



MODEL:
MODAT-550A

**5.5" Mobile Data Collector with Octa-Core ARM® Cortex®-A53
1.5 GHz CPU, Android 7.0 OS, Capacitive Touchscreen,
Bluetooth 4.0 LE, 802.11a/b/g/n Wi-Fi, 1D/2D Barcode Scanner,
GPS, NFC, 13-Megapixel Camera, RoHS Compliant**

User Manual



Revision



Date	Version	Changes
June 18, 2019	1.00	Initial release



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Manual Conventions

**WARNING**

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously.

**CAUTION**

Cautionary messages should be heeded to help reduce the chance of losing data or damaging the product.

**NOTE**

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help avoid making mistakes.

**HOT SURFACE**

This symbol indicates a hot surface that should not be touched without taking care.

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Chapter

1

Introduction

1.1 Overview



Figure 1-1: MODAT-550A

The MODAT-550A is an Android-based mobile data collector with a 5.5” touchscreen. At the heart of the system is the octa-core ARM® Cortex®-A53 1.5 GHz CPU. Wireless communication technologies include 802.11a/b/g/n Wi-Fi, and Bluetooth 4.0 LE. Other peripherals include a 13-megapixel camera, a 1D/2D barcode scanner, a microSD card slot, a Micro USB port, a headset jack and a speaker.

1.2 Model Variations

Model	System	Barcode Scanner
MODAT-550A-OA53	Octa-core 64-bit ARM® Cortex®-A53 1.5 GHz CPU, 2 GB LPDDR3, 16 GB eMMC	1D/2D imager scan engine
MODAT-550A-OA53-ET		No

Table 1-1: Model Variations

MODAT-550A Mobile Data Collector

1.3 Features

Some of the MODAT-550A features include:

- 5.5" LCD with capacitive touchscreen
- Octa-core ARM® Cortex®-A53 1.5 GHz CPU
- Android 7.0 OS
- 13-megapixel camera with flashlight
- Bluetooth 4.0 LE, 802.11a/b/g/n Wi-Fi communication technologies
- Built-in GPS with internal antenna
- Optional 1D/2D barcode scanner
- RoHS compliant

1.4 Front Panel

The front panel of the MODAT-550A has a 5.5" LCD with capacitive touchscreen, a receiver, a microphone and a LED indicator.

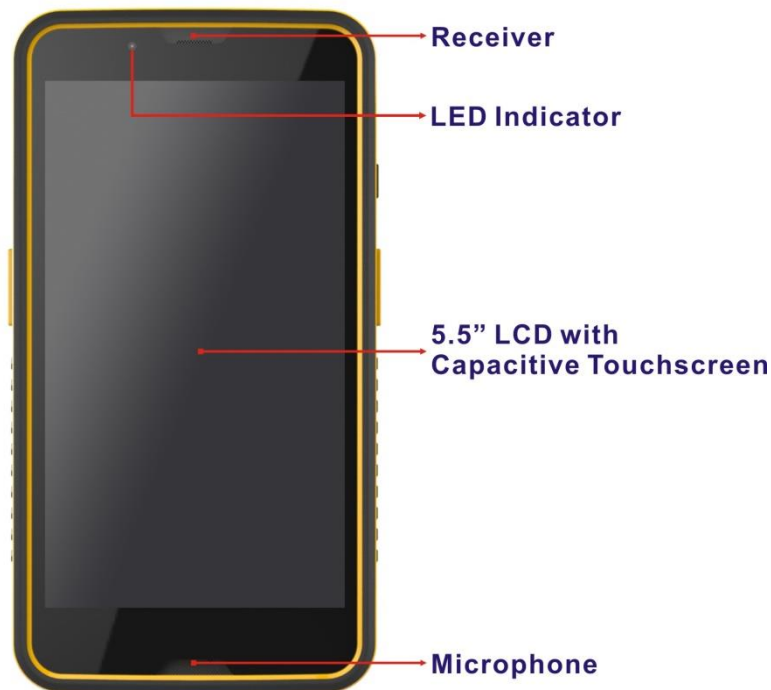


Figure 1-2: Front Panel

1.5 Rear Panel

The rear panel consists of a 13-megapixel camera with flashlight, a speaker, a microphone and the NFC area.



Figure 1-3: Rear Panel

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1.6 Side Panels

The side panels contain a power button, two barcode trigger buttons and a Micro USB port.



Figure 1-4: Side Panels

1.7 Top Panel

The top panel contains a 1D/2D barcode scanner and a headset jack.

1D/2D Barcode Scanner (MODAT-550A-OA53 only)

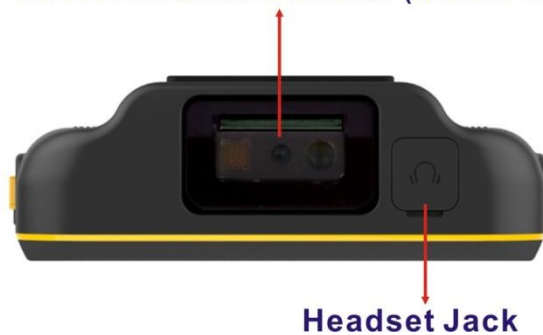


Figure 1-5: Top Panel

1.8 Bottom Panel

The bottom panel has a docking connector.

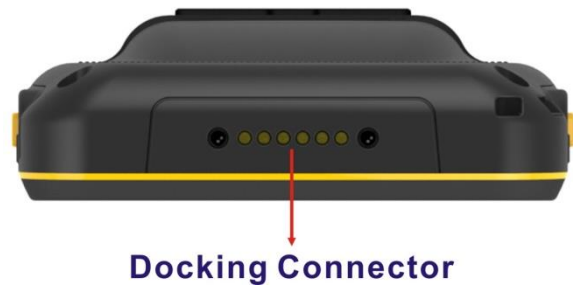


Figure 1-6: Bottom Panel

1.9 Technical Specifications

The MODAT-550A technical specifications are listed in the table below.

Display	
LCD Size	5.5"
Brightness (cd/m ²)	300
Max. Resolution	1080 (H) x 1920 (V)
Viewing Angle	80/80/80/80 degree
Touchscreen	5-point capacitive
System	
CPU	Octa-core 64-bit ARM [®] Cortex [®] -A53 1.5 GHz
Operating System	Android 7.0
Memory	16 GB eMMC 2 GB LPDDR3
Storage	1 x microSD card slot
Communication	
Wi-Fi	802.11a/b/g/n
Bluetooth	Bluetooth 4.0 LE
GPS	GPS/GLONASS
Data Collection	
Barcode	1D/2D imager scan engine (MODAT-550A-OA53 only)

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Camera	13-megapixel AF rear camera
NFC	Yes
Indicator and Buttons	
LED Indicator	Green/red
Buttons	Power button 2 x Barcode trigger buttons
I/O Interface	
Audio	1 x Headset jack 2 x Microphone 1 x Receiver 1 x Speaker (0.5 W)
6 Pin Pogo Connector	500 mA output in OTG mode
USB	1 x High-speed Micro USB 2.0 port
Power	
Power Adapter	5V, 3A
Battery	4000 mAh
Environment	
Operating Temperature	-10°C ~ 50°C
Storage Temperature	-20°C ~ 60°C
Humidity	10% ~ 95%, non-condensing
Drop Survival	1.5 m
Physical Characteristics	
Dimensions (LxWxH)	160.9 mm x 85.4 mm x 28.85 mm
Weight	380 g

Table 1-2: Technical Specifications

1.10 Dimensions

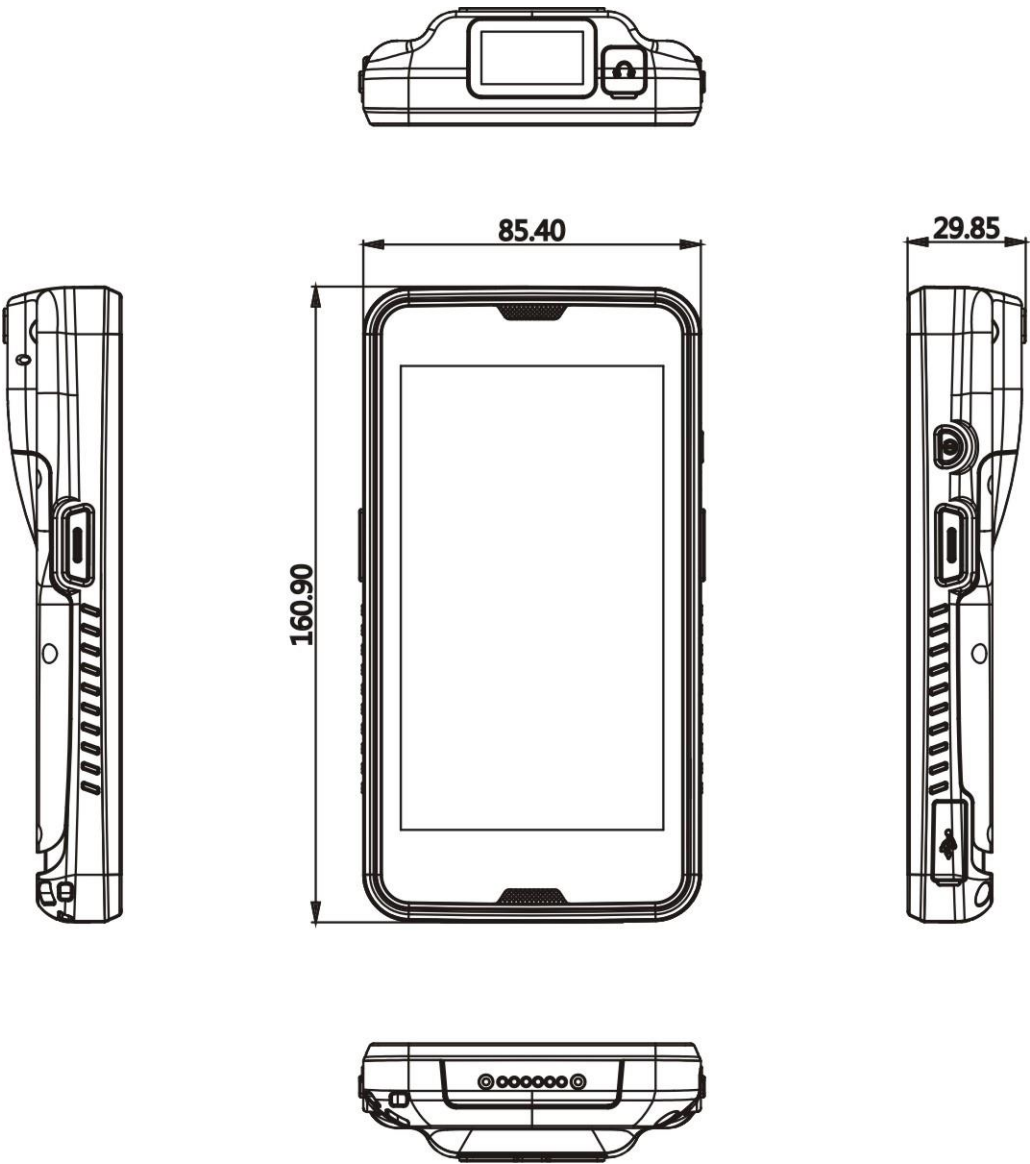


Figure 1-7: Dimensions (units in mm)

Chapter

2

Unpacking

To unpack the MODAT-550A, follow the steps below:



Only remove the protective plastic cover stuck to the front screen after installation. The plastic layer protects the monitor surface during installation process.

- Step 1:** Carefully cut the tape sealing the box. Only cut deep enough to break the tape.
- Step 2:** Open the box.
- Step 3:** Lift the MODAT-550A out of the box.
- Step 4:** Make sure all the components listed in the packing list are present.

2.1 Packing List



If any of the components listed in the checklist below are missing, do not proceed with the installation. Contact the IEI reseller or vendor the MODAT-550A was purchased from or contact an IEI sales representative directly by sending an email to sales@ieiworld.com.

The MODAT-550A is shipped with the following components:

Quantity	Item	Image
1	MODAT-550A	

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Quantity	Item	Image
1	Power adapter (P/N: 63040-480015-001-RS)	
1	Micro USB cable (P/N: 32001-014300-200-RS)	
1	Hand strap (P/N: 46035-000300-RS)	

Table 2-1: Packing List

2.2 Optional Items

The following are optional components which may be separately purchased:

Item	Image
Charging cradle (P/N: MODAT-531A-CR01-R10)	
Leather case (P/N: 7Z000-MODAT531APOUCH)	

Table 2-2: Optional Items

Chapter

3

Installation

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3.1 Anti-static Precautions



WARNING:

Failure to take ESD precautions during the maintenance of the MODAT-550A may result in permanent damage to the MODAT-550A and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the MODAT-550A. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the MODAT-550A is accessed internally, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband:*** - Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding:*** - Before handling the board touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad:*** - When configuring the MODAT-550A, place it on an anti-static pad. This reduces the possibility of ESD damaging the MODAT-550A.

3.2 Installation Precautions

When installing the MODAT-550A, please follow the precautions listed below:

- **Power turned off:** When installing the MODAT-550A, make sure the power is off. Failing to turn off the power may cause severe injury to the body and/or damage to the system.
- **Certified Engineers:** Only certified engineers should install and modify onboard functionalities.
- **Anti-static Discharge:** If a user open the rear panel of the MODAT-550A, to configure the jumpers or plug in added peripheral devices, ground themselves first and wear an anti-static wristband.

**WARNING:**

- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

3.3 Charging the System

To start using the MODAT-550A, the user must charge the MODAT-550A by the power adapter. To charge the MODAT-550A, please follow the steps below.

Step 1: Open the protective rubber cover to expose the Micro USB port.

Step 2: Connect the Micro USB plug of the Micro USB cable to the Micro USB connector of the MODAT-550A (**Figure 3-1**).



Figure 3-1: Connecting the Micro USB Cable to the MODAT-550A

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Step 3: Pick the power plug that suits the user's territory, and secure it to the power adapter (**Figure 3-2**).



Figure 3-2: Connecting the Power Plug

Step 4: Connect the other end of the Micro USB cable to the USB connector of the power adapter (**Figure 3-3**).

Then plug the power adapter to a power source.

OR connect the Micro USB cable directly to a computer.



Figure 3-3: Connecting the MODAT-550A to the Power Adapter

Step 5: The LED indicator on the front panel lights up in red to indicate that the battery is charging. When the battery is fully charged, the LED indicator turns green.

3.4 microSD Card Installation

This section covers the installation of a microSD card.

Release the six retention screws that secure the battery cover to the MODAT-550A.



WARNING:

Before removing the battery cover, make sure that the system power is turned off and all power to the system has been disconnected. Failing to do so may cause severe damage to the MODAT-550A and injury to the user.



Figure 3-4: Battery Cover Retention Screws

Step 1: Lift the battery cover up to remove.

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Step 2: Locate the microSD card slot and insert a microSD card into it.



Figure 3-5: microSD Card Slot



3.5 I/O Connectors

The I/O connectors are protected by a rubber cover. Open the rubber cover before connecting any peripheral devices to the MODAT-550A.

3.5.1 Headset Jack

The headset jack on the top panel enables the MODAT-550A to be connected to a headset. Open the protective rubber cover to expose the headset jack before connection.



Figure 3-6: MODAT-550A Headset Jack

3.5.2 Micro USB Connector

The MODAT-550A is equipped with a Micro USB connector that allows connection to a computer or the supplied power adapter. Refer to **Step 1 ~ Step 3** in **Section 0** to connect the MODAT-550A to a computer or power adapter by using the supplied Micro USB cable.

After connecting the MODAT-550A to a computer, follow the steps below to allow transferring files between the computer and MODAT-550A.

- Step 1:** Swipe down from the top of the screen, then tap **USB for file transfer** (Figure 3-9).



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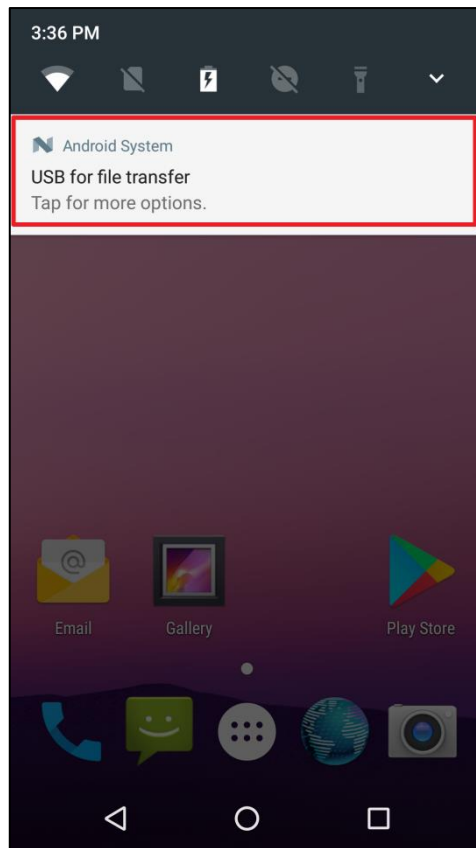


Figure 3-7: USB for File Transfer

Step 2: The screen in **Figure 3-10** should be displayed. Tap **Transfer files** to allow the connected computer to recognize the MODAT-550A. Then the user can transfer files between them.

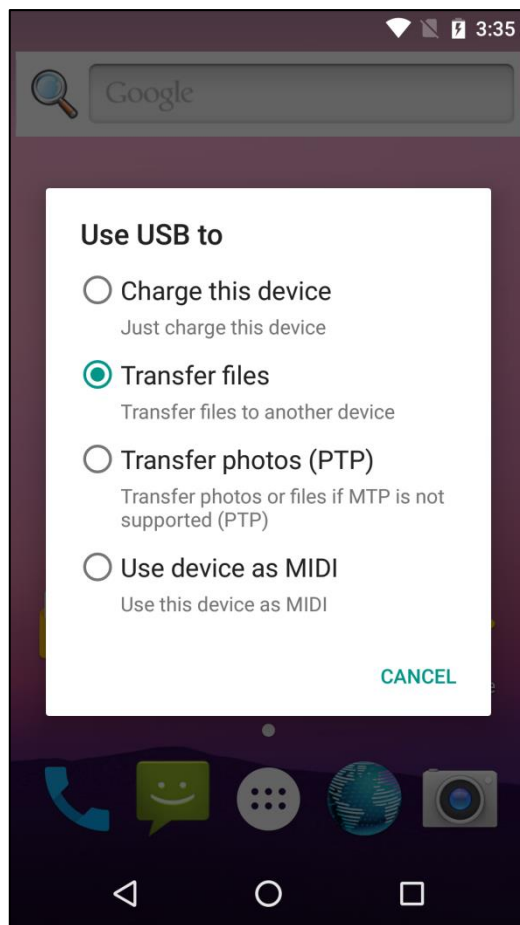


Figure 3-8: USB Connection Option Screen

3.6 System Maintenance

If the components of the MODAT-550A fail, they must be replaced. Please contact the system reseller or vendor to purchase the replacement parts.



NOTE:

A user cannot replace a motherboard. If the motherboard fails it must be shipped back to IEI to be replaced. Please contact the system vendor, reseller or an IEI sales person directly.

Chapter

4

Using the MODAT-550A

4.1 Powering On/Off

To power on/off the MODAT-550A, please follow the steps below:

- **Powering On:** Press the power button until the start-up screen displays.



Figure 4-1: Power Button

- **Powering Off:** Press and hold the power button until the Power off menu as shown in Figure 4-2 appears. Tap **Power off** to turn off the MODAT-550A.

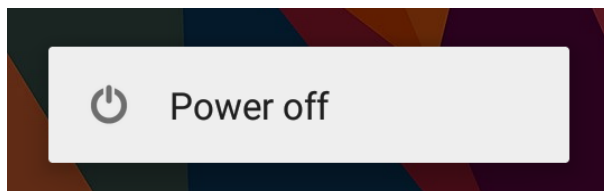


Figure 4-2: Power Off Menu



NOTE:

When the MODAT-550A is powered on, press the power button once to suspend the MODAT-550A or to resume from the suspend mode.

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4.2 Home Screen

The MODAT-550A has multiple home screens allowing users to customize the screen with widgets, apps and shortcuts. The following sections describe the basic technique to manage the home screen.

4.2.1 Adding a Home Screen

To add a home screen, touch and hold an app/widget icon. A  icon (Figure 4-3) appears, indicating that a new home screen is available. Drag and release the icon to the new home screen.

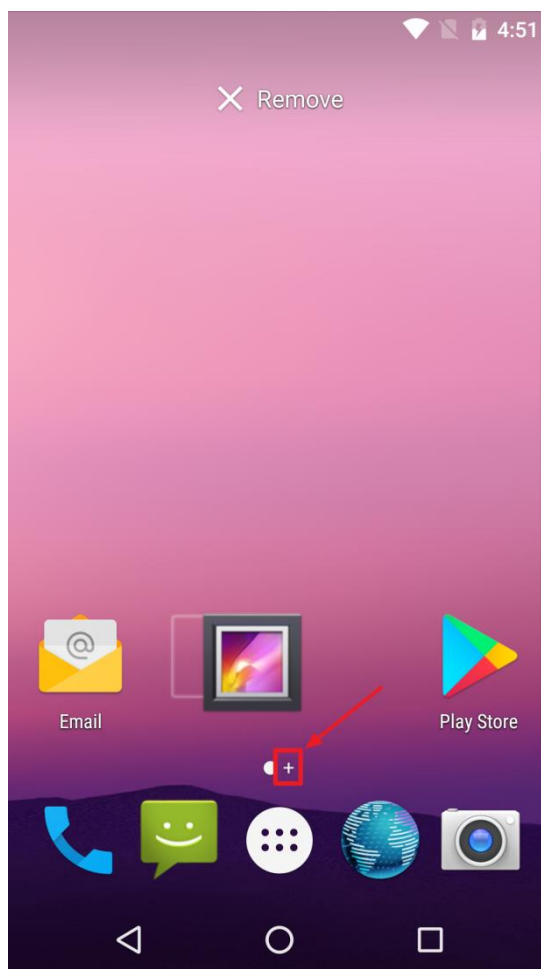


Figure 4-3: Adding a Home Screen

4.2.2 Switching between Home Screens

Swipe right or left to switch between home screens.

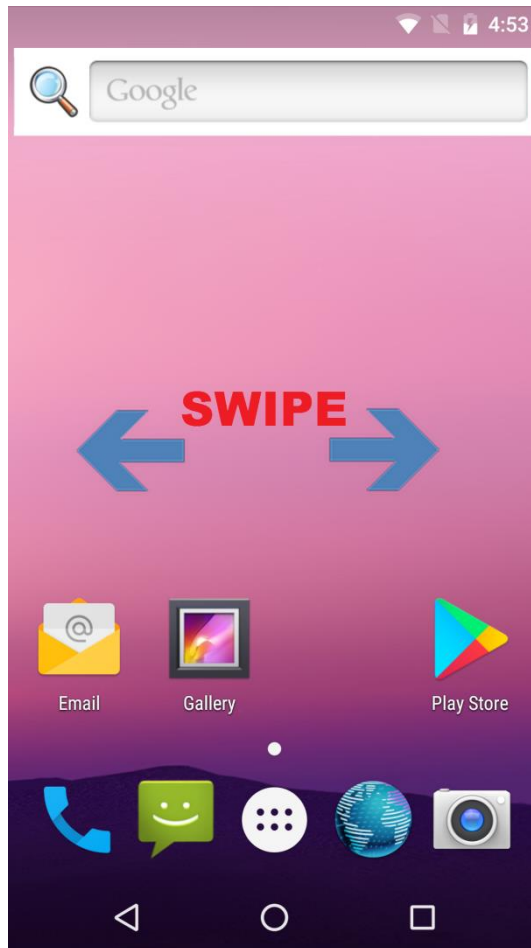


Figure 4-4: Multiple Home Screens

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4.2.3 Favorites Tray

The Favorites tray at the bottom of each home screen allows users to keep the most important or frequently used shortcuts.

Tap the  (All Apps) button at the center of the Favorites Tray to access the All Apps page.

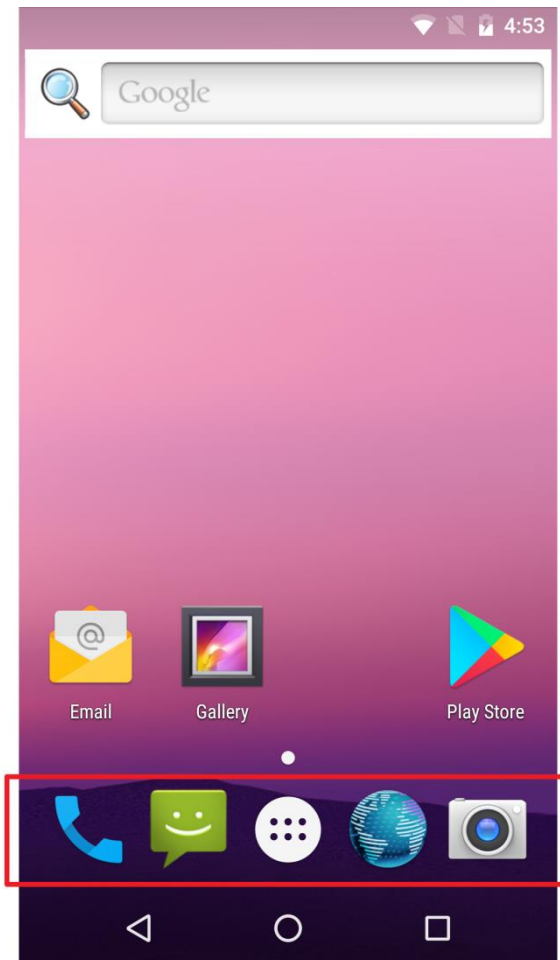


Figure 4-5: Favorites Tray

4.2.4 Adding Shortcuts

To add app or widget shortcuts on the home screen, follow the steps below.

Step 1: To add an app shortcut, tap the All Apps button on the home screen to access the All Apps page.

To add a widget shortcut, touch and hold the background of a home screen, then tap **WIDGETS**.

Step 2: Touch and hold an app/widget icon and drag it to the home screen.

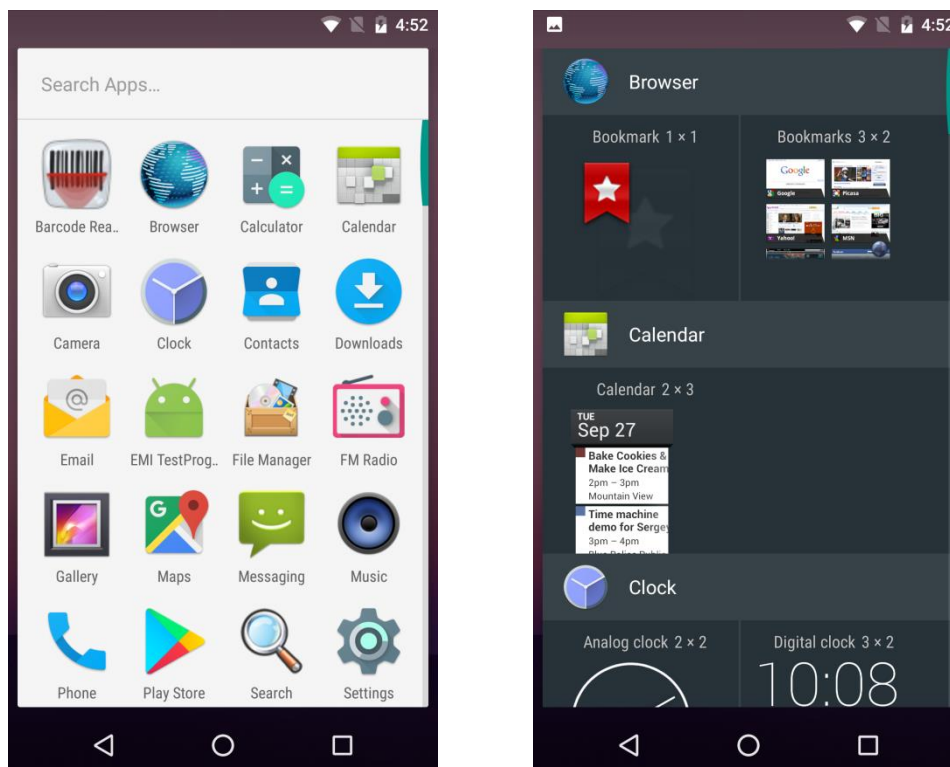


Figure 4-6: All Apps/WIDGETS Page

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4.2.5 Arranging the Home Screen

The items on the home screen can be moved and deleted. Touch and hold an item on the home screen and drag it where you want. To trash the item on the screen, drag it to the Remove icon. Release the icon when it turns red.

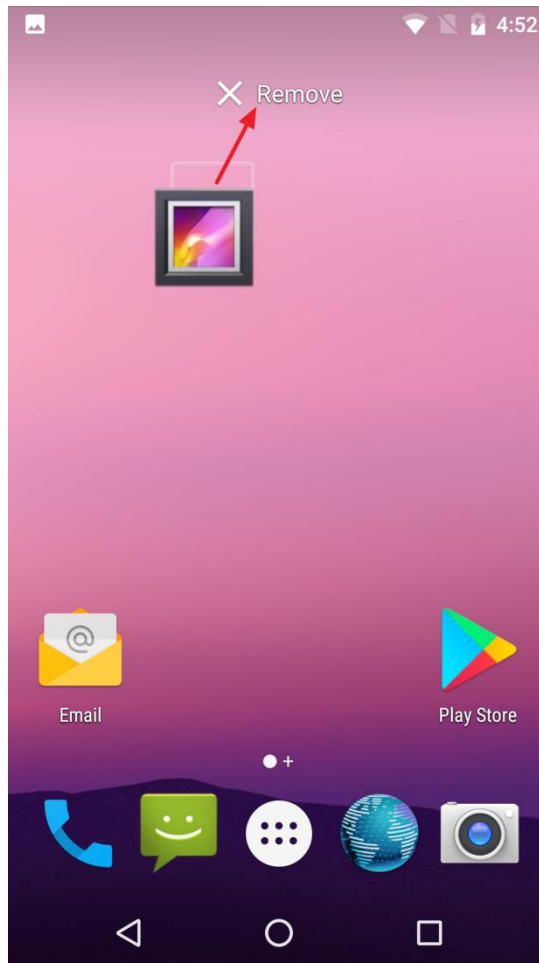


Figure 4-7: Trash an Item on Home Screen

4.3 Navigation Buttons

The three navigation buttons shown in **Figure 4-8** can always be found at the bottom of every screen.

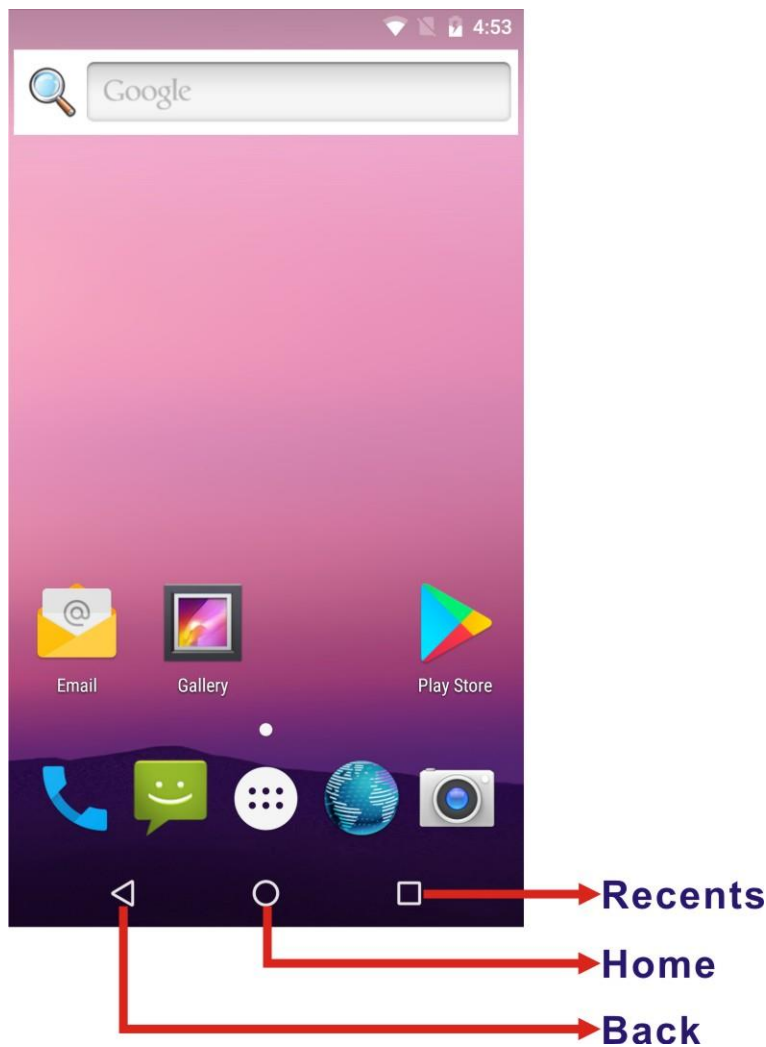


Figure 4-8: Navigation Buttons

Buttons	Description
Back	Tap to return to the previous screen.
Home	Tap to return to the home screen.
Recents	Tap to display all the recently used applications.

Table 4-1: Navigation Buttons

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4.4 Status Bar

The status bar on the top of the screen (**Figure 4-9**) displays system status, such as battery level or signal strength.

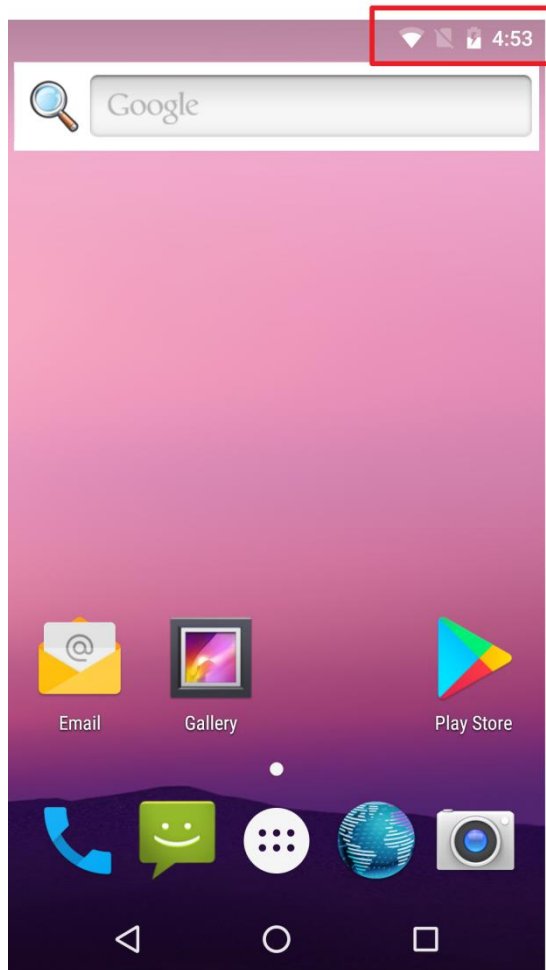


Figure 4-9: Status Bar

Swipe down from the status bar to view notification and status details (**Figure 4-10**).

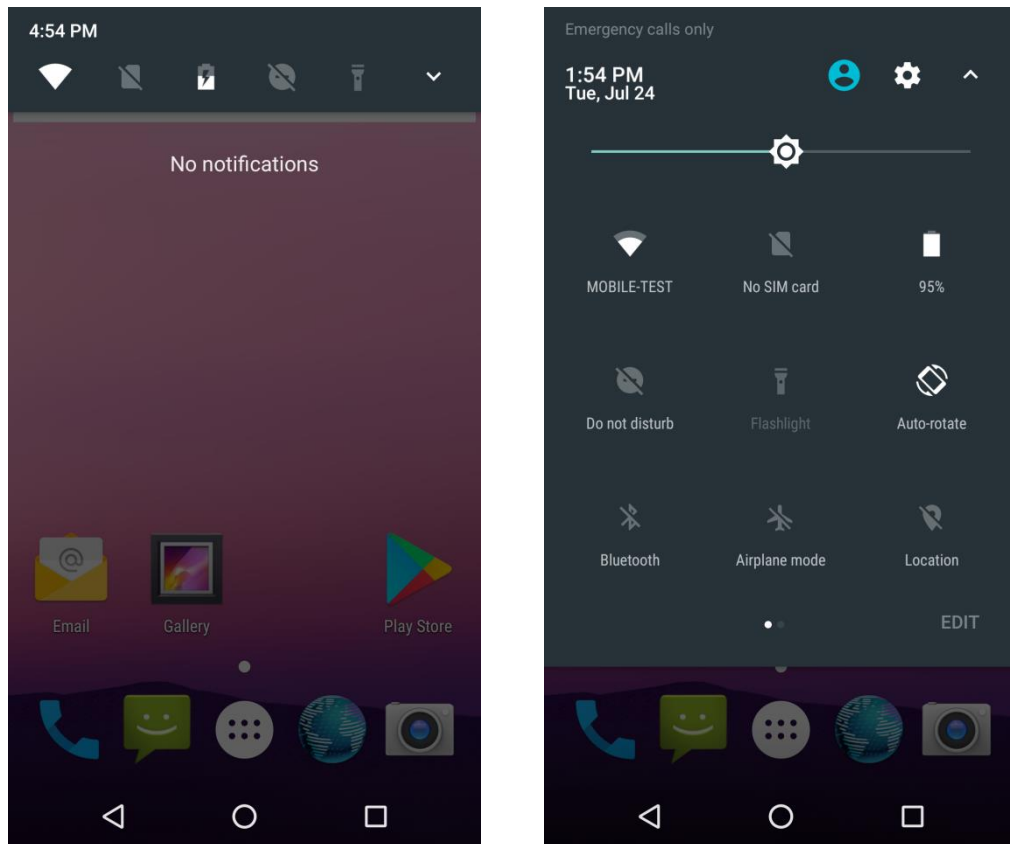


Figure 4-10: Notification List and System Status

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4.5 Settings

The Settings menu allows configuration to the MODAT-550A, such as Wi-Fi, volume, display brightness, etc. To enter the Settings menu, tap **Settings** on the All Apps page.

4.5.1 Wireless & Networks

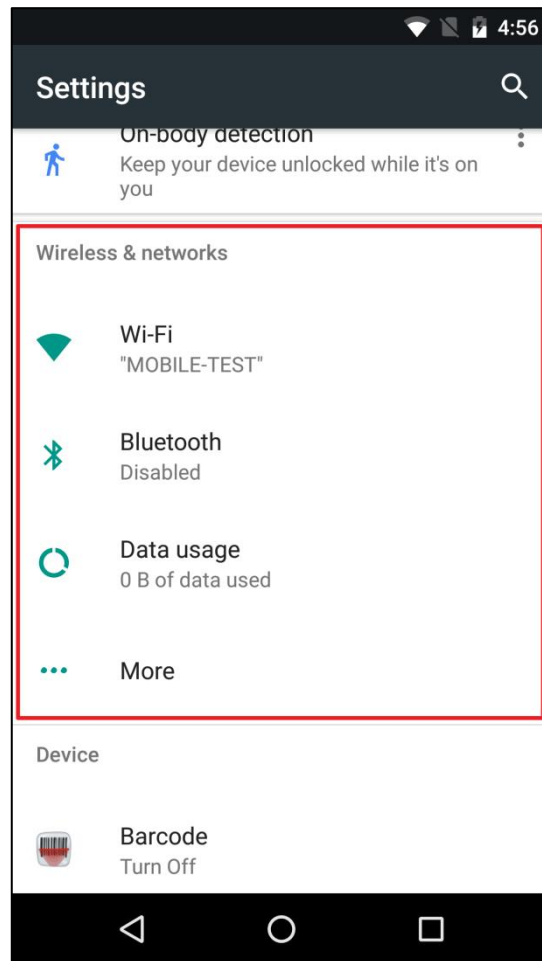


Figure 4-11: Wireless and Networks Settings

In the Wireless & networks field, the user can turn on/off the Wi-Fi and Bluetooth functions.

- **Wi-Fi:**

Allows the user to turn on or off the Wi-Fi function and manage the access points. The user can tap  to configure advanced Wi-Fi settings.



- **Bluetooth:**
Allows the user to turn on or off the Bluetooth function and manage the Bluetooth connections.
- **Data usage:**
Allows the user to view data usage status.

4.5.1.1 More Settings

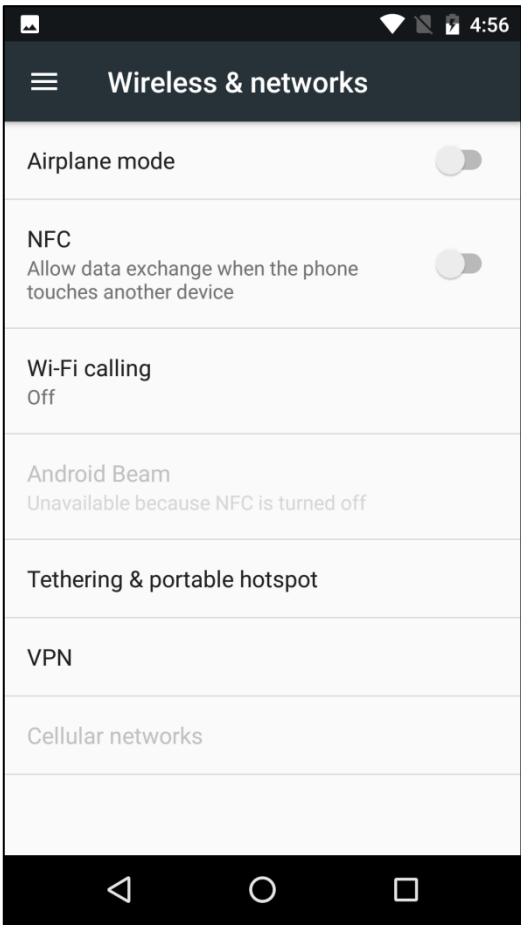


Figure 4-12: More Settings Menu

After tapping **More** in the Wireless & networks field, the user can configure the following settings.

- **Airplane mode:**
Allows the user to turn on or off the airplane mode.



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- **NFC:**
Allows the user to turn on or off the NFC function and configure the data exchange modes.
- **Wi-Fi calling:**
Enables or disables Wi-Fi calling function.
- **Tethering & portable hotspot:**
Allows the user to set this device as a portable Wi-Fi hotspot, configure the hotspot settings and turn on or off the USB/Bluetooth tethering function.
- **VPN:**
Sets up and manages Virtual Private Networks (VPNs).
- **Cellular networks:**
Configures the cellular network settings.

4.5.2 Barcode

The barcode menu allows powering on/off the barcode reader and configuring its settings. The barcode settings can also be set through the Barcode Reader application in the application page.

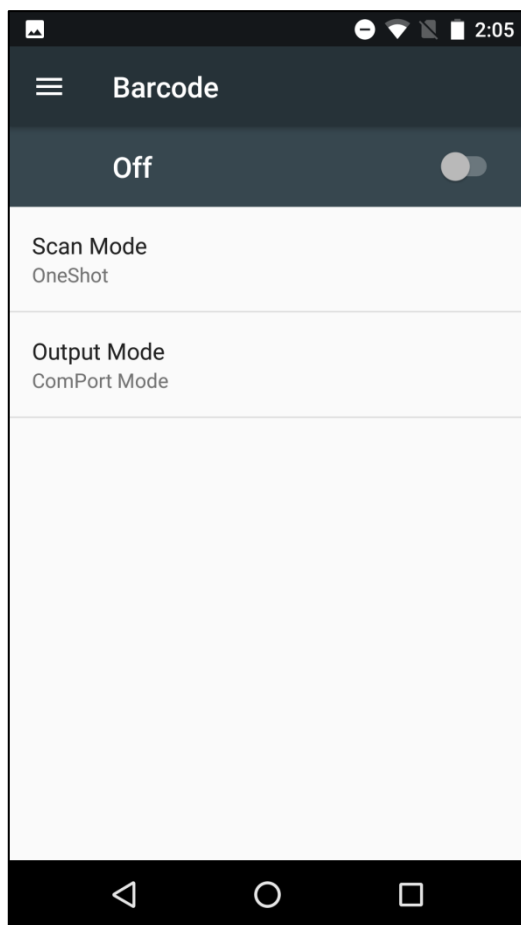


Figure 4-13: Barcode Menu

- **Barcode on/off:**
Turns on or off the barcode reader.
- **Scan mode:**
Sets up the scan mode.
- **Output mode:**
Sets up the output mode.

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4.5.3 Display

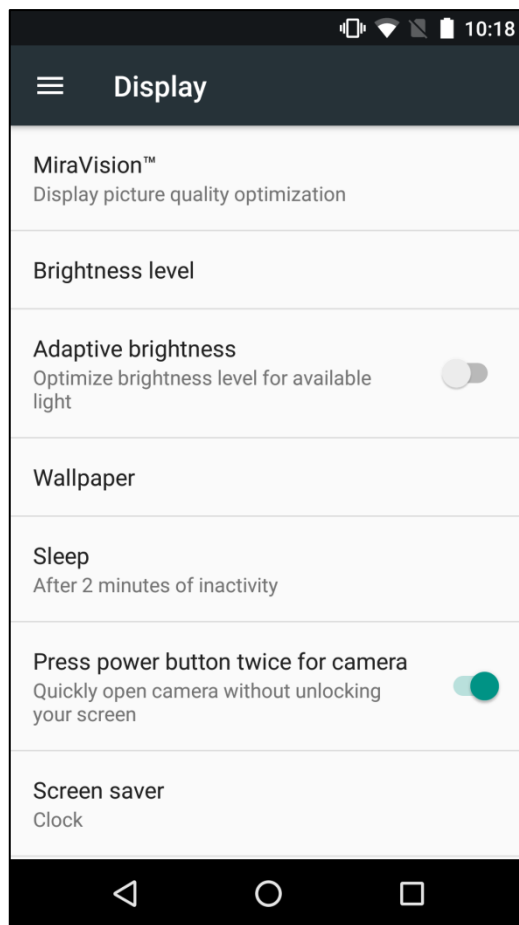


Figure 4-14: Display Menu

Use the Display menu to configure the following items.

- **Brightness level:**
Adjusts the screen brightness.
- **Adaptive brightness:**
Turns on this function to optimize brightness level for available light.
- **Wallpaper:**
Sets up the wallpaper.
- **Sleep:**
Sets up the time of inactivity after which the screen turns to sleep mode.

- **Press power button twice for camera:**
Enable or disable to quickly open camera without unlocking screen.
- **Screen saver:**
Configures the screensaver settings.
- **Font size:**
Sets up the font size.
- **Display size:**
Sets up the item size on the screen.
- **When device is rotated:**
Allows the user to select to rotate the contents of the screen when the MODAT-550A is rotated.
- **Cast:**
Allows the user to turn on or off the wireless display function and manages the wireless display devices.

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4.5.4 Notifications

The Notifications menu allows the user to configure the notification settings of each app.

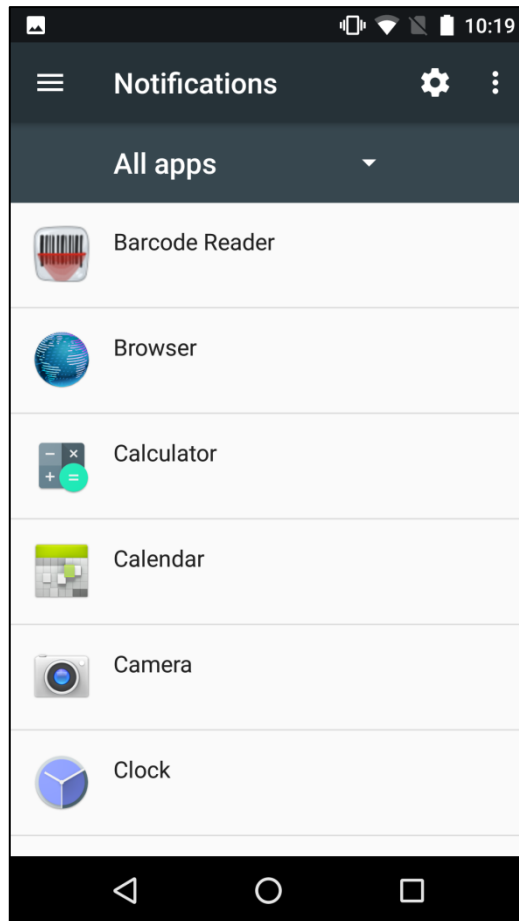


Figure 4-15: Notifications Menu

4.5.5 Sound

Use the Sound menu to configure sound volume, ringtone and sound enhancement settings.

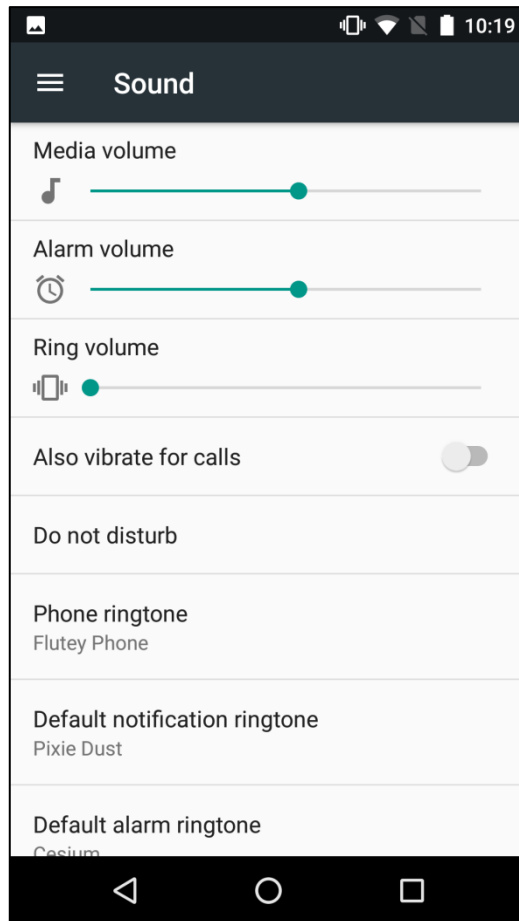


Figure 4-16: Sound Menu

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4.5.6 Apps

The Apps menu displays the applications installed in the device, and allows users to manage them.

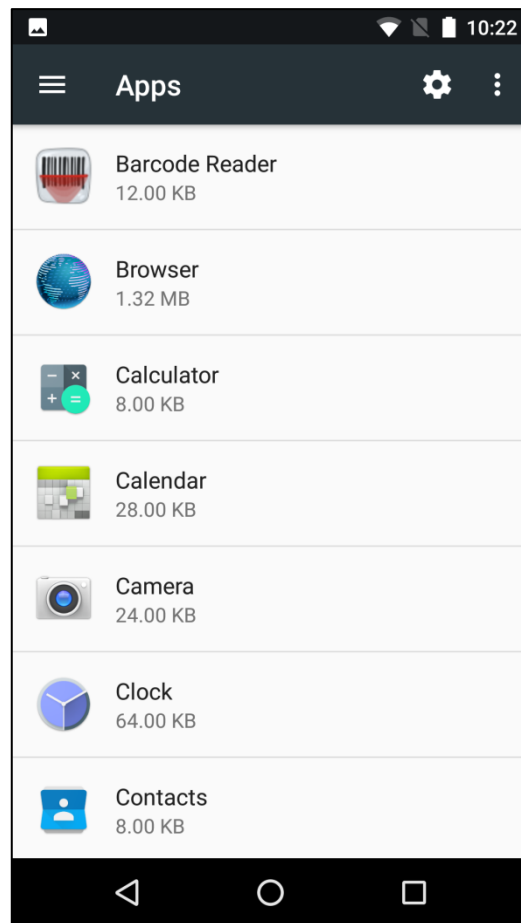


Figure 4-17: Apps Menu

4.5.7 Storage

The Storage menu displays the status of the internal storage and the inserted microSD card, and allows users to manage the data stored in them.

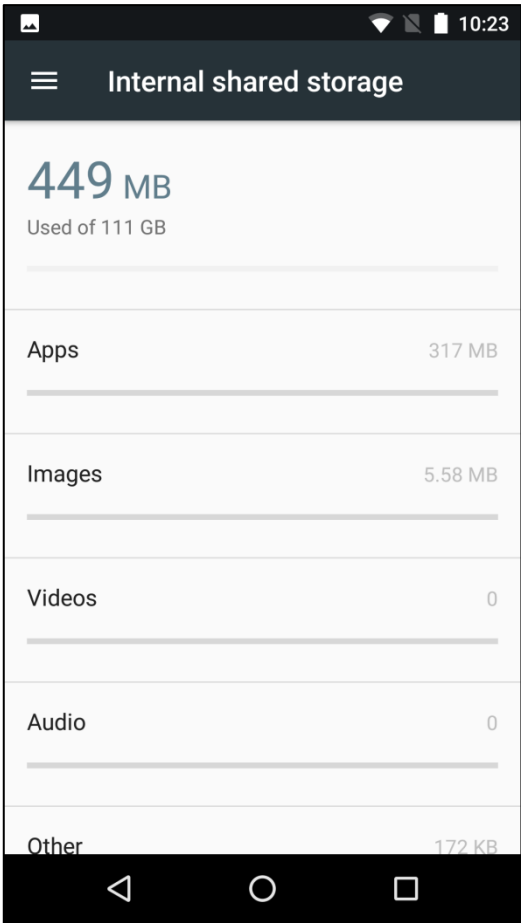


Figure 4-18: Storage Menu

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4.5.8 Battery

The Battery menu displays the battery status and allows enabling the battery saver function.

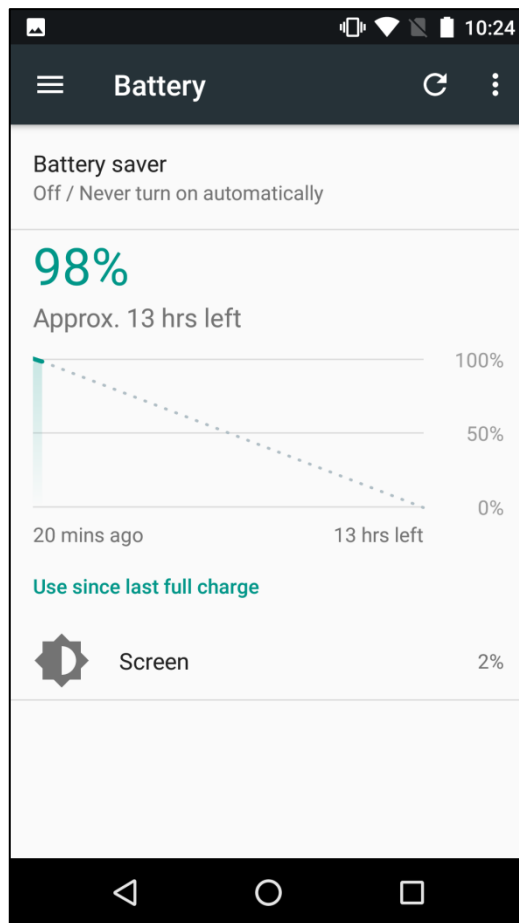


Figure 4-19: Battery Menu

4.5.9 Memory

The Memory menu displays the average memory use and memory used by apps.

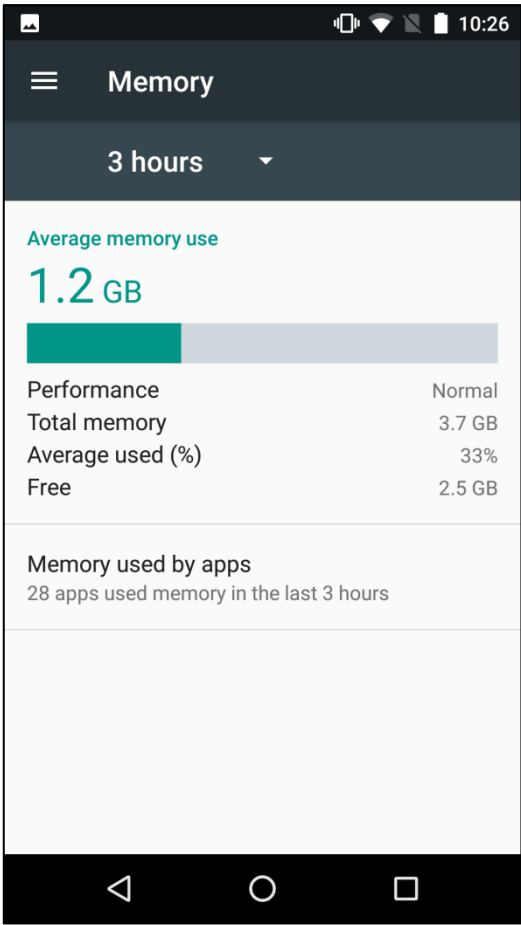


Figure 4-20: Memory Menu

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4.5.10 Users

The Users menu allows you to add a new user profile and emergency information.

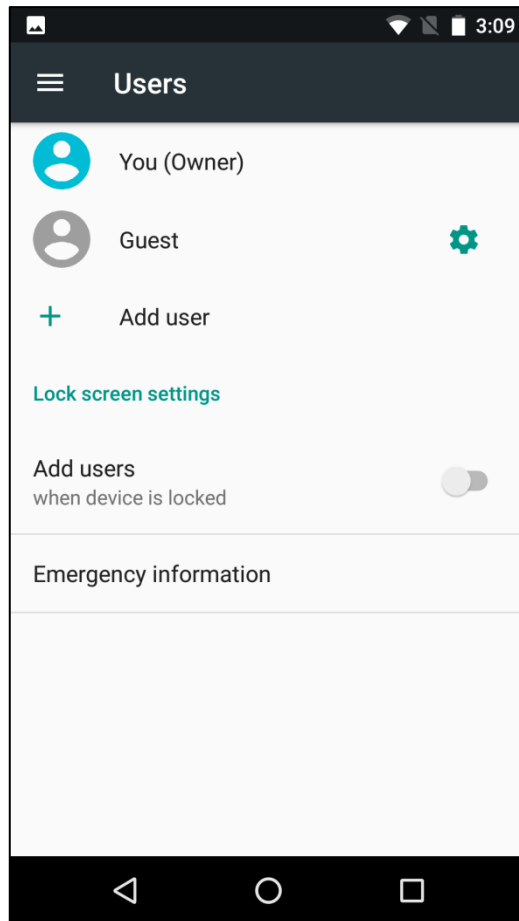


Figure 4-21: Users Menu

4.5.11 DuraSpeed

Use the DuraSpeed menu to enable or disable the DuraSpeed function which helps boost the foreground app by restricting background apps.

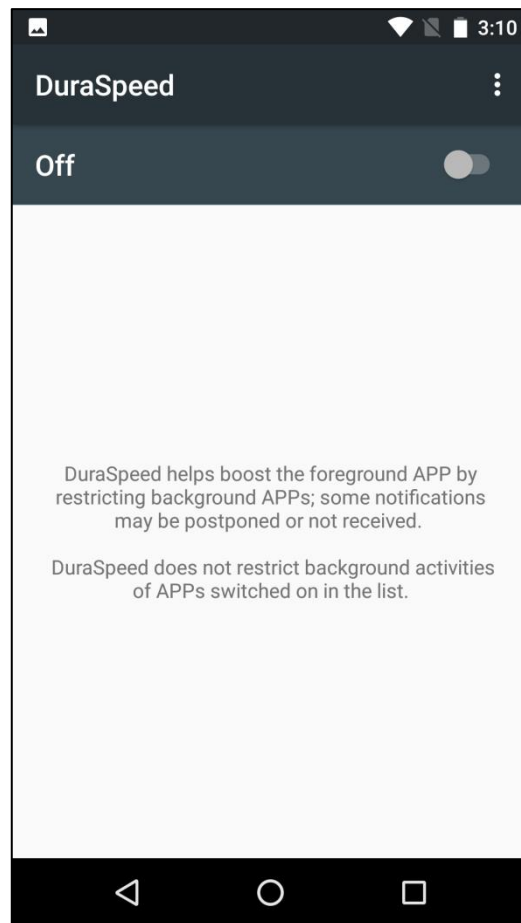


Figure 4-22: DuraSpeed Menu

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4.5.12 Location

Use the Location menu to turn on the location access function so that the apps can obtain the user's location information. When this function is turned on, the user can decide the method to determine the user's location.

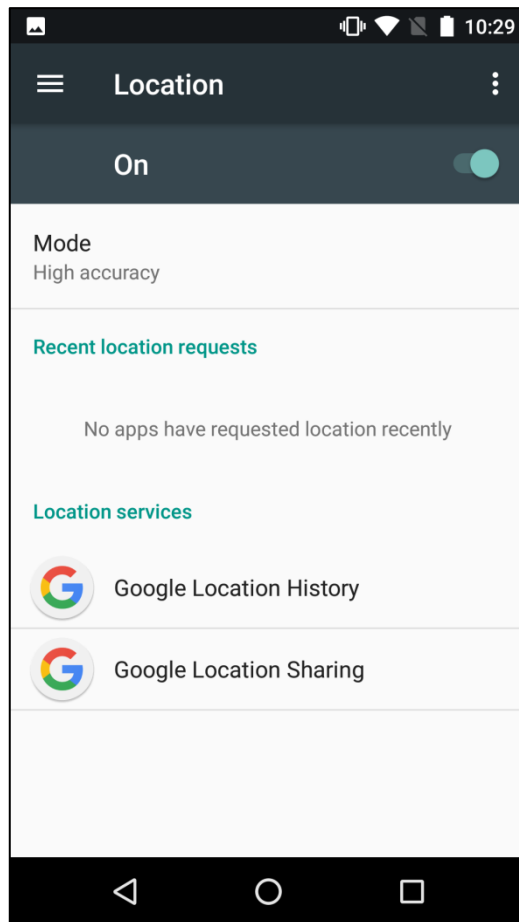


Figure 4-23: Location Menu



4.5.13 Security

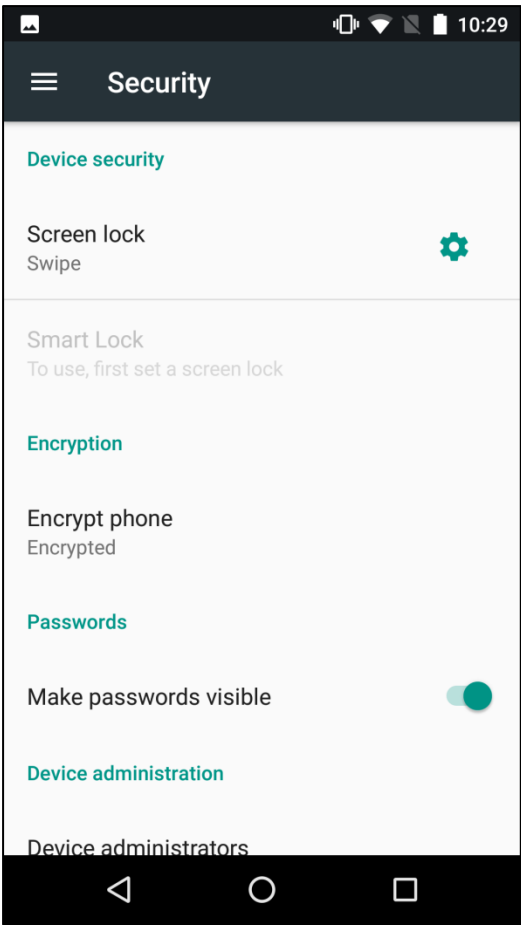


Figure 4-24: Security Menu

Use the Security menu to configure the following items.

- **Screen lock:**
Sets up the way to unlock the screen.
- **Encrypt phone:**
Once this item is enabled, the user will need to enter the numeric PIN, password or pattern that have been set up to decrypt the MODAT-550A each time when powering on.
- **Make passwords visible:**
Enables to show password when typing.



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- **Device administrators:**
Views or deactivates the device administrators.
- **Unknown sources:**
Enables to allow installation of applications from unknown sources.
- **Data protection:**
Taps to protect the selected data from unwanted access.
- **Credential storage:**
In the Credential storage field, the user can manage the CA certificates and install certificates from the phone storage.
- **Trust agents:**
Taps to view or deactivate trust agents.
- **Screen pinning:**
When this function is turned on, the user can keep the current screen in view until the user disables this function.
- **Apps with usage access:**
Taps to manage the apps with usage access.

4.5.14 Accounts

Tap **Add account** to start setting up an e-mail or corporate account.

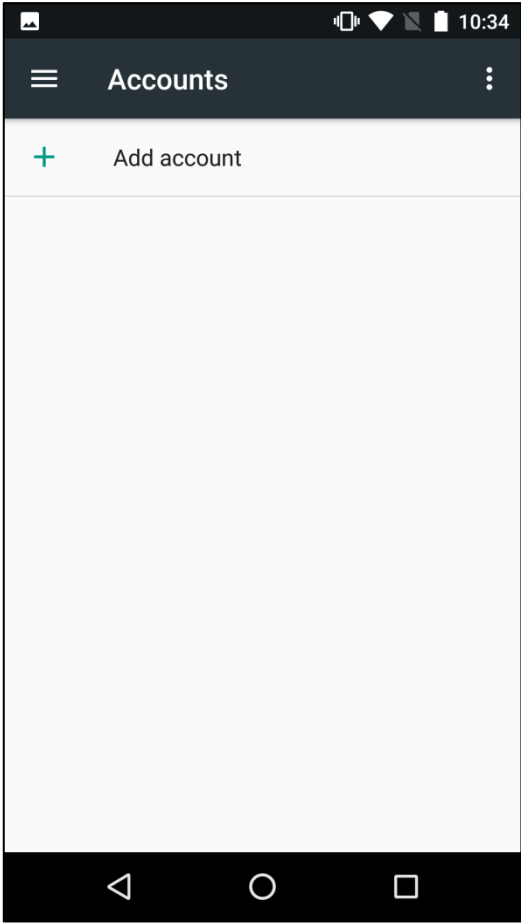


Figure 4-25: Accounts Menu

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4.5.15 Language & Input

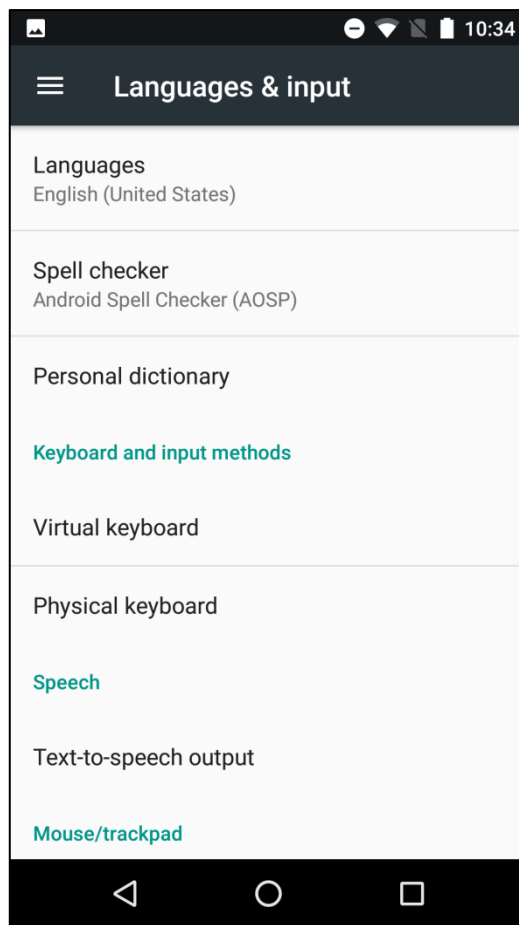


Figure 4-26: Language & Input Menu

Use the Language & input menu to configure the following items.

- **Language:**
Sets up the language for MODAT-550A.
- **Spell checker:**
Allows the user to enable the spell checking function and to configure its settings.
- **Personal dictionary:**
Configures the user dictionary.
- **Keyboard & input methods:**
Sets up the input methods.

- **Text-to-speech output:**
Configures the text-to-speech settings.
- **Pointer speed:**
Sets up the pointer speed.

4.5.16 Backup & Reset

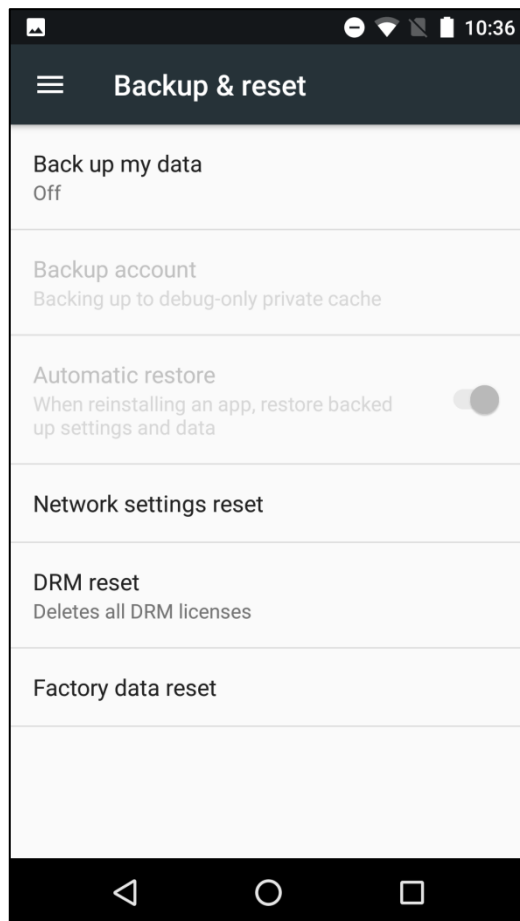


Figure 4-27: Backup & Reset Menu

Use the Back & reset menu to configure the following items.

- **Back up my data:**
Enable or disable to back up app data, Wi-Fi passwords and other settings to Google server.
- **Network settings reset:**
Resets all network settings, including Wi-Fi, Cellular data and Bluetooth.

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- **DRM reset:**
Deletes all the DRM licenses on the MODAT-550A.
- **Factory data reset:**
Erases all data from the internal storage of the MODAT-550A.

4.5.17 Date & Time

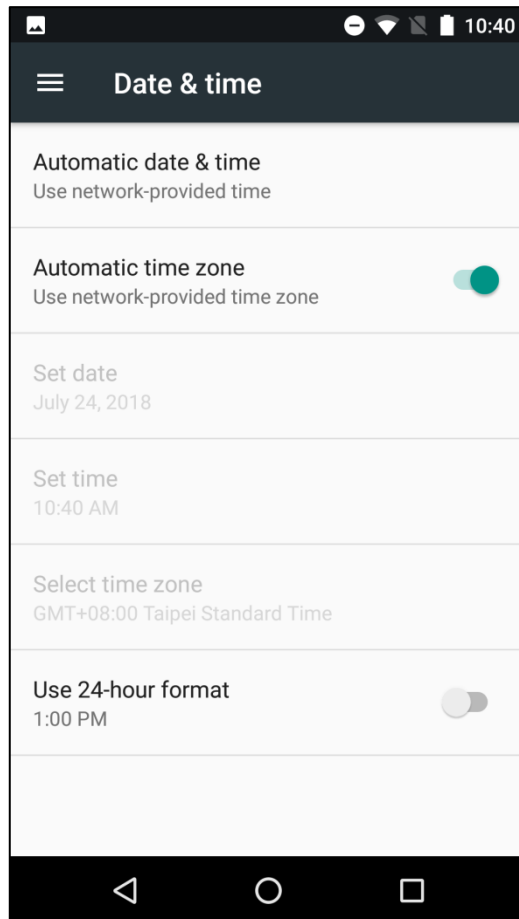


Figure 4-28: Date & Time Menu

Use the Date & time menu to configure the following items.

- **Automatic date & time:**
Turns on to use the network-provided or GPS-provided time.
- **Automatic time zone:**
Turns on to use the network-provided time zone.

- **Set date:**
Sets up the system date. This item is available only when the **Automatic date & time** item is set to **Off**.
- **Set time:**
Sets up the system time. This item is available only when the **Automatic date & time** item is set to **Off**.
- **Select time zone:**
Sets up the time zone. This item is available only when the **Automatic time zone** item is disabled.
- **Use 24-hour format:**
Turns on to use the 24-hour format.

4.5.18 Accessibility

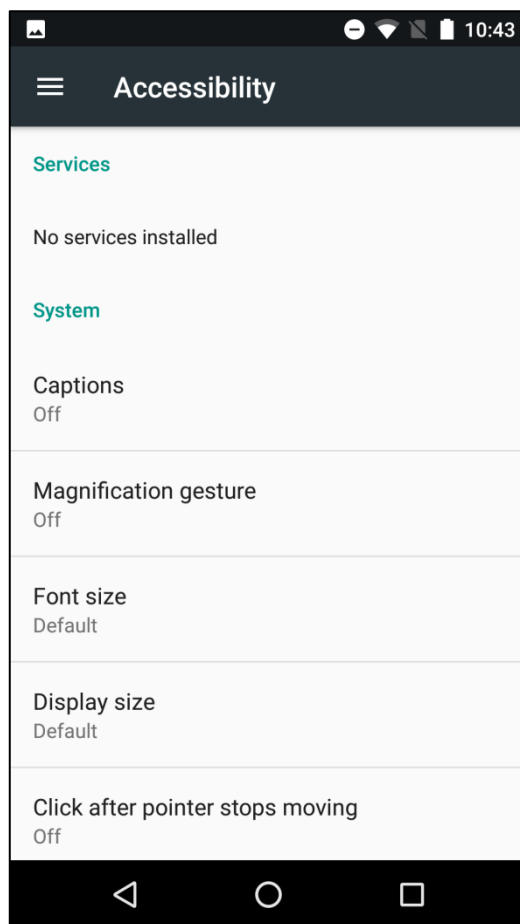


Figure 4-29: Accessibility Menu

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Use the Accessibility menu to configure the following items.

- **Services:**
Displays the accessibility services that have been installed.
- **Captions:**
Turns on/off the caption function and configures its settings.
- **Magnification gestures:**
Enables to zoom in and out by triple-tapping the screen.
- **Font size:**
Sets up the font size.
- **Display size:**
Sets up the item size on the screen.
- **Click after pointer stops moving:**
Turns on or off the automatic click function.
- **High contrast text:**
Turns on to display text in high contrast level.
- **Power button ends call:**
Turns on to set the power button to end calls.
- **Auto-rotate screen:**
Turns on or off the auto-rotate function of the screen.
- **Speak passwords:**
Turns on or off the speak password function.
- **Large mouse pointer:**
Turns on or off the large mouse pointer.
- **Mono audio:**
Enable or disable to combine channels when playing audio.
- **Accessibility shortcut:**
Turns on to allow quickly enabling the accessibility features.
- **Text-to-speech output:**
Configures the text-to-speech settings.
- **Touch & hold delay:**
Configures the touch & hold delay settings.
- **Color inversion:**
Turns on or off the color inversion function.



- **Color correction:**
Turns on or off the color correction function.

4.5.19 Printing

The Printing menu allows managing the printing services installed on the MODAT-550A.

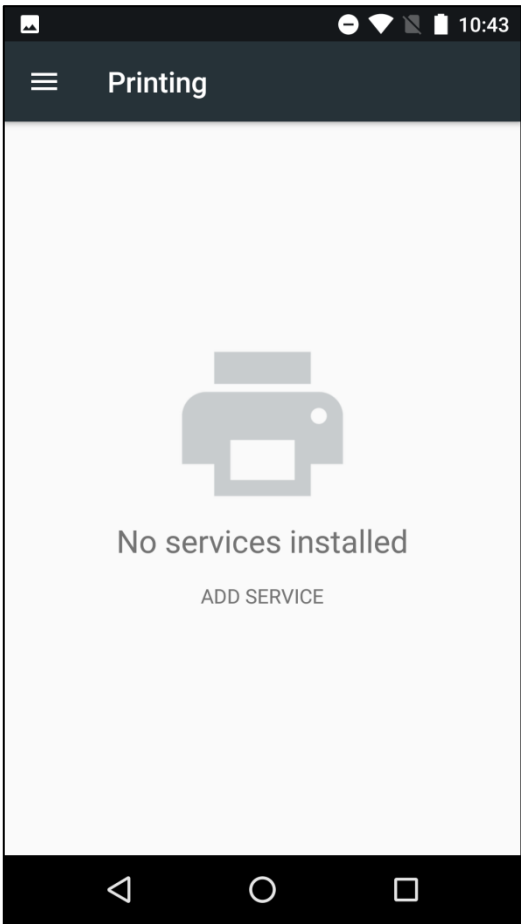


Figure 4-30: Printing Menu



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4.5.20 Scheduled Power On & Off

The Scheduled power on & off menu allows the user to set up a power-on/off schedule.

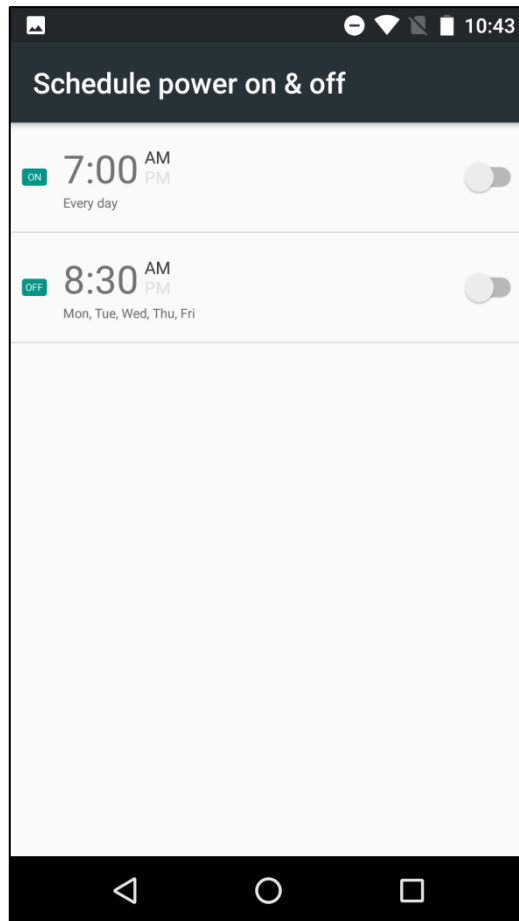


Figure 4-31: Scheduled Power On & Off Menu

4.5.21 About Phone

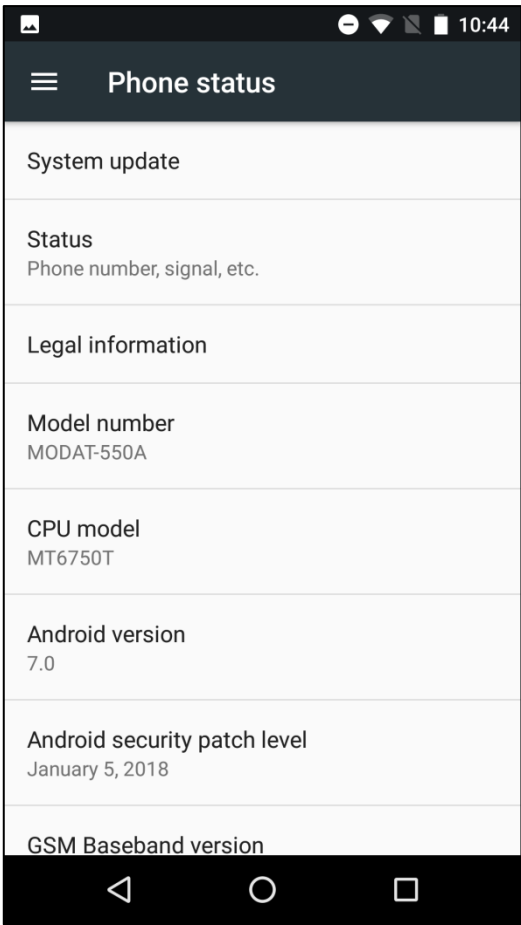


Figure 4-32: About Phone Menu

Use the About phone menu to check for new versions of system software and display the following items.

- **System update:**
Taps to check for new version of system software.
- **Status:**
Taps to display the status of batteries, network, signal, etc.
- **Legal information:**
Taps to display the legal information.
- **Model number:**
Displays the model number.

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- **CPU model:**
Displays the CPU model.
- **Android version:**
Displays the Android OS version.
- **Android security patch level:**
Displays the Android security patch level.
- **Kernel version:**
Displays the kernel version.
- **Build number:**
Displays the build number.
- **Custom build version:**
Displays the custom build version.

4.6 Camera

The MODAT-550A equips with a 13-megapixel camera with flashlight. Tap **Camera** on the application page to launch it.

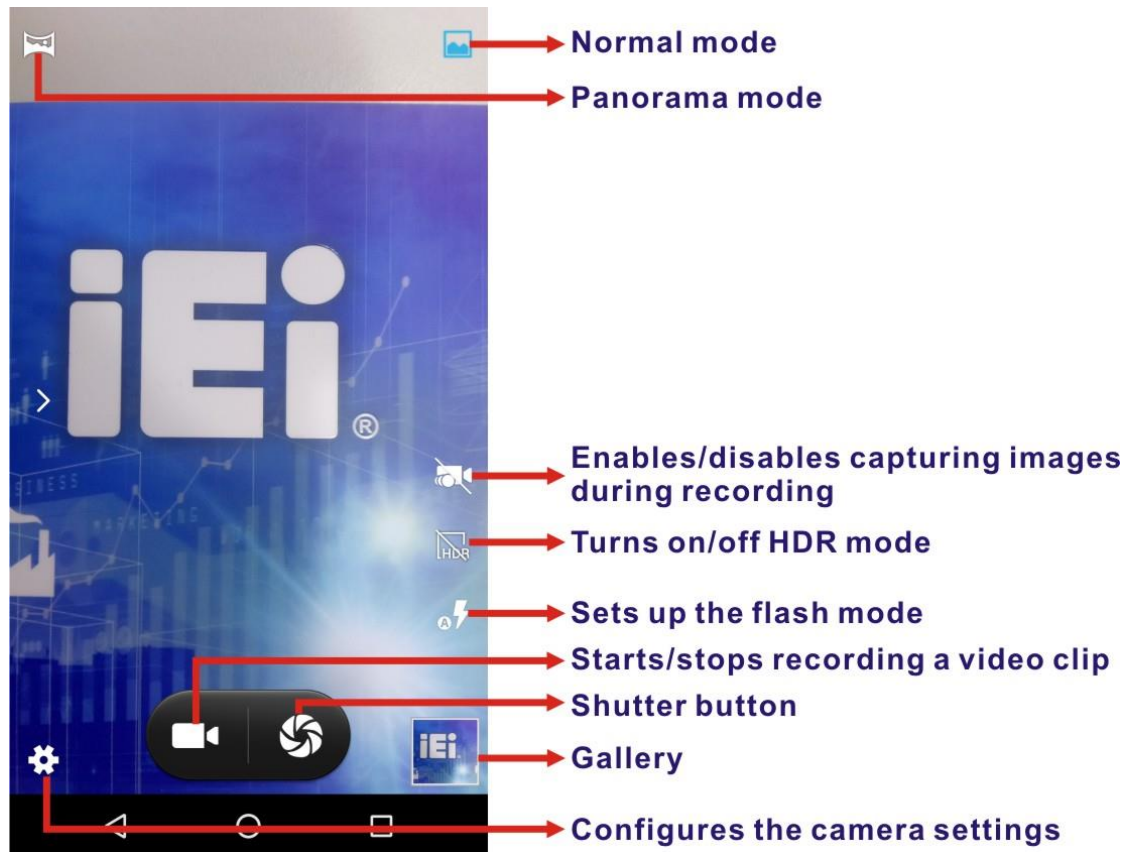


Figure 4-33: Camera Application

Appendix

A

Regulatory Compliance

DECLARATION OF CONFORMITY

This equipment has been tested and found to comply with specifications for CE marking. If the user modifies and/or installs other devices in the equipment, the CE conformity declaration may no longer apply.

FCC WARNING

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

■ FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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■ RF Exposure Information (SAR)

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. *Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with an accessory designated for this product or when used with an accessory that contains no metal and that positions the handset a minimum of 10 mm from the body. Non-compliance with the above restrictions may result in violation of RF exposure guidelines.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines.

Appendix

B

Safety Precautions

MODAT-550A Mobile Data Collector



WARNING:

The precautions outlined in this chapter should be strictly followed. Failure to follow these precautions may result in permanent damage to the MODAT-550A.

B.1 Safety Precautions

Please follow the safety precautions outlined in the sections that follow:

B.1.1 General Safety Precautions

Please ensure the following safety precautions are adhered to at all times.

- ***Follow the electrostatic precautions*** outlined below whenever the MODAT-550A is opened.
- ***Make sure the power is turned off and the power cord is disconnected*** whenever the MODAT-550A is being installed, moved or modified.
- ***Do not apply voltage levels that exceed the specified voltage range.*** Doing so may cause fire and/or an electrical shock.
- ***Electric shocks can occur*** if the MODAT-550A chassis is opened when the MODAT-550A is running.
- ***Do not drop or insert any objects*** into the ventilation openings of the MODAT-550A.
- ***If considerable amounts of dust, water, or fluids enter the MODAT-550A,*** turn off the power supply immediately, unplug the power cord, and contact the MODAT-550A vendor.
- **DO NOT:**
 - Drop the MODAT-550A against a hard surface.
 - Strike or exert excessive force onto the LCD panel.
 - Touch any of the LCD panels with a sharp object
 - In a site where the ambient temperature exceeds the rated temperature

B.1.2 Anti-static Precautions

**WARNING:**

Failure to take ESD precautions during the installation of the MODAT-550A may result in permanent damage to the MODAT-550A and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the MODAT-550A. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the MODAT-550A is opened and any of the electrical components are handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband:*** Wearing a simple anti-static wristband can help to prevent ESD from damaging any electrical component.
- ***Self-grounding:*** Before handling any electrical component, touch any grounded conducting material. During the time the electrical component is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad:*** When configuring or working with an electrical component, place it on an anti-static pad. This reduces the possibility of ESD damage.
- ***Only handle the edges of the electrical component:*** When handling the electrical component, hold the electrical component by its edges.

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B.1.3 Product Disposal

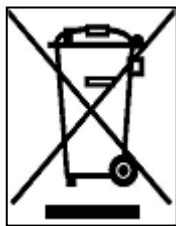


CAUTION:

Risk of explosion if battery is replaced by an incorrect type. Only certified engineers should replace the on-board battery.

Dispose of used batteries according to instructions and local regulations.

- Outside the European Union – If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.
- Within the European Union – The device that produces less waste and is easier to recycle is classified as electronic device in terms of the European Directive 2012/19/EU (WEEE), and must not be disposed of as domestic garbage.



EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow

the guidance of your local authority, or ask the shop where you purchased the product. The mark on electrical and electronic products only applies to the current European Union Member States.

Please follow the national guidelines for electrical and electronic product disposal.

B.2 Maintenance and Cleaning Precautions

When maintaining or cleaning the MODAT-550A, please follow the guidelines below.

B.2.1 Maintenance and Cleaning

Prior to cleaning any part or component of the MODAT-550A, please read the details below.

- Except for the LCD panel, never spray or squirt liquids directly onto any other components. To clean the LCD panel, gently wipe it with a piece of soft dry cloth or a slightly moistened cloth.
- The interior of the MODAT-550A does not require cleaning. Keep fluids away from the MODAT-550A interior.
- Be cautious of all small removable components when vacuuming the MODAT-550A.
- Turn the MODAT-550A off before cleaning the MODAT-550A.
- Never drop any objects or liquids through the openings of the MODAT-550A.
- Be cautious of any possible allergic reactions to solvents or chemicals used when cleaning the MODAT-550A.
- Avoid eating, drinking and smoking within vicinity of the MODAT-550A.

B.2.2 Cleaning Tools

Some components in the MODAT-550A may only be cleaned using a product specifically designed for the purpose. In such case, the product will be explicitly mentioned in the cleaning tips. Below is a list of items to use when cleaning the MODAT-550A.

- ***Cloth*** – Although paper towels or tissues can be used, a soft, clean piece of cloth is recommended when cleaning the MODAT-550A.
- ***Water or rubbing alcohol*** – A cloth moistened with water or rubbing alcohol can be used to clean the MODAT-550A.
- ***Using solvents*** – The use of solvents is not recommended when cleaning the MODAT-550A as they may damage the plastic parts.
- ***Vacuum cleaner*** – Using a vacuum specifically designed for computers is one of the best methods of cleaning the MODAT-550A. Dust and dirt can restrict the airflow in the MODAT-550A and cause its circuitry to corrode.
- ***Cotton swabs*** - Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas.
- ***Foam swabs*** - Whenever possible, it is best to use lint free swabs such as foam swabs for cleaning.

Appendix

C

Hazardous Materials Disclosure



MODAT-550A Mobile Data Collector

The details provided in this appendix are to ensure that the product is compliant with the Peoples Republic of China (China) RoHS standards. The table below acknowledges the presences of small quantities of certain materials in the product, and is applicable to China RoHS only.

A label will be placed on each product to indicate the estimated “Environmentally Friendly Use Period” (EFUP). This is an estimate of the number of years that these substances would “not leak out or undergo abrupt change.” This product may contain replaceable sub-assemblies/components which have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the table on the next page.

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Housing	O	O	O	O	O	O
Display	O	O	O	O	O	O
Printed Circuit Board	O	O	O	O	O	O
Metal Fasteners	O	O	O	O	O	O
Cable Assembly	O	O	O	O	O	O
Fan Assembly	O	O	O	O	O	O
Power Supply Assemblies	O	O	O	O	O	O
Battery	O	O	O	O	O	O
O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011).						
X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011).						



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此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有“环境友好使用期限”的标签，此期限是估算这些物质“不会有泄漏或突变”的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CR(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
壳体	O	O	O	O	O	O
显示	O	O	O	O	O	O
印刷电路板	O	O	O	O	O	O
金属螺帽	O	O	O	O	O	O
电缆组装	O	O	O	O	O	O
风扇组装	O	O	O	O	O	O
电力供应组装	O	O	O	O	O	O
电池	O	O	O	O	O	O
O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求以下。 X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求。						