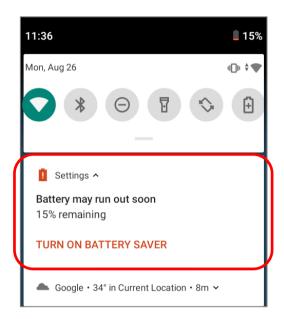
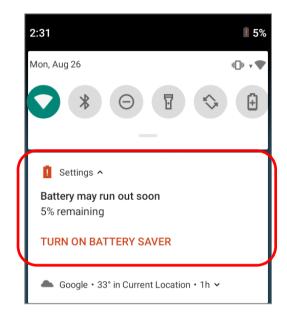
LOW BATTERY ALERT

The mobile computer prompts a warning notification reminding you to charge the main battery when the main battery level drops to **15%** and **5%**.

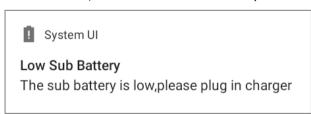
Opening <u>Notifications Drawer</u>, you will also see this warning appearing on the notifications list; you may turn on <u>Battery Saver Mode</u>, connect the mobile computer to an external power source, or replace the main battery pack as soon as possible. To replace the main battery pack, see <u>Replace Main Battery</u>.





LOW SUB BATTERY ALERT

When the main battery's power is drained out, RK95 mobile computer will automatically suspend by backup battery's power for 30 minutes. When backup battery's power is low, the "Low Sub Battery" notification will remind you to connect the device with an external power source to charge it immediately. Please note that do not replace the main battery at this moment, otherwise data loss may occur.



2.1.3. REPLACE MAIN BATTERY

When main battery level is low, follow the steps below to shut the device down to replace the main battery.

SHUT DOWN TO REPLACE THE MAIN BATTERY

- 1) Make sure the sub battery (backup battery) and the new main battery are fully-charged.
- 2) Press and hold the power button on the bottom-right of the physical keypad.
- 3) Tap "**Power off**" in the pop-up menu. The mobile computer will power off.
- 4) Follow the steps as <u>Install/ Remove Battery</u> describes to remove the main battery and replace it with the new one.



BATTERY SWAP

RK95 backup battery supplies system power during battery swap. When battery cover is removed, the system will enter suspend mode and not wake up until the battery is put back and the power button is pressed. Please refer to "Low Sub Battery Alert" section to make sure the sub battery is fully charged before battery swap process.

- 1) Directly <u>remove the main battery</u>. The screen is off and the system enters suspend mode.
- 2) When the main battery is removed, system can stay in suspend mode at least **5** minutes. Please replace with a fully-charged main battery as soon as possible.
- 3) Install a fully-charged main battery by following the steps described in <u>Install/Remove Battery</u>.
- 4) Make sure the main battery is properly installed before pressing the power button to wake up the mobile computer from suspend mode.

Warning:

Please do not perform a battery swapping before the mobile computer's OS is ready. Removing the battery cover during powering up your mobile computer may cause system failure.

2.1.4. POWER MANAGEMENT

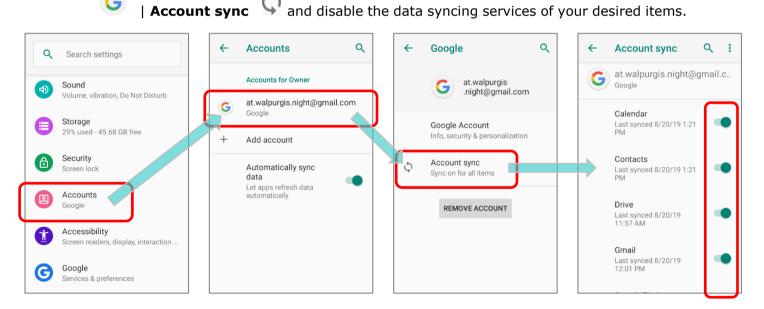
For any portable device, power management is a critical issue especially when you are on the road. Below are some tips to help you save battery power.

Warning:

Using backlight, wireless connectivity, and peripheral devices while on battery power will substantially reduce battery power.

- ▶ Bring an additional main battery pack with you on the road.
- ▶ End wireless connections (such as Bluetooth transmission, wireless connection, GPS, etc.) which are not in use.
- ▶ Shorten the screen off time. See Screen Timeout Settings.
- ▶ Reduce the screen brightness level, see <u>Screen Brightness</u>.
- ▶ If you have had your Google™ account signed in on this device, you could turn off certain automatic data syncing of applications (such as Email, Calendar, and Contacts). Go to

App Drawer (All Apps) | Settings | Accounts | your Google account



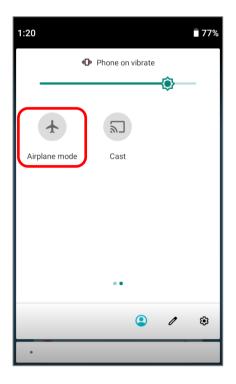
▶ Enable **Battery saver** mode and **Battery optimization** mode. See <u>Battery Saver Mode</u> and <u>Battery Optimization</u>.

ENTER AIRPLANE MODE

You can enable **Airplane** mode to have all the wireless radios (including call functions, data connections such as Bluetooth and Wi-Fi) on your mobile computer turned off, which will considerably reduce the power consumption of your battery.

To enter **Airplane** mode, please:

- 1) Swipe down from the top of the screen to open **Quick Settings** Menu.
- 2) Tap on the **Airplane** mode icon to enable/disable the mode.



2.2. MEMORY

- ► Flash Memory (ROM) 64GB flash memory for storing the OS (Android 9 Pie and custom application programs).
- Random-access Memory (RAM)
 4GB RAM for storing and running programs, as well as storing program data.
- Expansion Slot

The mobile computer is equipped with one SD card slot which can accommodate a micro SD card, a **microSDHC** (up to **32GB**) or a **microSDXC** (up to **2TB**). When choosing an SD card for best compatibility and performance with RK95, please make sure of the capacity you need. For the use of SDXC card, please use a new card and make sure it has not been used in other host devices (computers, cameras, or readers).

CAUTION OF DATA LOSS

When the main battery is removed or drained, the backup battery on the main board takes over to supply the mobile computer and keep it in suspension. A fully charged backup battery will retain the data in the RAM for **30 minutes**. When the backup battery is drained out as well, the mobile computer will shut down, and only the contents of RTC will be retained. All other unsaved data will be lost.

If you want to put away the mobile computer for a couple of days, you should be aware that data loss occurs when the main battery and backup battery discharges completely. Therefore, it is necessary to backup data and files before putting away the mobile computer.

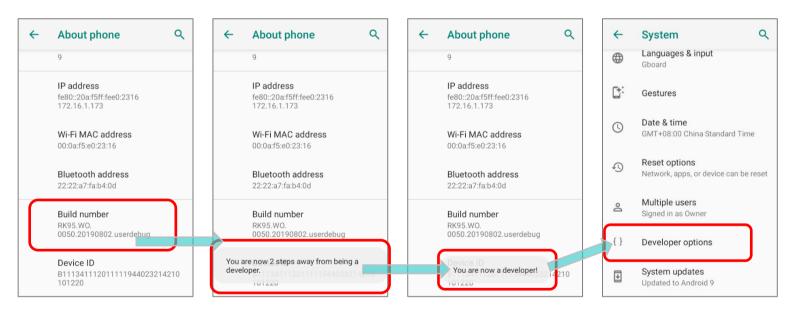
2.2.1. CHECK MEMORY USAGE

The memory manager can offer a glance of how the device is using its RAM.

ENABLE DEVELOPER OPTION

To check the memory usage, you have to enable "Developer Option":

- 2) Tap on "Build number" 7 times to enable it. During the process, you'll see a prompt with a countdown reading "You are now X steps way from being a developer."
- 3) Once the prompt "You are now a developer!" showing up, you have succeeded in entering developer mode. You can find **Developer option** is now enabled in **System** page.



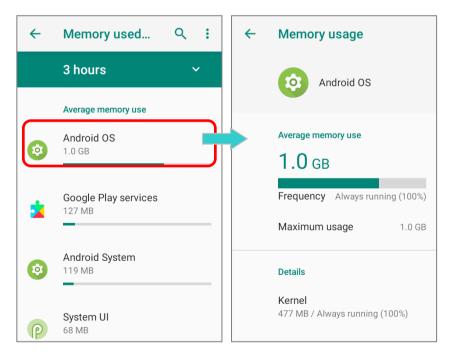
CHECK MEMORY USAGE

Go to App Drawer (All Apps) | Settings | System | Developer option | Memory to enter memory manager screen.



On the main screen, it tells you not only the used and free memory space of the RAM, but how your pattern of usage has impacted the device's overall performance. To figure out how the system and apps have been taking up the memory over a longer period, tap the dropdown list to choose a different time span.

To look at how individual apps are consuming the memory space, tap "**Memory used by apps**" to get a breakdown of memory usage by apps.



Tap an application name to check its memory usage. This allows you to make sense of how much memory a newly-installed application can potentially consume your RAM.

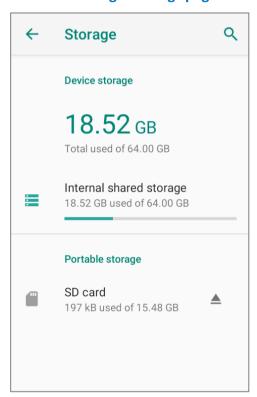
2.2.2. MANAGE STORAGE SPACE

To your Android device, the SD card can serve as an extension of your device's internal storage (which comes as 16 GB of flash memory to store the OS, applications and files) other than a portable storage place.

Go to <u>App Drawer (All Apps)</u> | **Settings** | **Storage** to check usage of the internal and external storage spaces.

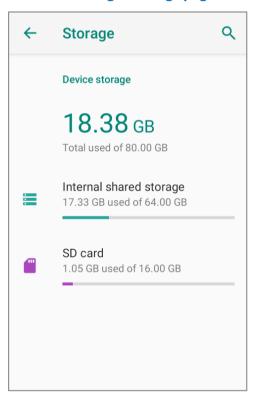
By default, all the videos, photos and downloaded files are directly saved to the device's internal storage. If you have previously inserted and mounted an SD card as <u>portable storage</u>, you could transfer/save photos & other media in this SD card; if the SD card is set as <u>internal storage</u>, photos, files, and some apps could be moved to the SD card.

SD card as portable storage in Storage Settings page



 The SD card is used for moving photos and other media between devices.

SD card as internal storage in Storage Settings page

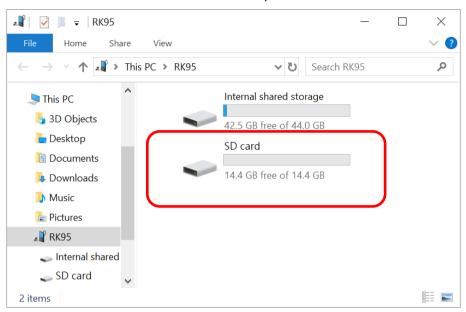


The SD card is used for storing anything on this device only, including apps and photos. Requires formatting that prevents it from working with other devices.

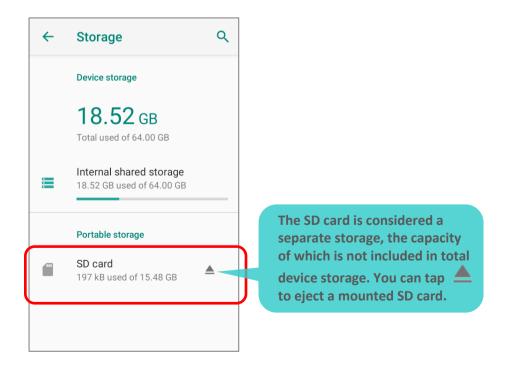
SET UP SD CARD AS PORTABLE STORAGE

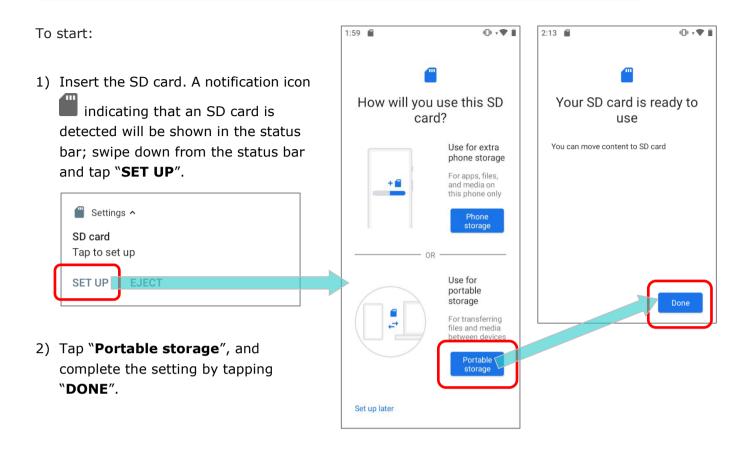
Using SD card as a portable device allows you to treat it as a USB disk, by swapping it between your Android device and the computer to easily transfer files. This is quite handy when there is a need to offload files that are taking up too much storage space.

When this device is connected with PC, the disk content is readable from PC client:

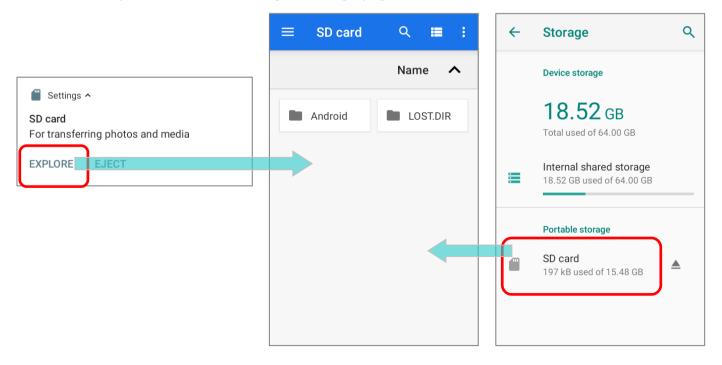


On **Storage** screen, this disk can be managed separately.





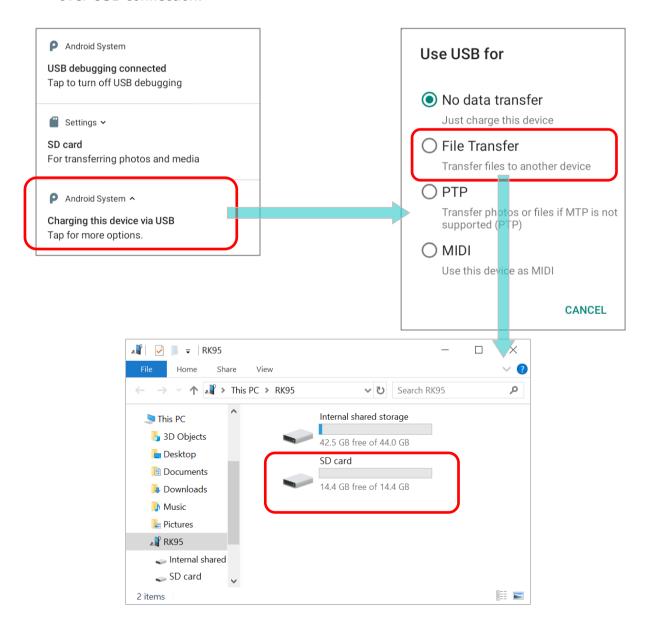
- 3) Swipe down from the status bar to reveal Notifications Drawer, and you will find a notification indicating that the SD card is for transferring photos and media; tap "**EXPLORE**" to check its content.
 - **OR** tap the SD card in **Storage Settings** page to check it.



TRANSFER PHOTOS & MEDIA BETWEEN THE DEVICE & PC

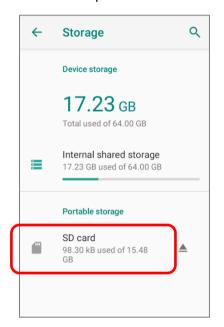
To transfer photos and media between this device and PC when the mounted SD card is set as portable storage, please:

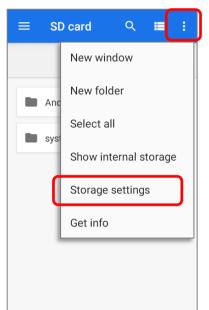
- 1) Connect your mobile computer with PC with supplied USB cable.
- 2) Swipe down from the status bar to reveal Notifications Drawer, and tap on the Android System notification "**Charging this device via USB**" to enter USB options menu.
- 3) Choose "**File Transfer**", and now you will find the disk content is readable from PC client. Please make sure the USB cable is properly connected while transferring files over USB connection.

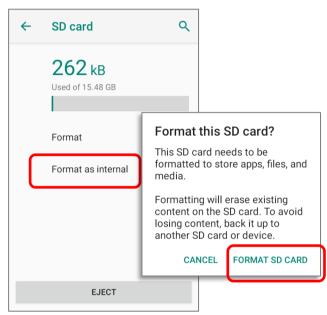


CONVERT THE SD CARD TO INTERNAL STORAGE

- 1) You can always convert the SD Card from portable storage to internal storage. On **Storage** screen, tap the SD card. Before you start, make a backup of the files on this disk if you would like to keep them.
- 2) On SD card content screen, tap **More** iand then tap "**Storage settings**".
- 3) By selecting "**Format as internal**", the device will eventually format this SD card into a specific file format only readable by this device.

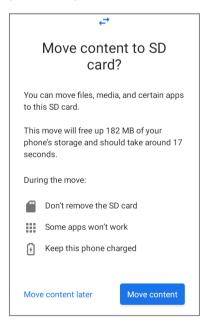






- 4) On "Format this SD card" popup window, tap "FORMAT SD CARD" to format the card.
- 5) You will then be asked whether to move multimedia files to this new SD card right away or later; tap to make your choice.
- 6) When the formatting is completed, tap "DONE".



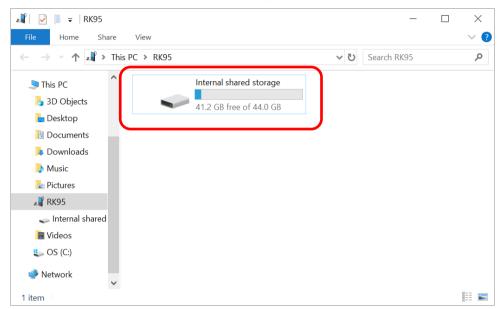




SET UP SD CARD AS INTERNAL STORAGE

Using SD card as internal storage allows you to extend your existing device storage and to store huge applications. This SD card will be reformatted and encrypted with a file format that is not readable by another device. Therefore, it is essential that you back up important files on this SD card in advance. Please note that <u>if you eject this SD card</u>, the <u>applications</u> and media files stored on it will not be available until you reinsert the card.

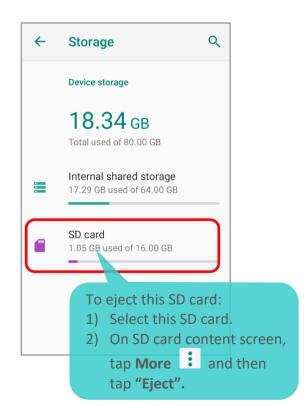
When this device is connected with PC, the disk content is not readable from PC client:

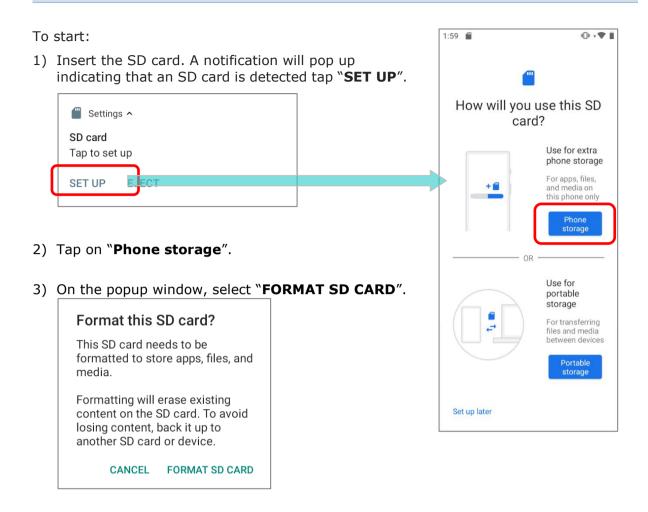


On **Storage** screen, the capacity of this SD card is merged into the total device storage. Please note that. In this setting, you will have no control of which files to be stored on SD card.

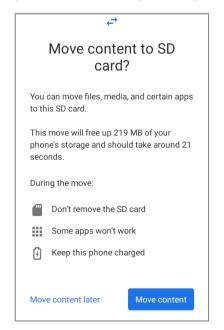
Warning:

Do not physically remove the SD card from the device without ejecting this card in advance.





- 4) You will then be asked to whether to move media files to this new SD card, tap to make your choice.
- 5) When the setting is completed, tap "DONE".



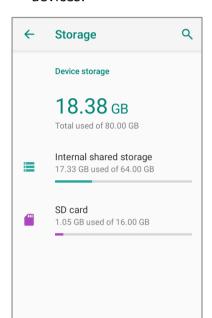


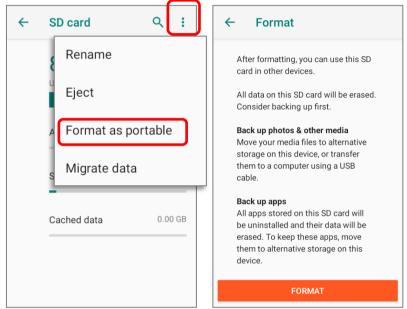
Note:

It is recommended that you select "Move now" at Step 4 to have the device immediately start making use of SD card space. If you select "Move later", the device will continue to consider device's original storage the primary location to save files.

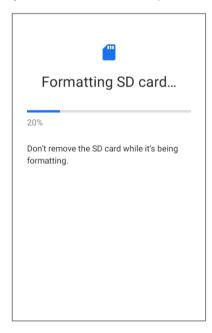
CONVERT THE SD CARD TO PORTABLE STORAGE

- 1) You can always convert the SD Card from internal storage to portable storage. On **Storage** screen, tap the SD card. Before you start, make a backup of the files on this disk if you would like to keep them.
- 2) On SD card content screen, tap **More** and then tap "**Format as portable**".
- 3) Tap "**FORMAT**" to have this SD card re-formatted into a file type accessible by other devices.





4) When the formatting is completed, tap "DONE".





Note:

Please do back up important files on this SD card before proceeding formatting.

2.3. TOUCH SCREEN

The mobile computer comes with a 4.3 inch, LCD, Corning Gorilla Glass display with 480RGBx800 resolution. The LED backlight of the screen, which helps ease reading under dim environments, can be controlled manually and automatically.

Warning:

DO NOT use any pointed or sharp objects to move against the surface of the screen.

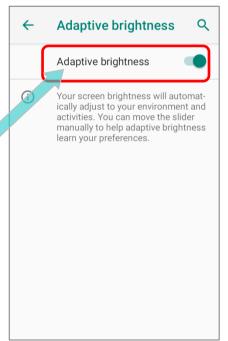
2.3.1. SCREEN BRIGHTNESS

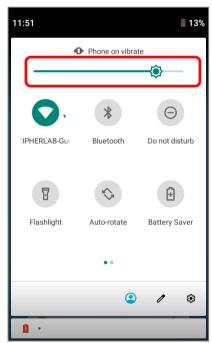
Go to App Drawer (All Apps) | Settings (20 | Display (10 | Brightness level.

Adjust screen brightness by dragging the slider to the right (to increase brightness) or left (to reduce brightness). Switch on the **Adaptive brightness** to enable automatic backlight adjustment with the mobile computer's built-in sensor.

You can also use the shortcut button on **Quick Settings** menu to adjust the brightness level.







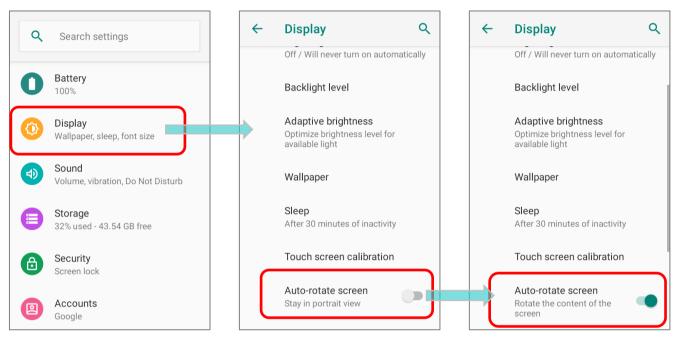
Note:

To save battery power, dim the screen brightness while working in a well-lit area, or set a shorter sleeping plan for the screen backlight to go off.

2.3.2. SCREEN ROTATION

By default, the device automatically rotates the screen to when you turn the device sideways. To switch this function on or off:

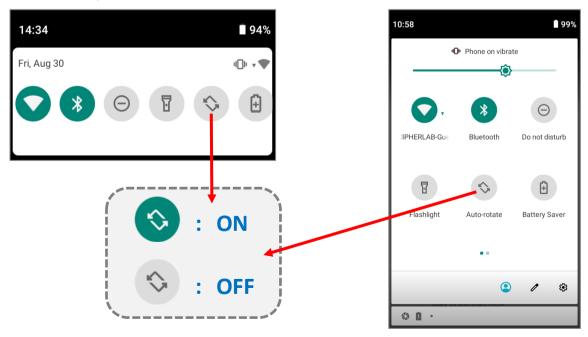
- 2) Tap Advanced for more display settings, and switch on or off Auto-rotate screen.



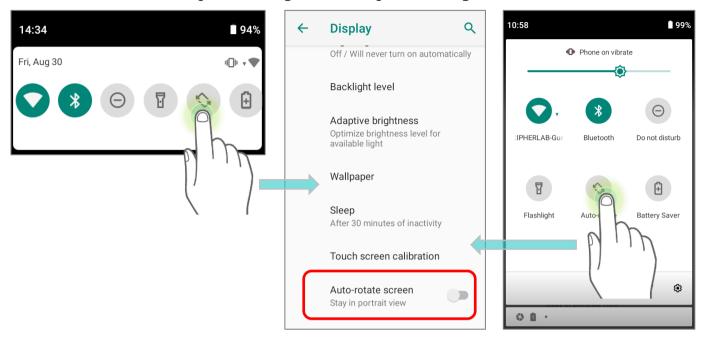
OR

Swipe down from the top of the screen to open **Quick Settings Panel** or **Quick Settings**

Menu and tap the **Auto rotate** icon to enable screen rotation.



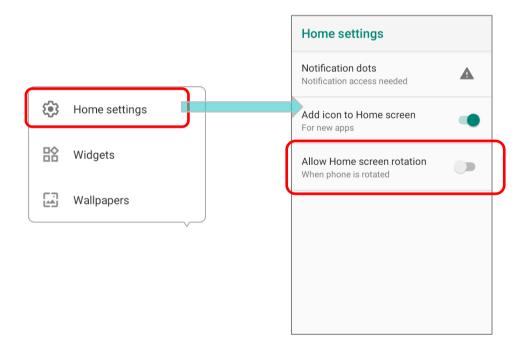
You can enter "Display" page to enable or disable screen rotation by long pressing the Auto rotate icon on Quick Settings Panel or Quick Settings Menu.



HOME SCREEN ROTATION

To enable Home screen rotation, please make sure **Auto Rotation** is enable.

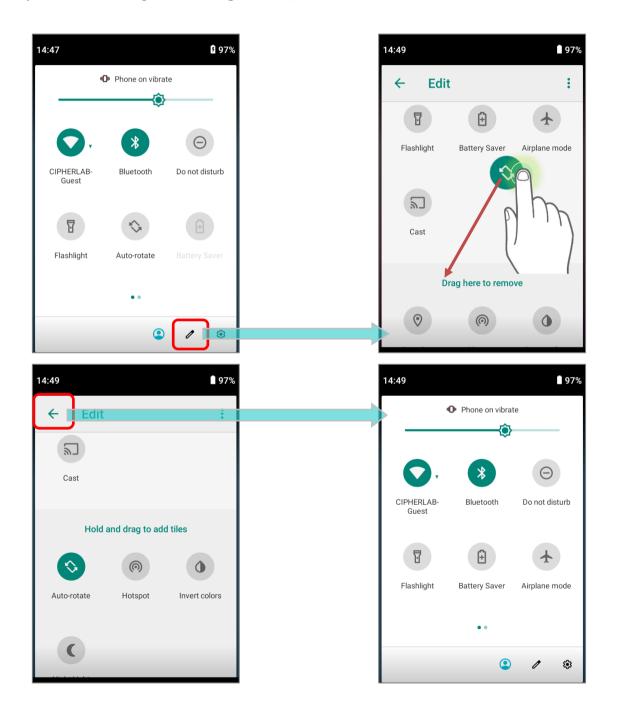
- 1) Press any empty spot on Home screen.
- 2) Tap "Home Settings" and enable "Allow Home screen rotation".



REMOVE AUTO ROTATION FROM QUICK SETTING MENU

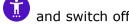
You can remove the **Auto rotate** switch icon on **Quick Settings Menu** to minimize the possibility of accidentally turning on the auto-rotation function:

- 1) Swipe down from the top of the screen to open **Quick Settings Menu**.
- 2) Click **Edit** button to get into **Edit** page; tap on and hold the **Auto rotate** icon, and drag it to the "**Drag here to remove**" area and then release it.
- 3) Return to the **Quick Settings Menu**, the **Auto rotate** switch icon is now hidden.



REMOVE AUTO ROTATION FROM DISPLAY SETTINGS

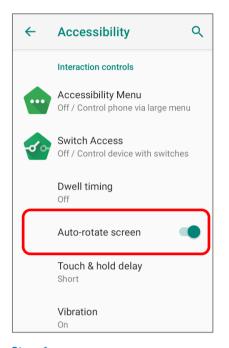


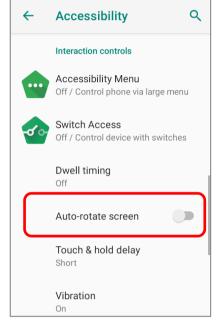


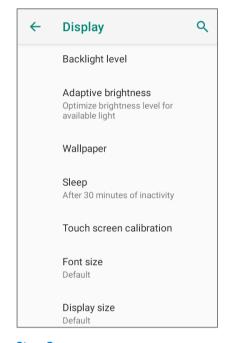


Auto-rotate screen. By doing so, the auto-rotation option will be hidden in Settings

Display







Step 1:

The original "Display" page where the function "Auto-rotate screen" is listed on.

Step 2:

Switch off "Auto-rotate screen" on "Accessibility" page.

Step 3:

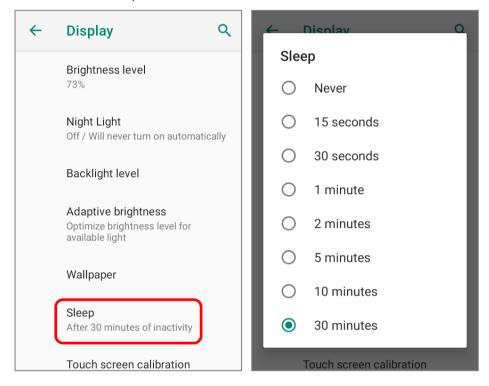
Now the function "Auto-rotate screen" is hidden on "Display" page.

Note:

Auto-rotation is not supported for certain applications. Without enabling "Allow Home Screen Rotation", auto-rotation is inapplicable in Home Screen and App Drawer screen.

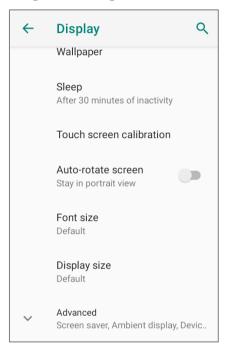
2.3.3. SCREEN TIMEOUT SETTINGS

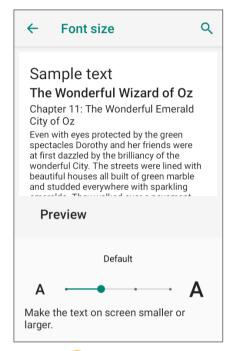
Select the time lapse for screen timeout.



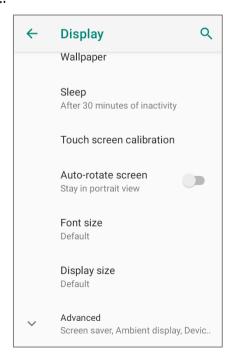
2.3.4. TEXT SIZE & DISPLAY SIZE

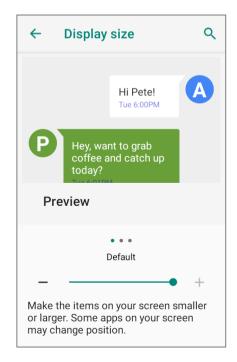
Tap the small A icon A or the large A icon A to select the font size between **Small**, **Default**, **Large** and **Largest**.





Tap the plus icon + or the minus icon - to select the display size as **Small** or **Default**.





2.4. NOTIFICATIONS

2.4.1. STATUS LED

Two LED indicators located above the touch screen provide information about charging status, scanner light beam, and scanner "Good Read" during data collection.

LED 1 for Power Indication		
Indicator	Status	Description
Charging	Green, solid	Charging complete
	Red, solid	Charging the mobile computer
	Red, blinking	Charging temperature error (lower than 0°C or exceed 45°C)

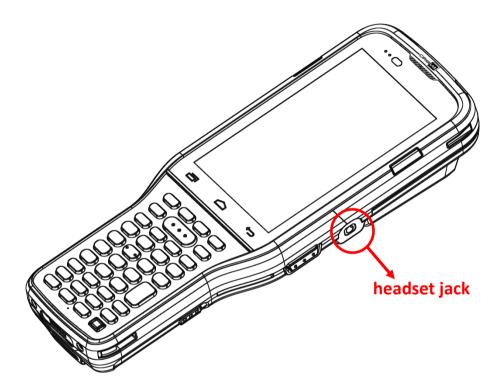
LED 2 for Reader & System Notification		
Indicator	Status	Description
Barcode decode	Green, flash once	Good read
System notification	White, blinking	New notification

Note: For Scanner decode and Scanner beam LED to function, LED notification must be enabled in Reader Configuration.

2.4.2. AUDIO

The speaker is used to play sounds for events in windows and programs, or play audio files. In addition, it can be programmed for status feedback. In noisy environments, you may consider connecting a headset instead. A headset jack is provided on the right size of the mobile computer, which is a 3.5 mm DIA stereo earphone jack. The mobile computer also supports using Bluetooth headsets.

Supported audio file formats include: MP3; AAC; He-AAC v1,v2; WMA 9/Pro; Dolby AC-3, eAC-3, DTS-HD, FLAC, APE, ALAC, AIFF, and EVS.

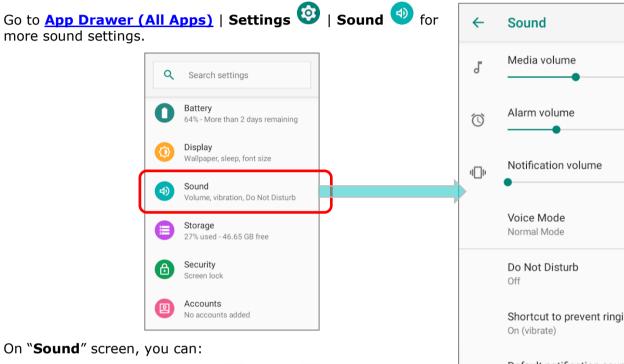


2.4.3. SOUNDS AND VIBRATION

The mobile computer is integrated with a vibrator, which is software programmable for tactile feedback. This can be helpful when working in noisy environments.

You may also set the mobile computer to vibrate only, in which all system sounds will be muted and replaced by the vibrator.

SOUND SETTINGS



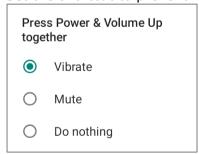
2) Enter "**Do Not Distrub**" for its detailed settings.

1) Adjust the volume for **media** , alarm , and **notification**

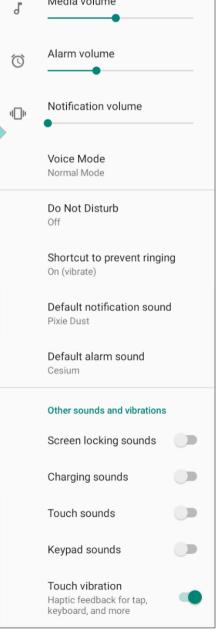
 \bigcirc by dragging the sliders. The media icon turns to be $\stackrel{\checkmark}{\sim}$ if it

is off while notification icons turns to be uto indicates it is

3) Set the shortcut to prevent ringing.



- 4) Select the sound for "**Default notification soud**" and "**Default alarm sound**".
- 5) Turn on or off the switch of the items under "Other sounds and vibrations".

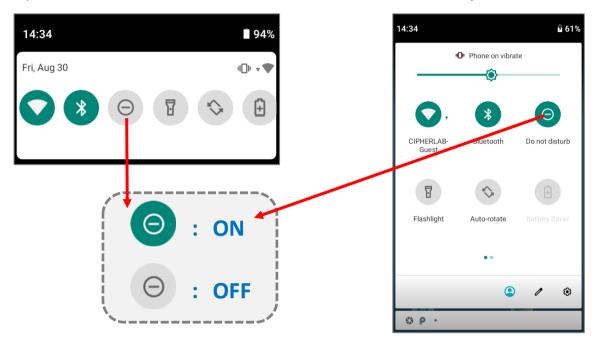


Q

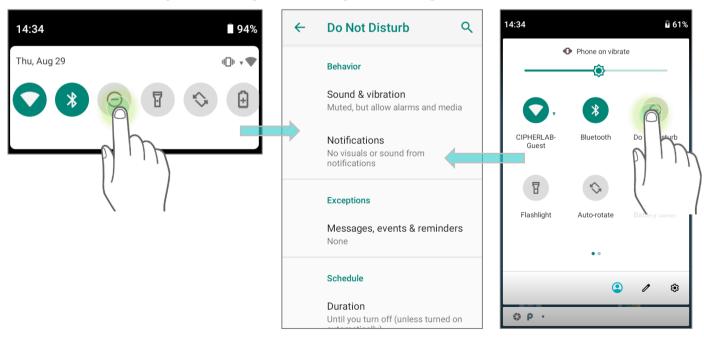
DISABLE UNWANTED NOTIFICATIONS WITH "DO NOT DISTURB"

You can temporarily disable specific notifications (vibration or sound) using "**Do Not Disturb**" in **Quick Settings Menu**. What's more, you can schedule the duration of the disabled status so that the notifications will switch to enabled state automatically based on your arrangement.

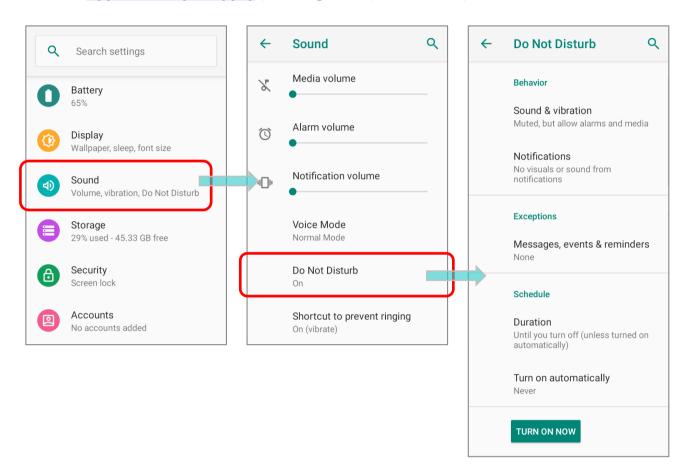
Swipe down from the status bar to open **Quick Settings Panel** or **Quick Settings Menu**, tap on "**Do not disturb**" to enable this feature and make further adjustment.



You can enter "Do Not Disturb" page for further settings by long pressing the Do Not Disturb icon on Quick Settings Panel or Quick Settings Menu.



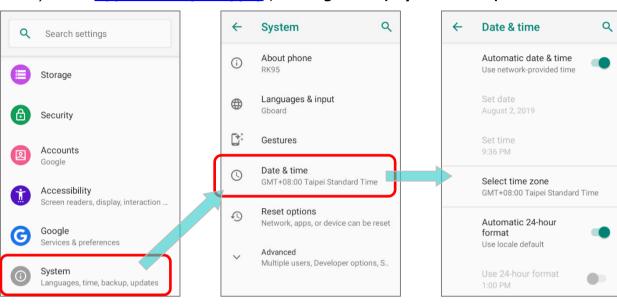
OR



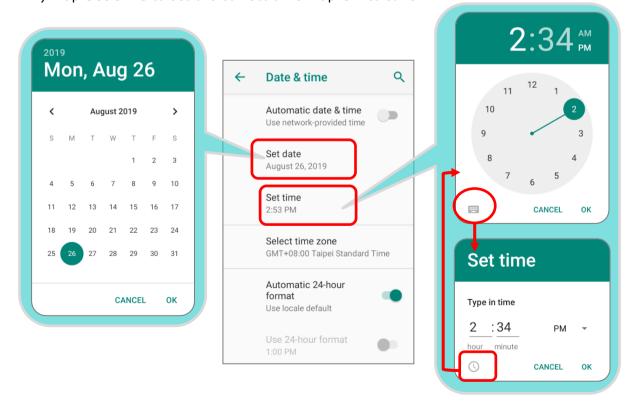
2.5. DATE AND TIME

By default, the mobile computer automatically synchronizes the date and time if it is connected to the Internet.

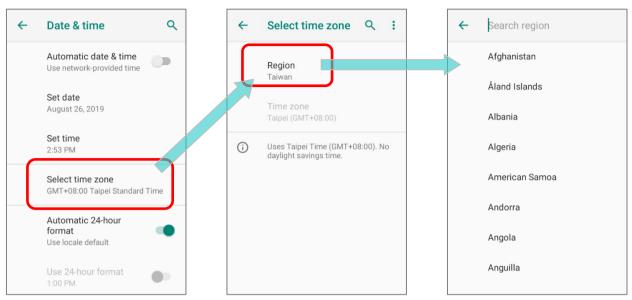
To set the date and time manually:

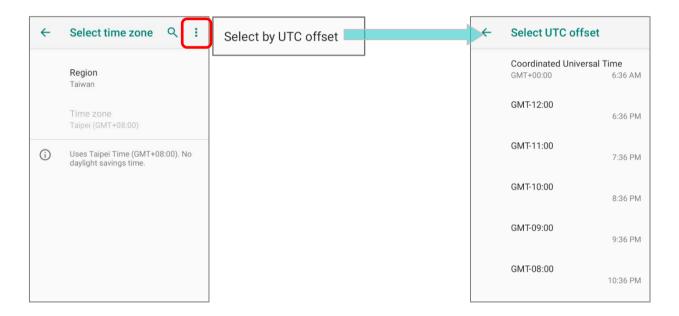


- 2) Tap to turn off **Automatic date & time** to disable using network-provided time.
- 3) Tap **Set date** to select the correct month, date and year. Tap **OK** to save.
- 4) Tap **Set time** to set the correct time. Tap **OK** to save.





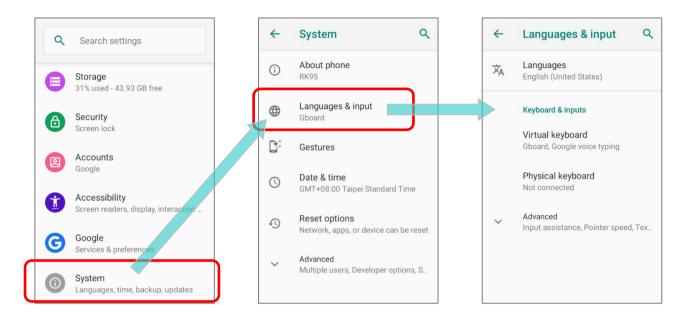




- 6) Disable "Automatic 24-hour format" and tap "Use 24-hour format" to switch on or off to change the displayed time.
- 7) Tap "NTP Server" to input NTP server address and tap OK to save.

2.6. LANGUAGE & KEYBOARD INPUT

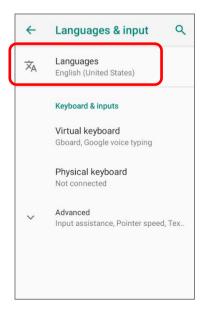
Tap <u>App Drawer (All Apps)</u> | Settings | System | Language & input to change the system language, default keyboard type, and configure keyboard input and speech settings.

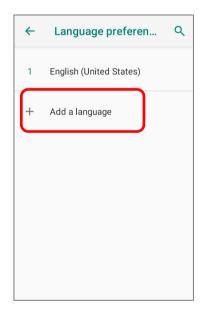


2.6.1. CHANGE DISPLAY LANGUAGE

To change display language:

1) On Language & input screen, tap on Language to get into "Language preference" page, and then click "Add a language" to select your desired system language.





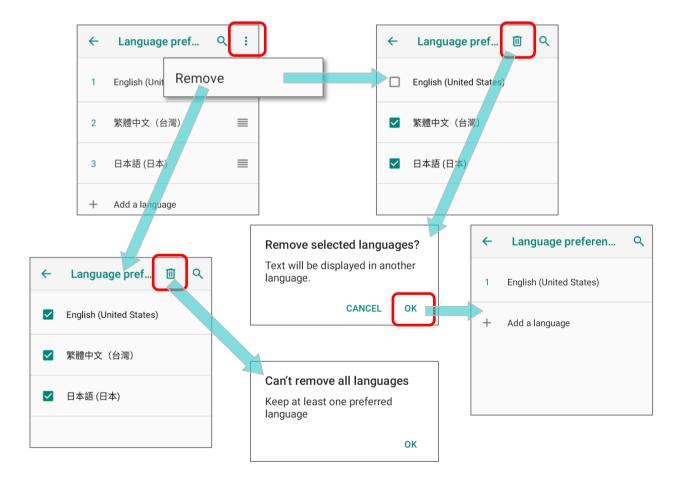


2) Press and hold your desired system language to change its sorting order to the 1st by dragging. Once it is released, the new language setting will immediately be applied.



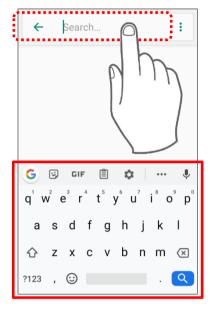
DELETE LANGUAGE

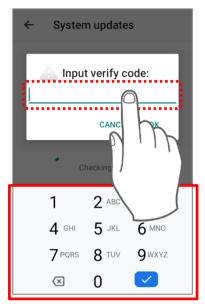
Tap in the upper right corner and tap "**Remove**" option; select the language to delete. Please note that the display language will be changed if it is selected to be deleted.



2.6.2. ON-SCREEN KEYBOARD

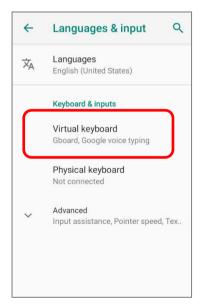
Tap a text input field to automatically open an on-screen keyboard. The virtual keyboard will vary depending on the data type (text or numbers) this field requires.

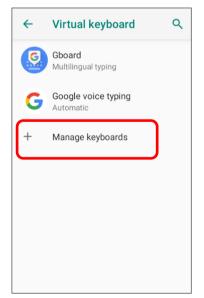


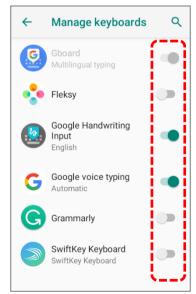


SELECT KEYBOARD (INPUT METHOD)

On **Language & input** screen, select **Virtual Keyboard** to manage the installed keyboards by taping "**Manage keyboard**" and switch on/off the input methods you need.

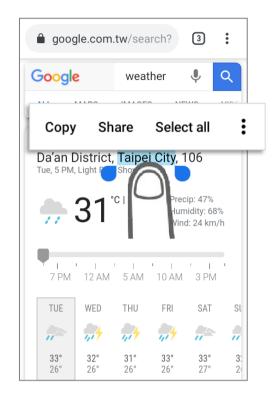






EDIT TEXT

Tap and hold text on the screen to enable a text editing menu for selecting all text, or copying and pasting text within or across applications. Some applications may use different ways to select or edit text.



2.7. DATA CAPTURE

2.7.1. BARCODE READER

A selection of scan engines is available for delivering flexibility to meet different requirements. Depending on the scan engine integrated, the mobile computer is capable of scanning barcodes of a number of symbologies.

2.7.2. DIGITAL CAMERA

An integrated 13-megapixel rear camera in the mobile computer is specifically designed for collecting image data. You may use the image capture utility to turn on the camera and capture images. By default, the images taken by this camera application are saved as JPG files in the **DCIM** folder in the device's primary storage.

SPECIFICATIONS

PLATFORM, PROCESSOR & MEMORY

Operating System & CPU

OS Version Android 9 Pie with GMS Certified CPU Qualcomm® Snapdragon™ 660

Memory

ROM 64GB eMMC MLC (Support at least eMMC 5.1)

RAM 4GB LPDDR4

Expansion Slot One Micro SDHC card slot (up to 32GB)

SDXC supported (up to 2TB)

COMMUNICATION & DATA CAPTURE

Communication

USB Client USB 2.0 OTG

WPAN Bluetooth 2.1EDR/4.0 BLE/V4.1/V4.2/5.0 WLAN 802.11 b/g/n and 802.11 a/ac/n networking

Data & Image Capture

Digital Camera Rear: 13 Mega pixels with user-controllable flash

Barcode Reader 2D Imager

HF RFID Reader Full tags support base on NFC forum, ISO14443A&B, FeliCa, ISO15693

ELECTRICAL CHARACTERISTICS

Battery

Main Battery Pack Replaceable and rechargeable Li-ion battery:

3.7V, 3000mAh/ 3.7V, 6000mAh

Minimum charging time:

4 hours (3000mAh)/ 6 hours (6000mAh) at 25°C

Charging temperature: 0°C to 45°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 45°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 45°C.

Backup Battery Rechargeable Li-Polymer battery: 3.8V, 180mAh

Data retention for 30 minutes

Charging time: 4 hours

Power Adaptor

Power Supply Cord with Input AC 100~240 V, 47-63Hz

Universal Power Adaptor Output DC 5V, 2A

CE, CB, BSMI, FCC, CCC, PSE, KC, CU, INMETRO

(AC plug only), BIS

Working Time

Supports working time for up to 10/12 hours (for 3000mAh/6000mAh) at 25 degrees

PHYSICAL CHARACTERISTICS

Color Touch Screen Display

Display 4.3 inch, LCD, Corning Gorilla Glass

Resolution 800(RGB) X 480 Pixel

Notifications

Status LED Tri-color LED x 1(Green/RED/Blue)

Dual color LED x 1(Green/RED)

Side Tri-color LED x 2(Green/RED/Blue)

Dimensions & Weight

Dimensions 168 mm (L) x 73.8mm (W) x 25.85mm (H)

Weight Approx. 400g (with 3000mAh battery pack and 4750 reader)

Approx. 450g (with 6000mAh battery pack and 4750 reader) Approx. 435g (with 3000mAh battery pack and 4850 reader) Approx. 480g (with 6000mAh battery pack and 4850 reader)

ENVIRONMENTAL CHARACTERISTICS

Temperature	
Operating	-20°C to 50°C
Storage	-30°C to 70°C (battery pack is not included)
Charging	0°C to 45°C
Humidity	
Operating	5% to 95% (non-condensing)
Storage	5% to 95% (non-condensing)
Resistance	
Impact Resistance	Multiple drops onto concrete at 1m on all six sides
Tumble Test	$150 \ \text{tumbles} \ (300 \ \text{drops/hits}) \ \text{at} \ 0.5 \ \text{meter per applicable IEC} $ tumble specifications
Splash/Dust Resistance	IP65 per applicable IEC sealing specifications
Electrostatic Discharge	±15 kV air discharge, ±8 kV contact discharge

PROGRAMMING SUPPORT

Development Environment & Tools

JAVA Environment Android studio

Software Development Kit: JAR

C# Environment: Visual Studio

Software Development Kit: DLL (Xamarin Library)