

ATHENA VX-WALL PRO

Product Manual

110"	138"	165"	220"
1.2mm	1.5mm	1.9mm	2.5mm



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1. Preface

1.1 Manual Description

1) This manual systematically introduces the product components, ports, specifications and other product contents, as well as installation, function applications and other instructions, aiming at guiding you to start a efficient experience with VX WALL;

2) This manual takes the Product 138" as an example to make the introduction, and the installation, maintenance and operation methods are applicable to all series products;

3) The version of this manual is V1.0.0.

1.2 Safety Precautions

Warning!

Before installing, supplying power, and using this product, be sure to read the safety precautions in this section and keep the manual properly for future use.

Safety Instruction

- Do not drop, bump, scratch, twist, hit, vibrate the display or external devices;
- The display unit board on the front of the product should not be scratched by hard object to avoid damage;
- There is strong electricity inside the product, for non-professionals, in order to avoid danger, please do not open or repair this LED panel. Please consult a professional if you encounter other power problems.
- Do not place the LED panel on an unstable floor, bracket or table, use only bracket recommended by the manufacturer or sold with LED panels and use a manufacturer-approved setup package;
- Do not overload the power distributor and power cable, as this may result in fire or electric shock;
- This product is equipped with a three-line power cable. The electrification, neutral and the ground wire of the power cable should be properly connected to the power distributor, and the power distributor must be equipped with a lightning arrester and a protection switch.

Safety Instruction

- Do not place anything on the power cable to avoid fire;
- Disconnect the power supply when the product is not in use, or before disassembling, installing, or repairing the product;
- The power supply used in this product must comply with local electrical normative standards and be equipped with overload and ground fault protection;
- Before using this product, it is necessary to check whether all the power distribution equipment, cables, and connecting devices meet the requirements or not, and ensure that the power cord is not damaged, aged, or wet. If any overheating issue is found, please replace it immediately.
- For the situation that there is no proper visual protection, please do not look directly at the screen that modulates the highest brightness;
- This product is not waterproof, it can not be used in the outdoor environment, and should not be used when the ambient temperature exceeds 45°C;
- Do not energize this product for the circumstances listed below, and ask professional maintenance personnel for repair:
 - a) When the power distributor is damaged;
 - b) If liquid is accidentally splashed into the LED panel;
 - c) If the LED panel is dropped or the chassis is damaged.
- When replacing the parts, make sure that the maintenance personnel use replacement parts specified by the manufacturer that have the same characteristics as the original parts.

The manufacturer is not responsible for any fire, electric shock or other danger that may result from unauthorized replacement;
- In order to prevent the LED panel from malfunction, the user must not:
 - a) Put the wires, coins or tinsels;
 - b) Block the ventilation slots, otherwise the LED panel will be damaged;
 - c) Post anything on the screen.
- If an abnormality occurs, disconnect the power cord and contact the manufacturer;

Maintenance Instruction

- After completing any repairs to this product, please ask the maintenance technician to perform a routine safety check to determine that the product is in safe operating condition.
- Moisture protection measures shall be conducted when storing the product;
- When cleaning the panel, please turn off the power and then clean it with a damp cloth, and do not use liquid cleaner or spray cleaner;
- If it is not turned on for a long time, it is necessary to gradually increase the brightness when using the product again to ensure dehumidification.

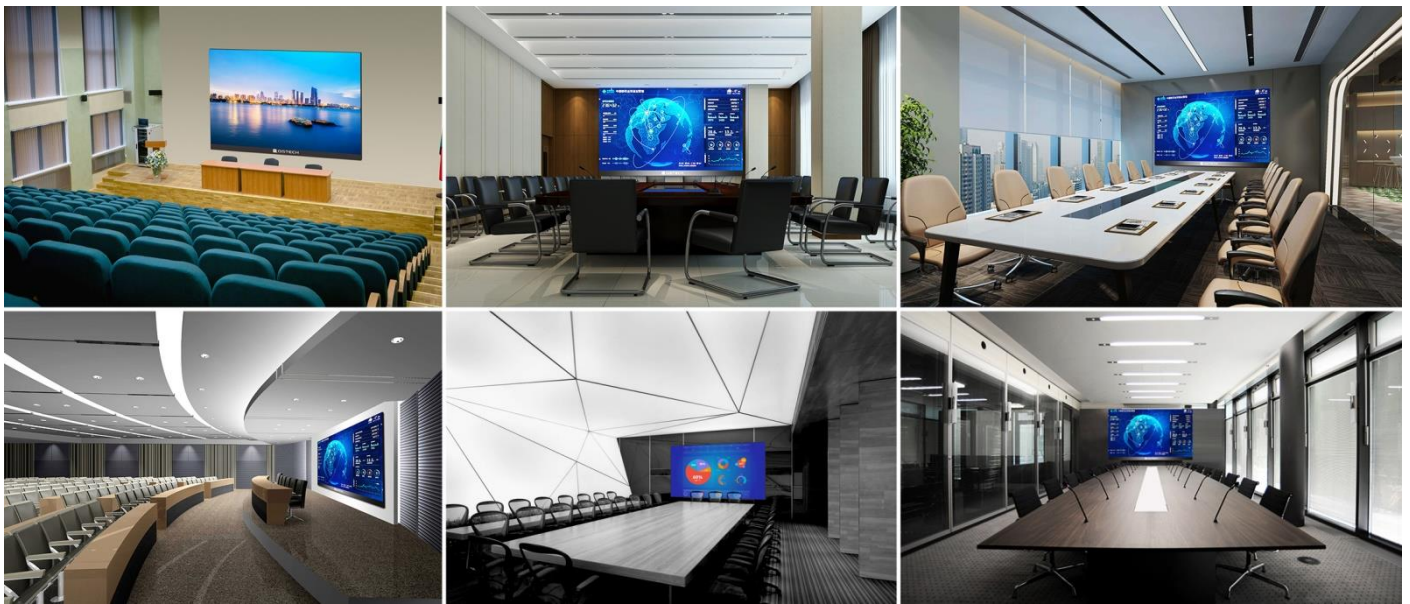
Warning: please feel free to contact the manufacturer if you have any questions. the manufacturer shall not responsible for incorrect, inappropriate, irresponsible or unsafe system assembly behavior.

2. Product Introduction

2.1 Product Brief

Thank you for purchasing an integrated display terminal product, which we believe will bring you a more efficient, flexible and intelligent experience.

You can apply the all-in-one product in classroom, conference room and multi-function hall that can accommodate more than 1-200 people for large-size display to deliver conference content efficiently.

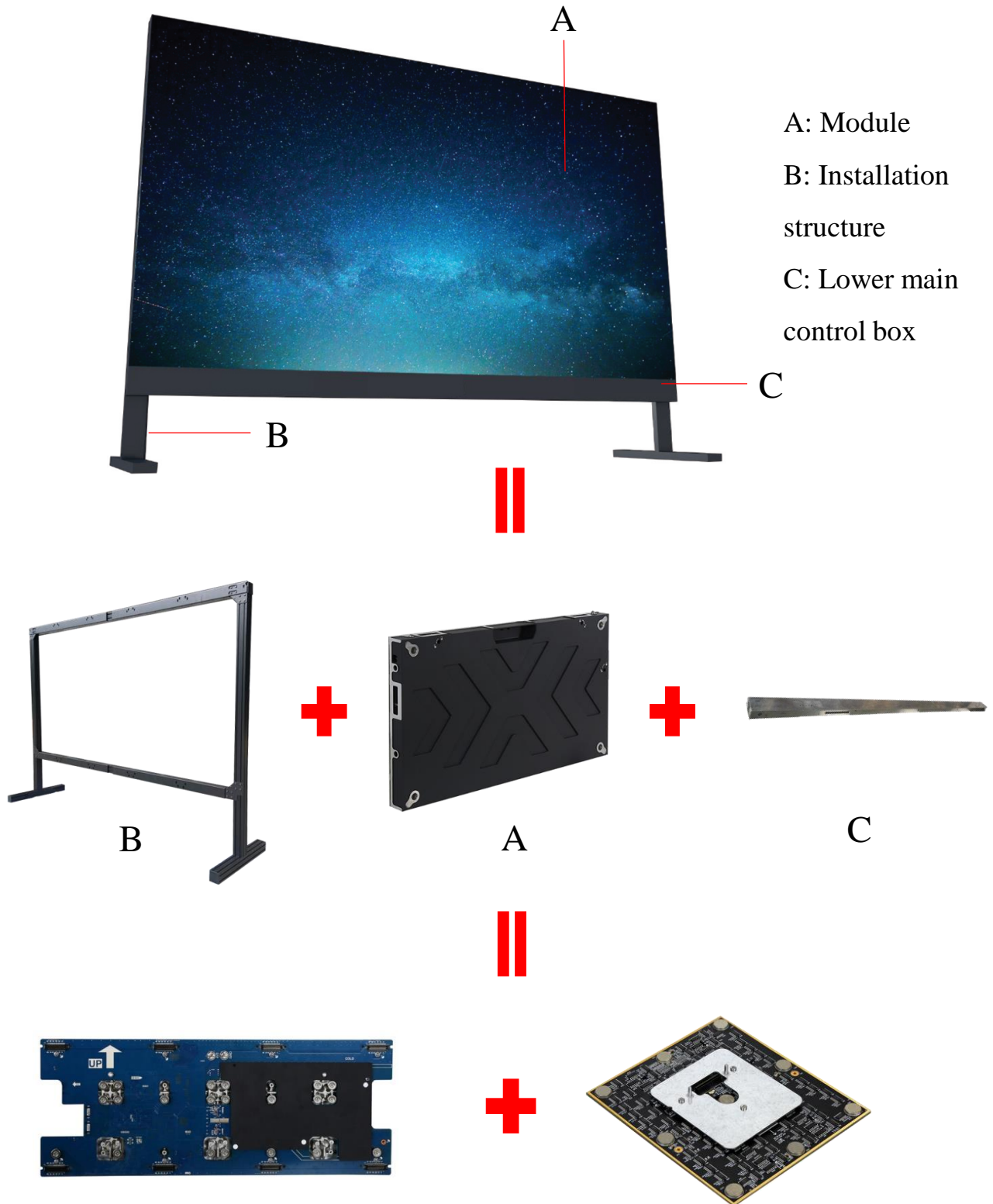


2.2 Product Features

- Modular design, various sizes, easy to transport;
- Power physical button, one-button start up;
- Remote control operation available, USB and HDMI capable;
- 38mm cabinet, integrated ultra-thin design, beautiful and fabulously;
- Front access for modules, 3-in-1 board, easy to install and maintain, flexible and efficient;
- Wall-mounted, seat-mounted and bracket installation, the above 3 installation options can be chosen, there is no complicated steel structure, the construction is convenient and it can save the space;
- Large viewing angle, 8 levels of brightness, easy to adjust brightness according to the environment;
- It Supports PC, mobile phone, tablet wireless projection screen, and achieve the instant sharing;
- Online annotation, intelligent writing, take away the meeting content by scanning the code, which can improve meeting efficiency.

2.3 Product Composition

The 138" integrated display terminal contains a set of installation structure (foot-mounting/wall-mounting/frame mounting parts), a lower main control box and an LED panel.



2.4 Specifications and Parameters

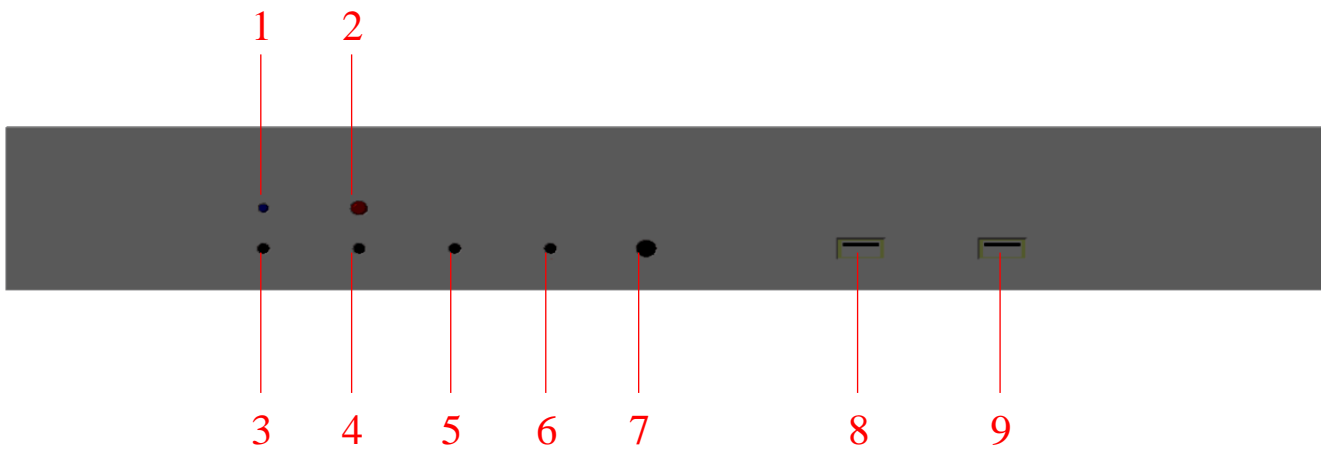
2.4.1 Parameter of All-in-One Display

SPECIFICATIONS	110"	138"	165"	220"
Size	110"	138"	165"	220"
Pixel Pitch(mm)	1.2	1.5	1.9	2.5
Resolution	1920*1080	1920*1080	1920*1080	1920*1080
Display Area(mm)	2440*1373	3050*1716	3660*2058	4880*2745
Application Area(m ²)	80	100	120	170
Number of Viewers	40	60	80	120
Brightness(nit)	600	600	600	600
Viewing Angle(Horizontal/Vertical)	160°/160°	160°/160°	160°/160°	160°/160°
Refresh Rate(Hz)	1920	1920	1920	1920
Power Consumption (Max/Ave) (W)	2400/800	3000/1000	5500/1800	5000/1700
Input Voltage	100-240V/50/60Hz			
Maintenance	Front			
IP Rating(Front/Rear)	IP40/IP21			
Operating Temperature/Humidity (°C/RH)	-10-40/10%-85%			

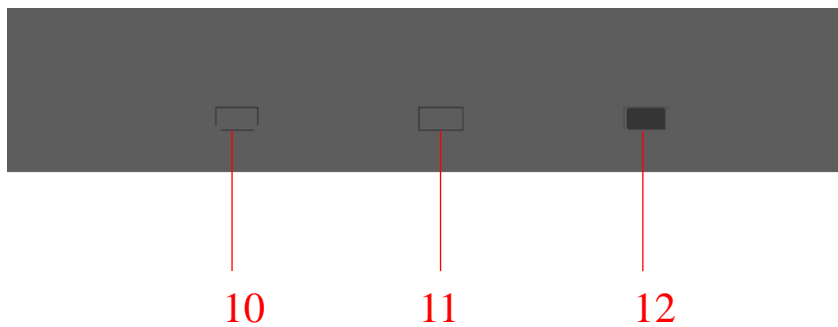
2.4.2 Parameter of Android Board Card

System	Android7.1
CPU	Dual Cortex-A72 Large Core +Quad Cortex-A53 Small Core, 2.0GHz Frequency Range
Internal Memory	2GB
Memory	8GB
Media Format	Supported mainstream video formats: MPEG1, MPEG2, MPEG4, H.264, WMV, MKV, TS, flv and etc; MP3 and other audio formats supported; JPG, JPEG, BMP, PNG, GIF and other picture formats supported.

2.5 Interface Description



lower left interfaces on the front side of screen



Screen bottom interfaces

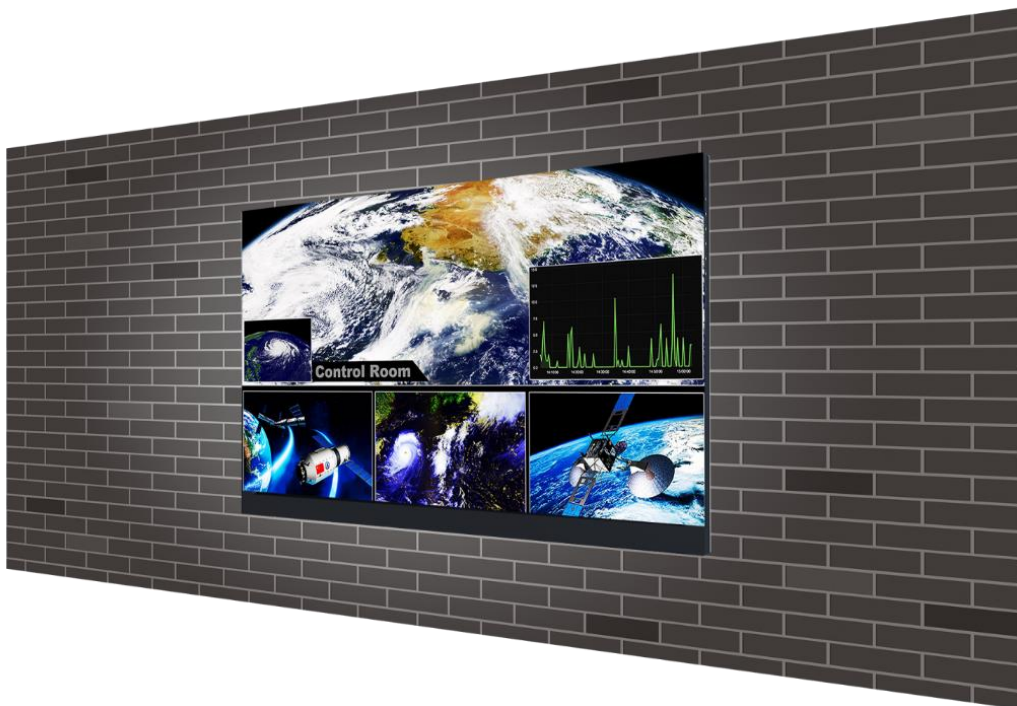
Interface number	Name	Functions
1	Red/Blue indicator	Red : standby status Blue: working status
2	Infrared indicator	Receive remote control signal
3	Signal switching button	Switch Android main interface, wireless screen mirroring interface, and HDMI input device interface
4	Brightness + button	Screen brightness + button
5	Brightness-button	Screen brightness - button
6	Standby/Awake the button	Standby/Awake one-button switch
7	Audio 3.5 Output port	External loudspeaker box
8	USB1Port	Read a USB flash drive, wired or wireless mouse or keyboard
9	USB2Port	Read a USB flash drive, wired or wireless mouse or keyboard
10	HDMI input port	Receive 1080P video signal
11	Antenna interface	Receive wireless screen signals
12	Power button	One-button start up

3. Installation Mode

3.1 Foot-mounting



3.2 Wall-mounting

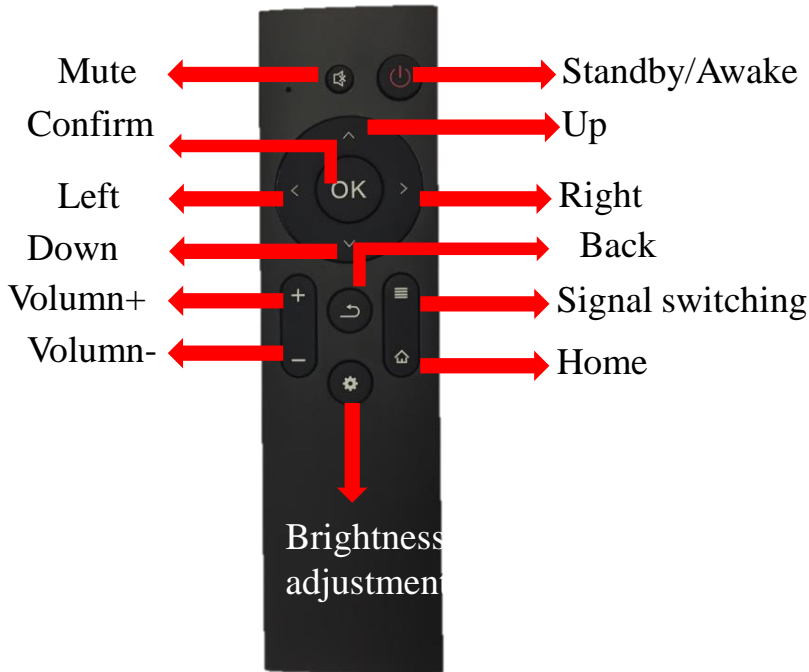


4. Operation Instructions

4.1 Power-on

- ① Connect the power adapter;
- ② Press the one-button for startup & shutdown on the bottom of the control unit and wait a few seconds to enter the startup interface.

4.2 Remote Control Functions



Remarks:

Signal switch function: switch the following three interfaces: Android main interface, wireless Screen mirroring interface, HDMI input device interface;

Brightness adjustment function: the brightness of the all-in-one display is designed in 8 levels, and the 8 levels are adjusted to conduct infinitely loop.

4.3 Wireless Screen Mirroring Function (Optional)

Mobile phone, the devices with MAC system or Windows system can conduct the wireless screen mirroring on the all-in-one display, and you can enter the wireless screen cast interface by the following three methods:

Method 1: through the signal switching button of the remote controller;

Method 2: through the signal switching button of the lower main control box;

Method 3: click the Screen Share to enter the startup picture via the wireless or wired

mouse connected to USB port.

4.3.1 Wireless Screen Mirroring via Mobile Phone

① Connect the all-in-one machine Wi-Fi hotspot; (name: Android AP password: 3a8538d9f287)

② Scan the QR code below to download the mobile APP screen assistant, refer to Figure 4.1;

(**Remarks:** this step is required for the first use. If you have an APP, you can skip this step);

③ Open the projection screen assistant software and complete the Screen mirroring. Refer to Figure 4.2.

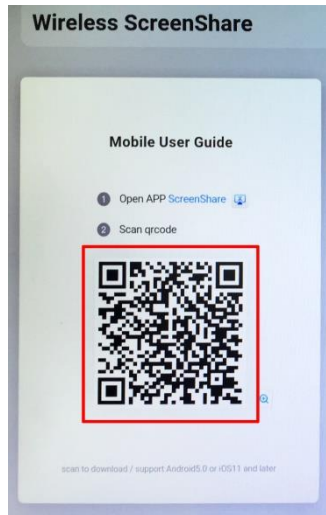


Figure 4.1

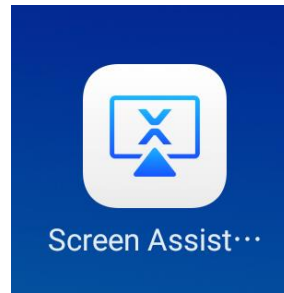


Figure 4.2

A) iOS:

Pull out the menu from the bottom of the phone and click on the Screen Mirroring to select Android AP, and then begin to conduct the screen mirroring refer to the Figure 4.3.

B) Androids:

Click the "scan" to scan the QR code again, click the mirroring to select Android AP, and start the screen mirroring. Refer to Figure 4.4.

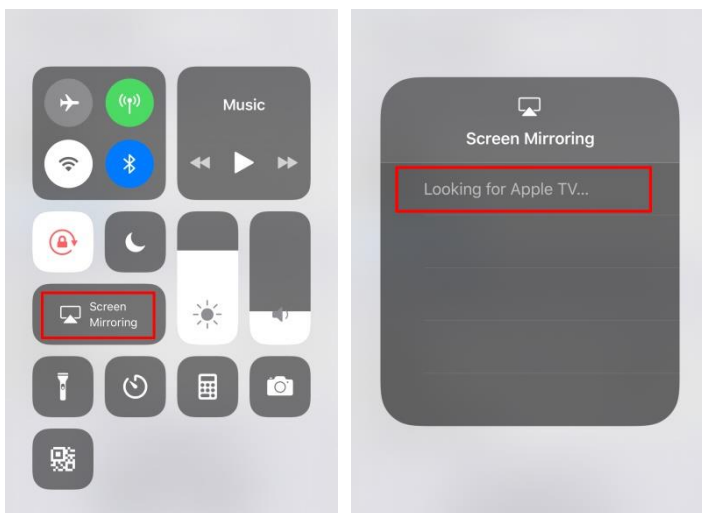


Figure 4.3

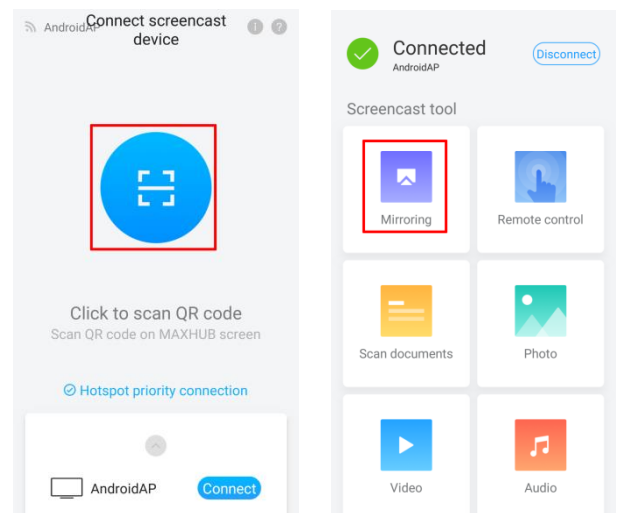


Figure 4.4

4.3.2 MAC Wireless Screen Mirroring via MAC

- ① Connect the all-in-one display Wi-Fi hotspot;
(Name: Android AP Password: 3a8538d9f287)
- ② Follow the instructions and video demonstrations in the MAC User Guide of the wireless screen mirroring interface, refer to Figure 4.5.

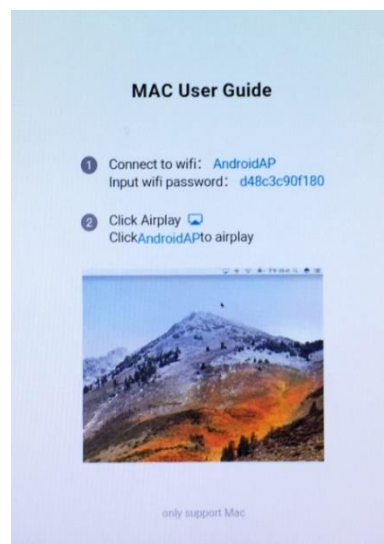


Figure 4.5

4.3.3 Wireless Screen Mirroring via Windows

- ① Download and install the Screen mirroring assistant application software;
- ② Connect the all-in-one machine Wi-Fi hotspot; (name: Android AP password: 3a8538d9f287)
- ③ Open the desktop application Screen mirroring assistant;
- ④ Input the connection code WAT8ZWWY to enter, refer to the Figure 4.6.

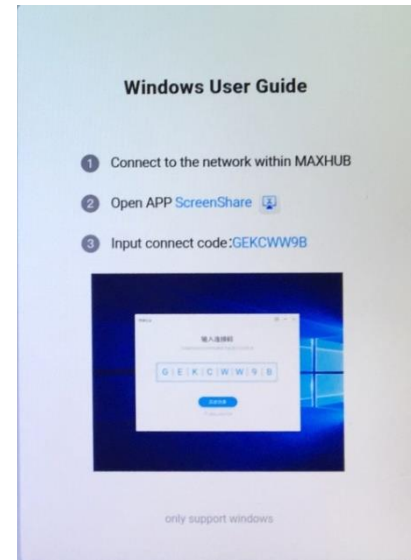


Figure 4.6

4.3.4 Wireless Screen Mirroring via MAXHUB

Remarks: in addition to the operation modes of 4.3.2 and 4.3.3, the PC of the MAC system or the Windows system can also be transmitted through the MAXHUB wireless screen mirroring device, and the operation steps are as follows:

- ① Connect the MAXHUB device to the PC, and it will automatically run MAXHUB.exe and display;
- ② After the connection is successful, the following interface is shown in Figure 4.7;

There are two screen mirroring modes:

- 1) As shown in Figure 4.7(1), click it can directly conduct the screen mirroring from PC desktop, and only one image of the PC desktop is displayed on the screen;
- 2) As shown in Figure 4.7(2), long press can realize multi-screen display, that is, there is already a device screen, and PC screen can also be added.



Figure 4.7 (1)



Figure 4.7 (2)



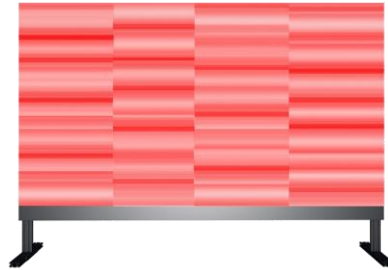
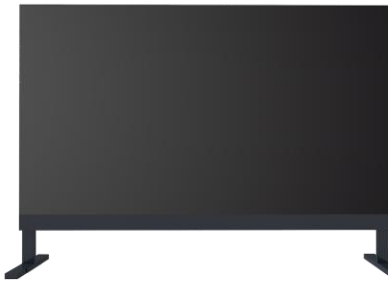
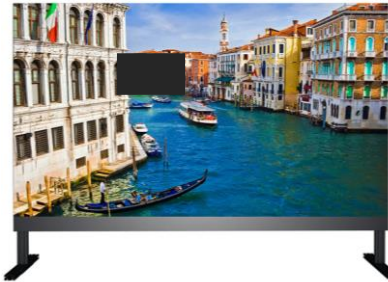
4.4 Using External Interface (USB/HDMI)

USB1/USB2 interface: connect a wired/wireless mouse or keyboard for quick operation on the all-in-one display.

HDMI Interface: receive 1080P video signals for simultaneous playback.

5. Maintenance Instructions

5.1 Common Faults and Troubleshooting

Number	Malfunction	Malfunction analysis	Troubleshooting
1	 <p>one or more LED modules above one column fail</p>	Malfunction in internal power or signal cable	<ol style="list-style-type: none"> 1. Check the connection of internal cables; 2. Replace the malfunctional cables.
2	 <p>LED module fails</p>	LED module malfunction; malfunction of connector on panel hub board;	<ol style="list-style-type: none"> 1. Replace the malfunctional display unit; 2. Replace the malfunctional panel driver;
3	 <p>blurred screen</p>	Malfunction of sending card	Replace the malfunction sending card
4	 <p>whole screen fail</p>	<p>The power adapter is not plugged in correctly;</p> <p>The power button is not turned on;</p> <p>Malfunction of sending card</p>	<ol style="list-style-type: none"> 1. Check the power adapter and power button; 2. Replace the malfunction sending card.
5	 <p>one panel fails</p>	Malfunction of panel-driven connector on hub board	Replace the malfunction hub board

Remarks: for any other malfunctions during operation, please contact your manufacturer as soon as possible.

5. Maintenance Instructions

Important Note: all of the following parts of Sections 5.2 to 5.6 must be operated in the power-off state in order to avoid danger.

5.2 Replacing LED Module

- ① Lock the position of corresponding malfunction LED module;
- ② Use the magnetic tool to gently pull out the malfunction LED module. Refer to Figure 5.1;
- ③ Aiming the positioning pin of spare LED module and connect to the positioning hole of hub board and connect, refer to Figure 5.2;
- ④ After the all-in-one display is powered on, observe whether the display is normal.

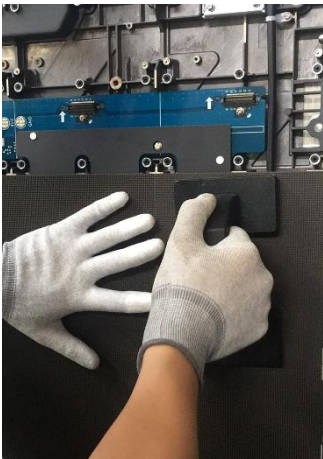


Figure 5.1

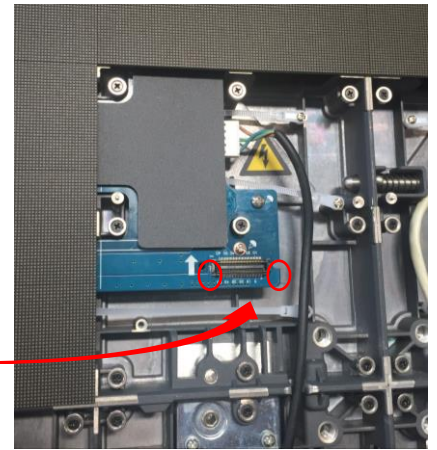
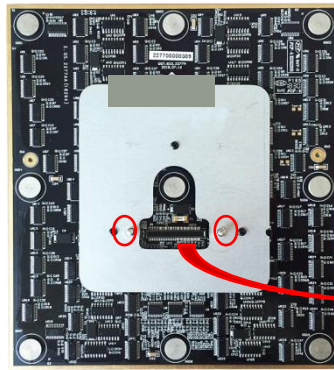


Figure 5.2

5.3 Replacing Panel Drive Unit

- ① Remove the LED module according to step 5.2 and place them in numerical order;

Remarks: please place the removed LED module on a clean, soft platform.

- ② Disconnect the cable connected to the malfunction hub board;
- ③ Remove the 8 screws of the hub board refer to Figure 5.3;

Remarks: the removed screws need to be kept properly for later use.

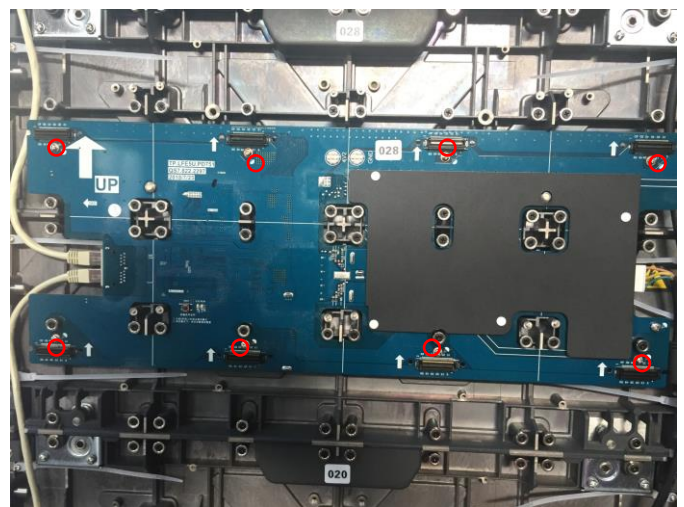


Figure 5.3

- ④ Install the new panel driver to the appropriate position by using the screws removed in the previous step;

Remarks: pay attention to the direction of the panel driver shown in Figure 5.4.

- ⑤ Reconnect the cable to the appropriate location;
- ⑥ After the all-in-one display is powered on, observe whether the display is normal.

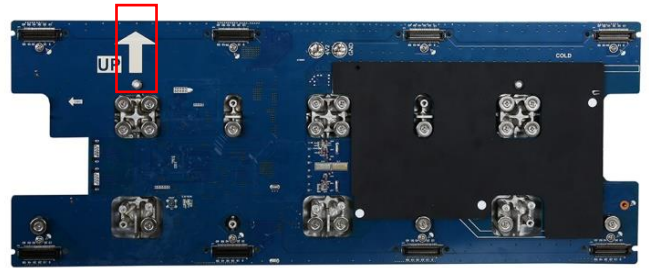


Figure 5.4

5.4 Replacing Sending Card

- ① Open the front cover of the lower main control box;
- ② Disconnect the cable connected to the malfunction sending card;
- ③ Remove the 4 screws on the sending card, refer to Figure 5.5;
- ④ Use the screws removed in the previous step to install the sending card to the corresponding position;
- ⑤ Reconnect the cable to the appropriate location;
- ⑥ After the all-in-one display is powered on, check whether the display screen is normal. Install the control unit after confirming the display can work normally..

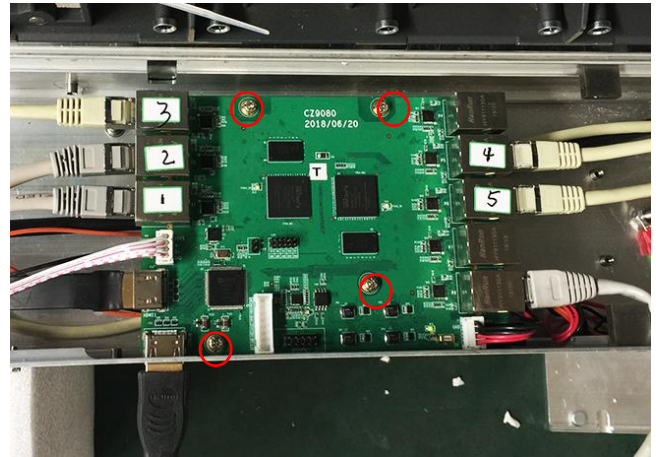


Figure 5.5

5.5 Replacing Cables

Note: the power cable is in the right side of the panel, and the signal cable is in the left side of the panel, as shown in Figure 5.6.

- ① After positioning the malfunctioning cable, refer to step 6.2, remove the left or right display unit;
- ② After removing the malfunctioning cable, reconnect the new cable to the corresponding location;
- ③ Install the removed display unit to the original position;
- ④ After the all-in-one display is powered on, observe whether the display is normal.

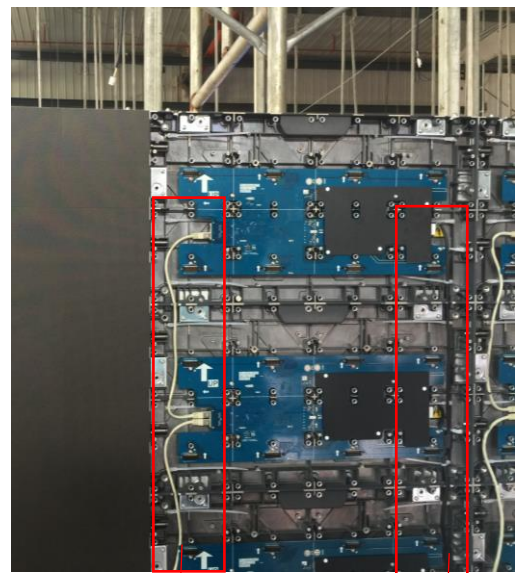


Figure 5.6

Signal cable

Power cable

5.6 Replacing Other Parts

In addition to the above instructions, the replacement of other parts can be directly resolved with the manufacturer.

6. Comments and Feedback

If you have any questions or suggestions during the use of the all-in-one product, please feel free to contact us.

ATHENA 
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