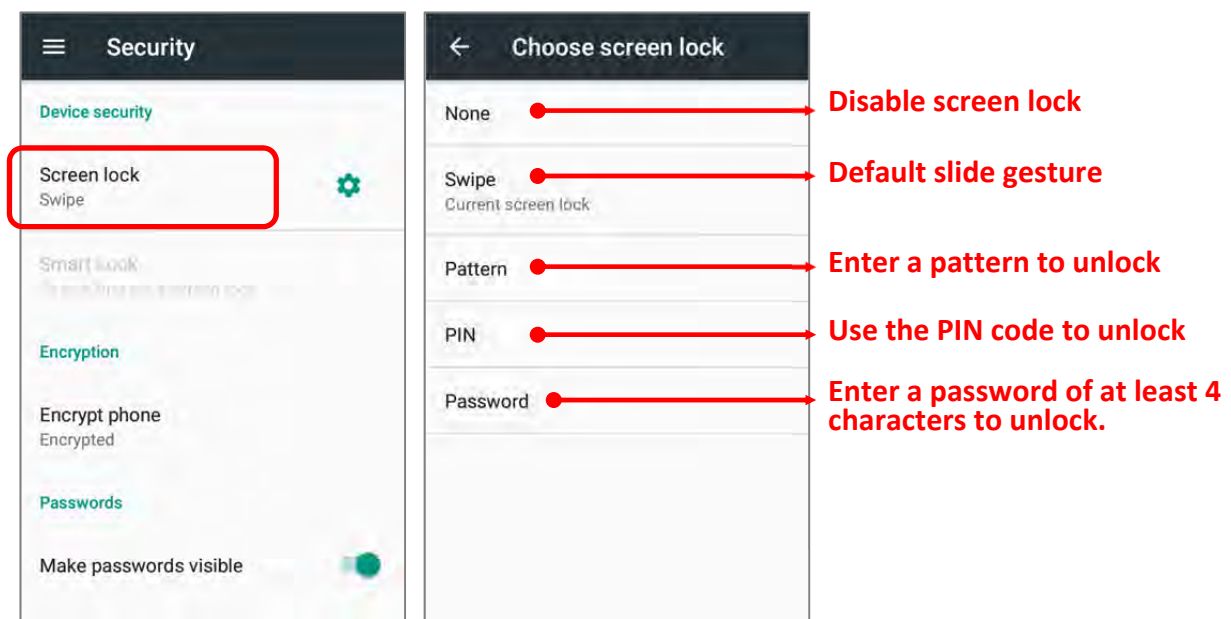


### 3.4.2. LOCK DEVICE

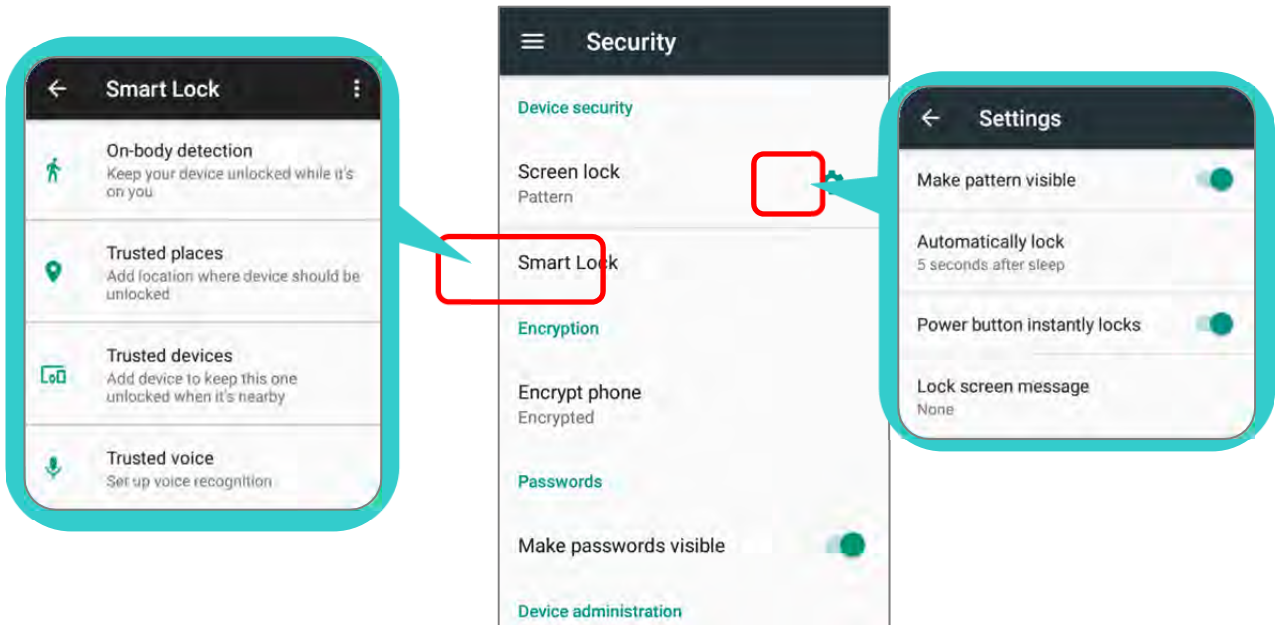
Setting a screen lock allows you to protect your personal data on this device while the device is not at your hand. With various types of screen lock available and Smart Lock, you can not only enjoy the benefits of this function but also great convenience.

#### LOCK RK25

Go to [App Drawer](#) | **Settings**  | **Security**  | **Screen lock** to change the lock method.



By selecting a pattern, Pin or Password method, you can access advanced settings and **Smart Lock** to customize personal lock settings.



---

**Warning:**

To save battery power, suspend the mobile computer when not in use.

---

### 3.5. OS UPDATE

Updating the operating system on the mobile computer helps maintain it at an optimized state. You may choose to update the system by establishing a wireless network connection to the Internet and downloading the update file from the OTA server.

Note:



The mobile computer will shut down during system update. Save any unfinished tasks and data before updating the system in order to avoid data loss.

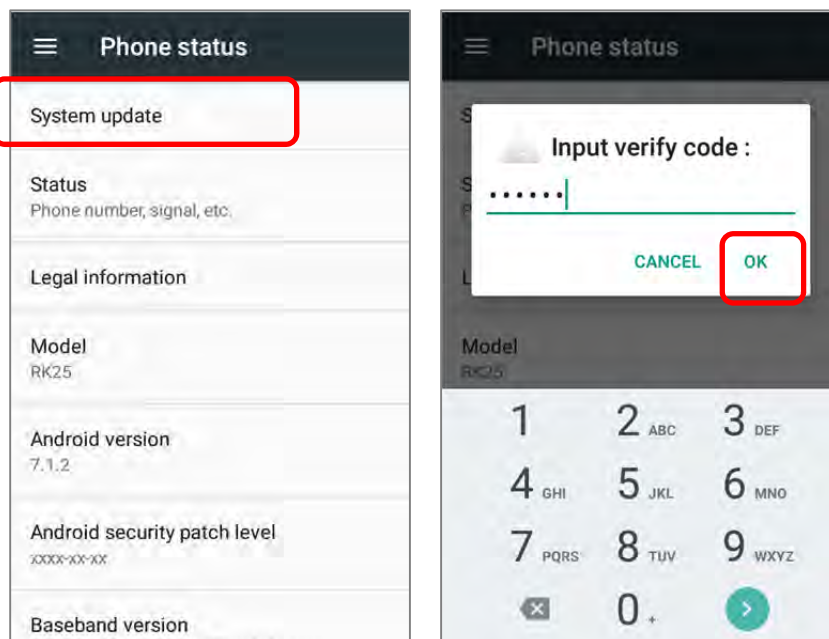
#### NETWORK UPDATE

In order to check for and download the latest system update file on the server, make sure a wireless network connection to the Internet is established on the mobile computer.

Note:

To avoid any additional charges to your wireless data plan, Wi-Fi connection to the Internet is recommended for downloading the file.

- 1) Go to [App Drawer](#) | [Settings](#)  | [About phone](#)  | [System updates](#). A window pops up asking you to input the password for system update. Please contact with [support@cipherlab.com.tw](mailto:support@cipherlab.com.tw) for the password. Enter the password and tap **OK**.



- 2) The mobile computer searches for the latest system update file on the server. Tap **DOWNLOAD AND INSTALL** to download the update file.
- 3) When a new system update file is detected on the server, a notification icon will appear on the status bar, and a text notification will pop up in the notifications panel.



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## SD CARD UPDATE

OS Update searches for available update files in your mobile computer's storage.

- 1) Obtain the latest system update image file, and copy the file onto the root storage of your SD card. Insert the SD card into the memory card slot on the device. Press the power button to power it on.

### OR

- 1) Transfer the update image file to the root directory of the device's internal storage via USB cable.
- 2) Go to **App Drawer** | **Settings**  | **About phone**  | **System updates**.
- 3) A window pops up asking you to input the password for system update. Please contact with [support@cipherlab.com.tw](mailto:support@cipherlab.com.tw) for the password. Enter the password and tap **OK**.
- 4) The mobile computer searches for an available system update file on the SD card.

---

### Note:

Make sure the SD card is inserted in the mobile computer. If not, the screen will show that your system is currently up to date.

---


- 5) Tap **INSTALL** to open an "**Install update**" confirmation window. Tap **Install** in the confirmation window to begin the installation.

Once complete, a notification will appear showing that the system has been updated successfully. Tap **OK** to show the Home screen.



### 3.6. BACK UP YOUR DATA

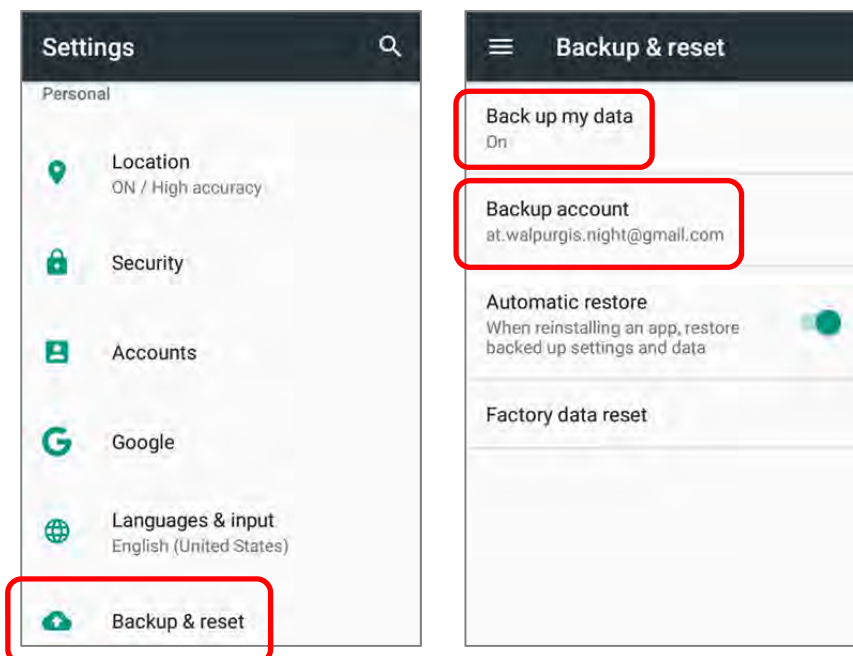
With **Android Backup Service**, you can have your personal data (Google calendar settings, Google contacts, Chrome browser data and Gmail settings) and certain system settings under your Google account backed up (over network connection) on the cloud. This allows you to easily restore the settings on this device after a Factory Reset (refer to [Reset to Factory Default](#) ).

Note:

- (1) To back up your photos and videos, go to [App Drawer](#) | **Photos**  to sync the files on your device with Google Photo Library.
- (2) To back up other documents such as audio or video files on the device's storage, you can make use of Google Drive service.
- (3) **Android Backup Service** does not handle SMS messages and certain app progress data and settings.

To start:

- 1) Make sure your device is connected with network.
- 2) Go to [App Drawer](#) | **Settings**  | **Backup & reset**  and enable **Back up my data**.
- 3) Tap **Backup Account** to log in to your Google account.



To restore your backed up personal data of a Google Account, just add that account to the device.

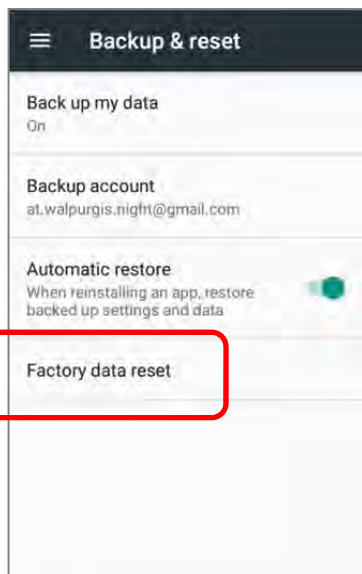
### 3.7. RESET TO FACTORY DEFAULT

Performing a factory reset will erase all data on your mobile computer (including call logs, messages, files as well as your installed apps and their associated data) and revert the device back to its original state in which it is powered on by you for the first time.

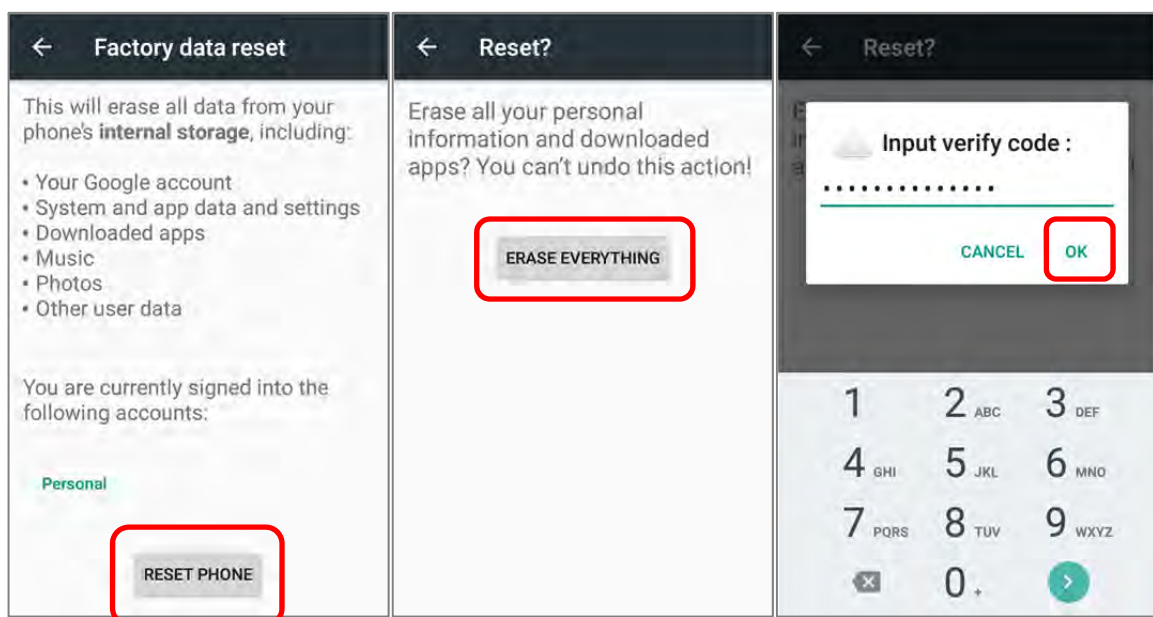
It is strongly recommended that you follow the instructions in [Back up Your Data](#) to back up important data before performing a factory reset.

To start:

- 1) Go to [App Drawer](#) | **Settings**  | **Backup & reset**  and **Factory data reset**.

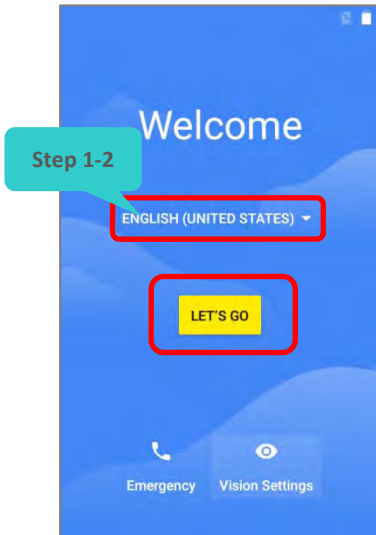


- 2) Confirm the action by tapping on the buttons and input the verification code (Please contact with [support@cipherlab.com.tw](mailto:support@cipherlab.com.tw) to obtain your verification code). Finally, tap **OK** to perform a factory reset.



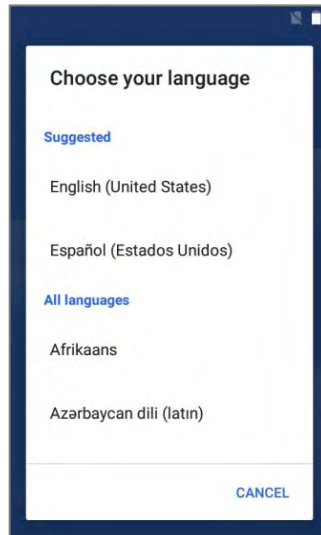


- 3) As the mobile computer boots up for the first time after the reset, the Welcome wizard will run you through setting up the environment as well as restoring apps and data. During setup, you can skip to continue to the next step (you can finish the respective settings in [App Drawer](#) | **Settings**  at any time). Please note that to have the backed up data in your Google accounts restored right in this stage, log in to a Wi-Fi network when prompted to **Select Wi-Fi Network**.



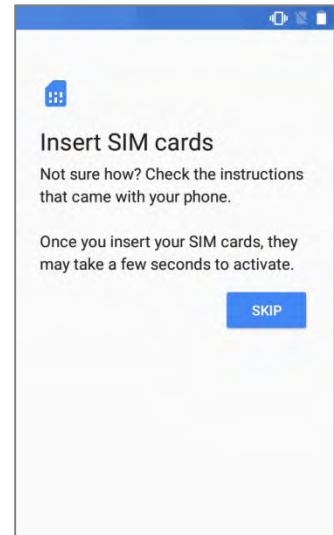
Step 1-1:

Tap **“GET STARTED”** to proceed, or tap to enter **“Choose your language”** page/ **“Vision Settings”** page.



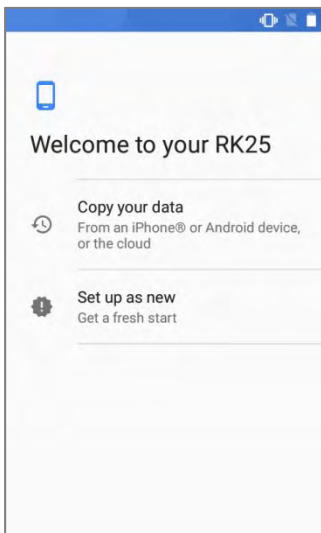
Step 1-2:

Select your system language.



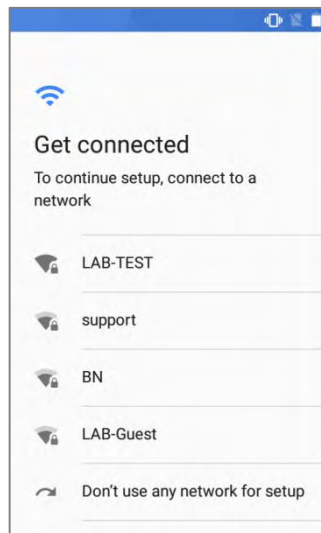
Step 2:

Tap **“SKIP”** to continue if SIM card is not inserted in your RK25 mobile computer.



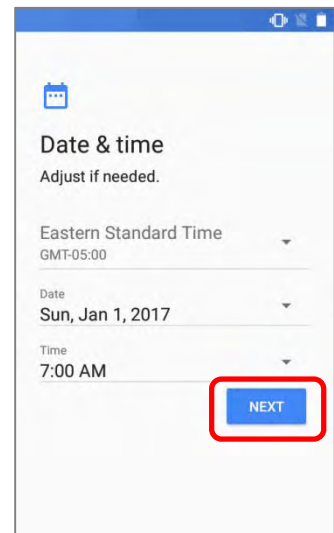
Step 3:

Set up your RK25 as a new one or restore data from your Google account/ other device.



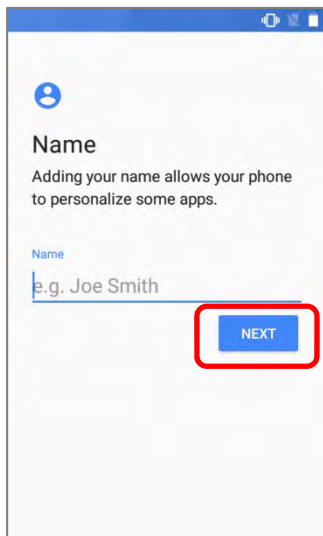
Step 4:

Log in to your Wi-Fi network. If logged in, you will be further asked to sign in your Google™ account to restore data.



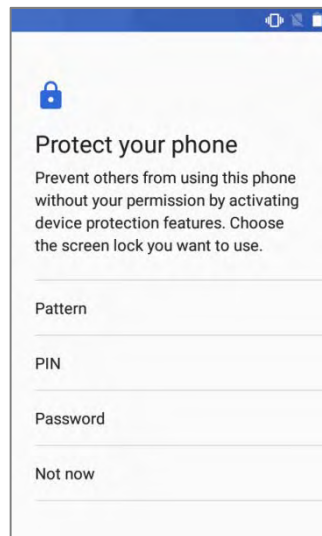
Step 5:

Set date and time, or merely skip this step by tapping **“NEXT”**.



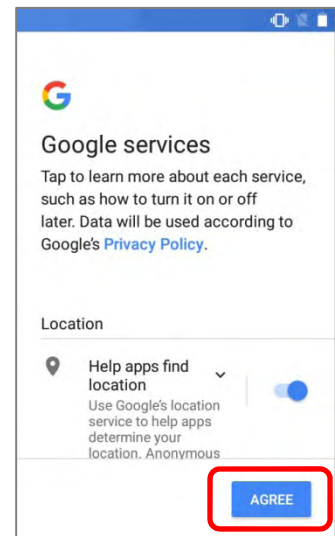
Step 6:

Input your name, or merely skip this step by tapping “NEXT”.



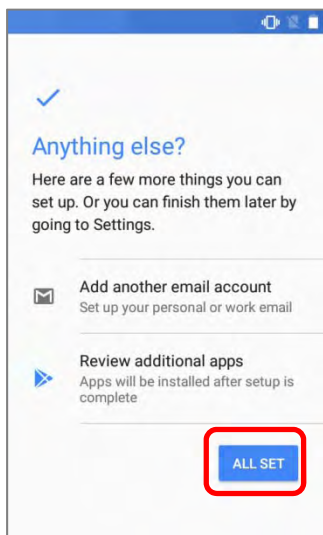
Step 7:

Set up the protection methods to protect this device. Select “Not now” to skip.



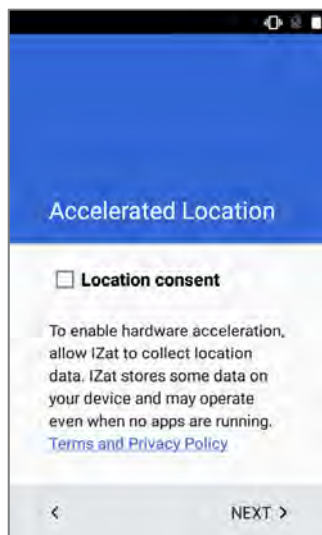
Step 8:

Choose Google services that you want to be enabled, and tap “AGREE” to proceed.



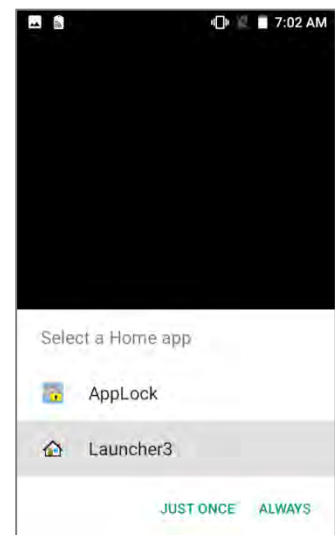
Step 9:

Other settings to proceed. You could tap “Set up later” to skip.



Step 10:

Select whether to enable **Qualcomm® IZat™** location service or not. Tap “NEXT” to proceed.



Step 11:

Choose whether to have AppLock take control of your Home screen.

4) Once the initial setup is completed, the Home app screen shows up. Apps and settings will be restored in the background.

# Chapter 4

## WIRELESS RADIOS

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The Wi-Fi module integrated on the mobile computer lets you configure and connect to network wirelessly.


### IN THIS CHAPTER

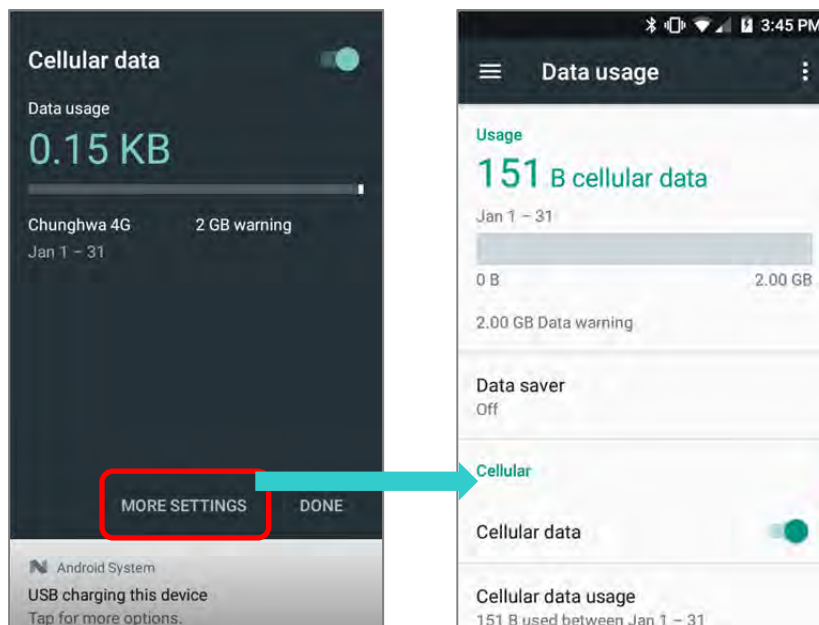
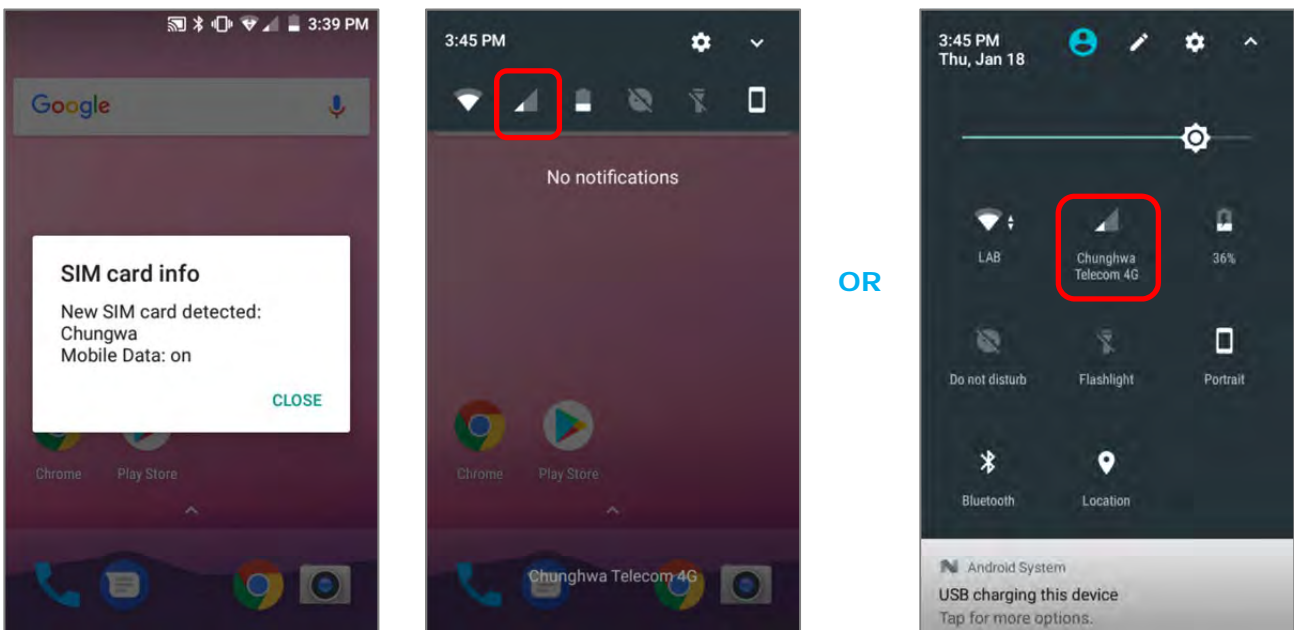
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4.1 Use Wireless Wide Area Network .....	130
4.2 Use Wireless Local Area Network (Wi-Fi) .....	140
4.3 Use Bluetooth.....	146
4.4 Use Near Field Communications .....	150

## 4.1. USE WIRELESS WIDE AREA NETWORK





The mobile computer will be automatically configured to connect to your wireless service provider's network when you insert a SIM card and turn on data connection for the first time.

When a SIM card is inserted, a dialog will appear confirming the mobile carrier detected. Swipe down from the status bar to open **Notifications Drawer** or **Quick Setting** menu, and tap Cellular Data icon  to check the details. Tap **"MORE SETTINGS"** to enter **"Data usage"** page.



## EDIT ACCESS POINT NAME

You may need to change the access point name according to the information obtained from your mobile carrier.

- 1) Go to [App Drawer](#) | **Settings**  | **More**  | **Cellular networks** | **Access Point Names**.
- 2) Tap the button , and tap each field to input the **APN** name and settings obtained from your mobile carrier.
- 3) When finished, tap the settings button  and tap **Save**.
- 4) Back to **APNs** page, Tap the radio button next to the APN you would like to apply.






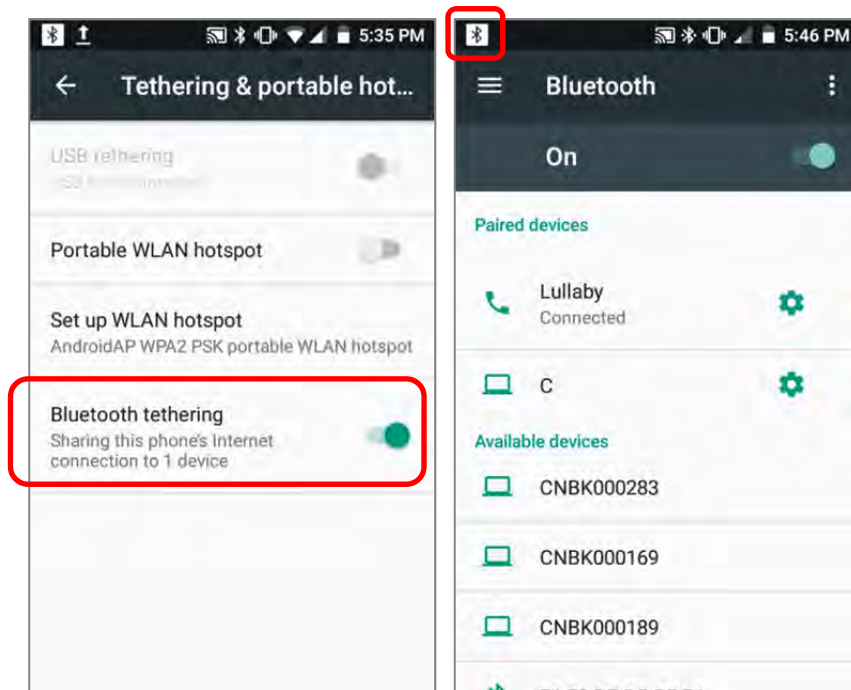
### 4.1.1. SHARE WWAN DATA

The WWAN connection on the mobile computer can be shared to other devices. You may share internet connection with a computer or device through USB or Bluetooth tethering, or share with a maximum of eight devices by turning the mobile computer into a Wi-Fi hotspot.

#### BLUETOOTH TETHERING

To share data connection through Bluetooth tethering:



- 1) Pair the mobile computer with the device of interest.
- 2) Go to [App Drawer](#) | **Settings**  | **More**  | **Tethering & portable hotspot**.
- 3) Tap **Bluetooth tethering**. The mobile computer will share its WWAN network with Bluetooth-connected devices through Bluetooth sharing.
- 4) Once the sharing is successful, the icon  will appear on the top left of the screen.

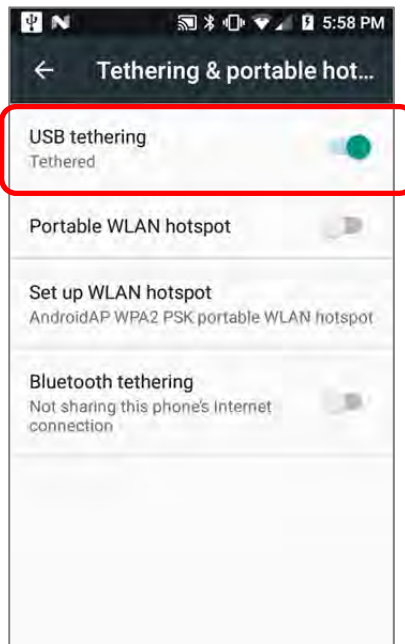




## USB TETHERING



To share data connection through USB tethering:

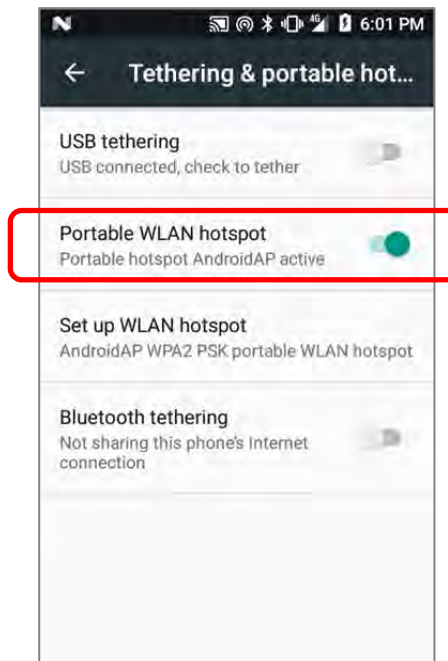
- 1) Connect the mobile computer with a USB cable. A USB icon will appear at the top of the screen, and in the [Notifications Drawer](#), a description “**Connected as USB Storage**” will appear.
- 2) Go to [App Drawer](#) | **Settings**  | **More**  | **Tethering & portable hotspot**.
- 3) Tap **USB tethering**. The mobile computer will share its WWAN network with the connected host computer.



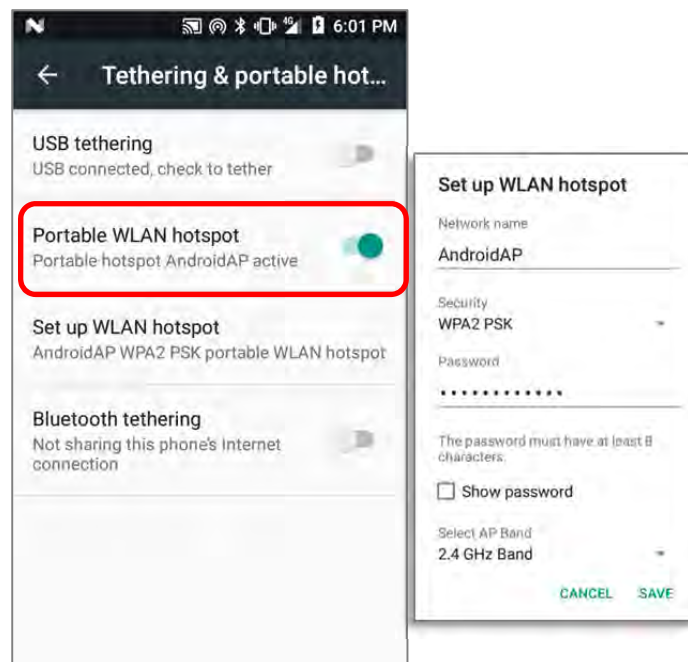
## WI-FI HOTSPOT

To share data connection in the form of a Wi-Fi hotspot:

- 1) Go to [App Drawer](#) | **Settings**  | **More**  | **Tethering & portable hotspot**.
- 2) Tap **Portable Wi-Fi hotspot** switch to enable data sharing through Wi-Fi. The mobile computer will start broadcasting its SSID for other devices to connect.



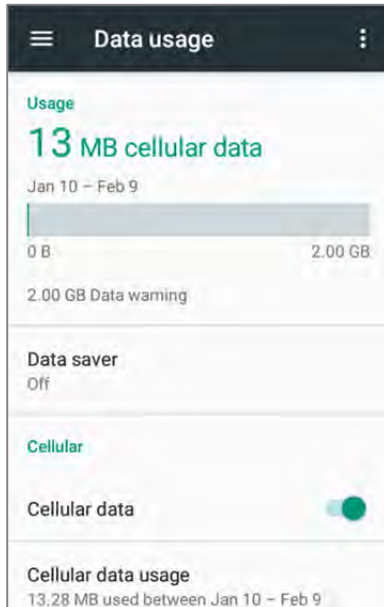
- 3) Tap **Set up WLAN hotspot** label to manage Wi-Fi hotspot settings.



## DATA USAGE

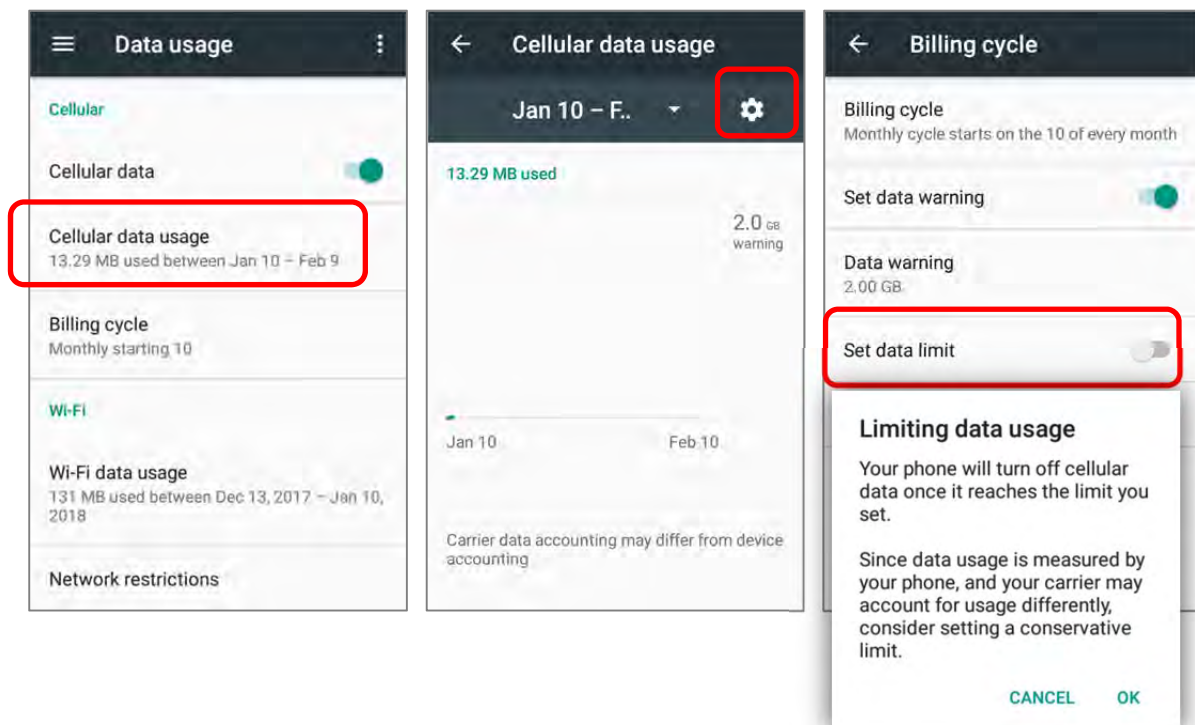
Data usage is the amount of data uploaded or downloaded on the mobile computer. Managing the data usage amount within a certain period of time is a recommended task, as an excess amount of data usage might incur additional fees from your service provider.

To check wireless data usage, please go to [App Drawer](#) | **Settings**  | **Data usage** 

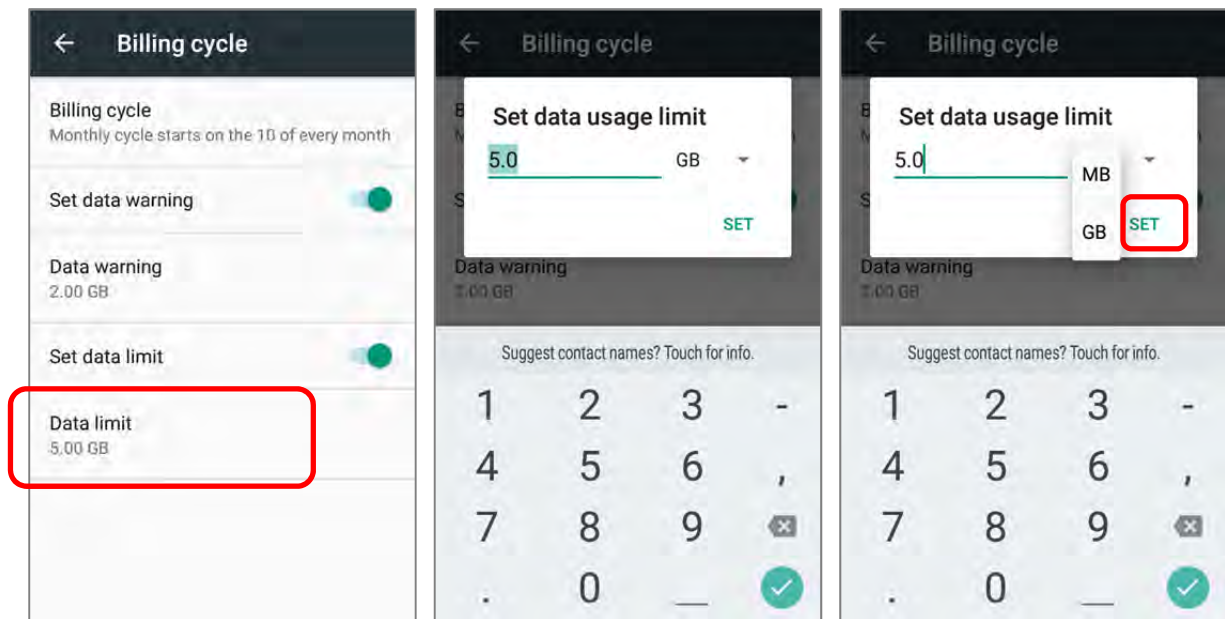


## SET DATA USAGE LIMIT


1) Tap “Cellular data usage” → **Setting**  → switch on “Set data limit”

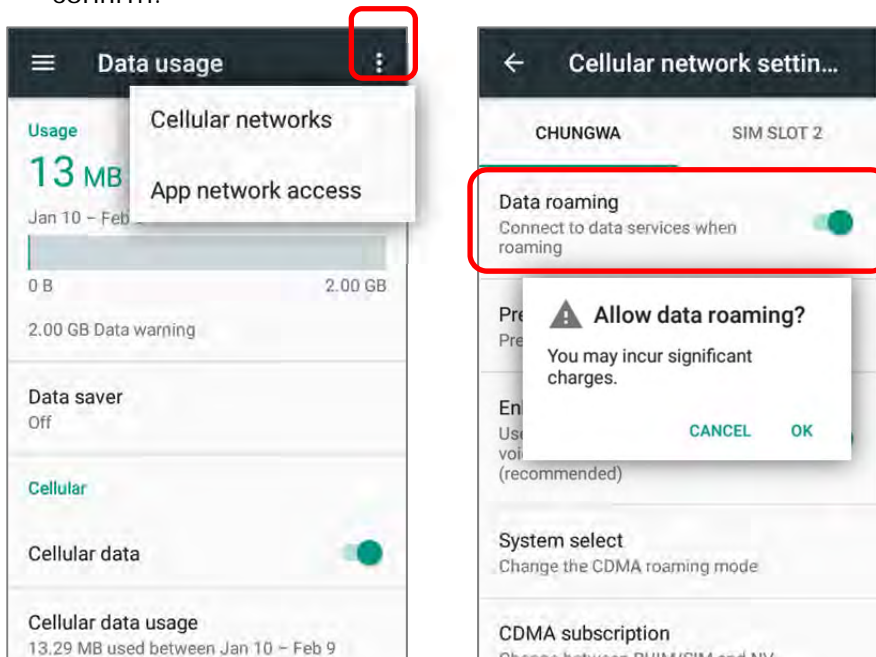


- 2) Tap **"Data limit"**, and input your required limit in **"Set data usage limit"** window, and tap **"SET"**.



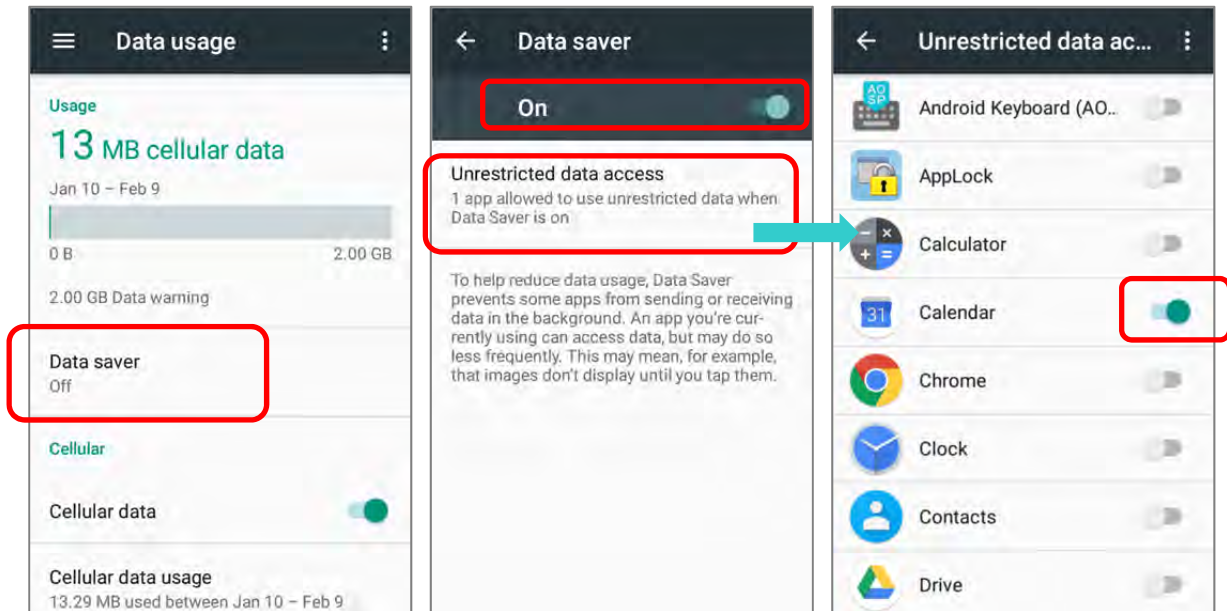
### ENABLE DATA USAGE DURING ROAMING


- 1) On the data usage tab page for your mobile carrier, tap **More** .
- 2) Select **Cellular networks**, and enable **Data roaming** for your mobile carrier. A dialog box appears confirming whether you would like to enable data roaming. Tap **OK** to confirm.

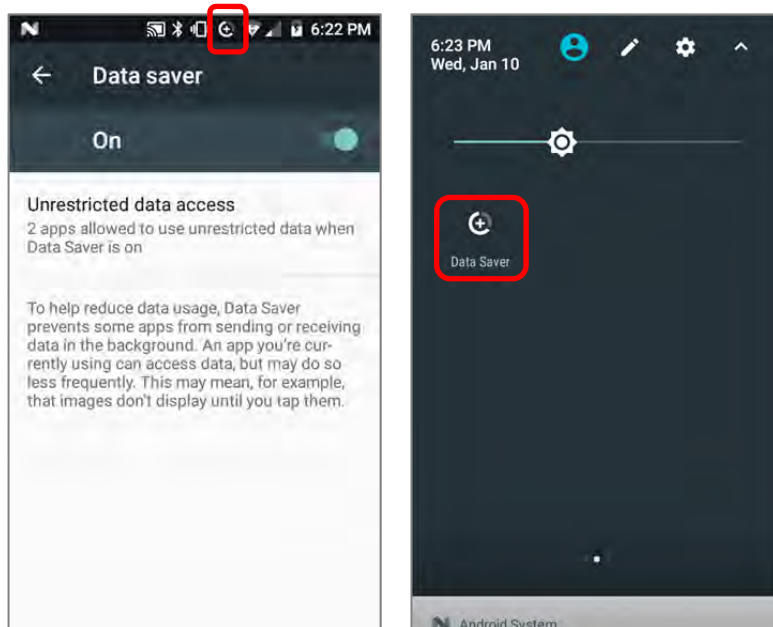


## RESTRICT BACKGROUND DATA

- 1) Tap **"Data saver"** and switch data saver to **On**, to restrict background data.
- 2) If there's any applications you would like to keep them activated on background when **"Data saver"** is on, tap **"Unrestrict data access"** to switch them on.



Once **"Data saver"** is on, an status icon  will be shown in the status bar as well as in the Quick Setting menu.





### Note:

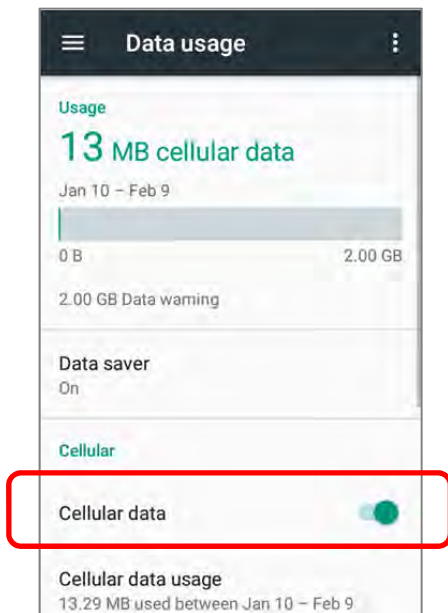
The mobile computer conserves data usage by restricting background mobile data. Certain applications and services will be disabled unless the mobile computer is connected to a Wi-Fi network.

## 4.1.2. DATA CONNECTION SETTINGS






### TURN ON/OFF DATA CONNECTION

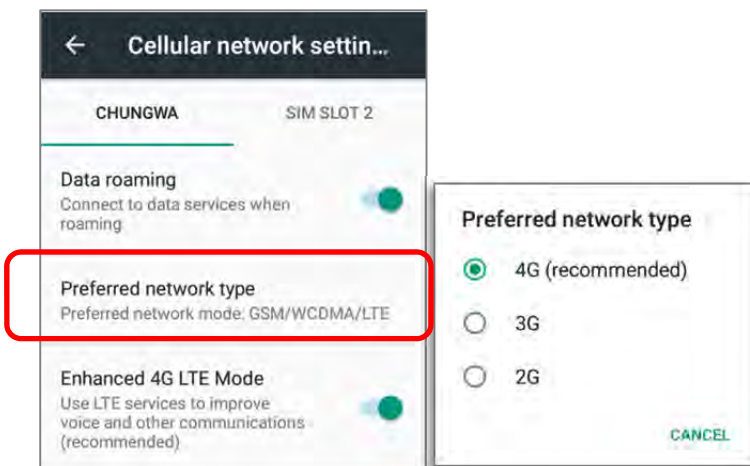
To manually turn on/off mobile data connection:

- 1) Go to [App Drawer](#) | **Settings**  | **Data usage** 
- 2) To turn on/off data connection, switch the **Cellular data** to the corresponding position.



### SELECT DATA CONNECTION TYPE

- 1) Go to [App Drawer](#) | **Settings**  | **More**  | **Cellular network**,  
OR  
[App Drawer](#) | **Settings**  | **Data usage**  | **More**  | **Cellular network**
- 2) Tap the mobile carrier tab page (if you have 2 SIM cards).
- 3) Tap **Preferred network type** to select the setting.





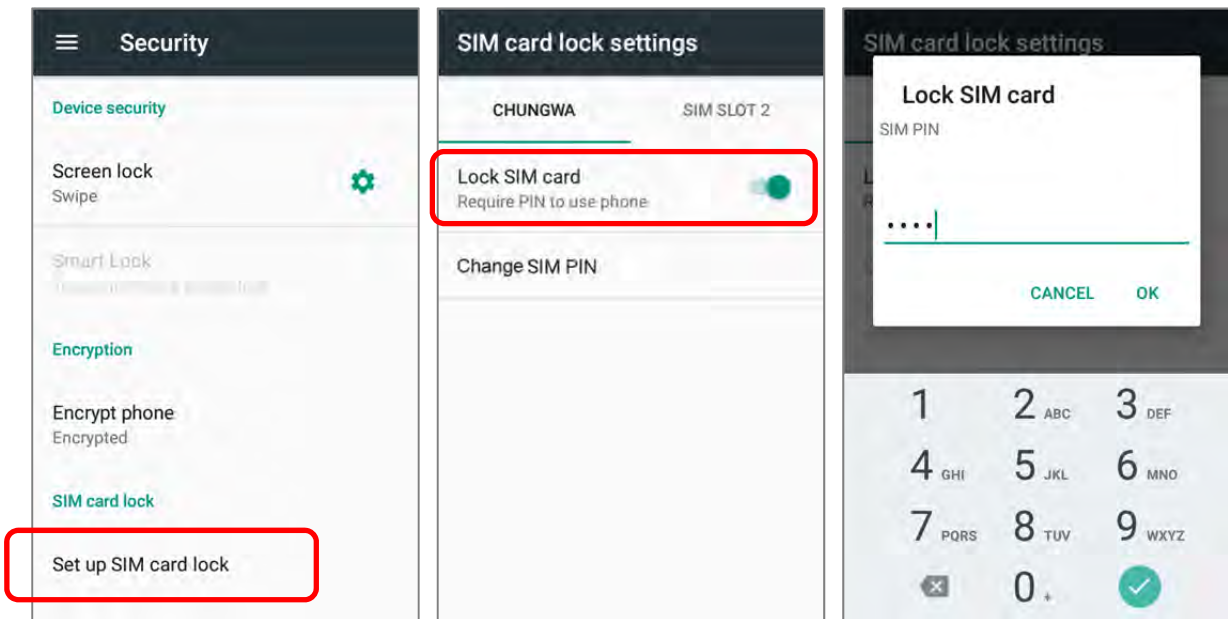


### 4.1.3. SIM CARD SETTINGS

#### LOCK SIM CARD



To lock the SIM card:

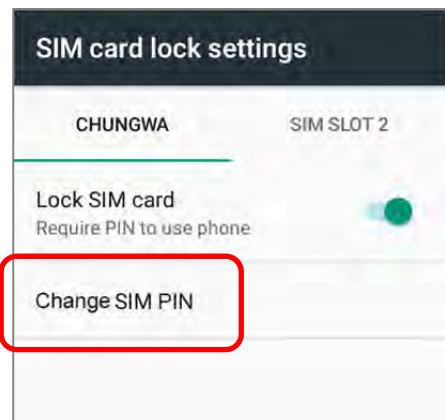
- 1) Go to [App Drawer](#) | [Settings](#)  | [Security](#) , tap **Set up SIM card lock**.
- 2) Enable **Lock SIM card**.
- 3) Enter the PIN to enable SIM card lock. Once enabled, you are required to enter the PIN code in order to use the phone.



#### CHANGE PIN CODE

To change the PIN code:

- 1) Go to [App Drawer](#) | [Settings](#)  | [Security](#) , tap **Set up SIM card lock**.
- 2) Tap **Change SIM PIN**.
- 3) Enter your old PIN code to confirm your identity, and then input a new PIN code.

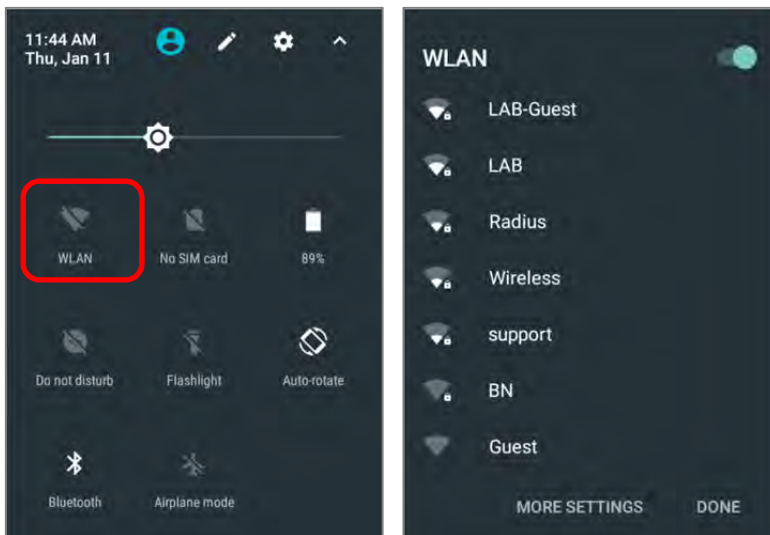


## 4.2. USE WIRELESS LOCAL AREA NETWORK (WI-FI)

### 4.2.1. CONNECT TO WI-FI NETWORK

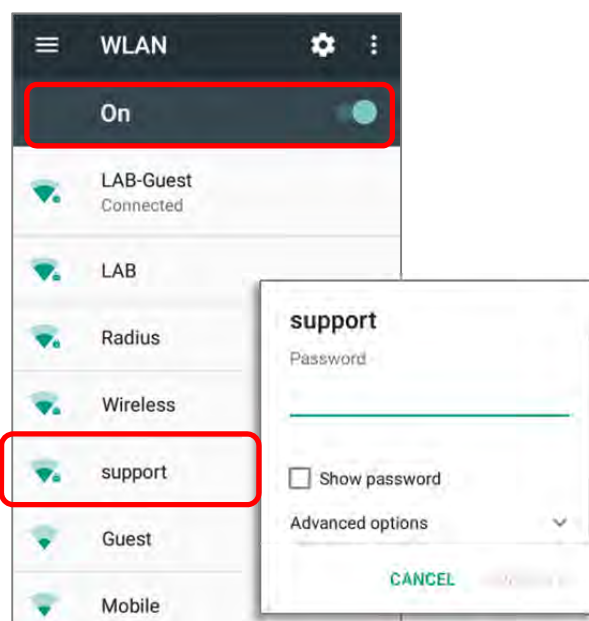
To power on Wi-Fi:

- 1) Use two fingers to swipe down from the top of the screen to open **Quick Settings** Menu.
- 2) Tap **WLAN** ▼ to scan for available networks. Select a network to connect.





OR

- 1) Go to [App Drawer](#) | **Settings** ⚙️ | **WLAN** 📶
- 2) Tap the Wi-Fi switch to scan for available networks. Select a network to connect. If the network is an open one, the mobile computer will attempt to connect to it directly. When connected, the status will change to show **"Connected"**. If the network is a secured one, the mobile computer prompts a dialog to enter the password for the connection.



### 4.2.2. MANUALLY ADD WI-FI NETWORK

If the network you would like to connect to does not broadcast its SSID, or if the network is out of range, you may add it manually.

- 1) Go to [App Drawer](#) | **Settings**  | **WLAN** 
- 2) Slide down to the bottom of the page, and select “**Add network**”.
- 3) In the dialog box, enter the name of the network in the **Network name** field, and select a security method in the **Security** field (None, WEP, WPA/WPA2 PSK, 802.1x EAP).
  - ▶ For WEP/WPA/WPA2 PSK connections: Enter the required password and tap **Save**.
  - ▶ For 802.1x EAP connections: Tap **Advanced options** and select the **EAP method** in the drop-down box (PEAP, TLS, TTLS, PWD, SIM, AKA), and the **Phase 2 authentication** in the drop-down box (None, MSCHAPV2, GTC). Select a **CA certificate** and **User certificate** if required (certificates may be installed under

[App Drawer](#) | **Settings**  | **Security** | **Install from SD card**  
OR

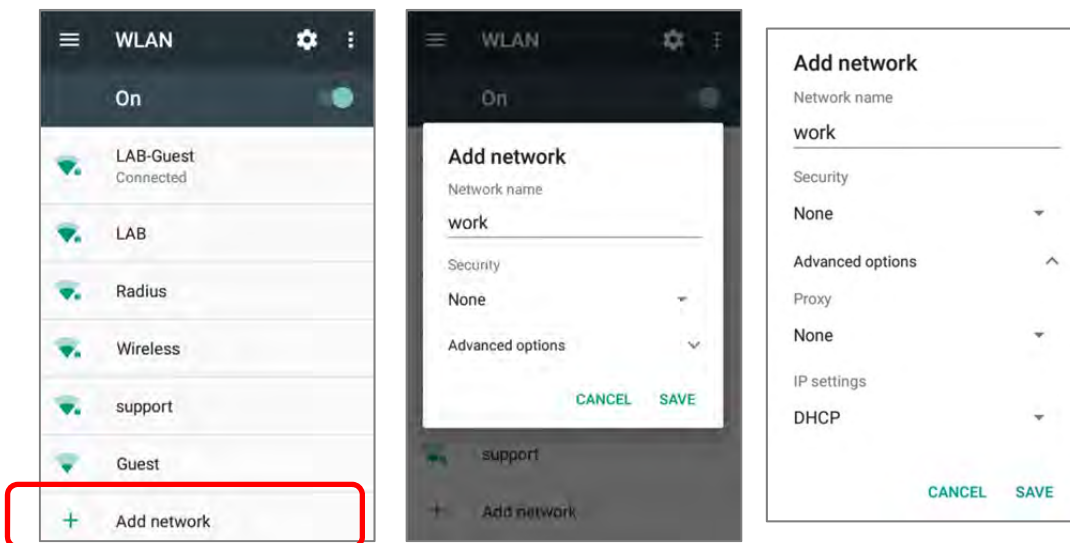
[App Drawer](#) | **Settings**  | **WLAN**  | **More**  | **Advanced** | **Install certificates.**)

Enter your username in the **Identity** box and the password in the **Password** box if required.

The mobile computer supports the following certificate file extensions:



File Extension Type	Standard Certificate	Key Stored
<b>Description</b>	DER-encoded X.509 certificates saved in .crt or .cer files.	X.509 certificates saved in PKCS#12 key store files with a .p12 or .pfx extension.
<b>How to install</b>	change the extension to .crt or .cer.	Change the extension to .p12 or .pfx.

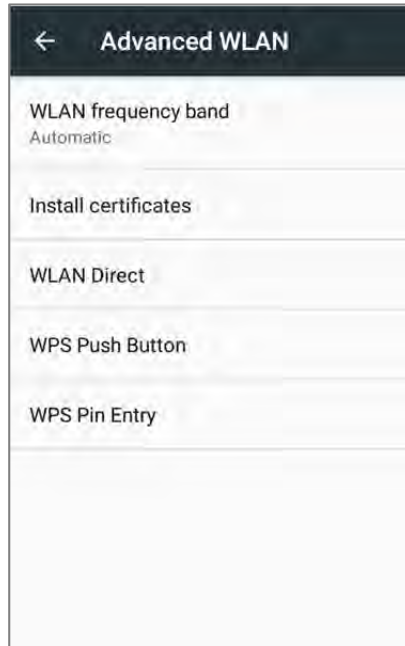
- 4) If necessary, select the **Proxy** server and **IPv4** settings. By default, no proxy is set and IP settings are set to **DHCP**.



### 4.2.3. ADVANCED WI-FI SETTINGS

To access advanced Wi-Fi settings:

- 1) On the **WLAN**  screen, tap **More** .
- 2) Select **Advanced** in the pop-up menu. Available settings are as below:



Item	Description
WLAN frequency band	Select <b>Automatic</b> , <b>5 GHz</b> , or <b>2.4 GHz</b> for your Wi-Fi frequency band. The default setting is <b>Automatic</b> .
Install certificates	Installs certificates recently downloaded or placed on the internal storage.
WLAN Direct	Enables your device to connect with a Wi-Fi Direct-capable device.
WPS Push Button	Initialize the Wi-Fi protected setup (WPS) for a WPS-capable network. You will also have to press down the WPS button on your router.
WPS in Entry	Enter the personal identification number (PIN) for Wi-Fi protected setup (WPS) process.

## 4.2.4. CONFIGURE WI-FI

To configure Wi-Fi settings, please tap **setting** icon  on the **WLAN** screen:



Item	Description
Saved Network	List of the saved network(s). Click the saved network and select <b>"FORGET"</b> to disconnect/delete.
Network notification	Notify when an open network is available.
Keep WLAN on during sleep	Set when to turn Wi-Fi on during sleep.
Roaming enable	Select whether to enable Wi-Fi roaming or not.
Roaming trigger	The signal strength when triggering Wi-Fi roaming. The higher value means the sensitivity of triggering roaming is higher.
Roaming delta	The qualification for roam candidates. The higher value means the signal strength of candidate APs should be higher than the current connected AP.
Set Country Code	Select the Wi-Fi country code for your mobile computer. The default country code setting is automatically set by your SIM card.
MAC address	Displays the MAC address of the device when connecting to Wi-Fi networks.
IP address	Displays the IP address of the device.

#### 4.2.5. CONFIGURE PROXY SERVER

A proxy server acts as an intermediary between an endpoint device and another server from which the device is requesting a service.

To change the proxy settings for a connection:

- 1) Tap a network in the available Wi-Fi hotspot list.
- 2) Tap **Advanced** options.
- 3) Tap **Proxy** and select **Manual** in the pop-up menu.
- 4) Enter the address of the proxy server in the **Proxy hostname** field. Enter the port number for the proxy server in the **Proxy port**. Enter the addresses of websites which are allowed to bypass the proxy server in the **Bypass proxy for** field. (Use the separator | between addresses.)
- 5) Tap **CONNECT**.


#### 4.2.6. USE STATIC IP ADDRESS

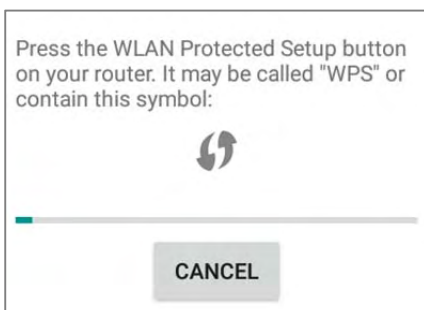
By default, the device uses DHCP to assign an IP address when connecting to a wireless network. You may set for the device to connect to a network using a static IP address.

- 1) Tap a network in the available Wi-Fi hotspot list.
- 2) Tap **Advanced** options
- 3) Tap **IP settings** and select **Static** in the pop-up menu.
- 4) Enter the IP address, gateway, network prefix length, DNS 1 address and DNS 2 address in the fields provided.
- 5) Tap **CONNECT**.

#### 4.2.7. CONNECT WITH WI-FI PROTECTED SETUP (WPS)

Wi-Fi protected setup (WPS) allows easy establishment of a secure wireless network. The mobile computer supports WPS through push button configuration.

- 1) On the Wi-Fi hotspot scanning screen, tap **More** , select **Advanced** and then **WPS Push Button**.
- 2) A dialog will pop-up on the screen showing the remaining time allowed for pressing the WPS button on the router.



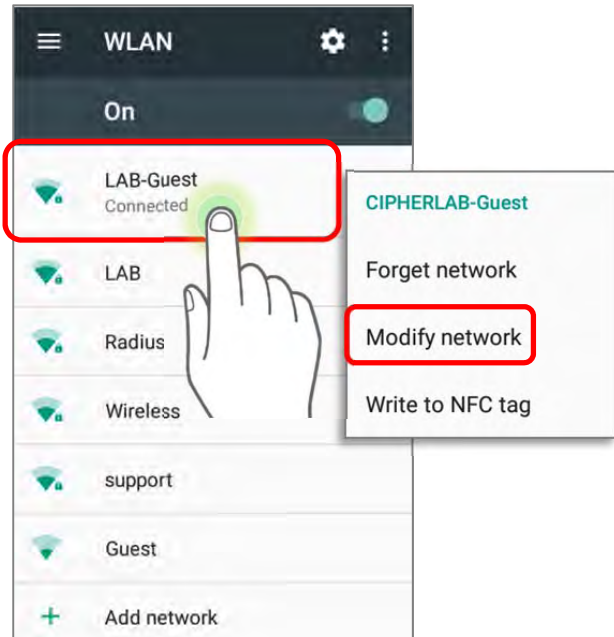
- 3) On your wireless router, press the WPS button. The device will connect to your router.



#### 4.2.8. MODIFY WI-FI NETWORK

To change the settings for a connected network:

- 1) Tap and hold a connected network in the Wi-Fi hotspot list.
- 2) Tap **Modify network** in the pop-up menu.
- 3) In the dialog box that opens, modify the network settings, and tap **Save**.



#### 4.2.9. DISCONNECT WI-FI NETWORK

To disconnect a connected network:

- 1) Tap and hold a connected network in the Wi-Fi hotspot list.
- 2) Tap **Forget network** in the pop-up menu.

## 4.3. USE BLUETOOTH

The RK25 mobile computer lets you configure Bluetooth settings and manage Bluetooth services provided on remote devices.

### 4.3.1. BLUETOOTH PROFILES

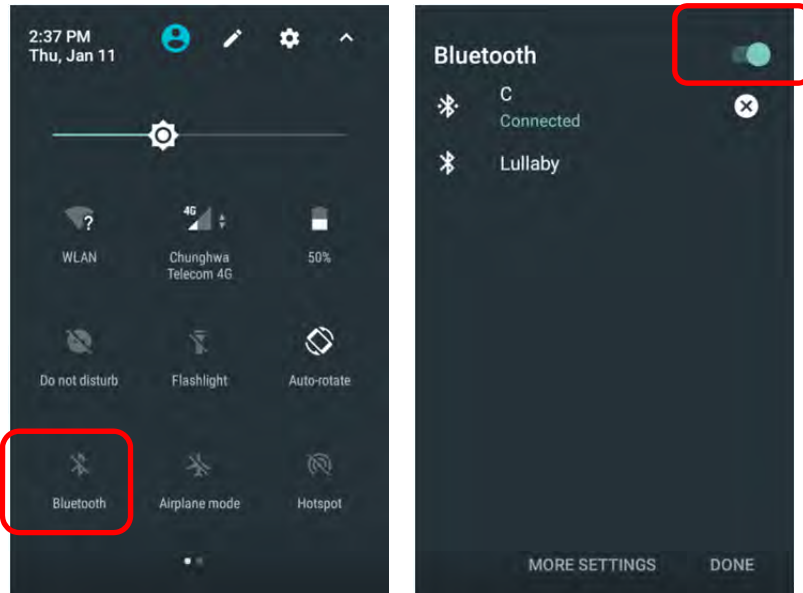
#### Bluetooth Profiles Supported

Generic Access Profile	(GAP)	For device discovery and authentication.
Service Discovery Access Profile	(SDAP)	Discovers services on remote devices.
Headset Profile	(HSP)	Describes how a Bluetooth enabled headset should communicate with a Bluetooth enabled device
Serial Port Profile	(SPP)	Sets up a virtual serial port to connect two Bluetooth devices.
Human Interface Device Profile	(HID)	Provides a low latency Bluetooth connection with keyboards, pointing devices, etc.
Object Push Profile	(OPP)	Pushes and pulls objects to and from a push server.
Hands-Free Profile (AG1.5)	(HFP)	Allows using a hands-free device to place and receive calls.
Advanced Audio Distribution Profile	(A2DP)	Streams stereo-quality audio to a wireless headset or speaker.
Audio/Video Remote Control Profile	(AVRCP)	Allows controlling of television and Hi-Fi equipment.
Generic Object Exchange Profile	(GOEP)	Provides a basis for other data profiles.
Personal Area Networking Profile	(PAN)	Uses Bluetooth Network Encapsulation Protocol for Bluetooth transmission.
General Audio/Video Distribution Profile	(GAVDP)	Provides a basis for A2DP and VDP.
Phone Book Access Profile	(PBAP)	Transfers Phone Book Objects to a car kit to display the information of an incoming call received on the mobile computer, or initiate a call.
Out of band and Near Field Communications	(OOB, NFC)	Manages the pairing process by using NFC.
Symbol Serial Interface Profile	(SSI)	Supports additional scanner.
Dial-up Networking Profile	(DUN)	Provides a standard to access the Internet and other dial-up services over Bluetooth.

### 4.3.2. TURN ON BLUETOOTH

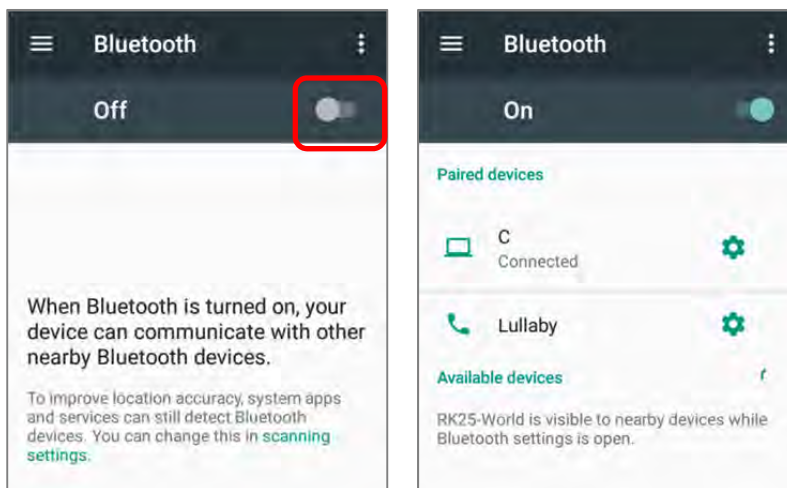
By default, Bluetooth is turned off, to turn it on:

- 1) Use two fingers to swipe down from the top of the screen to open **Quick Settings**.
- 2) Tap **Bluetooth** ▼ to turn on this function while enabling the Bluetooth visibility of this device.



OR

- 1) Go to [App Drawer](#) | **Settings** ⚙️ | **Bluetooth** 📶.
- 2) Tap the switch to turn on this function while enabling the Bluetooth visibility of this device.




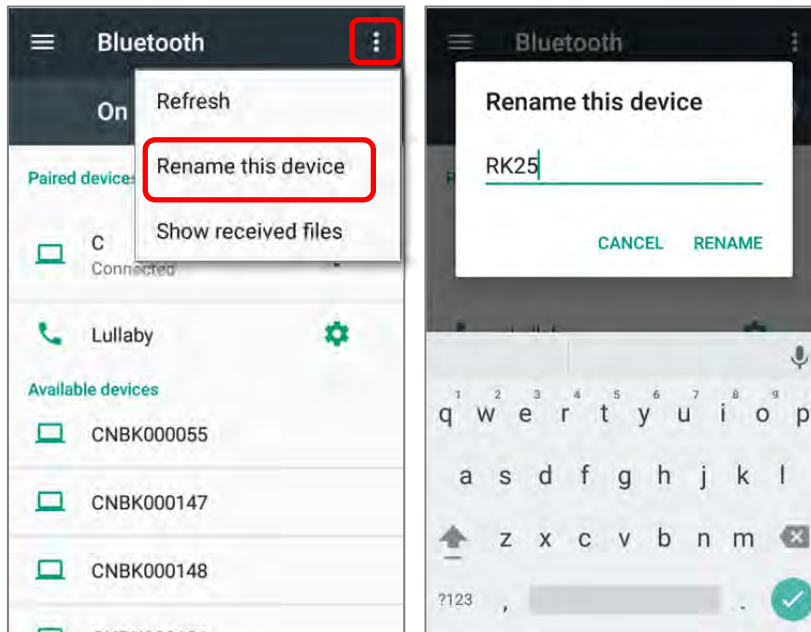
Note:

Having been turned on, Bluetooth is active even when the mobile computer is suspended. However, if the power mode is switched to Airplane Mode, Bluetooth power will be turned off regardless of the settings.



### 4.3.3. CHANGE BLUETOOTH NAME

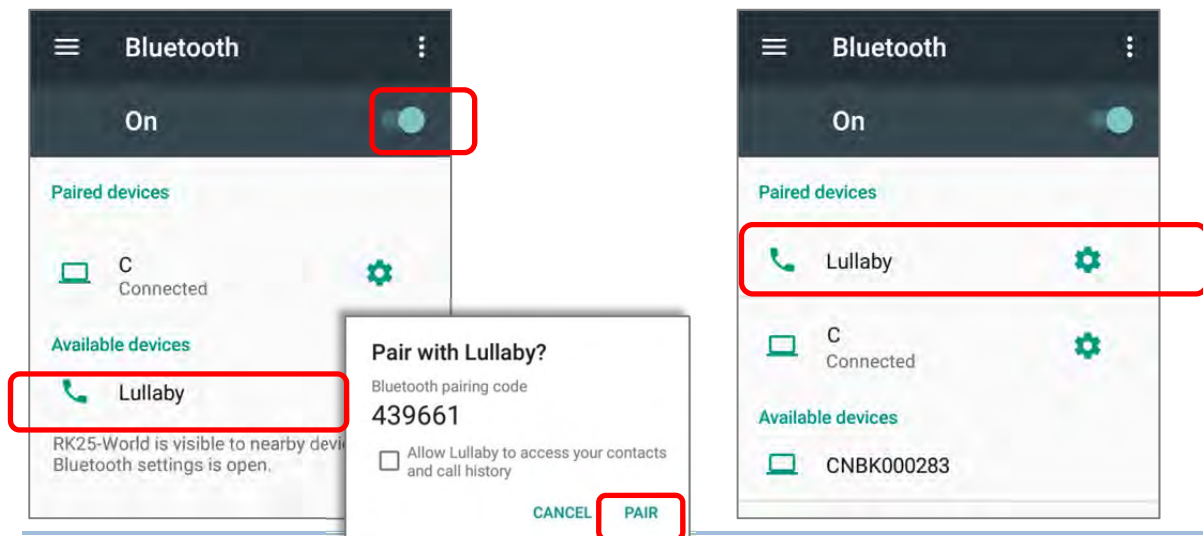
To change the Bluetooth name of this mobile computer:

- 1) On the available Bluetooth devices screen, tap **More**  and select **Rename this device** in the pop-up menu.
- 2) Type a new name in the field and tap **RENAME**.



#### 4.3.4. PAIR BLUETOOTH DEVICES

- 1) Go to [App Drawer](#) | **Settings**  | **Bluetooth** . Tap the switch to **On** to scan for available Bluetooth devices nearby. Scroll through the list and tap the device you would like to pair.
- 2) The **Bluetooth pairing request** window opens. Depending on the pairing settings of the Bluetooth device, you may need to enter a passkey, or confirm the assigned passkey on the device to pair if a smart pairing method is applied. Enter/confirm the passkey on the device to pair.
- 3) Once pairing is done, the Bluetooth device will be listed in the **Paired Devices** list.



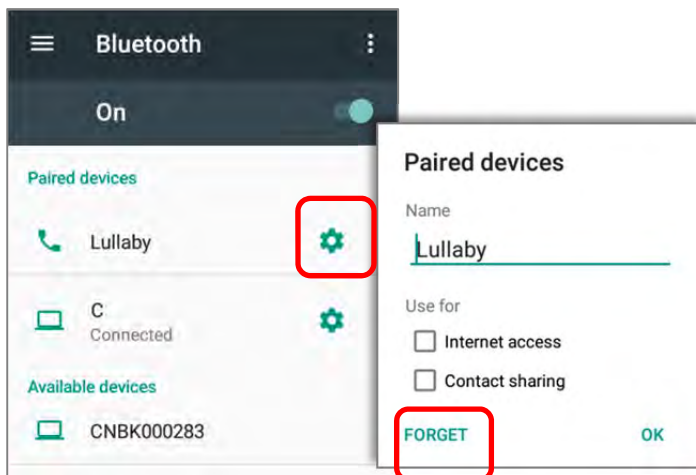
Note:

If the device you would like to pair with is not listed, make sure Bluetooth visibility is enabled on the device.

#### 4.3.5. UNPAIR BLUETOOTH DEVICE

To unpair a paired device:



- 1) In the **Paired Devices** list, tap the settings button  next to the paired device.
- 2) On the **Paired device** screen, tap **FORGET**.

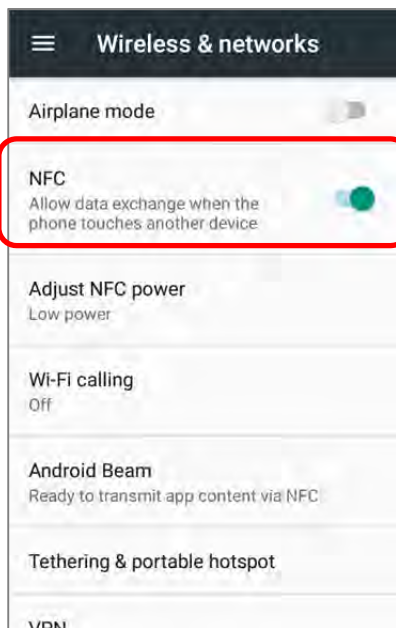


## 4.4. USE NEAR FIELD COMMUNICATIONS

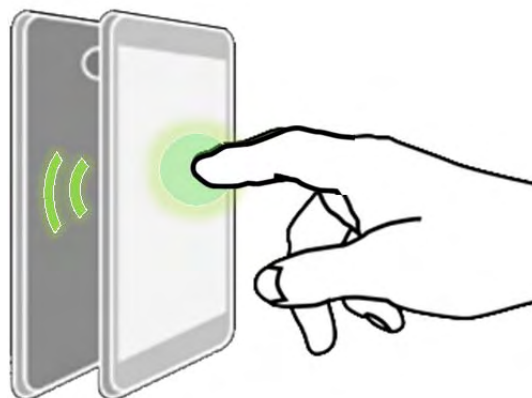
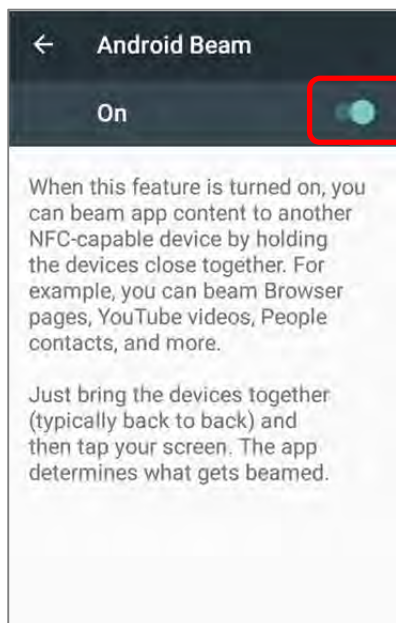
Near field communications (NFC) uses close proximity (4 cm or less) to establish radio communication through electromagnetic fields. With NFC enabled, the mobile computer can collect information from NFC tags, exchange information with other NFC supported devices, and even change information on the NFC tag if authorized.

Before starting to communicate through NFC, perform the following:

- 1) On the mobile computer, go to [App Drawer](#) | **Settings**  | **More** 
- 2) On the Wireless & networks page, make sure the **NFC** switch is enabled.



- 3) Tap **Android Beam** and enable it.

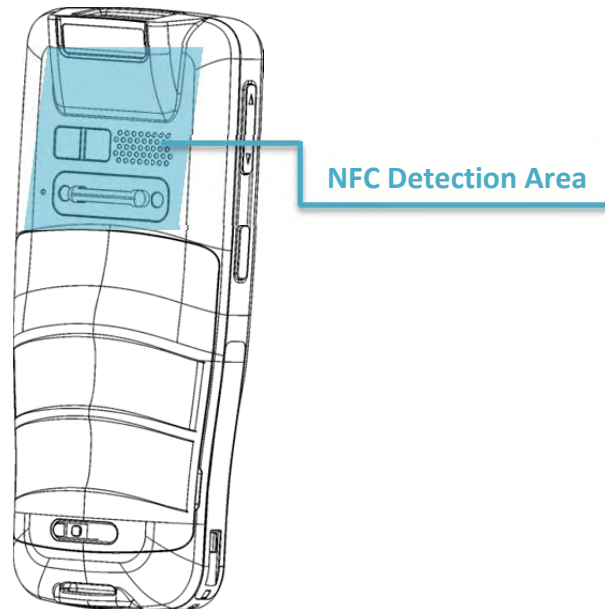




---

### PAIR WITH NFC ENABLED BLUETOOTH DEVICES

- 1) On the device you would like to pair with, make sure NFC is enabled and Bluetooth discovery is enabled.
- 2) Hold the mobile computer without covering the antenna area at the lower end of the battery cover.



- 3) Move the mobile computer in proximity with the device for pairing. A screen notification will appear to indicate that pairing is successful.

---

### SHARE INFORMATION

- 1) Open the web page, video, photo or contact info page you would like to transfer.
- 2) Place the back of the mobile computer in close proximity with the other device you would like to share data with.
- 3) When the two devices connect, a **"Touch to beam"** notification will appear on the screen.
- 4) Touch the screen to initiate data transfer.

---

#### Note:

Once the data begins to transfer, the two devices only need to be held within a 10 m (32.8 ft.) range; they no longer have to be held within close range in order to transfer successfully.

---

---

### COMMUNICATION WITH NFC

- 1) On the mobile computer, launch an NFC enabled application.
  - 2) Hold the mobile computer without covering the antenna area at the lower end of the battery cover.
  - 3) Place the mobile computer close to the NFC tag or device until the application indicates data transfer is complete.
-

## Chapter 5

### USING THE PHONE

---

The RK25 mobile computer allows making phone calls and connecting to the network over Wideband Code Division Multiple Access (WCDMA). Insert the SIM card before turning on the power. Refer to [Installing SIM Card, SAM Card and Memory Card](#).

---

Note:

If the SIM card is not in position, you may make emergency calls if the service is supported.

---

#### IN THIS CHAPTER

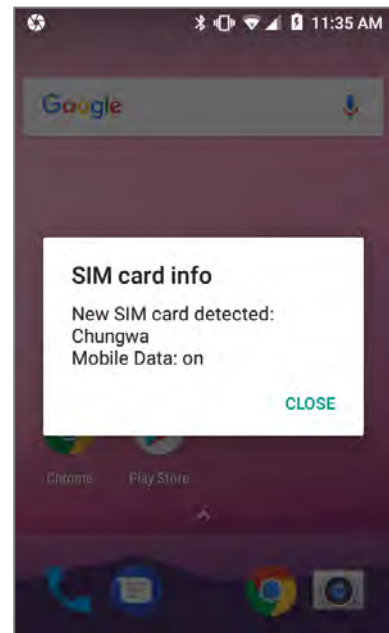
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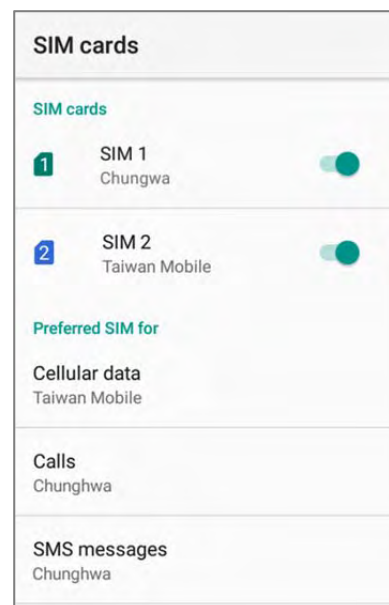
## 5.1. SIM CARD MANAGEMENT

The mobile computer accommodates two SIM cards and supports dual standby of two different networks. Both networks will be monitored at the same time, and the phone will dynamically switch between the two networks during usage. Calls will be placed with either one of the networks; you cannot switch networks in the middle of a received call or placed call, or receive or place calls with both networks at the same time.

When a SIM card is installed for the first time, the phone is enable automatically when the mobile computer is powered on. A dialog box pops-up when the mobile computer is powered on notifying that a SIM card is detected.



- 1) To open the SIM card management screen, please go to [App Drawer](#) | **Settings**  | **SIM cards** 
- 2) If you already have both SIM1 and SIM2 cards inserted, enable these cards on SIM cards screen and respectively select the Preferred SIM for Cellular data, Calls and SMS messages.



### Note:

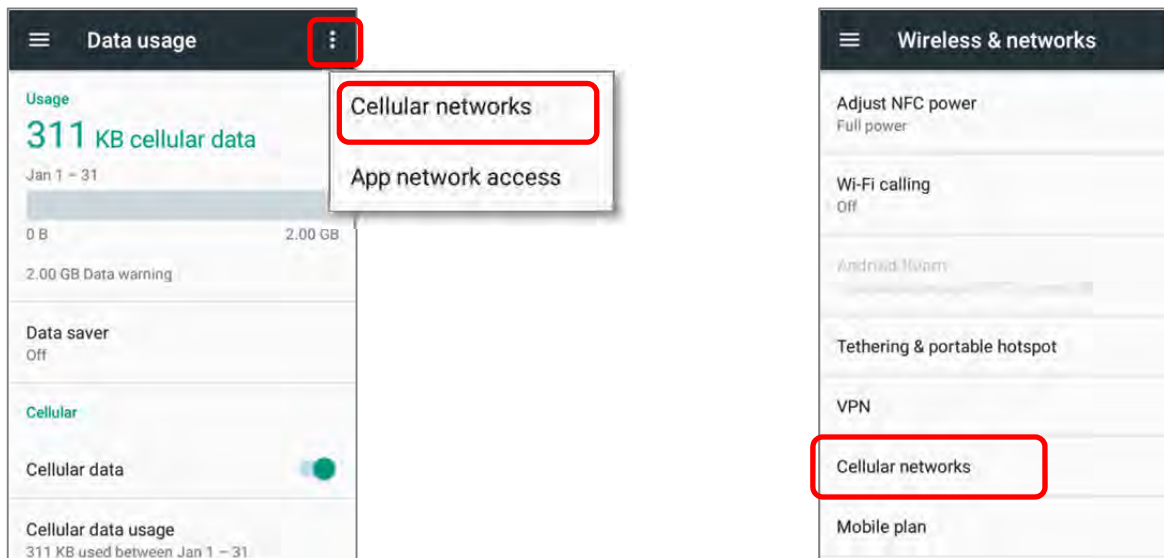
When both SIM cards are both inserted and enables, they are both active and ready to receive an incoming call but not able to be connected at the same time.

## CELLULAR NETWORKS SETTINGS

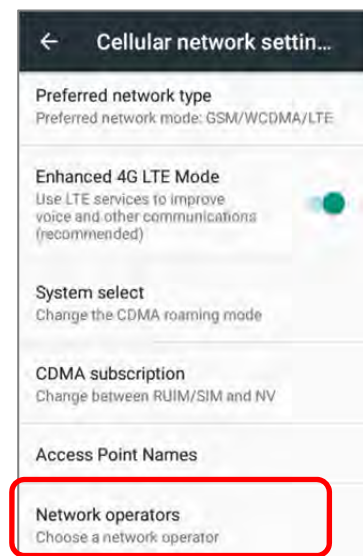
- 1) Go to [App Drawer](#) | **Settings**  | **Data usage** , and tap  to select “**Cellular networks**” from the menu.

OR

Go to [App Drawer](#) | **Settings**  | **More** , and tap “**Cellular networks**”.



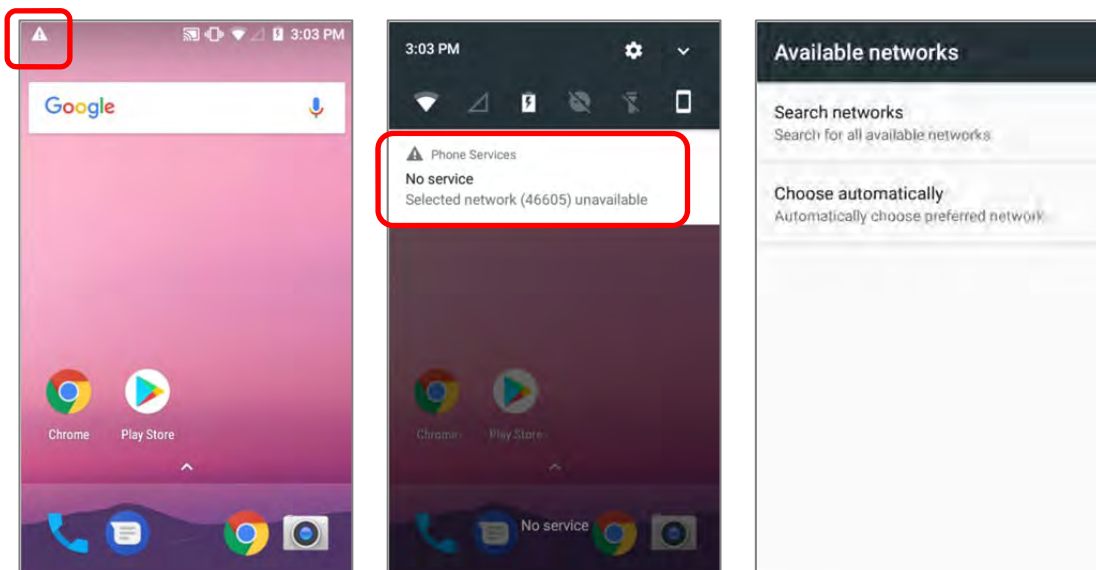
- 2) Swipe to the bottom of **Cellular network settings** page, and tap “**Network operators**”. Available networks will be listed after searching.



- 3) Select your preferred network from the list, or remain it as the default setting “**Choose automatically**”.

Available netw...	SEARCH NETWORKS
Choose automatically	Automatically choose preferred network
AVAILABLE NETWORKS	
Chunghwa Telecom 3G	
Chunghwa Telecom 4G	
46605 2G(Forbidden)	
TW Mobile 4G(Forbidden)	
46605 4G(Forbidden)	
T Star 3G(Forbidden)	

- 4) A notification appears if the selected network is unavailable. Tap it to select the network again.



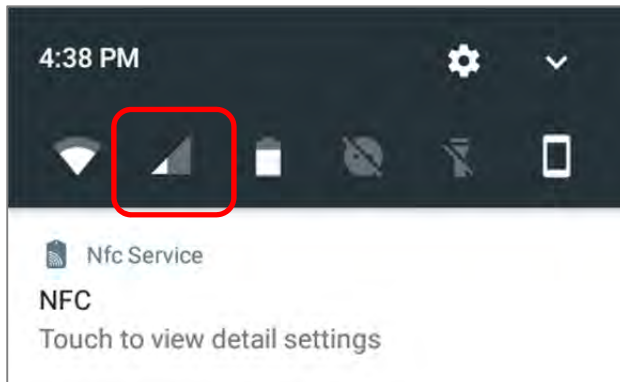
## EMERGENCY CALLS




Depending on your service provider, the mobile computer might support making emergency phone call when the SIM card is locked, or even when no SIM card is inserted. Emergency phone numbers will vary by country.

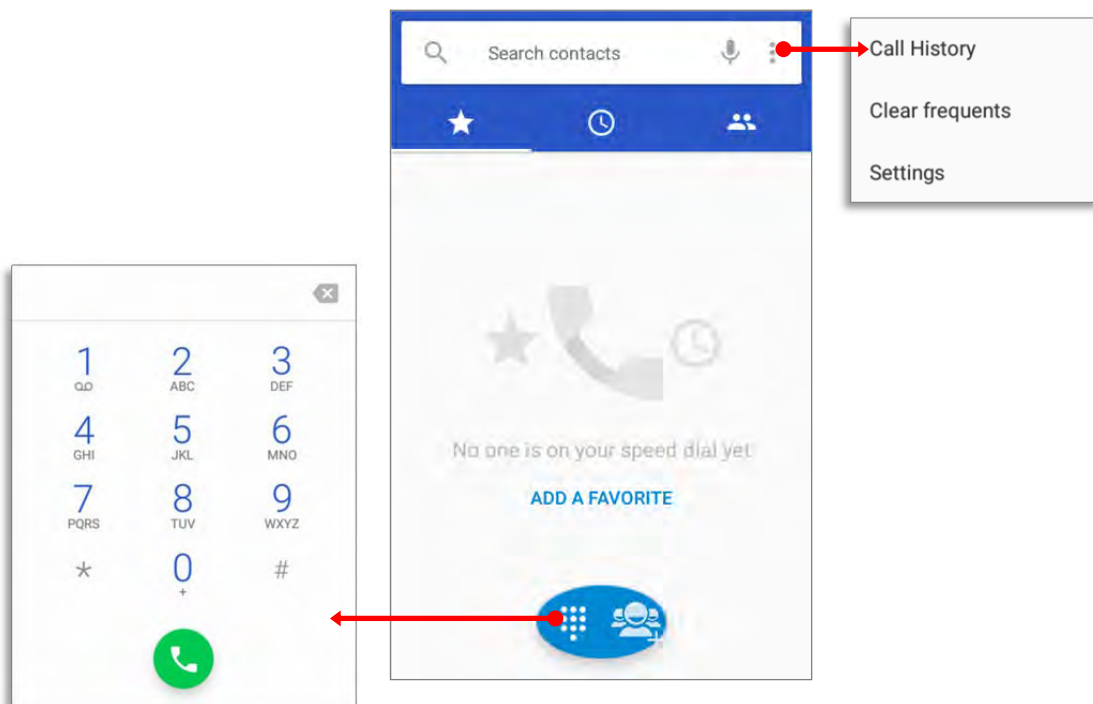
## 5.2. PHONE APPLICATION

### 5.2.1. PHONE INTERFACE

When a SIM card is installed on the mobile computer, a signal icon appears on the status bar. The white part of the signal icon indicates the strength of the connection.

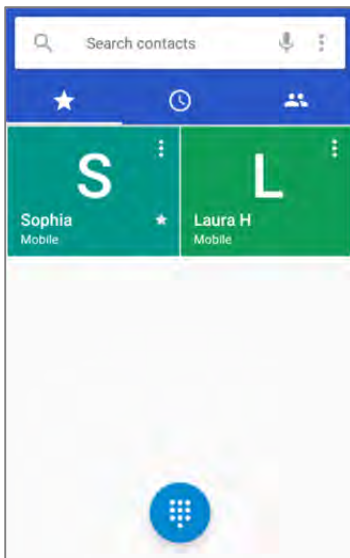



- 1) Go to [App Drawer](#) | **Phone** . The Phone application opens.
- 2) Tap the settings button  to open the phone settings menu for adding a new contact, and then opening the contact application.
- 3) Tap  to open the dial pad.

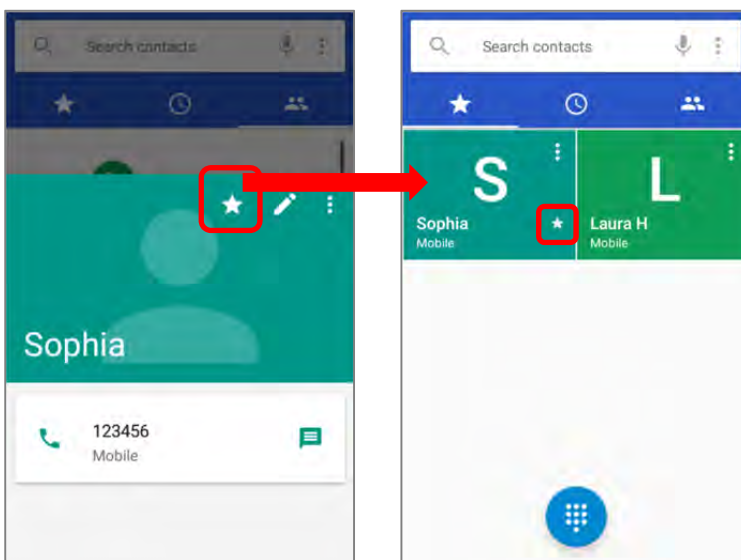




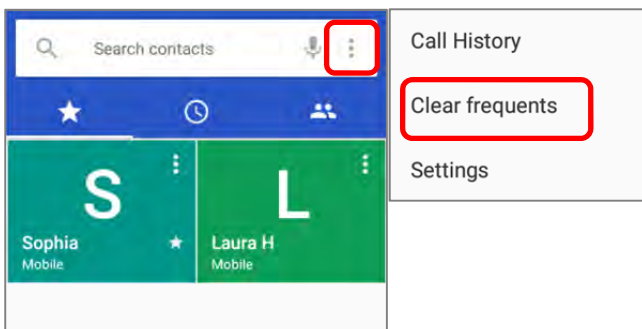
In  tab page, it displays your Favorite contacts & your frequent calls:





To add a favorite contact, please tap the contact in  tab page and tap the star mark to add.

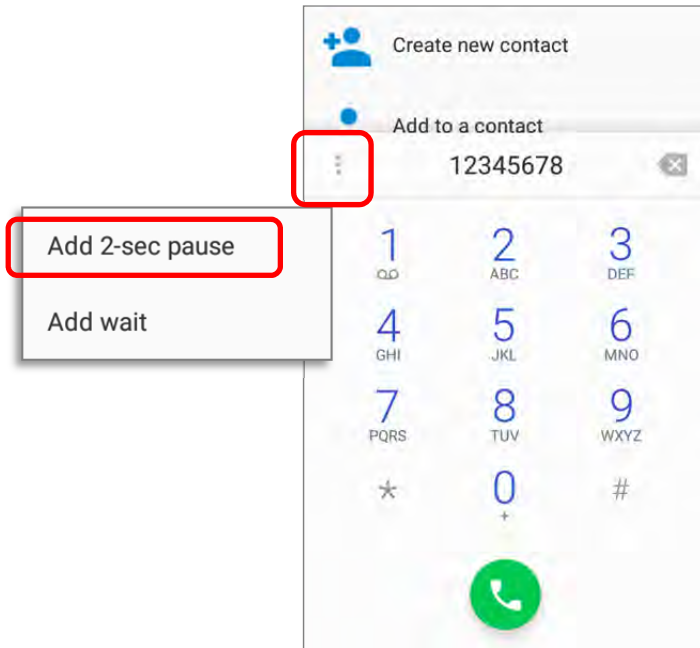


To clear the frequent calls, please tap and select "**Clear frequents**"



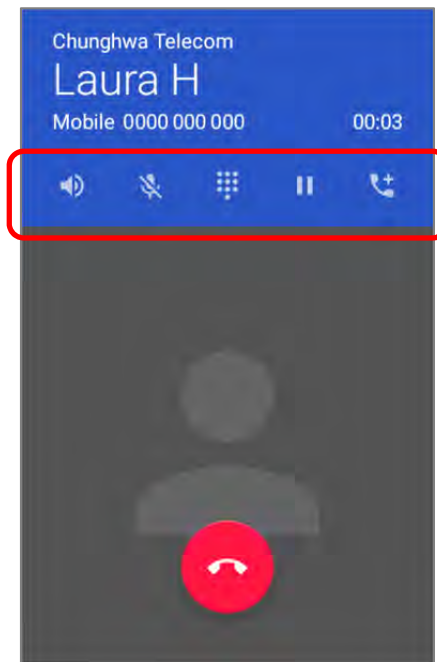
## 5.2.2. PLACE CALL






Enter the phone number in the dial pad and tap  to initiate the call. If you need to frequently make calls to an interactive voice system, you may tap  next to the number and select **Add 2-sec pause** for soft pause (a pause of 2 seconds to the buttons) or a hard pause (a pause that will wait for your confirmation to send the following digits).



### 5.2.3. DURING A CALL


When a call is connected, the phone keypad features the following buttons:

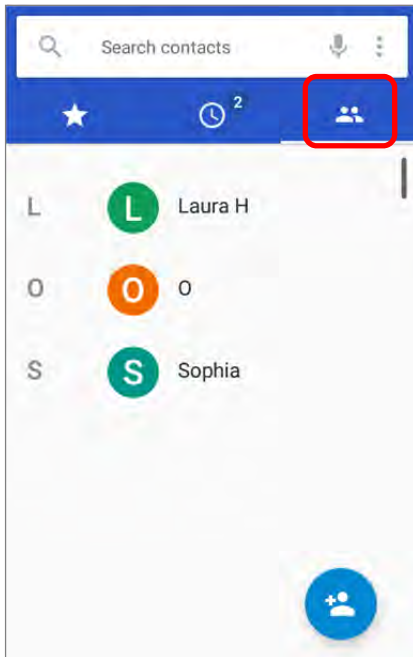


Button	Description
	Turns on the speaker.
	Mutes the call.
	Opens the dial pad.
	Places the call on hold.
	Adds another person to the call.

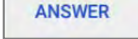
## PLACE CALL USING CONTACTS

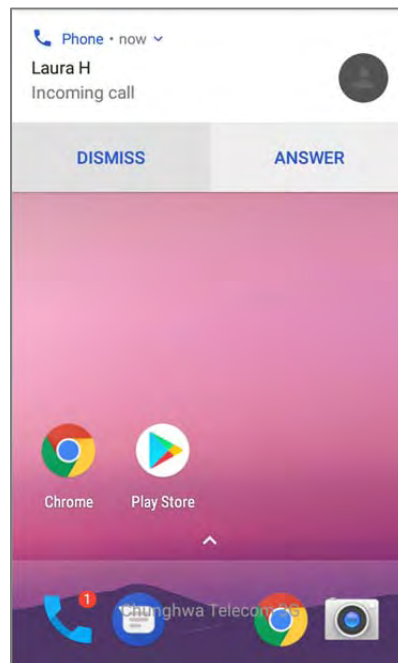
To make a call using contacts:

- 1) In the phone application page, tap .
- 2) Tap a contact to initiate a call.



## 5.2.4. RECEIVE INCOMING CALL


When a call is incoming on the mobile computer, tap  to pick it up.






Incoming calls will be logged in the **Phone** application; in the case of a missed call, a notification will be displayed. See [Check Missed Calls](#).

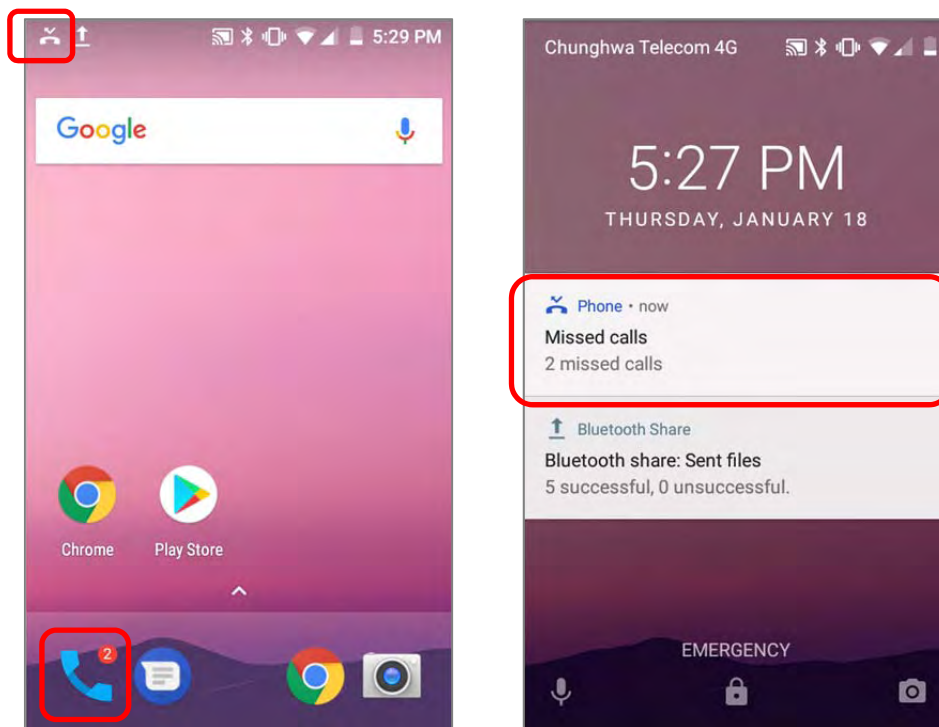
To mute the ringtone of an incoming call, press the volume down button.

## 5.2.5. CHECK MISSED CALLS

If you have a missed call, a notification icon  will appear on the status bar. The number of missed calls will also be displayed on:

- 1) The **Phone** app icon
- 2) The **Lock Screen**



(Turning on/off this function on [App Drawer](#) | **Settings**  | **Notifications**  | **Settings**  | **On the lock screen**)

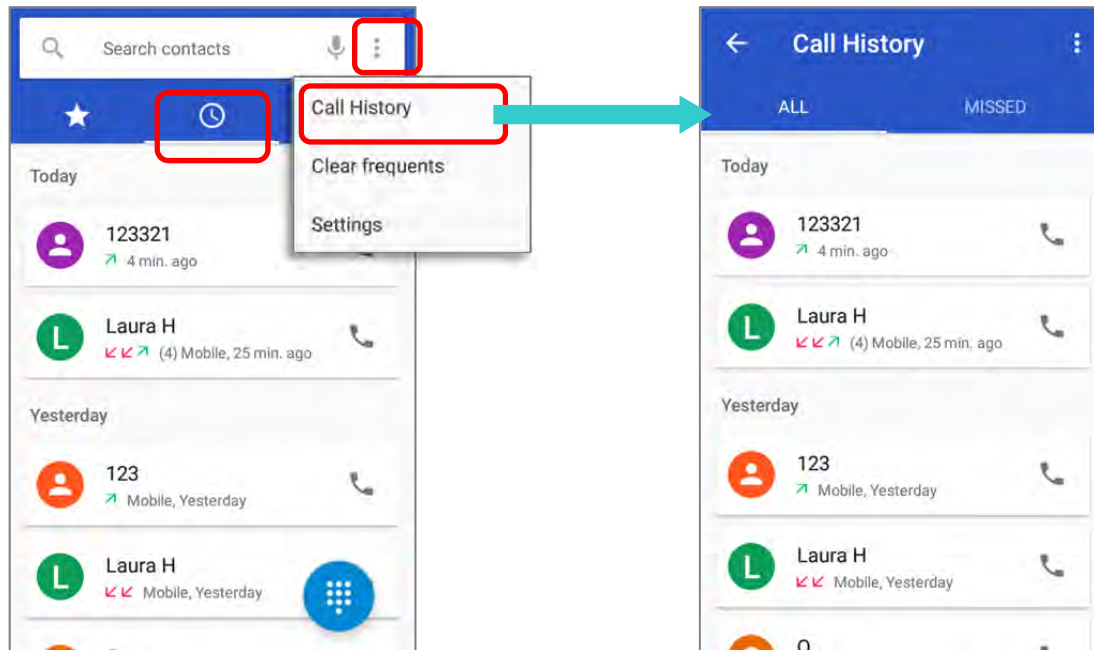


Unlock the screen and use the [Notifications Drawer](#) to manage the missed call.



## 5.2.6. CALL HISTORY

- 1) On the Phone application page, tap the **History** button  to open a list of history calls. Or you can tap settings button  and then **Call History**.



### Button


### Description

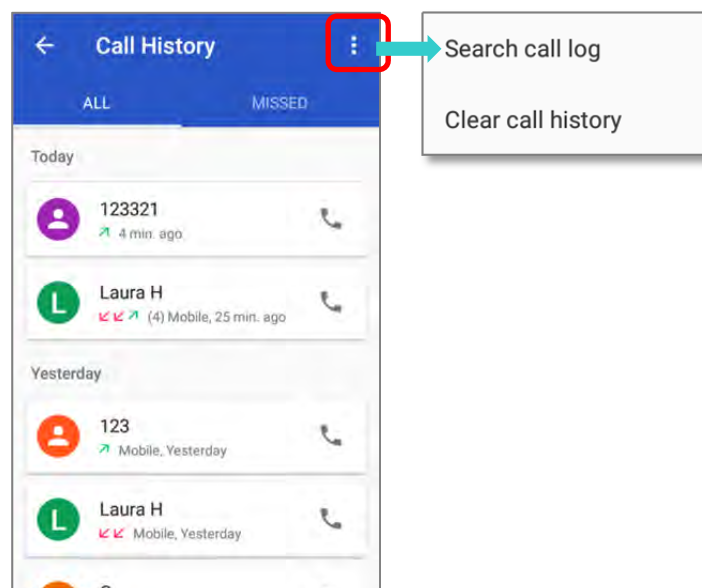


Connected calls.




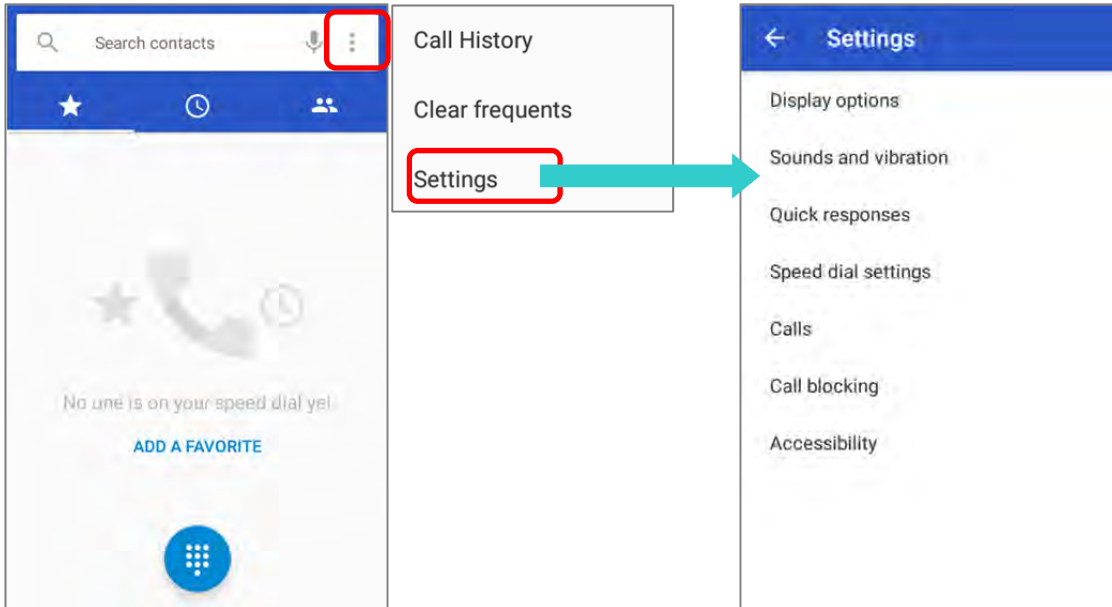
Missed calls.

- 2) Tap the phone icon  next to a call record to place back the call.



## 5.2.7. CALL SETTINGS











Tap  and select **"Settings"** to enter the settings page:



Tap each setting for more setting options.

## 5.2.8. MAKE MULTI-PARTY CALLS

To make multi-party conference calls:

- 1) On the Phone application page, enter the 1<sup>st</sup> number to call and tap  to initiate the call.
- 2) After the call has begun, tap **Add call**  to add another member. The 1<sup>st</sup> call will be put on hold.
- 3) Select the 2<sup>nd</sup> member from call log or contacts to call directly, or tap the dial pad  to input the phone number to call and tap  to initiate the call.
- 4) When the 2<sup>nd</sup> call is connected, the first call will continue to be on hold. Tap the merge call button  to add the 1<sup>st</sup> call to the conversation. A three-party conference call is initiated.
  - ▶ To add a 4<sup>th</sup> member, please tap . The three-party call will be put on hold. Follow the step similar to step 3 to initiate the call. When the call is connected, the three-party call will continue to be on hold. Tap the merge call button  to add the three-party call to the conversation. A four-party conference call is then initiated.
  - ▶ Tap **Manage Conference Call** to view all members of the call.
  - ▶ To remove a member, tap  next to the member.
  - ▶ To speak with a member in private, tap  next to the member, and the conference call will be put on hold. Tap  to return back to the conference call.

### 5.3. AUDIO MODES

The mobile computer offers three different audio modes for phone calls:

#### HANDSET MODE

This is the default audio mode which uses the receiver above the touchscreen for audio output during calls.

#### SPEAKER MODE

This mode uses the built-in speaker for audio output during calls.

#### HEADSET MODE

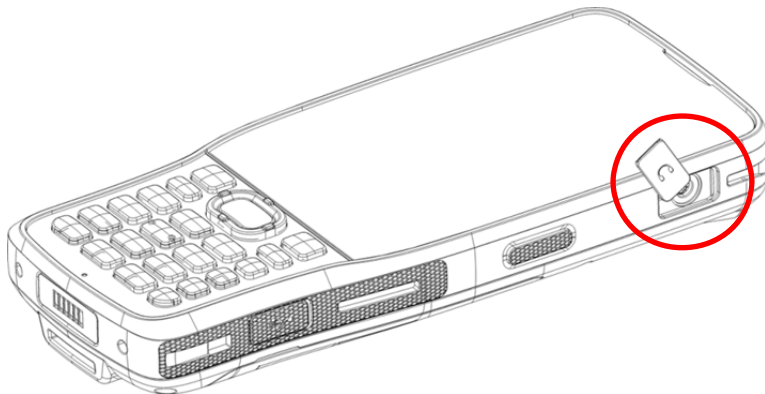
Connect a Bluetooth headset or a wired headset to the mobile computer for audio output during calls.

#### USE BLUETOOTH HEADSET

See [Pair Bluetooth Devices](#) to connect the mobile computer to a Bluetooth device. The speaker phone becomes muted when a Bluetooth headset is connected.

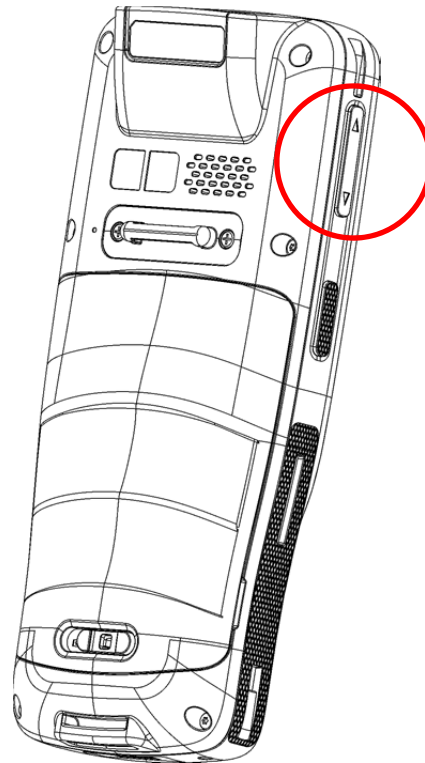
#### USE WIRED HEADSET

Insert a wired headset in the Headset Jack. The speaker phone becomes muted when a wired headset is connected.



## 5.4. IN-CALL VOLUME

Use the Volume Buttons to adjust the ringer volume and system sound level. When in the middle of a call, use the volume buttons to adjust in-call conversation volume.



# Chapter 6

## USING READER CONFIGURATION UTILITY

---

The **Reader Configuration** utility allows you to manage the barcode reader integrated on the mobile computer.

### IN THIS CHAPTER

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- 6.1 Configure Reader ..... 169
- 6.2 Read Printed Barcodes..... 188




## 6.1. CONFIGURE READER

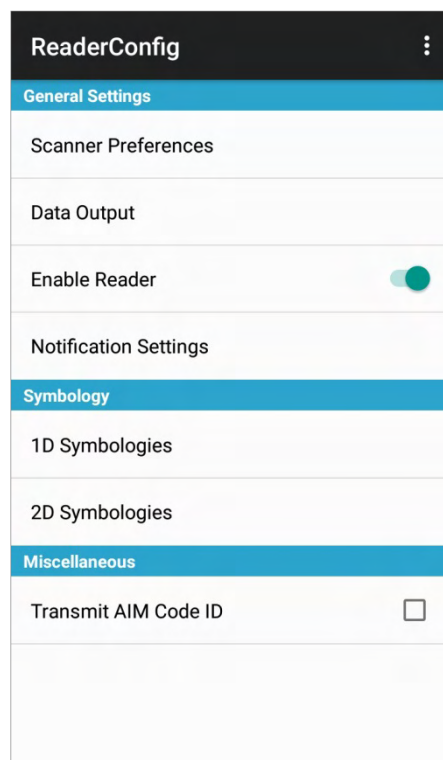
The mobile computer is capable of reading printed barcodes. The reader module can be either a (laser) 1D reader or a 2D imager. The mobile computer is installed with a Reader Config to configure the scan engine built inside. Use it to create a profile of settings that best suits your needs.

---

### LAUNCH READER CONFIG

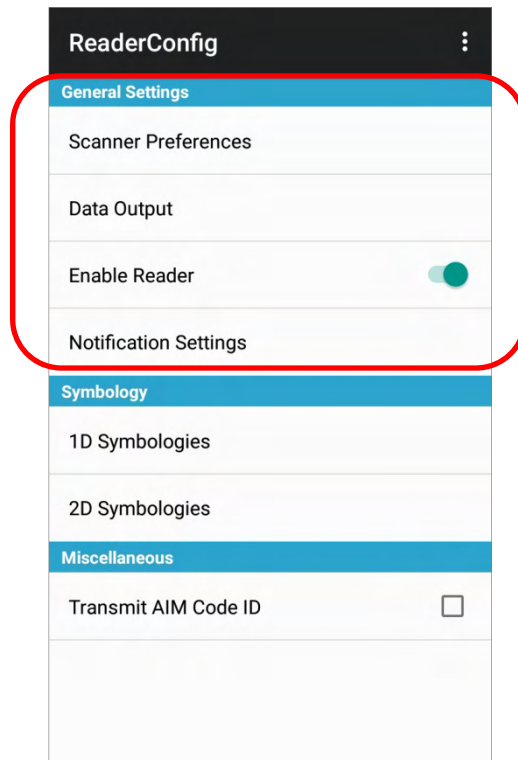
To launch Reader Config:

- 1) Go to [App Drawer](#) | **ReaderConfig**  to open the Reader Configuration Utility.
- 2) **Reader Config** launches in context with the reader module(s) on board the mobile computer. On the main settings page are three sections: **General Settings**, **Symbology** and **Miscellaneous**.



### 6.1.1. GENERAL SETTINGS

**General Settings** is where all reader settings are accessed from. Tap each item to enter its sub-menu.



The functions under **General Settings** include:

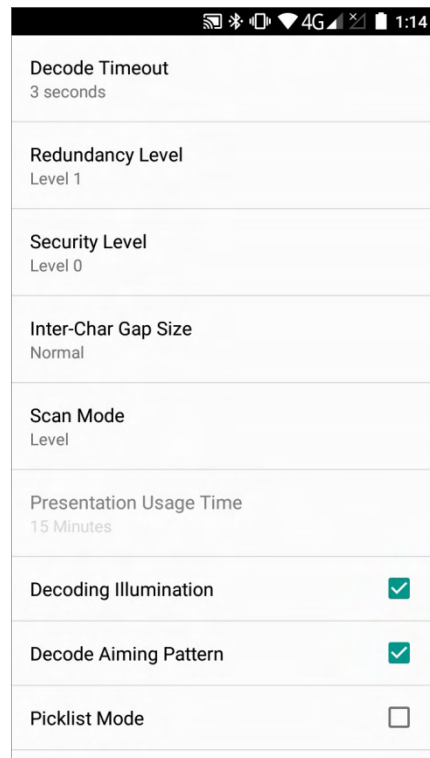
- ▶ Scanner Preferences
- ▶ Data Output
- ▶ Enable Reader (enabled by default)
- ▶ Notification Settings

## SCANNER PREFERENCES

Options on the **Scanner Preferences** page differ according to the type of scan engine built within the mobile computer.

To open **Scanner Preferences** page:

- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap **Scanner Preferences**.



2D IMAGER SETTINGS

Setting	Description	Default										
Decode Timeout	Sets the maximum time for the decoding process during a scan. Configurable between 1 sec to 9 sec.	3 sec.										
Redundancy Level	Sets how many successful readings should be done before linear barcodes such as Codabar, MSI, and Interleaved 2 of 5 can be decoded. Levels 1 to 4 available.	Level 1										
Security Level	<p>Sets the security level to ensure decoding accuracy considering the printed quality of barcodes such as Code 128, Code 93, and UPC/EAN. The higher the level is, the more security is ensured. Options are:</p> <table border="1"> <thead> <tr> <th>Level</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>With this default, the scan engine is aggressive enough to decode most "in-spec" barcodes.</td> </tr> <tr> <td>1</td> <td>Select this level if misdecodes have occurred. It fixes most misdecodes.</td> </tr> <tr> <td>2</td> <td>Select this level if Level 1 should fail to eliminate misdecodes.</td> </tr> <tr> <td>3</td> <td>Select this level if Security Level 2 should fail to prevent misdecodes. However, as this level actually impairs the decoding ability of the decoder, a safer solution would be to improve the quality of the bar codes to read.</td> </tr> </tbody> </table>	Level	Description	0	With this default, the scan engine is aggressive enough to decode most "in-spec" barcodes.	1	Select this level if misdecodes have occurred. It fixes most misdecodes.	2	Select this level if Level 1 should fail to eliminate misdecodes.	3	Select this level if Security Level 2 should fail to prevent misdecodes. However, as this level actually impairs the decoding ability of the decoder, a safer solution would be to improve the quality of the bar codes to read.	Level 0
Level	Description											
0	With this default, the scan engine is aggressive enough to decode most "in-spec" barcodes.											
1	Select this level if misdecodes have occurred. It fixes most misdecodes.											
2	Select this level if Level 1 should fail to eliminate misdecodes.											
3	Select this level if Security Level 2 should fail to prevent misdecodes. However, as this level actually impairs the decoding ability of the decoder, a safer solution would be to improve the quality of the bar codes to read.											
Inter-Char Gap Size	Sets the intercharacter gap size for Code 39 and Codabar. This option is to allow the digital scanner to adjust its decoding standard so as to tolerate out-of-specification bar codes that are improperly printed out (which may cause the intercharacter size to become larger). Switch between <b>Normal</b> and <b>Large</b> .	Normal										
Scan Mode	<p>Sets the reader's scanning behavior.</p> <p><b>Level:</b> The decoding process is activated by a trigger event, and continues until the trigger event ends, a valid decode happens or decode session time-out is reached.</p> <p><b>Presentation Mode:</b> When this device is executing Barcode reader service under this mode, the reader module will stay active and automatically turn off after the user-defined period of time (Presentation Usage Time).</p>	Level										
Presentation Usage Time	This option is available when <b>Presentation</b> is selected as the scan mode. This defines the duration of how long <b>Presentation mode</b> stays active, after which the laser light beam will automatically be disabled.	15 Minutes										
Decoding Illumination	Enables an LED light beam to aid barcode reading.	Selected (Enabled)										
Decode Aiming Pattern	Projects a crosshair at the center of the laser light beam to facilitate barcode reading.	Selected (Enabled)										
Picklist Mode	When selected, only barcodes aligned at the crosshair of the laser light beam will be decoded.	Deselected (Disabled)										
Display Mode	Enable improved performance for reading barcodes on electronic displays and mobile phones.	Deselected (Disabled)										

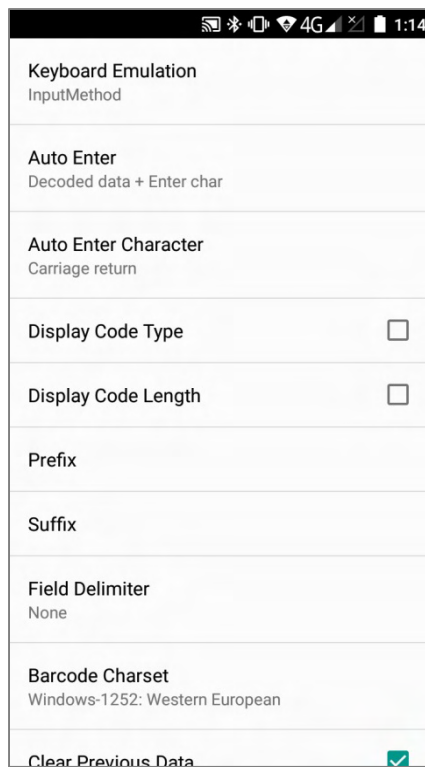
Inverse Type	Decide whether to disable or enable decoding inverse barcodes, or set as auto.	Regular only
Addon Redundancy	Functions when "auto-discriminate" is applied for UPC/EAN addons. Decides the number of times of supplemental decoding of the same barcode in order to count as a valid read. Configurable between 2 and 30.	10
Illumination Power Level	The intensity of the LED light beam to aid barcode reading. Configurable between 0 and 10.	10

## DATA OUTPUT

**Data Output** allows users to set the way to output decoded data.

To open **Data Output** settings page:

- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap **Data Output**.



## WHERE TO OUTPUT

**Keyboard Emulation** setting controls where the decoded data is to be output.

Setting	Descriptions	Default
Keyboard Emulation	Tap the switch to enable. When enabled, the reader module treats decoded data as typed text and outputs it to the active application on the mobile computer. Options are: <ul style="list-style-type: none"><li>▶ None</li><li>▶ InputMethod</li><li>▶ KeyEvent</li></ul>	InputMethod

**HOW TO OUTPUT**

After the output destination is set, configure how to output decoded data, i.e. the "format" to present decoded data.

<b>Setting</b>	<b>Description</b>	<b>Default</b>
Auto Enter	Adds an ENTER character before or after each string of decoded data. The ENTER character can be defined in the "Auto Enter character" field below. This function saves the trouble of pressing a confirmation key to accept each string of decoded data. Options are: <ul style="list-style-type: none"> <li>▶ Disable</li> <li>▶ Decoded data + Enter char</li> <li>▶ Enter char + Decoded data</li> </ul>	Decoded data + Enter char
Auto Enter character	Adds a key code before or after the decoded data. If [Auto Enter] is enabled, select the ENTER character to send. Options are: <ul style="list-style-type: none"> <li>▶ None</li> <li>▶ Carriage Return</li> <li>▶ Tab</li> <li>▶ Space</li> <li>▶ Comma</li> <li>▶ Semicolon</li> </ul>	Carriage Return
Display Code Type	Prefixes the output data with code type information.	Deselected (Disabled)
Display Code Length	Suffixes the output data with code length information.	Deselected (Disabled)
Prefix	Affixes 0 to 10 characters to the left of the output data. Tap the label to open a character table for entering the prefix. <ul style="list-style-type: none"> <li>▶ Prefixes containing invisible characters are supported.</li> </ul>	--
Suffix	Affixes 0 to 10 characters to the right of the output data. Tap the label to open a character table for entering the suffix. <ul style="list-style-type: none"> <li>▶ Suffixes containing invisible characters are supported.</li> </ul>	--
Field Delimiter	Sets the delimiter to separate the output barcode data to the following pieces: code type, decoded barcode data, and code length (if applicable). Options are: <ul style="list-style-type: none"> <li>▶ None</li> <li>▶ Comma</li> <li>▶ Semicolon</li> <li>▶ Full stop</li> </ul>	None
Barcode charset	Specifies the current decoding for barcode data.	Windows-1252: Western European
Clear Previous Data	By enabling this option, only the last scanned data entry will be output.	Deselected (Disabled)



## ENABLE READER

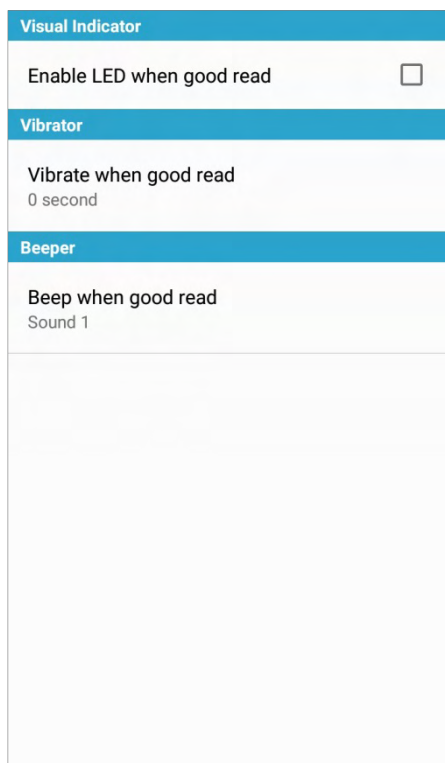
Features a switch to enable or disable reader scanning ability. When enabled, a light beam will be sent out from the scanning window each time the trigger (scan key) is pressed.

## NOTIFICATION SETTINGS

**Notification Settings** enables audible, visible and tactile feedback for scanning good read, which helps notify the user of a successful decoding.

To open **Notification Settings** page:

- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap **Notification Settings**.



The screenshot shows the 'Notification Settings' interface. It is divided into three sections, each with a blue header:

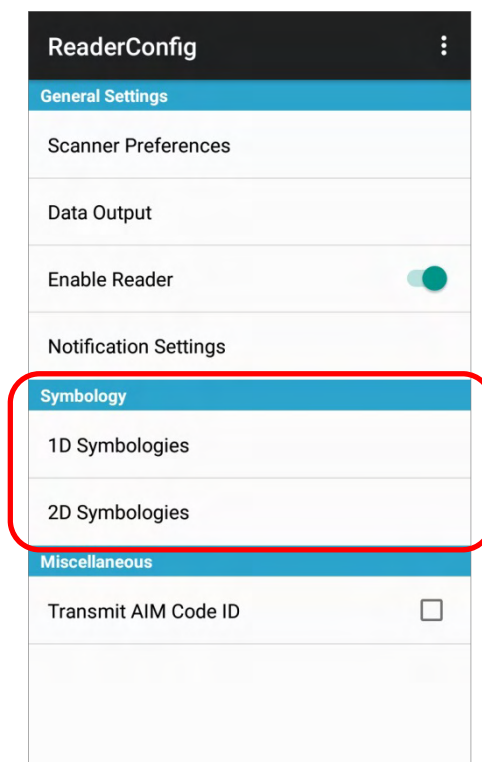
- Visual Indicator:** Contains the option 'Enable LED when good read' with an unchecked checkbox.
- Vibrator:** Contains the option 'Vibrate when good read' with a value of '0 second'.
- Beeper:** Contains the option 'Beep when good read' with a value of 'Sound 1'.

Setting		Description	Default
LED	Enable LED when good read	Selects to enable/disable LED light (left) for scanning good read. See <a href="#">Status LED</a> for details.	Deselected (Disabled)
Vibrator	Vibrate when good read	Enables/disables tactile feedback (vibration) for good read and sets the duration to vibrate.	0 second (Disabled)
Beeper	Beep when good read	Sets the beeper sound for scanning good read. Users can choose to mute the beeper sound, or configure the beeper between sounds 1 to 9.	Sound 1

## 6.1.2. SYMBOLOGY

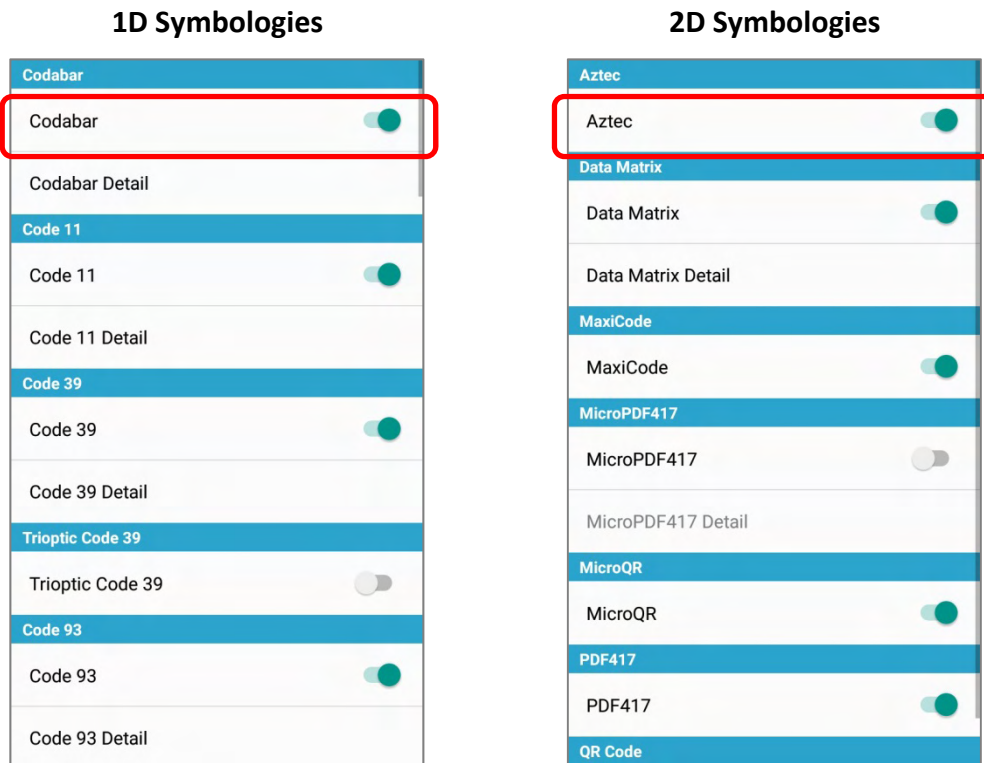
The **Symbology** page sets the symbologies to read, and also enables/disables some feature(s) for a symbology to read, such as:

- ▶ Customize and transmit start/stop characters
- ▶ Verify/transmit check digits
- ▶ Enable/disable addon digits
- ▶ Convert to another symbology
- ▶ Transmit symbology ID



To open **Symbology** settings page:

- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap **1D Symbologies** or **2D Symbologies** (in case of a 2D imager) to list all symbologies which can be decoded.

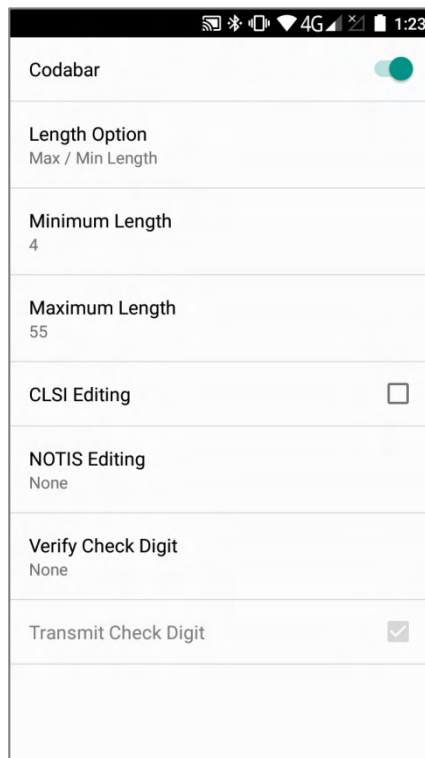
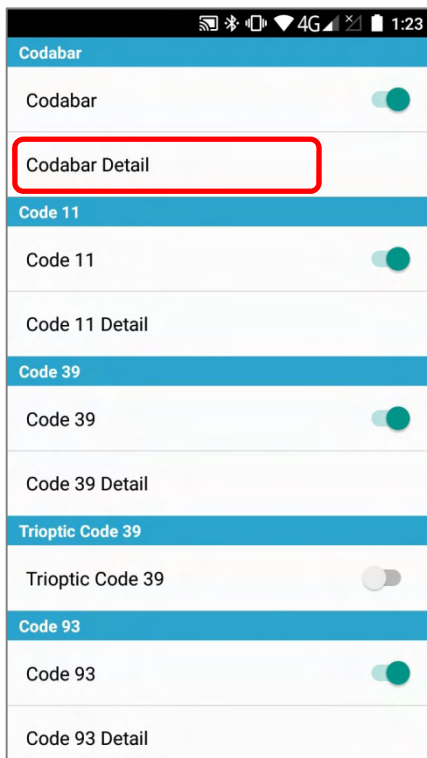


## ENABLE/DISABLE SYMBOLOGY

Tap the label of each symbology to enable or disable it.

## SYMBOLOGY SETTINGS

Tap the **Detail** label below each symbology to access detailed settings for the specific symbology.

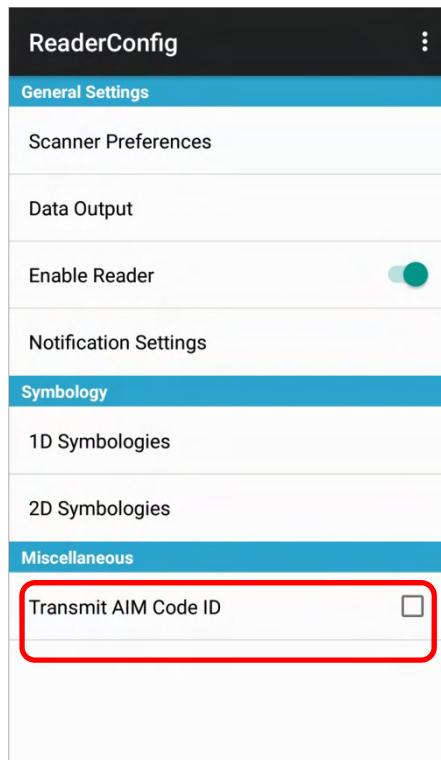


For details about the featured settings:

- ▶ See 2D Imager [Symbology Settings](#).

### 6.1.3. MISCELLANEOUS

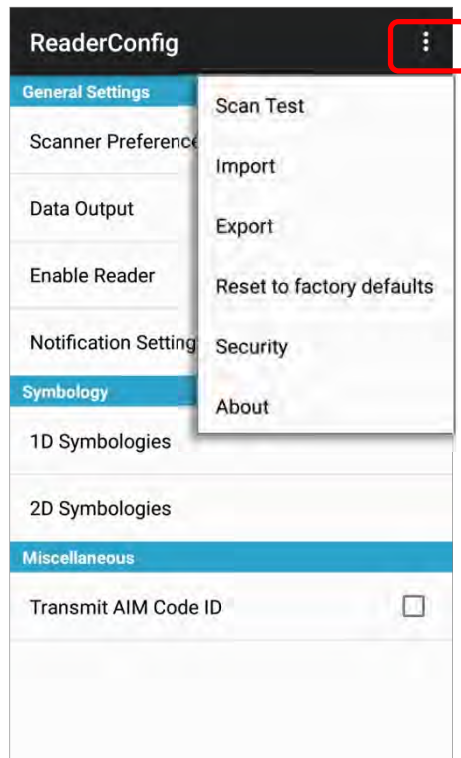
This section allows enabling code ID transmission for easy identification of the scanned barcode.



Setting	Description	Default
Transmit AIM Code ID	Sets whether to include AIM code ID character in the decoded data. For AIM code ID, see the following: <ul style="list-style-type: none"> <li>▶ 2D Imager <a href="#">Symbology Settings</a>.</li> </ul>	Deselected (Disabled)


#### 6.1.4. READER CONFIG OPTION MENU

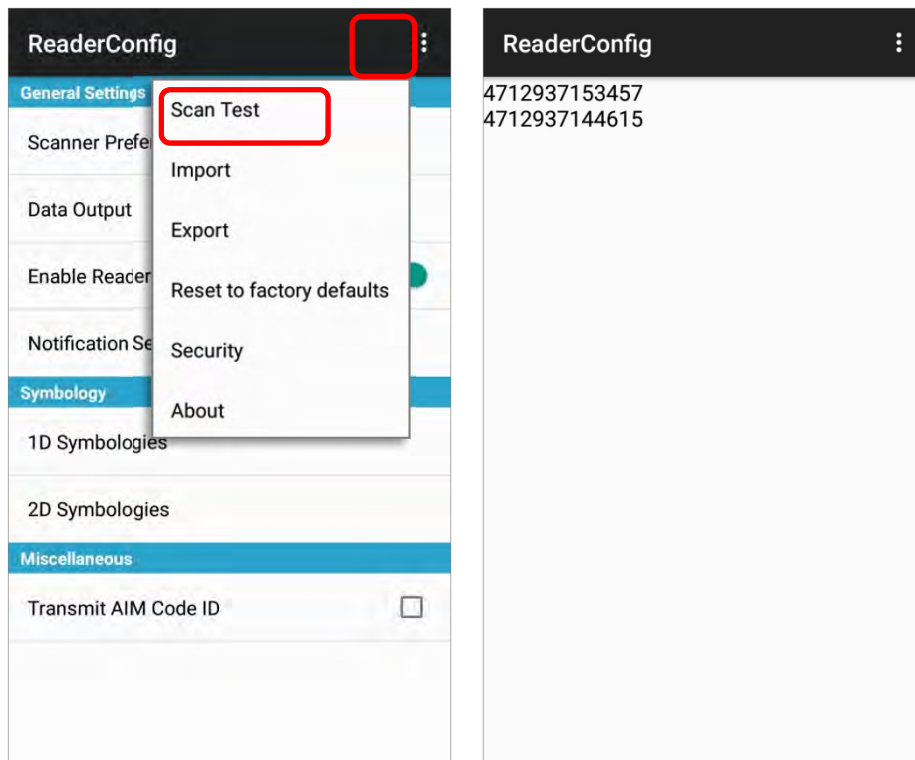
**Reader Config** provides an option menu which is accessible on the menu bar of the main settings page. This menu allows you to test scan barcodes, import/export all settings (except of the setting of “**Enable Reader**”) in a re-usable format, reset all settings back to factory default, and view copyright and version information.



## SCAN TEST

To test scan a barcode:

- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap the settings button  on the menu bar to open the option menu.
- 3) Tap **Scan Test** in the option menu. A page opens for test scanning.






## IMPORT AND EXPORT

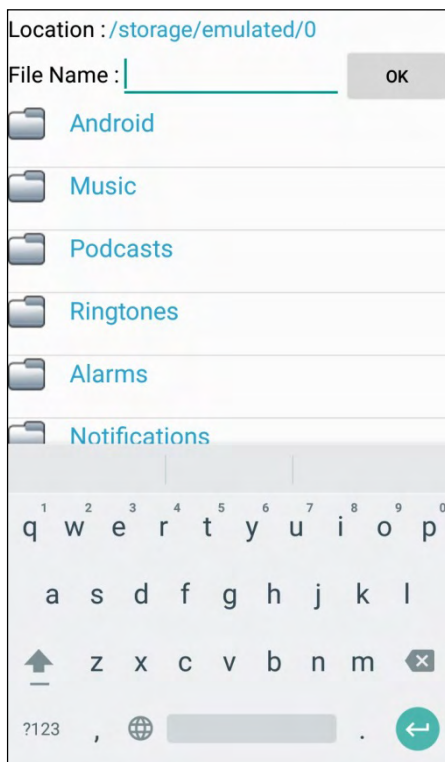
Reader Config supports saving the settings (except of the setting of “**Enable Reader**”) and exporting them as an .xml file.

Previously exported symbology and scanner settings can be imported again on the mobile computer. This can also be used to implement identical Reader Config settings on multiple devices.

To import settings:


- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap the settings button  on the menu bar to open the option menu.
- 3) Tap **Import** in the option menu.

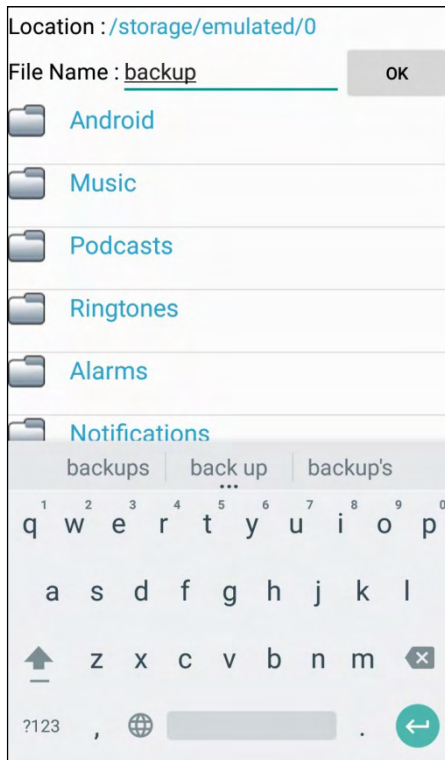
A page opens allowing you to select a previously saved profile.



- 4) Tap **OK**. In a few seconds a prompt will appear on the mobile computer to indicate settings have been imported successfully.

To export settings:

- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap the settings button  on the menu bar to open the option menu.
- 3) Tap **Export**.
- 4) An export page opens allowing you to enter the name and location of the profile to save.




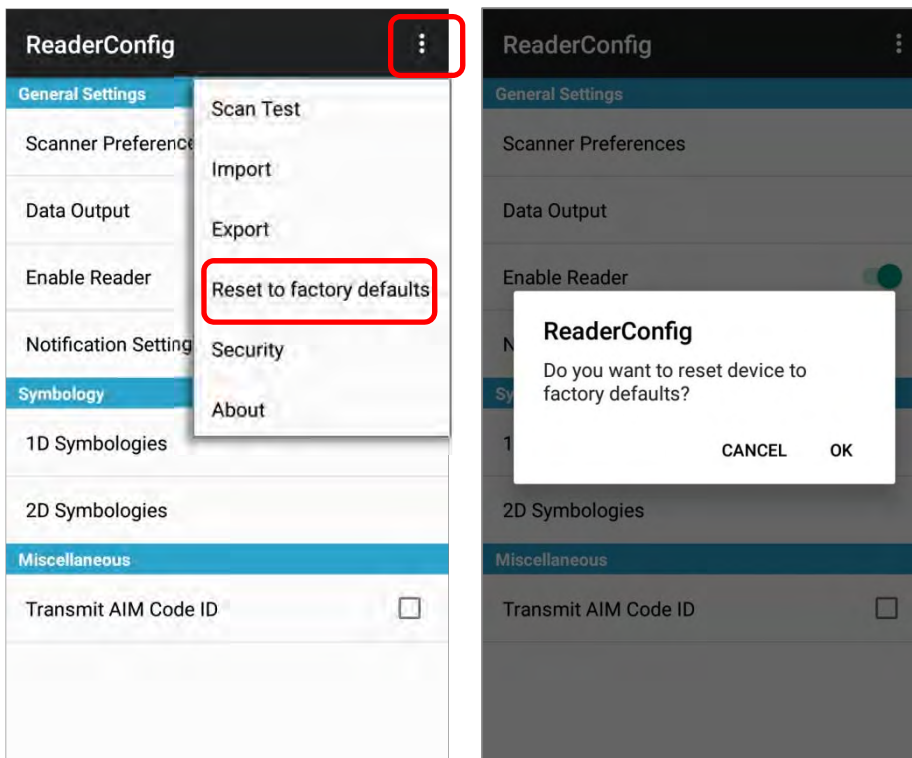
- 5) Tap **OK** to export. A prompt will appear on-screen to notify that settings have been exported.

## RESET TO FACTORY DEFAULTS

This function restores all settings in the **Reader Config** application to default.


To enable Factory Reset:

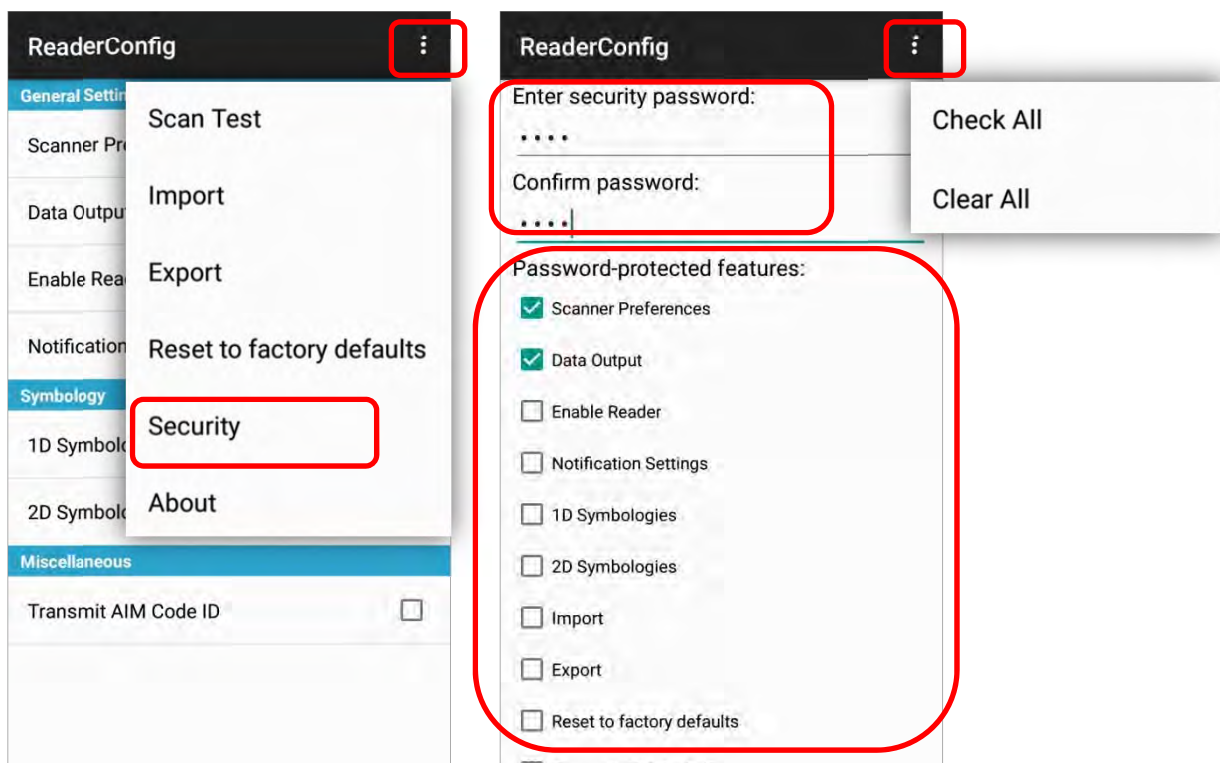
- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap the settings button  on the menu bar to open the option menu.
- 3) Tap **Reset to Factory defaults**.
- 4) A warning dialog appears confirming whether to restore all application settings back to default. Tap **OK** to reset or **Cancel** to close the dialog.



## SECURITY

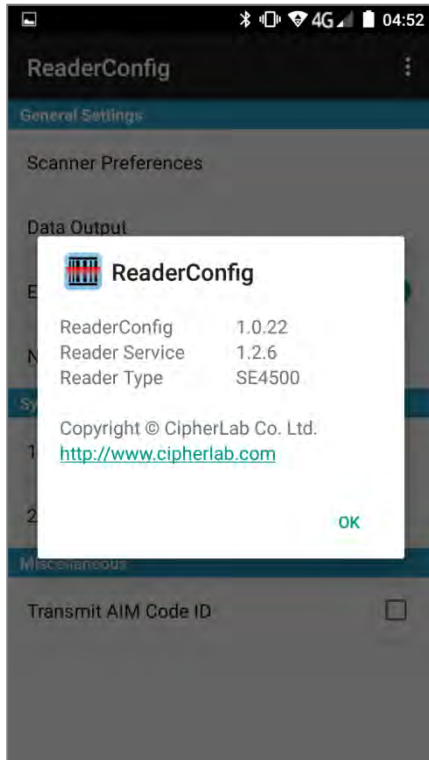
You can set a password to restrict other users of this mobile computer from changing certain configurations or accessing certain functions in Reader Config.

- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap the settings button  on the menu bar to open the option menu.
- 3) Tap **Security**.
- 4) Enter and confirm a password (up to 32 characters, containing at least 1 digit or 1 alphabetic letter).
- 5) Check the items that will be protected by this password.



## ABOUT


Tap **About** in the Reader Config option menu to display software version and copyright information.

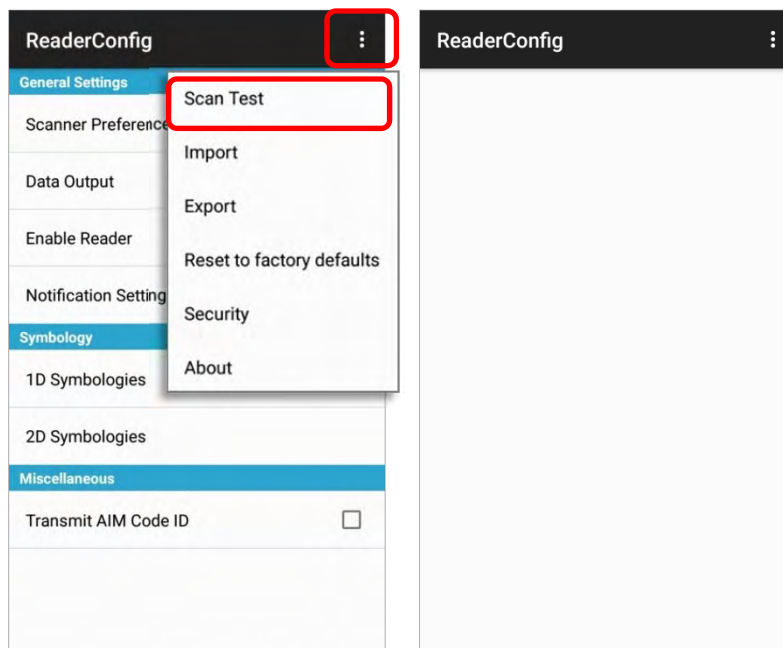


## 6.2. READ PRINTED BARCODES

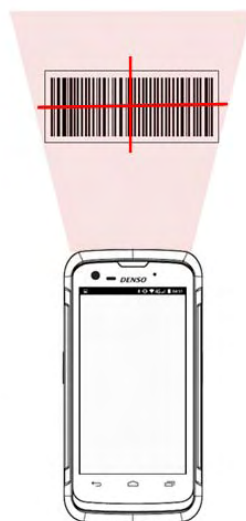
Aside from output to destinations as per [Keyboard Emulation](#) settings, Reader Config provides a **Scan Test** feature for quick viewing of decoded data.



To perform test scanning of barcodes:

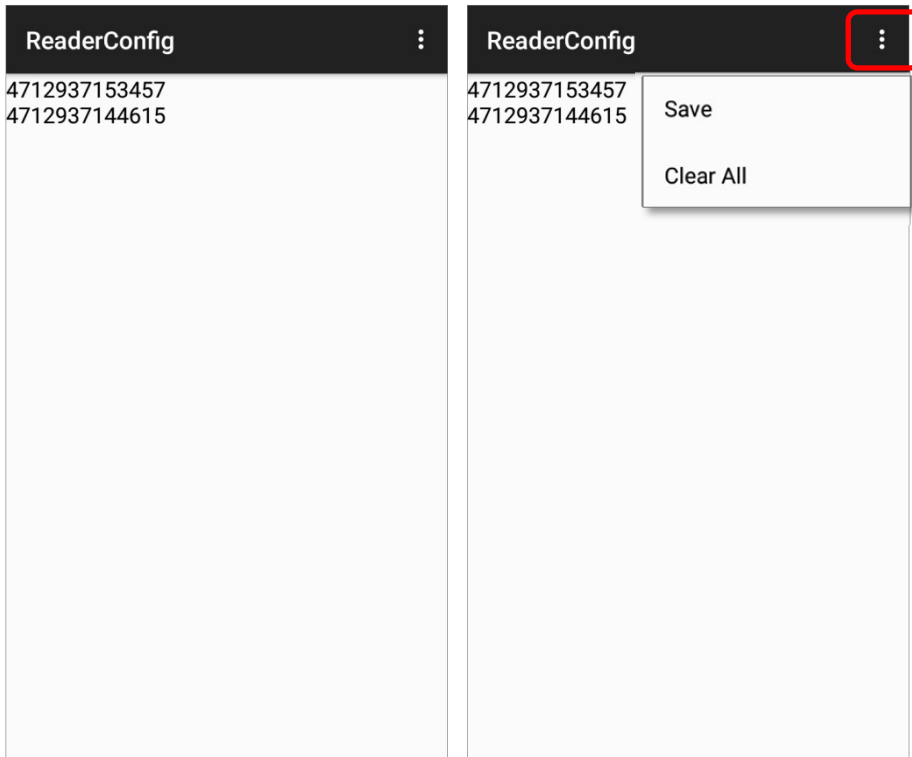
- 1) Open **Reader Config** as described in [Launch Reader Config](#).
- 2) Tap the settings button  on the menu bar to open the option menu.
- 3) Tap **Scan Test** on the menu bar.  
A Test Scan Form opens for displaying the scanned data.



- 4) Aim the scanning window at the barcode and press any of the two side triggers to read. The scanning light beams to read the printed barcodes. The scanning light goes off once the data is decoded, or when the decode timeout period has passed



The decoded data will appear on the page. When finished viewing, tap  to leave the test scan page; or tap the settings button  and then "**Save**" to save the decoded data as a .txt file or "**Clear All**" to clear all data on the screen.





# SPECIFICATIONS

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## PLATFORM, PROCESSOR & MEMORY

### Operating System & CPU

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OS Version	Android 7.0 Nougat with GMS Certified
CPU	4x Cortex A53 Quad core 1.45GHz

### Memory

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ROM	16GB eMMC(MLC) / User data 10GB
RAM	2GB LPDDR3 SDRAM
Expansion Slot	One Micro SDHC card slot (up to 32GB) SDXC supported (up to 64GB)
	Micro SIM socket x2 or Micro SIM socket x1, Micro SAM socketx1

## COMMUNICATION & DATA CAPTURE

### Communication

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USB Client	USB 2.0 OTG
WPAN	Bluetooth 2.1EDR/4.0 BLE/V4.1
WLAN	802.11 b/g/n and 802.11 a/n networking
WWAN	Built-in WWAN modem for Quad-band GSM, UMTS, LTE functions: GSM/GPRS/EDGE/WCDMA/UMTS/HSDPA/HSUPA/HSPA+/LTE <b>Frequency band</b> GSM/GPRS/EDGE: WCDMA/UMTS/HSDPA/HSUPA: B1(2100),B2(1900),B6(800),B8(900) <b>LTE bands</b> FDD-LTE: Band1, Band2, Band3, Band5, Band7, Band8, Band20
GPS	Built-in GPS with AGPS support, ephemeris downloadable, supports GLONASS.

### Data & Image Capture

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Digital Camera	Rear: 8 Mega pixels with user-controllable flash
Barcode Reader	2D Imager
HF RFID Reader	ISO14443A/B (Mifare), ISO15693 (Felica) ▶ Supports NFC (Peer-to-peer, Card reader, Card emulation)

## ELECTRICAL CHARACTERISTICS

### Li-Polymer

Main Battery Pack	Rechargeable Li-polymer battery: 3.8V, 4000 mAh Charging temperature: 0-40°C Minimum charging time: 4 hours @25°C For the first time charging the main battery, please charge it for at least 8 to 12 hours. The allowed battery charging ambient temperature is between 0°C to 40°C. It is recommended to charge the battery at room temperature (18°C to 25°C) for optimal performance. Please note that battery charging stops when ambient temperature drops below 0°C or exceeds 40°C.
Backup Battery	Rechargeable Li-Polymer battery: 3.7V, 60 mAh Data retention for 30 minutes Charging time: 4 hours

### Power Adaptor

Power Supply Cord with Universal Power Adaptor	Input	AC 100~240 V, 50/60 Hz
	Output	DC 5V, 2A BSMI, CCC, FCC, CE, RCM, PSE, PSB

### Working Time

Supports working time for up to 10 hours at 25 degrees

## PHYSICAL CHARACTERISTICS

### Color Touch Screen Display

Display	4" Transmissive LCD, Dragontrail Glass
Resolution	800(RGB) X 480 Pixel

### Notifications

Status LED	2 LEDs include one bi-color (green & red) LED for power indications, and one tri-color (blue, green, & red) LED for reader and system notification.
Audio	Integrated with one speaker, microphones with echo and noise cancellation, HD voice support

### Dimensions & Weight

Dimensions	168 mm (L) x 73.8mm (W) x 25.85mm (H)
Weight	270 g (including battery)

**ENVIRONMENTAL CHARACTERISTICS**

**Temperature**

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Operating	-20°C to 50°C
Storage	-30°C to 70°C
Charging	0°C to 40°C

**Humidity**

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Operating	10% to 90% (non-condensing)
Storage	5% to 95% (non-condensing)

**Resistance**

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Impact Resistance	Multiple drops onto concrete at 1.5m on all six sides
Tumble Test	300 hits at 0.5 m per applicable IEC tumble specifications
Splash/Dust Resistance	IP65 per applicable IEC sealing specifications
Electrostatic Discharge	±15 kV air discharge, ±8 kV contact discharge

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## PROGRAMMING SUPPORT

### Development Environment & Tools

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JAVA	Environment Android studio Software Development Kit: JAR
C#	Environment: Visual Studio Software Development Kit: DLL (Xamarin Library)

### Software & Utilities

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Software Package	Reader Configuration Software Trigger Key Programmable Keys WMDS Server ADC Client App Lock Xamarin Binding
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# APPENDIX I

## SCAN ENGINE SETTINGS

**Reader Configuration** sets the following reader types:

- ▶ 2D Imager

## SYMBOLOGIES SUPPORTED

Depending on the scan engine integrated on the mobile computer, supported symbologies will differ as listed below. For details on configuring associated settings, refer to [Appendix II](#).

		2D
<b>Codabar</b>		✓
<b>Code 11</b>		✓
<b>Code 39</b>	Code 39	✓
	Trioptic Code 39	✓
	Italian Pharmacode (Code 32)	✓
<b>Code 93</b>		✓
<b>Code 128</b>	Code 128	✓
	GS1-128 (EAN-128)	✓
	ISBT 128	✓
<b>Code 2 of 5</b>	Chinese 25	✓
	Industrial 25 (Discrete 25)	✓
	Interleaved 25	✓
	Convert Interleaved 25 to EAN-13	✓
	Matrix 25	✓
<b>Composite Code</b>	Composite CC-A/B	✓
	Composite CC-C	✓
	Compostie TLC 39	✓

<b>GS1 DataBar (RSS)</b>	GS1 DataBar-14 (RSS-14)	✓
	GS1 DataBar Limited (RSS Limited)	✓
	GS1 DataBar Expanded (RSS Expanded)	✓
	Convert to UPC/EAN	✓
<b>Korean 3 of 5</b>		✓
<b>MSI</b>		✓
<b>Postal Codes</b>	Australian Postal	✓
	Japan Postal	✓
	Netherlands KIX Code	✓
	US Postnet	✓
	US Planet	✓
	USPS Postal	✓
	UPU FICS Postal	✓
	UK Postal	✓
<b>EAN/UPC</b>	EAN-8	✓
	EAN-8 Extend	✓
	EAN-13	✓
	Bookland EAN (ISBN)	✓
	ISSN EAN	✓
	UPC-A	✓
	UPC-E	✓
	Convert to UPC-A	✓
	UPC-E1	✓
	Convert to UPC-A	✓

<b>Coupon Code</b>		✓
<b>2D Symbologies</b>	Aztec	✓
	Data Matrix	✓
	Maxicode	✓
	MacroPDF	✓
	MicroPDF417	✓
	MicroQR	✓
	PDF417	✓
	QR Code	✓



## APPENDIX II

### 2D IMAGER


The tables below list the symbology settings for 2D imager.

#### SYMBOLGY SETTINGS

##### 1D SYMBOLOGIES

Symbology	Description	Default
<b>CODABAR</b>		
<b>CodaBar</b>		Enable
Codabar	Switch to enable Codabar decoding.	Enable
Length option	Sets the length of the Codabar symbols to decode. <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)
CLSI Editing	When applied, the CLSI editing strips the start/stop characters and inserts a space after the first, fifth, and tenth characters of a 14-character Codabar barcode. <ul style="list-style-type: none"> <li>▶ The 14-character barcode length does not include start/stop characters.</li> </ul>	Disable
NOTIS Editing	Sets whether to include start/stop characters in the transmitted data. <ul style="list-style-type: none"> <li>▶ NOTIS Editing is to strip the start/stop characters, i.e. to disable "Transmit Start/Stop Characters".</li> </ul>	Disable
NOTIS Editing Type	Options are None, ABCD/ABCD, abcd/abcd. "NOTIS Editing" must be enabled.	None
Verify Check Digit	Selects whether to verify the Modulo 43 check digit. If the check digit is incorrect, the barcode will not be accepted.	None
Transmit Check Digit	Decide whether to include the check digit in the data to transmit. "Verify Check Digit" must be enabled.	Enable

<b>CODE 11</b>		
<b>Code 11</b>		Enable
Code 11	Switch to enable Code 11 decoding.	Enable
Check Digit Option	<p>Sets whether to verify check digits according to the selected option. If the check digits are incorrect, the barcode will not be accepted.</p> <ul style="list-style-type: none"> <li>▶ Disable</li> <li>▶ One Check Digit</li> <li>▶ Two Check Digits</li> </ul>	Disable
Transmit Check Digit	<p>Selects whether to include check digits in the transmitted data.</p> <ul style="list-style-type: none"> <li>▶ "Check Digit Option" must be enabled.</li> </ul>	Disable
Length option	<p>Sets the length of the Code 11 symbols to decode.</p> <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)
<b>CODE 39</b>		
<b>Code 39</b>		Enable
Code 39	Switch to enable Code 39 decoding.	Enable
Trioptic Code 39	<p>Selects whether to decode Trioptic Code 39.</p> <ul style="list-style-type: none"> <li>▶ Trioptic Code 39 is a variant of Code 39 used in the marking of computer tape cartridges. It always contains six characters.</li> </ul>	Disable
Convert to Code 32	Selects whether to convert decoded data to Italian Pharmacode.	Disable
Code 32 Prefix	<p>Prefix character "A" to Code 32 barcodes.</p> <ul style="list-style-type: none"> <li>▶ "Convert to Code 32" must be enabled for this to function properly.</li> </ul>	Disable
Verify Check Digit	Selects whether to verify the Modulo 43 check digit. If the check digit is incorrect, the barcode will not be accepted.	Disable
Transmit Check Digit	<p>Decide whether to include the check digit in the data to transmit.</p> <ul style="list-style-type: none"> <li>▶ "Verify Check Digit" must be enabled.</li> </ul>	Disable
Support Full ASCII	Selects whether to enable Code 39 Full ASCII decoding. Characters are paired to encode the full ASCII character set.	Disable
Length option	<p>Sets the length of the Code 39 symbols to decode.</p> <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)

CODE 93		
<b>Code 93</b>		Enable
Code 93	Switch to enable Code 93 decoding.	Enable
Length option	Sets the length of the Code 93 symbols to decode. <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)
CODE 128		
<b>Code 128</b>		Enable
Code 128	Switch to enable Code 128 decoding.	Enable
Length Option	Sets the length of the Code 128 symbols to decode. <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Any Length
GS1-128		
<b>GS1-128</b>		Enable
GS1-128	Switch to enable GS1-128 decoding.	Enable
Separator Character	<ul style="list-style-type: none"> <li>▶ Enable the function code character separator, which is used to separate data fields of variable length and application identifiers of subsequent data fields in concatenated data strings. Choose your input method from drop-list: <b>Keyboard input</b>, <b>Keyboard input (Hexadecimal)</b> or <b>Symbol table input</b> to set a separator character to replace with.</li> </ul>	None
Enable App ID Separator	<ul style="list-style-type: none"> <li>▶ Check to enable the separator configuration for Application Identifier.</li> </ul> <div style="text-align: center;">  <p>(00)123456789012345675</p> <p>Left Separator    Right Separator</p> </div> <ul style="list-style-type: none"> <li>▶ You can respectively set the <b>Left Separator</b> and <b>Right Separator</b>. Choose your input method from drop-down list: <b>Keyboard input</b>, <b>Keyboard input (Hexadecimal)</b> or <b>Symbol table input</b> to set a separator character to replace with.</li> </ul>	

<b>ISBT-128</b>		Enable
ISBT 128	Switch to enable ISBT 128 decoding.	Enable
Concatenation	<p>Sets whether to enable decoding ISBT-128 by performing concatenation of ISBT data</p> <ul style="list-style-type: none"> <li>▶ Disable: Does not perform concatenation</li> <li>▶ Enable: Performs concatenation on all ISBT-128 barcodes.</li> <li>▶ Auto-discriminate: Auto-discriminates between the ISBT-128 barcodes which require concatenation and those which do not need concatenation.</li> </ul>	Auto-discriminate
Redundancy	When "Auto-discriminate" is applied, decide the number of times of supplementary decoding the same barcode to count as a valid read. Configurable between 2 and 20	10
<b>CODE 2 OF 5</b>		
<b>Chinese 25</b>		Enable
Chinese 25	Switch to enable Chinese 2 of 5 decoding.	Enable
<b>Discrete 25</b>		Enable
Discrete 25	Switch to enable Discrete 2 of 5 decoding.	Enable
Length option	<p>Sets the length of the Discrete 2 of 5 symbols to decode.</p> <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)
<b>Interleaved 25</b>		Enable
Interleaved 25	Switch to enable Interleaved 2 of 5 decoding.	Enable
Length option	<p>Sets the length of the Interleaved 2 of 5 symbols to decode.</p> <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)
Verify Check Digit	<p>Decide whether to verify the check digit. If desired, select one of the algorithms below. If the check digit is incorrect, the barcode will not be accepted.</p> <ul style="list-style-type: none"> <li>▶ Disable</li> <li>▶ USS Check Digit</li> <li>▶ OPCC Check Digit</li> </ul>	Disable
Transmit Check Digit	Decide whether to include the check digit in the data being transmitted.	Disable
Convert To EAN-13	<p>Convert a 14-character Interleaved 25 barcode into EAN-13 if the following requirements are met:</p> <ul style="list-style-type: none"> <li>▶ The barcode must have a leading 0 and a valid EAN-13 check digit.</li> </ul>	Disable

<b>Matrix 25</b>		Enable			
Matrix 25	Switch to enable Matrix 2 of 5 decoding.	Enable			
Length option	<p>Sets the length of the Matrix 2 of 5 symbols to decode.</p> <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)			
Redundancy	Enables or disable read redundancy for Matrix 2 of 5.	Disable			
Verify Check Digit	Select whether to verify the check digit, which is the last character of the barcode. If the check digit is incorrect, the barcode will not be accepted.	Disable			
Transmit Check Digit	Decide whether to include the check digit in the data being transmitted.	Disable			
<b>COMPOSITE</b>					
<b>Composite CC-A/B</b>		Disable			
Composite CC-A/B	Switch to enable Composite CC-A/B decoding.	Disable			
<b>Composite CC-C</b>		Enable			
Composite CC-C	Switch to enable Composite CC-C decoding.	Enable			
<b>Composite TLC 39</b>		Disable			
Composite TLC 39	Switch to enable Composite TLC 39 decoding.	Disable			
<b>Composite General Preference</b>					
UPC Composite Mode	<p>UPC barcodes can be "linked" with a 2D barcode during transmission as if they were one barcode.</p> <table border="1" style="width: 100%;"> <tr> <td> <p><b>UPC Never Linked</b></p> <p>Transmit UPC barcodes regardless of whether a 2D barcode is detected.</p> </td> </tr> <tr> <td> <p><b>UPC Always Linked</b></p> <p>Transmit UPC barcodes and the 2D portion. If the 2D portion is not detected, the UPC barcode will not be transmitted.</p> <ul style="list-style-type: none"> <li>▶ CC-A/B or CC-C must be enabled.</li> </ul> </td> </tr> <tr> <td> <p><b>Auto-discriminate</b></p> <p>Transmit UPC barcodes as well as the 2D portion if present.</p> </td> </tr> </table>	<p><b>UPC Never Linked</b></p> <p>Transmit UPC barcodes regardless of whether a 2D barcode is detected.</p>	<p><b>UPC Always Linked</b></p> <p>Transmit UPC barcodes and the 2D portion. If the 2D portion is not detected, the UPC barcode will not be transmitted.</p> <ul style="list-style-type: none"> <li>▶ CC-A/B or CC-C must be enabled.</li> </ul>	<p><b>Auto-discriminate</b></p> <p>Transmit UPC barcodes as well as the 2D portion if present.</p>	UPC Linked always
<p><b>UPC Never Linked</b></p> <p>Transmit UPC barcodes regardless of whether a 2D barcode is detected.</p>					
<p><b>UPC Always Linked</b></p> <p>Transmit UPC barcodes and the 2D portion. If the 2D portion is not detected, the UPC barcode will not be transmitted.</p> <ul style="list-style-type: none"> <li>▶ CC-A/B or CC-C must be enabled.</li> </ul>					
<p><b>Auto-discriminate</b></p> <p>Transmit UPC barcodes as well as the 2D portion if present.</p>					
GS1-128 Emulation Mode	Sets GS1-128 emulation mode for UCC/EAN Composite Codes.	Disable			

<b>GS1 DATABAR</b>		
<b>GS1 DataBar-14</b>		Enable
GS1 DataBar-14	Switch to enable GS1 DataBar-14 decoding.	Enable
Convert to UPC/EAN	Strips the leading '010' of GS1 DataBar and converts the barcode to EAN-13.	Disable
Security Level	A value that specifies the decode security level while reading GS1 DataBar 14 from Level 0 to 3.	Level 1
<b>GS1 DataBar Limited</b>		Enable
GS1 DataBar Limited	Switch to enable GS1 DataBar Limited decoding.	Enable
Convert to UPC/EAN	Strips the leading '010' of GS1 DataBar Limited and converts the barcode to EAN-13.	Disable
Security Level	There are setting options from Level 1 to 4.	Level 3
<b>GS1 DataBar Expanded</b>		Enable
GS1 DataBar Expanded	Switch to enable GS1 DataBar Expanded decoding.	Enable
Separator Character	Enable the function code character separator, which is used to separate data fields of variable length and application identifiers of subsequent data fields in concatenated data strings.	None
Security Level	There are setting options from Level 0 to 3	Level 1
<b>KOREAN 3 OF 5</b>		
<b>Korean 3 of 5</b>		Disable
<b>MSI</b>		
<b>MSI</b>		Enable
MSI	Switch to enable MSI decoding.	Enable
Length option	<p>Sets the length of the MSI symbols to decode.</p> <ul style="list-style-type: none"> <li>▶ One Fixed length (Length 1)</li> <li>▶ Two Fixed lengths (Length 1&gt;Length 2)</li> <li>▶ Max / Min Length (range: 0-55; Length 1&lt;Length 2)</li> <li>▶ Any Length</li> </ul>	Max / Min Length (4-55)
Verify Check Digit	<p>One check digit is mandatory for decoding MSI barcodes. Select whether a second check digit should be verified. If the check digits are incorrect, the barcode will not be accepted.</p> <ul style="list-style-type: none"> <li>▶ One Check Digit</li> <li>▶ Two Check Digits</li> </ul>	One Check Digit
Transmit Check Digit	Decide whether to include the check digit in the data being transmitted.	Disable
Algorithm	<p>When two check digits are set for verification, two choices are available for the pair of check digits.</p> <ul style="list-style-type: none"> <li>▶ Modulo10 / Modulo11</li> <li>▶ Double Modulo 10</li> </ul>	Double Modulo 10

<b>POSTAL CODE</b>		
<b>Australian Postal</b>		Enable
<b>Japan Postal</b>		Enable
<b>Netherlands KIX Code</b>		Enable
<b>US Postnet</b>		Enable
<b>US Planet</b>		Enable
<b>USPS Postal</b>		Enable
<b>UPU FICS Postal</b>		Enable
<b>UK Postal</b>		Enable
<b>Postal General Preference</b>		Enable
US Postal Check Digit	Decide whether to transmit check digit for US Postnet or US Planet.	Enable
UK Postal Check Digit	Decide whether to transmit check digit for UK Postal.	Enable
<b>UPC/EAN</b>		
<b>EAN-8</b>		Enable
EAN-8	Switch to enable EAN-8 decoding.	Enable
Addon 2	Decide whether to decode EAN-8 with addon 2. ▶ Ignore Addon ▶ Auto-discriminate	Ignore addon
Addon 5	Decide whether to decode EAN-8 with addon 5. ▶ Ignore Addon ▶ Auto-discriminate	Ignore addon
Transmit Check Digit	Decide whether to include the check digit in the data being transmitted.	Enable
Convert to EAN-13	Checkbox to enable converting EAN-8 to EAN-13 format.	Disable
<b>EAN-13</b>		Enable
EAN-13	Switch to enable EAN-13 decoding.	Enable
Bookland EAN	Checkbox to enable ISBN decoding. If enabled, select Bookland ISBN Format in the drop-down box below.	Disable
Bookland Format	ISBN Decodes Bookland data starting with 978 in 10-digit format along with the Bookland check digit, or Bookland data starting with 978/979 in 13-digit format.	Bookland ISBN-10
Addon 2	Decide whether to decode EAN-13 with addon 2. ▶ Ignore Addon ▶ Auto-discriminate	Ignore addon
Addon 5	Decide whether to decode EAN-13 with addon 5. ▶ Ignore Addon ▶ Auto-discriminate	Ignore addon
Transmit Check Digit	Decide whether to include the EAN-13 check digit (the last character in the barcode) in the data being transmitted.	Enable
ISSN EAN	Checkbox to enable ISSN EAN decoding.	Disable

<b>UPC-A</b>		Enable
UPC-A	Switch to enable UPC-A decoding.	Enable
Addon 2	Decide whether to decode UPC-A with addon 2. <ul style="list-style-type: none"> <li>▶ Ignore Addon</li> <li>▶ Auto-discriminate</li> </ul>	Ignore addon
Addon 5	Decide whether to decode UPC-A with addon 5. <ul style="list-style-type: none"> <li>▶ Ignore Addon</li> <li>▶ Auto-discriminate</li> </ul>	Ignore addon
Preamble	Decide whether to include the UPC-A preamble System Character (and Country Code) in the data being transmitted. <ul style="list-style-type: none"> <li>▶ No transmit: transmits none of the above</li> <li>▶ Transmit System Character: transmits system number only</li> <li>▶ Transmit Sys. Character and Country Code: transmits system number and country code</li> </ul>	Transmit System Character
Transmit Check Digit	Decide whether to include the UPC-A check digit (the last character in the barcode) in the data being transmitted.	Enable
Convert to EAN-13	Checkbox to enable converting EAN-8 to EAN-13 format.	Disable
<b>UPC-E</b>		Enable
UPC-E	Switch to enable UPC-E decoding.	Enable
Addon 2	Decide whether to decode UPC-E with addon 2. <ul style="list-style-type: none"> <li>▶ Ignore Addon</li> <li>▶ Auto-discriminate</li> </ul>	Ignore addon
Addon 5	Decide whether to decode UPC-E with addon 5. <ul style="list-style-type: none"> <li>▶ Ignore Addon</li> <li>▶ Auto-discriminate</li> </ul>	Ignore addon
Preamble	Decide whether to include the UPC-E preamble System Character (and Country Code) in the data being transmitted. <ul style="list-style-type: none"> <li>▶ No transmit: transmits none of the above</li> <li>▶ Transmit System Character: transmits system number only</li> <li>▶ Transmit Sys. Character and Country Code: transmits system number and country code</li> </ul>	Transmit System Character
Convert to UPC-A	The UPC-E barcode will be expanded into UPC-A format, and the next process will follow the settings configured for UPC-A.	Disable
Transmit Check Digit	Decide whether to include the UPC-E1 check digit (the last character in the barcode) in the data being transmitted.	Enable



<b>UPC-E1</b>		Disable
UPC-E1	Switch to enable UPC-E1 decoding.	Disable
Addon 2	Decide whether to decode UPC-E1 with addon 2. <ul style="list-style-type: none"> <li>▶ Ignore Addon</li> <li>▶ Auto-discriminate</li> </ul>	Ignore addon
Addon 5	Decide whether to decode UPC-E1 with addon 5. <ul style="list-style-type: none"> <li>▶ Ignore Addon</li> <li>▶ Auto-discriminate</li> </ul>	Ignore addon
Preamble	Decide whether to include the UPC-E1 preamble System Character (and Country Code) in the data being transmitted. <ul style="list-style-type: none"> <li>▶ No transmit: transmits none of the above</li> <li>▶ Transmit System Character: transmits system number only</li> <li>▶ Transmit Sys. Character and Country Code: transmits system number and country code</li> </ul>	Transmit System Character
Convert to UPC-A	The UPC-E1 barcode will be expanded into UPC-A format, and the next process will follow the settings configured for UPC-A.	Disable
Transmit Check Digit	Decide whether to include the UPC-E1 check digit (the last character in the barcode) in the data being transmitted.	Enable
Coupon Code		
Coupon Code	Switch to enable Coupon Code decoding.	Disable

2D SYMBOLOGIES

Symbology	Description	Default						
<b>Aztec</b>		Enable						
Aztec	Switch to enable Aztec decoding.	Enable						
<b>Data Matrix</b>		Enable						
Data Matrix	Switch to enable Data Matrix decoding.	Enable						
Decode Mirror Image	<p>Switch to enable decode mirror images.</p> <table border="1"> <tr> <td><b>Never</b></td> </tr> <tr> <td>Does not decode Data Matrix barcodes that are mirror images.</td> </tr> <tr> <td><b>Always</b></td> </tr> <tr> <td>Decodes Data Matrix barcodes that are mirror images.</td> </tr> <tr> <td><b>Auto</b></td> </tr> <tr> <td>Decodes both mirrored and unmirrored Data Matrix barcodes.</td> </tr> </table>	<b>Never</b>	Does not decode Data Matrix barcodes that are mirror images.	<b>Always</b>	Decodes Data Matrix barcodes that are mirror images.	<b>Auto</b>	Decodes both mirrored and unmirrored Data Matrix barcodes.	Never
<b>Never</b>								
Does not decode Data Matrix barcodes that are mirror images.								
<b>Always</b>								
Decodes Data Matrix barcodes that are mirror images.								
<b>Auto</b>								
Decodes both mirrored and unmirrored Data Matrix barcodes.								
Separator Character	Enable the function code character separator, which is used to separate data fields of variable length and application identifiers of subsequent data fields in concatenated data strings.	None						
<b>Maxicode</b>		Enable						
<b>MicroPDF417</b>		Disable						
MicroPDF417	Switch to enable MicroPDF417 decoding.	Disable						
Code 128 Emulation	<p>Transmit data from certain Micro PDF 417 barcodes as if it was encoded in Code 128 barcodes.</p> <p>▶ Transmit AIM code ID character in <b>Miscellaneous</b> options must be enabled first.</p> <p>When applied, the MicroPDF417 barcodes are transmitted with one of these prefixes:</p> <table border="1"> <tr> <td><b>The first codeword of MicroPDF417 is 903-905:</b></td> </tr> <tr> <td>The original Code ID "]L3" will be changed to "]C1".</td> </tr> <tr> <td><b>The first codeword of MicroPDF417 is 908 or 909:</b></td> </tr> <tr> <td>The original Code ID "]L4" will be changed to "]C2".</td> </tr> <tr> <td><b>The first codeword of MicroPDF417 is 910 or 911:</b></td> </tr> <tr> <td>The original Code ID "]L5" will be changed to "]C0".</td> </tr> </table>	<b>The first codeword of MicroPDF417 is 903-905:</b>	The original Code ID "]L3" will be changed to "]C1".	<b>The first codeword of MicroPDF417 is 908 or 909:</b>	The original Code ID "]L4" will be changed to "]C2".	<b>The first codeword of MicroPDF417 is 910 or 911:</b>	The original Code ID "]L5" will be changed to "]C0".	Disable
<b>The first codeword of MicroPDF417 is 903-905:</b>								
The original Code ID "]L3" will be changed to "]C1".								
<b>The first codeword of MicroPDF417 is 908 or 909:</b>								
The original Code ID "]L4" will be changed to "]C2".								
<b>The first codeword of MicroPDF417 is 910 or 911:</b>								
The original Code ID "]L5" will be changed to "]C0".								
<b>MicroQR</b>		Enable						
<b>PDF417</b>		Enable						
<b>QR Code</b>		Enable						
QR Code	Switch to enable QR Code decoding.	Enable						

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**MISCELLANEOUS**

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2D Engine	Description	Default
<b>Miscellaneous Options</b>		
Transmit AIM Code ID	Decide whether to include AIM Code ID in the data. Each AIM Code ID contains a three-character string " <b>]cm</b> ": <ul style="list-style-type: none"><li>▶ ] = Flag Character (ASCII 93)</li><li>▶ c = Code Character</li><li>▶ m = Modifier Character</li><li>▶ Refer to <a href="#">AIM Code ID</a>.</li></ul>	Disable

## APPENDIX III

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