Intelligent Conference Flat Panel

User Manual

TV-X8186

Please read this user manual carefully before using the system

Content

1.Description

itc HUB intelligent interactive flat panel focuses on small and medium-sized conference rooms and creates a small conference center. The product integrates high-definition display, digital whiteboard, 4K camera, array microphone, intelligent central control , high-quality audio and other functions ; equipped with Windows 10 IoT system, it meets the needs of conference presentation, writing, interaction, collaboration, sharing, video, data security, environmental monitoring and control, and covers the entire process of the meeting.

2.Features

1．The 86-inch DLED LCD screen has a Full HD 4K system icon display and a simple business-style design. The whole body is made of all-aluminum alloy with an aurora purple color. The ultra-narrow bezel design has a screen-to-body ratio of up to 90%, an ultra-thin screen, hidden ports, and a simple and elegant shape.

2．Built-in non-independent computer module, all conference functions are running in the computer module, the computer module uses Windows 10 IoT genuine activated operating system.

3．The national secret SM2 and SM3 encryption algorithms are used to encrypt data files and keep them encrypted during transmission to ensure the security and reliability of data transmission and storage; it complies with national security standards and enhances the overall information security protection capabilities.

4．It has a 48MP high-definition camera, a field of view of 118°, 8 array microphones, and a pickup distance of up to 12 meters; the camera has multiple camera modes such as smart framing and speaker tracking.

5．The camera and microphone are detachable modules, with 12 pogo pin magnetic interface design, no additional wiring is required, and physical protection is used to prevent the leakage of conference information.

6．The camera module has a knob lens privacy cover, and users can turn off the lens when the camera is not in use to ensure privacy and security.

7．AI noise reduction can automatically eliminate 300 common noises, such as keyboard typing, chair moving, and air conditioning vibration.

8．Ultimate audio experience: The product adopts a 2.1-channel design with 3 sound chambers: 1×32W (bass) + 2×20W (mid-high) gap sound speakers; with 5 sound effects options (standard, conference, voice, music, cinema) to meet the needs of different scenarios.

9．It has a Type-C full-function interface, which can realize screen projection, reverse control, and audio and video signal transmission functions.

10．It has an HDMI loop-out interface and a DP input interface, and supports 4K 60Hz.

11．It has a smart button, built-in infrared sensor, temperature and humidity sensor, and light sensor, combined with IoT sensing technology, to support real-time monitoring and display of temperature and humidity.

12．It has 1 RS232, 2 IO, and 2 RELAY IoT central control interfaces, which are convenient for integration and management with other devices, realize intelligent environmental control, and improve the user experience and comfort.

13．It has a built-in storage battery and supports abnormal power-off protection function. After an abnormal power-off, the internal battery is enabled to automatically save the meeting materials and

meeting progress, and it can continue to be used after power-on.

14．It has a high color gamut of 85% NTSC, and the image display is clear, colorful, and saturated, and the picture details are truly restored.

15．It has a hardware-level blue light protection mechanism, with a blue light ratio of less than 25%, which can effectively filter and reduce the radiation of high-energy short-wave blue light, so as to achieve long-term viewing without fatigue and ensure the health of users' eyes.

16．The display screen adopts high-precision touch technology, which can accurately identify touch objects with a diameter of 1.6 mm, ensuring a delicate operation experience.

17．The whole screen and the screen protection layer adopt zero-fit technology to effectively prevent light reflection.

18．The device is made of high-grade anti-glare (AG) tempered glass, which effectively suppresses ambient light interference and screen reflection, significantly reduces visual discomfort caused by glare, ensures viewing comfort, and provides a softer visual experience.

19．It supports multiple wake-up methods. In the off-screen state, the device can be awakened by keeping looking, lifting the pen to wake up, double-clicking the touch screen, and pressing the button. The gaze wake-up method can customize the gaze time, and the pen wake-up can quickly use the whiteboard and annotation functions.

20．It has a borderless document design. When the user opens the document, it automatically enters the document presentation mode. The document content will be displayed in full screen. During the document presentation, annotations, video playback, split-screen whiteboard, and picture materials can be inserted. There is no limit to the picture stacking to meet the needs of displaying more document content.

21．It has a pre-meeting welcome interface function, which can add background audio, video, and pictures, and can customize the welcome interface theme.

22．It has a quick meeting mode to meet temporary meetings, multi-person discussions, brainstorming and other activities.

23．It has a confidential meeting mode. After the confidential meeting is turned on, the meeting materials cannot be downloaded, and the meeting materials are automatically burned after the meeting. The materials used during the meeting and the temporarily cached files are automatically encrypted and cannot be opened after the meeting. It has an interface watermark that covers the entire meeting to prevent taking photos and recording videos, and leaking meeting information.

24．It has quick voting and custom voting/scoring functions, and has voting and satisfaction evaluation templates; the voting methods are divided into scanning code voting and raising hands voting. Scanning code voting can choose anonymous voting and real-name voting, and voting/scoring can be customized.

25．It has a scan code sign-in function. You can sign and watch during the meeting. After scanning the code to sign in, the name of the sign-in person will be displayed in real time.

26．It has a conference screen recording function, which supports the selection of 2K and 4K resolutions. It supports multiple screen recording saving methods, which can be scanned and taken away or saved locally, in the meeting, or in a USB flash drive.

27．Supports multiple screen projection methods such as NFC touch transmission, wireless screen projection, wired screen projection, and one-click screen projection by screen projection device; supports mixed screen projection display of mobile phones and computers, and supports up to four screens on the same screen; the computer side supports reverse operation of the projection content.

28．Supports application screen projection, for example, specifying browser screen projection, specifying document screen projection; other application messages do not pop up, and other tasks can be processed during the screen projection process to protect privacy.

29．Supports mixed split screen, and can display whiteboard, dynamic video, audio, document, annotation and other pages at the same time during the meeting. It can display any split screen in full screen or compare different solutions, and supports 4 split screens.

30．Supports document presentation function. During the document presentation process, annotations and video playback can be made to meet the needs of more content document presentation.

31．Supports scanning QR code to upload multiple file formats during the meeting, including MP4, MP3, PDF, WORD, XLSX, text, JPG, PNG, etc., which can be directly viewed and annotated.

32．Support whiteboard writing; support inserting image materials into the whiteboard; support multi-point writing; support gesture erasing, sliding screen clearing, circle eraser, pixel eraser and other erasing methods; with infinite canvas, two-finger zoom function; support multiple whiteboard file saving formats, which can be saved in PNG, PDF, WORD, PPT.

33．The whiteboard supports OCR intelligent text recognition and graphic recognition functions, which can automatically convert the written fonts and patterns into standard text and graphics.

34．Support full-channel annotation function, you can choose a variety of annotation saving methods, you can scan the code to take away or save to local, conference, U disk.

35．Support PPT speech countdown mode.

36．It has the function of archiving files after the meeting. The sign-in, voting results, and conference recording audio and video can be saved locally or uploaded to the comprehensive management platform.

Functions of the comprehensive product management platform:

1.It has a smart conference management platform. The platform adopts B/S architecture and supports Windows, Linux, MacOS, Android, IOS and other operating systems to log in to the control software to meet different needs on site.

2.The comprehensive management platform has multiple account permissions for ordinary users and administrators; the platform has a background data dashboard function, which can view the number of conference rooms, conference room usage, equipment online and offline status and user account status, and can count the number of daily participants, daily meeting duration, daily number of meetings, daily active users, etc. on a monthly, weekly and daily basis, which is convenient for statistical analysis and unified management without the need to configure a cloud platform separately.

3.It has the function of creating meetings, and can reserve meeting rooms and meeting times in advance. After the reservation is successful, the device homepage will display the meeting list of the day in real time; the meeting list can view information such as the host and meeting time; it can set whether the meeting is encrypted and whether the data is allowed to be downloaded, and the historical meeting storage time can be set, which can be selected as 6 months, 12 months, or permanent.

4.Support web-based login to the management platform, which allows you to view unit meetings and historical meetings. Historical meetings display the meeting name, meeting booker, meeting number, meeting start time, and whether the video is recorded. You can view/export pre-meeting sign-in and voting results, and meeting recordings.

5.It has a meeting setting function, which allows you to set whether the meeting file is encrypted and enable file encryption. The meeting materials cannot be saved locally on the client and cannot be shared. The post-meeting materials cannot be viewed locally and can only be viewed and downloaded through the background.

3.Function introduction

Left
Right
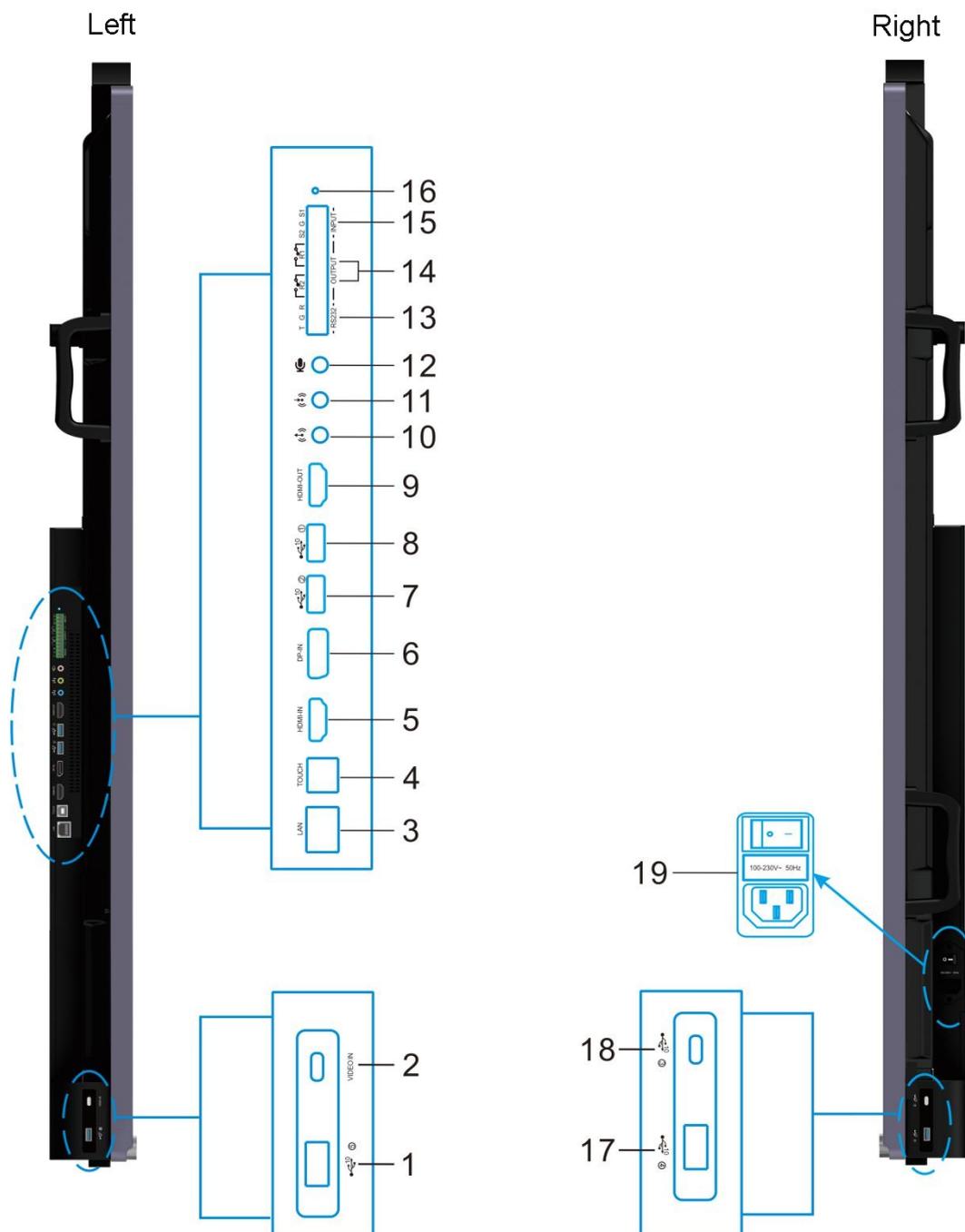
1. ![USB icon] : USB-A interface, which can be connected to the storage device to play multimedia files;

2. VIDEO IN: Video input interface, which can be connected to video signal source;

3. LAN: Network interface, connect to RJ45 port;

4. TOUCH: touch signal output interface;

5. HDMI-IN: High-definition multimedia interface signal input, connected to a computer, set-top box or other video equipment with HDMI output;

6. DP-IN: DP interface, high-definition digital display signal input;

7. ⟳ : USB-A interface, connect USB devices, such as mobile hard disk, U disk, USB keyboard and mouse, etc.;

8. ⟳ : USB-A interface;

9. HDMI-OUT: High-definition multimedia interface signal output, connected to electronic video equipment with HDMI input;

10. LINE-OUT: audio output interface;

11. LINE-IN: audio input interface;

12. MIC-IN: Microphone interface; connect to sound collection equipment with microphone;

13. RS232: Connect the central control equipment with RS232 interface;

14. R1/R2: 2 relay interfaces;

15. I/O: 2 digital I/O interfaces;

16. Reset button indicator light;

17. ⟳ : USB-A interface; can access storage devices to play multimedia files;

18. ⟳ : USB Type-C interface; can access USB storage device to play multimedia files;

19. POWER: AC power input and power switch.

4.Specification

Model	TV-X8186, Specifications TV-X8186B1
Processor	Intel i5 11th generation processor, Maximum turbo frequency 4.20GHz
System version	Windows 10 IoT Enterprise Entry
Memory	8 GB
Storage	512GB
Display type	DLED LCD display
Display size	86 inches (16:9)
Screen display size	1428.5H x 803.5V
Physical resolution	3840 (H) × 2160 (V)
Color gamut NTSC	85 %
Color	1.07B(10bit)
Screen brightness	350CD/㎡（min.） 400CD/㎡(typ.)
Contrast	1200:1(typ.) 5000:1(max)
Anti-blue light	support
Glare	support
Frame rate	60Hz
Viewing angle	178°(H/V)
Camera type	Magnetic camera, pluggable
Pixel camera	48 MP
Maximum field of view	118°±5°
Horizontal field of view	108°±5°
Lens focus	auto focus
Distortion rate	No distortion
Angle adjustment	Adjust down 15°
Low light	New CMOS image sensor, using noise reduction algorithm to significantly reduce image noise, image noise ratio ≥ 64dB
Drive standards	UVC/UAC national standard

Camera dimensions (Length × Thickness × Height)	301mm×61mm×46mm
Microphone pickup distance	12m
Input interface	1*LAN; 1*TOUCH; 1*HDMI-IN; 1*DP-IN; 1*VIDEO-IN (USB-C+reverse control); 1*LINE-IN; 1*MIC-IN; 4*USB-A ;1*USB-C;1*RS232;2*IO;2*RELAY
Output interface	1×HDMI-OUT；1×LINE-OUT
Touch sensing technology	Infrared sensing touch recognition technology
Touch output form	HID Standard
Maximum number of input points	40 points
Response time	8ms (typ.)
Writing method	Finger, stylus, or other opaque objects
Writing height	2.0mm
Touch accuracy	The middle 90% touch area is ±1mm
Two-point recognition distance	>20mm
Theoretical clicks	Unlimited
Touch diameter	Single point ≥1.6mm, multiple points ≥2mm
Glass specifications	3.2mm tempered glass
Writing screen surface hardness	9H
Glass haze	3%-8%
Visible light transmittance	≥88%
Color temperature (source)	Min. 8000K Type 9500K Max. 11500K
Interpolation resolution	32768 × 32768
Operating voltage	DC 5V±5%
Power	≤2.5W
WiFi	WiFi6 2.4GHz/5GHz

Bluetooth	Bluetooth 5.2
Power supply	90-264V~50/60HZ input
Standard power consumption	≤460W
Standby power consumption	< 0.5W
Audio channels	2. 1 channel
Maximum sound power	2×20W@4Ω + 1×32W@4Ω
Storage temperature	-10℃~+60℃
Storage humidity	10%~80%RH, non-condensing
Operating temperature	0℃~+40℃
Working humidity	20%~80% RH , non-condensing
Operating altitude	≤5000m
Bare metal dimensions (length x thickness x height)	1962.6mm ×102.1mm ×1149.4mm
Packing size (length x thickness x height)	2095mm × 225mm × 1310mm
Display size	1895mm × 1066mm
Thickness	102. 1mm
Net weight	75.4Kg
Gross Weight	90.8Kg
Shell color	Aurora Purple
Housing Material	Aluminum profile/sheet metal
Wall mounting holes (VESA) 4-M8 screw holes	800mmx600mm
Service life	50,000hrs(min.)
Duration	18 hours x 7 days

5.Bracket installation (optional)

5.1.Completion effect picture

The completed installation of the bracket is as follows:

5.2.Installation

The bracket has a total of six accessories: two side foot supports, one fixed tray, two wall hangings for adjusting height, two interactive flat panel wall hangings.

1. Two supports are respectively connected to the screw holes of the trays on both sides for fixing.

2. Two wall hangings for adjusting height are fixed to the bracket.

3. Two interactive flat panel wall hangings are fixed to the back of the interactive flat panel. Hang it directly on the bracket to complete the installation.The diagram of the completed installation is as follows:

6.Power on

⚠️**Note:** For your safety and the conference panel, please do not connect any power plugs before the external equipment is installed.

Use the pins plug of the power adapter to connect to a power socket, and the other end to connect to the power outlet on the left side of the back of the interactive flat panel.

Power switch and socket

7.Start up

After the power is turned on, there is a power switch on the left side edge of the back. When the switch is enabled, the screen of the interactive flat panel lights up automatically, and the button light is displayed in white.

7.1. Start-up screen

Wait for a few seconds, then this screen will be displayed. Click on the button directly below the interactive flat panel to enter the main page, where the button is displayed in white.
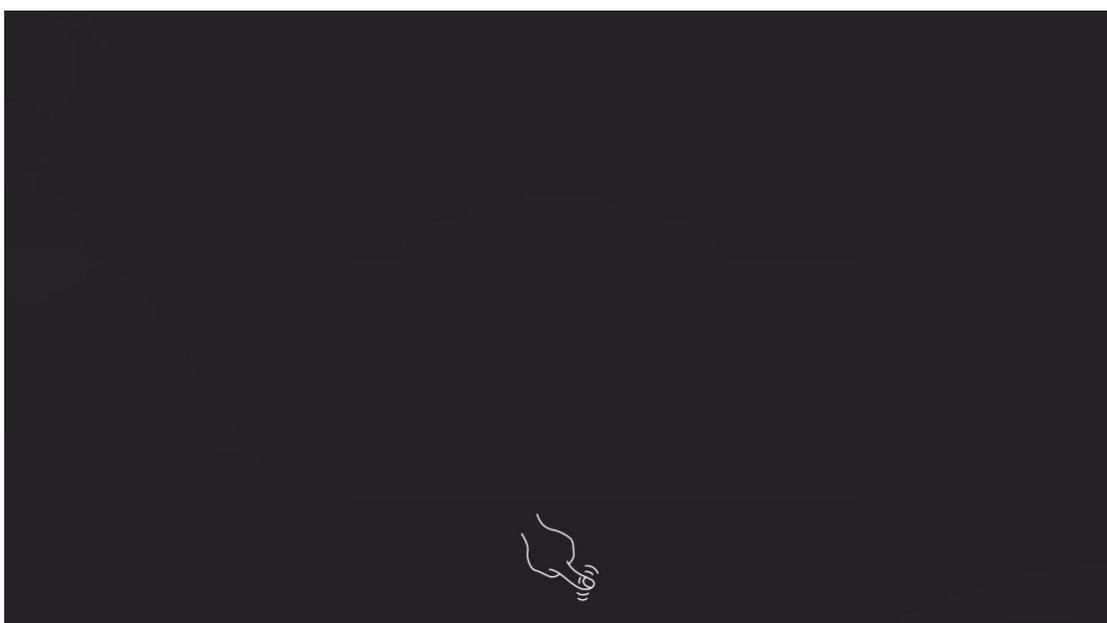
7.2. Configuration guide

7.2.1.Basic network connection

There are two ways to connect to the network: one is wireless WIFI and the other is wired network. If you connect to the wired network directly, you can skip this configuration network page to enter the activation page; if there is no network, you need to connect to the wireless network manually to proceed to the next step. The top right corner will show the connection status of the network. After connecting to the network, click Next to enter the activation page.
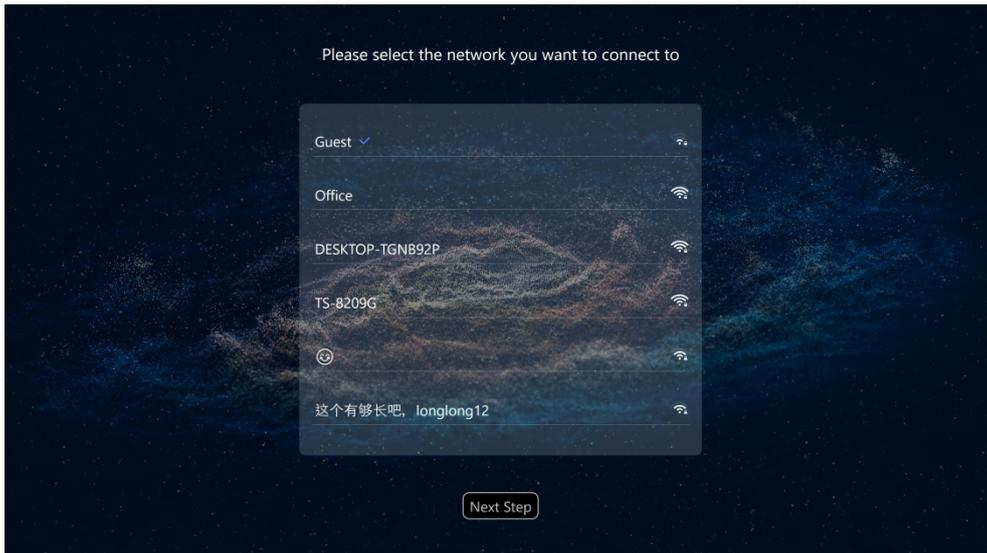
7.2.2.Device activation

1．Using a computer or mobile phone, type in the web address：https://ihub.itc-pa.cn.

2．Register an administrator account：New user, please click 【Register】, enter the mobile phone number and verification code. Click 【Next】 for complete information. Click 【Next】 to fill in the name of the unit.
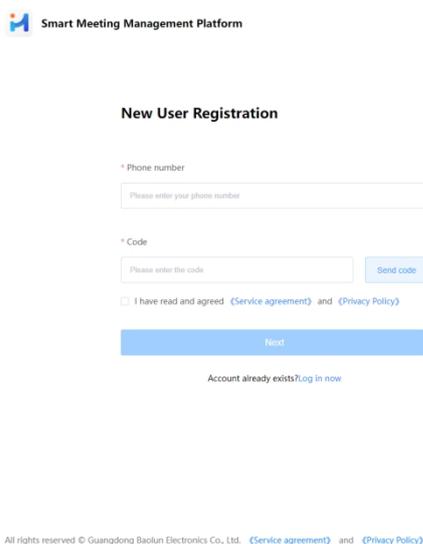
3．Log in to the Smart Meeting Management Platform and open the Device Management module of Meeting Room Management. Click "+" in the room area to add a new meeting room.
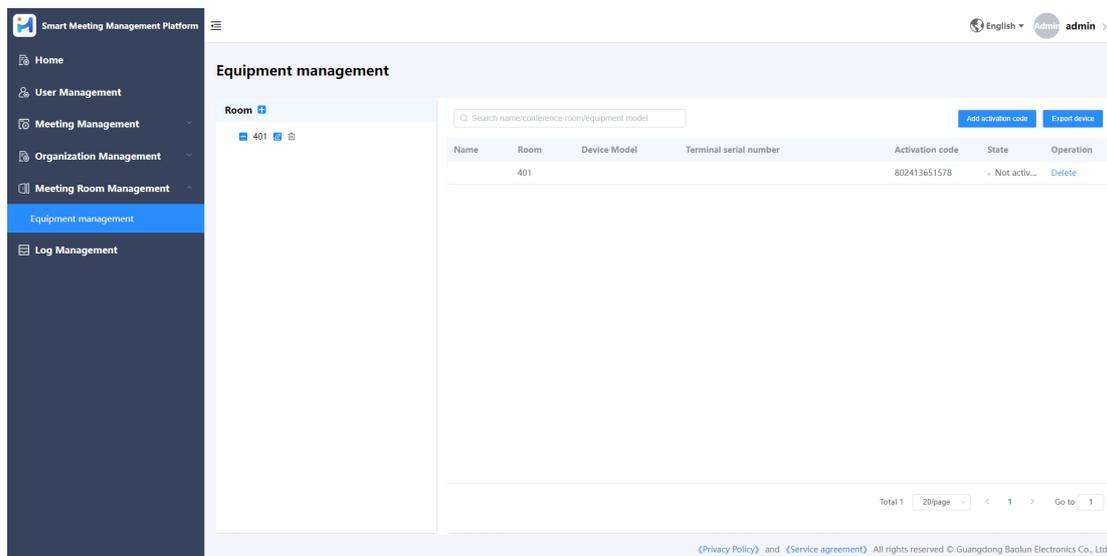
4．Click [Add Activation code], select the conference room just created, and generate the activation code after confirmation. Enter the activation code into the activation page of the Smart Meeting tablet to activate the device.
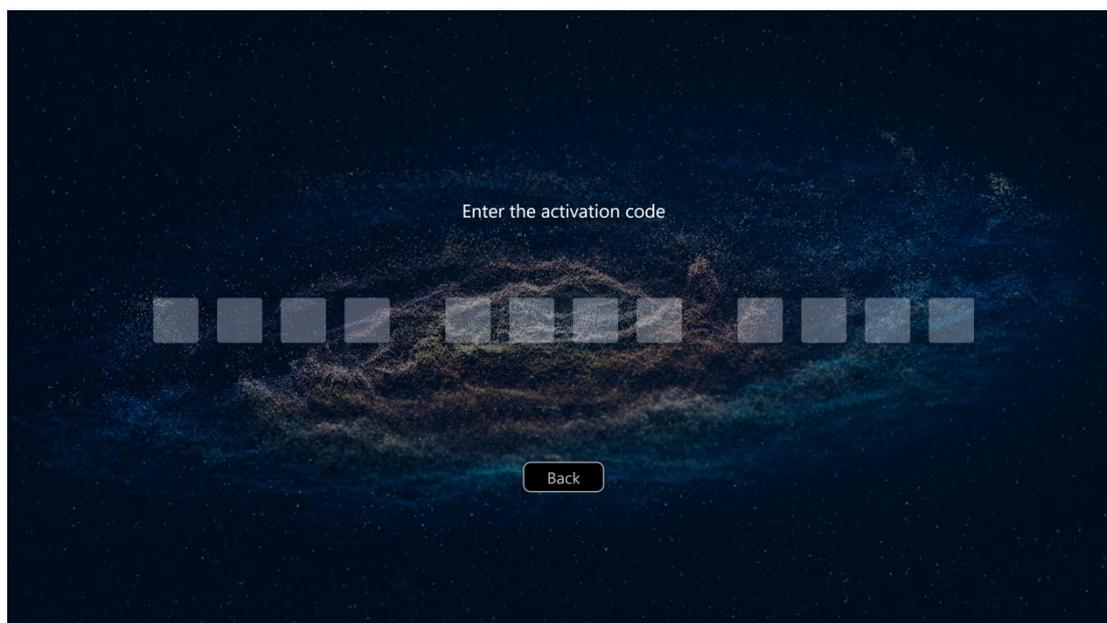
7.3. Notes

7.3.1.Indicator status description

No light: Not powered on

Green light always on: Last 1 second when first powered on

Green light breathing: Waiting for startup

Green light always on: Shutdown completed status (non-quick start)

White light breathing: (1) Display the boot guide picture; (2) Shutdown completed state (quick start)

White light flash: Booting. Display startup image

White light always on: Running status

Blue light breathing: Screen Off status

Red light and white light flash: Shutting down. Display shutdown image

Red light breathing: Abnormal status

8.Home page

Configure the network to activate the device to enter the home page or after activation, it goes to the home page automatically after the interactive flat panel boots up.

8.1. Home page interface introduction (no meeting)

➤ The top right corner of the home page displays the somatosensory index and the connection status of the network.

➤There are three functions displayed in the centre of the home page [Quick Meeting], [Confidential Meeting], and [Screen Projection].

➤ Right above the three functions is the display of time, date, and weather.

➤ Directly below are two guide points, the highlighted white one is the page where it is located. Swipe right to enter the welcome page. If there is no scheduled meeting on the home page, it displays a message that there is no scheduled meeting; and if there is a scheduled meeting, it displays a list of meetings.

➤The left and right sides are centred on the floating menu bar, which cannot be moved.

➤The upper left corner shows the location of the meeting room where the interactive flat panel is located (this location is set through the background management).
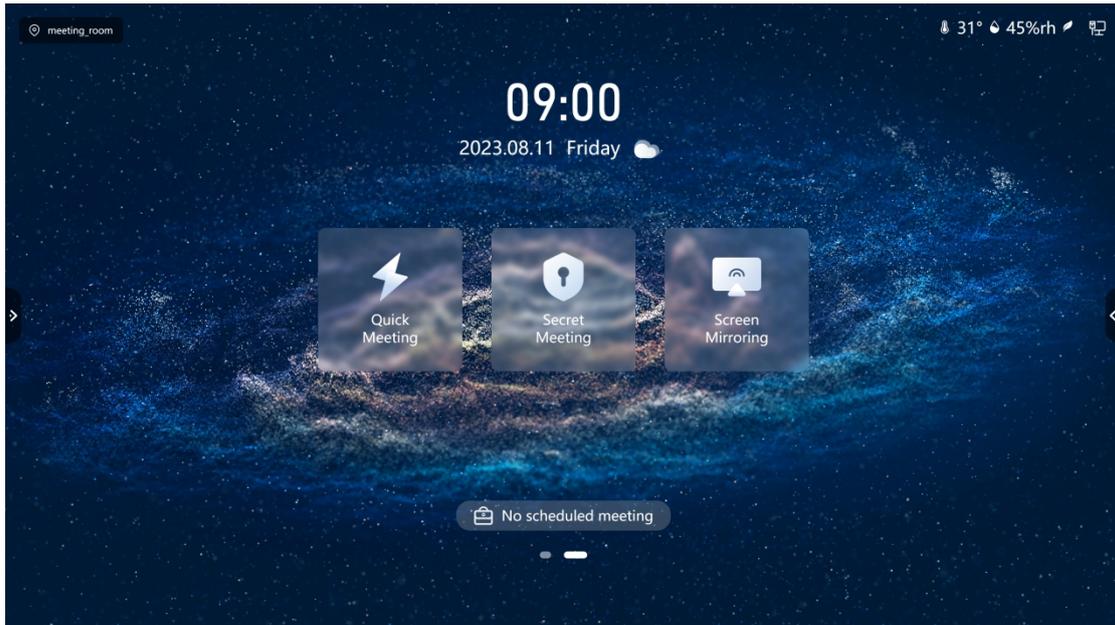
8.2. Home page interface introduction (with meeting)

The list of scheduled meetings only shows the meetings scheduled on the day, not the meetings scheduled on the previous day or the day after. If you have scheduled a meeting on the day in the backend, the home page displays the booking list page. The meeting list is arranged in ascending order of time, the meeting that has not started is displayed at the top, and the meeting that has ended is displayed at the back, and you can enter the meeting by clicking the meeting that is to be started.(Note: Quick Meeting and Confidential Meeting can also enter the meeting, and the scheduled meeting is two different meeting modes).
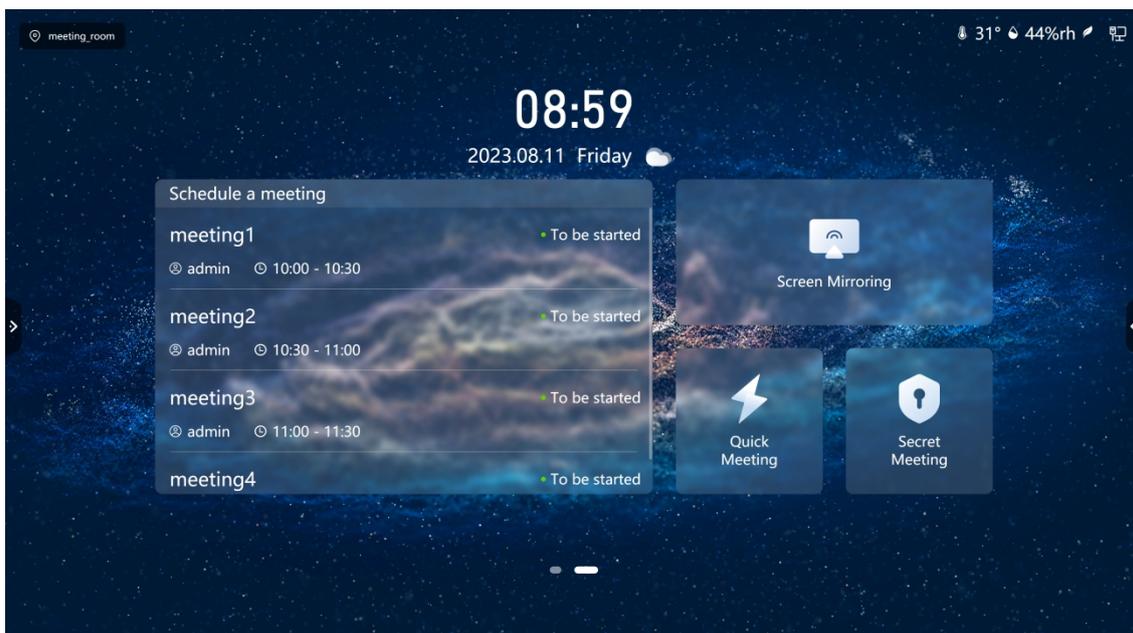
8.3. Floating menu bar on the homepage

The floating menu bar has [File], [Annotate], [Signal Source], [Keyboard] and guidance points for three functions. The signal source is the external switchable device signal; the guide points are the [Setting], [Shut off] and [Help] functions of the device.
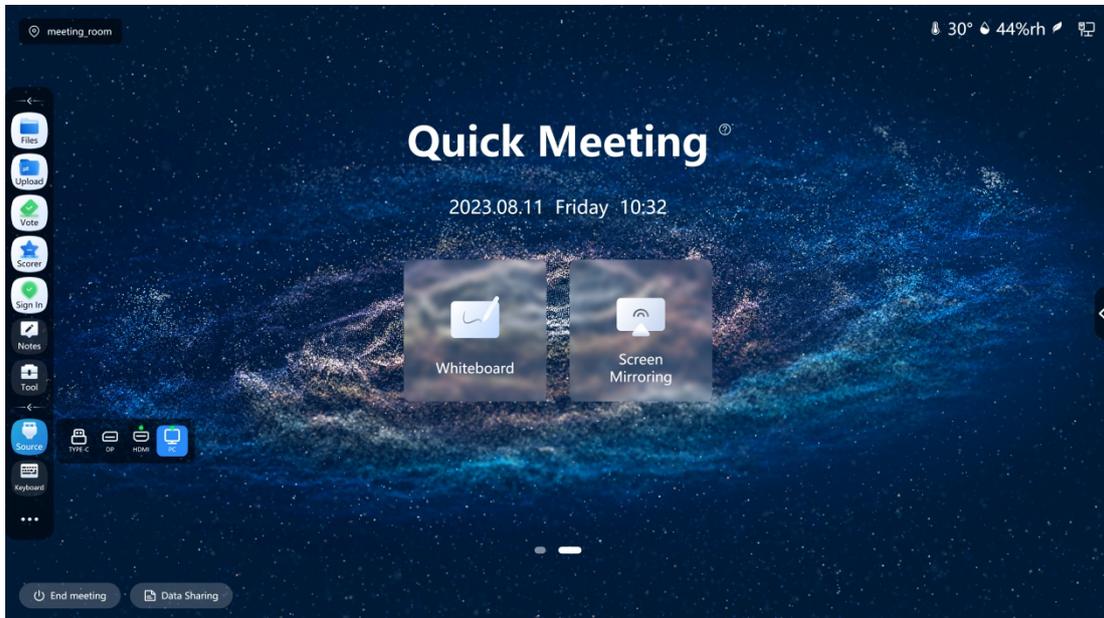
8.4. More applications

Open the application of the second-level tool menu of the floating menu bar to download more functional applications. After downloading, the second-level tool menu can open functions such as calendar, signature wall, timer, voice assistant, taking photos, and screen recording.
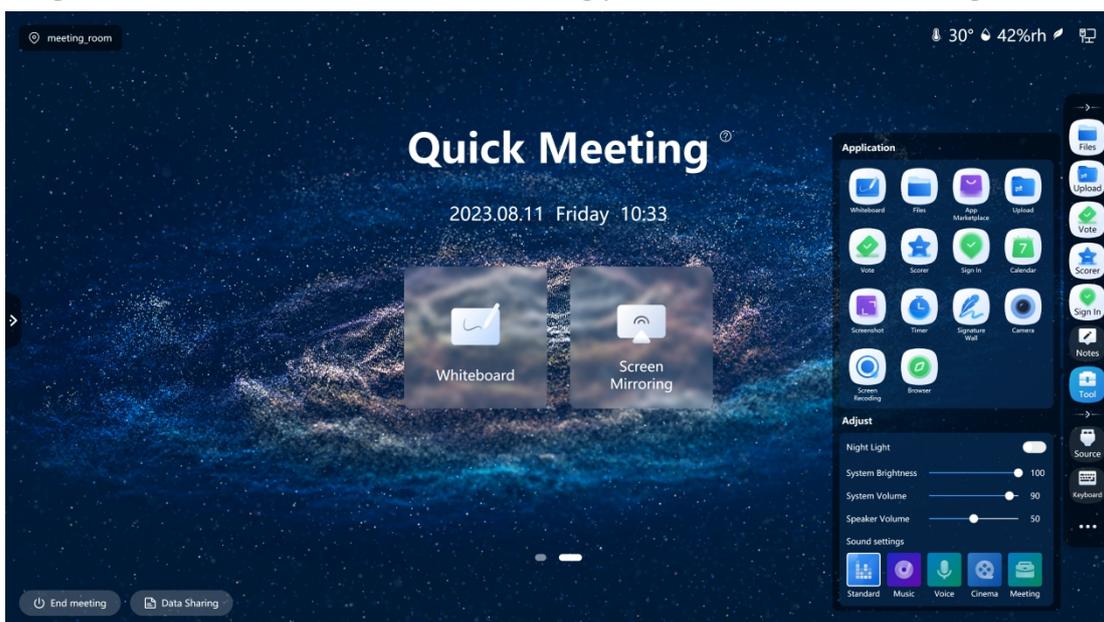
9.Settings

9.1.Network

9.1.1.Wired network

The wired network is an access network. When the network cable is connected to the network, it will show the logo of the connected network. If the network cable is not connected to the network, a red disconnected logo will appear.
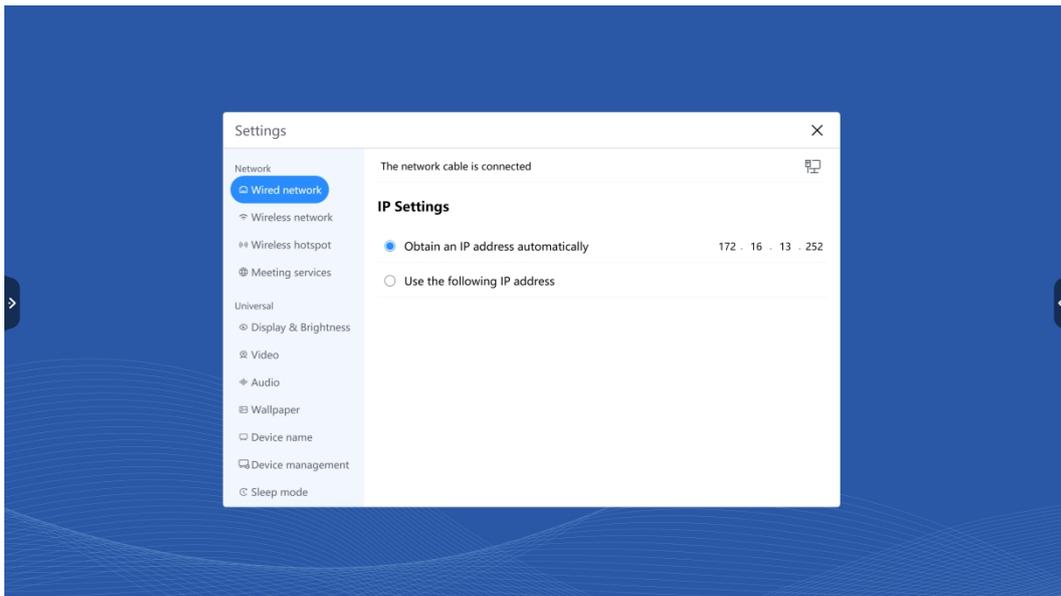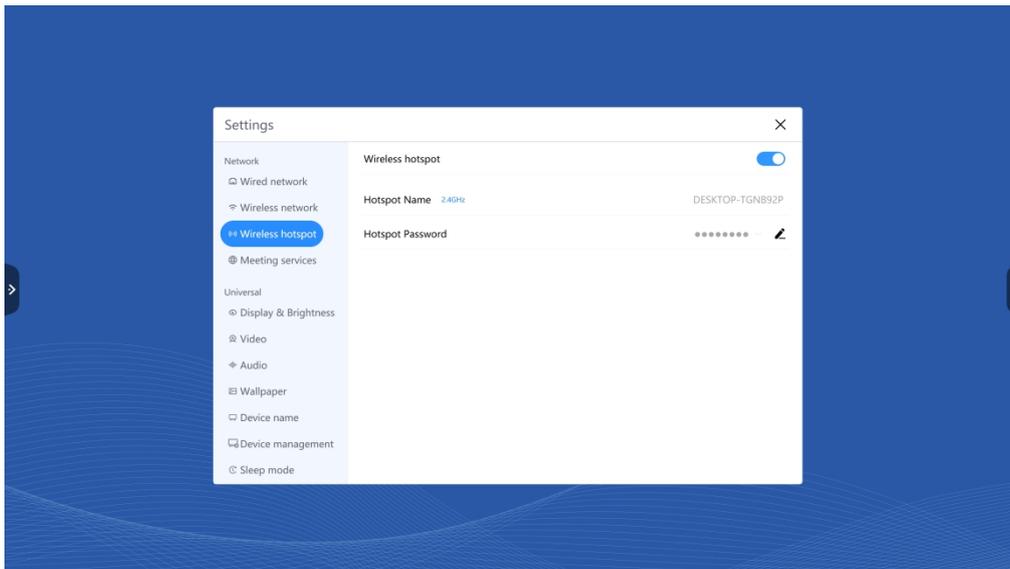

9.1.2.Wireless network

Wireless network is WiFi. As long as you turn on WiFi, it will automatically detect the signal, select and click on the network and enter the correct password to connect. If you access wired network and WiFi at the same time, the wired network will be recognized in priority.
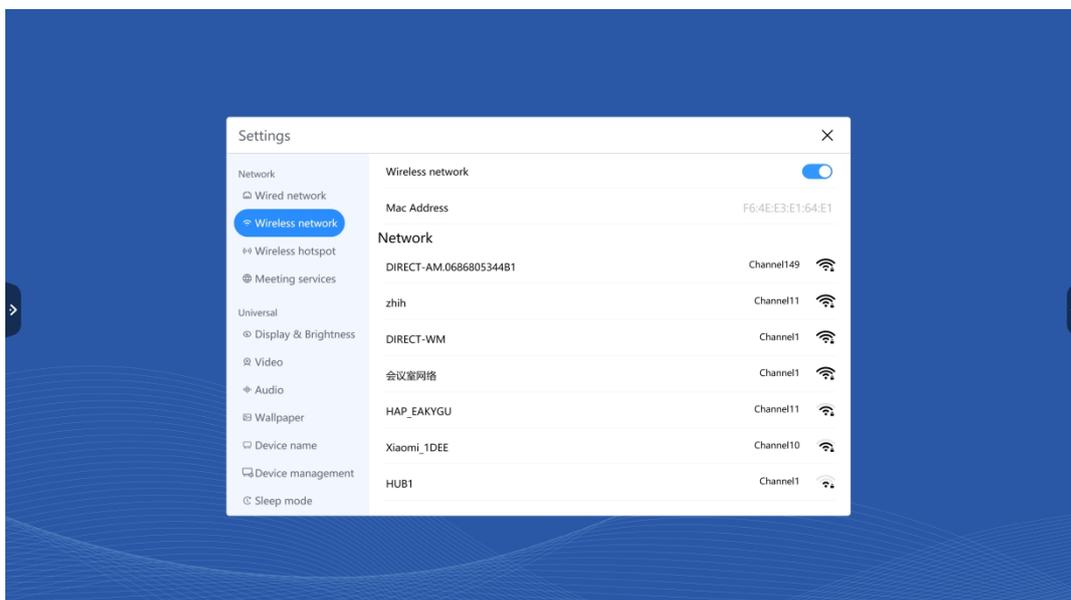
9.1.3.Wireless Hotspot

9.1.4.Conference services

The conference service status cannot be changed during a meeting, with its button gray and disabled. The button is set gray and disabled. This can be changed when you are on the home page after the meeting. Enable conference service, the conference data of interactive flat panel will be uploaded to the cloud service. Turn off the conference service, interactive flat panel enters standalone mode, and is currently in standalone mode, under standalone mode, you cannot connect to the server or make a meeting reservation. In stand-alone mode, there are only [Quick Meeting] [Confidential Meeting] and no [Scheduled Meeting], and the home page only shows [Quick Meeting] [Confidential Meeting] [Screen Projection], and does not show the list of reserved meetings. When meeting in standalone mode, files can only be saved in [Local] or [U-disk], no [Share] [Save to Meeting]. Functions such as [Sign-in] [Voting] [Rating] [File Transfer] are not available in stand-alone mode.
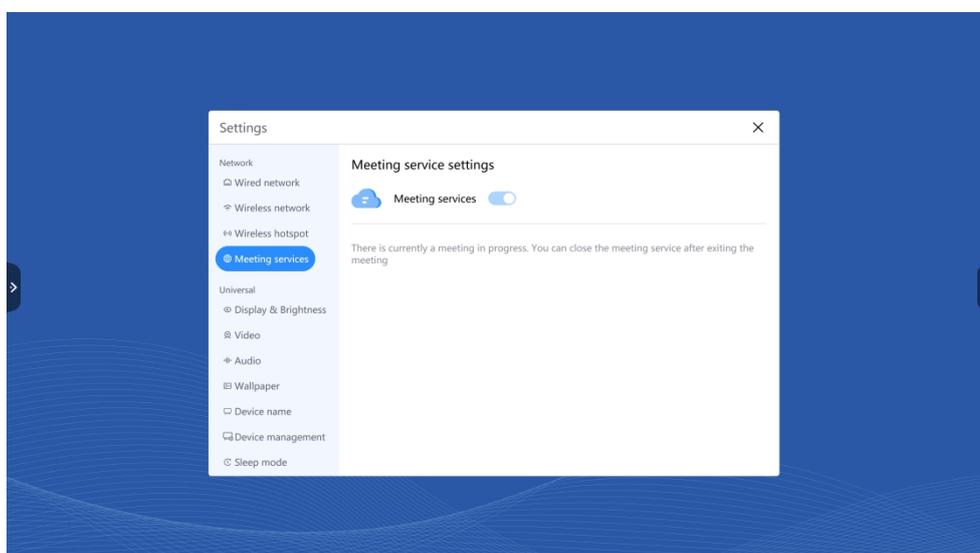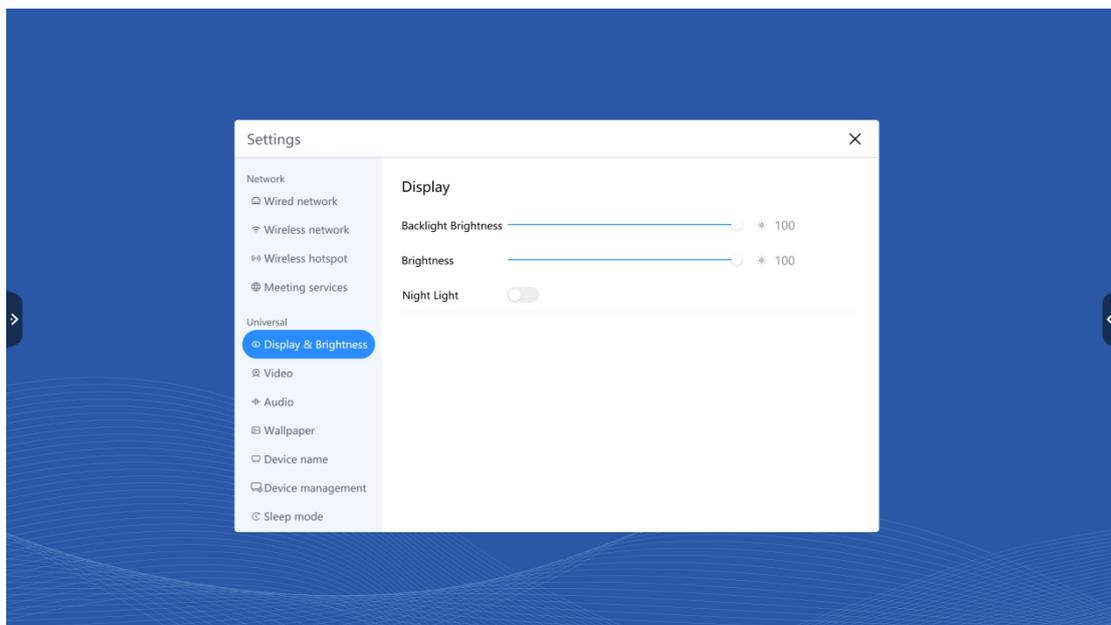
9.2. General

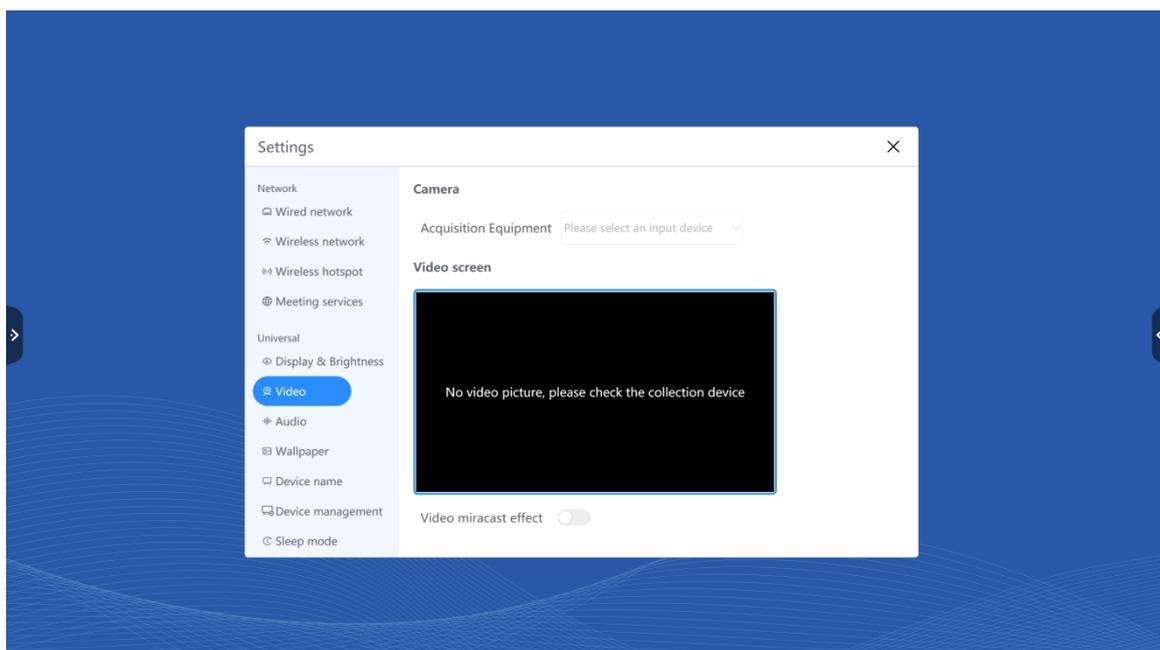The General section focuses on personalizing the system.

9.2.1.Display and Brightness

With brightness adjustment and an eye protection mode switch.


9.2.2.Video

It mainly detects whether the system's camera is normal or not; and if there is an external camera, it can be selected.

9.2.3.Audio

Mainly for audio source selection and control, speaker detection and volume control. Different sound effects are selected, there are standard sound mode, music mode, vocal mode, cinema mode, conference mode, each mode has different effects. Perform microphone detection. The settings are the same as the adjustment settings at Tools in the floating menu bar.

1. If the interactive flat panel is connected to lin in, you have to select it in the audio source to get the sound of lin in.

2. If the interactive flat panel is connected to mic in, you have to select the mic in device from the microphone to use it.
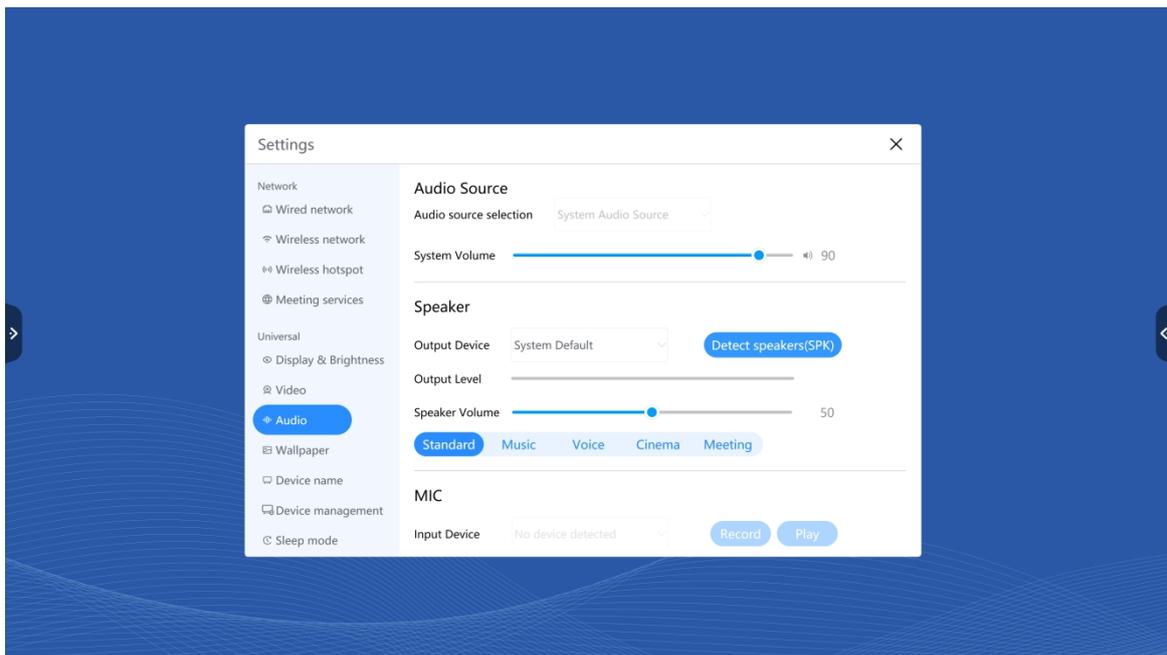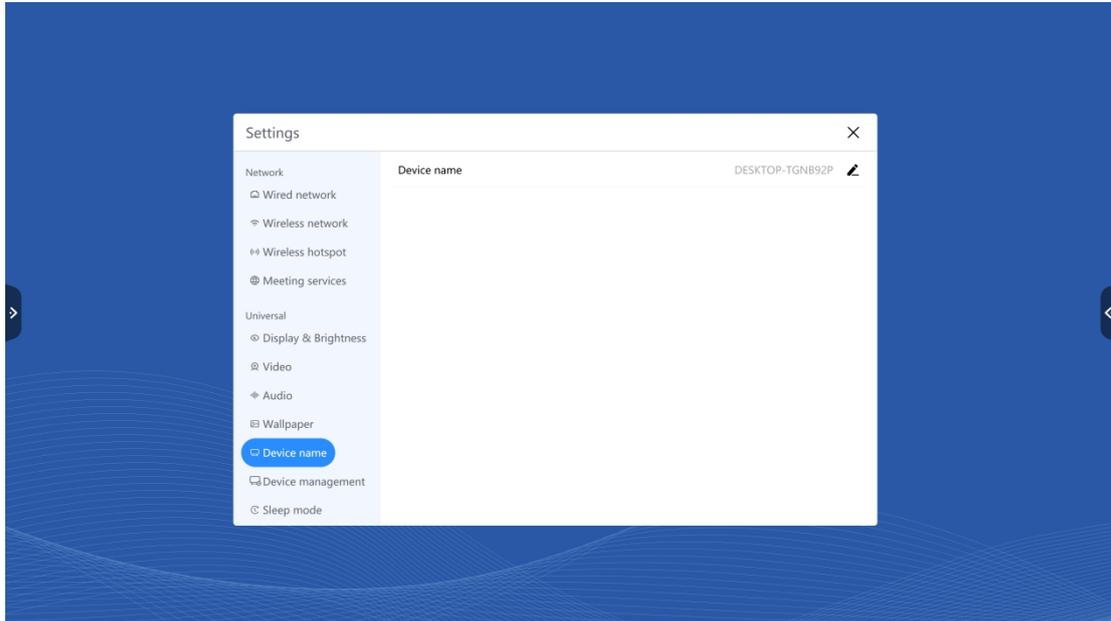

9.2.4.Wallpaper

The wallpaper can be displayed on the homepage after being set, and can be customized.
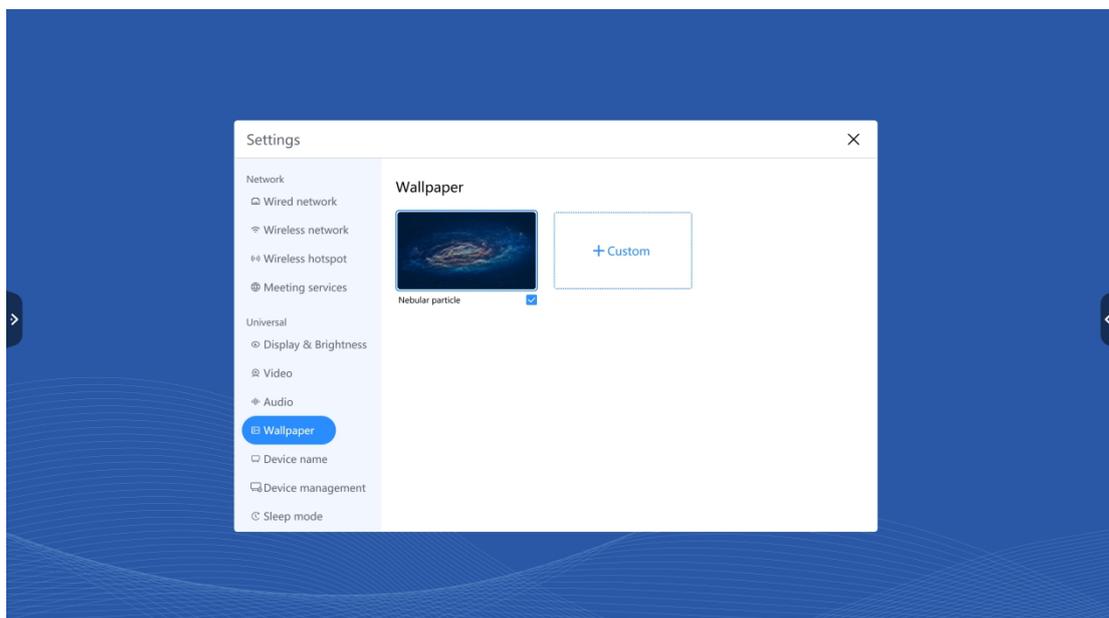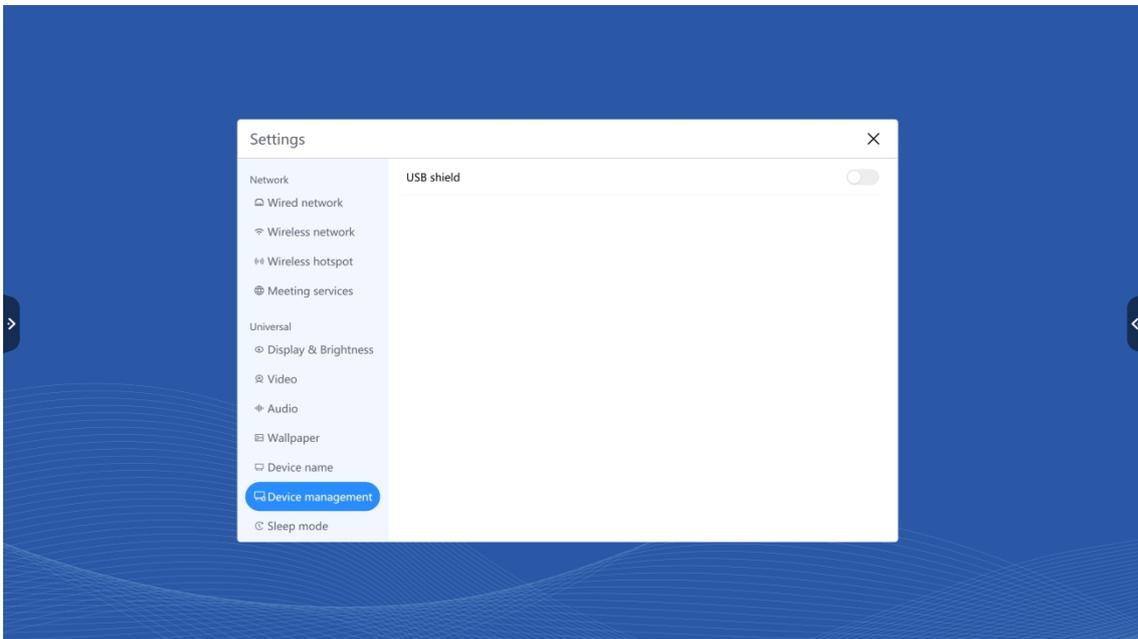
9.2.5.Device Name

The hotspot name will change as the display name of the current device changes.

9.2.6.Device Management

Inserting keyboard, mouse, U-disk and others is invalid after USB blocking is turned on.


9.2.7.Standby Mode

This module consists of two modules, Fast Boot and Hibernate.

When Fast Boot is on, the interactive flat panel shutdown will be "in fast state"; if the interactive flat panel is turned off, press the Interactive flat panel Button for fast boot.

When Hibernate is on, you can set the time, with the default of 1 minute, which means the interactive flat panel will rest automatically with no operation in 1 minute. The options contain 1 minute, 5 minutes, 10 minutes, 30 minutes, 60 minutes.
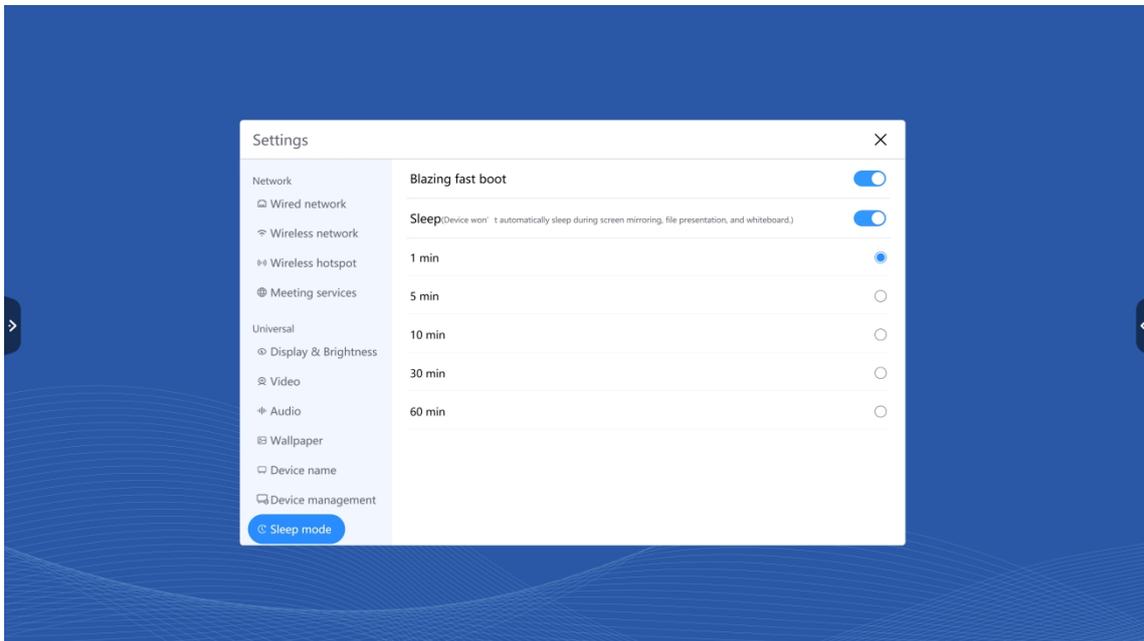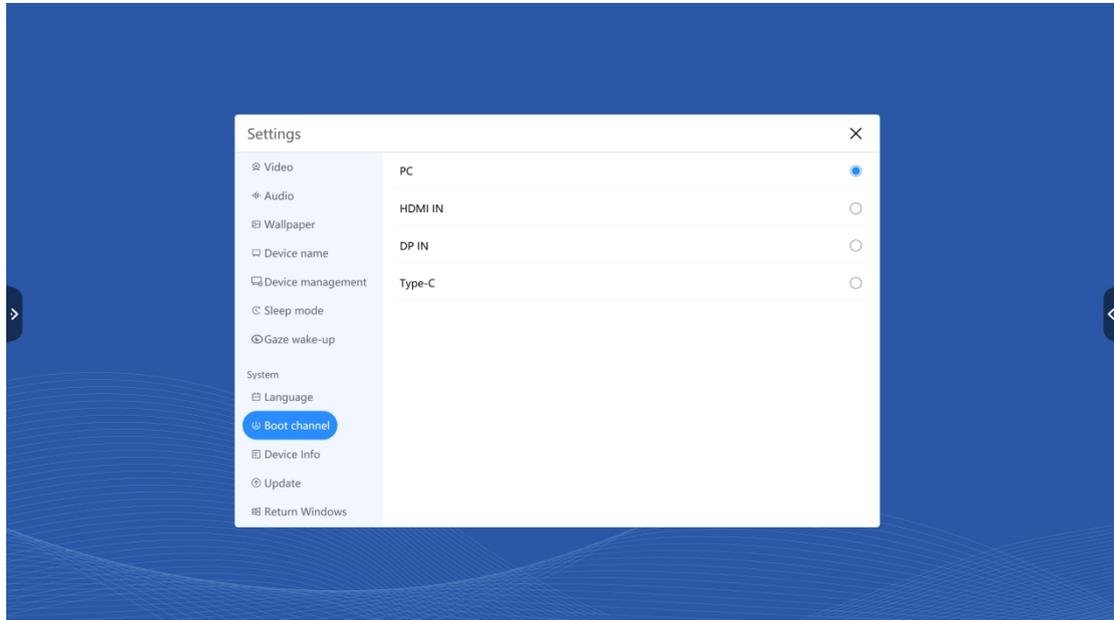

9.2.8.Gaze to awaken

When [Gaze to light the screen] is [On] in the general settings of interactive flat panel, and the interactive flat panel is in the state of [Rest Screen], the interactive flat panel lights up after the user's eyes gaze at the camera for 3s (for a custom time).
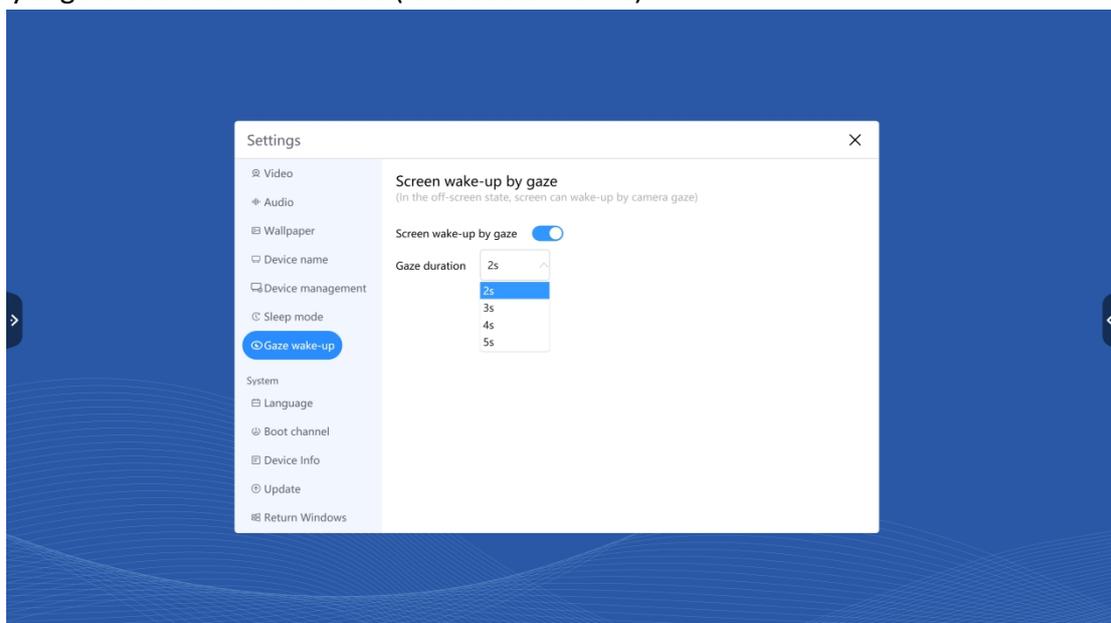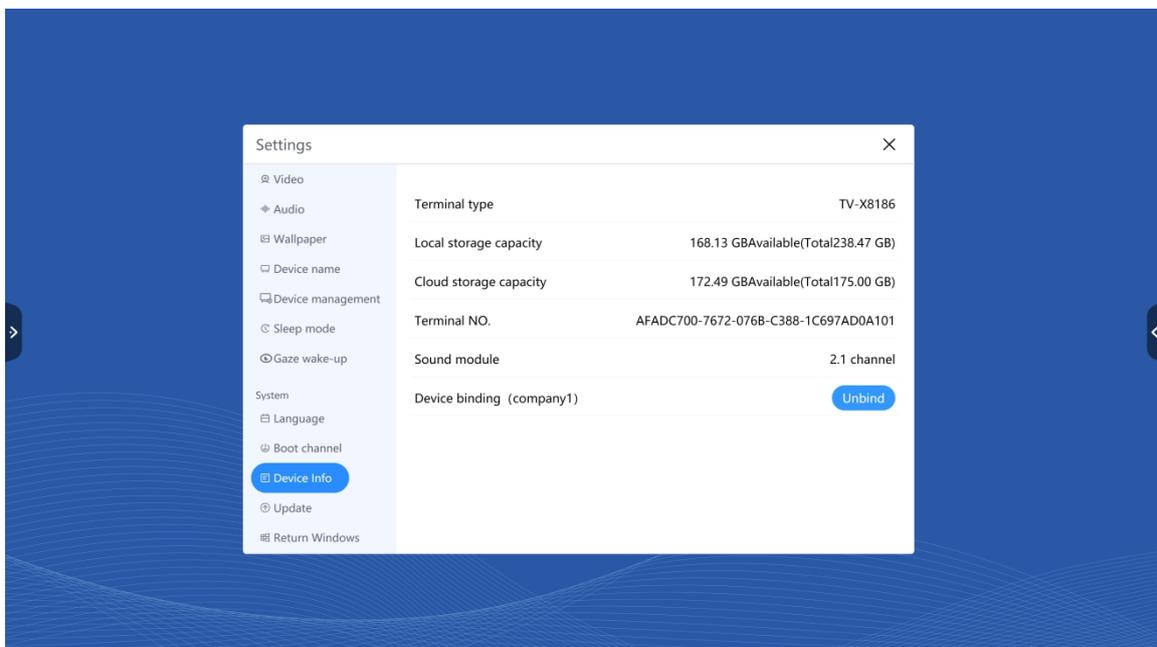
9.3.System

9.3.1.Boot Channel

The boot channel is PC by default. It can be set to HDMI IN, DP IN or Type-C.

9.3.2.Device Information

Unbinding operation can be performed by entering the password when you are not in the conference, and cannot be performed within the conference.

9.3.3.System Update

When there is a new version of the client, there is a red dot to remind the system update. Click to detect the new version will appear to update. If there is no new version, the current version is displayed as the latest version.
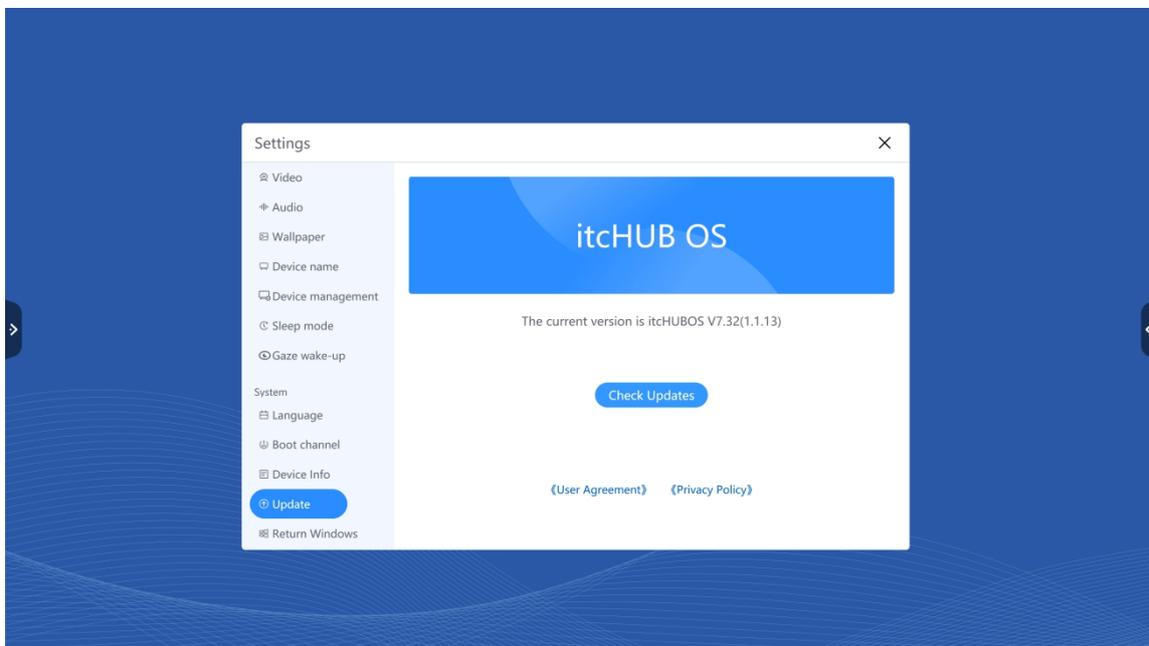
9.3.4.Back to Windows

Click Switch to return to the Windows desktop.

10.FAQ

1. Why does fog appear on the screen frequently?
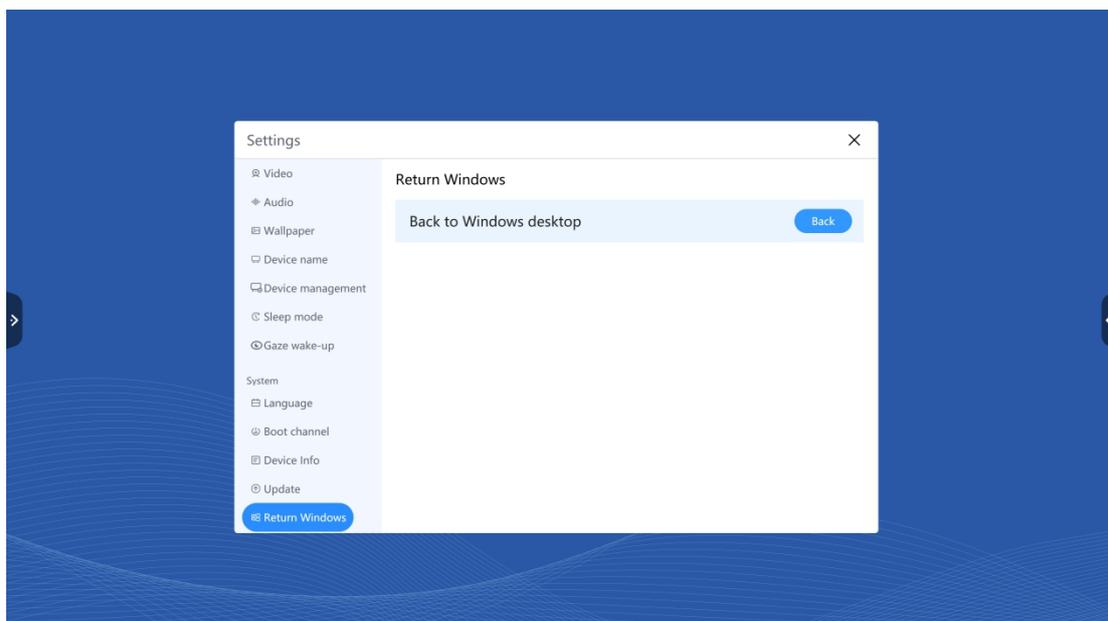
In order to ensure the safety of the screen, a layer of tempered glass is added to the outside of the screen, and in order to ensure heat dissipation, there must be a certain gap between the two, which is used to reserve air passages for air convection. The main reason for the fog is that there is a temperature difference between the screen temperature and the outside temperature, and the hot air condenses on the lower temperature glass surface to generate water mist. The water mist does not affect normal use. Generally, the mist will slowly evaporate and disappear after several hours of use.

2. Why is the multi-touch function unavailable on some devices?

First of all, the XP system does not support multi-touch. If it is a WIN7 system, no matter the external computer or the built-in computer needs to install the system of Home Premium or above to support multi-touch.

3.The equipped touch pen is limited, what object can replace the touch pen for flexible writing without scratching the screen?

Fingers can be temporarily used instead of writing, and if necessary, they can also be purchased through sales or by calling our national service hotline.

4.Is it normal for the screen to feel overheated after using it for a period of time? Any bad influence?

It is normal for the screen to heat up, just like the TV at home, and there will be no adverse effects. At present, the heat dissipation design of our whole machine is leading in the industry, is the industry standard setter, and complies with international health standards.

5.Will long-term use damage the eyes?

The human eye recognizes flicker at 50Hz, and the human eye can detect it below 50Hz. The eye muscles are constantly adjusting to adapt to the flicker and cause eye fatigue. We use 6OHz and 120Hz LCD screens, so human eyes can't actually feel the flicker of our screen, which can greatly reduce eye fatigue compared with other similar products.

11.Troubleshooting

Abnormal start-up

1. Automatic shutdown

① Check whether the timer shutdown or sleep function is turned on;

② Check the channel where the input source is located, if there is no signal, it will cause automatic shutdown;

③ Check the stability of the power supply.

2. The indicator light is off

① Check whether the power supply is normal;

② Check whether the rocker switch of the conference panel is turned on.

3. The indicator light is red and cannot be turned on

① Please unplug all external connecting wires, and restart the machine after 15 minutes of power failure.

Abnormal computer function

1. The image lacks color and the color is abnormal

① If you use an external computer, check whether the wire is not connected properly or there is a quality problem.

2. The display screen is not full of screen or out of range

① If you use an external computer, adjust the AUTO switch in the lower right corner when plugging and unplugging the connecting wire.

Abnormal sound function

1. The device display is normal but there is no sound

① Please try to adjust the volume;

② If the conference panel is connected to an external computer, check whether the audio cable is connected correctly.

Abnormal touch function

1. Inaccurate touch positioning

① Check whether the touch pen or finger touches the screen vertically at 90 degrees;

② Check whether there are other items touching the screen, such as small notes and sleeves.

2. The touch function is invalid

① If the conference panel uses an external computer, check whether the external touch line is connected correctly.

12.Maintenance

Correct maintenance and maintenance can avoid some simple failures;

Regular and careful cleaning can keep the machine in good appearance and operating condition;

Please unplug the power plug before cleaning and maintenance to prevent electric shock.

Screen clean

1. Please mix a little fabric softener or detergent with warm water and stir evenly;

2. Please use a soft cloth to completely soak in this mixture;

3. Please wring out the soft cloth and wipe the screen of the whole machine;

4. Wipe repeatedly (be careful not to let water drop into the device when wiping the device) to complete the cleaning steps.

Frame clean

Please wipe with a dry, soft, lint-free fabric or towel.

Placing or not using the device for a long time

When placing or not using the device for a long time, please be sure to unplug the plug and cut off the power supply to prevent damage to the device due to external power fluctuations such as lightning.

Intelligent Conference Flat Panel

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