

VT-TPC12-PS
(Hardware) User Manual

Vantron

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Document Information

This table describes the version and release date.

No.	Version	Author	Date	Description
1	1.0	Liu Huan	2024.09.02	First release

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1 Foreword

Thank you for purchasing the Product. This manual intends to provide guidance and assistance necessary on setting up, operating, or maintaining the Product. Please read this manual and make sure you understand the functionality of the Product before putting it into use.

Intended users

This manual is intended for:

- Device owners
- Technical support engineers
- Other users

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Disclaimer

While all information contained herein has been carefully checked to assure its accuracy in technical details and typography, Vantron does not assume any responsibility resulting from any error or features of this manual, nor from improper uses of this manual or the software.

It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without notice.

Technical support and assistance

Should you have any question about the Product that is not covered in this manual, contact your sales representative for solution.

US Office: Vantron Technology, Inc.

Address: 440 Boulder Court, Suite 300 Pleasanton, CA 94566

Tel: 916-202-7042

Email: sales@vantrontech.com

Regulatory information



The Product is designed to comply with:

- Part 15 of the FCC Rules;

Please refer to **Appendix** for Regulatory Compliance Statements.

Symbology

This manual uses the following signs to prompt users to pay special attention to relevant information.


	Caution for latent damage to system or harm to personnel
	Attention to important information or regulations


General safety instructions


For your safety and prevention of damage to the Tablet, please read and observe carefully the following safety instructions prior to installation and operation. Keep this manual well for future reference.

- Do not disassemble or otherwise modify the Product. Such action may cause heat generation, ignition, electronic shock, or other damages including human injury, and may void your warranty.
- Keep away from heat source, such as heater, heat dissipater, or engine casing.
- Do not insert foreign materials into the USB port or any other opening of the Product as it may cause the Product to malfunction or burn out.
- Use only the adapter, power cord, and batteries that are approved for use with this Product. Otherwise, it may cause fire or explosion.
- Be sure that nothing rests on the power cable and that the cable is located at a place without risk of trips.
- Cut off the power before inspection of the Product to avoid human injury or product damage.


Precautions for power cables and accessories

 Use proper power source only. The Product is designed to use PD 20V DC. Make sure the supply voltage falls within the specified range. Always check whether the Product is DC powered before applying power.


 Place the power cable properly at places without extrusion hazards.

 Cleaning instructions:

- Power off before cleaning the Product
- Do not use caustic or aggressive liquids, vapor, or spray
- Clean with a damp cloth
- Do not try to clean exposed electronic components unless with a dust collector

 Power off and contact Vantron technical support engineer in case of the following faults:

- The Product is damaged
- The temperature is excessively high
- Fault is still not solved after troubleshooting according to this manual

 Do not use in combustible and explosive environment:

- Keep away from combustible and explosive environment
- Keep away from all energized circuits
- Do not change components unless the power cable is unplugged.

2 Overview

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

As per request from the Product, we provide VT-TPC12-PS that runs Windows 10 pro system based on intel Pentium N4200. This tablet has a 12-inch LCD with a resolution of 2160 x 1440 to support standard touch controls.

Being 'Application Ready', the Product has embedded a basic operation system with drivers for the interfaces. Therefore, you just need add your application software only to get the Product ready right away. It can speed Time to Market of your products and save more cost.

3 VT-TPC12-PS Hardware Instructions

VT-TPC12-PS is developed based on Intel Pentium N4200.

Product appearance and interfaces

Figure 3-1, Figure 3-2, and Figure 3-3 show the top view, bottom view, and lateral view of the Product.

Figure 3-1 Top view

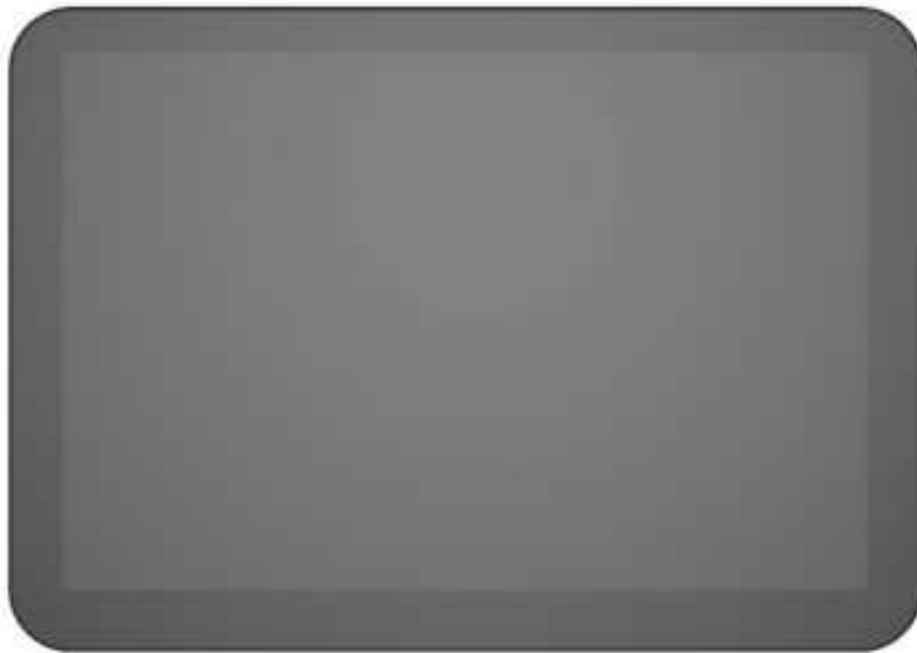


Figure 3-2 Bottom view

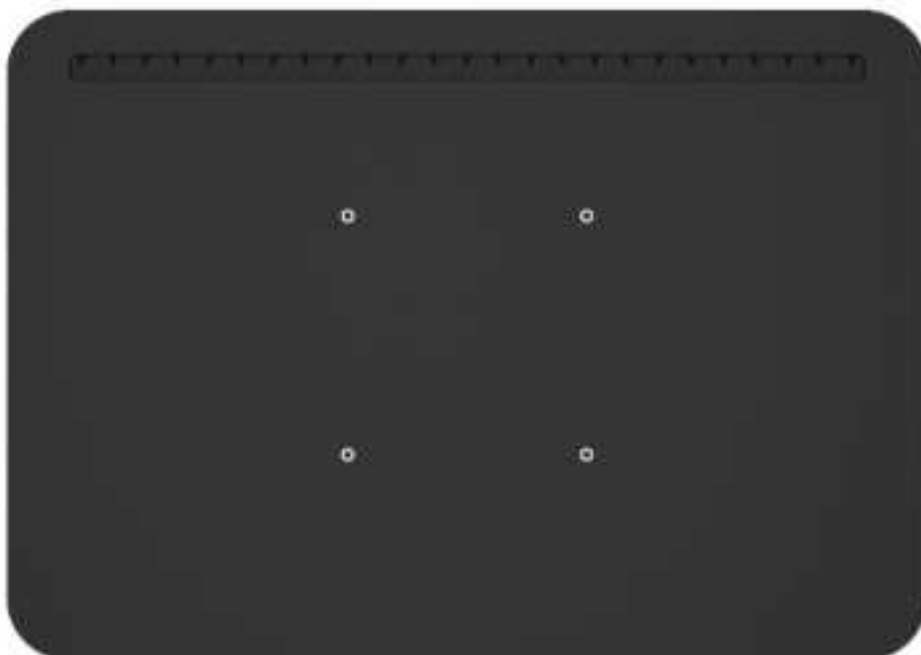


Figure 3-3 lateral view



Specifications

Table 3-2 describes the CPU Board specifications.

Table 3-2 CPU Board specifications

CPU Board Specifications		
System	Processor	Intel Pentium® N4200 Processor, 4Cores, up to 2.5GHz (6W TDP)
	RAM	Onboard LPDDR4-1866 8GB
	ROM	1 x M.2 SATA SSD(Default 128GB)
Display	Resolution	EDP(2160x1440) At least 350 nit
Audio	Audio	2 x Speaker
Peripheral	LAN	Not support
	Security	1 x TPM
	Button	1 x Standard power
	RTC	Supported
Software	OS	Windows 10 pro
Power	Input	12V DC
	Consumption	MAX 22W
Mechanical	Dimensions	289.6*204.6*14.2MM
	Gross Weight	TBD KG
Environment Condition	Temperature	0°C~+35°C
	Cooling Mode	Fanless
	Approvals	RoHS Compliant
	IP Level	NA

Dimensions

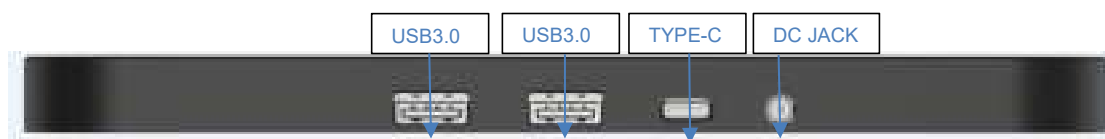


4 Interface description

This chapter describes the hardware features, including switch, jumper, connector and PIN functions.

The interface description is based on the connector sketch map. Necessary information such as pictures are attached.

Connector



USB3.0 TYPE-A: 12.5*5.12mm

TYPE-C: Support USB3.0、DP display

DC JACK: 3.6*13.mm

Power and volume button



5 Disposal and product warranty

Disposal

When the device comes to end of life, you are suggested to properly dispose of the device for the sake of the environment and safety.

Before you dispose of the device, please back up your data and erase it from the device.

It is recommended that the device is disassembled prior to disposal in conformity with local regulations. Please ensure that the abandoned batteries are disposed of according to local regulations on waste disposal. Do not throw batteries into fire or put in common waste canister as they are explosive. Products or product packages labeled with the sign of “explosive” should not be disposed of like household waste but delivered to specialized electrical & electronic waste recycling/disposal center.

Proper disposal of this sort of waste helps avoid 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.

Warranty

Product warranty

VANTRON warrants to its CUSTOMER that the Product manufactured by VANTRON, or its subcontractors will conform strictly to the mutually agreed specifications and be free from defects in workmanship and materials (except that which is furnished by the CUSTOMER) upon shipment from VANTRON. VANTRON's obligation under this warranty is limited to replacing or repairing at its option of the Product which shall, within **12 months or 24 months** depending on the Product after shipment, effective from invoice date, be returned to VANTRON's factory with transportation fee paid by the CUSTOMER and which shall, after examination, be disclosed to VANTRON's reasonable satisfaction to be thus defective. VANTRON shall bear the transportation fee for the shipment of the Product to the CUSTOMER.

Out-of-Warranty Repair

VANTRON will furnish the repair services for the Product which are out-of-warranty at VANTRON's then-prevailing rates for such services. At customer's request, VANTRON will provide components to the CUSTOMER for non-warranty repair. VANTRON will provide this service as long as the components are available in the market; and the CUSTOMER is requested to place a purchase order up front. Parts repaired will have an extended warranty of 3 months.

Returned Products

Any Product found to be defective and covered under warranty pursuant to Clause above, shall be returned to VANTRON only upon the CUSTOMER's receipt of and with reference to a VANTRON supplied Returned Materials Authorization (RMA) number. VANTRON shall supply an RMA, when required within three (3) working days of request by the CUSTOMER. VANTRON shall submit a new invoice to the CUSTOMER upon shipping of the returned products to the CUSTOMER. Prior to the return of any products by the CUSTOMER due to rejection or warranty defect, the CUSTOMER shall afford VANTRON the opportunity to inspect such products at the CUSTOMER's location and no Product so inspected shall be returned to VANTRON unless the cause for the rejection or defect is determined to be the responsibility of VANTRON. VANTRON shall in turn provide the CUSTOMER turnaround shipment on defective Product within **fourteen (14) working days** upon its receipt at VANTRON. If such turnaround cannot be provided by VANTRON due to causes beyond the control of VANTRON. VANTRON shall document such instances and notify the CUSTOMER immediately.

FCC compliance statement

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.

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

Exposure to radio frequency energy:

The radiated output power of this device meets the limits of FCC radio frequency exposure limits. This device should be operated with a minimum separation distance of 20 cm between the equipment and a person's body.

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.

ISED Canada compliance statement:

This device complies with ISED Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

Exposure to radio frequency energy:

The radiated output power of this device meets the limits of ISED Canada radio frequency exposure limits. This device should be

operated with a minimum separation distance of 20 cm between the equipment and a person's body.

Le présent appareil est conforme aux CNR d'ISDE Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

La bande 5150–5250 MHz est réservée uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

L'exposition à l'énergie radiofréquence.

La puissance de sortie rayonné de cet appareil est conforme aux limites de la ISDE Canada limites d'exposition aux fréquences

radio. Cet appareil doit être utilisé avec une distance minimale de séparation de 20 cm entre l'appareil et le corps d'une personne.