
M1016

10.1" Healthcare Infotainment Terminal

User's Manual

Version 1.1

FC

CE



2021.04

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Revision History

Version	Release Time	Description
1.0	2019.04	Initial release
1.1	2021.04	Revise 1.5 Specification

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The information in this document is subject to change without prior notice in order to improve the reliability, design and function. It does not represent a commitment on the part of the manufacturer.

Under no circumstances will the manufacturer be liable for any direct, indirect, special, incidental, or consequential damages arising from the use or inability to use the product or documentation, even if advised of the possibility of such damages.

About This Manual

This user's manual provides the general information and installation instructions for the product. The manual is meant for the experienced users and integrators with hardware knowledge of personal computers. If you are not sure about any description in this manual, consult your vendor before further handling.

We recommend that you keep one copy of this manual for the quick reference for any necessary maintenance in the future. Thank you for choosing ARBOR products.

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Declaration of Conformity

CE

The CE symbol on your product indicates that it is in compliance with the directives of the Union European (EU). A Certificate of Compliance is available by contacting Technical Support.

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from ARBOR. Please contact your local supplier for ordering information.

FCC

This device complies with Part 18 of the FCC Rules. Operation is subject to the following two conditions:

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

Any changes or modifications not expressly approved by the guarantee of this device could void the user's authority to operate the equipment.

IEC 60601-1/EN60601-1/EN60601-1-2

This product complies with the system standard IEC 60601-1 Medical Electrical Equipment Part 1: General Requirements for Safety. And therefore, the product is exclusively interconnected with IEC 60601-1 certified equipment in the patient environment. Equipment connected to the analog or digital interfaces of the unit must comply with the respective IEC standards (e.g. IEC 60601-1 for medical equipment). Furthermore all configurations shall comply with the current version of the standard for SYSTEMS IEC 60601-1-1. Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore responsible that the system complies with current version of the requirements of the system standard IEC 60601-1-1. If in doubt, consult the technical service department or your local representative.

RoHS

ARBOR Technology Corp. certifies that all components in its products are in compliance and conform to the European Union's Restriction of Use of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2002/95/EC.

The above mentioned directive was published on 2/13/2003. The main purpose of the directive is to prohibit the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) in electrical and electronic products. Member states of the EU are to enforce by 7/1/2006.

ARBOR Technology Corp. hereby states that the listed products do not contain unintentional additions of lead, mercury, hex chrome, PBB or PBDB that exceed a maximum concentration value of 0.1% by weight or for cadmium exceed 0.01% by weight, per homogenous material. Homogenous material is defined as a substance or mixture of substances with uniform composition (such as solders, resins, plating, etc.). Lead-free solder is used for all terminations (Sn(96-96.5%), Ag(3.0-3.5%) and Cu(0.5%)).

SVHC / REACH

To minimize the environmental impact and take more responsibility to the earth we live, ARBOR hereby confirms all products comply with the restriction of SVHC (Substances of Very High Concern) in (EC) 1907/2006 (REACH --Registration, Evaluation, Authorization, and Restriction of Chemicals) regulated by the European Union.

All substances listed in SVHC < 0.1 % by weight (1000 ppm)

Intended Use

This product is intended for use as an infotainment terminal in medical or healthcare applications.

Symbols Descriptions

The tables below describe the symbols that may appear in the product.



This symbol of “CAUTION” indicates that there is a danger of injury to the user or a risk of damage to the product, should warning notices be disregarded.



This symbol indicates electrical warning.



Refer to the user manual for more information.

Important Safety Instructions

Read these safety instructions carefully:

1. Read all cautions and warnings on the equipment.
2. Place this equipment on a reliable surface when installing. Dropping it or letting it fall may cause damage
3. Make sure the correct voltage is connected to the equipment.
4. To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
5. For pluggable equipment, the socket outlet should be near the equipment and should be easily accessible.
6. Keep this equipment away from humidity.
7. Disconnect this equipment from the A/C outlet before cleaning it. Use a moist cloth. Do not use liquid or sprayed detergent for cleaning.
8. To fully disengage the power to the unit, please disconnect the power from the AC outlet.
9. Do not scratch or rub the screen with a hard object.
10. Never use any of the solvents, such as Thinner Spray-type cleaner, Wax, Benzene, Abrasive cleaner, Acid or Alkaline solvent, on the display. Harsh chemicals may cause damage to the cabinet and the touch sensor.

11. Remove dirt with a lightly moistened cloth and a mild solvent detergent. Then wipe the cabinet with a soft dry cloth.
12. The openings on the enclosure are for air convection and protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
13. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
14. If the equipment will not be used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
15. Never pour any liquid into openings. This may cause fire or electrical shock.
16. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
17. No modification of the equipment is allowed.
18. Only personnel authorised by the manufacturer may carry out technical operations on the equipment.
19. If one of the following situations arises, get the equipment checked by service personnel:
 - a. The power cord or plug is damaged.
 - b. Liquid has penetrated into the equipment.
 - c. The equipment has been exposed to moisture.
 - d. The equipment does not work well, or you cannot get it to work according to the user's manual.
 - e. The equipment has been dropped or damaged.
 - f. The equipment has obvious signs of breakage.
17. The sound pressure level at the operator's position, according to IEC 704-1:1982, is no more than 70dB(A).
18. Keep this User's Manual for later reference.
19. **DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS MAY DAMAGE THE EQUIPMENT.**



Do not use the power adapter that isn't made for the equipment. Supplying the equipment with inappropriate voltage may cause harm to the battery (if any) or, even worse, burn the equipment.



Risk of explosion if RTC (Real-Time Clock) battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.



To prevent possible hearing damage, do not listen at high volume levels for long periods

General Cleaning Tips

You may need the following precautions before you begin to clean the device. When you clean any single part or component for the device, please thoroughly read and understand the details below.

1. We strongly recommended that you should shut down the system before you start to clean any single components.
2. When you need to clean the device, please rub it with a piece of dry cloth.
3. Be cautious of the tiny removable components when you use a vacuum cleaner to absorb the dirt on the floor.
4. Never drop the components inside the device or get circuit board damp or wet.
5. Be cautious of all kinds of cleaning solvents or chemicals when you use it for the sake of cleaning. Some individuals may be allergic to the ingredients.
6. Try not to put any food, drink or cigarette around the device.

Cleaning Tools

Although many companies have created products to help improve the process of cleaning your devices and peripherals, users can also use household items to clean their devices and peripherals. Below is a listing of items you may need or want to use while cleaning your devices or peripherals. Keep in mind that some components in your device may only be able to be cleaned using a product designed for cleaning that component, if this is the case it will be mentioned in the cleaning.

- **Cloth:** A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, we still recommend you to rub it with a piece of cloth.
- **Water or rubbing alcohol:** You may moisten a piece of cloth a bit with some water or rubbing alcohol and rub it on the device. Unknown solvents may be harmful to the plastics parts.
- **Vacuum cleaner:** Absorb the dust, dirt, hair, cigarette particles, and other particles out of the device can be one of the best cleaning methods. Over time, these items can restrict the airflow in a device and cause circuitry to corrode.
- **Cotton swabs:** Cotton swabs moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and other locations.
- **Foam swabs:** Whenever possible, it is better to use lint-free swabs such as foam swabs.

Recommended Cleaning Procedures

1. Close all application programs
2. Close operating software
3. Turn off the equipment
4. Remove all peripherals
5. Disconnect the power cable
6. Proceed to clean.

Disposing of the Equipment

- **Within the European Union**



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, or if applicable, follow any agreements made between yourself. The mark on electrical and electronic products only applies to the current European Union Member States.

- **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.

Additional Information & Technical Support

All ARBOR products are built to the most accurate specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new equipment is destined for the laboratory or the factory floor, you can be assured that the computer will provide the reliability and ease of operation. Your satisfaction is our primary concern. We want you to get the maximum performance from the computer. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in the computer's documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from the computer. In fact, most problems reported are minor and are able to be easily solved over the phone. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products. Do not hesitate to contact us using the following contact information:

Website: <http://www.arbor-technology.com>

TEL: 886-2-8226-9396

Add: 10F., No.700, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235,
Taiwan

Warranty

This product is warranted to be in good working order during the warranty period. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster.

Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Vendor will not be liable for any claim made by any other related party.

Vendors disclaim all other warranties, either expressed or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose, with respect to the hardware, the accompanying product's manual(s) and written materials, and any accompanying hardware. This limited warranty gives you specific legal rights.

Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.

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Chapter 1

Introduction

1.1 Product Highlights

This medical terminal, M1016, is a 10.1" Android based ultra flat medical terminal fits easily in multiple healthcare environments. Featuring 2MP front-facing camera, built-in microphone, speaker & headset support and versatile network capabilities of LAN, Wi-Fi and Bluetooth, the terminal not only provides multimedia entertainment for patients but also serves as an ideal platform for patient-clinician communication. Optional NFC/RFID module helps to facilitate the ease of identity verification for access control and medical payment transactions. With regard of medical safety, the terminal meets the IEC60601-1 (Edition 3.1), EN60601-1 (Edition 3.1) and EN60601-1-2 (Edition 4th) medical regulations. On top of that, the leading-industry adoption of a magnetic RJ-45 connector eliminates the possibility of tripping over a network cable, further enhancing patient safety and care.



- Quad-Core ARM Cortex-A35 CPU 1.5G Hz, Android-based
- Bedside infotainment and medical thin-client application
- 10.1" LCD display
- 10-point Projected Capacitive Multi-Touch
- H.265/HEVC Video Decode
- IEC & EN 60601-1 (Edition 3.1) and IEC & EN 60601-1-2 (Edition 4th) certified
- PoE connectivity (PD)
- Operating temperature: 0~40°C

1.2 Package Contents

Upon opening the package, carefully inspect the contents. If any of the items is missing or appears damaged, contact your local dealer or distributor. The package should contain the following items:



1 x 10.1" Medical Terminal



1 x Quick Start Guide

Optional Accessories



PAC-M025W, 25W medical-grade AC/DC adapter kit

Optional Configuration (CTOS Kit*)



RFID & NFC-1016, RFID & NFC module kit

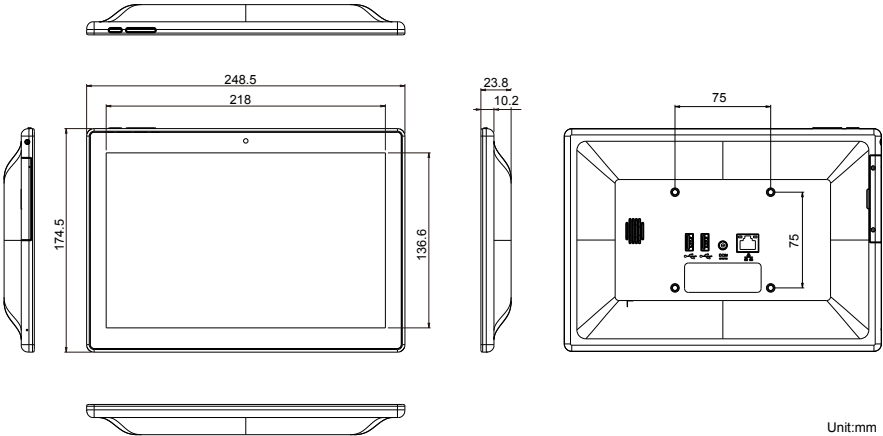
*Not Sold Separately

1.3 Ordering Information

M1016

10.1" terminal with projected capacitive touchscreen, Wi-Fi and front camera

1.4 Dimensions



1.5 Specifications

System	
CPU	ARM Quad-Core Cortex-A35 1.5GHz (SoC)
GPU	Mali-G31 MP2
Memory	2GB DDR4 memory soldered on board
Storage	16GB eMMC Flash soldered on board
Peripherals and Devices	
Camera	2MP front-facing camera
WLAN & Bluetooth	1 x WLAN 802.11 a/b/g/n/ac & Bluetooth 5.0 + BLE
RFID & NFC	1 x 13.56MHz RFID & NFC reader with ISO 14443A/14443B/15693 support (optional)
I/O Interface	
SD Card	1 x microSDHC/microSD card socket (hidden) (Max. 32GB)
Audio	1 x 3W stereo speaker 1 x 3.5mm earphone jack 1 x built-in microphone
LAN	1 x RJ-45 10/100M with PoE PD support

USB Port	2 x USB 2.0 Type-A ports
	1 x OTG micro-USB 2.0 (hidden)
Button & Indicator	
Button	1 x Power on/off button
	2 x Volume up/down buttons
	1 x Reset button (hidden)
LED	Green: DC Jack
	Orange: PoE
Touch Screen	
Type	10-point Projected Capacitive Multi-Touch
LCD Display	
Size/Type	10.1" TFT, LVDS type
Max. Resolution	1280 x 800 (WXGA)
Contrast Ratio	800:1 (typ.)
Backlight Type	LED
Brightness	350 cd/m ² (Typ.)
View Angle (U/D/R/L)	85°/85°/85°/85° (typ.)
Video Streaming	
UDP Streaming	Support multicast UDP stream decode
RTSP Streaming	Support RTSP stream decode
HLS Streaming	Support HLS stream
Power Requirement	
Power Input	PoE input or Power adaptor input
Adapter Input	100 ~ 240 VAC (full range)
Adapter Output	DC 12V, 2.5A
Mechanical & Environmental	
Operating Temp.	0 ~ 40°C (32 ~ 104°F)
Storage Temp.	-5 ~ 60°C (23 ~ 140°F)
Operating Humidity	10 ~ 80 % @ 40°C (non-condensing)

Introduction

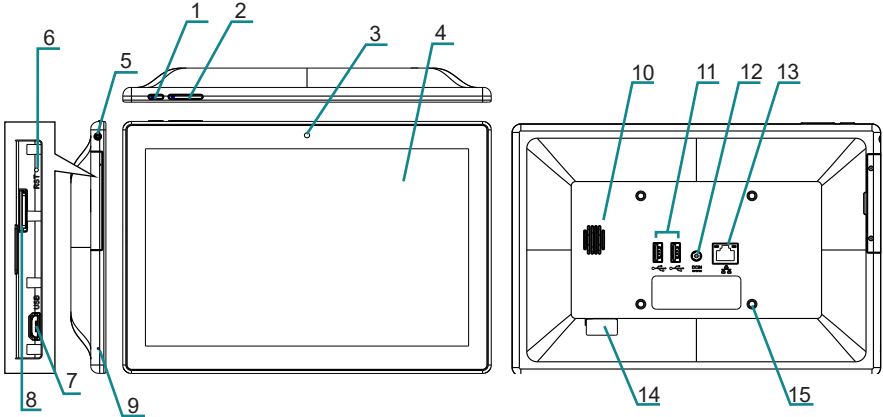
Dimensions (W x H x D)	248.5 mm x 174.5mm x 23.8 mm (9.78" x 6.87" x 0.94")
Net Weight	623g (1.38lb)
Vibration	1 Grms/ 5 ~ 500Hz/ random operation
Shock	10G/ peak (11ms)
Mounting	VESA-75 compatible
IP Rating	Compliance design with IP65 (front touch panel)
Operational Altitude	Below 2000m
Regulatory	CE, FCC Part 18 Subpart C
	IEC & EN 60601-1 Safety (Edition 3.1), IEC & EN 60601-1-2 EMC (Edition 4th)
OS Support	
Android™ 8.1	

Chapter 2

Getting Started

2.1 Getting to Know the Terminal

Before starting to use the terminal, get to know it first. This section will quickly familiarize you with the terminal.



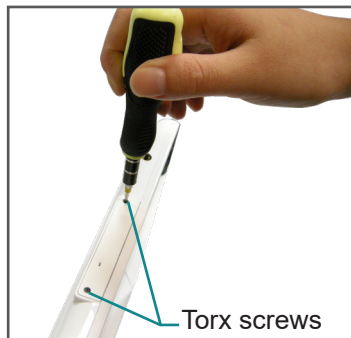
No.	Item	Descriptions
1	Power button	Press-and-hold this key to power on/off the terminal. When the terminal is powered on, press this key to turn on/off the display.
2	Volume control	Press to increase/decrease volume
3	Front camera	2MP front-facing camera
4	Touch screen	A 10-point projected capacitive multi-touch screen allowing users to interact with the terminal without a mouse or keyboard.
5	Headset jack	Line-out. To connect to a headset.
6	Reset	Reset button (covered by a sheet metal) To reset the terminal, insert the end of a paperclip or similar object into the reset hole. Press and then release the button inside to reset the terminal.
7	OTG Micro USB port	On-The-Go (OTG) Micro USB port (covered by a sheet metal) To connect the terminal to a USB peripheral (through an OTG cable) or to a computer.
8	SD card slot	microSD/SDHC card slot (covered by a sheet metal) To insert a microSD/SDHC card.

9	Mic.	A built-in microphone to capture sound and voice when used with a program capable of recording audio.
10	Speaker	Integrated 3W stereo speakers for audio output.
11	USB port	USB 2.0 Type-A port. To connect to a USB device.
12	DC-IN jack	To connect to a power outlet using the provided power adapter.
13	LAN port	<p>10/100M RJ-45 port with PoE support.</p> <p>To connect to a PoE power sourcing equipment (PSE), such as a switch or hub, to provide power to the terminal.</p> <p>As PoE provides both data and power connections in one Ethernet cable, the PoE connection eliminates the need for connecting the DC-IN jack to a power outlet.</p> <p>The RJ-45 connector comes with LED to indicate the power source:</p> <p>Green: Power is supplied from DC power jack.</p> <p>Orange: Power is supplied from PoE.</p>
14	RFID/NFC	RFID/NFC reader (optional)
15	VESA	VESA-75 mounting holes

2.2 Installing the microSD/SDHC Card

The terminal supports microSD/SDHC card of up to 32GB. The microSD/SDHC card slot is on the bottom of the terminal covered by a sheet metal with torx screws. To install a microSD/SDHC card to the terminal:

1. Use a torx screwdriver to loosen and remove the screws securing the sheet metal.

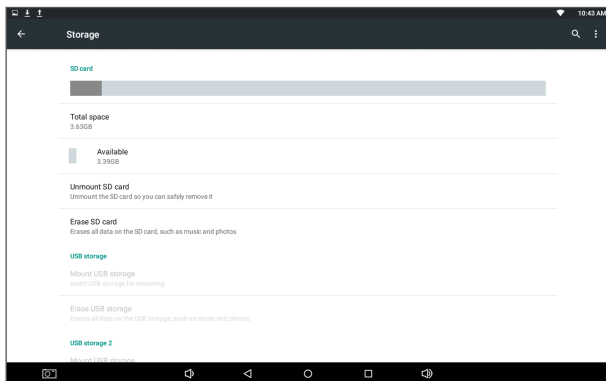


Getting Started

2. Locate the microSD/SDHC card slot and insert your microSD/SDHC card. Firmly insert the card until it is all the way in. The card only fits one direction as shown below.



3. To verify if the card is successfully inserted, tap the **Settings** icon on the home screen and then tap **Device > Storage > SD card**. If the SD card is successfully mounted, you should be able to find the SD card information.

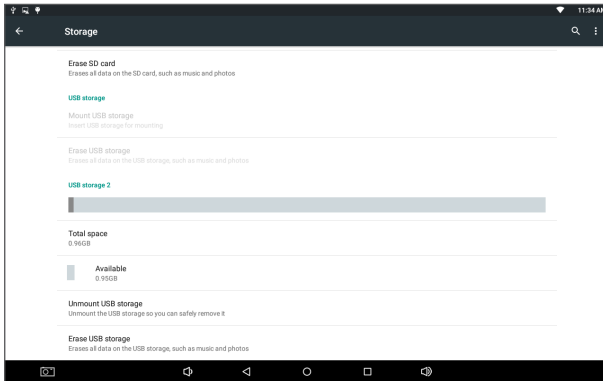


4. Restore the sheet metal cover and secure it with the two torx screws.

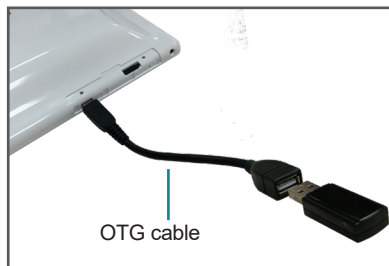
2.3 Connecting USB Peripherals to the Terminal

The terminal comes with two USB ports for connection of USB peripherals (e.g., USB flash drive, keyboard, mouse, printer) to the terminal.

- **USB Type-A port:** To use this port, simply connect the USB peripheral to the USB port on the rear of the terminal. Tap **Settings > Device > Storage > USB Storage 2** and you should be able to find the USB device's information.



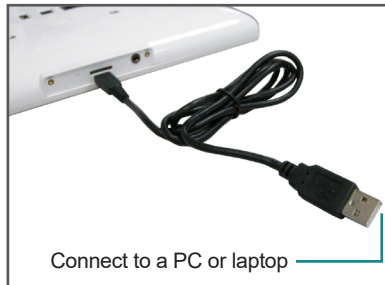
- **OTG Micro USB port:** Alternatively you can use this USB port in case the one on the rear of the terminal has already been occupied. To use this port, you will need an OTG cable (not included) to make the connection as shown below.



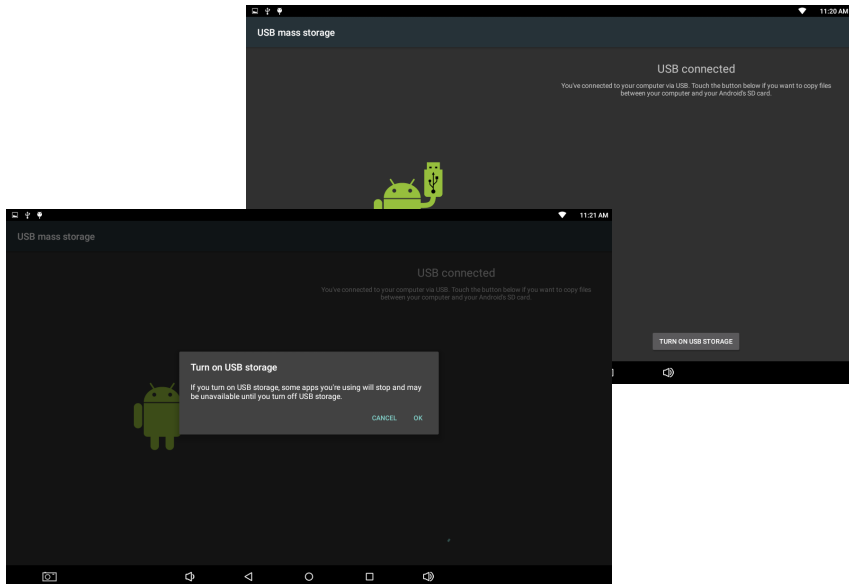
2.4 Connecting the Terminal to a Computer

Using the OTG Micro USB port on the terminal, you can connect the terminal to a computer or laptop for data transfer and update. To do so:

1. Locate the OTG Micro USB port on the bottom of the terminal and use a USB cable (not provided) to connect the terminal to your computer.



2. Upon the connection, the terminal will prompt you to "TURN ON USB STORAGE". Follow the on-screen instructions to proceed.



3. On your Windows computer, the terminal is recognized as a removable storage named **ROCKCHIP**.
4. When you're done transferring files between your computer and the terminal, simply close all programs and disconnect the USB cable.

2.5 Connecting to a Local Area Network

The terminal comes with a LAN port allowing you to connect the terminal to a wired local area network. The LAN port supports PoE, a standard that transmits power and data through one Ethernet cable. If you connect it to a PoE network equipment, then you don't need to connect the DC IN jack to a power outlet.

To connect the terminal to a wired network:

1. Using a Ethernet cable, connect one end to the LAN port on the rear of the terminal.
2. Connect the other end of the Ethernet cable to a hub, switch or router.

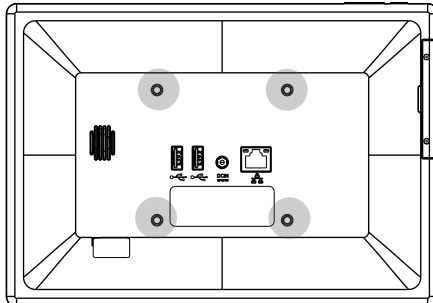
With the LAN port connected to a network, you should configure the network settings as needed according to your network environment. For more information, see [3.4 Using the Ethernet Feature](#) on page [23](#).

2.6 Attaching to a VESA Mount

The terminal supports 75mm M4 VESA mount so you can attach the terminal to a VESA mount kit.

To attach the terminal to a VESA mount kit:

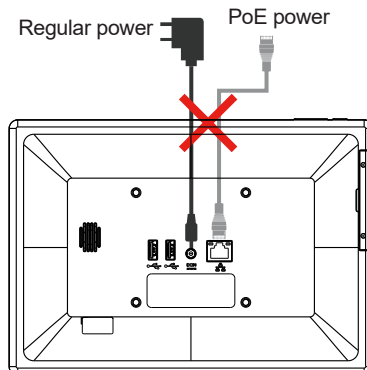
1. Locate the four VESA mounting holes on the rear of the terminal.



2. Attach your VESA mount kit to the rear of the terminal by matching the mounting holes with the VESA mount kit.
3. Fix the assembly with screws.

2.7 Connecting to a Power Source

Caution: The terminal can be powered through PoE or 12V DC. You should use either one as the power source. Please do not apply both at the same time, otherwise the terminal will be damaged.



2.7.1 Connecting to AC Power

To connect the terminal to AC power:

1. Locate the **DC-IN** jack on the rear of the terminal. Plug the DC cord of the power adapter into the **DC-IN** jack.
2. Plug one end of the AC power cord into the AC adapter and the other end into an electrical outlet.

Make sure to use the AC power adapter supplied with the terminal. The power adapter specification is as below:

Item	Descriptions
Brand	FSP TECH.
Model	FSP030M-KHM-U
Input	100~240V, 50~60Hz
Output	12V, 2.5A, 30W Max.

Warning: Use only the power adapter that comes with your terminal. Using a different power adapter may damage the terminal and invalidate warranty applying to the terminal.

2.7.2 Connecting to a PoE PSE

If the power source is PoE PSE, connect the Ethernet cable (not provided) to the terminal's LAN port and a PoE-capable router or switch.

As PoE transmits both data and power in one Ethernet cable, if you are using the PoE connection, there is no need for connecting the DC-IN jack to a power outlet.

2.8 Powering On the Terminal

Press and hold the power button on the right side of the terminal to turn on the terminal.

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Chapter 3

Using the Medical Terminal

3.1 Using the Touch Screen

The terminal comes with a projected capacitive multi-touch screen. Touch control is the main way to interact with the terminal. Users are able to manipulate icons, graphic buttons, menus, the on-screen keyboard or any on-screen items with touch control. This chapter will walk you through the basic operations.

3.1.1 Basic Operations

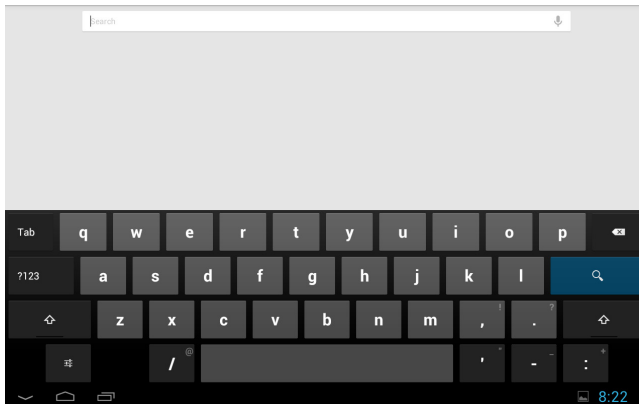
The table below provides instructions on how to use the multi-touch screen:

Operation	Descriptions
Tap	Tap an item and quickly release to select an item, launch an application, or open a menu.
Tap and hold	Tap and hold an item or a blank area on the screen for a few seconds until a menu opens or an option appears.
Drag	Tap and hold on an item, such as an image or an icon, then move it to the target position. While dragging, do not release until you have reached the target position.
Swipe	Move your finger horizontally or vertically across the screen to scroll through the screen, App menu, pages, lists and so on.
Zoom in / out	Move two fingers closer together on an item, such as a picture, web page, or map, to zoom out, or move two fingers apart to zoom in.
Double tap	For some applications, quickly tap twice on an item to zoom in and double-tap again to zoom out.

3.1.2 Text Input

The terminal doesn't have a physical keyboard to receive user's text input. To input text on the device, it relies on the "on-screen keyboard" featured by the operating system. An "on-screen keyboard" is a virtual keyboard with most of the standard keys.

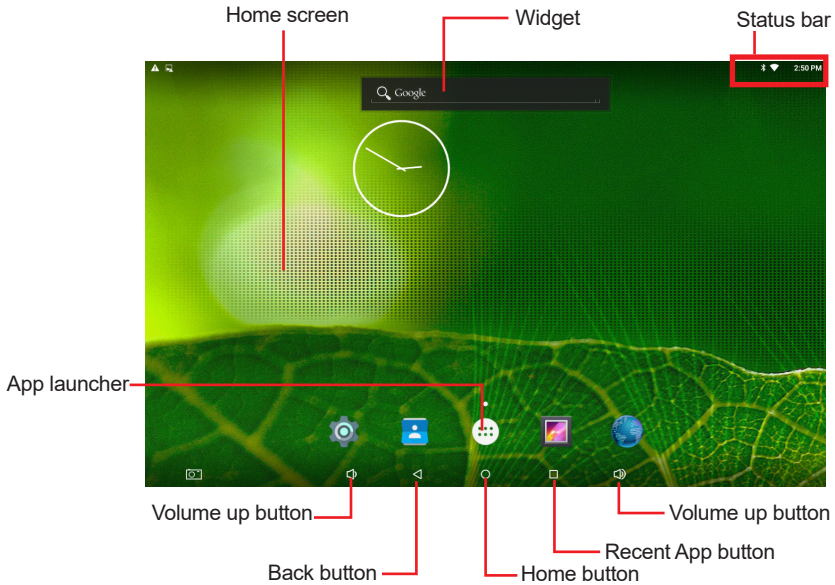
To open the on-screen keyboard, simply tap a text input field and the keyboard appears.



3.2 Home Screen

For M1016, the **Home** screen provides you with an instant access to device status, notifications, application shortcuts, folders and widgets. Simply tap an item and you can launch the associated application. You can also add desired items to the **Home** screen, extend the **Home** screen or personalize the wallpaper to tailor it to your personal needs.

When you power on the terminal for the first time, a typical **Home** screen might look like the example below:



The table below describes the elements on a typical **Home** screen:


Element	Descriptions
Status Bar	<p>The Status Bar displays these information:</p> <ul style="list-style-type: none"> • The system time • Wi-Fi signal strength • Ethernet connection status • Bluetooth connection status <p>You can access the notification panel to see more information by swiping up the status bar.</p>
Notifications Area	<p>The Notifications Area informs you of new messages, events, alarms, and activities in progress. Applications you install on your device may show their own icons or messages in the area.</p> <p>You can turn off the notifications via the Quick Settings panel. See 3.3 Accessing the Settings Screen on page 22 for details.</p>
Home Screen	<p>Tap an item on this screen to launch that item.</p> <p>To delete an icon or widget, tap and hold that item until the remove symbol X appears on the top of the screen. Then move the icon to the X symbol.</p> <p>Tap and hold any empty spot on this screen to customize your home screen.</p>
Widget	<p>The miniature of an application that functions directly on the Home screen.</p>
App Launcher	<p>Tap it to open the App Launcher where all applications and widgets installed on the terminal can be viewed and launched.</p> <p>You can also touch and hold an application's icon to drag and drop it onto the Home screen.</p>
Back Button	<p>Tap to go to previous screen.</p>
Home Button	<p>Tap to return to Home screen.</p>
Recent App Button	<p>Tap to view your recent Apps and touch an App to reopen it. To remove an App from the list, swipe it left or right.</p>

3.2.1 Extending Home Screen

The **Home** screen is extended beyond the screen width to provide more space for adding application shortcuts and widgets.


To access the extended **Home** screen, swipe on the **Home** screen to the left or right.

To add application icons or widgets to the extended **Home** screen:

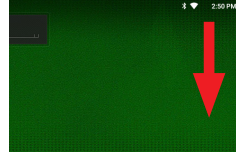
1. Tap the **App Launcher** icon  on the **Home** screen to locate the target application icon or widget.
2. Tap and hold the target icon or widget until the extended **Home** Screen appears.
3. Move the icon or widget to desired screen and then release.

3.3 Accessing the Settings Screen

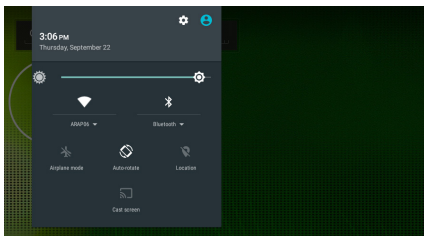
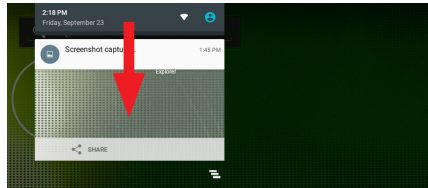
Swiping down the status bar will bring up a **Notification** panel where you can quickly access recent notifications. Swipe down the panel again to bring up the **Quick Settings** panel where you can perform these tasks:

- Tap the Settings icon  to access the **Settings** screen
- Adjust the screen brightness
- Tap the Wi-Fi icon to access the Wi-Fi settings screen
- Tap the Bluetooth icon to access the Bluetooth settings screen
- Turn on/off airplane mode
- Turn on/off auto-rotate screen function
- Tap the location icon to enable/disable the location function
- Tap the cast screen to transmit the device's screen to a Chromecast dongle

Swiping down the status bar brings up the **Notification** panel.




Swiping down the notification panel brings up the **Quick Settings** panel.

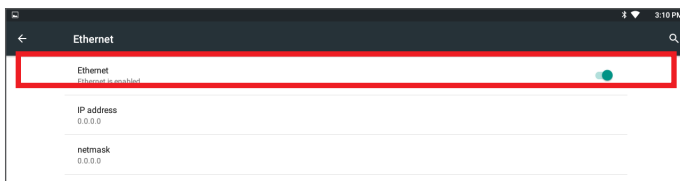


Quick Settings Panel

3.4 Using the Ethernet Feature

If the terminal is connected to a network through the LAN port, you will need to configure the network settings according to your network environment. To configure the network settings:

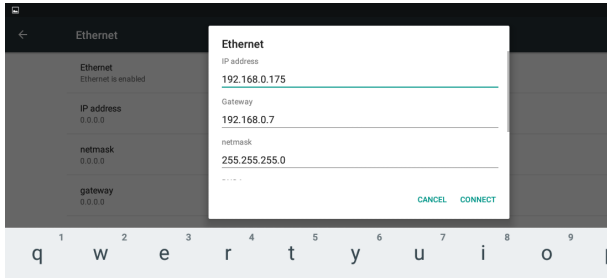
1. Tap the **Settings** icon on the home screen and then tap **Ethernet** to access the **Ethernet** settings page.
2. Switch on Ethernet if it isn't enabled yet. The status bar displays the  icon when the Ethernet function is enabled.



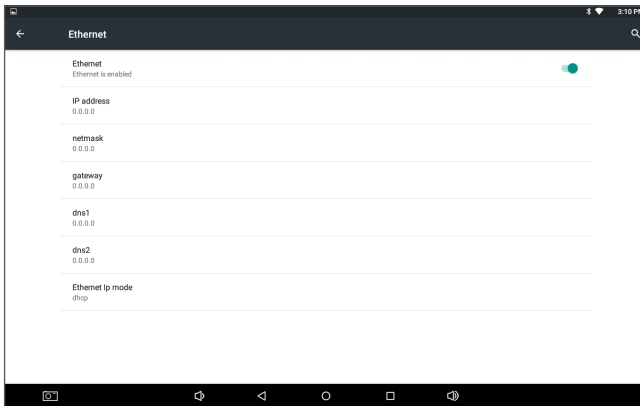
3. Configure the network settings as needed:


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To use a static IP address, tap **Ethernet IP mode**. Select **static** and then configure the required settings. When you're done with the settings, tap **CONNECT**.



To obtain a dynamic IP address from a DHCP server, tap **Ethernet IP mode** and select **dhcp**. Then you will be taken back to the previous screen.



4. When you're done with the network settings, the terminal will connect to the network and displays the  icon in the status bar.


3.5 Using the Wi-Fi Feature


The terminal is capable of Wi-Fi networking. Wi-Fi is a wireless networking technology that uses an access point, also known as the “hotspot”, to connect to an Internet service provider over the wireless local area network (WLAN). Some hotspots are open to connect while others request you to present a key


to authenticate your connection. The terminal needs to be configured including such key to connect to a hotspot.

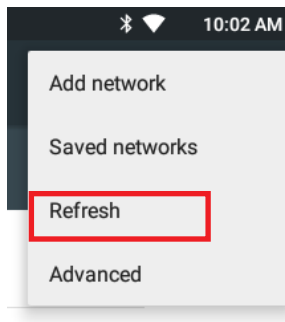
Follow the guide below to connect the terminal to your wireless local area network:

3.5.1 Enabling Wi-Fi and Connecting to a WLAN

1. Tap the **Settings** icon on the home screen and then tap **Wi-Fi** to access the Wi-Fi settings page.
2. Switch on Wi-Fi if it isn't enabled yet. The status bar displays the  icon when the wireless function is enabled.

The device then proceeds to scan for available Wi-Fi networks in range and displays the names of those found. Secured networks are displayed with waves denoting signal strength plus a lock on them  while the open networks don't.

To re-scan for available Wi-Fi networks, tap the menu icon  in the upper right corner to open the context menu and then tap **Refresh**.



Tap a network to connect to it. To connect to a secured network, you're prompted to enter a password or other credentials. (Ask your network administrator for details.)

If the terminal detects a network previously connected to, the terminal auto-connects to it.


Once a Wi-Fi network is connected, it displays as “connected” on the Wi-Fi settings screen. Tap it to see the details about the speed, security, address, and related info.

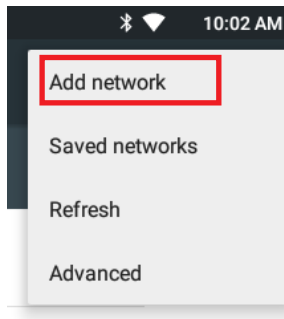
3.5.2 Adding a Wi-Fi Network

Under the following situations, you may need to manually add a Wi-Fi network:

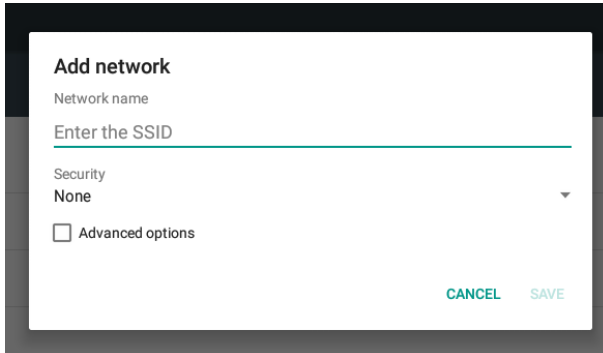
- When a Wi-Fi network doesn't broadcast its name (SSID)
- When a Wi-Fi network is out of range and you want the terminal to remember it and auto-connect to it as soon as it gets in range.

To add a Wi-Fi network:

1. Tap the **Settings** icon on the home screen and then tap **Wi-Fi** to access the Wi-Fi settings page.
2. Switch on Wi-Fi if it isn't enabled yet.
3. Tap the menu icon  in the upper right corner to open the context menu and then tap **Add network**.



4. Enter the SSID (name) of the network. If the network is secured, tap the triangle at the right of the **Security** field to select the type of security deployed on the network and enter any required security credentials. If you need to configure proxy and IP settings, tap **Advanced options** to proceed.




5. Tap **Save**.

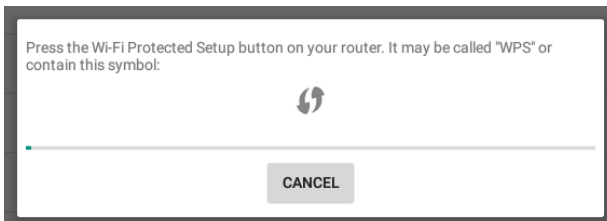
The terminal then proceeds to connect to the Wi-Fi network. Any credentials entered are saved so the terminal automatically connects it the next time the terminal gets it within the range.

3.5.3 Connecting to a Wi-Fi Network by WPS

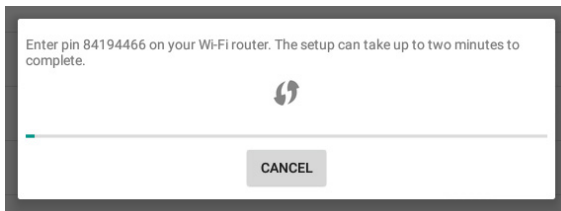
Wi-Fi Protected Setup (WPS) is a feature that allows WPS-compliant devices to connect to each other instantly in a secure way. As the WPS devices automatically configure the SSID and WPA security key, it eliminates the need for users to manually enter the SSID and password. WPS works in two methods: Push or personal identification number (PIN). To connect to a Wi-Fi network via WPS:

1. Tap the **Settings** icon on the home screen and then tap **Wi-Fi** to access the Wi-Fi settings page.
2. Switch on Wi-Fi if it isn't enabled yet.
3. Tap the menu icon  in the upper right corner to open the context menu and then tap **Advanced**.
4. Use either of the following methods to make the connection:

To use Push button, tap **WPS Push Button** and a prompt message will appear. Then press the WPS button on your WPS router within two minutes



To use PIN method, tap **WPS Pin Entry**. You will be prompted with a PIN. Enter that PIN on your Wi-Fi router within two minutes.



5. WPS authentication process will start. When the authentication is done, you will be prompted that connection is successful.

3.5.4 Forgetting/Modifying a Wi-Fi Network

When you don't want the terminal to "auto" connect to a Wi-Fi network or when it is a network that you no longer use, remove the Wi-Fi network by the steps below:

1. Tap the **Settings** icon on the home screen and then tap **Wi-Fi** to access the Wi-Fi settings page.
2. On the Wi-Fi settings page, tap and hold the name of the network to forget.
A context menu then opens.
3. Tap **Forget network**.



Some Wi-Fi networks may periodically change their passwords to enhance the network security. When this occurs, you need to change the saved login credentials. To change the password, follow the steps above to access the context menu of the intended network. Then tap **Modify network** to make the changes.


3.6 Using the Bluetooth Feature

Bluetooth enables the wireless connection over a short distance about 8 meters. It is specified as a "wireless personal area network" (WPAN). The terminal is Bluetooth-capable to synchronize data with other Bluetooth-capable devices such as PCs, laptops, hands-free, headsets, printers, PDAs and cell phones.

Before the terminal can connect a Bluetooth device, it needs to pair with that device. Such "pairing" involves the authentication between them to justify their accesses to each other. Once they are paired, they stay paired unless they are unpaired.


3.6.1 Enabling Bluetooth and Pairing with Bluetooth Device

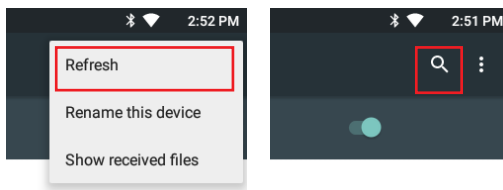
To enable or disable the Bluetooth function:

1. Tap the **Settings** icon on the home screen and then tap **Bluetooth** to access the Bluetooth settings page.
2. Switch on Bluetooth if it isn't enabled yet. The status bar displays the  icon when the Bluetooth function is enabled.

Note: While Bluetooth is enabled, the terminal is always visible to nearby devices in the name of M1016. You cannot configure the visibility time but you can rename the terminal's name.

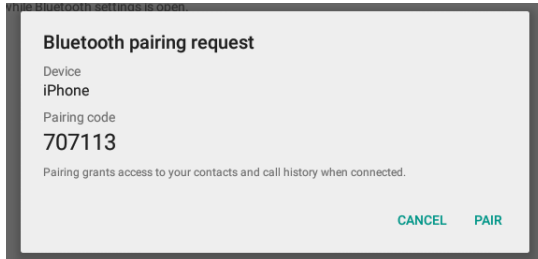
3. The terminal proceeds to scan for any Bluetooth device in range. Then it displays the names of the device(s) found.

If the Bluetooth device you want to pair with is not displayed in the **Available Devices** list, tap the menu icon  in the upper right corner to open the context menu and then tap **Refresh**. Or you can tap the search icon and then enter the name of the Bluetooth device you want to pair with.



Note: If the device to pair with isn't displayed after the scan, check if it is configured to be discoverable.

4. Tap the device you want to pair with. When the **Bluetooth pairing request** dialog box appears, tap **Pair**. The terminal will then send a connection request to the device you want to pair with.



On the device to pair with, a dialog box appears requesting to enter or verify the pairing code. The passkey entered or shown on the terminal and the Bluetooth device must be the same.


If you're prompted to enter a pin code, try entering 0000 or 1234 (the most common pin code), or look up in the documentation that came with the other Bluetooth device to learn its pin code.

Then the devices proceed to pair with each other.

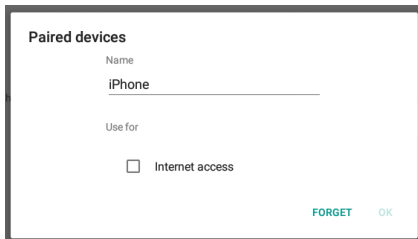
3.6.2 Configuring Bluetooth Features to Use

A "Bluetooth profile" defines the features supported by a Bluetooth device. For two Bluetooth devices to share files with each other, they need to both support the right profile. Some Bluetooth devices have multiple profiles. A profile can provide the ability to transmit phone conversations, to play music in stereo, or to transfer files or other data.

After you have paired a Bluetooth device with the terminal, you can select which profile you want to use with your tablet.


1. Tap the **Settings** icon on the home screen and then tap **Bluetooth** to access the Bluetooth settings page. Find the paired device that you want to configure the profiles and tap the  icon of the paired device.

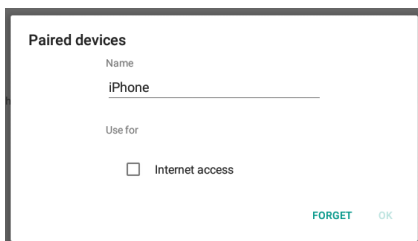
2. A page opens for that paired device. Select or deselect a profile as needed.




3.6.3 Disconnect from a Bluetooth Device

To disconnect the terminal from a Bluetooth device:

1. Tap the **Settings** icon on the home screen and then tap **Bluetooth** to access the Bluetooth settings page.
2. Find the paired device that you want to disconnect and tap the  icon of the paired device.
3. A page opens for that paired device. Tap **Forget**.



3.6.4 Additional Bluetooth Settings

From the Bluetooth settings page, tap the menu icon  and a context menu opens providing the following options:



1. **Rename tablet:** Allows you to edit the Bluetooth name of the terminal that will be shown to others when they try to search for it.
2. **Show received files:** Open the location where downloaded and uploaded Bluetooth files are stored.

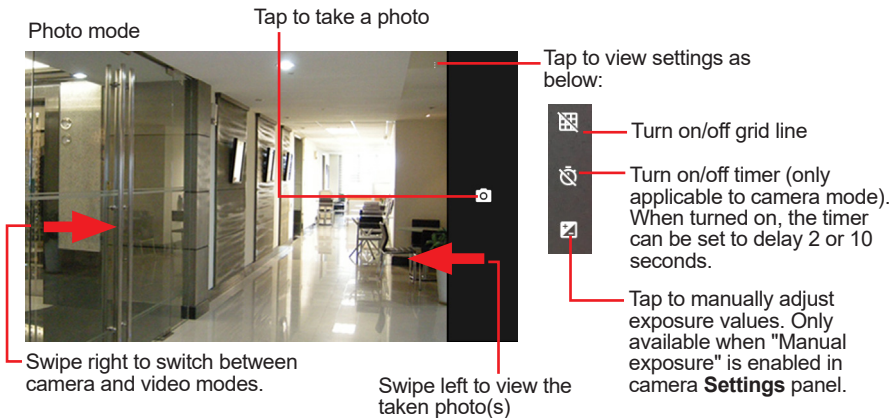
3.7 Using the Camera Feature

The device is equipped with a front-facing camera. Using the native camera application that comes with the terminal, you can take pictures or videos.

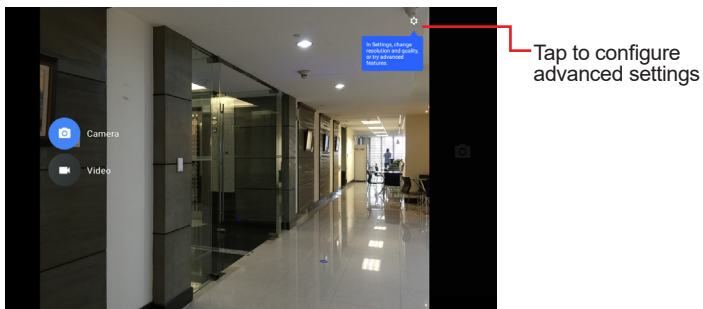
3.7.1 Taking a Photo

To take a photo:

1. On the main screen tap the **App Launcher** icon  and then tap the camera App icon .
2. The camera application then opens. A typical screen is as shown below:

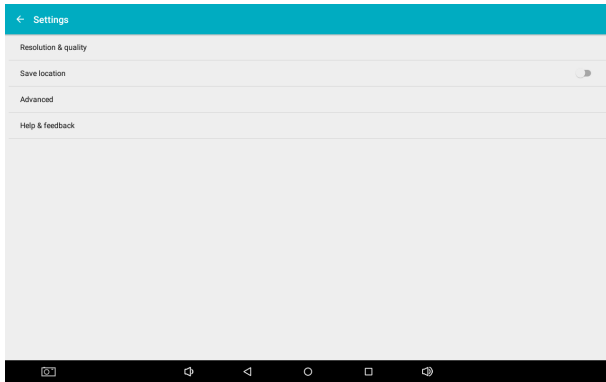


3. If needed, you can move two fingers apart to zoom in or move two fingers closer together to zoom out.
4. To configure advanced settings, swipe the screen right and then tap the **Settings** icon in the upper right corner.



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In the **Settings** screen, you can configure the image resolution & quality, saved location, and enable/disable manual exposure.

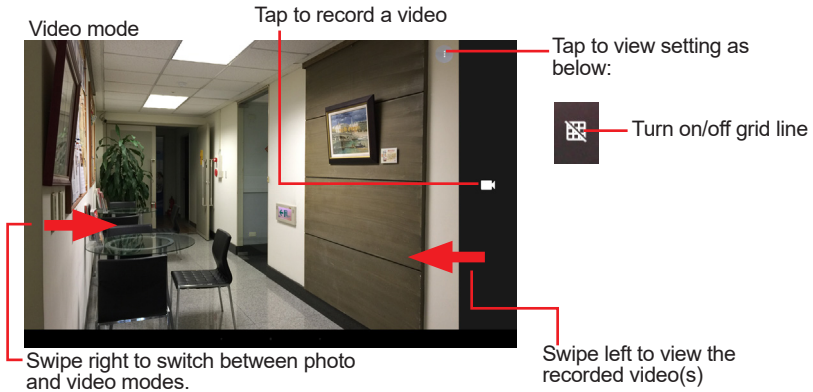


5. To take a photo, tap the camera icon.
6. To view the photo(s) just taken, swipe left the screen.

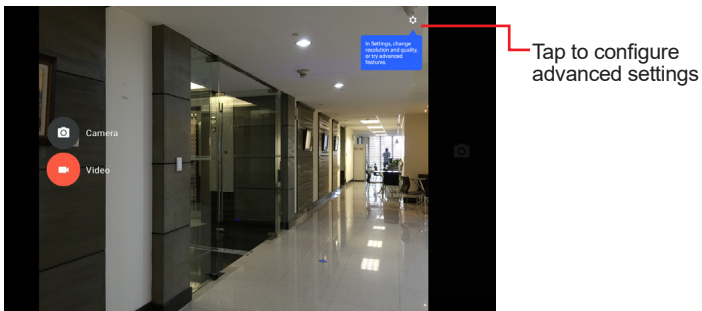
3.7.2 Recording a Video

To record a video:

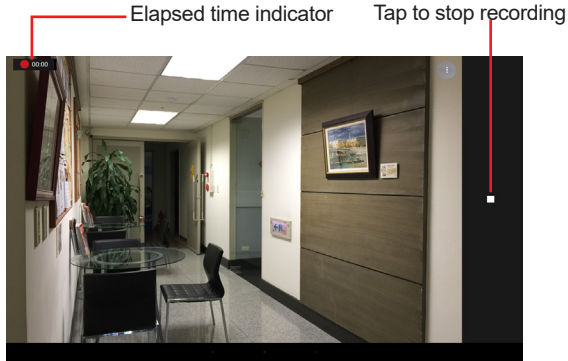
1. On the **Home** screen tap the **App Launcher** icon  and then tap the camera App icon .
2. The camera application then opens. Swipe the screen and tap **Video** to switch to video mode. A typical video-recording screen is as shown below:



3. If needed, you can move two fingers apart to zoom in or move two fingers closer together to zoom out.
4. To configure advanced settings, swipe the screen right and then tap the **Settings** icon in the upper right corner.



- To record a video, tap the video icon. During the recording, you may zoom in or out as needed. When you're done with the recording, tap the stop icon.

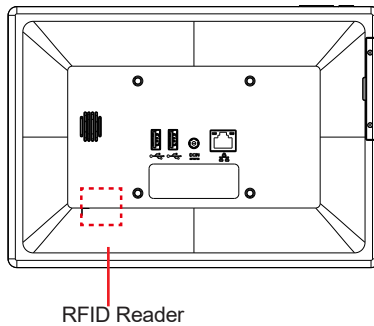


- To view the video(s) just recorded, swipe left the screen.

3.8 Using the RFID Feature (Optional)

Radio-Frequency Identification (RFID) is a technology that uses radio frequency (RF) for a RFID reader to retrieve information from a RFID tag attached to an object. Different from a barcode technology, RFID technology does not require direct contact or line-of-sight reading; however, the read range depends on frequency, tag antenna, tag type and a number of factors.

The RFID reader area is at the back side of the terminal as shown below.



To read a RFID tag:

1. Launch your RFID App.
2. Place the RFID tag near the RFID reader on the back of the terminal.

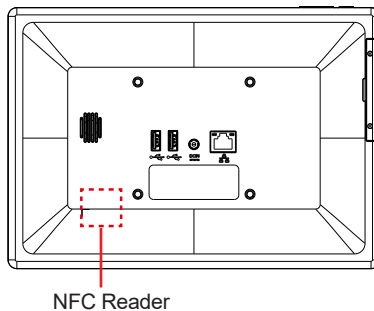
RFID read range varies depending on your application. Contact your dealer for details.

3. After reading and decoding, the RFID tag data will be displayed.

3.9 Using the NFC Feature (Optional)

Near Field Communication (NFC) is a short-range wireless communication technology that enables NFC-capable devices to exchange data such as contacts, photos, music, or web address over a short distance less than 4 centimeters.

The NFC detection area is at the back side of the terminal as shown below. When you tap other NFC devices, tags, or readers, the NFC areas of both devices should be close to one another so that the connection can be established.

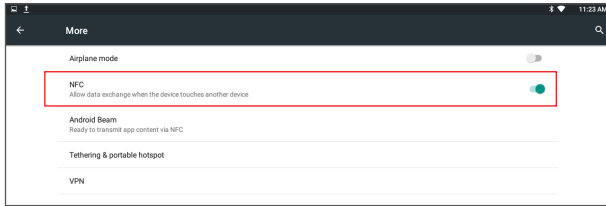


3.9.1 Using the Android Beam Feature

To use NFC to exchange App contents, both sending and receiving devices must be NFC-enabled and unlocked. The following is an example describing how to beam App content from the terminal to another NFC device:

Using the Medical Terminal

1. Make sure both devices are NFC-enabled. To enable the terminal's NFC function, tap the **Settings** icon on the home screen and then tap **More** under the **Wireless & networks** section. Then enable the NFC function.



2. On the terminal, open the content you want to exchange.
3. Make sure the screen of both devices are unlocked, then hold your terminal and the receiving device back to back so that the NFC detection areas of both devices are within a range of about 4 centimeters.
4. On the terminal, you will hear a sound and be prompted a message "**Touch to beam**". Touch the screen of the terminal to begin the beaming process.
5. The content will appear on the receiving device's screen.

3.9.2 Using the Tap & Pay Feature

You can tap and pay with the terminal at the merchants that accept contactless payments. To use the tap & pay function, make sure you have enabled the terminal's NFC function via **Settings > Wireless & networks > More > NFC**.

