AMobile

GT78-VN

Rugged Android™ Handheld Device

User's Manual

Version 1.0

2021.10.28.

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Revision History

Version	Release Time	Description
1.0	2021.10.28.	Initial release

Copyright

Disclaimer

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.

Werecommendthatyoukeeponecopyofthismanualforthequickreference foranynecessarymaintenanceinthefuture.ThankyouforchoosingAMobile products.

Contents

Contents

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 AMobile. Please contact your local supplier for ordering information.

FCC Class B

This device complies with Part 15 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, includinginterference that may cause undesiredoperation.

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

*   Reorient or relocate the receivingantenna.

*   Increase the separation between the equipment andreceiver.

- Connect the equipment into an outlet on a circuit different from thatto which the receiver isconnected.
- Consultthedealeroranexperiencedradio/TVtechnicianforhelp.

RoHS

AMobile Intelligent Corporation 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.

AMobile Intelligent Corporation hereby states that the listed products do not contain unintentional additions of lead, mercury, hexchrome, 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
isdefined 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

Tominimize the environmental impact and take more responsibility to the earth we live, AMobile 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)

Safety Symbols

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.

Battery Recycle

This symbol indicates electrical warning.

This symbol indicates that a potential hazard to personal safety exists from a laser source. When this symbol is displayed in this manual, pay special attention to the specific safety information associated with the symbol

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. For pluggable equipment, the socket outlet should be near the equipment and should be easily accessible.

5. Keep this equipment away from humidity.

6. Disconnect this equipment from the A/C outlet before cleaning it. Use a moist cloth. Do not use liquid or sprayed detergent for cleaning.

7. To fully disengage the power to the unit, please disconnect the power from the AC outlet.

8. Do not scratch or rub the screen with a hard object.

9. 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.

10. Remove dirt with a lightly moistened cloth and a mild solventdetergent. Then wipe the cabinet with a soft drycloth.

11. Theopeningsontheenclosureareforairconvectionandprotectthe equipmentfromoverheating.DONOTCOVERTHEOPENINGS.

12. Positionthepowercordsothatpeoplecannotsteponit.Donotplace anything over the powercord.

13. Iftheequipmentwillnotbeusedforalongtime,disconnectitfromthe power source to avoid damage by transientovervoltage.

14. Neverpouranyliquidintoopenings.Thismaycausefireorelectrical shock.

15. Never open the equipment. For safety reasons, theequipment should be opened only by qualified servicepersonnel.

16. Ifoneofthefollowingsituationsarises,gettheequipmentcheckedby servicepersonnel:

   a. The power cord or plug isdamaged.

   b. Liquid has penetrated into theequipment.

   c. The equipment has been exposed tomoisture.

   d. Theequipmentdoesnotworkwell,oryoucannotgetittowork according to the user'smanual.

   e. The equipment has been dropped ordamaged.

   f. The equipment has obvious signs ofbreakage.

17. Thesoundpressurelevelattheoperator'sposition,accordingtoIEC704- 1:1982, is no more than70dB(A).

18. Keep this User's Manual for laterreference.

19. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE ISBELOW
-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 or, even worse, burn the equipment.

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

Laser Safety

The device's barcode scanner that uses laser lights is a class 2 laserproduct. DONOTstareintothelaserbeamsorpointthelaserbeamatanyone'seyes when the barcode scanner is inoperation.

LASER RADIATION

**LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT**

Rechargeable Battery Pack Safety

With very little care, you can optimize the battery life and maximize the lifespan of the battery. Most importantly, use only the equipment in its ideal operating temperature (as described in 1.5 Specifications) – do not leave it in a hot trunk during the summer.

- **Important Terms to Understand**

  "Battery life" means the time the equipment will run before it must be recharged (sometimes this is also called "playtime" or "runtime").

  "Battery lifespan" means the total amount of time your battery will last before it must be replaced.

- **Using the Equipment for the FirstTime**

  Be sure to fully charge (approx. 4 hours) the equipment when charging the equipment for the first time.

- **Long-Term Storage & Maintenance**

  If you are putting away the battery for more than three months, it is recommended that the battery should be stored separately and fully

charged, and get recharged every three months. If you store an uncharged battery, it could fall into a deep worn-out state which would render it incapable of holding any charge. Be sure to store the equipment and battery at the proper temperature (as described in 1.5 Specifications).

- **BatteryLifespan**

  The removable batteries for the equipment are designed to retain up to 80% of their original capacity after 300 charging and recharging cycles when properly maintained. You may choose to purchase new battery when it no longer holds the sufficient charge that meets your needs.

- The lithium-ion battery is currently one of the most popular battery packs. The best advantage is that it has no memory effect, so users needn't worry about that issue. Users can charge the battery anytime whether it is fully drained or not. However, it's recommended that users drain the batteryuntil the system shows power shortage warning and then recharge the battery. Doingsoishelpfultothereliabilityofyourbattery.

- Don'tusethebatterypackasapowersupplyforotherequipment.

- Don't expose the battery to elevated heat situations such as underdirect sunlight in a car or nearfire.

- Don't disassemble the battery, or the battery leakage might cause skin or eye injury. If electrolyte leaking from the battery contacts your skin or clothing, immediately flush it with running water. If it splashes into eye, rinsetheeyeatleast15minuteswithcleanwaterandthenseekmedical attention.

- Toavoid battery leakage or explosion, don't discard the battery intowater orfire,orputthemnearaheatsourcesuchasagasstoveoranoven.

- If you are putting away the battery for more than three months, it is recommended that the battery should be stored separately and fully charged,andgetrechargedeverythreemonths.Ifyoustoreanuncharged battery, it could fall into a deep worn-out state which would render it incapable of holding any charge. Be sure to store yourthe equipment and batteryatthepropertemperature(asdescribedin1.5Specifications).

- Usetheappropriatecontainertostorethebatterysuchasapaperbox.Do notallowametalobjecttotouchtheterminalofthebattery.

- Thebatteryconsistsofpreciseelectricalcomponentsandcells.Donot drop or hit thebattery.

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 systembefore you start to clean any singlecomponents.

2. Whenyouneedtocleanthedevice,pleaserubitwithapieceofdrycloth.

3. Becautiousofthetinyremovablecomponentswhenyouuseavacuum cleanertoabsorbthedirtonthefloor.

4. Neverdropthecomponentsinsidethedeviceorgetcircuitboarddampor wet.

5. Be cautious of all kinds of cleaning solvents or chemicals when you useitforthesakeofcleaning.Someindividualsmaybeallergictothe ingredients.

6. Trynottoputanyfood,drinkorcigarettearoundthedevice.

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
aproduct 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 ofcloth.

- **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 plasticsparts.

- **Vacuum cleaner:** Absorb the dust, dirt, hair, cigarette particles, and other particles out of the device can be one of the bestcleaning

methods. Over time, these items can restrict the airflow in a device and cause circuitry to corrode.

- **Cotton swabs:** Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and otherlocations.

- **Foam swabs:** Whenever possible, it is better to use lint-free swabs such as foamswabs.

Recommended Cleaning Procedures

1. Close all applicationprograms

2. Close operatingsoftware

3. Turn off theequipment

4. Remove allperipherals

5. Disconnect the powercable

6. Proceed toclean.

Disposing of the Equipment

- **Within the EuropeanUnion**

    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 EuropeanUnion**

    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

You can download the related technical documents such as datasheet and user's manual as well as driver on our website.

Please do not hesitate to call or e-mail our customer service when you still cannot get the information you need.

http://amobile-solutions.com/web_en/contact.php

E-mail: support@amobile.com.tw

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 ProductHighlights

- Fully rugged for warehousing / transportation / medical/ mPOSapplications

- MIL-STD-810G &IP-65 certified, 1.2M (4ft.)drop resistance

- 8" TFT color LCD 800x1280 resolution

- Projected capacitive multi-touch panel with anti-reflection Corning® Gorilla® glass

- High mobility with multiple connectivities including WLAN, Bluetooth andWWAN

- Optional built-in 2D barcodeimager

- Field replaceable battery with optimized battery life up to 8hours

- G-sensor, gyroscope, light sensor, E-compass, GPS navigation &barometer

- System access control via NFCreader

1.2 PackageContents

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:

	Rugged Android™ Handheld Device
	Rechargeable Li-ion Battery Pack (Pre-installed)
	USB Cable
	User Manual

1.3 **Parts of theDevice**

1	Power button	9	Scan key
2	Barcode scanner	10	Speaker
3	Pogo pin	11	Battery
4	USB connector	12	Camera flshlight
5	Front Camera	13	Rear Camera
6	Light sensor	14	NFC
7	Touch panel	15	Volume key
8	Microphone	16	SD card slot

1.4 Dimension

220mm

147mm

20.9mm

1.5 Specifications

Durability Features	
MIL-STD-810G & IP-65 certified	
1.2M (4ft.) drop-resistance	
Raised bezel for LCD impact protection	
I/O ports with hinged rubber covers	
System	
CPU	8*Cortex-Quad Core A73 2.0GHz/ Quad Core A53 2.0GHz
OS	Android™ 11
Memory	4GB
Storage	64GB
Audio	Integrated microphone
	Integrated speaker
Peripherals and Devices	
Camera	Front: 8.0 megapixel camera
	Rear: 13.0 megapixel AF camera with LED
Sensor	Accelerometer (G-sensor)
	3-axis digital gyroscope
	Barometer
Light Sensor	Ambient light sensor
NFC	ISO/IEC 21481 Type A, Type B, Felica
WLAN	Integrated IEEE 802.11 a/b/g/n/ac
	Wi-Fi certified Miracast™
Bluetooth	Integrated Bluetooth 4.0 LE + EDR class 2, with HID input, A2DP, DUN, HFP, SPP &PBAP supported
WWAN	EDGE/GPRS/GSM: 1900/850 MHz
	HSPA+/HSPA+/HSPA/WCDMA B2 /B5
	TDD-LTE (B41)
	FDD-LTE (B2 /B4/B5/B7/B12/B17)
Navigation	GPS, AGPS & digital compass
Barcode Scanner	2D barcode reader with physical trigger buttons
I/O Interface	
USB Port	1 x micro USB 2.0 port
SD Slot	1 x microSD card slot (up to 128GB)

SIM Socket	1 x SIM card slots
Expansion	microSDHC
LCD Display	
Size/Type	8" TFT LCD
Resolution	800x1280
Touch Screen	
Type	5-point Projected Capacitive Touch screen
	Corning® Gorilla® glass coating w/ anti-reflection coating
Power Supply	
Power System	External AC power adapter
Battery Type	Lithium-ion rechargeable battery
	Field replaceable (for maintenance)
Battery Capacity	3.7V, 6200mAh, 22.94Wh

Battery Life	Up to 8 hours battery life with the following operations:
	 1. Continuous audio playback of 160-Kbps encoded MP3files
	 2. Internet browsing by Wi-Fiwhile:
	      a. Browsing snapshot versions of 20 separate webpages
	      b. Using hourlypush-email
	 Continuous video playback for 6 hours

Adapter Input	Input: AC100~240C, 50~60 Hz
Adapter Output	DC power output: 5V/2.1A
Mechanical & Environmental	
Operating Temp.	-10°C ~ 35°C (14°F ~ 95°F)
Storage Temp.	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	95% (non-condensing)
Dimensions (W x H x D)	147 x 220 x 20.9 mm (5.71" x 8.58"x 0.78")
Weight	550g (1.35lb) (with battery)

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Chapter 2

Getting Started

2.1 **Installing microSD and SIMCard**

To install the microSD card and/or SIM card:

2.1.1 Installing microSD card

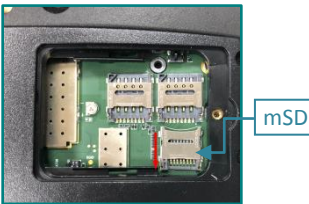**Figure 2-1**Screw off and remove the cover.

Figure 2-3 Follow the direction of red arrow to open the lid of mSD slot.

Figure 2-4unlock the card slot cover and insert the microSD card into the slot.

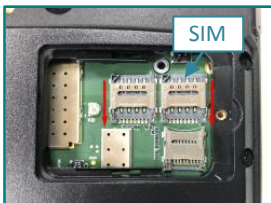**Figure 2-5**Close the lid and follow the direction to lock cover.

Figure 2-6 Follow the direction of red arrow to unlock the card slot cover(s) and open the cover(s).

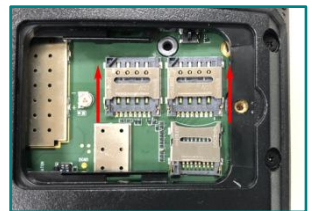**Figure 2-7** unlock the card slot cover(s) and insert the SIM card into the slot.

Figure 2-8 Close the lid and follow the direction to lock cover(s).
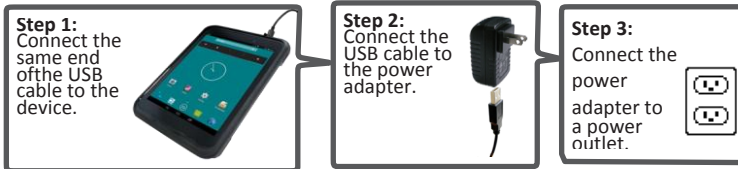
2.2 Charging theBattery

Due to shipment, the battery is partially drained when the package is delivered toyou.Besuretochargethebatterytofullwhenyouarechargingitforthefirst time.

Caution: Do not charge the GT78-VN via computer USB connection due to that the voltage output from computer USB is not enough to charge the device.

2.2.1 Charging theBattery

To charge the battery using a electrical outlet:

1. UsingtheUSBcablethatcomeswiththedevice,connectthesmallendof thecabletotheUSBportonthedevice.

2. ThenconnecttheotherendoftheUSBcabletothepoweradapter.

3. Connect the power adapter to an electricaloutlet.

Step 1:
Connect the same end ofthe USB cable to the device.

Step 2:
Connect the USB cable to the power adapter.

Step 3:
Connect the power adapter to a power outlet.

Warning: Use only the power adapter that comes with your device. Using adifferentpoweradaptermaydamageyourdeviceandmayresultinpoor performance.Itmayalsoinvalidatewarrantyapplyingtothedevice.

2.2.2 Checking the BatteryLevel

Whenthechargingisinprocess,abatteryindicatorwillappearinthestatusbar showingthechargingpercentage.UnplugtheUSBcablefromthedevicewhen the battery is fullycharged.

2.3 Installing/Replacing theBattery

In case you need to install or replace the battery, follow the steps below to access the battery chamber and replace the battery.

2.3.1 Accessing BatteryChamber

1. Place the device on a flat surface, with the rear side facing up. Loosen theretaining screws on the battery cover with acoin.

Retaining screws
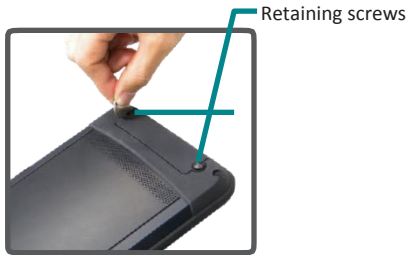
2. Remove the battery cover using the notch located onthe bottom edge.

Battery cover notch
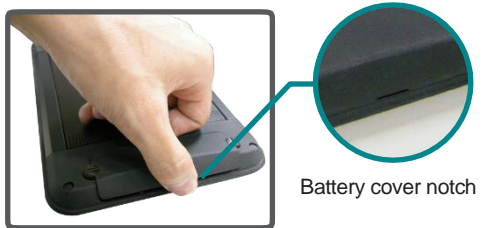
3. The battery is in a compartment inside. Its opening is covered by a protectivelid.Insertthetipofyourfingerontothetopofthecoverand remove it.

Protective lid
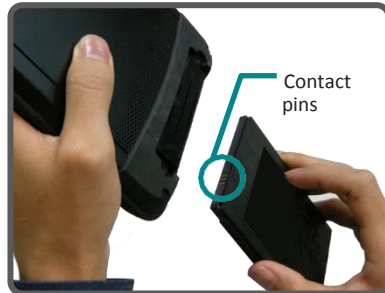

4. Thenyoucanremovethebatteryfromthechamber.

2.3.2 InstallingBattery

1. To install the battery, orient the batteryso that the contact pins faces towards the compartment opening.

Contact pins

2. Slide the battery into the battery chamber.

3. To restore the protective lid, make sure the lid is oriented as shown in the photo to the right.

4. Align the top edge of the lid with the top of the opening.

5. Press the lid firmly into place to ensure it is secured.

6. Replace the battery cover and
    securethe retaining screws with a coin.

2.4 **Optimizing BatteryLife**

To optimize the operating time of the battery, it is recommended that you do the following:

- Decrease the LCD displaybrightness.
- Setashortertimeoutofinactivitytoallowthescreenentersleepmode.
- Turnoffthedisplayifyouarenotusingit.
- Alwaysexittheapplicationsifitisnotinuse.
- DisabletheWi-Fi,BluetoothorGPSfunctionifyouarenotusingit.
- DisabletheAppthatheavilydrainsthebatteryifyouarenotusingit.

    To view the battery usage by individual App, swipe down the Status Bar in the upper right corner and tap the **CHARGING** tile.

- DisconnectUSBdevicessuchasUSBflashdriveifitisnotinuse.

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Chapter 3

Using the Rugged Handheld Device

3.1 Using TouchScreen

The GT78-VNcomes with a projected capacitive multi-touch screen. Touch control is the main way to interact with the GT78-VN. Users are able to manipulate icons, graphic buttons, menus, the onscreen keyboard or any onscreen items with touch control. This chapter will walk you through the basic operations.

3.1.1 BasicOperations

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

Operation	Description
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 GT78-VNdoesn't have a physical keyboard to receive user's text input. To input text on the device, it relies on the "onscreen keyboard" featured by the operating system. An "onscreen keyboard" is a virtual keyboard with most of the standard keys.

To open the onscreen keyboard, simply tap a text input field and the keyboard appears.
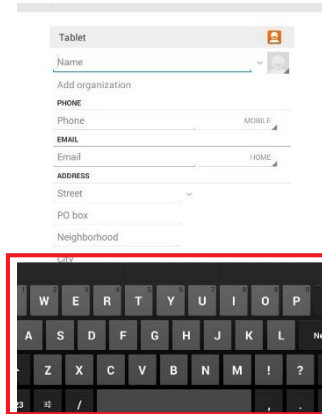
3.1.3 Sleep Mode

When the device suspends to sleep mode, it enters a low power state and the display is off to save the battery power. You can manually force the device to enter sleep mode or specify a period of inactivity before it automatically enters sleep mode. While the device is in sleep mode, it is still capable of receiving messages and calls and processing tasks like downloading.

To switch to sleep mode, press and hold the **Power** key until the screen is turned off.

To wake up the device from sleep mode, press and hold the **Power** key until thescreenisturnedon.Ifthescreenislocked,swipethelockicontotheouter circle to unlock the device.

To specify the period of inactivity, swipe down the **Status Bar** in the upper rightcornerandtap**Settings|Display|Sleep**.Thenselectatimeofinactivity before the device enters sleepmode.

3.2 HomeScreen

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 device for the first time, a typical **Home** screen looks like the example below.

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

Element	Descriptions
Notification Area	The **Notification Area** is visible across the **Home** screens. This 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. You can access the notification panel to see more information by swiping down the **Notification Area**.
Status Bar	The **Status Bar** is visible across the home screens. It shows the time, signal strength, battery status, and other information. Applications you install on your device may show their own icons in this area. Youcanswipedownthe**StatusBar**toaccessa**QuickSettings** panel where you can quickly access some most commonly used settings andfeatures.
Home Screen	• Tap an item on this screen to launch thatitem. • Todelete an icon or widget, tap and hold that item until the **Remove**barappearsonthetopofthescreen.Thenmovethe icon to the **Remove**bar. • Tapandholdanyemptyspotonthisscreentocustomizeyour home screen.
Widget	The miniature of an application that functions directly on the **Home** screen.
App Launcher	Tap it to open the "**App Launcher**" where all applications installed on the GT78-VN can be viewed and launched.
Bottom Dock	The dock is visible across the home screens. It shows the most commonly used App icons for quick access. You can change the icons as needed.
Back Button	Tap to go to the previous screen.
Home Button	Tap to return to Home scree.
Recent App Button	Tap to view show your recent Apps and touch an App to reopen it. To remove an App from the list, swipe it left or right.

3.2.1 Using the Quick SettingsPanel

Swiping down the **Status Bar** will bring up a **Quick Settings** panel where you can quickly access some most commonly used settings and features. To enable/disable a feature or switch between available options ,simply tap the intended tile. It appears dimmed when disabled and brightened when enabled.

For some features such as Wi-Fi, Bluetooth, location, Audio Profiles, you can also tap and hold the tile to directly access the settings page.
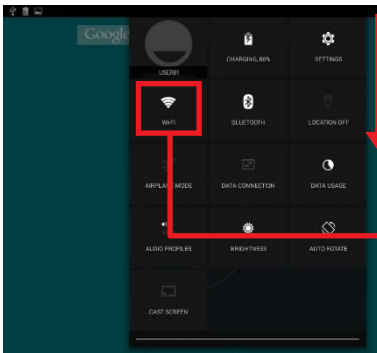
Swipe down the **Status Bar** to access the **Quick Settings** panel.

For some feature tiles, you can

- tap to enable/disable a feature
- tap and hold to quicklyaccess its settingspage

3.2.2 Extending HomeScreen

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 **AppLauncher** 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 Using CellularNetwork

AfteryouinserttheSIMcard(s)totheGT78-VNforthefirsttimeandpoweron the GT78-VN, depending on your mobile network carrier you might be guided to activate the account and connect to your mobile network. If you are asked foraPINtounlocktheSIMcardwhenpoweringontheGT78-VN,contactyour cellular network carrier for the defaultPIN.

When a new SIM card is detected by the GT78-VN, you will be prompted to configure its usage, including voice call, messaging and data connection. You can configure it now or change the settings later.
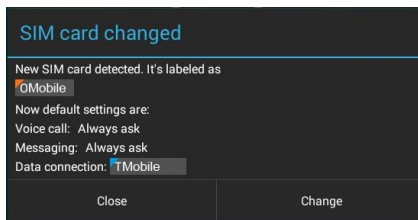
Featuring dual-SIM card slots, the GT78-VNsupports dual-SIM mobile connection, allowing you to enjoy constant and seamless Internet connection. Two cellular network icons will be displayed in the **Status Bar** to indicate the connectivity and signal strength.

Icon	Description
	No signal or no SIM card inserted.
	Connected to a cellular network. (The more bars are lit, the stronger the wireless signal is)

Different locations may have different mobile networks available. The GT78-VNadopts the fastest mobile network available for data. However, in order to extend the battery life, you can configure the GT78-VN to use only a slower 2G network for data. You can also configure the GT78-VN to access a different set of networks entirely, or to behave in special ways when roaming.

IfthereisnoSIMcard,theGT78-VNisn'tcapableof3Gvoiceanddataservices; however it is still able to connect to a Wi-Fi network to log into a wireless local area network. To learn more, see 3.4 Usingthe Wi-FiFeature.

3.3.1 **Making/ReceivingCalls**

After you activate your SIM card(s), the GT78-VNauto-connects to your cellular network when it powers on. You can start to use the phone service.

Using phone service, e.g., making or answering a call, is similar to the way you use a mobile phone.

To use the device for phone service, it is suggested that you connect a wired headset to the device's headset connector or use a wireless Blueooth headset or car kt. For instructions on how to connect to a Bluetooth device, see 3.5Usingthe Bluetooth Feature for details.

3.3.2 **DataConnection**

Connecting to a cellular network enables you to use voice service as well as data connection service, e.g., the Internet connection. However, in most cases using Wi-Fi for data connection is faster and less expensive than using a cellular network and you may want to disable data connection of your SIM card when Wi-Fi is available. On the other hand, you may want to enable cellular data connection when Wi-Fi is not available.

To enable or disable data connection:

1. Swipe down the **Status bar** andtap **DATA CONNECTION**.

2. Enable data connection for a desiredSIMcardortap**Off**to disable dataconnection.

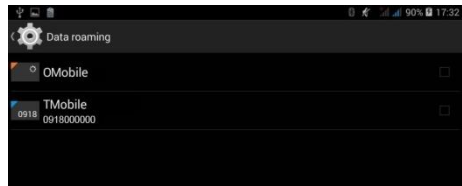| Data connection	
⚙ OMobile	○
0918 TMobile 0918000000	●
Off	○
Cancel	
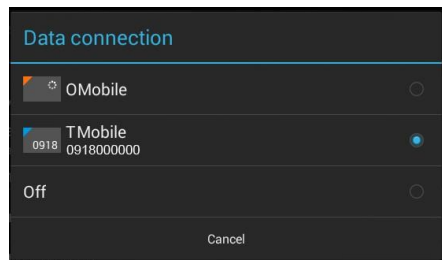
3.3.3 DataRoaming

When the GT78-VNmoves to where your cellular network is not available, data roaming connects the GT78-VN to other service providers. This is often useful abroad if you want to keep receiving data across networks. However, the mobile rates can substantially increase as the costs for accessing the Internet are particularly high. Under such situation you may want to disable the data roaming function of the SIM card.

To enable or disable data roaming:

1. Swipedownthe**Statusbar**andtap**Settings | WIRELESS&NETWORKS | SIM management | Roaming | Data roaming**.

2. On the target cellularnetwork, tick/untick the check box to enable/disable dataroaming.

While data roaming is disabled, you can still use Wi-Fi connection to access the Internet data. See 3.4 Using the Wi-Fi Feature.for more information.

3.4 Using the Wi-FiFeature

The GT78-VN 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 GT78-VN needs to be configured including such key to connect to a hotspot.

Follow the guide below to connect the GT78-VN to your wireless local area network:

Note: Turn off Wi-Fi when it isn't used to extend battery life.

The **Status Bar** displays the following icons that shows Wi-Fi status.

| Icon	Description
📶	Notifies that an open Wi-Fi network is in range.
📶	Notifies that a Wi-Fi network is connected. Waves indicate signal strength.

3.4.1 Enabling Wi-Fi and Connecting to aWLAN

1. Swipedownthe**Statusbar**andtapthe**WI-FI** tile to enable Wi-Fi if it isn't enabled yet.

2. Inthe**QuickSettings**panel,tapandholdthe **WI-FI** tile to access the Wi-Fi settings page.

TheGT78-VNthen 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 📶🔒 while the open networksdon't.

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

Tap to turn on/off Wi-Fi function.

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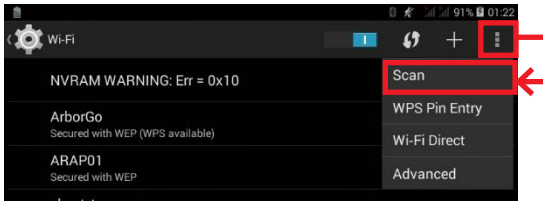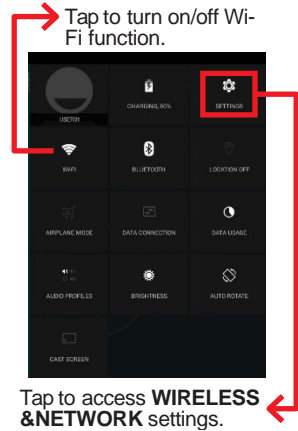
Tap a network to connect to it. To connect to a secured network, you're prompted to enter a password or other credentials. (Ask your network administrator for details.)

If the GT78-VNdetects a network previously connected to, the GT78-VNauto-connects to it.

OnceaWi-Finetworkisconnected,itdisplaysas"connected"ontheWi-Fi settingsscreen.Tapittoseethedetailsaboutthespeed,security,address,   and relatedinfo.

3.4.2 Adding a Wi-FiNetwork

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)

- WhenaWi-FinetworkisoutofrangeandyouwanttheGT78-VNto rememberitandauto-connecttoitassoonasitgetsinrange.

To add a Wi-Fi network:

1.   SwipedowntheStatusbarandtaptheWI-FItiletoenableWi-Fiifitisn't enabledyet.

2.   IntheQuickSettingspanel,tapandholdtheWI-FItiletoaccesstheWi-Fi settings page.

3.   TaptheplussigniconintheupperrightcornertoopentheAddnetwork dialog box.
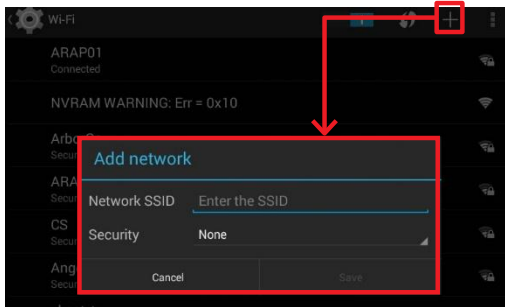
4.   EntertheSSID(name)ofthenetwork.Ifthenetworkissecured,tapthe triangle at the right of the **Security** field to select the type of security deployedonthenetworkandenteranyrequiredsecuritycredentials.

5.   TapSave.

The GT78-VNthen proceeds to connects to the Wi-Fi network. Any credentials entered are saved so the GT78-VNautomatically connects it the next time the GT78-VNgets it within the range.

3.4.3 Connecting to a Wi-Fi Network byWPS

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). Toconnect to a Wi-Fi network via WPS:

1. Swipe down the **Status bar** and tap the **WI-FI** tile to enable Wi-Fi if it isn't enabled yet.

2. In the **Quick Settings** panel, tap and hold the **WI-FI** tile to access the Wi-Fi settings page.

3. Use either of the following methods to make the connection:

   To use Push button, tap the WPS icon 🔧 in the upper right corner and a prompt message will appear. Then press the WPS button on your WPS router within two minutes
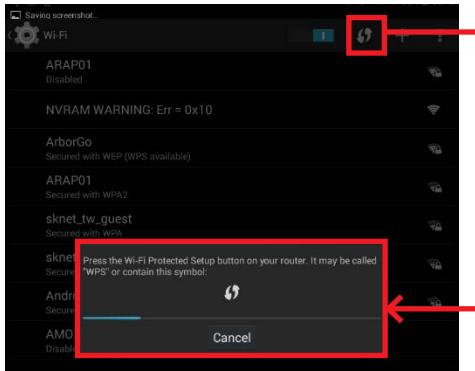
   To use PIN method, tap the menu ⋮ in the upper right corner to open the context menu and then tap **WPS Pin Entry**. You will be prompted with a PIN. Enter that PIN on your Wi-Fi router within two minutes.
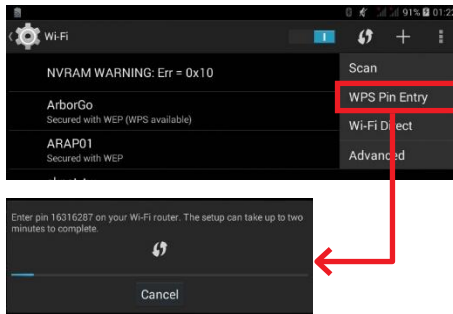
4. WPS authentication process will start. When the authentication is done, you will be prompted that connection is successful.

3.4.4 Forgetting/Modifying a Wi-FiNetwork

When you don't want the GT78-VN 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. SwipedowntheStatusbarandtaptheWI-FItiletoenableWi-Fiifitisn't enabledyet.

2. IntheQuickSettingspanel,tapandholdtheWI-FItiletoaccesstheWi-Fi settings page.

3. OntheWi-Fisettingsscreen,tapandholdthenameofthenetworkto forget.

   A context menu then opens.

4. Tap **Forgetnetwork**.

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.

3.4.5 Making Your Device a Wi-FiHotspot

WhentheGT78-VNisconnectedtoa3Gnetwork,youcansharetheconnection with your laptop or other devices by making your GT78-VN a Wi-Fi hotspot. To do so:

1. SwipedowntheStatusbarandtapSETTINGS|WIRELESS&NETWORKS | **More | Tethering &portablehotspot**.

2. Tap Wi-Fi hotspot slider to enable the hotspotfunction.

3. TapSetupWi-Fihotspottoconfigurethesettingsasneeded:

   - **Network SSID:** Enter a name to identify the wireless networkcreated by the GT78-VN.

   - **Security &password:** To prevent your device from being accessed byunauthorizedusers,itisstronglyrecommendedthatyousetupa   password to protect yournetwork.

When Wi-Fi hotspot is enabled, a Wi-Fi hotspot icon 🛜 will appear inthe **Notification Area**. You can swipe down the icon to see the connection information.
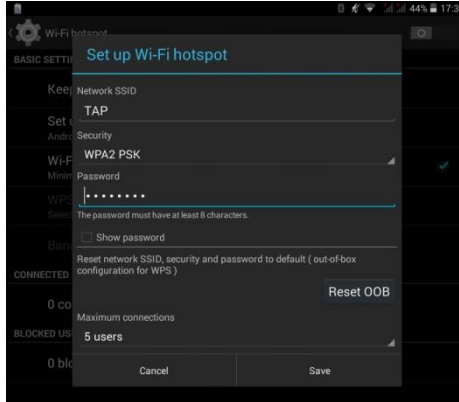
3.5 Using the BluetoothFeature

Bluetooth enables the wireless connection over a short distance about 8 meters. It is specified as a "wireless personal area network" (WPAN). The GT78-VN 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 GT78-VN 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.

The **Status bar** displays the following icons that indicate Bluetooth status.

Icon	Description
❈	Bluetooth is on.
❈	Connected to a Bluetooth device.

3.5.1 Enabling Bluetooth and Pairing with BluetoothDevice

To enable or disable the Bluetooth function:

1. Swipedownthe**Statusbar**andtapthe**BLUETOOTH**tiletoenable Bluetooth if it isn't enabledyet.

2. Inthe**QuickSettings**panel,tapandholdthe**BLUETOOTH**tiletoaccess the Bluetooth settingspage.

3. If the Bluetooth device you want to pair with is not displayed in the **AVAILABLE DEVICES** list, tap **SEARCH FOR DEVICES** in theupper right corner.
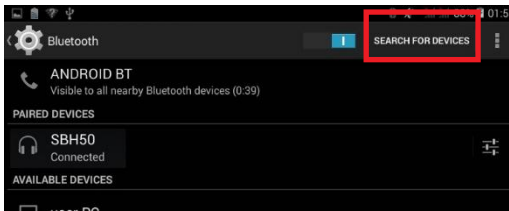
The GT78-VNproceeds to scan for any Bluetooth device in range. Then it displays the names of the device(s) found.

If the GT78-VNstops scanning before the other device becomes discoverable, tap **SEARCH FOR DEVICES** again.

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 GT78-VNwill then send a connection requesttothedeviceyouwanttopairwith.
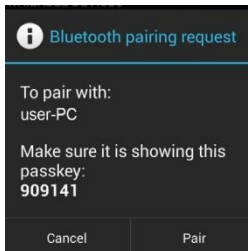
On the device to pair with, a dialog box appears requesting to enter or verify the pairing code. The passkey entered or shown on the GT78-VN and the Bluetooth device must be the same.

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 Bluetooh device to learn its pin code.

Then the devices proceed to pair with each other.

3.5.2 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. The operating system allows you to configure the profiles you want to use on the GT78-VN.

1. Swipe down the **Status bar** and tap the **BLUETOOTH** tile to enable Bluetooth if it isn't enabled yet.

2. In the **Quick Settings** panel, tap and hold the **BLUETOOTH** tile to access the Bluetooth settings page.

3. Tap the ⚏ icon at the right of a paired device.

   A "Paired Bluetooth device" page opens for that paired device.

A setting page opens for the paired device.

Tap the ⚏ icon at the right end of a paired (and connected) device.
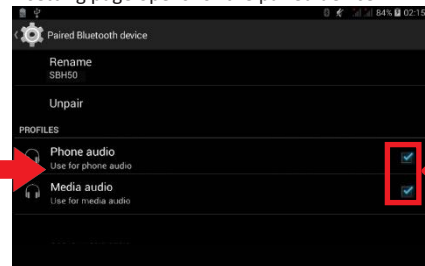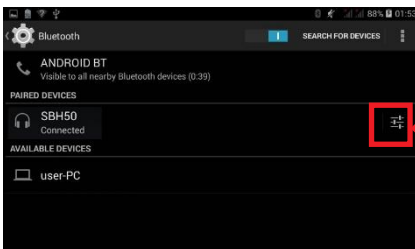
Select/deselect a feature to use it

4. Select or deselect a profile to useit.

3.5.3 Disconnect from a BluetoothDevice

To disconnect the GT78-VN from a Bluetooth device:

1. Swipedownthe**Statusbar**.Inthe**QuickSettings**panel,tapandholdthe
    BLUETOOTH tile to access the Bluetooth settings page.

2. Inthe**PAIREDDEVICES**list,findthedevicetodisconnect.

3. Tapthe⇅iconattherightofthedevice.

    A "Paired Bluetooth device" page opens for that paired device.

4. Tap**Unpair**.

    The selected device is unpaired and disconnected.

3.5.4 Making Your Bluetooth DeviceDiscoverable

To allow other Bluetooth-enabled device to find the GT78-VN, you have to make sure
the GT78-VN is visible to other devices in addition to enabling Bluetooth feature. After
you configure the GT78-VN to be visible, by default the visibility will be turned off after
2 minutes. If you want to extend the visibility time or make it discoverable at all times,
you have to configure the timeout value as needed.
To make your GT78-VN visible to nearby Bluetooth devices:

1. SwipedowntheStatusbarandtaptheBluetoothicontoenableBluetooth.

2. Tap **Settings | WIRELESS &NETWORKS | Bluetooth** to access the
    Bluetoothpage.

3. Tapping the Bluetooth device name of your TITAN7 repeatedly to switch
    between visibility options: **Not visible to other Bluetooth devices**, **Onlyvisible
    to paired devices** or **Visible to all nearby Bluetoothdevices**.

4. Youcanfurtherconfigurethetimeofthevisibility.Todoso,tapthemenu button ⬭.
    When a context menu opens, tap **Visibilitytimeout**.

5. Adjust the timeout your device uses when you configure it to be visible. If
    youwanttheGT78-VNtobediscoverableatalltimes,tap**Nevertimeout**.

Tap to switch between visibility options

Taptoadjustthetimeofthevisibility
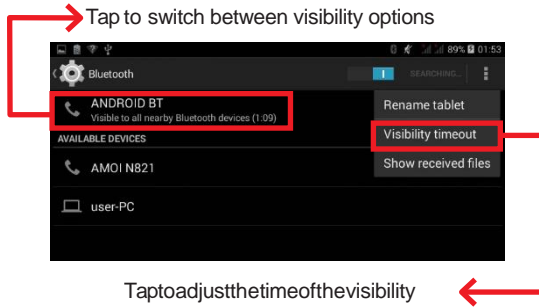
3.5.5 Additional BluetoothSettings

FromtheBluetoothsettingspage,tapthemenuicon ⋮ andacontextmenu opens providing the followingoptions:

1. **Renametablet:**AllowsyoutoedittheBluetoothnameoftheGT78-VNthat willbeshowntootherswhentheytrytosearchforit.

2. **Visibilitytimeout:**Allowsyoutoconfigurethetimeofthevisibilitywhen youconfiguretheGT78-VNittobevisible.

3. **Show received files:** Open the location where downloaded anduploaded Bluetooth files arestored.

3.6 Using the LocationFeature

The GT78-VNfeatures positioning function to identify your location. It allows location-based Apps to collect and use your location information to provide location-related service. For example, a third-party App might want to pinpoint a vehicle's location so as to provide a more efficient route for the driver upon traffic congestion. For a location-based App, you can individually configure whether it is allowed to access to location services when the service is on.

Note: Whenyourturnoffthelocationservice,youalsoturnitofffortheApps that use this service. That means location-based service will stop and not be available.

3.6.1 Enabling/Disabling LocationService

To turn on or off location service, swipe down the **Status bar** to bring up the **Quick Settings** panel. Then tap the **LOCATION** tile to turn it on or off.

3.6.2 LocationMode

In addition to GPS satellite method, the GT78-VNalso supports Assisted GPS (A-GPS), a method using Wi-Fi and cellular networks to speed up startup positioning performance. According to the position mode, the battery drain and position accuracy varies.

To select a location position mode when the location service is on,

1. Swipedownthe**Statusbar**andtapthe**LOCATION**tiletoenablethe location service if it isn't enabledyet.

2. Inthe**QuickSettings**panel,tapandholdthe**LOCATION**tiletoaccess the location settingspage.

3. Tap **Mode** and select amode:

   - **High accuracy:** This mode uses GPS, Wi-Fi and cellular networks to determine location. It drains the battery faster yet higher accuracy is achievedcomparedtotheothertwomodes.Selectthismodeifprecise location matters toyou.

- **Battery saving:** This mode uses Wi-Fi and cellular networks to determine your location. Select this mode if you need to extendthe battery life.

- **Device only:** This mode determines your location using GPS only. Without using Wi-Fi and cellular networks to improve the startup process, it takes longer to determine thelocation.

3.7 UsingCamera

The device is equipped with two cameras: a front-facing camera and a back- facing camera with LED flash. Using the native camera application that comes with the operation system, you can switch between the front and rear cameras and perform other camera operations.

To access the camera application, on the **Home** screen tap the camera icon

The camera application then opens.

Various camera modes and effects

HDR on/off mode

Flash on/off or Auto mode

Switches between the front- and rear-camera.

Recorder icon. Tap it to shoot a video.

Tap to view the picture(s) taken and video(s) shot in the Gallery application.

Opens camera settings.

Shutter icon. Tap it to take a picture
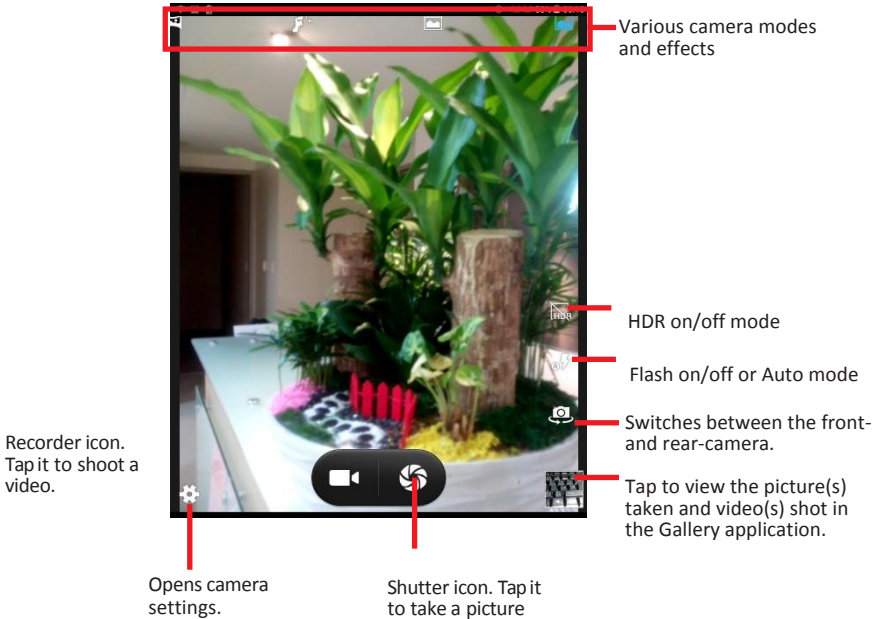
When taking a photo:

- To zoom in and out, place two fingers apart or together.
- When you frame your subject on the screen, the camera will AutoFocus on the center of the screen with a focus indicator. To manually make a focus, tap the target or area that you want to focus on.
- To take a photo, press the shutter icon.

When recording a video:

- To enable/disable the microphone, tap the Settings icon and then video icon.
- To start the recording, tap the Recorder icon and the timer starts.
- To stop the recording, tap the Recorder icon again.

3.8 Using the NFCFeature

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.

TheNFCdetectionareaisatthebacksideoftheGT78-VN.Whenyoutapother NFC devices, tags, or readers, the NFC areas of both devices should be close tooneanothersothattheconnectioncanbeestablished.

3.8.1 Enabling/DisablingNFC

To enable or disable the NFC function:

1. Swipedownthe**Statusbar**andtap**Settings**|**WIRELESS&NETWORKS** | **More...** to access the **Wireless & networks** page.

2. TaptheNFCsliderto**I**or**O**positiontoturnitonoroff.
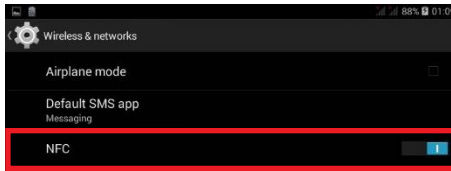
3. When NFC is enabled,itsicon will be displayed in the**Notification Area**.

3.8.2 Configuring NFC Modes

The GT78-VNsupports three NFC modes: P2P, TAG and CARD EMULATION modes.

To configure the NFC settings:

1. Swipedownthe**Statusbar**andtap**Settings**|**WIRELESS&NETWORKS** | **More...** to access the **Wireless & networks** page.

2. TaptheNFCsliderto**I**positiontoturnitonifitisn'tenabledyet.Thentap NFC to access the settingspage.
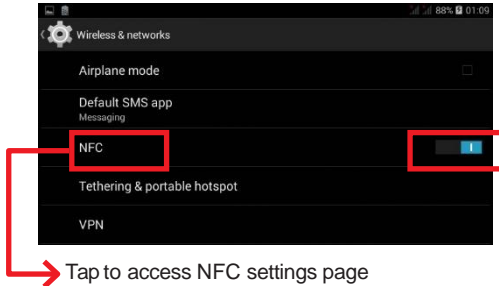
Tap to access NFC settings page

3. Enable the modes as needed:

- **P2P:** Peer-to-Peer mode utilizes Android Beam feature to exchange App contents such as contacts, photos, music, or web address as long as the App supports Android Beam function. To use this mode to exchange data, see 3.7.3 Exchanging Data with NFC-Enabled Device for more information.

- **Tag Reader/Writer:** Allows the GT78-VN to read and write to NFC tags. For example, working as a tag reader the TITAN7 can read the NFC tag of a smart poster to retrieve information like product or promotion information. As a tag writer, you can write to a NFC tag to specify which associated actions will be triggered when the tag is read. The reading/ writing applications depend on the NFC tag Apps.

- **Card Emulation:** This mode enables the GT78-VN to work as a contactless card in applications like payment, ticketing or access control. This mode is disabled by default as the availability depends on your cellular network carrier and you must subscribe to the services before you can use this functionality. Third-party transaction Apps will be also needed

to make the transaction.
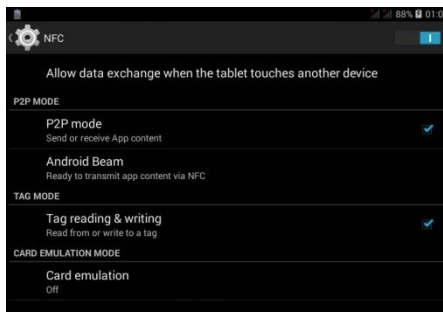
3.8.3 Exchanging Data with NFC-EnabledDevice

To use NFC to exchange App contents, both sending and receiving devices must be NFC-enabled and unlocked. The following describes how to beam App content from the GT78-VN to another NFC device:

1. Make sure both devices are NFC-enabled. For your GT78-VN, enableNFC asdescribedin3.7.1Enabling/DisablingNFCifitisn'tenabledyet.

2. OntheGT78-VN,accessNFCsettingspageandmakesureP2Pmode check box isticked.

3. Open the content you want toexchange.

4. Makesurethescreenofbothdevicesareunlocked,thentouchthedevices together, back toback.

5. On the GT78-VN, you will hear a sound and be prompted a message **"Touchtobeam"**.TouchthescreenoftheGT78-VNtobeginthebeaming process.

6. The content will appear on the other devices'sscreen.

3.9 Using the BarcodeScanner

Barcode scanner is an optional feature on the GT78-VN. Depending on your models, your GT78-VNmight be equipped with 2D barcode scanner. This section will walk you through the basic operations. To get the information on supported barcode formats, see 3.8.3 Supported Barcode Formats for details.

Caution: The barcode scanner uses laser lights to scan barcodes. DO NOT stare into the laser beams or point the laser beam at anyone's eyes when the barcode scanner is in operation.

3.9.1 Installing APKFile

As of the time of time of release, the GT78-VN may not have the barcode scanner software installed. If this is the case, you must install the APK file on your GT78-VN first in order to activate the scanner function.

1. Download the APK file **(SignedBarcodeSample.apk)** from the PartnerZoneofourwebsiteandsavethefile to your computerfirst.

2. Connect the GT78-VN to that computer usinga USBcable.TheGT78-VNwillpromptsyouto choosea USB option. Select "**USB storage**" to transfer files between your computer and the GT78-VN.

3. CopytheAPKfilefromyourcomputertothe GT78-VN's internal USB storage or SD card. Then disconnect your computer from the GT78-VN.

4. OntheGT78-VN,usethe**FileManager**Appto navigate to theAPK file.
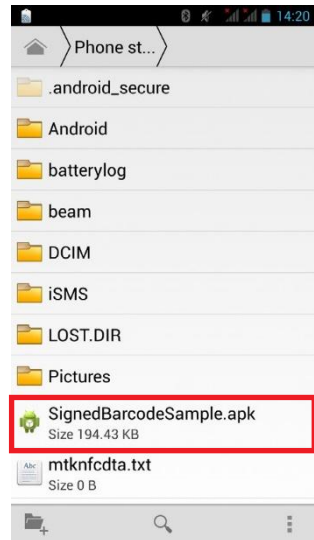
5. TaptheAPKfileandthenfollowthepromptstoinstalltheapplication.

3.9.2 Scanning theBarcode

Generally a third-party barcode application will be used to process the data read by the scanner. This user manual will not cover these applications. The following steps serve as an example only to show the basic operation of the barcode scanner.

1. To scan a 2D barcode like QR code: Launch the web browser.

2. Pointthescannerwindowatthebarcodeandpresseitherofthetwo**Scan** keys. The scanner will project an aiming beam.

3. Accordingtothebarcodescanned,thescanneddataisdisplayedinthe textfieldoranactionistriggered.

Scan key

3.9.3 Supported BarcodeFormats

2D Model

Type	Formats
Linear	UPC/EAN/JAN, GS1 DataBar, Code 39, Code 128, Code 32, Code 93, Codabar/NW7, Interleaved 2 of 5, Code 2 of 5, Matrix 2 of 5, MSI, Telepen, Trioptic, China Post;
2D Stacked	PDF417, MicroPDF417, GS1 Composite;
2D Matrix	Aztec Code, Data Matrix, QR Code, Micro QR Code, MaxiCode, Han Xin Code;
Postal	Intelligent Mail Barcode, Postal-4i, Australian Post, British Post, Canadian Post, Japanese Post, Netherlands (KIX) Post, Postnet, Planet Code;
OCR Option	OCR-A, OCR-B, E13B (MICR)

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

This device complies with Part 15 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.
This Product meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies.The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.
FCC RF Exposure Information and Statement the SAR limit of USA (FCC) is1.6 W/kg averaged over one gram of this Device GT78-VN (FCC ID: 2ACHW-GT78VN) has been tested against this SAR limit. SAR information on this can be viewed on-line at http://www.fcc.gov/oet/ea/fccid/. Please use the device FCC ID number for search. This device was tested for typical operations 0mm from the body. To maintain compliance with FCC RF exposure requirements, 0mm separation distance should. maintained to the user's bodies

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital
 device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference
 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions,
 may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to
try to correct the interference by one or more of the followingmeasures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the
 receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.
FCC ID: 2ACHW-GT78VN

RF Specification:

Function	Operation Frequency	Max RF output power:	Limit
BLE	2402MHz–2480MHz	2.36 dBm	20 dBm.
BT(BR+EDR)	2402MHz–2480MHz	8.94 dBm	20 dBm.
WIFI 802.11b/g/ n(HT20/40)	802.11b/g/n(20MHz): 2412~2472MHz; 802.11n(40MHz):2422~2462MHz	13.24 dBm	20 dBm.
Wi-Fi 5.2G(802.11a/n20/ n40/ac20/ac40/ac 80)	802.11a/ n20/ac20:5180MHz~5240MHz 802.11 n40/ac40:5190MHz~5230MHz 802.11 ac80:5210MHz	10.15dBm	23 dBm.
Wi-Fi 5.3G(802.11a/n20/ n40/ac20/ac40/ac 80)	802.11a/ n20/ac20:5260MHz~5320MHz 802.11 n40/ac40:5270MHz~5310MHz 802.11 ac80:5290MHz	9.09dBm	23 dBm.
Wi-Fi 5.6G(802.11a/n20/ n40/ac20/ac40/ac 80)	802.11a/ n20/ac20:5500MHz~5700MHz 802.11 n40/ac40:5510MHz~5670MHz 802.11 ac80:5530MHz	10.61dBm	23 dBm.
Wi-Fi 5.8G(802.11a/n20/ n40/ac20/ac40/ac 80)	802.11a/n20/ac20 :5745-5825MHz band ; 802.11 n40/ac40 : 5755-5795MHz band ; 802.11 ac80 : 5775MHz band ;	9.55 dBm	13.98dBm
GSM/GPRS/EGP RS 900	TX(Uplink):880M‐915MHZ; RX(Downlink):925M‐960MHZ	32.20 dBm	class 4 (33±3dBm)
GSM/GPRS/EGP RS 1800	TX(Uplink):1710M‐1785MHZ; RX(Downlink):1805M‐1880MHZ	29.85 dBm	class 1 (30±3dBm)
WCDMA B1	TX(Uplink):1920-1980MHz; RX(Downlink):2110-2170MHz	22.97 dBm	24 (dBm) +1,7/-3,7 (dB)
WCDMA B8	TX(Uplink): 880-915MHz; RX(Downlink):925-960MHz	22.22 dBm	24 (dBm) +1,7/-3,7 (dB)
LTE FDD B1	TX(Uplink):1920-1980MHz; RX(Downlink):2110-2170MHz	23.99 dBm	23(dBm) ±2,7(dB)
LTE FDD B3	TX(Uplink) :1710-1785MHz; RX(Downlink):1805-1880MHz	23.97dBm	23(dBm) ±2,7(dB)
LTE FDD B7	TX(Uplink) :2500-2570MHz; RX(Downlink):2620-2690MHz	23.93 dBm	*23(dBm) ±2,7(dB)*
LTE FDD B8	TX(Uplink): 880MHz to 915 MHz RX(Downlink): 925 MHz to 960 MHz	23.10 dBm	*23(dBm) ±2,7(dB)*
LTE FDD B20	TX(Uplink) 832MHz~862MHz; RX(Downlink)791MHz~821MHz	23.04 dBm	*23(dBm) ±2,7(dB)*
LTE FDD B28	TX(Uplink): 703 MHz to 748MHz RX(Downlink): 758 MHz to 803 MHz	23.45 dBm	*23(dBm) ±2,7(dB)*
LTE TDD B38	Uplink & Downlink: 2570 MHz to 2620 MHz	24.05 dBm	*23(dBm) ±2,7(dB)*
LTE FDD B40	Uplink & Downlink: 2300 MHz to 2400 MHz	23.16 dBm	*23(dBm) ±2,7(dB)*
GPS	Rx(Downlink): 1.57542GHz	--	--
NFC	13.56MHz	18.4dBuA/10m	60 dBuA/10m

Warning:

1.Use careful with the earphone maybe possible excessive sound pressurefrom earphones and headphones can cause hearing loss.

2. CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BYAN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDINGTO THE INSTRUCTIONS.

3. The product shall only be connected to a USB interface of version USB2.0.

4. Adapter shall be installed near the equipment and shall be easily accessible.

5. Operation temperature:-10~35ºC.

6. The plug considered as disconnect device of adapter.

7. SAR: The device complies with RF specifications when the device used at 0cm from your body (SAR limit 2.0 W/Kg). The device is in compliance with the requirements.

Restrictions in the 5 GHz band:

According to Article 10 (10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium (BE), Bulgaria (BG), the Czech Republic (CZ),Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain(ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania(LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria(AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK),Finland (FI), Sweden (SE),, Turkey (TR), Norway(NO), Switzerland (CH), Iceland (IS), and Liechtenstein (LI).

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5250 MHz frequency range.

	ES	LU	RO	CZ	FR	HU	SI
	DK	HR	BE	BG	DE	EE	IE
	EL	IT	Cy	LV	LT	SK	MT
	NL	AT	PL	PT	FI	SE	TR
	NO	CH	IS	LI			