



# **Absen X 4K**

## **X 4K User Manual**



**Shenzhen Absen Optoelectronic Co.,Ltd.**

## Safety Information



### WARNING!

Please read the safety measures listed in this section carefully before installing, powering on, operating, or doing maintenance on this product.

The following marks on the product and in this manual indicate important safety measures.



**WARNING!**  
Safety risk! Might cause equipment damage or safety risk.



**WARNING!**  
Please read the manual before operating.



**WARNING!**  
Dangerous voltage! Might cause equipment damage or electric shock.



**WARNING!**  
Hot surface! Do not touch.



**WARNING!**  
Flammable!



**WARNING!**  
Possible damage to eyes.



**WARNING: Be sure to understand and follow all safety guidelines, safety instructions, warnings and precautions listed in this manual.**

This product is for professional use only!

This product may result in serious injury or death due to fire hazard, electric shock, and crushing hazard.



**Please read this manual carefully before installing, powering up, operating and maintenance of this product.**

Follow safety instructions in this manual and on the product. If you have any questions, please seek help from Absen.



### **Beware of Electric Shock!**

- To prevent electric shock the device must be properly grounded during installation, Do not ignore using the grounding plug, or else there is a risk of electric shock.

- During a lightning storm, please disconnect the device's power supply, or provide other suitable lightning protection. If the equipment is not in use for a long time, please unplug the power cord.

- When performing any installation or maintenance work (e.g. removing the fuses, etc.,) make sure to turn off the master switch.

- Disconnect AC power when the product is not in use, or before disassembling, or installing the product.

- The AC power used in this product must comply with local building and electric codes, and should be equipped with overload and ground fault protection.

- The main power switch should be installed at a location near the product and should be clearly visible and easily reached. This way in case of any failure the power can be promptly disconnected.

- Before using this product check all electrical distribution equipment, cables and all connected devices, and make sure all meet current requirements.
- Use appropriate power cords. Please select the appropriate power cord according to the required power and current capacity, and ensure the power cord is not damaged, aged or wet. If any overheating occurs, replace power cord immediately.
- For any other questions, please consult a professional.



#### **Beware of Fire!**

- Use a circuit breaker or fuse protection to avoid fire caused by power supply cables overloading.
- Maintain good ventilation around the display screen, controller, power supply and other devices, and keep a minimum 0.1 meter gap with other objects.
- Do not stick or hang anything on the screen.
- Do not modify the product, do not add or remove parts.
- Do not use the product in case ambient temperature is over 40 °C.



#### **Beware of Injury!**

- Warning: Wear a helmet to avoid injury.
- Ensure any structures used to support, fix and connect the equipment can withstand at least 10 times the weight of all the equipment.
- When stacking products, please hold products firmly to prevent tipping or falling.
- Ensure all components and steel frames are securely installed.
- When installing, repairing, or moving the product, ensure the working area is free of obstacles, and ensure the working platform is securely and stably fixed.
- In the absence of proper eye protection, please do not look directly at the lit screen from within a 1 meter distance.
- Do not use any optical devices that have converging functions to look at the screen to avoid burning the eyes.



#### **WARNING: Beware of suspended loads.**



LED lamps used in the module are sensitive and can be damaged by ESD (electrostatic discharge). To prevent damage to LED lamps, do not touch when the device is running or switched off.



WARNING: The manufacturer shall not bear any responsibility for any incorrect, inappropriate, irresponsible or unsafe system installation.



#### **Product Disposal**

- Any component that has a recycling bin label can be recycled.
- For more information on collecting, reusing and recycling, please contact the local or regional waste management unit.
- Please contact us directly for detailed environmental performance information.

**Warning:** Changes or modifications to this unit not expressly approved by the party responsible for compliance

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### **FCC 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.

Any 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.

#### **RF warning:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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# 1.Product Introduction

Absen X 4K series offers two product sizes, 136 inches and 163 inches, both with a standard aspect ratio of 16:9. It is a micro-pitch product with ultra-high-definition display effects launched by Absen based on the new-generation display technology, Micro LED technology. It can better meet the diverse needs of medium and large spaces such as high-end conference rooms, lecture halls, and report halls.

Absen X 4K series products adopt a highly integrated design, with built-in devices such as speakers, control systems, and power supplies, eliminating the need for any external equipment. With the side-drawn control box design and the 5mm narrow border design, the screen-to-body ratio is as high as 98%. All-size products provide installation methods of wall mounting and mobile stands.

Absen X 4K series products have been perfectly upgraded based on the functions of the original products, improving the processing and operation capabilities of the hardware system, and optimizing and upgrading the software system to enhance the user experience.

## **Product features:**

- **UHD(ultra-high definition) Display**

Integrated with a state-of-the-art picture quality engine for meticulous detail processing, it boasts a UHD resolution, delivering an unparalleled visual experience.

- **Intelligent System**

Standard Android 11.0 system. Optional OPS computer module enables Windows system, compatible with more software to meet diverse needs. Memory upgraded to 8G+128G for enhanced operation and processing capabilities.

- **Configuration Interface Upgrade**

Built-in light-sensing sensor for automatic brightness adjustment. Front-placed Type-C interface added, and OPS is compatible with mainstream configurations on the market. Meanwhile, equipped with HDMI 2.0 IN/OUT to support 4K signal source transmission.

- **Quick Installation and Flexible Environment Adaptation**

Bid farewell to the traditional delivery mode of single-cabinet transportation and installation. Pre-installed by columns and the whole screen is calibrated before leaving the factory. Installation is simple and fast, allowing two-person installation within one hour. Supports three installation methods: wall-mounted, mobile stand, and electric lifting stand.

- **New Self-developed UI Interface**

Multiple themes for free switching, providing a new interactive experience that is clean and efficient. Three modes are available: standard mode, conference mode, and education mode, flexibly applicable to various scenarios.

- **Wireless Screen Mirroring for Instant Sharing**

Supports multiple screen-mirroring methods. Multiple devices can operate online simultaneously, and sharing is not limited by cables.

- **Safety Protection with Seven-Star Standard**

Panel packaging processing technology effectively protects the light-emitting chips and internal components. The screen can easily withstand various environmental tests, with a service life of over 100,000 hours. It has seven - aspect perfect protection against moisture, dust, impact, blue light, static electricity, touch marks, and oxidation.

- **Low-Carbon and Energy-Saving, Practicing the "Green Absen" Concept**

Multiple innovative green energy - saving technologies. Through dynamic energy - saving, low - power mode, HBB driver design, and flip - chip technology, power consumption is reduced by 40% under the same conditions.

## 1.1 Product Parameter

|                      |                                                        | Absen X136 4K     |              | Absen X163 4K                                                  |              |
|----------------------|--------------------------------------------------------|-------------------|--------------|----------------------------------------------------------------|--------------|
| Physical Parameter   | LED Type                                               | COB               |              |                                                                |              |
|                      | Size(inch)                                             | 136               |              | 163                                                            |              |
|                      | Pixel Pitch(mm)                                        | 0.78              |              | 0.93                                                           |              |
|                      | Display Size(W×H)(mm)                                  | 3000*1687.5       |              | 3600*2025                                                      |              |
|                      | Screen Size(W×H×D)(mm)                                 | 3010*1732.5*39.3  |              | 3610*2070*39.3                                                 |              |
|                      | Package Size(mm)                                       | 1910*1350*780     |              | 1370*720*1300(Cabinet)<br>1910*910*565(Installation accessory) |              |
|                      | Weight(kg)                                             | 126.5             |              | 182.5                                                          |              |
|                      | Total screen weight (including mounting structure)(kg) | Wall mounting     | Mobile stand | Wall mounting                                                  | Mobile stand |
|                      |                                                        | 146.5             | 167.7        | 210.5                                                          | 234          |
| Display Parameter    | Resolution(Dots)                                       | 3840*2160         |              |                                                                |              |
|                      | Brightness(nits)                                       | 350               |              |                                                                |              |
|                      | Contrast ratio                                         | 15000:1           |              |                                                                |              |
|                      | Gray Scale(Bit)                                        | 13                |              |                                                                |              |
|                      | Refresh Rate(Hz)                                       | 3840              |              |                                                                |              |
|                      | Viewing Angle(H/V) (°)                                 | 160/160           |              |                                                                |              |
| Electrical Parameter | AC Operating Voltage                                   | AC 100-240V       |              |                                                                |              |
|                      | Power Consumption(Avg.)<br>(w)                         | 548               |              | 591                                                            |              |
|                      | Power Consumption(Max.)<br>(w)                         | 1645              |              | 1774                                                           |              |
| System parameter     | Android System                                         | Android 11.0      |              |                                                                |              |
|                      | WIFI                                                   | Wifi 6.0          |              |                                                                |              |
|                      | Video source input bit depth                           | 8bit              |              |                                                                |              |
|                      | Blue tooth                                             | Blue tooth5.0     |              |                                                                |              |
|                      | CPU                                                    | Cotex A73*4+A53*4 |              |                                                                |              |
|                      | System Memory                                          | DDR4-8GB          |              |                                                                |              |

|                       |                           |                                                                           |
|-----------------------|---------------------------|---------------------------------------------------------------------------|
|                       | Storage                   | 128GB                                                                     |
|                       | Control Interface         | RJ45*2, RS232*1                                                           |
|                       | I/O Interface             | HDMI2.0 IN*2, HDMI2.0 OUT*1, USB3.0*4, AUDIO OUT*1, SPDIF OUT*1, TYPE C*1 |
|                       | OPS                       | Optional                                                                  |
| Application parameter | Operating Temperature(°C) | -10°C~40°C                                                                |
|                       | Operating Humidity(RH)    | 10~80%RH                                                                  |
|                       | Storage Temperature(°C)   | -40°C~60°C                                                                |
|                       | Storage Humidity(RH)      | 10%~85%                                                                   |
|                       | IP Rating(Front/Rear)     | IP40/IP21                                                                 |
|                       | Maintenance               | Front-maintenance                                                         |
|                       | Certification             | CCC、FCC、CE、ETL、RoHS                                                       |

REMARK: POWER CONSUMPTION TOLERANCE:  $\pm 15\%$ , ACCORDING TO THE ACTUAL SITUATION.

## 1.2 Accessory Information

|                 | Item Name              | Absen X136 4K | Absen X163 4K |
|-----------------|------------------------|---------------|---------------|
| Main spare item | LED Module             | 6Pcs          | 8Pcs          |
|                 | Receiving card         | 1Pcs          |               |
|                 | Power supply           | 1Pcs          |               |
|                 | HUB                    | 1Pcs          |               |
|                 | U disk                 | 1Pcs          |               |
| Main accessory  | Remote Control         | 1Pcs          |               |
|                 | HDMI Cable             | 1Pcs          |               |
|                 | Type C Cable           | 1Pcs          |               |
| Tool            | Front Maintenance Tool | 1Pcs          |               |
|                 | Installation Tool      | 1Pcs          |               |

### 1.3 Installation Schematic Diagram

**Note:** Please refer to the installation manual for detailed installation instructions.

#### X136 4K Wall-mounted Schematic Diagram(mm)

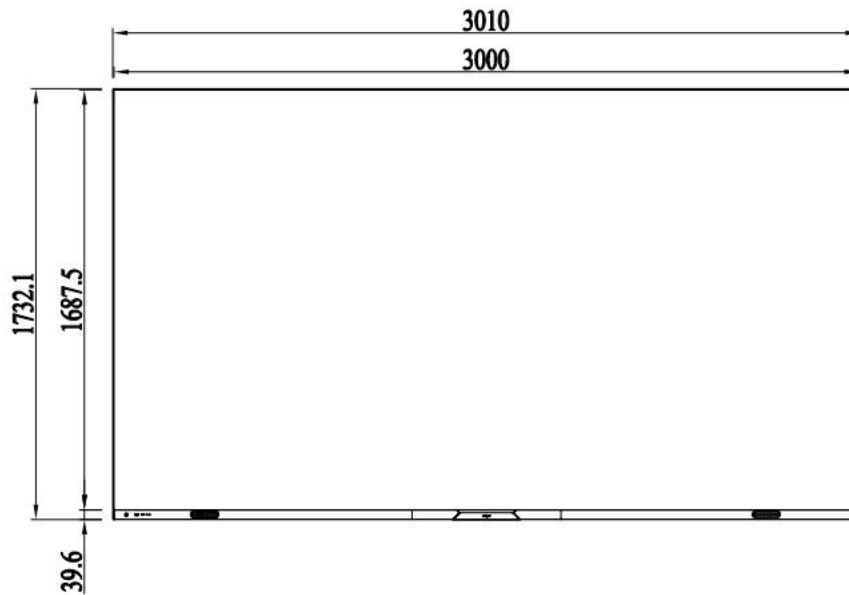


Figure 1-1. X 4K136 Wall-mounted Schematic Diagram

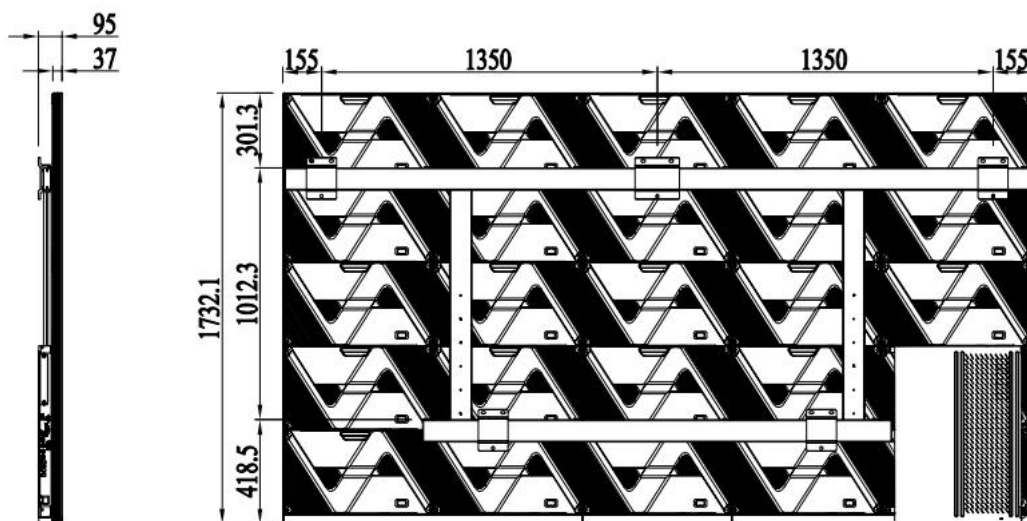


Figure 1-2. X 4K136 Wall-mounted Back View Schematic Diagram

## X136 4K Mobile Bracket Schematic Diagram(mm)

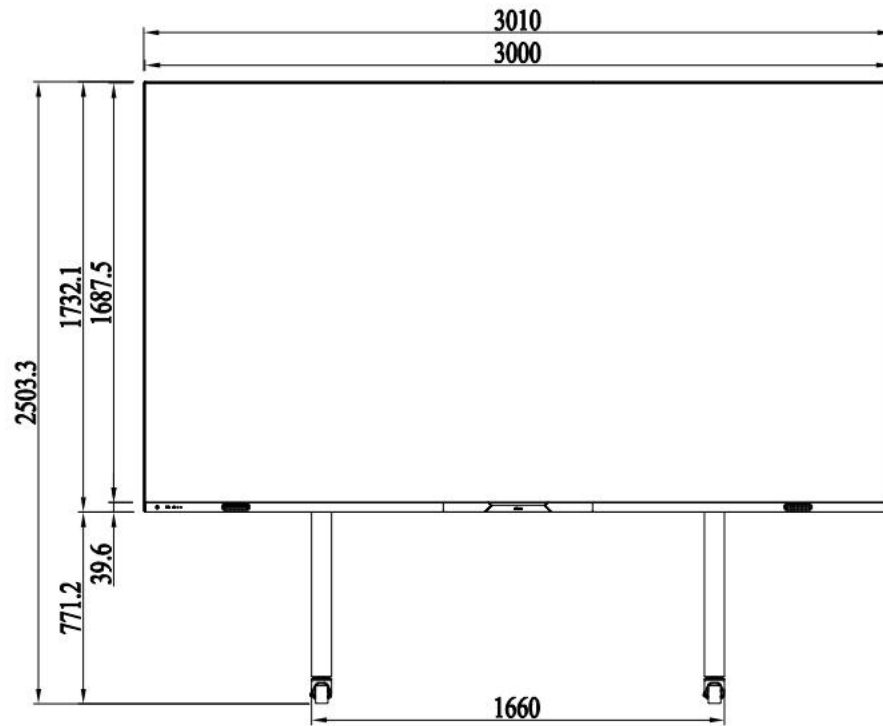


Figure 1-3. X136 4K Mobile Bracket Schematic Diagram

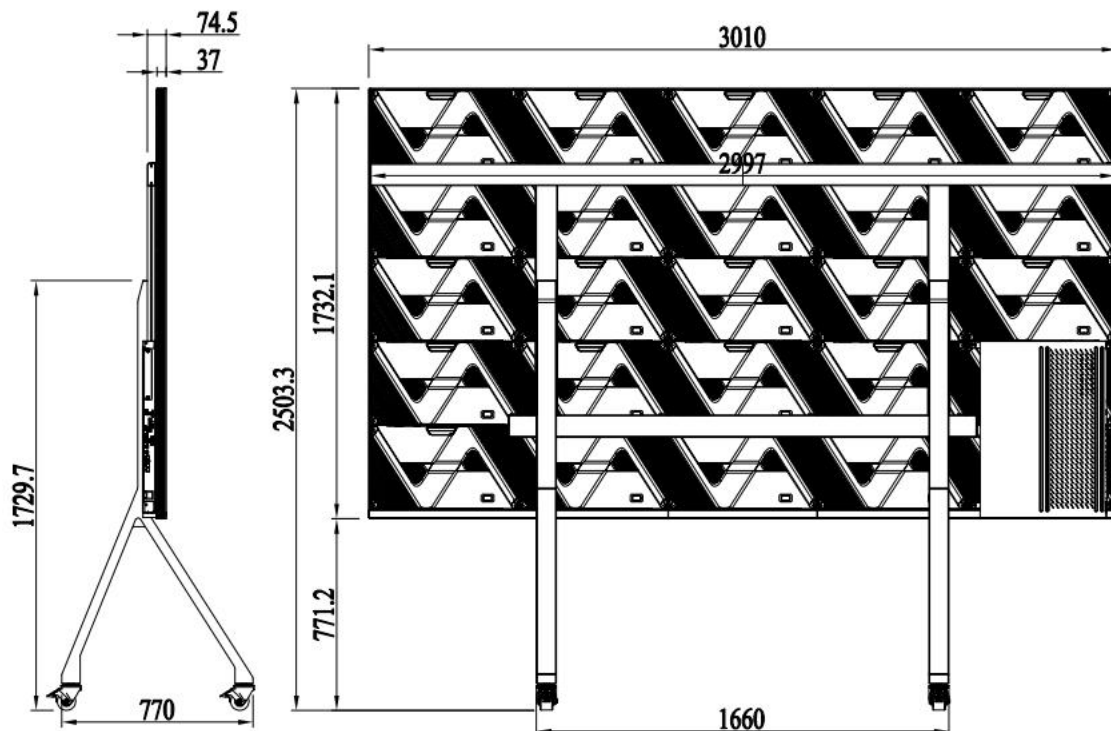


Figure 1-4. X136 4K Mobile Bracket Back View Schematic Diagram

## X163 4K Wall-mounted Schematic Diagram(mm)

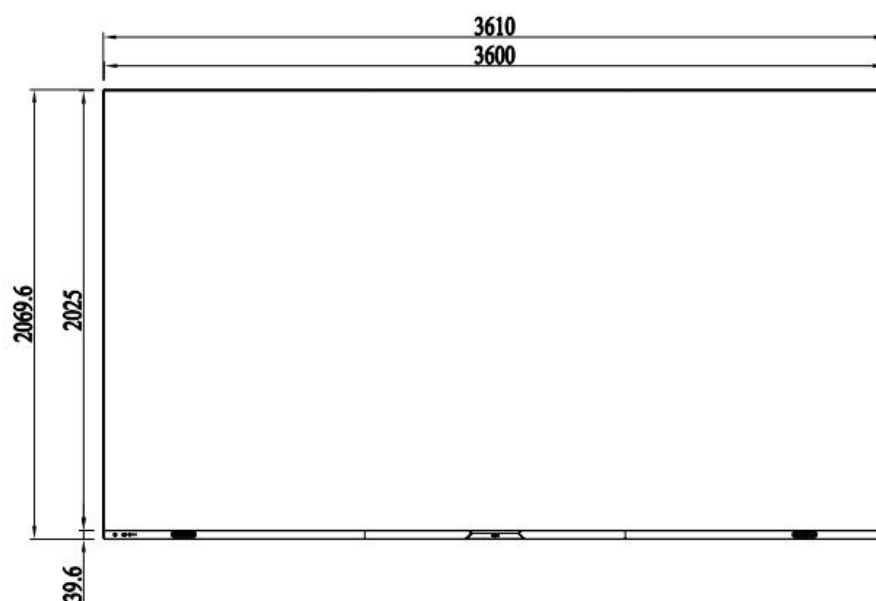


Figure 1-5. X 4K163 Wall-mounted Schematic Diagram

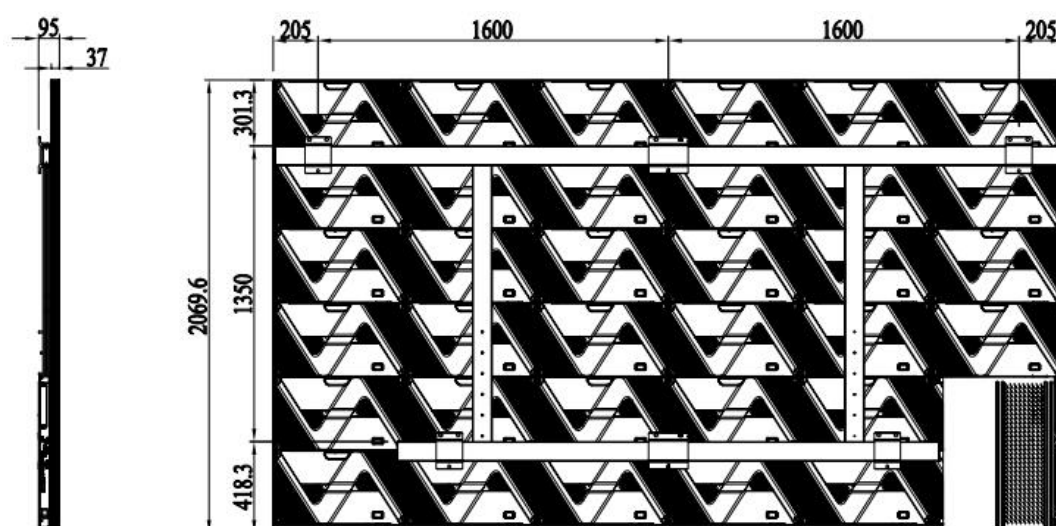


Figure 1-6. X 4K163 Wall-mounted Back View Schematic Diagram

## X163 4K Mobile Bracket Schematic Diagram(mm)

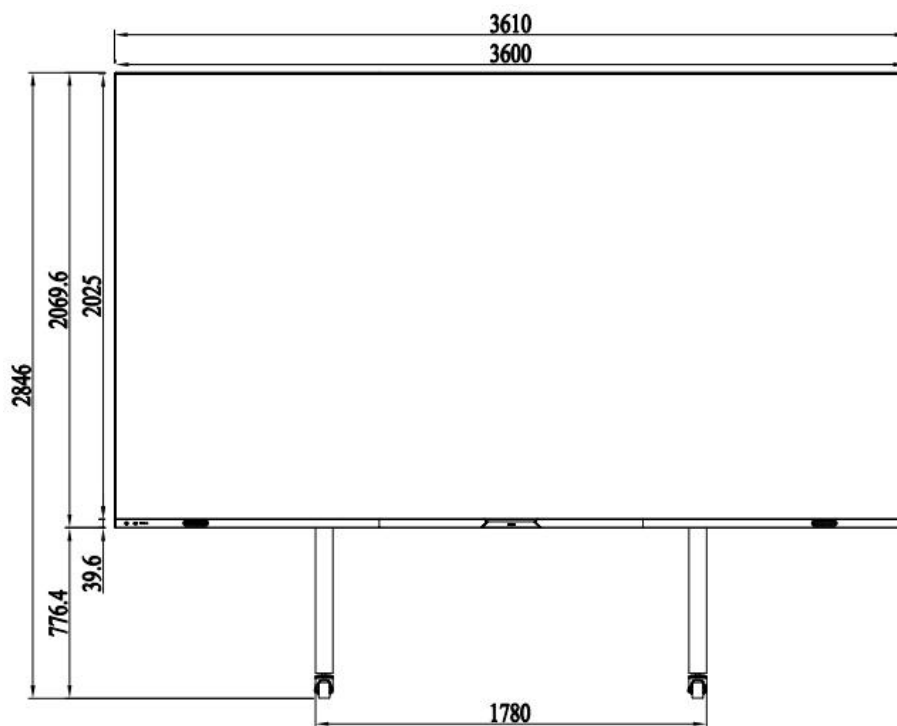


Figure 1-7. X163 4K Mobile Bracket Schematic Diagram

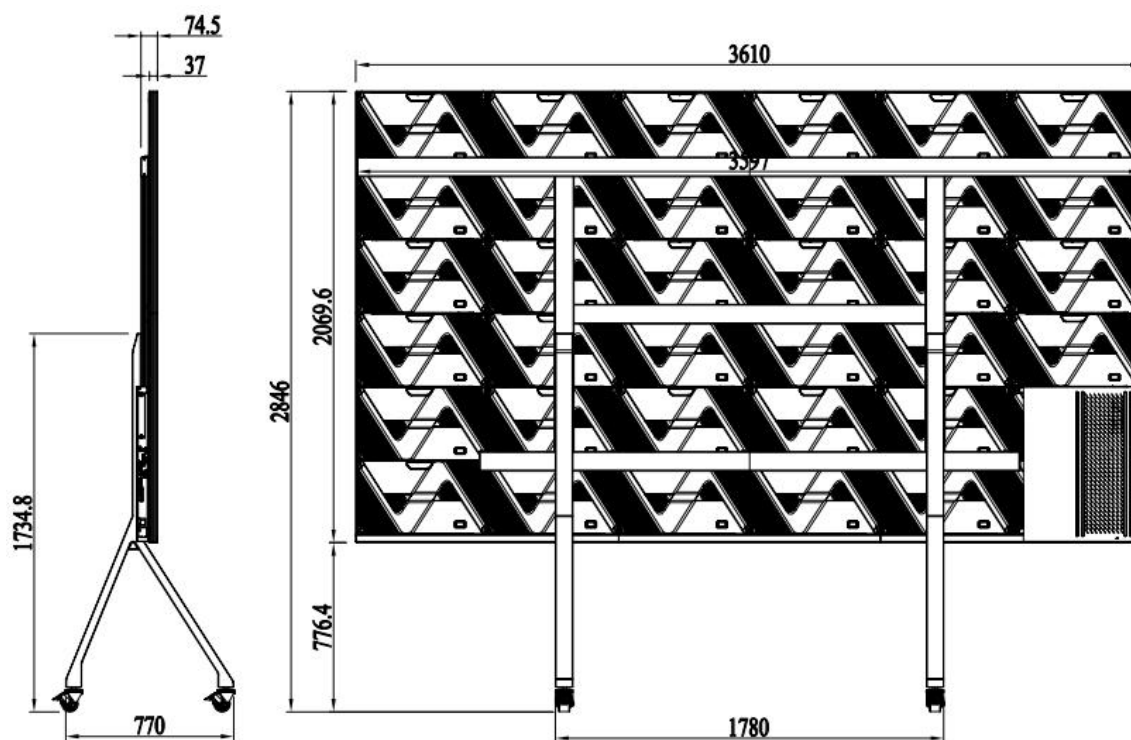


Figure 1-8. X163 4K Mobile Bracket Back View Schematic Diagram

## 1.4 Interface Information

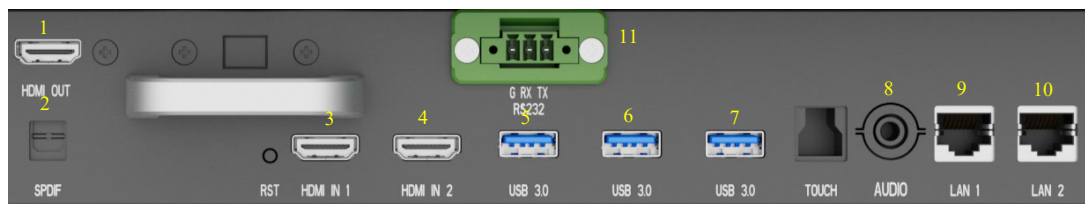


Figure 1-9. Interface of the Side-pull Control Box

| Number | Interface   | Description                                                                              |
|--------|-------------|------------------------------------------------------------------------------------------|
| 1      | HDMI OUT    | HDMI 2.0 output interface, Maximum output resolution 3840×2160@60Hz                      |
| 2      | SPDIF       | Fiber optic digital audio output                                                         |
| 3/4    | HDMI IN 2.0 | HDMI 2.0 input interface Maximum Input Resolution 3840×2160@60Hz                         |
| 5/6/7  | USB3.0      | Supports USB 3.0 interface input and USB flash drives in FAT32, exFAT, and NTFS formats. |
| 8      | AUDIO OUT   | 3.5mm external speaker interface (with higher priority than the built-in one)            |
| 9/10   | LAN(RJ45)   | ETHERNET Gigabit Ethernet port (both input and output available).                        |
| 11     | RS232       | Central control interface                                                                |



Figure 1-10. Front-mounted interface

| Number | Name            | Description                                                                                                                                                                                                                    |
|--------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Power button    | 1.Power button: Press it to turn off or wake up the device.<br>2.Explanation of the light status: When the system is operating normally, the blue light is on; when the system is powered off, the red light is on.            |
| 2      | USB3.0          | Supports USB 3.0 interface input and USB flash drives in FAT32, exFAT, and NTFS formats.                                                                                                                                       |
| 3      | TYPE-C          | 1.Supports storage devices with TYPE-C interface.<br>2.Supports audio and video input via DP 1.2 protocol, with a maximum input resolution of 4K@60Hz.<br>3.Supports reverse control output (only touch control is supported). |
| 4      | Infrared sensor | Supports infrared remote control                                                                                                                                                                                               |
| 5      | Light sensor    | Turn on the automatic brightness adjustment function to automatically adjust the brightness according to the ambient light.                                                                                                    |

## 1.5 Features of System

It can support a display screen with a maximum resolution of 3840×2160@60Hz (point-to-point display). It is equipped with a rich variety of input interfaces, including 2 HDMI 2.0 input ports, 1 TYPE-C input port, and supports reverse control (TYPE-C and USB-B). There are also 4 USB 3.0 input ports, and it supports 2 Gigabit Ethernet ports. It has a dual WIFI mode (dual WIFI 6), which can simultaneously support WIFI Internet access and act as a wireless hotspot.

It integrates an independently developed conference OS system, supports 4K UI, and allows for the switching of multiple UI themes. It has intelligent voice interaction, integrates the Rooms and Teams conference systems, supports 4K screen mirroring and cloud screen mirroring, and enables the BYOM (Bring Your Own Meeting) conference function. It also supports functions and features such as serial port, network, and Crestron central control protocol, fully meeting all the needs of customers in conference scenarios.

It supports ultra-high-definition video decoding of mainstream coding formats, including AV1, H.265, VP9, AVS2 at 4Kx2K@60fps, H.264 at 4Kx2K@30fps, MPEG-4, WMV/VC-1, and AVS-P16(AVS+)/AVS-P2 at 1080P@60fps.

It supports wireless screen mirroring from terminals of multiple platforms, including Windows, Mac OS, iOS, and Android systems. Up to 9 screen mirroring images can be displayed simultaneously.

## 1.6 Packaging Instructions

### X136 4K Packaging

X136 4K is packaged in a wooden case:

| Packing List                                                                                                                                    | Outer Box Material | Outer Packaging Dimensions |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------|
| Cabinet, Module, Installation Tools, Gift Package, Lower Edge Cover, Wall-mounted Package, Cable Package, Screen Mirroring Device, OPS Computer | Plywood Box        | 1910*1350*780mm            |

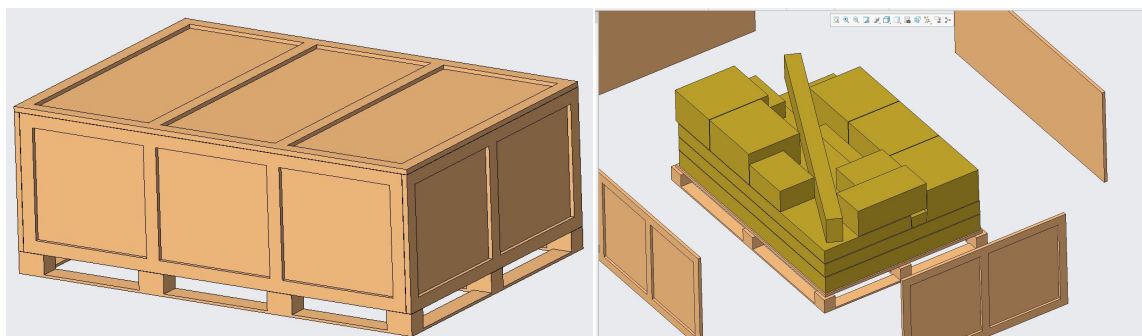


Figure 1-11. X136 4K packaging

The mobile stand is packaged separately: The X136 4K and X163 4K share one set of mobile stand.

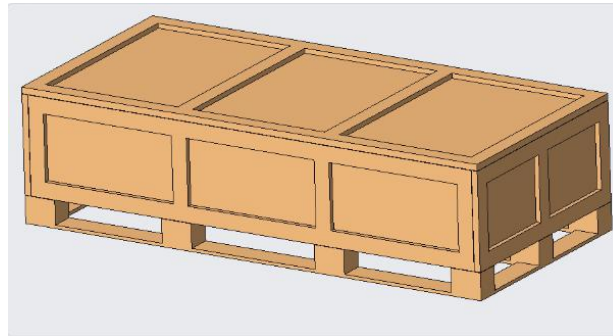


Figure 1-12. X136 4K mobile stand packaging

The packaging dimensions of the installation structure of the mobile stand are:  
1910\*910\*500mm

### X163 4K包装

X163 4K is packaged in two wooden cases:

| Packing List                                                                                                                                                       | Outer Box Material | Outer Packaging Dimensions |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------|
| Cabinet Packaging: There are 2 rows and 3 columns of cabinets in total, making 6 pieces in all.                                                                    | Plywood Box        | 1370*720*1300mm            |
| Installation Accessories: Modules, installation tools, gift package, lower edge cover, wall-mounted package, cable package, screen mirroring device, OPS computer. | Plywood Box        | 1910*910*565mm             |

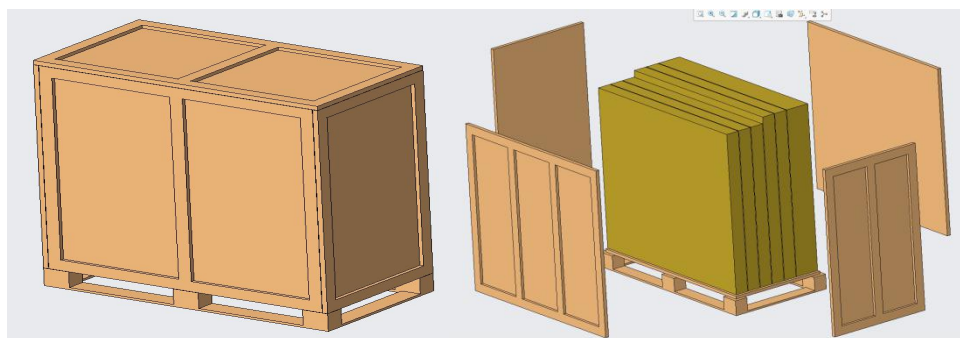


Figure 1-13. X163 4K cabinet packaging

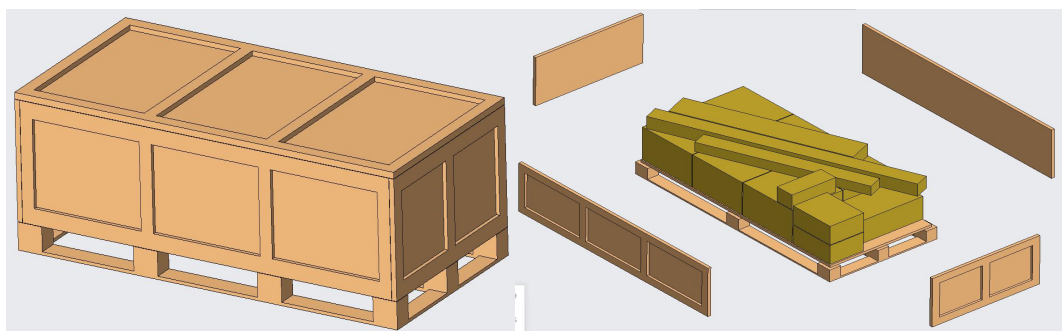


Figure 1-14. X163 4K installation accessories packaging

## 2. Software Usage Guide

### 2.1 Screen Status Operation

#### Power-on Operation

1. Connect the large screen to the power supply.
  2. Press the power switch on the control box at the back to the "ON" position.
  3. According to the power-on startup mode setting (Settings -> Power Management -> Power-on Startup Mode), the system will directly power on or enter standby mode after being powered on. If it enters standby mode, you need to use the Power button on the remote control or the front panel button to power on.
  4. After the system starts up, the indicator light on the front panel will turn blue.
- During the power-on process, the screen will probably go black for about 14 seconds. This is the startup time of the LED control system. You need to wait patiently. After a while, you can see the Android boot animation, and then the system will enter the desktop UI.

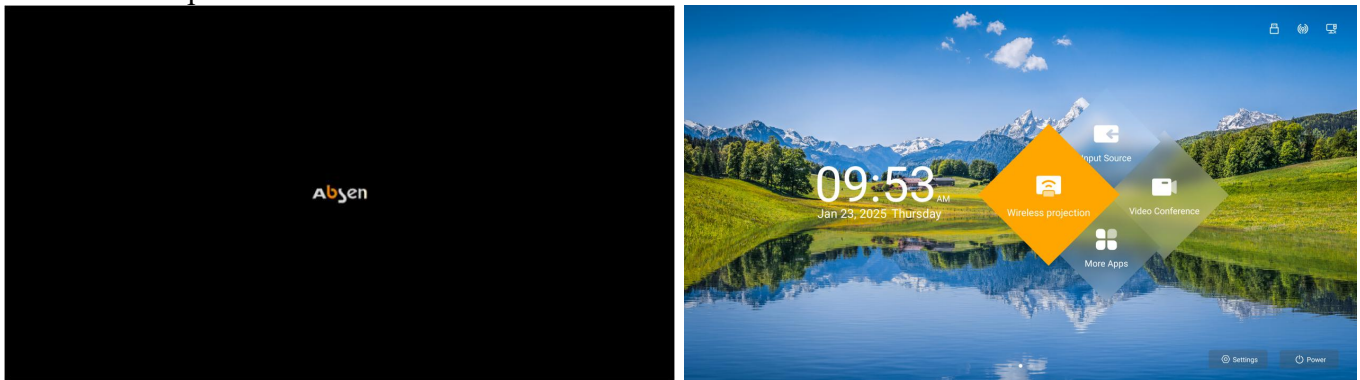


Figure 2-1. Boot Animation and Boot Desktop

#### Power-off Operation

When the LED all-in-one machine is working properly, there are two methods to perform the power-off operation as follows:

Method 1: Press the power on/off button at the lower right corner of the panel of the LED all-in-one machine. The screen will display "Shutdown countdown (5S)" and "Press the power-off button again to cancel" (the status indicator light of the power on/off button will turn red).

Method 2: Press the power on button on the remote control. The screen will display "Shutdown (5S)", "Screen off" and "Restart". After selecting "Shutdown", the machine will power off after a 5-second countdown (the status indicator light of the power on/off button will turn red).

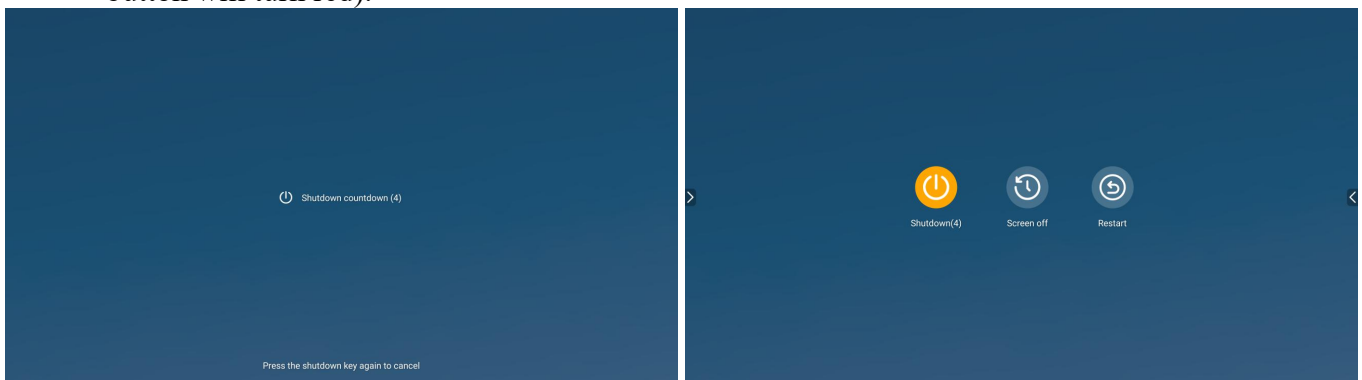


Figure 2-2. Shutdown Countdown

## Screen-off and Restart Operations

**Screen-off:** When the LED all-in-one machine is turned on and working properly: Press the power-on button on the remote control. The screen will display "Shutdown (5S)" and "Screen off". After selecting "Screen off", there will be a 5-second countdown before the machine enters standby mode (the machine is powered off, and the status indicator light of the screen-off button turns red).

**Restart:** When the LED all-in-one machine is turned on and working properly: Press the power-on button on the remote control. The screen will display "Shutdown (5S)", "Screen off" and "Restart". After selecting "Restart", there will be a 5-second countdown before the machine automatically restarts. Or you can manually press the "OK" button on the remote control to restart the machine immediately.

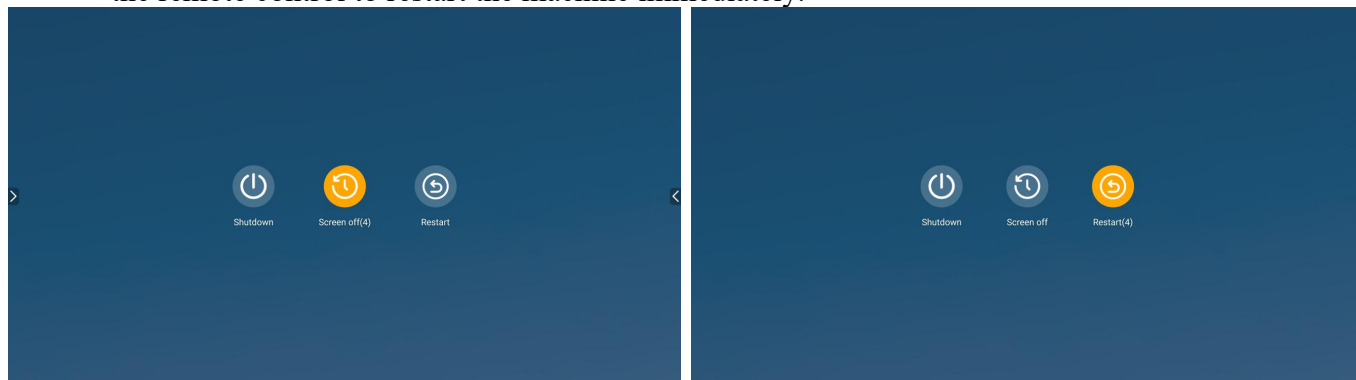


Figure 2-3. Screen-off and Restart via the Remote Control

## 2.2 Multiple Sets of Theme Interfaces

The X 4K system supports the switching of 3 sets of UI themes. You can select the theme in Settings -> Personalized Settings -> Theme Selection, and the selected theme will remain unchanged even after the system restarts.

**Classic Theme:** It features a honeycomb design, which is simple and easy to use.

**Educational Theme:** The text in the notification bar can be customized, making it convenient for teachers to inform students of class information and exam information. There is a signal source preview function on the home page, which is convenient for switching to the computer of the educational system.

**Conference Theme:** It focuses on simplicity and conforms to the layout style of most conference systems.

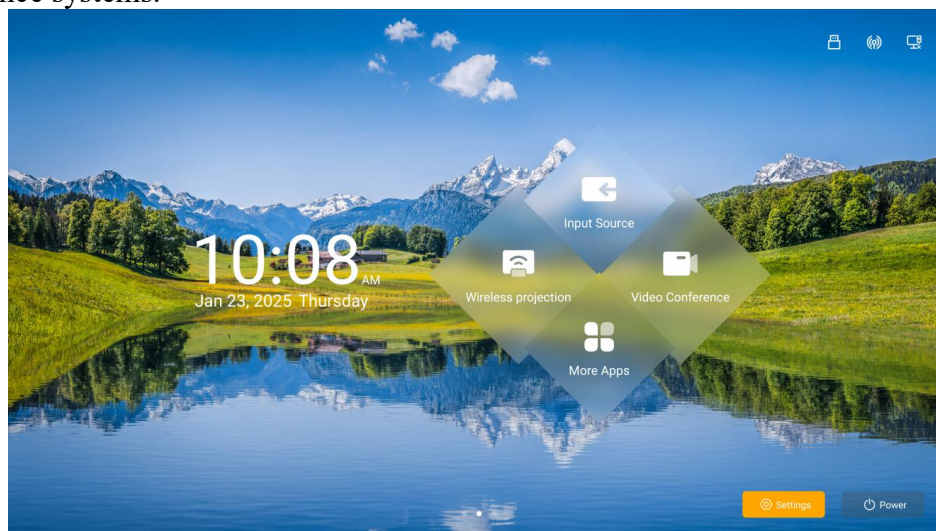


Figure 2-4. Classic Theme

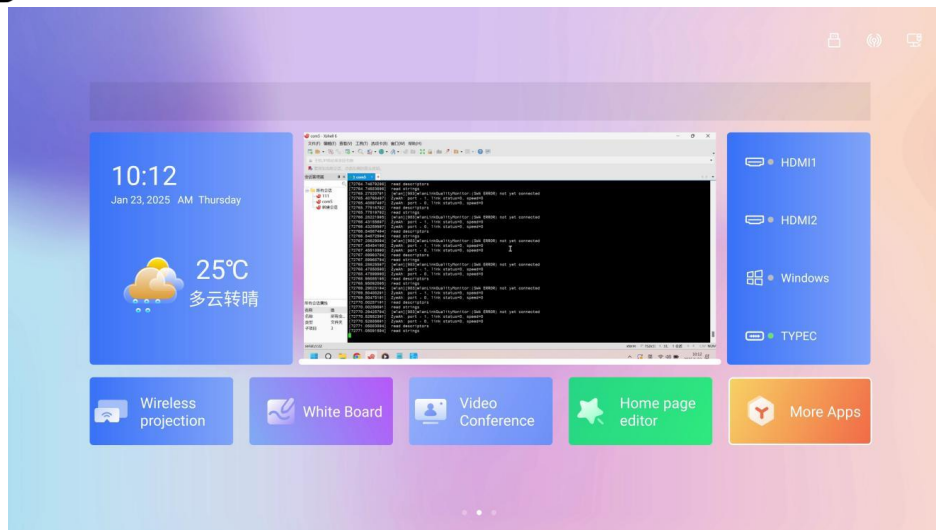


Figure 2-5. Educational Theme

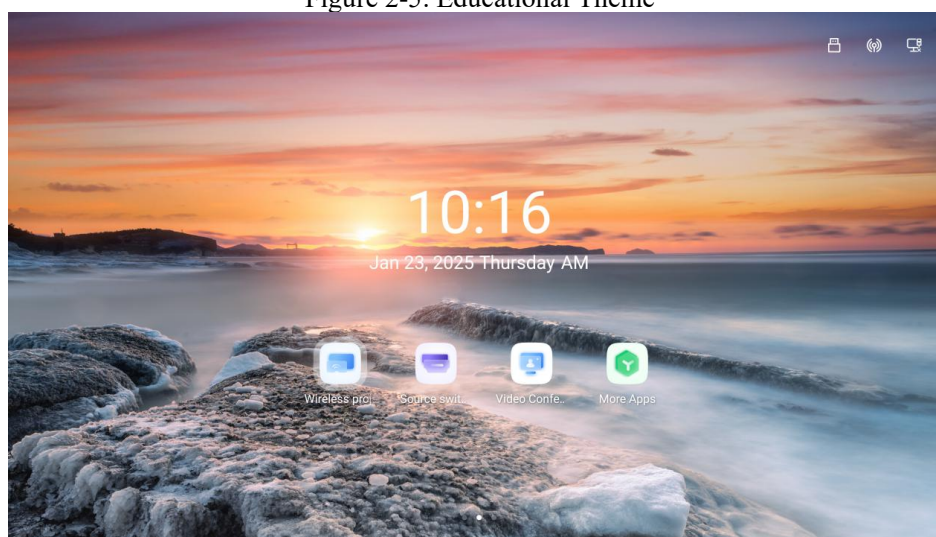


Figure 2-6. Conference Theme

## 2.3 Remote Control Instructions

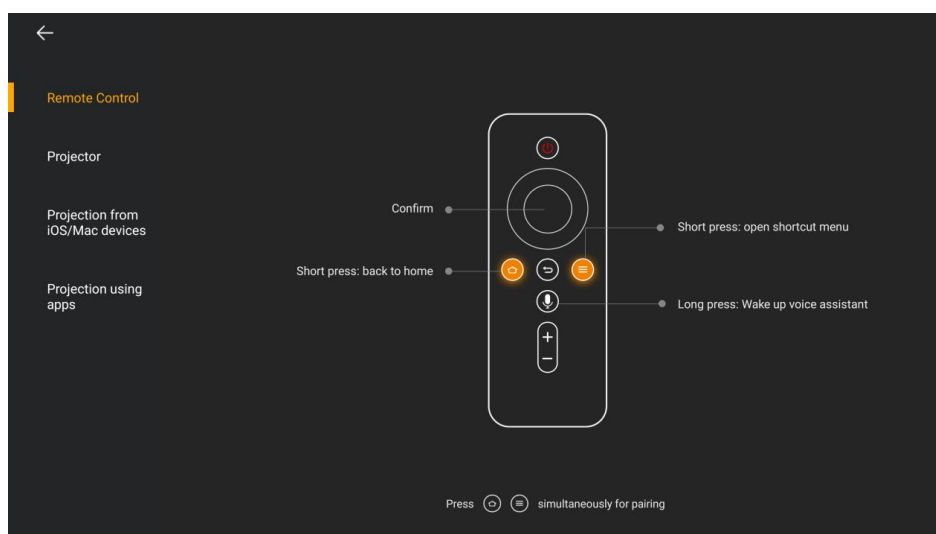


Figure 2-7. Instructions for the Remote Control Buttons

## Remote Control Matching Instructions

Method 1:

Press and hold the  and  on the remote control simultaneously for pairing. Refer to the illustration of the remote control button instructions in the previous chapter.

Method 2:

1. “On the main interface of the all-in-one machine system, select "More Apps" to enter the APP application interface.
2. Click on "Settings", open the menu interface, and select "Network —— Bluetooth" to enter the Bluetooth settings interface.
3. When the blue indicator light at the top of the remote control is flashing, select "Scan Devices" in the Bluetooth settings.

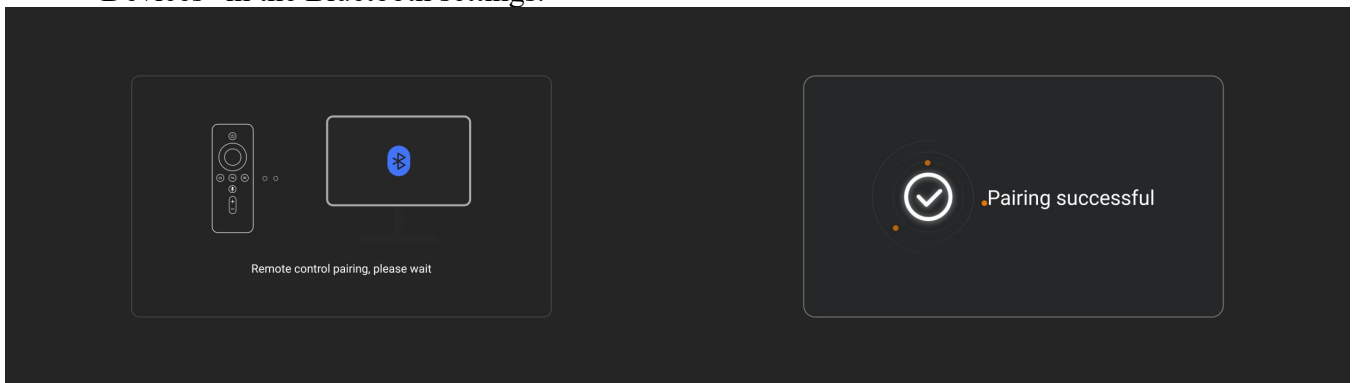


Figure 2-8. Remote Control Pairing

## 2.4 Initialization Settings

When using the Absen LED all-in-one machine for the first time, please complete the initialization settings according to the beginner's guide.

**Step 1:** Select the language of the all-in-one machine system. You can choose from Simplified Chinese, Traditional Chinese, English, and Japanese.

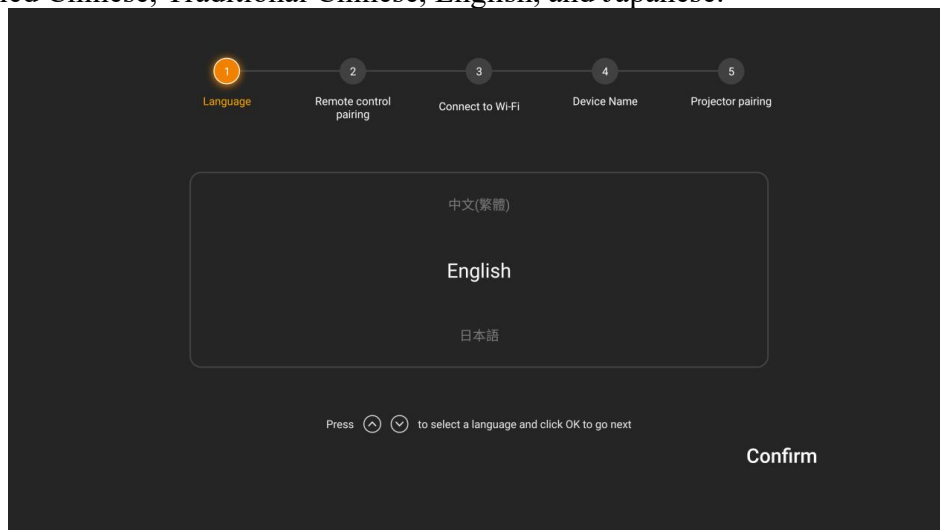


Figure 2-9. Language Selection

**Step 2:** Pair the remote control via Bluetooth. Press and hold the "Menu" button and the "Home" button on the remote control simultaneously for pairing.

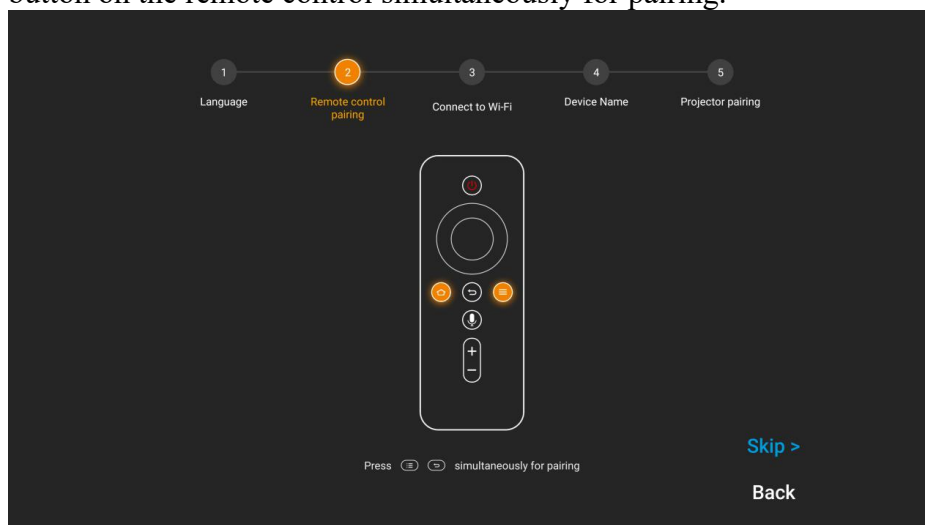


Figure 2-10. Remote Control Pairing

**Step 3:** Select the Wi-Fi network you need to connect to and enter the corresponding password.

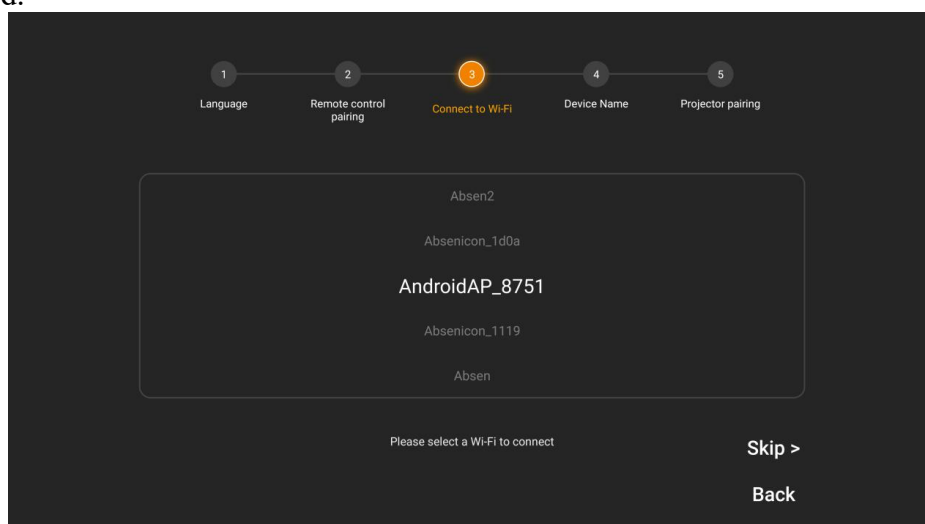


Figure 2-11. Connect to Wi-Fi

**Step 4:** Customize the device name to make it easier for other devices to search for it. The built-in hotspot of the device will use the device name as the hotspot name.

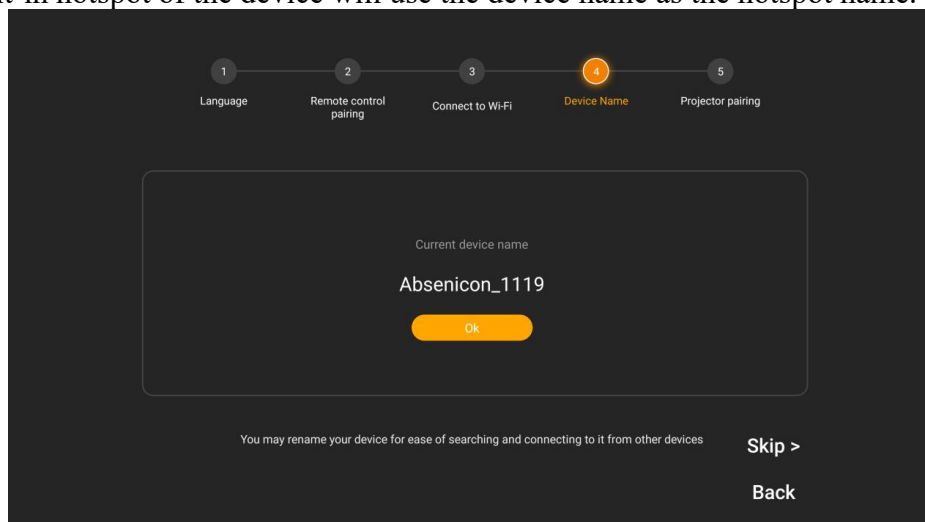


Figure 2-12. Set the Device Name

**Step 5:** When using the screen mirroring device for the first time, insert the screen mirroring device into the USB interface of the large screen and wait for the screen mirroring device to automatically pair.

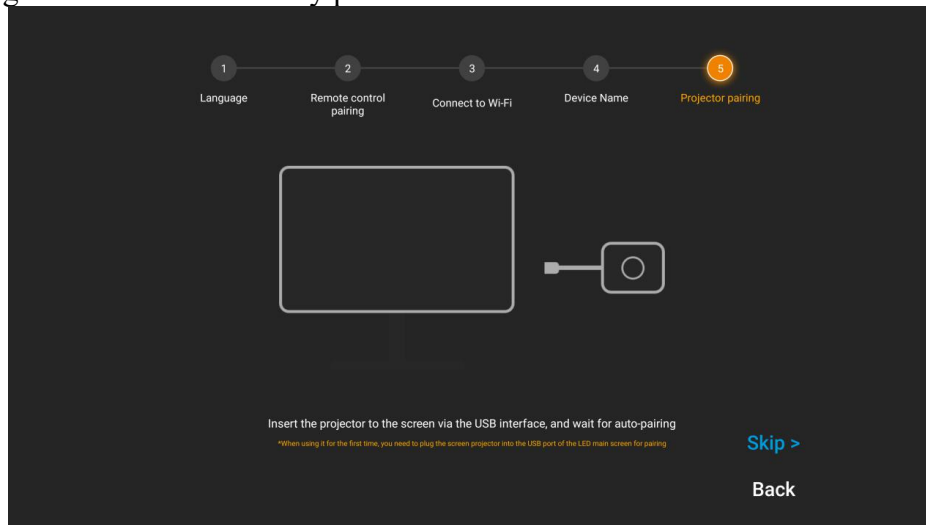


Figure 2-13. Screen Mirroring Dongle Pairing

Once the initialization settings are completed, you can check the beginner's guide or directly start using the Absenicon all-in-one machine system.

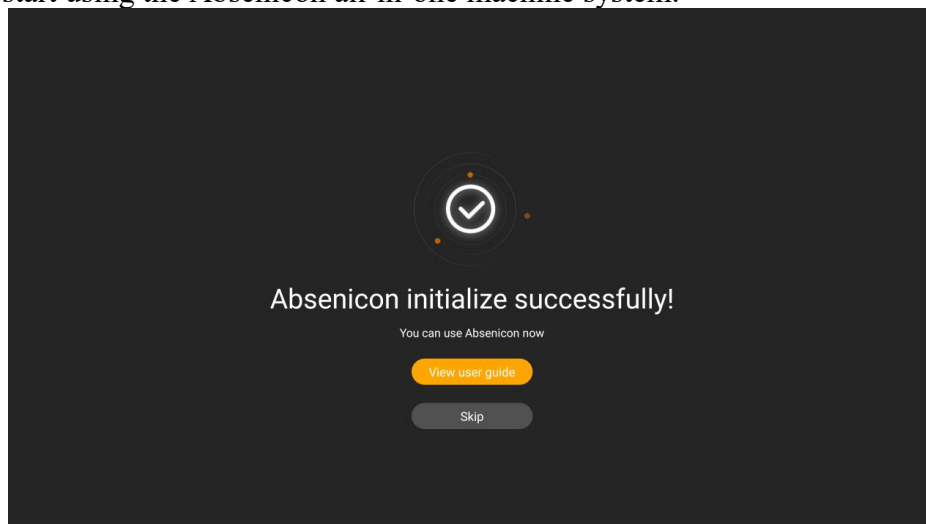


Figure 2-14. Initialization Successful

## 2.5 Beginner's Guide

The beginner's guide will briefly introduce the instructions for the remote control buttons and the methods to achieve various screen mirroring methods.

You can follow the steps shown in the figure to conduct preliminary operations on the all-in-one machine. If you need to adjust the functions of the all-in-one machine in more detail, you can browse other parts of the document and perform operations according to the guided steps.

## Remote control Instructions

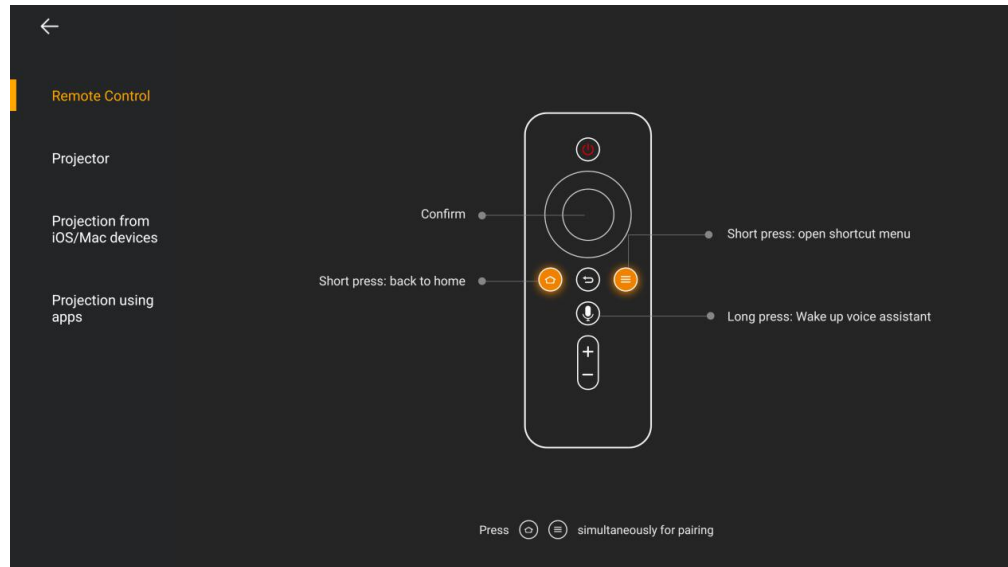


Figure 2-15. Remote control Instructions

## Mirroring Dongle Usage

There are two points to note when using the screen mirroring device:

- 1) When using it for the first time, you need to insert the screen mirroring dongle into the USB interface of the LED main screen for pairing first.
- 2) After updating the hotspot name or password of the LED main screen, you need to pair the screen mirroring dongle again.

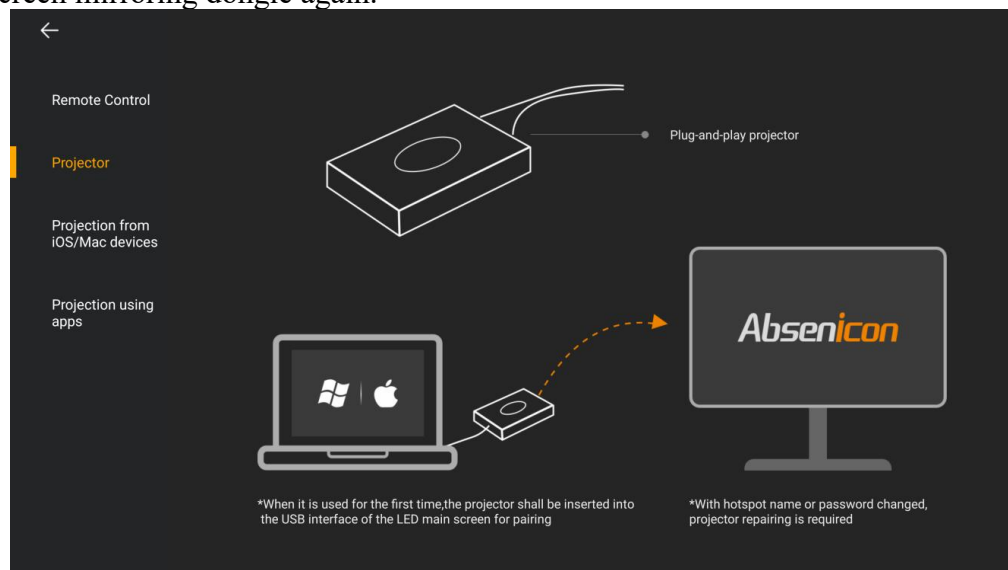


Figure 2-16. Usage Guide for the Screen Mirroring Dongle

## iOS/Mac Mirroring

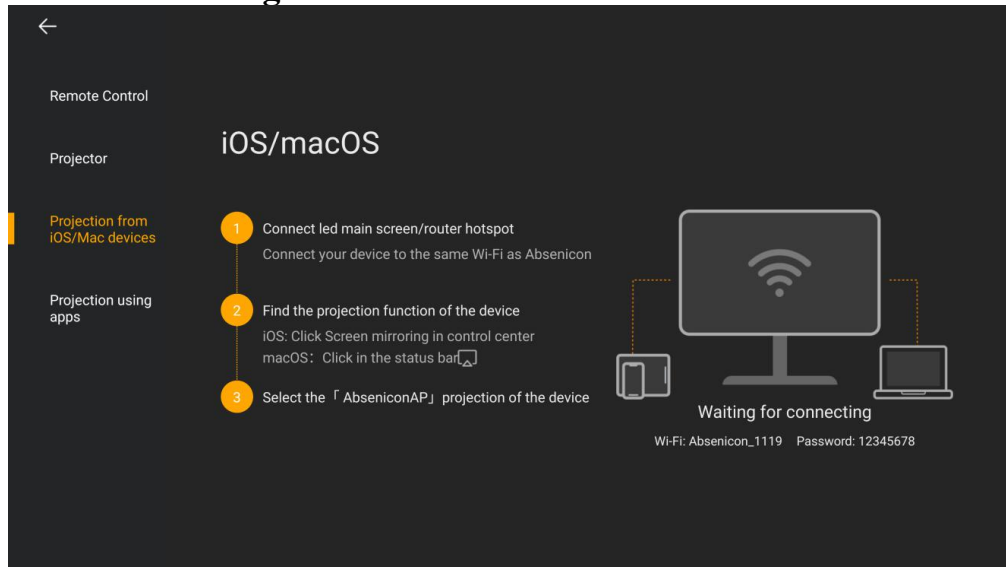


Figure 2-17. iOS/Mac Mirroring Guide

## Software Mirroring

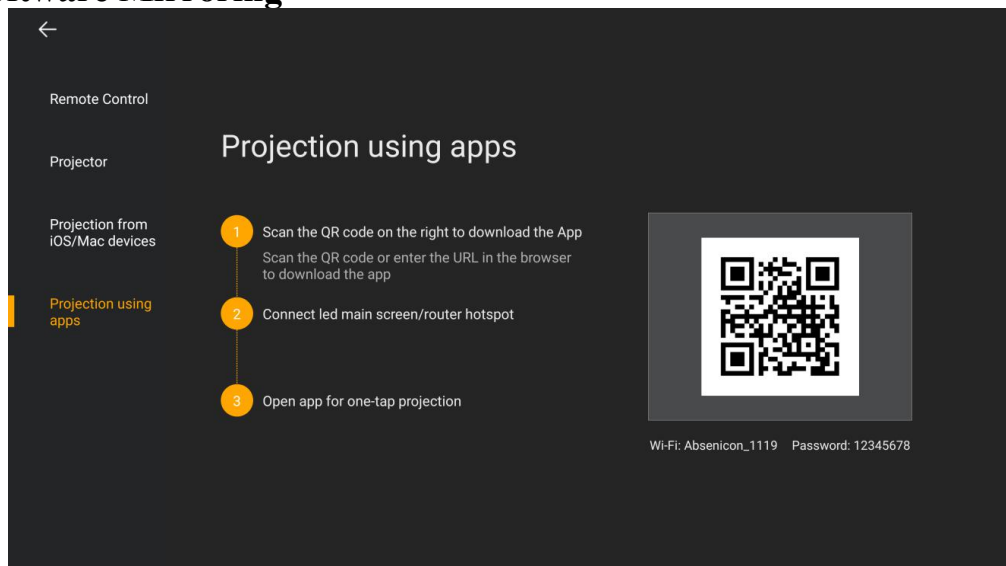


Figure 2-18. Software Mirroring Guide

## 2.6 Mirroring Guide

### Screen Mirroring via Windows System Software

Open a browser on the PC side and enter <https://www.absen.cn/icon-control-app/>;  
download the Windows client according to different platforms.

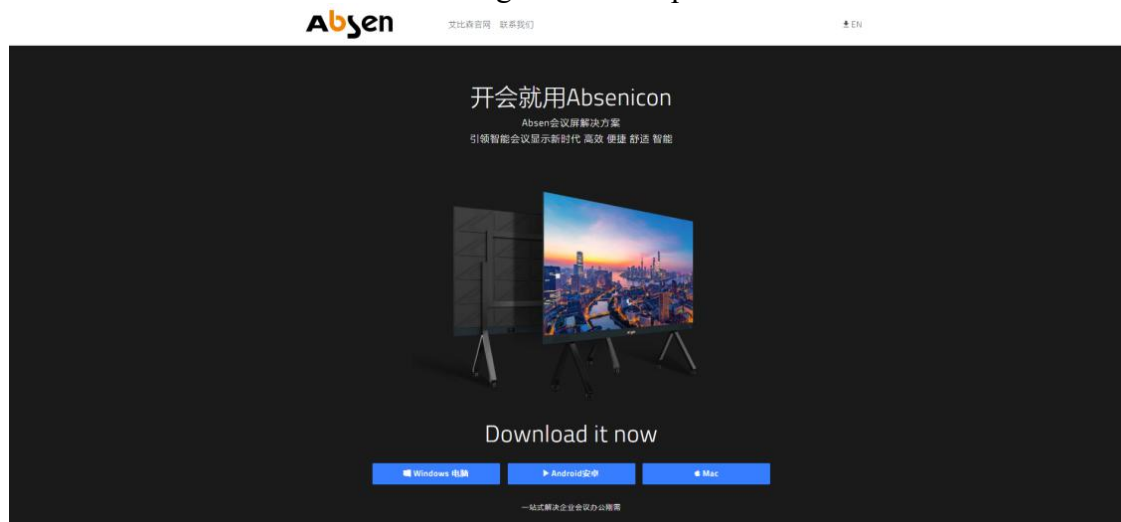


Figure 2-23. Official Website Download Page for the Windows PC Version

Operation Process of Screen Mirroring via the Computer Software:

1. Connect the PC to the hotspot of the Absen all-in-one machine (the default name is: Absenicon\_XXXX, and the default password is: 12345678).
2. Run the downloaded client, and then you can detect the name of the connected device. Click "Connect"; then you can start the one-click screen mirroring.

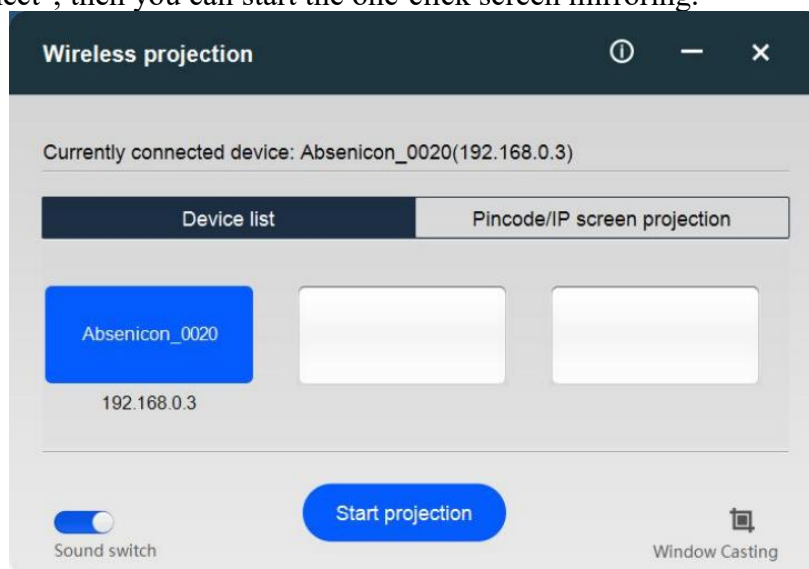


Figure 2-24. Screen Mirroring Page for Windows PC

## Screen Mirroring from a Mac System Computer

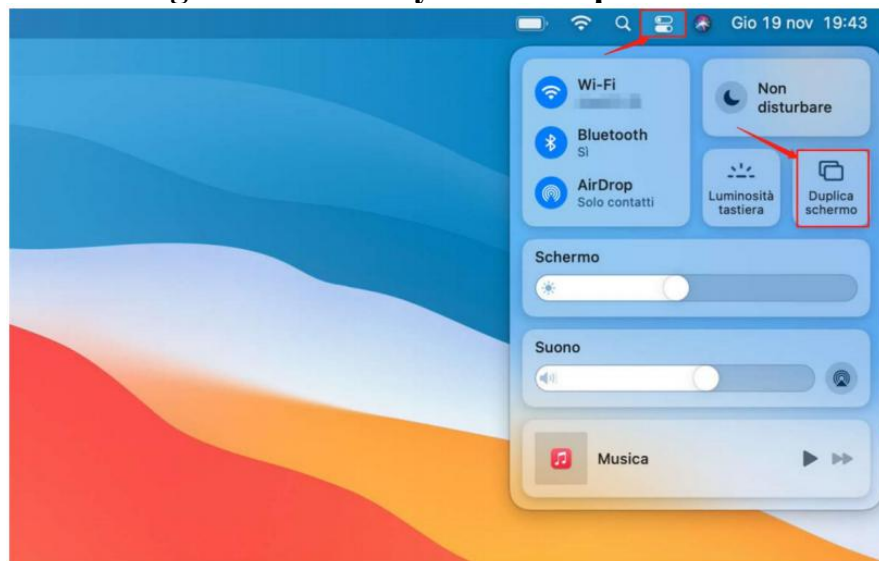


Figure 2-25. Screen Mirroring Interface of a Mac Computer

An Apple computer can directly perform screen mirroring using the screen mirroring function. Connect the MAC computer to the hotspot of the Absen all-in-one machine (the default name is: Absenicon\_xxxx, and the default password is: 12345678); click "Screen Mirroring" in the upper right corner and select the corresponding device name to complete the screen mirroring.

## Screen Mirroring via an Android Mobile App

### Screen Mirroring for Android Mobile Systems

(1) Use your mobile phone to scan the QR code on the main interface of wireless screen mirroring to download the "Transcreen" app and install it on your mobile phone, or search for "Transcreen" in the mobile app store and install it. Both Android and Apple mobile phones can download and install it.

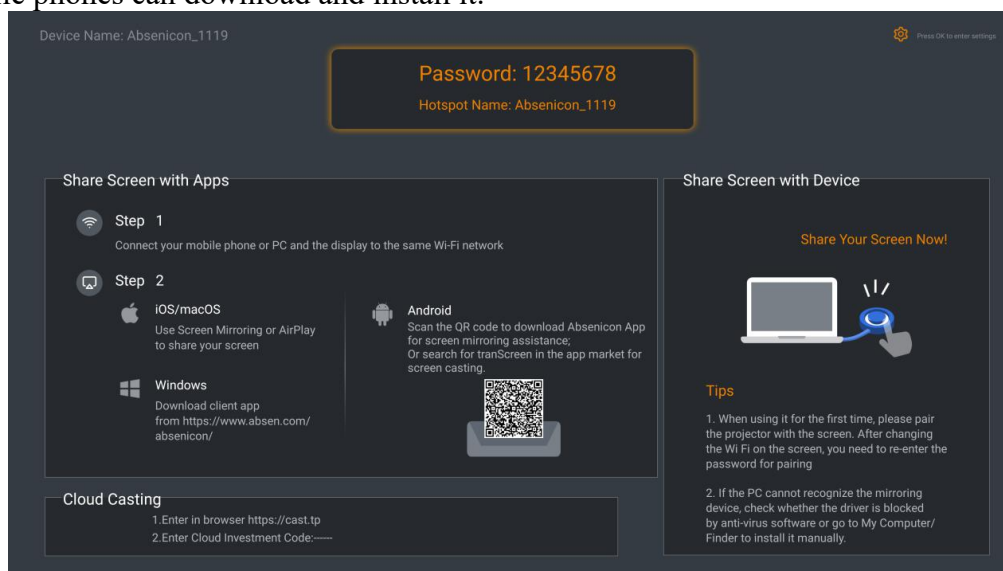


Figure 2-26. Scan the Code to Download the Screen Mirroring App



Figure 2-27. Download the Screen Mirroring App from the Huawei AppGallery

- (2) Connect the mobile phone to the hotspot of the Absenicon all-in-one machine (the default name is: Absenicon\_XXXX, and the default password is: 12345678).
- (3) Run Transcreen and select the corresponding device name.
- (4) Select "Start Screen Mirroring" to complete the screen mirroring.

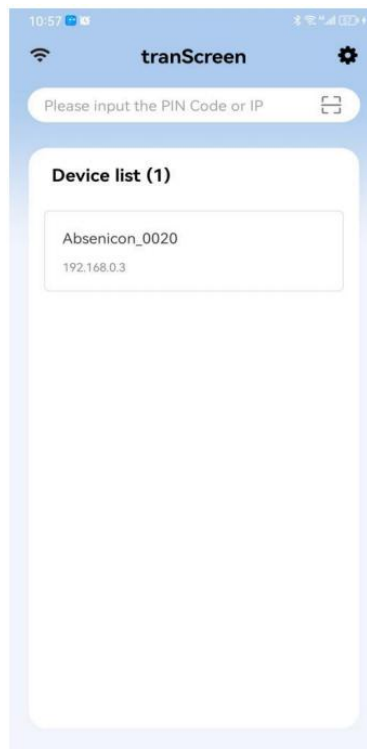


Figure 2-28. Screen Mirroring Page on the Mobile Phone

## Introduction to the Screen Mirroring Function of the Mobile APP

### 1. Start Screen Mirroring

Click "Start Screen Mirroring" to upload the mobile phone signal to the all - in - one machine. Note that the mobile phone needs authorization for this operation.

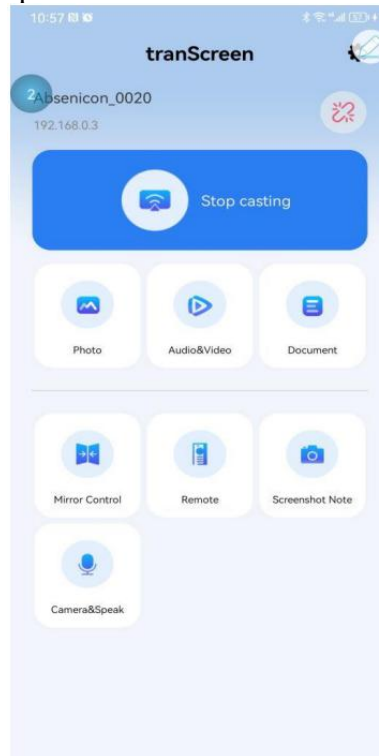


Figure 2-29. Screen Mirroring Function Interface on the Mobile Phone

### 2. Mirror Reverse Control

The speaker can move freely in the lecture hall and use an Android phone or tablet to reversely control the computer playing the PPT. Click "Mirror Reverse Control" to enable this function.



Figure 2-30. Reverse Screen Mirroring

### 3. Project Photos/Project Audio and Video/Project Files

Click "Project Photos" to upload the photos stored on the mobile phone to the all-in-one machine.

Click "Project Audio and Video" to upload the videos and audios stored on the mobile phone to the all-in-one machine.

Click "Project Files" to upload the files stored on the mobile phone to the all-in-one machine.

#### 4. Wireless Notes/Wireless Speech

Click "Wireless Notes" to save the content displayed on the receiving - end large screen with one click through the mobile phone software.

Click "Wireless Speech" to send the voice collected by the microphone of the mobile device to the receiving - end large screen via Wi - Fi through the mobile phone software. While speaking, you can also share videos.

#### 5. APP Remote Control

It supports the functions of a remote control. You can use your mobile phone to control the all-in-one machine for menu selection, page turning, simulating mouse operations, and other functions.

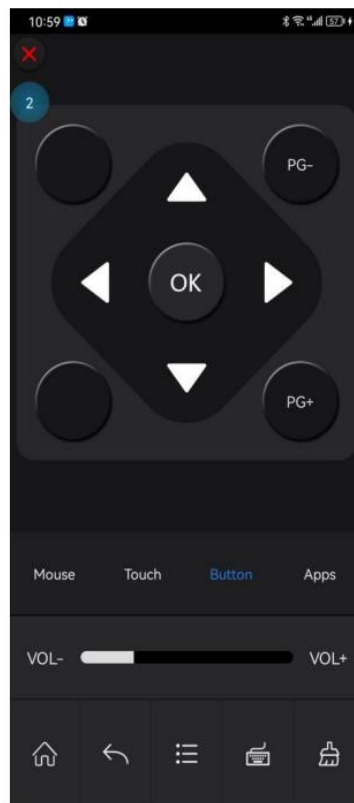


Figure 2-31. APP Remote

### Screen Mirroring on iPhone

Screen Mirroring is a built-in screen-mirroring method in the iPhone system, which uses the AirPlay screen -mirroring protocol.

- (1) Connect your phone to the Absenicon all-in-one machine's hotspot (the default name is: Absenicon\_XXXX, and the default password is: 12345678);
- (2) Swipe up from the bottom of the screen to open the Control Center;
- (3) Tap "Screen Mirroring", select Absenicon\_XXXX, and then you can complete the phone screen-mirroring.



Figure 2-32. Screen Mirroring on iPhone

### Screen-mirroring on iPhone (using an APP)

To use the “Transcreen” screen-mirroring APP, follow these steps:

- (1) Search for the “Transcreen” APP in the App Store and successfully download and install it on your iPhone.
- (2) Connect your iPhone to the hotspot of the Absenicon all-in-one machine (the default name is: Absenicon\_XXXX, and the default password is: 12345678).
- (3) Launch the “Transcreen” app and select the corresponding device name.
- (4) Choose the device and click “Start Screen - mirroring” to complete the screen - mirroring from your iPhone.

### Cloud Screen-mirroring

Cloud screen - mirroring enables quick sharing of the computer desktop via a browser. However, cloud screen - mirroring only simply enables desktop sharing, and its clarity, stability, and smoothness are inferior to those of screen - mirroring with a transmitter.

To ensure the security of system screen - mirroring, for cloud screen - mirroring, you first need to enable “Cloud Screen - mirroring” in the screen - mirroring settings to obtain the device's cloud screen - mirroring code. Then, open <https://cast.top/> in a browser and enter the screen - mirroring code.

## Multi-screen mirroring display

The X 4K system natively supports casting from up to 9 signal sources simultaneously, including computers, mobile phones, tablets, etc. The following example shows a 4-screen simultaneous display with the following effects:

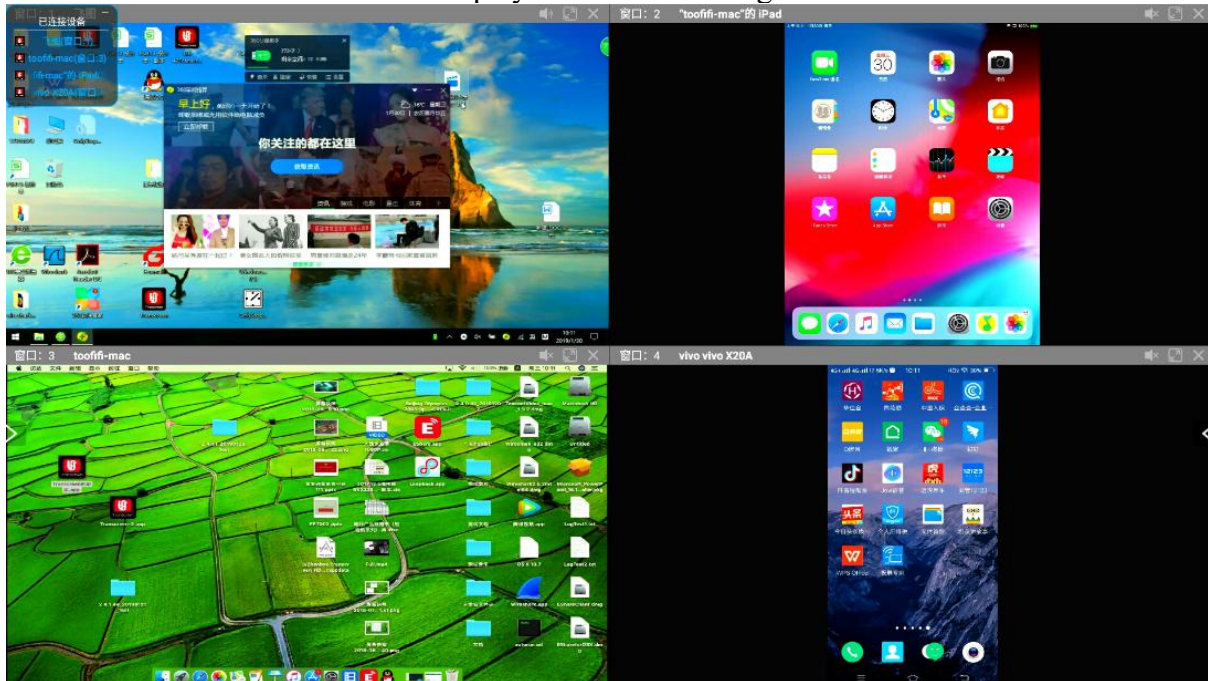


Figure 2-33. 4-screen display effect

## 2.7 Signal Source Input

Supports 2 HDMI 2.0 and 1 TYPE-C signal source input interfaces. Each interface supports a maximum resolution of 3840×2160@60Hz.

Users can switch between multiple signal sources through the following three methods.

### Signal Source Switching

On the main interface of the all-in-one system, click Signal Source Switching to enter the signal source switching interface.

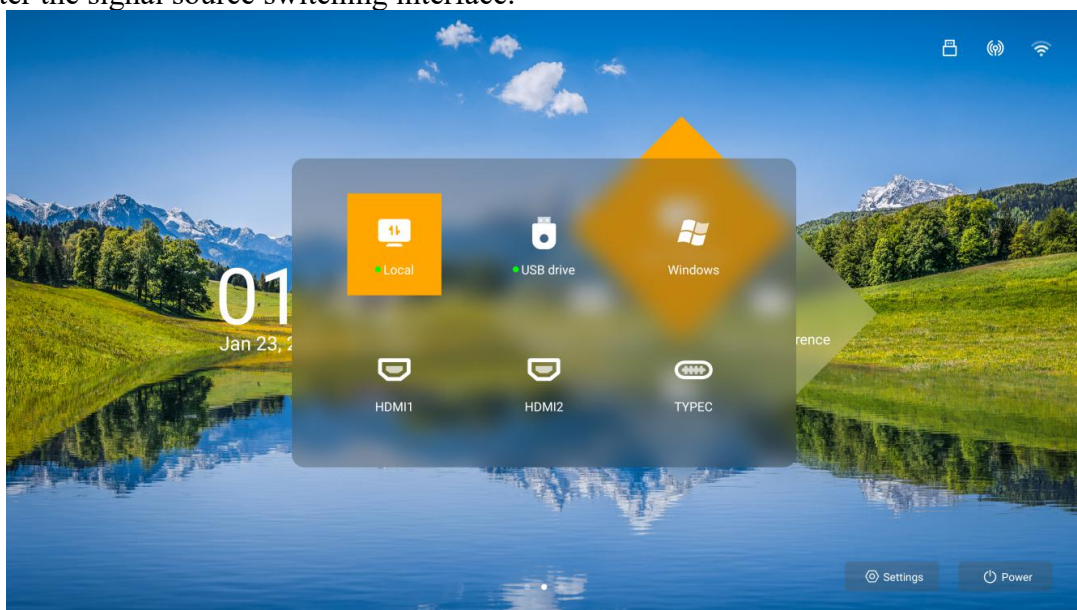


Figure 2-34. Signal source switching page

## Remote Control Quick Menu

Short-press the menu button on the remote control to enter the menu bar.

- (1) Click "Signal Source", and a source switching interface will pop up at the bottom of the screen.
- (2) Select the source for which you want to conduct a screen-mirroring demonstration, and press the confirmation button on the remote control to successfully switch the source.

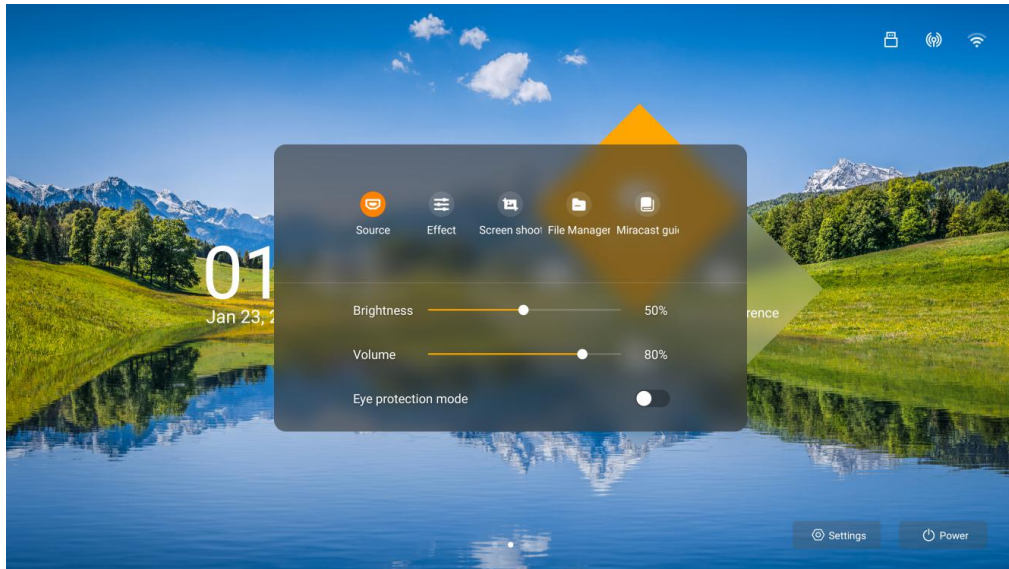


Figure 2-35. Remote Control Quick Menu

## 2.8 Display Effect Settings

如需对显示效果进行调节以获得更舒适的观看效果，可以通过以下方式进行操作。If you need to adjust the display effect to get a more comfortable viewing experience, you can operate in the following ways.

### Scene Modes

The Absenicon all-in-one machine provides 4 scene modes specifically for different meeting application scenarios. Whether it's document presentation, video playback, or remote meetings, it can match the best display effect.

**Standard Mode:** The default mode, which can cover most usage scenarios.

**Soft Mode:** Suitable for scenarios with a lot of text, such as document presentations and PPT playback.

**Cinema Mode:** Suitable for scenarios like video and movie playback.

**Meeting Mode:** Suitable for remote meetings and other scenarios with many portraits.

- (1) Short - press the menu button on the remote control to enter the menu bar;

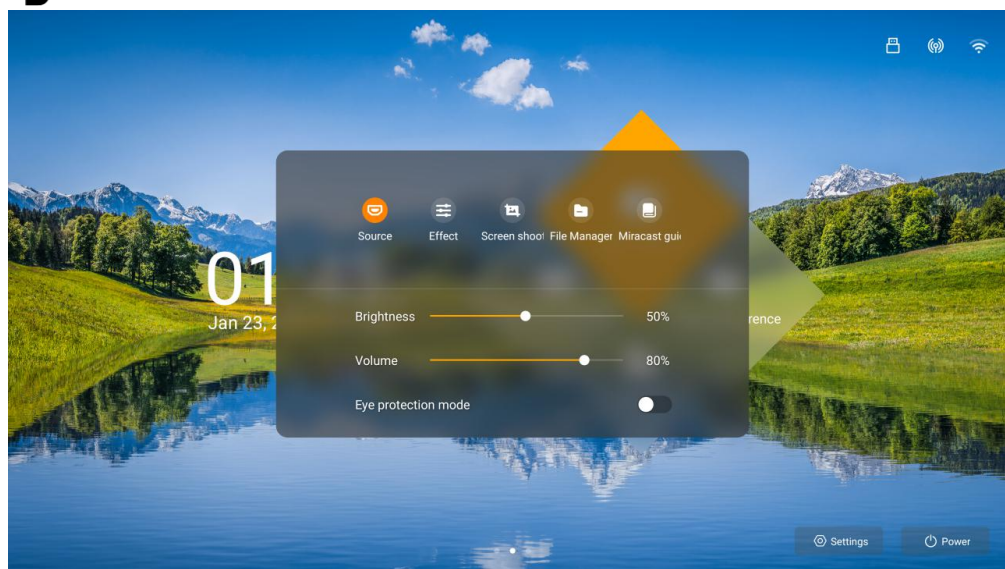


Figure 2-36. Scene Mode Settings

(2) Click "Effect Adjustment" to enter the effect adjustment interface, and select the corresponding mode according to your actual needs.

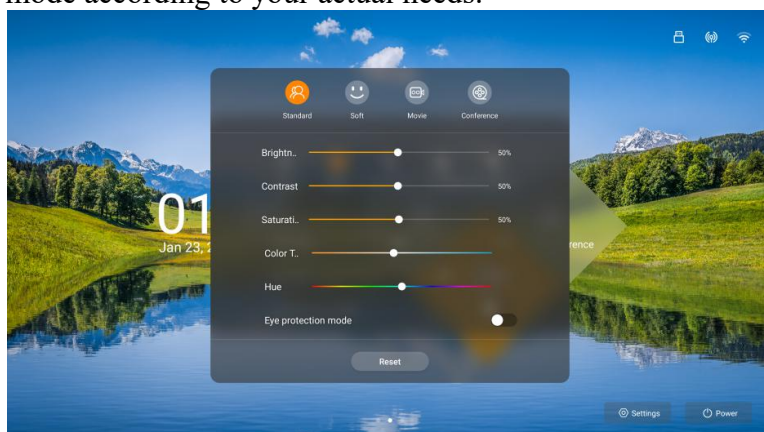


Figure 2-37. Effect Adjustment

## Customize Display Effect

Users can make fine adjustments after selecting the scene mode to meet personalized requirements.

- (1) Short-press the menu button on the remote control to enter the menu bar.
- (2) Click "Effect Adjustment" to enter the effect adjustment interface.
- (3) Adjust the "Brightness", "Saturation", "Contrast", "Color Temperature", and "Tone" to customize the display effect.
- (4) If you are not satisfied with the current effect after the adjustment, you can click the "Restore Default" button to restore the default parameters of the current mode.

## Eye Protection Mode

The Absenicon conference system supports turning on the eye protection mode with one click.

- (1) Press the menu button on the remote control to enter the menu bar.
- (2) Click the "Eye Protection Mode" button to turn on/off the effect of the eye protection mode. Note: After the eye protection mode is turned on, the screen display will be slightly yellowish.

## 2.9 Quick Menu

Press the menu button  on the remote control, and the quick operation UI will pop up. The quick menu supports the following functions;

- (1) Signal source switching, effect adjustment, screen screenshot, file management, and screen-mirroring guidance.
- (2) Brightness adjustment, volume adjustment, and turning the eye protection mode on/off.

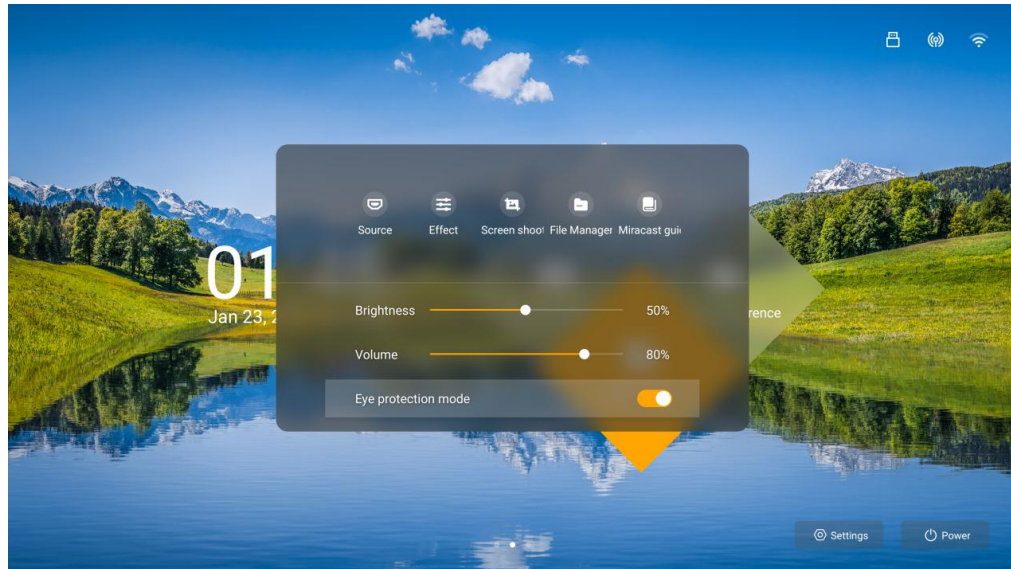


Figure 2-38. Quick Menu

## 2.10 Video Conference

The X 4K system integrates the Rooms and Teams video conferencing systems. Rooms is recommended for use within China, while Teams is recommended for use overseas.

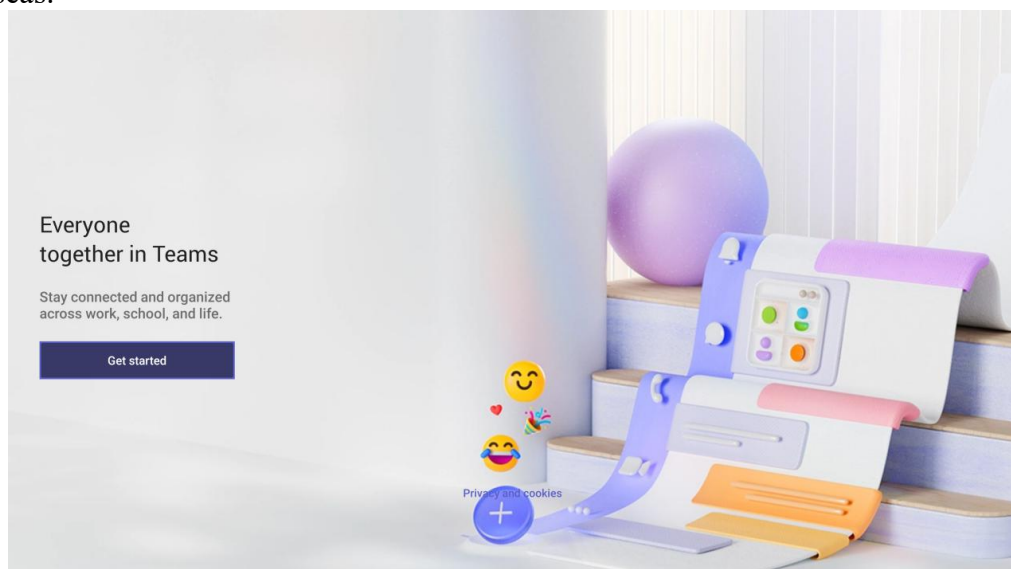


Figure 2-39. Video Conference

## 2.11 System Settings

Enter "More Applications" and open the "Settings" option.

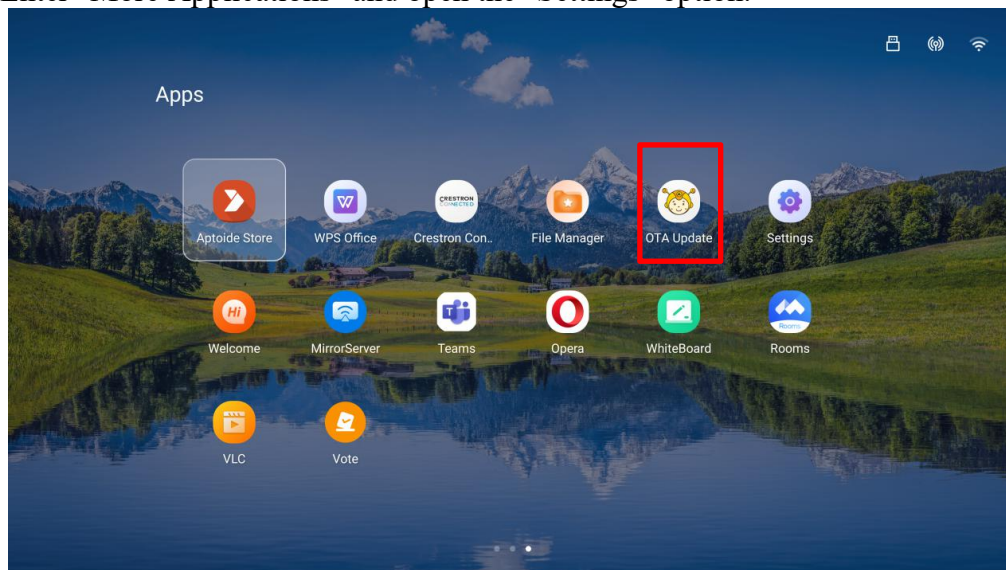


Figure 2-40. System Settings

### WiFi and Hotspot Settings

- (1) Turning WiFi on and off: After turning on WiFi, it will automatically search for surrounding wireless networks. Select an available WiFi network, and pressing the confirmation button will pop up a password input window.
- (2) Turning the hotspot on and off: After turning on the hotspot, the screen mirroring dongle can automatically connect to the device's hotspot for screen mirroring. If the device is already connected to the Internet, other computers can connect to the device's hotspot to access the Internet.
- (3) Modifying the settings password. Note: After the modification, the screen mirroring device needs to be restarted for pairing.
- (4) Modifying the hotspot channel: When there is lag during screen mirroring, you can try modifying the channel.



Figure 2-41. WiFi and Hotspot

## Brightness and Sound Settings

- (1) Brightness setting: Set the brightness of the LED screen.
- (2) Automatic brightness adjustment: Once enabled, the screen brightness will be automatically adjusted according to the ambient light brightness.
- (3) Sound setting: Set the volume for video playback and enable system mute.
- (4) Sound output channel: Choose between the internal speaker or an external audio device.

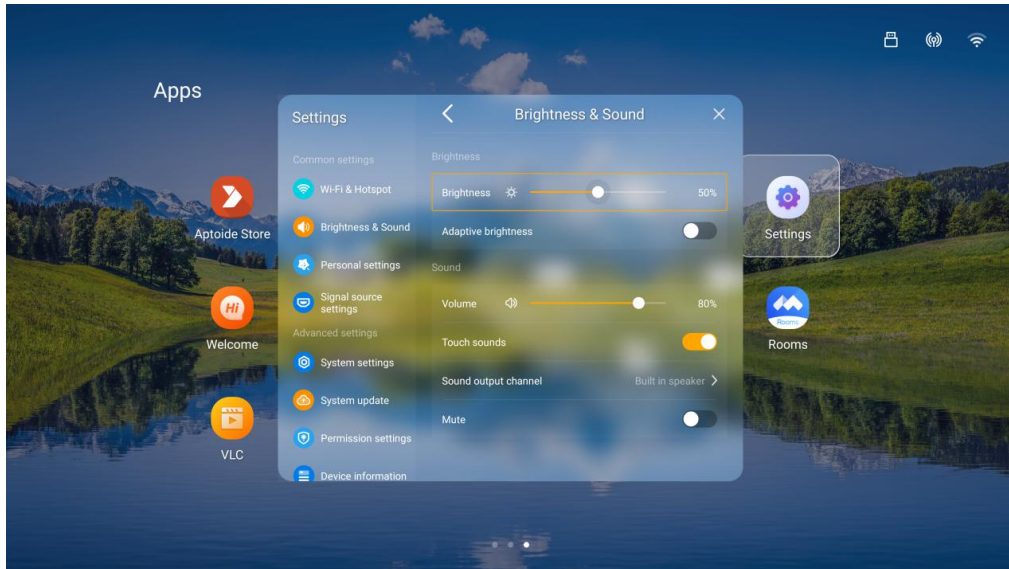


Figure 2-42. Brightness and Sound Settings

## Personalized Settings

Customize personalized settings according to users' needs, including functions such as themes, wallpapers, image modes, display zoom, eye protection mode, and wallpaper update upon startup, etc.

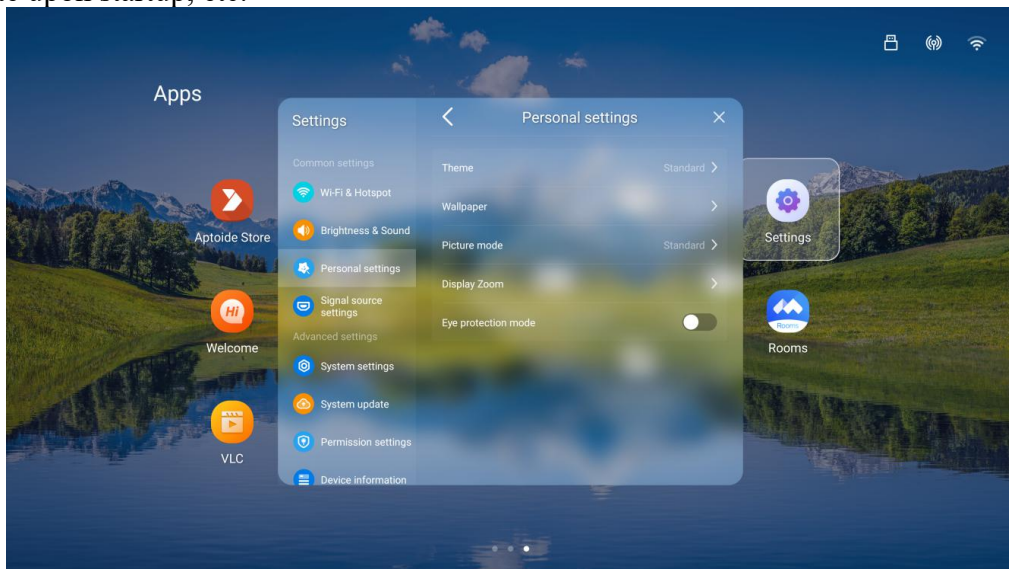


Figure 2-43. Personalized Settings

### (1) Theme

The X 4K system supports three sets of theme UIs, namely Classic, Education, and Conference. Users can select the relevant theme according to their preferences. Theme customization is also supported, enabling the customization of the system theme UI according to customers' requirements.

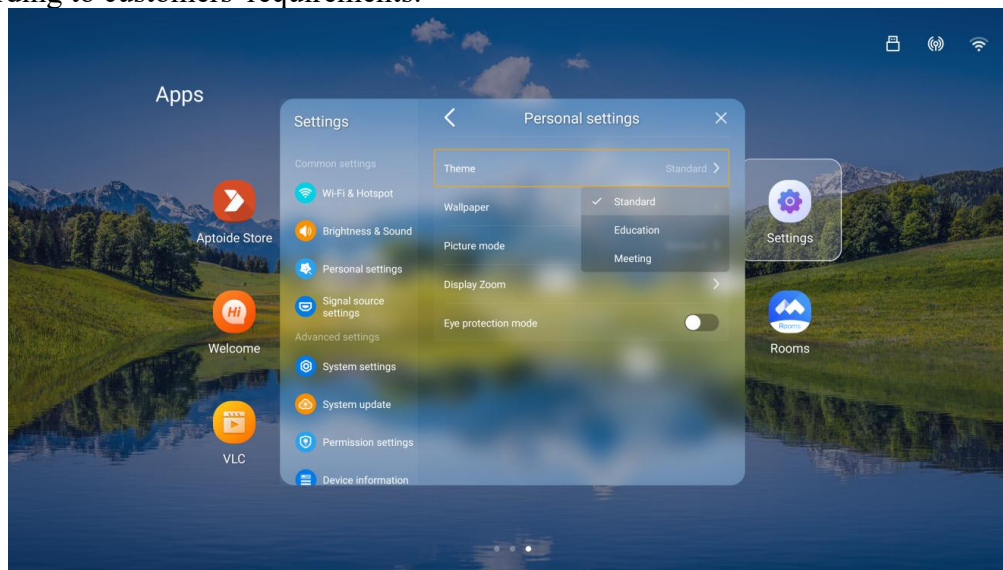


Figure 2-44. Theme Switching

### (2) wallpaper

Set the system wallpaper or add a wallpaper from an external device. Note that the resolution of the wallpaper should be 3840x2160. Wallpapers with other resolutions may be stretched or scaled.

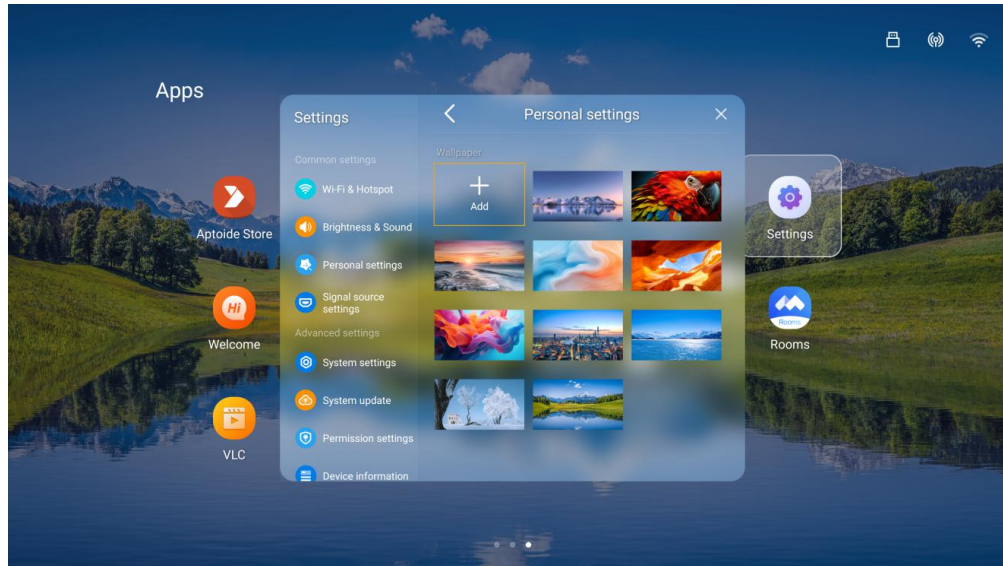


Figure 2-45. Wallpaper Setting

### (3) Image Mode

Supports Standard Mode, Soft Mode, Cinema Mode, and Meeting Mode.

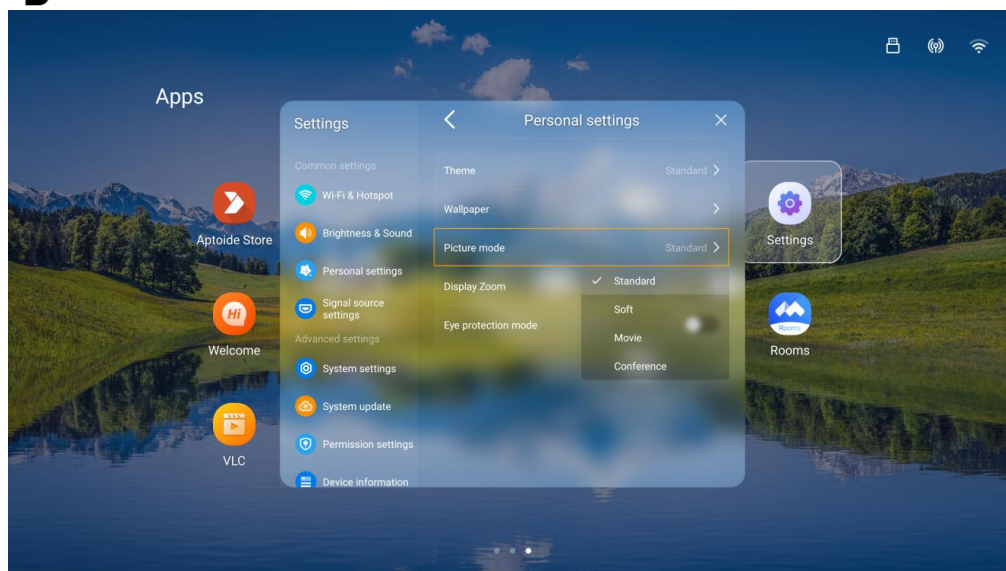


Figure 2-46. Image Mode Switching

#### (4) Display Screen Zoom

The display screen can be proportionally scaled to the specified position according to the requirements.

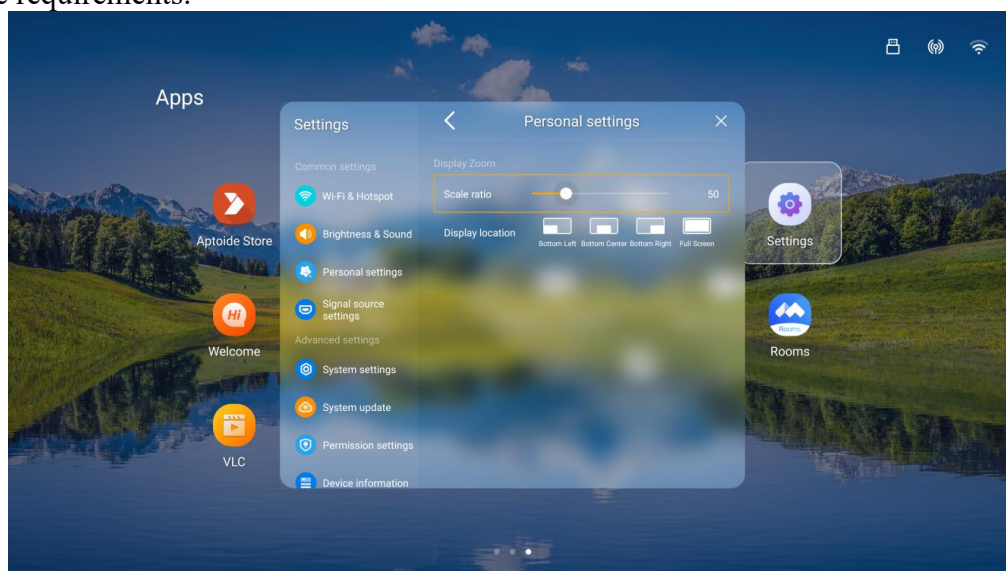


Figure 2-47. Display Screen Zoom

#### (5) Eye Protection Mode

Turn on/off the eye protection mode, which has the same function as that in the quick menu.

#### (6) Wallpaper Update upon Startup

The system wallpaper will be automatically updated after startup. A wallpaper image will be randomly selected from the system wallpaper directory and used as the current wallpaper.

## Signal Source Settings

According to the user's scenario requirements, scene settings can be made for the signal input, including the startup signal source, signal source definition, HDMI CEC settings, etc.

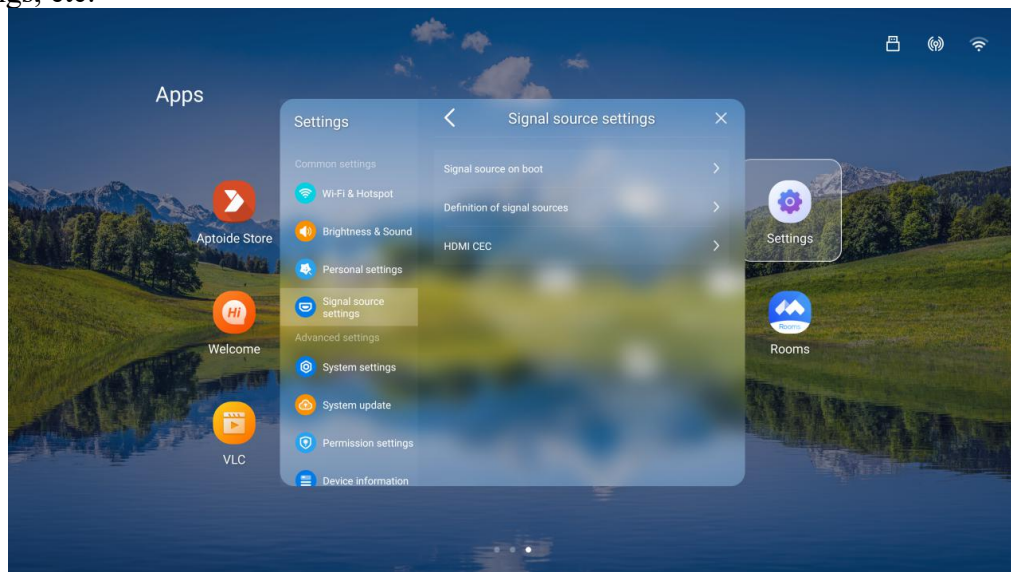


Figure 2-48. Signal Source Settings

(1) Startup Signal Source: The screen displayed after the system boots up can be either the system's home page or an HDMI signal source.

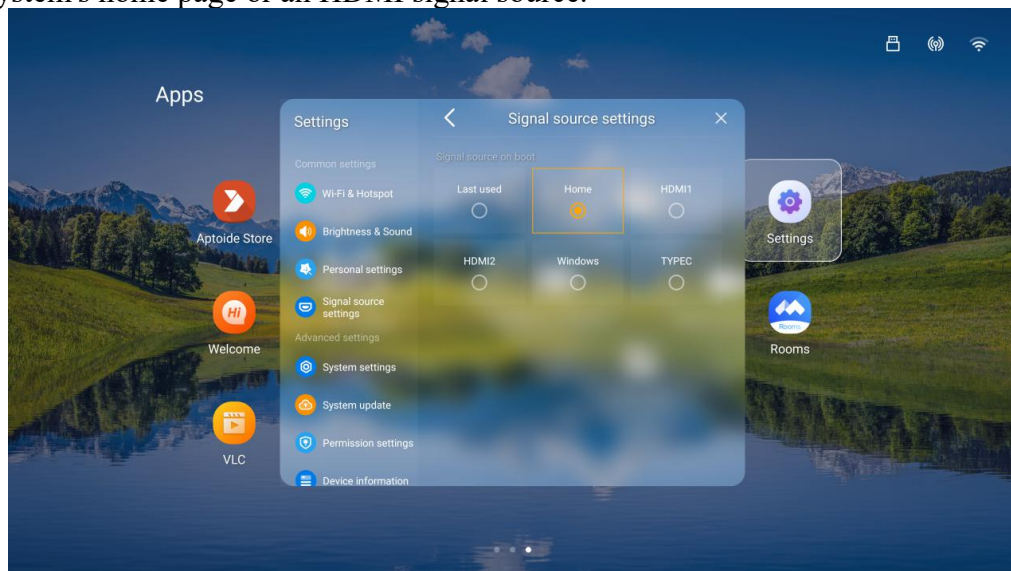


Figure 2-49. Startup Signal Source Settings

(2) Turn on/off the automatic jump to the connected signal source.

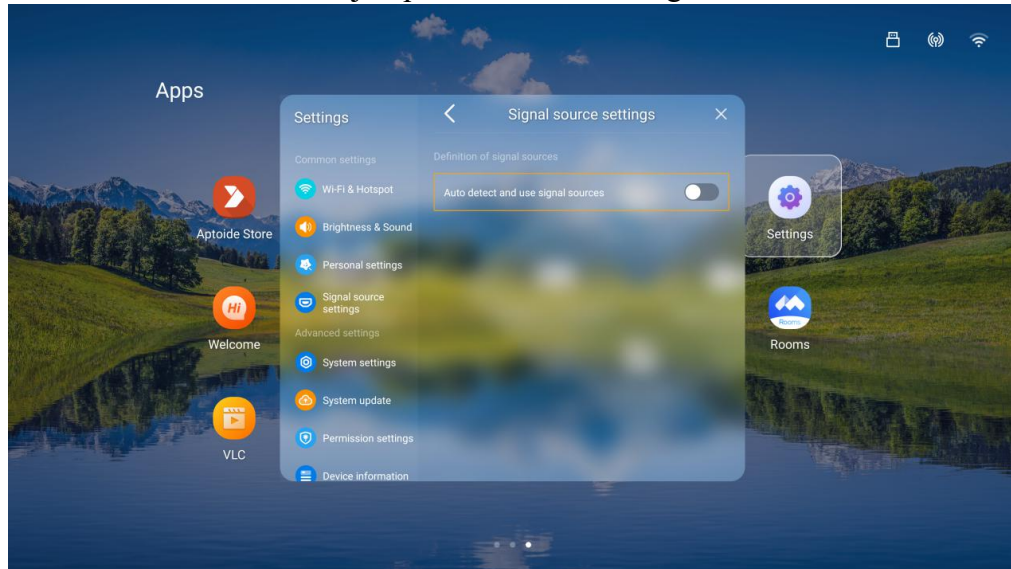


Figure 2-50. Signal Source Jump

(3) HDMI CEC Settings

The HDMI CEC function is mainly used to achieve linkage control between devices. The X 4K system supports controlling peripheral devices through HDMI CEC, such as set-top boxes, video conferencing terminals, and functions like adjusting the volume, powering on and off of the power amplifier.

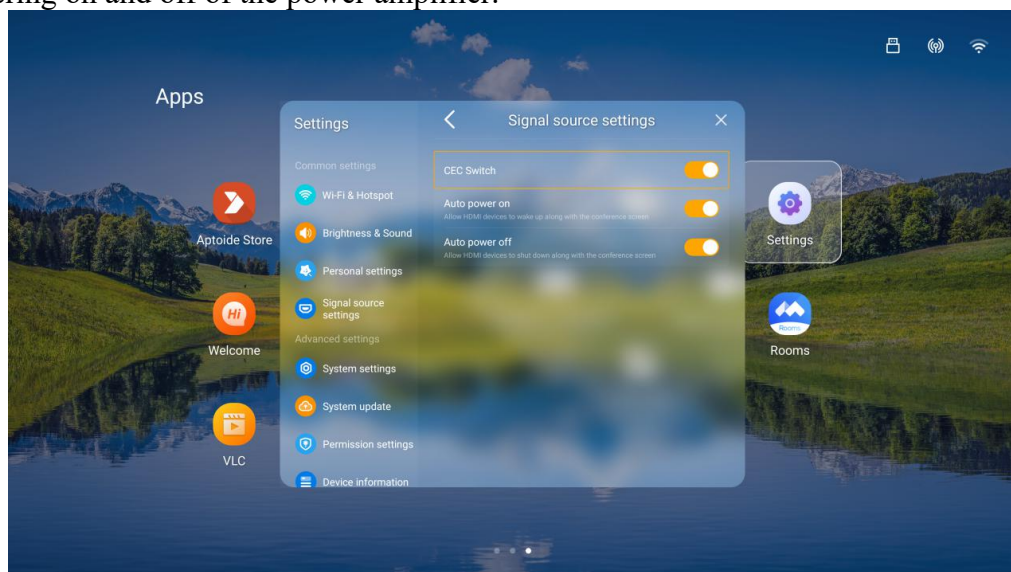


Figure 2-51. CEC Switch

## System Settings

System settings include network settings (wired network), voice and keyboard, time and date, application management, cache management, accessibility features, and restoring factory settings.

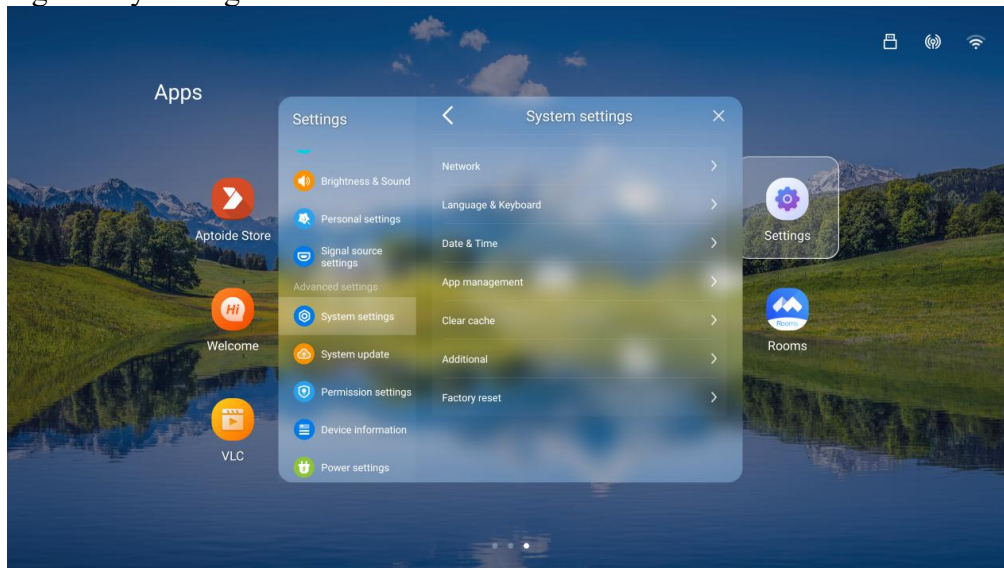


Figure 2-52. System Settings

(1) Network settings include wired network, WIFI and hotspot, and Bluetooth.

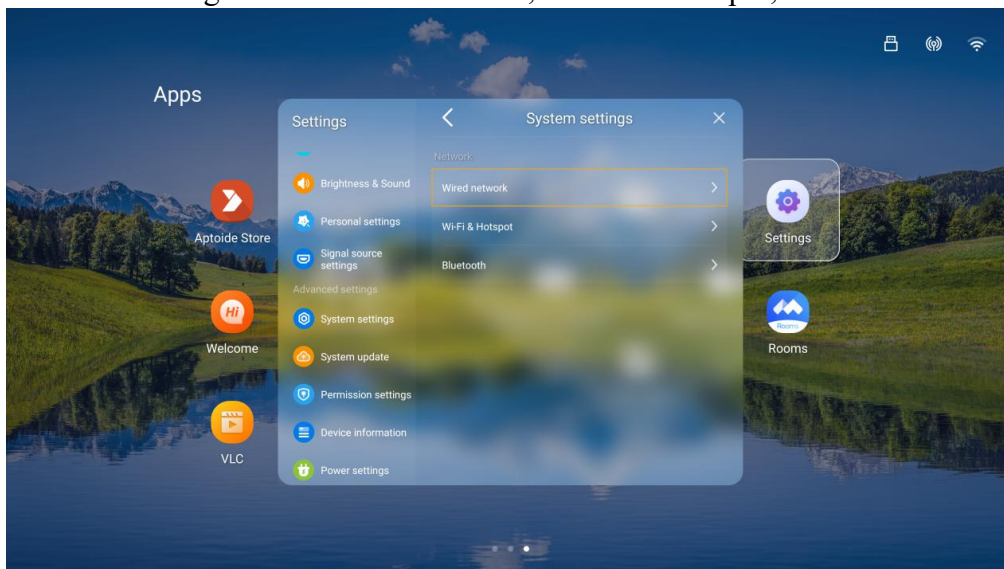


Figure 2-53. Network Settings

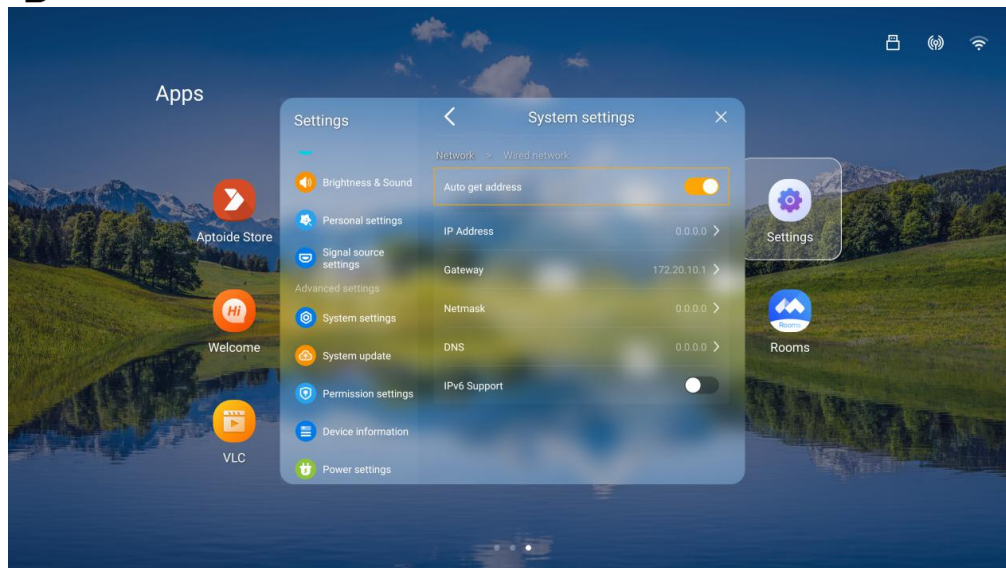


Figure 2-54. Wired Network Settings

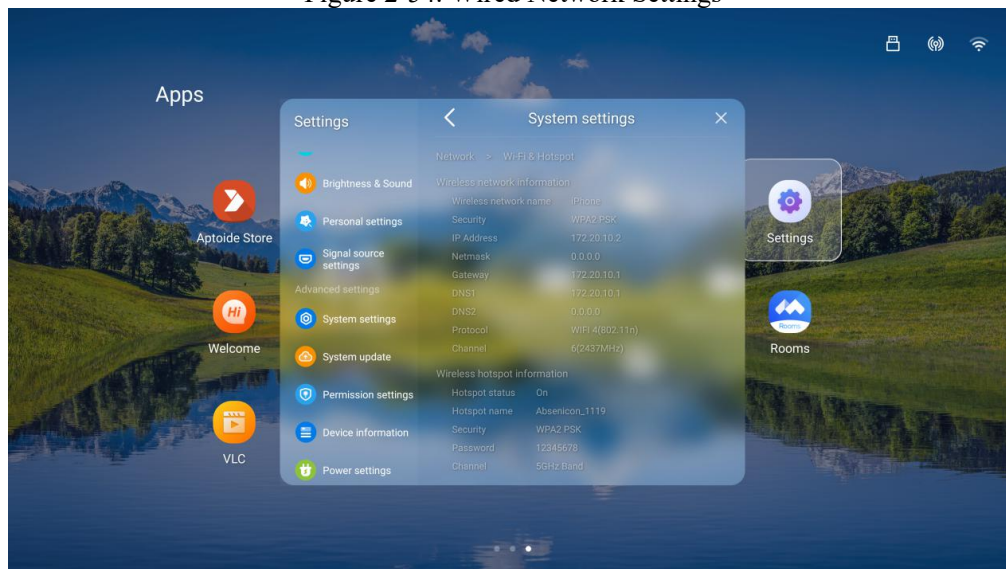


Figure 2-55. WIFI and Hotspot Information

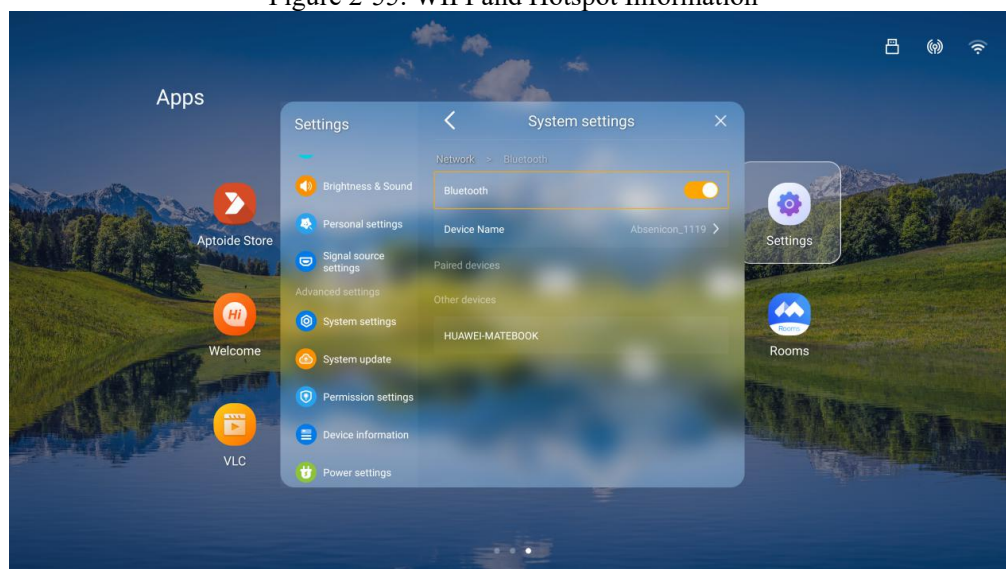


Figure 2-56. Bluetooth Settings