



Industrial Android Panel PC

Operation Manual

- ◆ Overview
- ◆ Installation
- ◆ Maintenance
- ◆ Fault Diagnosis Exception Handling

| FC | CE | CCC | RoHS

Dear User:

Thank you for purchasing the industrial android panel pc developed and produced by our company!

This manual is helpful to you for getting familiar with the introduction of features, important notes, installation method, maintenance, etc.

To let you know how to use this product quickly, we have written this manual for you. From which you will get a good understanding of this industrial android panel pc from aspects of important notice, installation and maintenance methods. We suggest you to read it carefully before using this product, which will help you to use it better.

We will do our best to ensure that the information provided in this manual is correct and reliable. If there is any omission, you are welcome to correct it. In order to improve the overall performance and reliability of the product, our company may take some improvements and upgrades to the hardware of the product, resulting in any modification or change of the product specifications or related information mentioned in this manual, without prior notice. Please understand. Thanks for your understanding!

Thank you for your cooperation!

Warm Tips:

1. In order to use the panel pc correctly, please keep this manual carefully for reference.
2. Please don't disassemble the device by any agency or person who are not authorized by our company.
3. Only the professional maintenance person are allowed to repair the industrial android panel pc, for any damage, please contact us.
4. We reserve the right to modify this manual.
5. Our products meet national standards.

Important Notice:

1. The industrial panel pc should be placed on the flat position horizontally.
2. Don't expose the device directly in other heat sources.
3. Please unplug the power cable when thunderstorm weather with lightning occurs.
4. Please place the power cord in a place where people are not easy to trip, and don't cover the power cord with any debris.
5. Please make sure the power supply voltage meets the device requirements before you supply power to the device.
6. To avoid causing fire or electric shock, don't make the external wall socket overload.
7. There must be an easily accessible power socket around the device.
8. Before cleaning the device, please unplug the power, wipe the monitor with a dry and soft cloth (volatile matter is not allowed).
9. Avoid the fragmentation, corrosion and any other damage to products or components (such as shell, LCD/LED panel, port, circuits etc.) caused by insect and rat or any other things inserting.
10. Don't contact with inappropriate temperatures, acid, water or moisture.
11. To avoid a short circuit or fire, don't allow any liquid to flow into or spill into the device.
12. Please don't open the device by any agency or person who are not authorized by our company.
13. Unplug the power cord if the device is not used for a long time.
14. In order to avoid unnecessary damage to the product caused by frequent switching on and off, it is necessary to wait at least 30 seconds before restarting.
15. Before connecting or removing any signal wires, make sure that power cord is unplugged.
16. Ensure good heat dissipation and ventilation of the system.
17. Please install it in the right place under the guidance of professional personnel, such as on the cabinet, wall, etc.

Disclaimer

From the date of purchase, our company provides an 1-year free warranty for the purchaser.

However, the products repaired by unauthorized maintenance person will not provide quality assurance. There is a disclaimer about incorrect use, force majeure, and incorrect installation.

If the products fall in use, we would provide after-sales service for free during the warranty period. While for products that are expired, we will charge the cost of materials and artificial services fee as per reasonable judgement. Please contact the service department for details once product damaged.

Transportation and Packing List

In order to ensure the product intact, please check and accept the goods face-to-face with the camer. Once damage occurs, please don't accept it. Please pay attention to hold the goods, packing materials and accessories intact, and get in touch with us immediately. If there is no objection of the product within the receiving period, it will be regarded that the products are acceptable, then we will not assume the responsibility for damaged goods (unless other special terms is included in contract). Besides, please check if all the following accessories are packed in the carton.

- ▲ Industrial android Panel PC
- ▲ Power adaptor + power cable + COM-RS232 & COM-RS485 cable set
- ▲ Buckle screws * 4 + WIFI Antenna

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1. Overview:

The industrial Android panel pc has an enclosed aluminum alloy structure. It is designed especially for various environments which enables it to be working stably for a long time in different harsh conditions. Material is selected for ensuring its reliability, environmental adaptability, real-time performance, scalability, and EMC compatibility.

RK3288/RK3399 structure is applied, it has various I/O interfaces, such as HDMI, COM, and USB, which can meet a variety of application scenarios, such as commercial intelligence control, industrial intelligence control, military, communications, electricity, network, etc.

Product Highlights:

1. The military grade aluminum alloy front bezel structure and high-efficiency heat dissipation design (fan is also compatible) ensure the PC's stable operation, long service life, safety and noiseless in the harsh conditions, such as high dust, high vibration, high temperature, low temperature, etc.
2. The front panel adopts aluminum alloy die-casting molding, oil spraying and powder spraying process, and the flat panel is IP65 dustproof and waterproof.
3. Industrial-grade mainboard, the components in the board are all industrial-grade, supporting 365*24h uninterrupted operation.
4. Anti interference performance, up to EMI/EMC standard.
5. Standard HDMI+US+COM-RS232 (RS485Optional)+DC power interface adopts anti-drop design.
6. Support HDMI/VGA/DVI optional to automatically identify signal channels.
7. Support wide voltage DC9~36V power input, DC interface and DC terminal block are optional.
8. The OSD can adjust the backlight brightness, multi-language menu selection, and the brightness adjustment will not affect the color saturation of the screen. Brightness up to high brightness 1000nits, sunlight-readable.

9. Capacitive touch screen is high accuracy and high sensitivity, which has many industrial field application characteristics.
10. The LED backlight technology makes the picture colorful, high brightness, good contrast, wide viewing angle, and longer life.
11. Support working temperature -20°C to +70°C, -30°C to +80°C can be customized.
12. High protection against surge. When the voltage rises 280V instantaneously, neither the machine, nor the adaptor will be in malfunction.
13. Anti-static (4KV-8KV) conforms to industrial standards. It can be customized up to 18KV. The high anti-static level can greatly reduce the failure rate of the machine.
14. The anti-vibration standard reaches GB2423, and it won't be damaged when used in transportation/industrial/offshore operation environments.
15. Anti-glare glass surface treatment to reduce the shadow on the screen with big sunshine.
16. Light sensor for auto-dimming to adjust the screen brightness automatically when day and night. It can be turned off by OSD settings.
17. Embedded KIOSK design, a rubber gasket ring sealed the junction to be waterproof for outdoor kiosk.
18. Optical bonding glass treatment optional to reduce the moisture condensation & light reflections with better images.
19. Enhanced front panel design is sturdy and durable.
20. The product complies with RoHS environmental protection standards, the peak power consumption only $\leq 48W$, and it has the characteristics of low voltage, low power consumption, energy saving and mute.
21. Support embedded, wall-mounted, desktop (based bracket, lily leaf bracket), cantilever boom type, etc.

2. Basic Parameter:

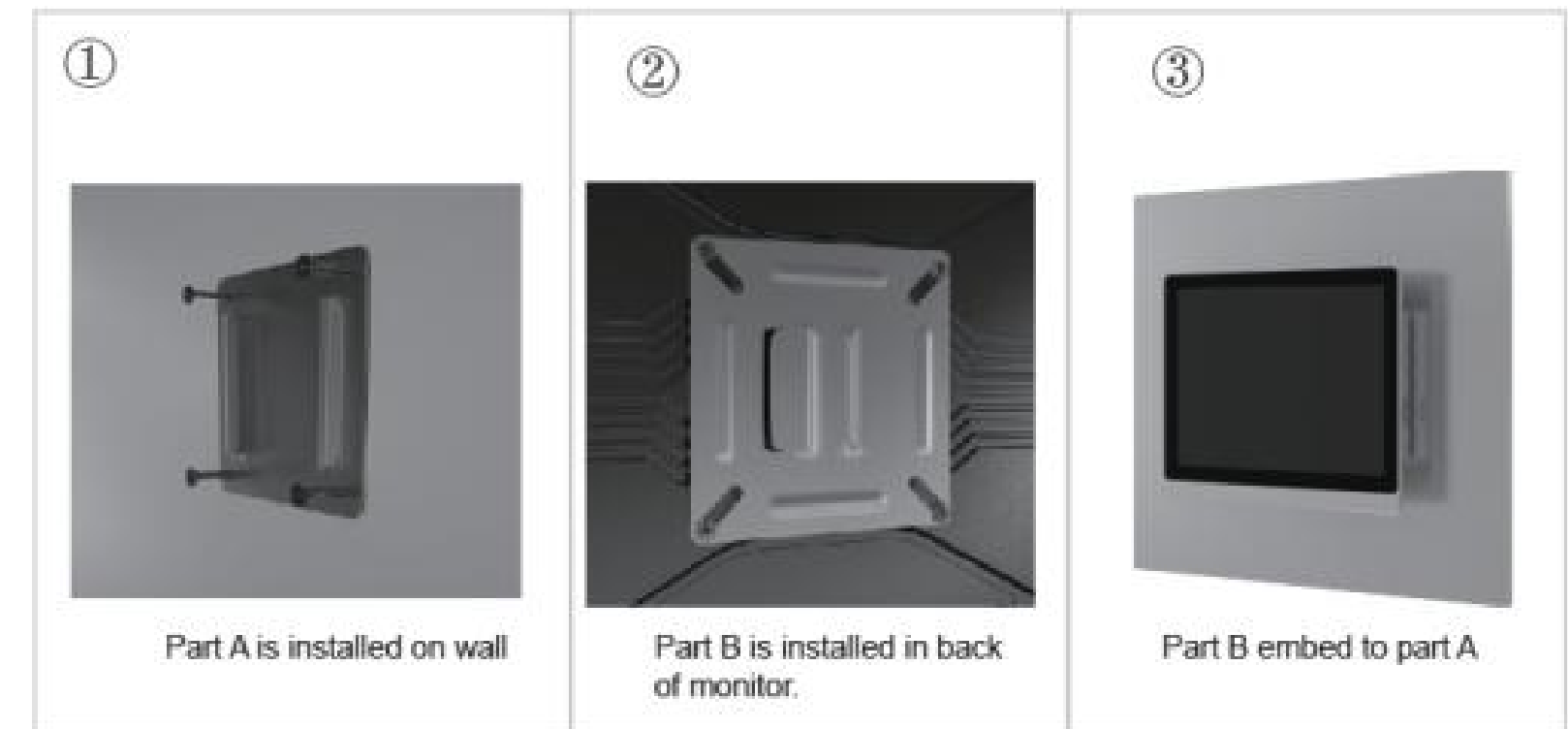
Mainboard	CPU	RK3568/RK3399/RK3288 Cortex-A17 quad core, fanless	
	RAM	2GB/4GB	
	SSD	8G/16G/32GB	
Screen	Panel size	10.1"	
	Resolution	1280*800 16:10	
	Brightness	1000nits (cd/m ²) sunlight-readable, (400nits Optional)	
	Touchscreen		10 points Capacitive Touch
			5 wires Resistive Touch Optional
	Surface Hardness	G+G Glass, ≥6H	
	Touch Interface	USB	
	Working Life	≥50 million times	
	Dimmer	Auto-dimming with light sensor (Optional)	
	Surface Treatment	Anti-glare Glass (Optional)	
Brightness	1500nits (cd/m ²) (Optional)		
Glass Treatment	Optical Bonding (Optional)		
Power Supply	Working voltage	DC12V (DC24V, 9V-36V Optional)	
Enclosure	Material	Aluminum Alloy Black	
	Special Design	Embedded Waterproof Design with Rubber Ring	
	VESA mounting	75x75mm	
	IP grade	Front panel IP65 waterproof	
Environment	Temperature	Operating: -20°C to 70°C, storage: -30 to 70°C	
	Relative humidity	10%~90% @ 30° C, non-condensing	
Dimension	Net weight	2.5kg	
	Gross weight	3.5kg	
	Product size	274.1x173.1x38.5mm	
	Packing size	380*360*120mm	
I/O Interfaces	2xUSB, 2xRS-232, 2xRS485, 1xRJ45, 1xHDMI, 1xTF Slot, 1xAudio 2xDC12V, 1xWIFI, 1xType-c USB, 1xOn/Off, 2xSpeaker 5W		
Customization	Built-in 5000mAh Battery (5 Hours or so) Front Camera 8 Mega Pixels		
OS	Support Android, Linux, Ubuntu, Debian, etc.		
Mountings	Embedded mounting screws		
	Wall mounting brackets; Desk stand holder (optional)		
Warranty	1-year free warranty		

3. Installation:

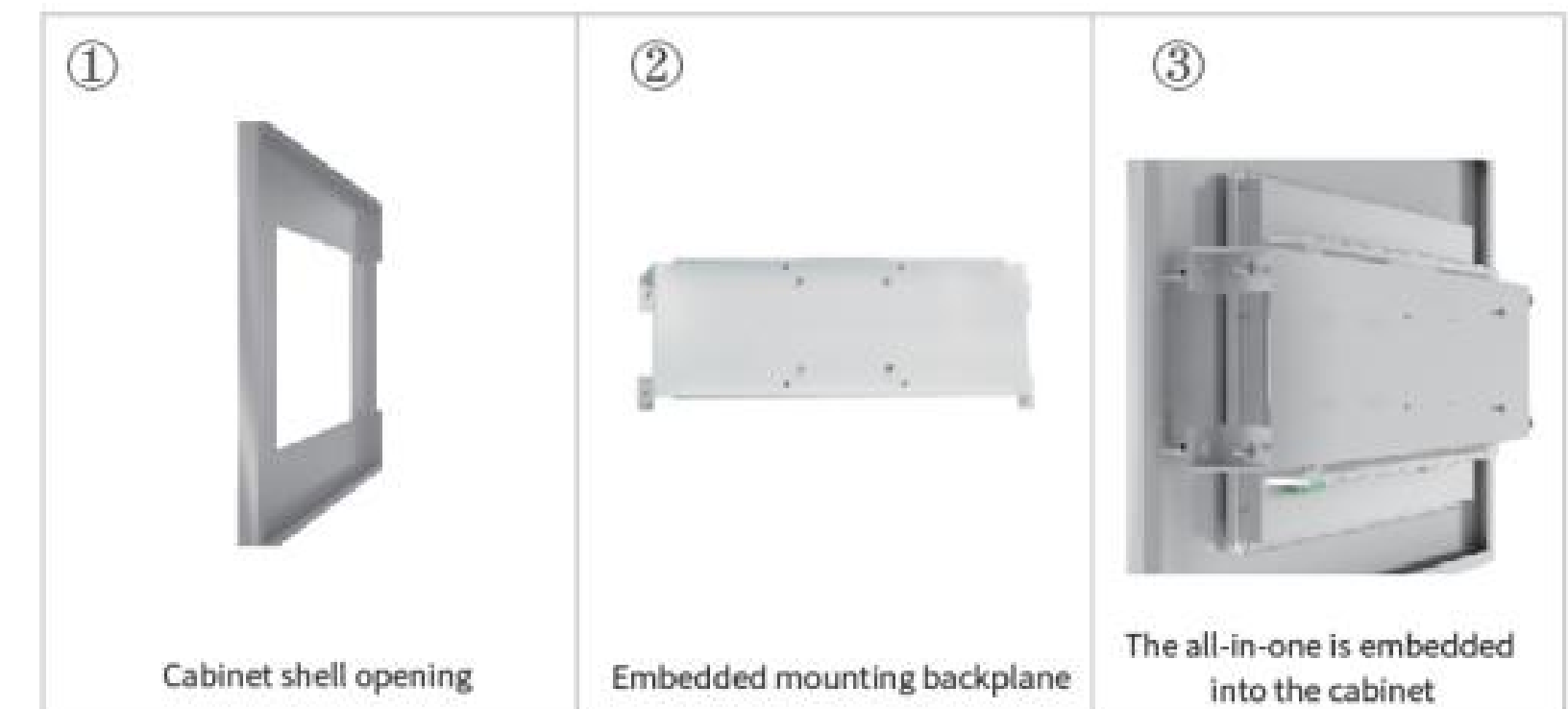
Note:

1. Please don't place the industrial android panel pc near radiator or any heat source material.
2. Please don't allow anything to press or wind the power cable and video cable.
3. Please don't place the industrial android panel pc near water sources and wet places.
4. Please don't cover the ventilation hole in back of panel.

Wall mounting method: The wall bracket is composed of two parts A & B, just insert part B into A.



Embedded installation: the size of the opening changes according to the size of the machine.



VESA installation:



Desktop bask mounting:



Desktop Lily Leaf installation:



Cantilever Installation:



4. Product Description:

The industrial android/linux panel pc's I/O interfaces
From left to right:



5. Maintenance:

01. The power cord must be kept in good contact to avoid looseness, ignition and voltage fluctuation.
02. Please close the current program when the machine is shut down, and then click "start" - 'shut down". after "no signal" is displayed, then turn the AC power switch off.
03. After turn the machine off, if you need to turn it on again, please wait at least 5 seconds, which will keep long service life of product. Please avoid frequent switching on/off operations.
04. If it is not used for a long time after shutdown, it is better to cut off the external main power supply (turn the power socket off or unplug the power plug).
05. In thunderstorm weather, it is recommended not to use the machine, and it is better to unplug all the power cables and network cables to prevent lightning stroke.
06. Please exit the device according to the correct operation procedure after using the external storage devices such as U disk and mobile hard disk.
07. Don't download, delete or change computer system files and settings at will.
08. Don't use the third-party software to repair the system at will.
09. When cleaning the machine, please pull the power plug out firstly, then spraying the cleaning liquid on the soft cloth and then wipe it. Pay attention not to use too wet cloth to wipe it for preventing water from entering the machine.
10. The humidity of the environment where the machine is located should be suitable.

6. Remote Services | Online Teaching:

Figure ② is a remote control software. You could install this on the desktop, mainly for customers to perform remote operations with our technicians if they don't understand the settings or operations or teaching.

How to use: First you need to connect the industrial android panel pc to the network, then double-click the file on the desktop. After opening it, as shown in Figure ②, an ID and password will appear. Then please contact our technical staff, and inform us. After being connected, personnel can conduct remote operation and teaching.



②

7. Fault Diagnosis and Exception Handling:

Note:

Before contact our after-sales service department, please carry out a simple inspection according to the following instructions.

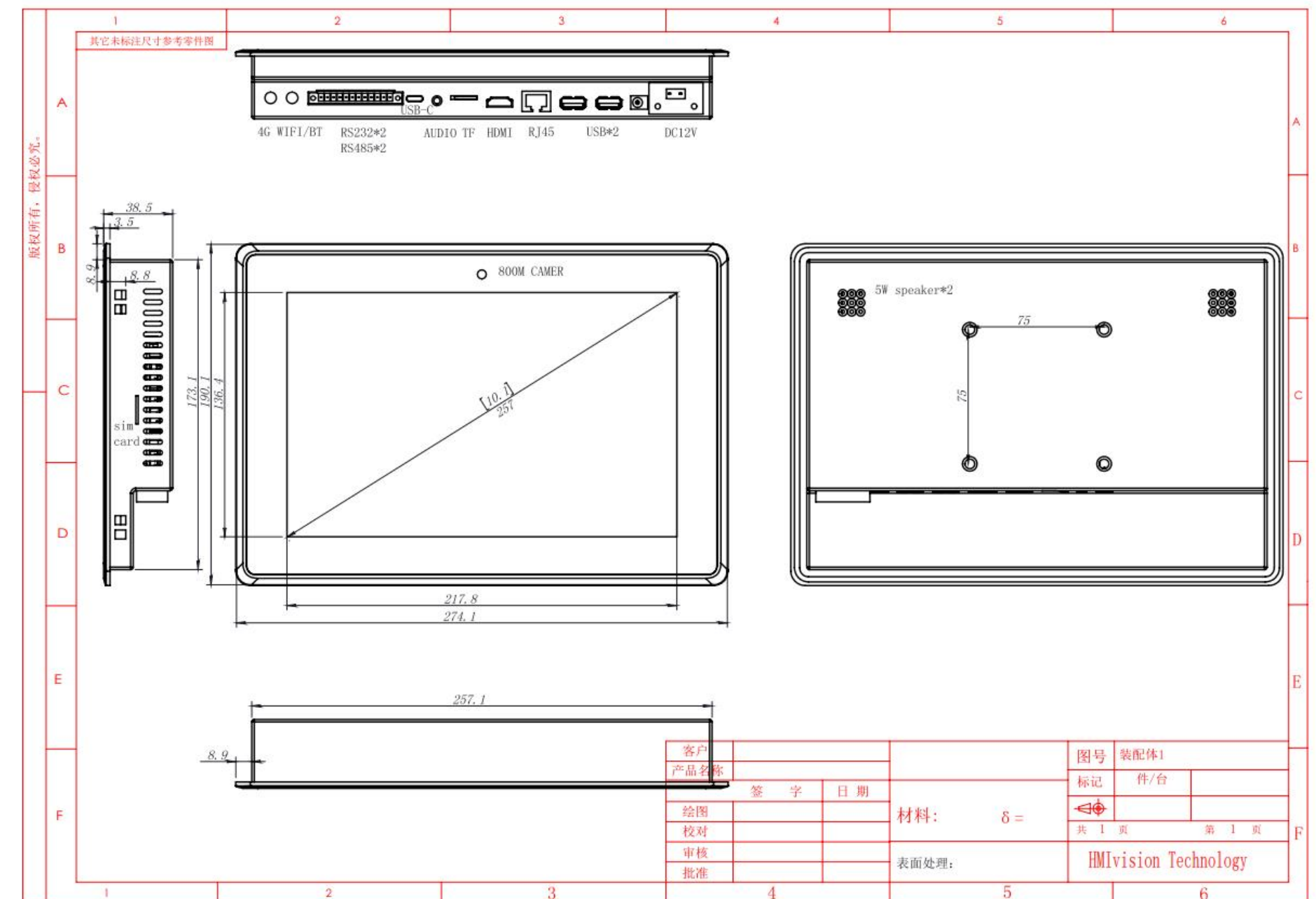
Detection method of no display:

1. Please check if the power adaptor light is on, the model and specifications of the power adaptor, and the connection between the power strip and the power adaptor.
2. Please check if there is any light on the motherboard after power on.
3. If there is an HDMI interface, connect an external HDMI cable to the display and see if the display shows.

How to flash the firmware (Example RK3288, use USB cable)

1. Install the Android Driver on your own PC.
2. Open the AndroidTOOL_release_V2.3 flashing software
3. Connect the OTG-usb port of the android machine to the PC usb port through a usb cable and then press the U-boot button after inserting 12V power on the motherboard, power on.
4. Flash the software and prompt "Found a LOADER device" to release the Uboot button.
5. Select the firmware upgrade option, and then click FIRMWARE to import the firmware upgrade package.
6. Click Upgrade. The upgrade prompts is 100%, and the firmware is verified to be 100%. The device is successfully restarted, indicating that the upgrade was successful. Unplug the OTG-USB cable, and restart the device to enter the boot mode.

8. Drawing & Pictures:



9. Toxic and Harmful Substances or Element Names and Contents:

Statement of toxic and harmful substances or elements

Name and content identification of toxic and harmful substances or elements

The cont

ents of toxic and harmful substances or elements in key components of industrial android panel pc are as follows:

Components Name	Toxic and harmful substances or elements					
	Pb	Hg	Cd	Cr6+	PBB	PBDE
Shell	○	○	○	○	○	○
Screen/Lamp tube	x	x	○	○	○	○
Plasma screen	x	○	○	○	○	○
Electronic board assembly	x	○	○	○	○	○
The power adapter	x	○	○	○	○	○
Power cable	○	○	○	○	○	○

*: Circuit board assembly includes printed circuit board and its components, such as resistance/capacitance/integrated circuit/connector, etc.

○: It means that the content of the toxic and harmful substances in all homogeneous materials is below the limit specified in the Standard For The Limit Requirements Of Toxic And Harmful Substances In Electronic Information Products.

x: It means they meet the requirements of EU RoHS regulations (belong to exemption part).

Environmental Protection Use Period:

This mark refers to the period of time (ten years), during which toxic and harmful substances or elements contained in electronic information products will not leak or mutate under normal operation conditions, and users won't cause serious environmental pollution or personal / property damage by using the electronic information products.



Attention:

1. When the industrial android panel pc is not in use, please turn it off to reduce energy consumption.
2. On the premise of ensuring the use quality, the energy consumption of the android panel pc during operation process can be reduced by turning the brightness down.