

Channel B series Industrial AIO Panel PC

Operation Manual

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

 |  |  | **RoHS**

Dear User:

Thank you for purchasing Channel B Industrial Computer All-in-One!

In order to let you know how to use this product quickly, we have written this manual for you. From which you can get features of the Industrial monitors, important notice, installation methods, how to maintain and maintain knowledge, we recommend to read this manual carefully before you use this product, which will help you to better use this product.

We will do our best efforts to ensure that the information provided in this manual is accurate and reliable. If any omission, please correct me. The company may improve the product's overall performance and reliability, there may be some improvements and upgrades to the hardware of the product, any changes in the product specification mentioned in this manual or related information are subject to change without notice. Please understand !

Thank you for your cooperation !

Warm Tips:

01. In order to use the Industrial Embedded AIO Panel PC correctly, please keep this manual for reference.
02. Please do not open the device by the agency or person who is not authorized by our company !
03. The Industrial Embedded AIO Panel PC requires professional maintenance, if there is any damage, please contact our company in time.
04. We reserve the right to modify the specifications or related information mentioned in the use of this manual.
05. Our products meet national standards.

Important Notice

01. Do not place the device in an unstable and falling place.
02. Do not expose the device directly in sunlight and other heat sources.
03. In Thunderstorm (especially lightning), please unplug the power plug and antenna plug.
04. Please place the power cord in a place where people are not easy to trip, and do not cover the power cord with any sundries.
05. Before you supply power to the equipment, please confirm whether the power supply voltage meets the requirements of the equipment.
06. Please do not overload the power socket to avoid fire or electric shock.
07. For equipment using power cord, there must be an easily accessible power socket around the equipment.
08. Before cleaning the device, unplug the power cord from the socket and wipe the monitor with a dry, soft cloth.
09. Please avoid products or parts (such as shell, LED screen, interface, components and wires) caused by insect bite or foreign body invasion (Road, etc.) broken, rusted, damaged, etc.
10. Avoid contact or exposure to improper temperature, solvent, acid and alkali, water immersion or humid environment.
11. Please do not allow any liquid to enter or splash into the equipment to avoid short circuit or fire.
12. Please do not open the equipment by any organization or personnel not authorized by the company.
13. If the equipment is not used for a long time, please unplug the power plug.
14. In order to avoid unnecessary damage to the product caused by frequent switch on and off, it is necessary to wait at least 30 seconds before starting the machine.
15. Before connecting or unplugging any signal wire, make sure that all power wires have been unplugged in advance.
16. Ensure good heat dissipation and ventilation of the system.
17. Please install it in a proper position under the guidance of professionals, such as on the cabinet, on the wall, etc.

Disclaimer

From the date of purchase, our company provides a one-year free warranty for the purchaser. However, the products repaired by unauthorised maintenance person will not provide quality assurance. There is a disclaimer about incorrect use, disaster, and incorrect installation.If our products fail, we will provide free repair or replacement during the warranty period.If warranty hae expired, we will charge the cost of materials and artificial services as appropriate.Please contact the relevant sales staff for details.

Transport and Packing List

In order to ensure the product intact, please check and accept the carrier face-to-face when you received the goods. If there is transport damage, please do not sign for it. Please pay attention to hold the goods,packing materials and accessories intact, and get in touch with our company immediately. If the demand side has no objection of the product within the received date, it will be regarded as pass the acceptance check, and we will not assume the responsibility for damaged goods. (Unless otherwise agreed contract) please check that all the following accessories are intact and good besides the AIO PC after opening the package box.

Power Adapter	Power cable	Installation accessories
Warranty card	User Manual	

CATALOG >>>>

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1 Overview >>>

The Channel B Industrial AIO Panel PC adopts all-aluminum alloy structure, no fan and fully enclosed design, the whole machine has low power consumption and compact appearance. It is an industrial product specially designed for various environments and can ensure long-term stability in harsh environments. Work, we pay more attention to its reliability, environmental adaptability, real-time, scalability, EMC compatibility and other performance in the materials of the whole machine. The configuration uses Intel Celeron J1900 quad-core 1.99G (maximum turbo frequency 2.4G) The CPU is equipped with windows7 system, with high-definition display interface, multiple COM interfaces, and USB interfaces. It can meet various application interfaces that meet the needs of the scene and provide a variety of work efficiency. It is widely used in high-end automation fields such as industrial control, military, communications, electricity, and networks.

01. The military-grade aluminum alloy structure of the whole machine, high-efficiency heat dissipation design (compatible with fans), ensure stable operation in harsh environments, increase the service life of the machine, high safety and efficiency, and no noise. It can be applied to high dust, high vibration, high temperature, and low temperature. Waiting for the environment

02. The aluminum alloy front panel adopts die-casting molding/brushed oil injection, and the front panel is IP65 dustproof and waterproof.

03. Anti-interference performance, meet EMI/EMC standards.

04. The capacitive touch screen is characterized by high accuracy and high sensitivity, and has many industrial field application characteristics.

05. Using LED backlight technology, the picture is colorful, high brightness, good contrast, wide viewing angle, and longer life.

06. Support working temperature -10℃~+60℃, can be customized -30℃-80℃.

07. High protection against surge, the voltage rises 280V instantaneously, and neither the machine nor the adapter will malfunction.

08. Anti-static (4KV-8KV) meets industrial standards, and customers with high requirements can customize 16KV. The anti-static level is high, which can greatly reduce the failure rate of the machine.

09. The anti-vibration standard reaches GB2423, and it will not damage the machine when used in transportation/industrial/offshore operating environments.

10. Enhanced front frame thickness, with a sense of craftsmanship and technology, strong and durable

11. The monitor used outdoors can be equipped with a sun-viewable screen, which is more convenient for users to use.

12. The product complies with ROHS environmental protection standards, and its peak power consumption only needs to be ≤60W. It has the characteristics of low voltage, low power consumption, energy saving and mute.

13. It can support Gigabit network card RJ45, wireless WiFi Internet access, and experience a faster and more stable network experience.

14. Through the BIOS setting, it supports the function of power-on boot and power-on when the phone is called, which is convenient for management and use in the user industry.

15. Support the market standard industry software, the powerful hardware performance and the combination of professional software, the operation is more handy.

16. It can be connected to VGA and HDMI monitors at the same time to realize a multi-task display platform.

17. Installation method: embedded, cantilever type, desktop type (lily leaf bracket, base bracket), wall-mounted, boom type, etc. Meet the various needs of users.

2 Basic parameters >>>

Processor	Intel J1900 quad core
Panel Type	Industrial control panel a TFT
Backlight Type	Led usage time
Brightness	300mcd(Customizable high brightness $\geq 400\text{mcd}$)
Display Color	16.7M
Dot Pitch	0.297mm
Viewing Angle	Wide viewing angle/full viewing angle
Response Time	$\leq 6.5\text{ms}$
Installation Mode	Desktop type, wall type, cantilever type, embedded type, cantilever type
Touch Type	Non touch / resistance touch / capacitance touch
Shell Material	All aluminum (black / silver)
Anti-interference	EMC, EMI
Anti-vibration	5-19HZ/1.0mm Amplitude ; 19-200HZ/1.0g Acceleration
Ambient Temperature	Operating Temperature:-10°C~+60°C Storage temperature: -20°C~+70°C
Anti-static	4KV-8KV; Customizable $\leq 16\text{KV}$
Power input	AC 100-240V 50/60Hz; CCC,CE certification
Power output	DC12V / 5A
Power (standby)	$\leq 2\text{W}$
Power (maximum)	$\leq 35\text{W}$

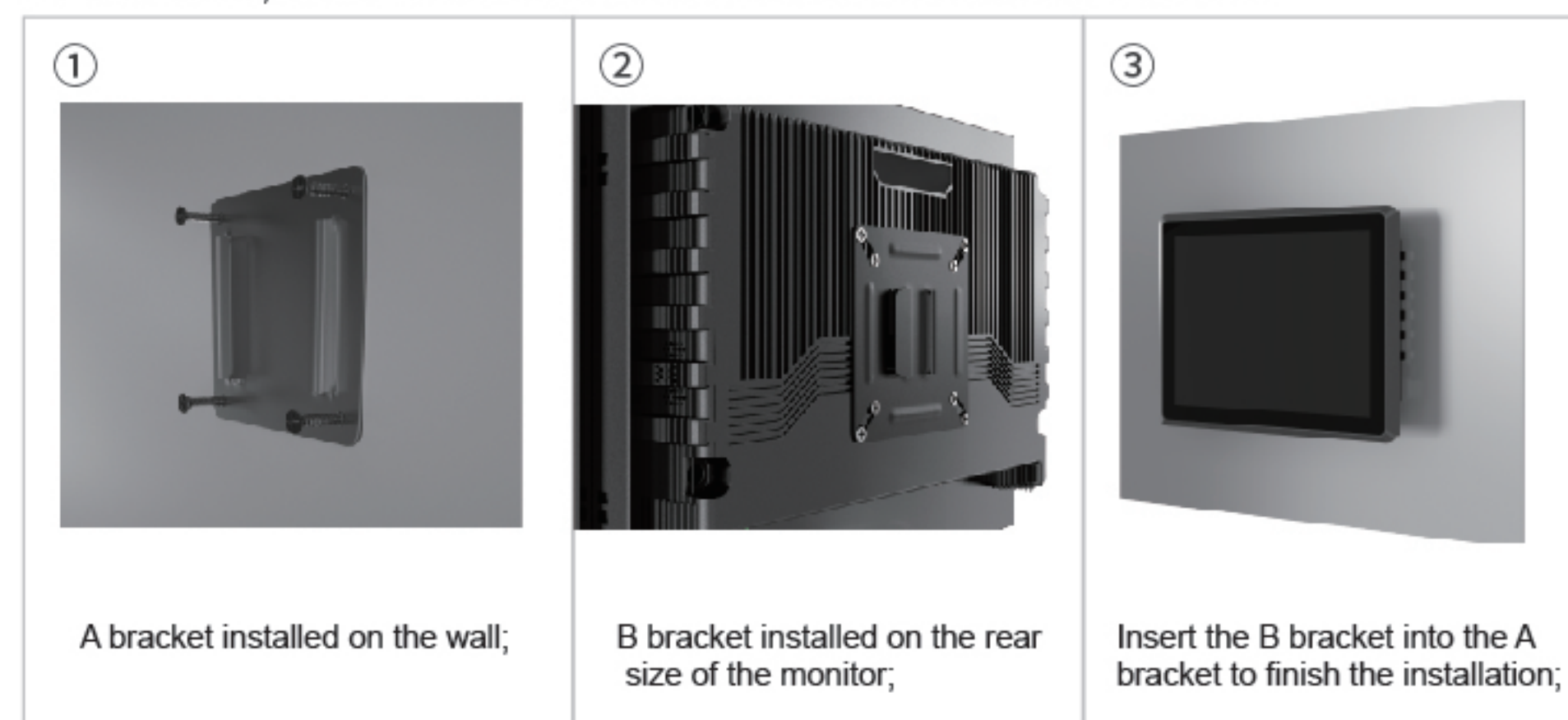
3 Installation >>>

Notice:

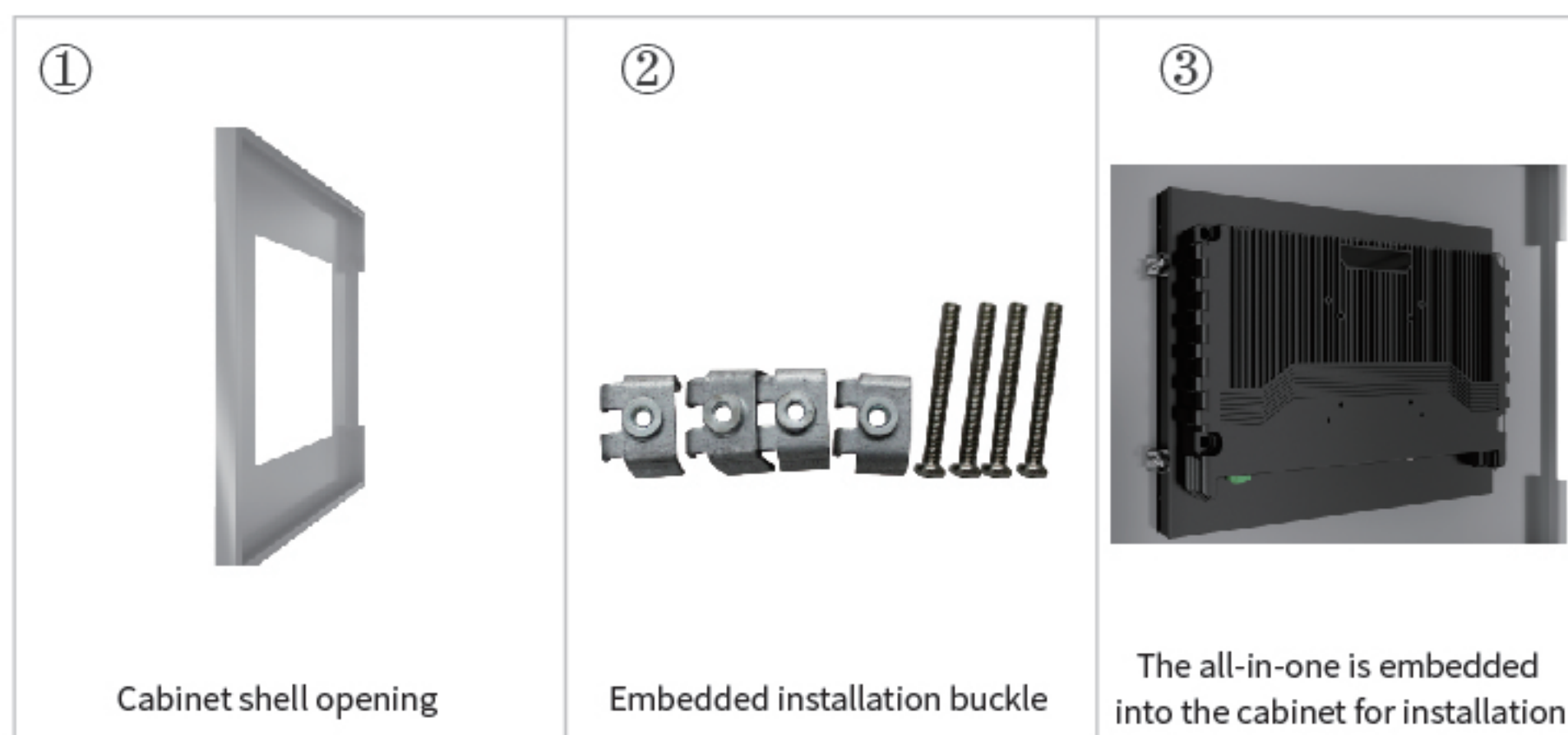
- 01.Please do not place the AIO Panel PC near radiator or any heat source material.
- 02.Please do not allow anything to press or wind the power cable and video cable.
- 03.Please do not place the AIO Panel PC near water sources and wet places.
- 04.Please do not cover the ventilation hole in back of panel.

Wall-mount Installation :



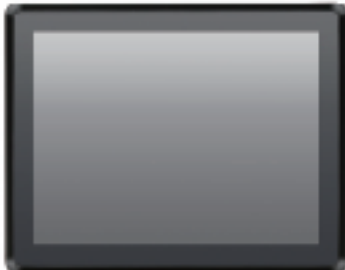
A、 B brackets, Insert the B bracket into the A bracket to finish the installation:



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



Boom type installation:

<p>①</p>  <p>tablet</p>	<p>②</p>  <p>Boom type bracket</p>	<p>③</p>  <p>Tablet PC mounted on the boom bracket</p>
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Desktop base installation:

<p>①</p>  <p>tablet</p>	<p>②</p>  <p>Desktop base</p>	<p>③</p>  <p>The tablet is mounted on a desktop base</p>
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Desktop lily leaf bracket installation:

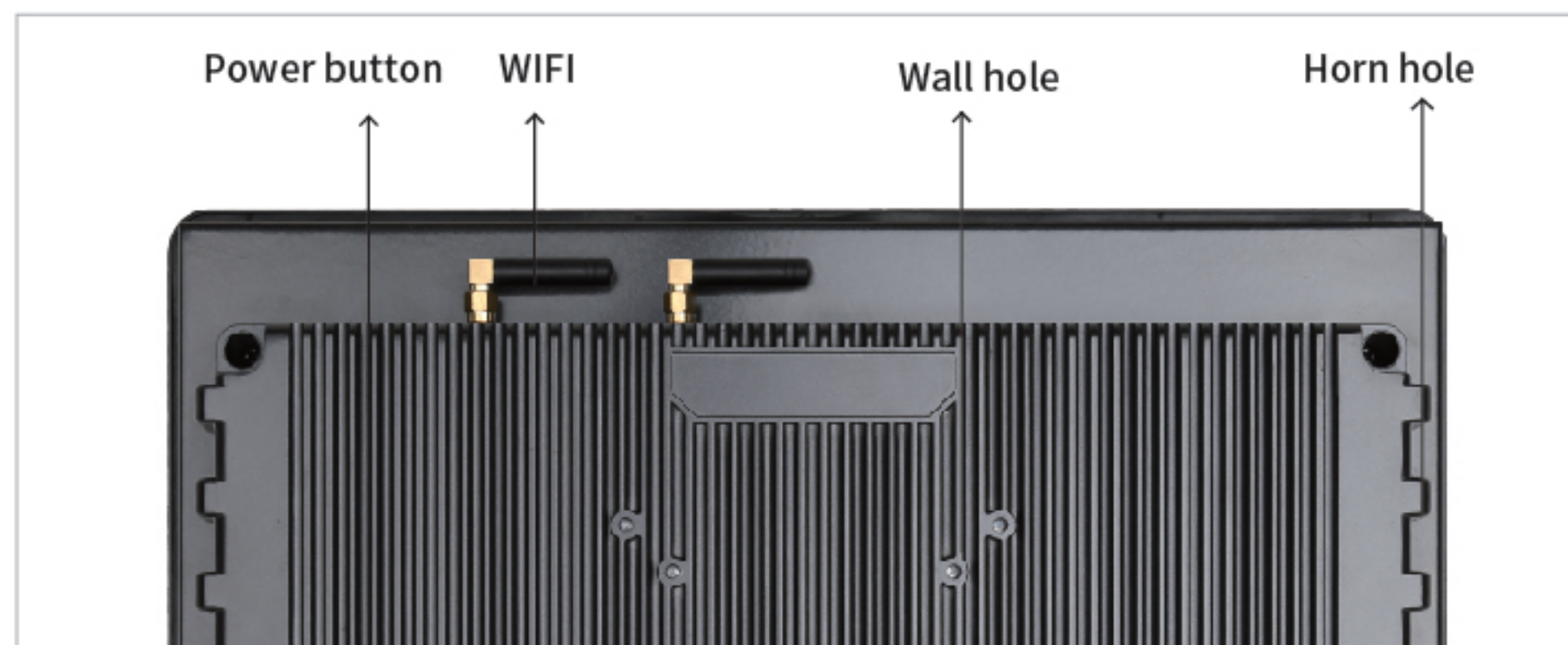
<p>①</p>  <p>tablet</p>	<p>②</p>  <p>Desktop shutter bracket</p>	<p>③</p>  <p>The tablet is mounted on the louver bracket</p>
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Cantilever installation:

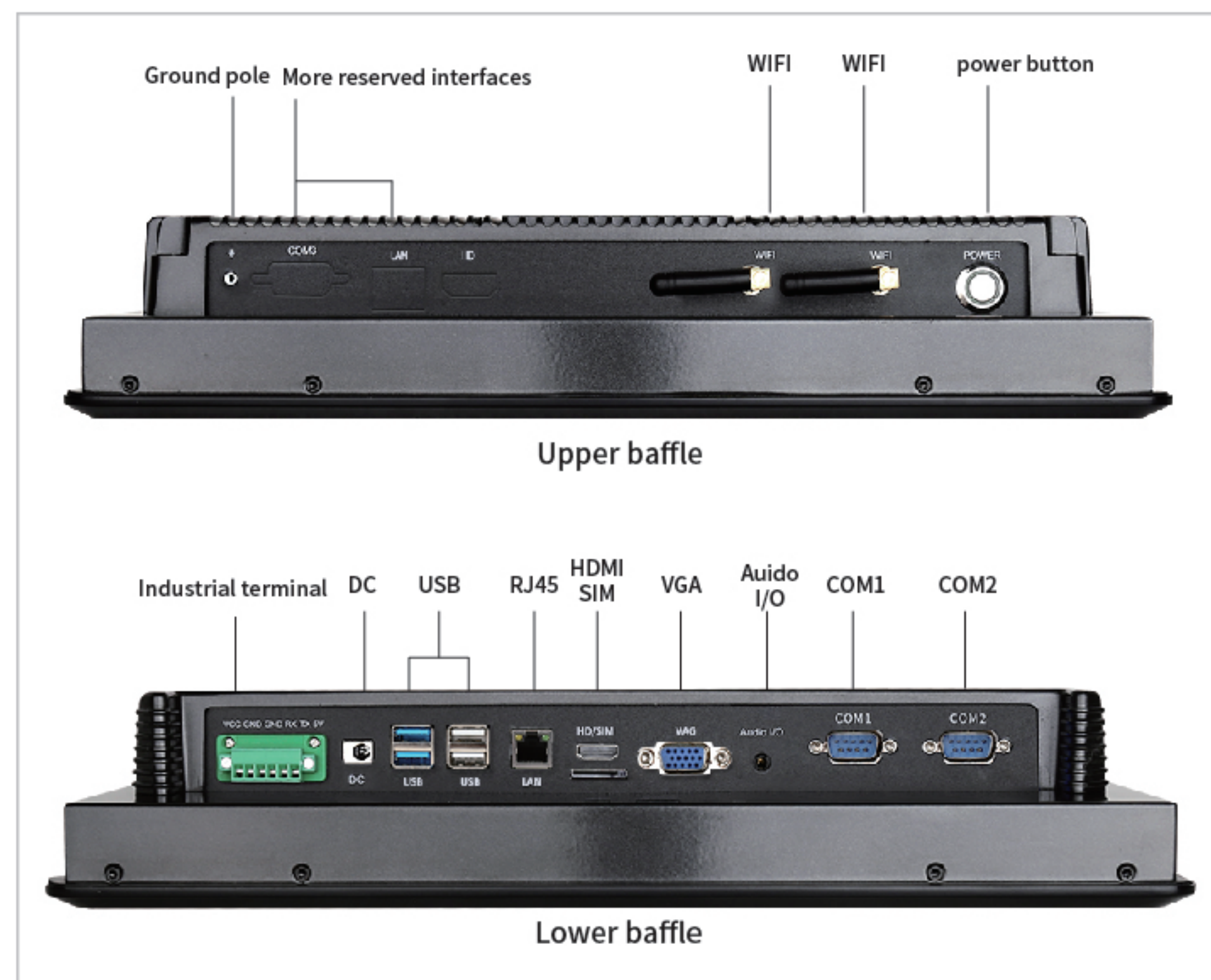
<p>①</p>  <p>tablet</p>	<p>②</p>  <p>Cantilever bracket</p>	<p>③</p>  <p>Tablet PC mounted on cantilever bracket</p>
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4 product description >>>

The back cover of our company's fifth-generation industrial computer all-in-one:



Our company's fifth-generation industrial computer all-in-one interface:



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. Do not download, delete or change computer system files and settings at will.
08. Do not use the third-party software to repair the system at will.
09. When cleaning the machine, please pull the power plug out firstly, then spray the cleaning liquid on the soft cloth and then wipe it. Pay attention do not use too wet cloth to wipe it for preventing water from entering the machine.
10. If the sunlight is too bright or under direct sunlight, it will affect the visual communication of the touch display, and the direct light will damage the electronic components of the screen.
11. The humidity of the environment where the machine is located should be suitable. Too wet electronic equipment will affect the circuit and cause problems.

6 Common troubleshooting >>>

Troubleshooting: before contacting maintenance personnel

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

※ I . Detection method of no display

01. Check whether the power adapter is original and whether the interface between the power supply and the adapter is in poor contact.
02. Remove all peripherals and only connect the power cord to start the machine.
03. Whether the power indicator lights up normally and whether the power on button is stuck.
04. Listen to the sound of the main board when the device is turned on. If there is a display after connecting to another display, you can enter the system normally, then enter Modify LVDS display parameters in BIOS.
05. If it is still unable to start, it is the internal electrical problem of the equipment, and the new equipment is generally delivered by express delivery Resulting in.

※ II. Flower screen

01. Turn on and display logo screen

- ① Check whether the external display is screen.
- ② Press del key on the keyboard to enter the BIOS setting LVDS option and set the number of screen display bits between 18bit and 24bit Switch; set correct LVDS resolution.

02. Enter the system screen

- ① Reinstall the graphics card driver.
- ② Reduction system.

※ III. Reassembly system

01. Make a U-disk boot installation disk, taking u-boot as an example

- ① Download the U-disk tool on the u-startup official website and install it.
- ② Turn on the u to start the tool software for making the U-disk, insert the prepared U-disk into the USB interface of the computer, and wait for the software to identify the U-disk.
- ③ Click to start production, and a warning window will pop up. Click OK to start production.

02. Put the system installation package into the made u disk GHO or ISO folder.

03. Press the Del key on the keyboard to enter the BIOS, set the U disk as the first boot item, and restart.

04. Enter the U disk PE system, open winntsetup, select the installation source, boot drive, and install drive, and then start the installation.

※ IV. Test 232 interface

01. Open the serial port debugging assistant software, select the corresponding COM port, set the port, protocol, baud rate verification and data base.

02. Short-circuit db9com port 2pin3pin.

03. Debug the assistant software at the serial port, input the transmission data in the transmission column, and select repeat transmission. Rxtx sends and receives the same data, passing the test.

※ V. Test 485 interface

01. Open the serial port debugging assistant software on the PC side, select the corresponding COM port, and set the port, protocol, baud rate Check, data base.

02. Open the serial port debugging assistant software on the all-in-one terminal, select the corresponding COM port, and set the port, protocol, baud rate Check, data base.

03. PC 485 serial port 485 + signal connection: one machine 485 serial port 485 + signal, PC 485 serial port 485 signal connection Connect to 485 serial port 485 signal of integrated machine terminal.

04. Debug the assistant software on the serial port, input the transmission data in the transmission column, and select repeat transmission. RX TX send data receive data same, pass the test.

7 Distance service | online teaching mode

As shown in Figure ②, it is a remote control software. All the Industrial Embedded AIO Panel PC purchased in our company will install this file on the desktop of the Industrial Embedded AIO Panel PC. If you are a customer who does not understand the settings or operation, you can conduct remote operation or teaching with our company's technical personnel Method: first connect the all-in-one computer to the network, and then double-click the file on the desktop. After opening it, as shown in figure ②, an ID will appear And password, first contact with our company's technical personnel, and then inform our company's technical personnel of ID and password. After connecting, It can be used for remote operation and teaching.



②

8 Toxic & harmful substances or element names & contents

Statement of toxic and harmful substances or elements.

Name and content identification of toxic and harmful substances or elements.

The contents of toxic and harmful substances or elements in key components of industrial monitor 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 are meet the requirements of EU ROHS regulations (belong to exemption part).

10 Environmental Protection Use Period

This mark refers to the period (ten years). Toxic and harmful substances or elements contained in electronic information products will not leak or mutate under normal use conditions. Using this electronic information product will not cause serious pollution to the environment or humans / Property deadline for serious damage.

Attention:

01. When not in use, adjust to the off state to reduce energy consumption;
02. On the premise of ensuring the quality, the energy consumption of the all-in-one PC can be reduced by reducing the brightness of the display screen;
03. After the product is discarded, please contact our company for recycling.