Tablet-VT-7A FD1 WIFI only and Docking Station

User's Manual

Version 1.1.0

Revision History

Version	Release Time	Description
1.0.0	20240828	Create

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Disclaimer

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 3RTablet products.

CONTENT

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.

FCC Class B

This device complies with Part 15 of the FCC Rules. Any changes or modifications not expressly approved by the guarantee of this device could void the user's authority to operate the equipment.

RoHS

3RTablet 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 2011/65/EU.

Safety Instructions

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.

Read the safety instructions carefully and thoroughly. All cautions and warnings on the equipment or user's manual should be noted.

The openings on the enclosure are used for air convection and to prevent the equipment from overheating. Do not cover the openings.

- Make sure the correct voltage (8-36VDC) is connected to the equipment.
- If the equipment will not be used for a long time, disconnect it from the power source to avoid damage by transient over voltage.

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

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

Place this equipment on a reliable surface when installing. Dropping it or letting it fall may cause damage.

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

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.

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 – do not leave it in a hot trunk during the summer.

● Using the Equipment for the First Time
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.

Additional Information & Technical Support

You can download the related technical documents such as data sheet 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. www.3Rtablet.com

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 according to 3Rtablet after-sale-service 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.

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

FCC Statement

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 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your 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.

Specific Absorption Rate (SAR) information:

This Tablet 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) is 1.6 W/kg averaged over one gram of tissue. Device types: Tablet has also been tested against this SAR limit. This device was tested for typical body-worn operations with the back of the Tablet kept 0mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain an 0mm separation distance between the user's body and the back of the Tablet. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

ISED Statement

English:This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

French: Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada.

L'exploitation est soumise aux deux conditions suivantes :

(1) Cet appareil ne doit pas provoquer d'interférences.

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

l'appareil numérique du ciem conforme canadien peut - 3 (b) / nmb - 3 (b).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 2.5 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme aux limites d'exposition aux rayonnements du Canada établies pour un environnement non contrôlé.

Specific Absorption Rate (SAR) information:

This Tablet 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. ISED RF Exposure Information and Statement the SAR limit of Canada(ISED) is 1.6 W/kg averaged over one gram of tissue. Device types: Tablet has also been tested against this SAR limit. This device was tested for typical body-worn operations with the back of the Tablet kept 0mm from the body. To maintain compliance with ISED RF exposure requirements, use accessories that maintain an 0mm separation distance between the user's body and the back of the Tablet . The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with ISED RF exposure requirements, and should be avoided.

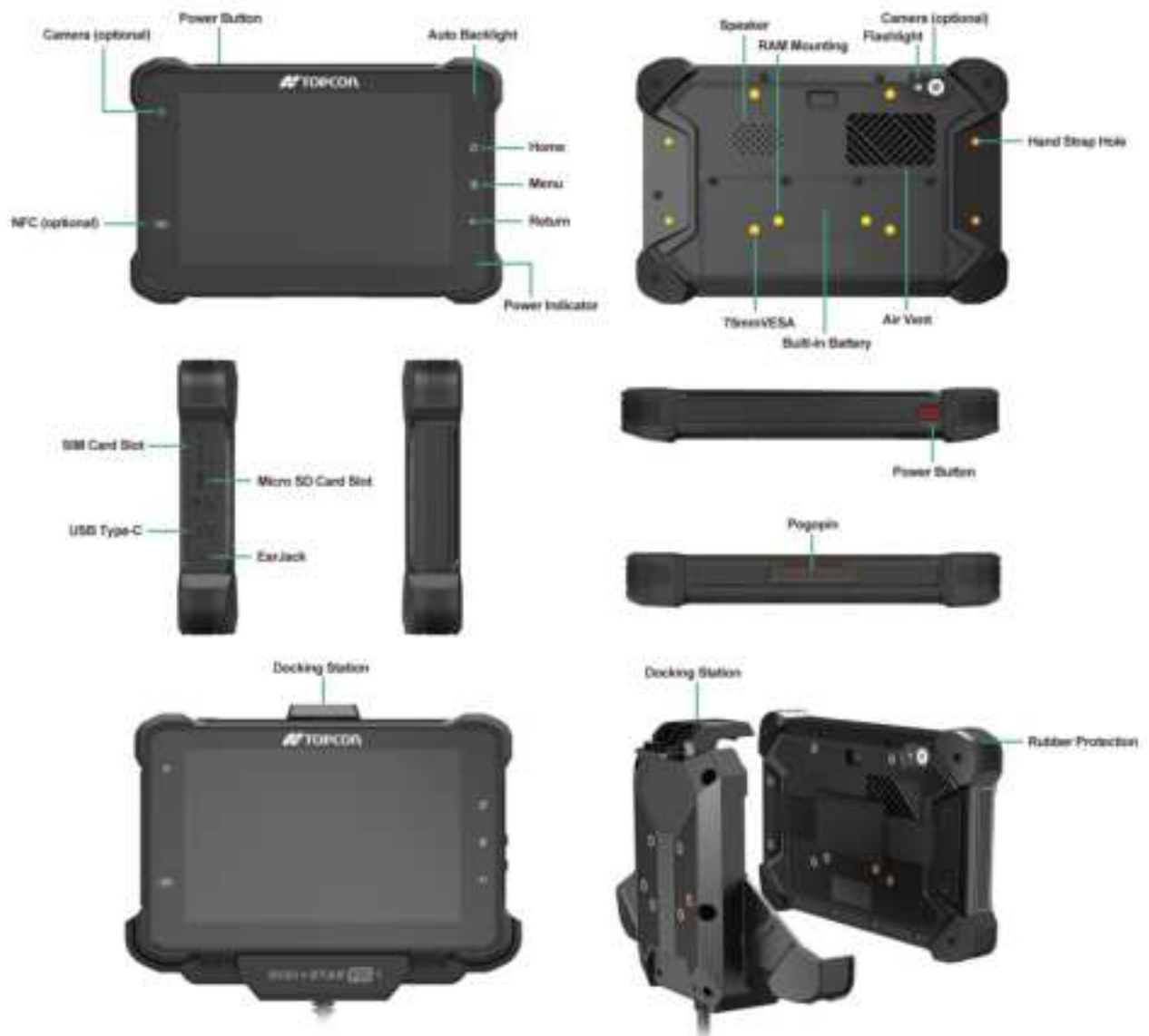## Informations sur le débit d'absorption spécifique (DAS):

Cette tablette répond aux exigences du gouvernement en matière d'exposition aux ondes radio. Les lignes directrices sont basées sur des normes élaborées par des organisations scientifiques indépendantes à travers une évaluation périodique et approfondie des études scientifiques. Les normes comprennent une marge de sécurité substantielle conçue pour assurer la sécurité de toutes les personnes, quel que soit leur âge ou leur état de santé. Information et déclaration d'ISDE sur l'exposition aux RF la limite DAS du Canada (ISDE) est de 1,6 W / kg en moyenne sur un gramme de tissu. Types d'appareils: la tablette a également été testée par rapport à cette limite SAR. Cet appareil a été testé pour des opérations typiques portées sur le corps avec le dos de la tablette gardé à 0 mm du corps. Pour maintenir la conformité avec les exigences d'exposition RF d'ISDE, utilisez des accessoires qui maintiennent une distance de séparation de 0 mm entre le corps de l'utilisateur et l'arrière de la tablette. L'utilisation de clips de ceinture, d'étuis et d'accessoires similaires ne doit pas contenir de composants métalliques dans son assemblage. L'utilisation d'accessoires qui ne satisfont pas à ces exigences peut ne pas être conforme aux exigences d'exposition aux RF d'ISDE et doit être évitée.
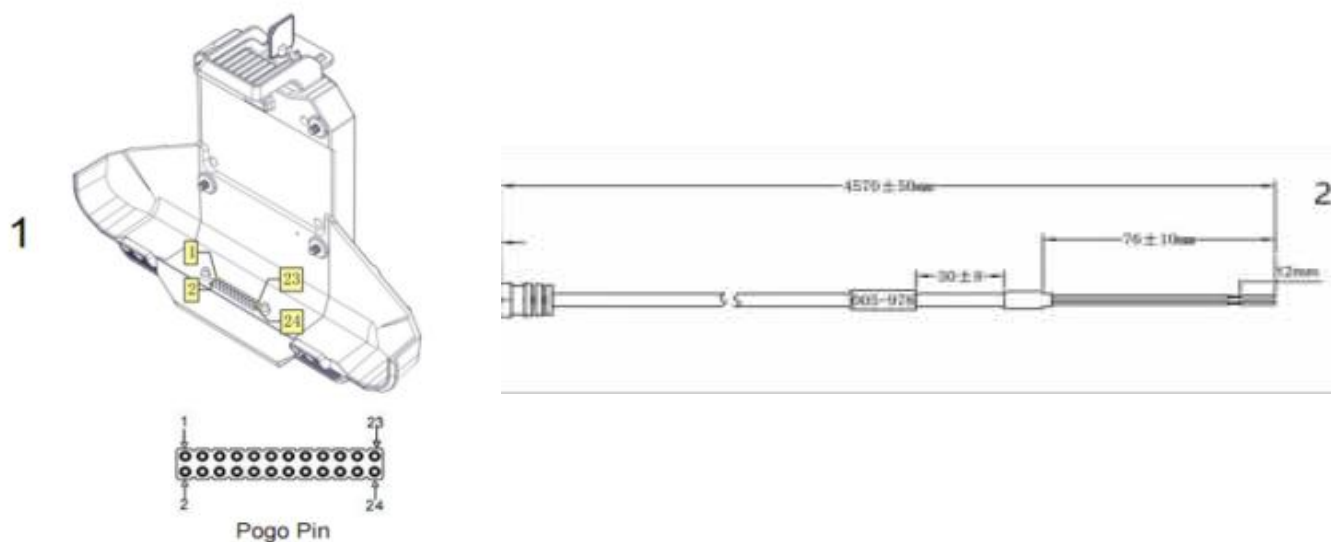
1. Introduction

1.1. Product Highlights

● Qualcomm Cortex-A53 64-bit Quad-Core Process 2.0 GHz

● Android 12 Operation System

● Comply with IP67 rating

● WIFI, and 5000mAh rechargeable battery supported

● 7 Inch IPS Display, physical 1280x800 resolution, 800cd/m², multi-point capacitive touch

● Portable with Docking Station

1.2. Parts of the Device

1.3. Extended Cable Definition

NO.	Item	Definition							
1	Pogo Pin	1	2	3	4	5	6	7	8
		GND	GPI1	USB_DP	GPI2	USB_DM	GPO1	GND	GPO2
		9	10	11	12	13	14	15	16
		DEBUG_RXD	DEBUG_TXD	UART0_RXD	UART0_TXD	UART1_RXD	UART1_TXD	GPI3	GPO3
		17	18	19	20	21	22	23	24
		GND	USB_PWR_EN	Docking_EN	ACC_IN	DC+		DC-(GND)	
2	Power	DC input Voltage: DC8-36V (ISO 7637-2 compliant)							

1.4. Specifications

System	CPU	Qualcomm Cortex-A53 64-bit Quad-Core Process 2.0 GHz
	OS	Android 12
	GPU	Adreno ™ 702
Storage	RAM	LPDDR4 3GB
	ROM	eMMC 32GB
Display	LCD	7 Inch Digital IPS Panel, 1280 × 800, 800 nits
	screen	Multi-point Capacitive Touch Screen
Audio	Integrated microPC	

	Integrated speaker 8Ω/2W	
Communication	WIFI	802.11b/g/n; 2.4GHz
Sensor	Acceleration, Gyro sensor, Compass, Ambient light sensor	
Interface	Type-C	TYPE-C (USB TYPE-A and USB TYPE-C cannot be used simultaneously)
	Micro SD Slot	1 × Micro SD card slot, Support up to 512GB
	SIM Socket	1 × Micro SIM Card slot
	EarPC Jack	3.5mm headPC jack compliant with CTIA standard
	Docking connector	POGO PIN × 24
Power supply	Power	DC 8-36V
	Battery	3.7V, 5000mAh battery
Environmental reliability	Drop test	1.2m drop-resistance
	IP rating	IP67
	Vibration test	MIL-STD-810G
	Operating temperature	-10°C ~ 65°C (14°F ~ 149°F)
	Storage temperature	-20°C ~ 70°C (-4°F ~ 158°F)
Extended Interface		
Power	× 1 (8-36V)	

2. Getting Started

2.1. Power On/Off and Sleep/Wake

This Chapter is describing how to power on/off the device, put the device into sleep mode (screen saver) and force restart.

Proper operation of power on/off the device will be beneficial to ensure the stability of the system. The device status indicated by the color of the indicator is as described in the following table for the standard VT-7A.

Table 2.1.1 VT-7A Indicator color and device status table

LED state / Power status	Device Status	
	Boot	Shutdown
DC input	Fully charged: Green Not fully charged: Orange	Fully charged: Light off Not fully charged: Red
No DC input	Green	Light off
No internal battery	Green	Light off

When a red or green light flashes, the device experiences an abnormality. Please immediately cut off the

external power supply and contact the factory.

2.1.1. Power on the Device

1. Long press the power button for more than 2 seconds, It needs around 35 seconds to start the system. The indicator is on when VT-7A start up normally.
2. Power on by connecting ACC, see the details in Chapter "3.2.3 Using ACC".
3. Standby power: 5w (typical)

2.1.2. Power off the Device

1. Power off by pressing the button: In the status of working on the device desktop, long press the power button for more than 2 seconds until the shutdown prompt pop-up then click the "Power off"option.
2. Power off by ACC, see the details in the Chapter "3.2.3 Using ACC".

2.1.3. Sleep and Wake the Device

a. Auto sleep, the sleep time can be set up in the settings.
b. Short press power button to sleep.
c. Sleep by ACC, see the details in Chapter "3.2.3 Using ACC"
d. Short press to wake
e. Wake by ACC, see the details in Chapter "3.2.3 Using ACC"
f. The average of power consumption in sleep status:
   Powered by DC power supply or USB: 0.78W

2.2. Charging the Battery(Only the Docking version of the tablet is applicable)

The battery is partially drained during the transportation. Be sure to charge the battery to full when you are charging it for the first time.

Tips:

Please keep the tablet being powered from external DC supply when it is working. In order to ensure the life and performance of the battery, if your tablet has been stored in the warehouse for more than three months, it is recommended to charge the battery every three months.

2.2.1. Charging with the Power Adapter

To charge the battery with the provided power adapter:
a. If the device with an optional docking station, then mount the VT-7A tablet with docking station, connect the power adapter to the DC port of Docking Station.
b. The VT-7A could be powered by 5V charger adapter through a type-C cable.
c. The DC power supply voltage input range of the docking station is 8-36V, and the DC power supply of the

tablet is 5V. Please note that the adapter must be of the corresponding specification when supplying power to the tablet or the docking station.

Note:

The power supply of the docking station has priority over the Type-C power supply. When both power sources are present, the tablet will automatically switch to be powered by the docking station.

2.2.2. Checking the Battery Level

a. When the charging is in process, a battery indicator will appear in the status bar showing the charging percentage. To view the charge percentage, swipe down the Status Bar and you will see the charging percentage.

2.2.3. Installing/Replacing the Battery

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

1. Place the device on a flat surface, with the rear side facing up. Loosen the retaining screws on the back cover by using a Hexagon socket screwdriver with flat head.

2.   Before re-install or replace a battery, pin definition and direction of the battery connector must be checked, to make sure the contact pins are aligned correctly.
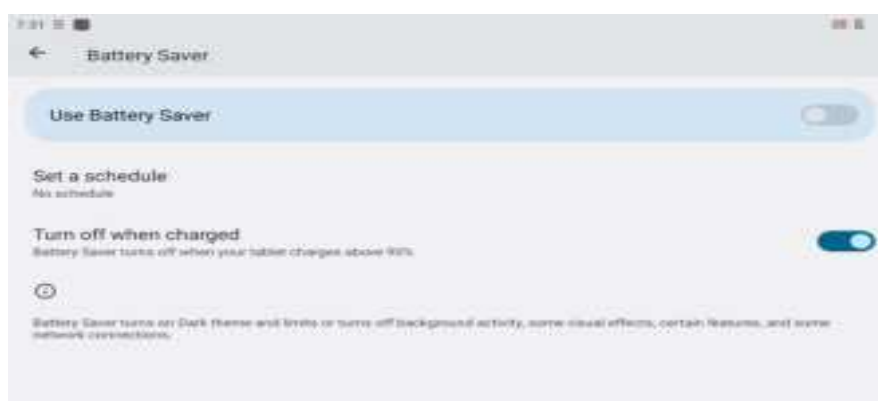
3. Assemble the battery cover and secure the retaining screws by using a Hexagon socket screwdriver with flat head.

2.3. Optimizing Battery Life

If the VT-7A is unable to keep charging by DC power supply, to optimize the operating time of the battery, it is recommended that you do the following:

➢ Decrease the LCD display brightness.
➢ Set a shorter timeout of inactivity to allow the screen enter sleep mode.
➢ Turn off the display if you are not using it.
➢ If you are not using the Wi-Fi feature, turn it off..
➢ Set a battery protection plan to automatically turn on battery protection when the battery is below the set threshold.

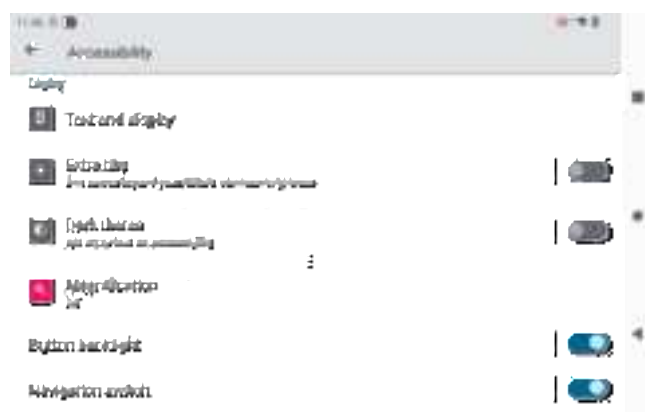# 3. Using VT-7A Function

3.1. Software Function

3.1.1. Virtual Button

Find the "System navigation" switch button in the "Settings→Accessibility→ Navigation switch" to control the display or hide the virtual buttons on the right side of the screen.
You can use gestures or three virtual buttons to return, return to the main interface, and switch APP operations in the background.

Navigation switch-OFF   Navigation switch-ON

3.1.2. Button Backlight

Find the Lights switch in "Settings→Accessibility→Button backlight". If the switch is turned on, the screen wakes up/off and the button backlight is on/off at the same time; if the switch is turned off, the button backlight is off whenever the screen is waked up or turned off.
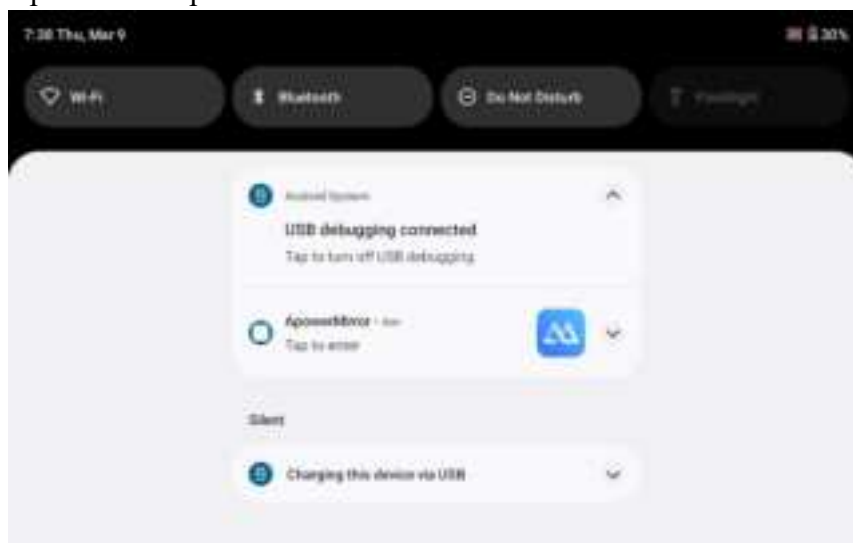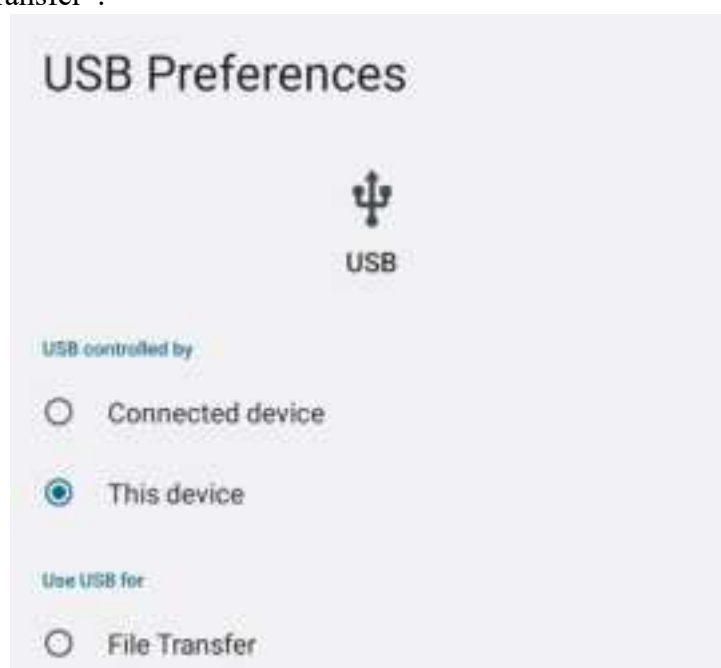
3.1.3. Using Type-C Interface

You can transfer files, such as pictures or audio files, between your computer and your device using the provided USB cable.

3.1.3.1. File Transfer

① Connect the device to the computer by using the Type-c cable to enter the USB debugging mode of the tablet, and it will show open the prompt message on the status bar. Refer to the following figure, click "charging this device via USB" to expand other options.

② Then select "File Transfer".

③ On the computer find out the "Device" in "This PC".

3.1.3.2. Use Instructions of USB TYPE-A

If you want to use the USB TYPE-A function of the docking station, you need to ensure that the tablet was disconnect the Type-C wiring of the device
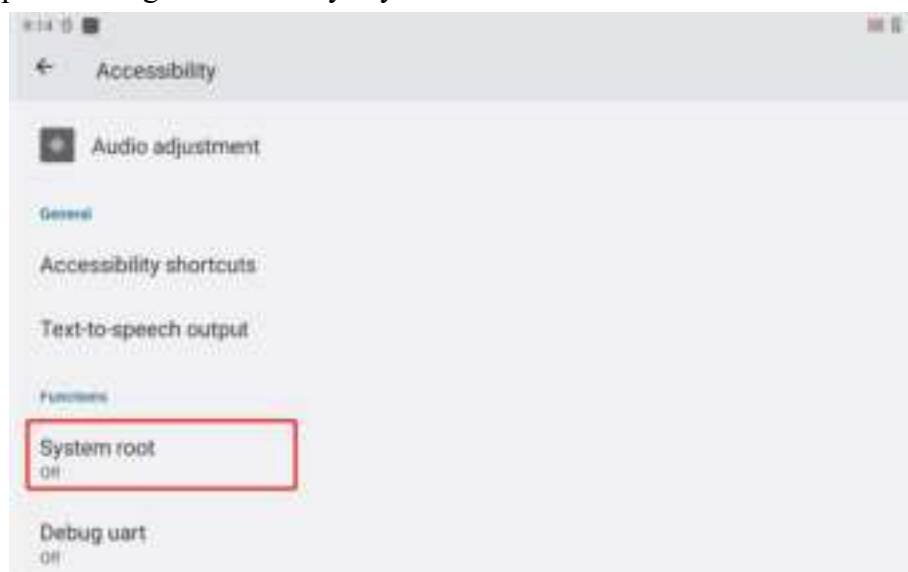
3.2. Hardware Function

3.2.1. Docking station

When placing the device on the docking station, it will be better to disconnect the DC power of the docking station first, and then connect the DC power of the docking station after installation.

3.2.2. System Root Switch Usage Guide

Root switch setting path: setting>Accessibility>System root

The root switch setting interface is as follows.
1. The Root permission (on/off) switcher. Initial password: qwertyuiop
2. Modify the switch password of the root state.

Note:
If restore the factory settings, the root switch state will be reset to OFF, and the password is restored to the initial.

4. Docking Station Using Instruction

4.1. Docking Station Install Steps

4.1.1 Align the VT-7A to the limit slot of docking station as Figure 1 shown.

Figure 1

4.1.2 Pull the buckle up as the Figure 2 shown.

Figure 2

4.1.3 Push VT-7A to make it attached the docking via snap joint, as Figure 3 shown.

Figure 3

4.1.4 Release and finish the installation as Figure 4 shown.

Figure 4

4.2. Docking Station Disassemble Steps

4.2.1 Stretch upwards the buckle to release it from the device, as Figure 5 shown.

Figure 5

4.2.2. Take out the device as Figure 6 shown.

Figure 6

5. Accessories

5.1. Accessories

Docking Station	1pcs
USB to Type-C cable	1pcs
Allen Wrench	1pcs
Screws for RAM	4pcs
Screws for SIM card	2pcs

Specifications

Hardware Version: VT-7A_V003

Software Version: 1.6.7

2.4G WIFI: 2412MHz ~ 2472MHz (Max. EIRP: 16.13dBm)

SAR: The device complies with RF specifications when the device used at 0mm from your body.

Declaration of conformity

Topcon Positioning Systems Inc declares that this Isothermal Fluorescence PCR is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. In accordance with Article 10(2) and Article 10(10), this product allowed to be used in all EU member states.

Manulacturers shall ensure that radio equipment shall be so constructed that it can be operated in at least one Member State without infringing applicable requirements on the use of radio spectrum.

Applicant: Topcon Positioning Systems Inc

Address: 7400 National Drive, Livermore CA USA 94550

Manufacturer: ZHANGZHOU 3RTABLET TECHNOLOGY CO.,LTD

Address: No.26 Fu Qi North Road, Long Wen District, Zhang Zhou, Fu Jian, China