VT-TABLET-5081S User Manual

Product Version: 1.0

Date: 2021/11/22

Vantron

For any question, please contact Chengdu Vantron Technology, Ltd.

Change History

This document describes **VT-TABLET-5081S** briefly and is intended for all readers. This table

describes the version and release date.

No.	Version	Date	Description	Author
1	1.0	2021/11/22	First release.	Kang

Foreword

Copyright

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technical details and printing, Vantron assumes no responsibility resulting from any error or

features of this manual, or from improper uses of this manual or the software. Please contact our

technical department for relevant operation solutions if there is any problem that cannot be solved

according to this manual.

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Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Type	Description
	Notice	Important information and regulations
	Caution	Caution for latent damage to system or harm to personnel

Statement & Disclaimer

It is recommended to read and comply with this manual before operating **VT-TABLET-5081S** which

provides important guidance and helps decreasing the danger of injury, electric shock, fire, or any

damage to the device.

Vantron assumes no legal liability of accidents resulting from failure of conforming to the safety

instructions.

Limitation of Liability/Non-warranty

For direct or indirect damage to this device or other devices of Vantron caused by failure of conforming to this manual or the safety instructions on device label, Vantron assumes neither warranty nor legal liability even if the device is still under warranty.

VT-TABLET-5081S should be installed, debugged and maintained by professionals.

The outside antennas are not permitted to be installed or to be changed by non-professionals. To run the device normally, only specified antennas are approved to be assembled together by professionals.

Unit shall be used with indoor-use antenna only. No antenna for this unit can be installed outdoor.

Safety Instructions

✧ Keep and comply with all operation instructions, warnings, and information.

✧ Pay attention to warnings on this device.

✧ Read the following precautions so as to decrease the danger of injury, electric shock, fire, or any damage to the device.

✧ Operations and service instructions are provided with the equipment.

✧ Unit shall be used with indoor-use antenna only. No antenna for this unit can be installed outdoor.

✧ The maximum operation temperature is 40°C.

Precautions

✧ Pay attention to the product labels/safety instructions printed on silk screens.

✧ Do not try repairing this product unless declared in this manual.

✧ Keep away from heat source, such as heater, heat dissipater, or engine casing.

✧ Do not insert other items into the slot (if any) of this device.

◆ Ensure ventilation of the ventilation slot.

◆ System fault may arise if other items are inserted into this device.

✧ Installation: ensure correct installation according to instructions from the manufacturer with recommended installation tools.

✧ Ensure ventilation and smoothness according to relevant ventilation standards.

Safety Instructions for Power Cables and Accessories

⚠ Use Proper power source only. Start only with power source that satisfies voltage label and the voltage necessary according to this manual. Please contact technical support personnel of Vantron for any uncertainty about the requirements of necessary power source.

⚠ Use tested power source. This product still contains a button lithium battery as a real-time clock after its external power source is removed and therefore should not be short-circuited during transportation or placed under high temperature.

⚠ Place cables properly: Do not place cables at any place with extrusion danger.

⚠ **Cleaning Instructions**

- ✧ Please power off before cleaning the device.
- ✧ Do not use spray detergent.
- ✧ Clean with a damp cloth.
- ✧ Do not try cleaning exposed electronic components unless with a dust collector.
- ✧ Support for special fault: Power off and contact technical support personnel of Vantron in case of the following faults:
  - The device is damaged.
  - The temperature is excessively high.
  - Fault is still not solved after operations according to the manual.

Contents

1. Overview

1.1 Introduction

Thank you for choosing Vantron. It is our commitment to provide our valued customers with the embedded devices equipped with the state-of-the-art technology and product services.

Tablet enables interaction between operators/users and applications, connects industrial control products such as wireless, transducer, built-in battery, storage, etc. Tablet adopts a display and supports units such as touch screen, keyboard, audio, sensors, etc. As a digital device for information interaction between human and machine, tablet is composed of hardware and software. Based on its ample function interfaces and powerful user operational interfaces, it is very suitable for control units such as medical device, intelligent transportation, industry, etc.

Vantron's VT-Tablet products are based on the most advanced ARM and Rockchip processors and have low power consumption and high integration. The products are designed for applications in industry, medicine, transportation, etc.

1.2 Order Information

Table 1-1 is an example of order information.

Table 1-1 Order information

VT-TABLET-5081S	5VDC Input ,8 " IPS TFT LCD, RK3368, Quad-core 1.4 GHz, OTG TYPEC USB, Two SPEAKERS, WIFI a/b/g/n/ac BT5.0, LTE B48,Wireless Charge etc.

2.VT-TABLET-5081S Hardware Instructions

2.1 Product Appearance

Figure 2-1 and Figure 2-2 show the views of our product.

Figure 2-1 Top view

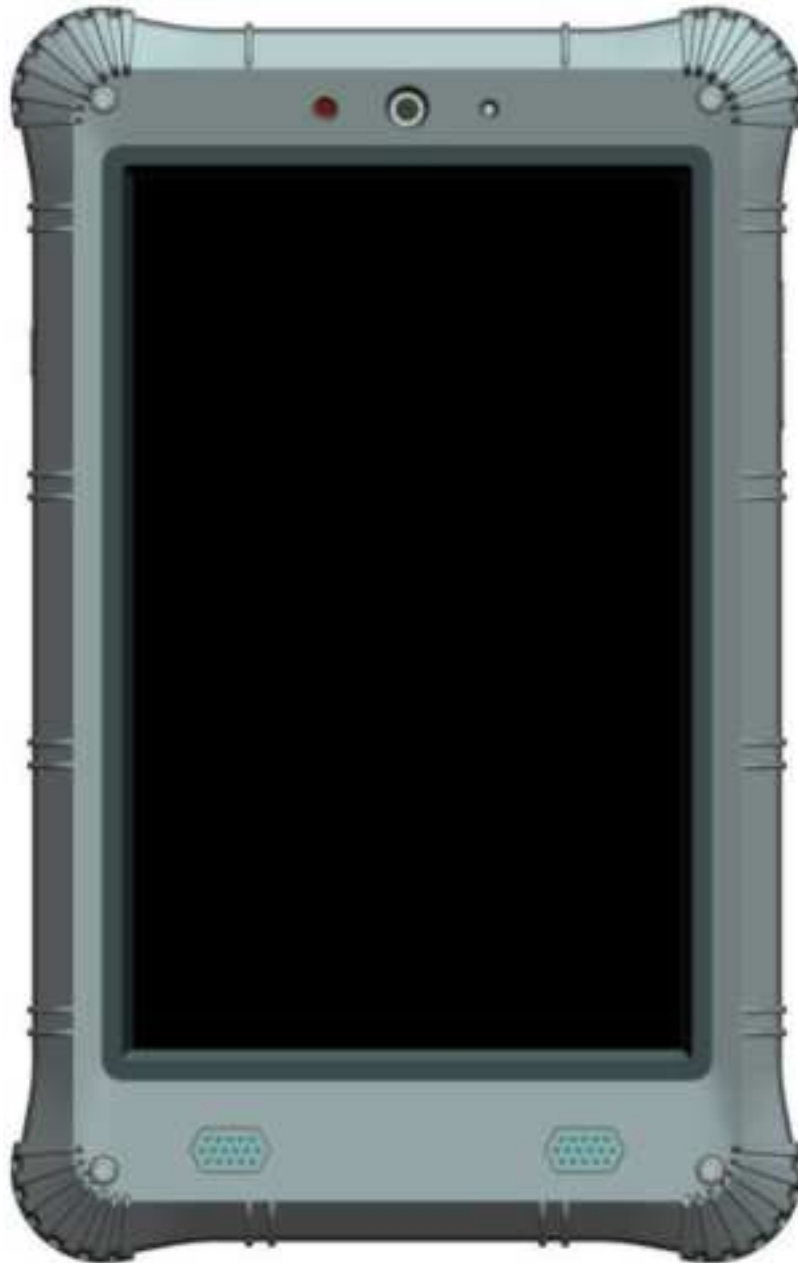Figure 2-2 Back view

2.2 Specifications

shows the specifications.

Table 2-1 Specifications

SYS	CPU	RK3368+RK808-B, Quad-core ARM Cortex-A55 (up to 1.4GHz) Processor
	Mem	LPDDR3-1333 512M*32b
	Flash	eMMC 32GB
Media	Display	8" LCD, Resolution1280x800. Color depth: 16.7M. brightness : Typical 250 cd/m2
	TP	Capacity Touch screen, support 5 point and double tap to wake up.
	Camera	Front Camera, 5MP, MIPI 2-lanes
	Audio	Support 2x3.5mm Stereo headphone Audio Jack, Head Phone (with MIC),1x MIC on board, IC:ALC5640; Support FM, Fre 87~108MHz
I/O /Button	Button	1xPower button, 2xVolume -/+ button
	Recovery	support
	USB	1xUSB Type-C, Support USB 2.0 OTG, Support DC 5V/2A input
	4G LTE CAT 6	LTE CAT6. SIM support Micro-SIM(3FF),support B48
	RFID	RFID Tag, chip is Impinj-M4QT,Fre:860~960MHz
	NFC	Fre:13.56MHz,chipest is PN7150
	WIFI	The WIFI support 2.4GHz/5GHz, 802.11b/g/n/ac. Mode: AP/ Station. Bluetooth support BT 5.0/BLE.
	BT	BLE, BT5.0.
LED	Status LED	Red\Green bi-color LED, Indicated charging state
RTC	RTC	support by PMIC RK808-B
Sensor	Sensor	Support G-sensor, Gyroscope
Power	Battery	8000mAh/3.8V. support wireless Charge and USB DC input
OS Certification	OS	Android 7
	Regulations certification	FCC

	Operation Temp.	-0C ~ +40℃
	Storage Temp.	-20C ~ +60℃

2.3 Buttons

Power Button

Power off the device and on/off the screen.

Volume buttons

You can use volume up and down buttons to adjust the volume and use the down button to download the software.

 Never apply excessive pressure to a button, or you may cause damage which is not covered under the warranty.

2.4 Interface Description

2.4.1 USB OTG (Type C)

With a standard Type C USB 2.0 port, customers can connect the tablet to the host (for example a PC), and manage the tablet as other Android devices. If the tablet is connected through a USB OTG cable, it can work as a host and operate connected devices.

2.4.2 Audio Jack

A headphone can be connected to the tablet through the standard audio jack so that we can better experience music and free from distractions.

2.4.3   Speakers

2x1w speakers is in the tablet。It can supply comfortable audio for the user.

2.4.4   FM

Support FM function, Frequency 87~108MHz.

2.4.5   Wi-Fi and Bluetooth

The tablet supports 802.11 a/b/g/n/ac Wi-Fi and BLE 5.0 With 2 internal antennas, both

Wi-Fi and BLE can achieve better performance.

2.4.6   LTE

The tablet supports LTE B48 with 4 internal antennas, support Cat 6.

2.5 Packing List

Table 2-2 describes the packing information.

Table 2-2 Packing list

No.	Part Description	Quantity
1	VT-TABLET-5081S	1 PCS

3.Software Instruction

VT-TABLET-5081S has been pre-loaded with Android image, so the system can run

Android tool to update the system image.

4. Device instructions

1), Power supply:

This device only supports 5V DC input. Please use the adapter provided with the DC-Jack.

2), Typec usb supports both host and client modes.

3), Enter the download mode method:

1) Hold down the download key (the middle of the three keys) on the board.

2) Plug in the 5V adapter.

3) Plug in the USB cable.

Once the computer recognizes usb and go to download mode , you can release the button and download software. (Please refer to the software user manual.)

Note：This device only for customer debugging and it does not support OTA features .These features will be supported in our formal devices.

5. Tips

⚠ Waste Disposal

It is recommended to disassemble the device before abandoning it in conformity with local

regulations. Please ensure that the abandoned batteries are disposed according to local

regulations on waste disposal. Do not throw batteries into fire (explosive) or put in common waste

canister. Products or product packages with the sign of "explosive" should not be disposed like

household waste but delivered to specialized electrical＆electronic waste recycling/disposal center.

Proper disposal of this sort of waste helps avoiding harm and adverse effect upon surroundings

and people's health. Please contact local organizations or recycling/disposal center for more

recycling/disposal methods of related products.

Comply with the following safety tips:

⚠ Do not use in combustible and explosive environment

Keep away from combustible and explosive environment for fear of danger.

⚠ Keep away from all energized circuits.

Operators should not remove enclosure from the device. Only the group or person with factory

certification is permitted to open the enclosure to adjust and replace the structure and components

of the device. Do not change components unless the power cord is removed. In some cases, the

device may still have residual voltage even if the power cord is removed. Therefore, it is a must to

remove and fully discharge the device before contact so as to avoid injury.

⚠ Unauthorized changes to this product or its components are prohibited.

In the aim of avoiding accidents as far as possible, it is not allowed to replace the system or

change components unless with permission and certification. Please contact the technical

department of Vantron or local branches for help.

⚠ Pay attention to caution signs.

Caution signs in this manual remind of possible danger. Please comply with relevant safety tips below each sign. Meanwhile, you should strictly conform to all safety tips for operation environment.

▷ Notice

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6.FCC Warning statements

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.

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 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.

7. RF Exposure Information(SAR)

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels. The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/oet/ea/fccid.

To ensure that RF exposure levels remain at or below the tested levels, use a beltclip, holster, or similar accessory that have no metallic component in the assembly and must maintains a minimum separation distance of 15mm between your body and the device.

Appendix A: How to Contact Us

If you have any problem or want to know more about our products, visit ***www.vantrontech.com*** or contact us.

US Office: Vantron Technology, Inc.

Address: 440 Boulder Court, Suite 300,

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