



Smart Interactive Whiteboard

User Manual



Foreword

General

This manual introduces the functions and operations of the smart interactive whiteboard (hereinafter referred to as "the whiteboard"). Read carefully before using the whiteboard, and keep the manual safe for future reference.

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.0	First release.	July 2024

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations

and technical data. If there is any doubt or dispute, we reserve the right of final explanation.

- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the whiteboard, hazard prevention, and prevention of property damage. Read carefully before using the whiteboard, and comply with the guidelines when using it.

Storage Requirements



- Stably put the whiteboard onto a support platform that is strong enough to prevent the whiteboard from falling.
- Do not place the whiteboard in a place exposed to sunlight or near heat sources.
- Store the whiteboard under allowed humidity (10%–90% (RH) , 101 kPa) and temperature (–10 °C to +50 °C, or +14 °F to +122 °F) conditions.

Installation Requirements



- Use the wall mount bracket with yellow labels on it. Installation and maintenance must be performed by qualified professionals.
- Do not install the whiteboard in a place exposed to sunlight or near heat sources.
- Keep the whiteboard away from dampness, dust, and soot.
- Install the whiteboard on a stable surface to prevent it from falling.
- Install the whiteboard in a well-ventilated place, and do not block its ventilation.
- The power supply must conform to the requirements of ES1 in IEC 62368-1 standard and be no higher than PS2. Please note that the power supply requirements are subject to the device label.

Operation Requirements



- High voltage inside the whiteboard. Do not disassemble the whiteboard without a qualified professional present to avoid the risk of being exposed to danger.
- Improper use of the battery might result in a fire or explosion.
- Replace unwanted batteries with new batteries of the same type and model.
- Use the standard power adapter. We will assume no responsibility for any problems caused by the use of a nonstandard power adapter.
- Use the power cords that are recommended for the region and conform to the rated power specifications.
- Make sure all cables are connected correctly before plugging the whiteboard into the power. Do not overload the power socket or pull the power code. Otherwise, it might cause fire or electric shock.



- Do not drop or splash liquid onto the whiteboard, and make sure that there is no object filled with liquid on the whiteboard to prevent liquid from flowing into it.

- Operate the whiteboard within the rated range of power input and output.
- Do not disassemble the whiteboard without professional instruction.
- Use the whiteboard under allowed humidity (10%–90% (RH)) and temperature (0 °C to 40 °C, or 32 °F to 104 °F) conditions.
- The whiteboard is a class I electrical appliance. Make sure that the power supply of the whiteboard is connected to a power socket with protective earthing.
- The appliance coupler is a disconnection device. Keep it at a convenient angle when using it.

Maintenance Requirements



- Power off the whiteboard before maintenance. Do not use the liquid cleaner or spray cleaner when cleaning the whiteboard.
- Use the clean and soft cloth or use the special lens wiping cloth when cleaning the surface of display screen. Do not use the wet cloth to clean the display screen. Otherwise, it may do harm to the screen.

ENERGY STAR

- ENERGY STAR



As an ENERGY STAR Partner, Dahua has followed the EPA's enhanced product qualification and certification process to ensure that the products marked with the ENERGY STAR logo are ENERGY STAR qualified per the applicable ENERGY STAR guidelines for energy efficiency. The logo appears in the event that brightness settings or power mode settings are changed by the user, energy consumption of the panel may increase beyond the limits required for ENERGY STAR certification. Additional information on the ENERGY STAR program and its environment benefits are available on the EPA ENERGY STAR website at <http://www.energystar.gov>. The Manufacturer-reported maximum luminance L_Max Reported is 400cd/m².



- Modifying screen brightness may affect energy consumption.
- Turning off No-signal Shutdown may result in exceeding the Energy Star requirements.

Go to **Settings > system > Power Status > ENERGY STAR**:

To configure energy star option, default off, the device will enter standby mode after 4 hours of inactivity.

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1 Overview

1.1 Introduction

The smart interactive whiteboard is an integrated multimedia device, which integrates large HD screen, computer, electronic whiteboard, audio amplifier, application, and central control system. The whiteboard supports the following functions and features:

- 4K HD LCD display.
- Switch between Android and Windows systems (for Windows, you need to install a computer module).
- One-tap projection of devices such as mobile phones and tablets.
- Electronic whiteboard.
- Various software such as audio and video players.

1.2 Packing List

Check whether there is any obvious damage on the packing box. Unpack the box and check whether the components are complete according to the packing list.

Table 1-1 Packing list

Name	Quantity	Name	Quantity
Smart interactive whiteboard	1	Power cord	1
Stylus pen	2	Quick Start Guide	1
Wall mount bracket (installed on the whiteboard already)	1	Remote control	1
Legal and regulatory information	1	Wall-mount screw pack	1
Antenna	2	—	—

1.3 Structure

1.3.1 Appearance and Ports

Figure 1-1 Appearance

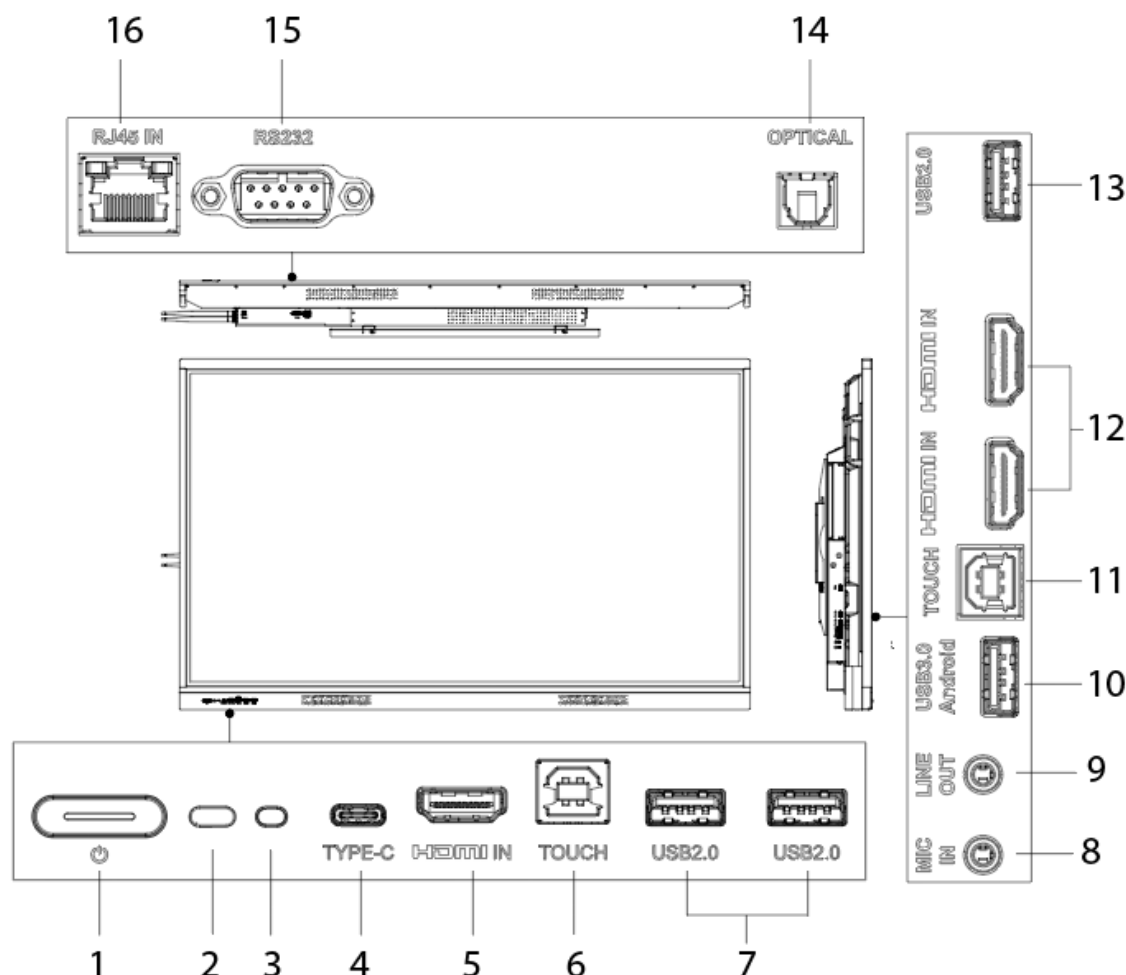


Table 1-2 Appearance description

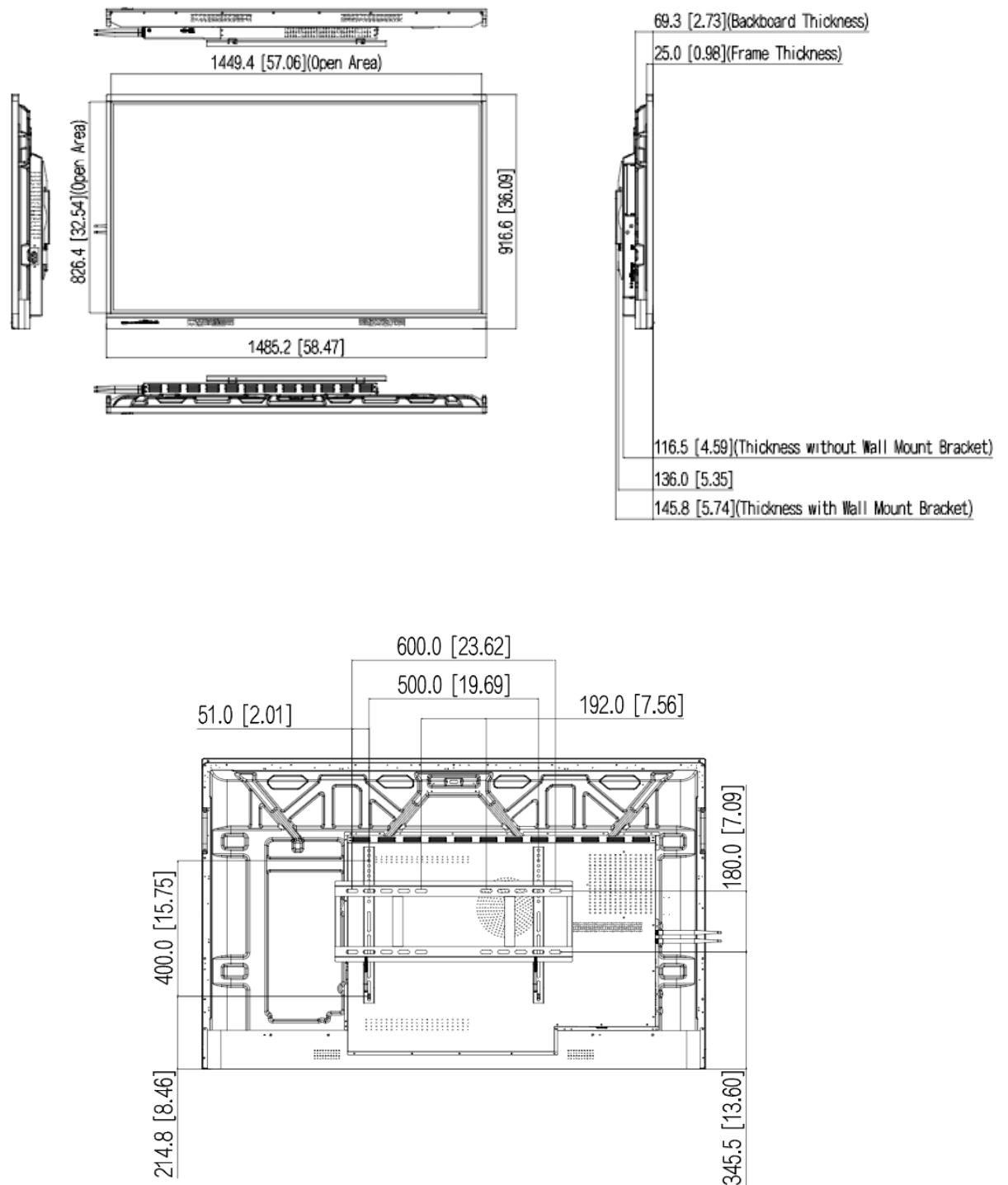
No.	Items	Function description
1	On/Off Button	The switch button of the device.
2	Remote control receiver	Receives remote control signals.
3	Photosensitive hole	Light sensor. Automatically adjusts the brightness of the screen.
4	TYPE-C	Support charging and data transmission. The maximum rated power of the USB Type-C port of this product is 5V 1A; When using this port to charge electronic devices, the charging power of the electronic device cannot exceed the rated power of this port. If the charging power of the electronic device exceeds the rated charging power of this port, please Do not directly use this port for charging.

5	HDMI IN	Inputs uncompressed HD video signals and multichannel audio signals from the external HDMI signal source.
6	TOUCH	Transmits touch signals.
7	USB2.0	Connects to USB devices such as mobile hard disk, USB flash drive, USB keyboard, and USB mouse. It is applicable to Android system and computer module.
8	MIC IN	Microphone audio input.
9	LINE OUT	Audio output.
10	USB3.0 Android	Connects to USB devices such as mobile hard disk, USB flash drive, USB keyboard, and USB mouse. The USB devices are accessible only in Android system.
11	TOUCH	Transmits touch signals.
12	HDMI IN	Inputs uncompressed HD video signals and multichannel audio signals from the external HDMI signal source.
13	USB2.0	Connects to USB devices such as mobile hard disk, USB flash drive, USB keyboard, and USB mouse. It is applicable to Android system and computer module.
14	OPTICAL	Digital audio transmission port. It has strong anti-interference ability, can transmit pure digital audio.
15	RS232	Transmits data between devices. Can connect to central control devices with RS-232 port.
16	RJ45	Network port. Connects to network cable to access network.

1.3.2 Dimensions

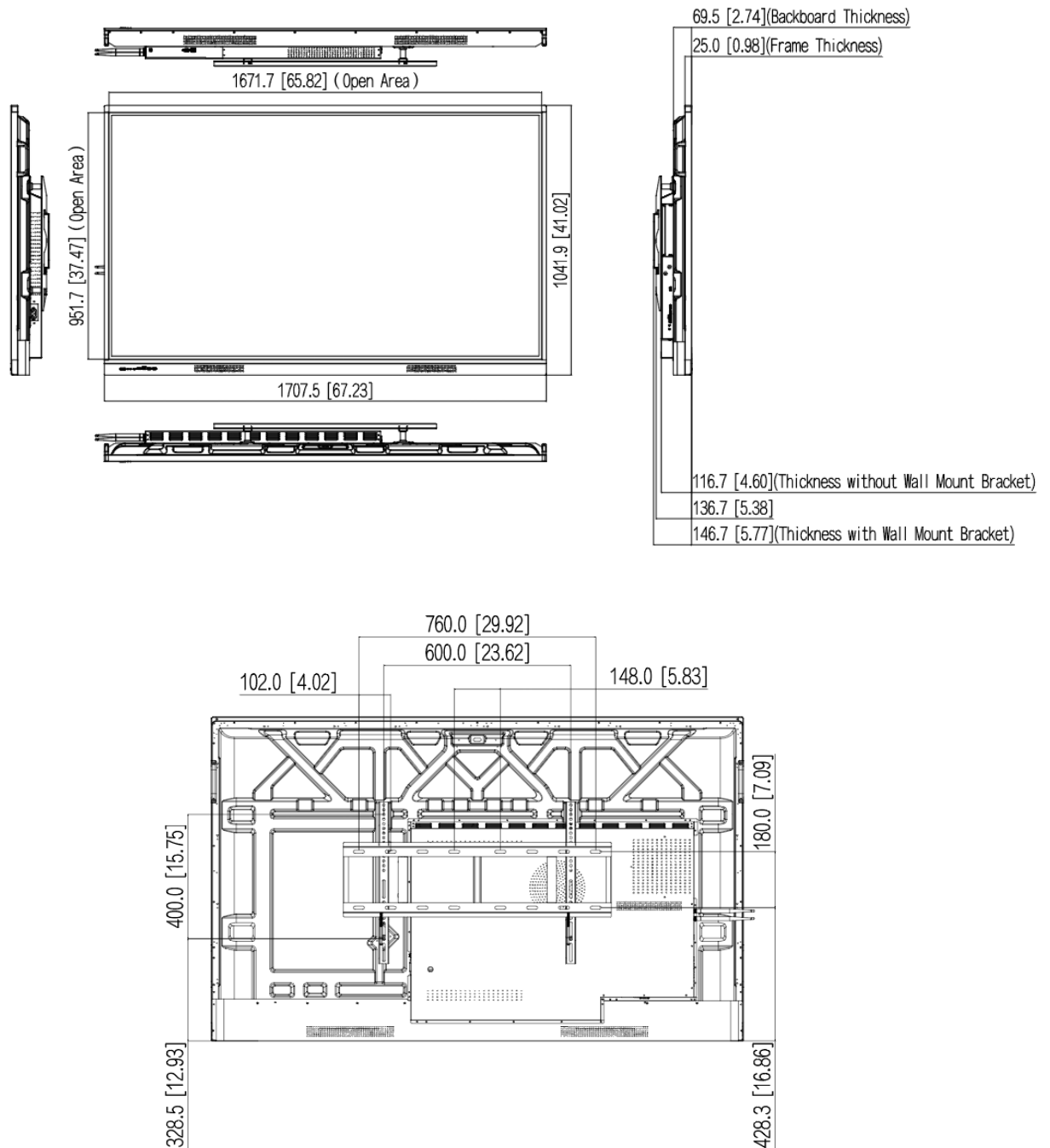
1.3.2.1 Dimensions (65-inch)

Figure 1-2 Dimensions (mm [inch])



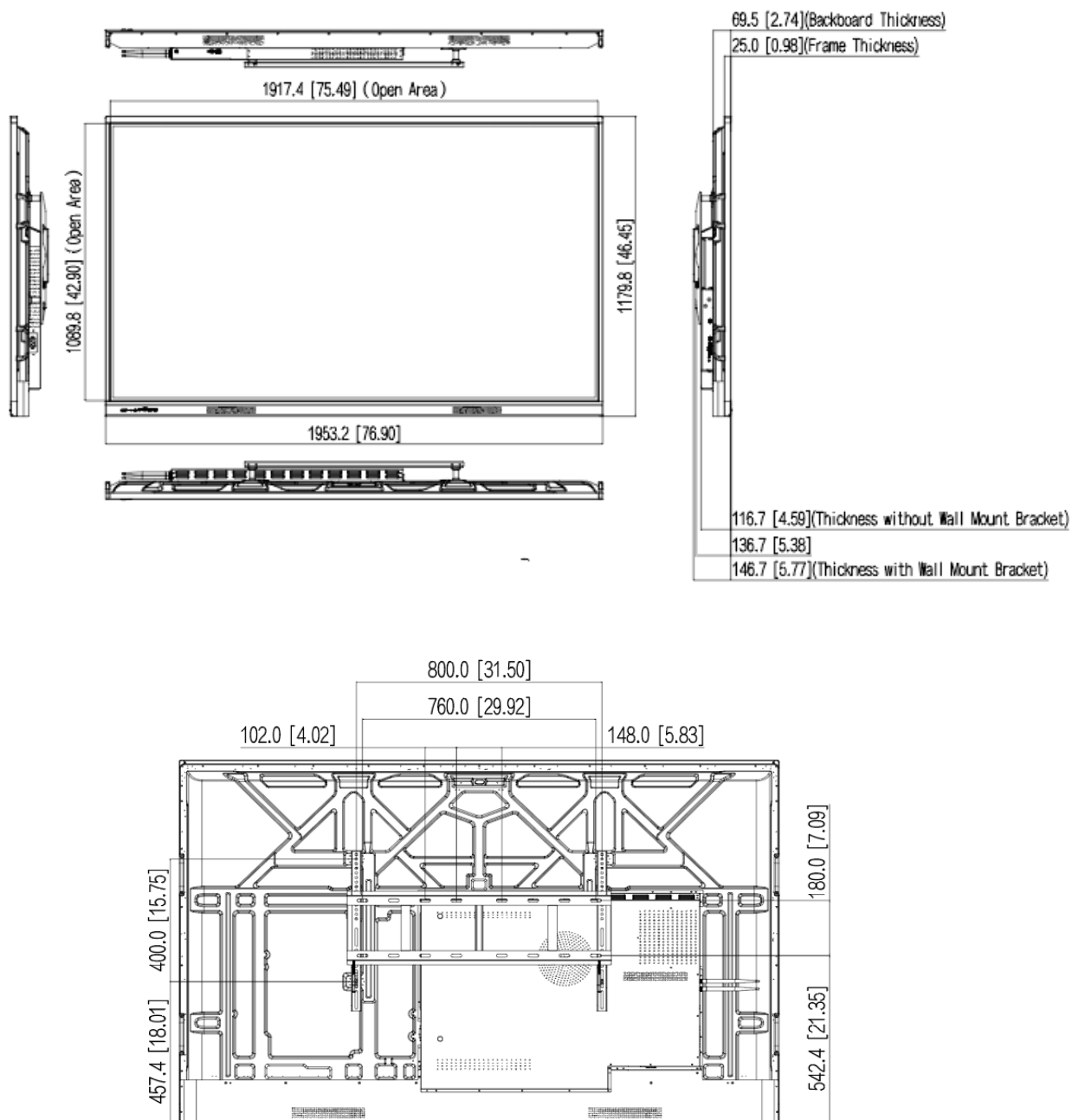
1.3.2.2 Dimensions (75-inch)

Figure 1-3 Dimensions (mm [inch])



1.3.2.3 Dimensions (86-inch)

Figure 1-4 Dimensions (mm [inch])



2 Initial Settings

2.1 Turning on the Whiteboard

Prerequisites

- Before starting the whiteboard, check whether the input voltage is correct against the power supply requirements.
- To ensure the stable work of the whiteboard and the external devices connected to the whiteboard and to prolong the service life, we recommend you refer to the national related standard to use the power source that provides stable voltage with less interference from ripples.

Procedure

- Step 1 Connect the power cord.
- Step 2 The device will start up automatically upon power-on by default. If it has been set to standby upon power-on, proceed to step 3.
- Step 3 Press the power button on the front panel to turn on the screen.
After startup, the system displays the home screen by default.

2.2 Turning off Screen

When the screen is on, press the power button once to turn off the screen.

After the screen has been off for 3 seconds, you can wake up the whiteboard in either of the following ways:

- Press the power button again.
- Touch the screen.



In the Windows system, if you have set a screen lock password, you need to enter the right password to wake up the whiteboard.

2.3 Initializing the Whiteboard

For first-time use or after restoring the system to factory settings, you need to initialize the whiteboard. After that, you can configure and operate your device.

Procedure

- Step 1 Power on the whiteboard.
- Step 2 Choose a language, and then click **Start**.
- Step 3 Set up the network, you can connect to Wi-Fi.
If set up offline, you need select Date & Time zone, and then click **Next**.
- Step 4 Choose to copy your apps & data, and then click **Don't copy** or **Next**.
- Step 5 Sign in with your Google Account, and then click **Skip** or **Next**.

- Step 6 Set a PIN, and then click **Skip** or **Next**.
- Step 7 Set system navigation, and then click **Next**.
- Step 8 Read the privacy policy and the software license agreement, and then click **Accept**.

2.4 Home Screen

Figure 2-2 Home screen



Table 2-1 Home screen description

No.	Description
1	Device status bar. Displays different status information.
2	Displays device connection status, and the PIN connection code.
3	Displays date, time and the day of the week.
4	Displays the network connection of the device.
5	Tap  on the left or right side of the home screen to bring up the navigation bar. For details, see "3.1.1 Bringing up the Navigation Bar" for details.
6	Function area. Tap a function icon to go to the corresponding operation screen.

3 Basic Operations

The whiteboard can act as a computer or electronic whiteboard. This chapter introduces the basic operations of those functions. We recommend using the stylus pen to interact with the screen. For details on touch control, see "Appendix 1 Touch Operation".

3.1 Quick Operations

You can use the navigation bar or assistive touch to quickly use basic functions.

3.1.1 Bringing up the Navigation Bar

Tap  on the left and right sides of the home screen to bring up the navigation bar.

Figure 3-1 Navigation bar



Table 3-1 Description of navigation bar

Icon	Description
	Display or hide the navigation bar.
	Go back to the previous screen.
	Go back to the home screen.
	Tap the icon to display common tools such as annotation, screen sharing, and camera.
	Displays the apps that are running in the background. You can close the background apps one by one or in batches.

Icon	Description
	Switches the signal inputs.
	Pull the On-Screen Display (OSD) up and down to support one-third Screen Down Reachability.
	

3.1.2 Bringing up the Assistive Touch

Tap  on the home screen to bring up the compass menu. For details, see "3.7.2 Configuring General Settings".

Figure 3-2 Assistive touch

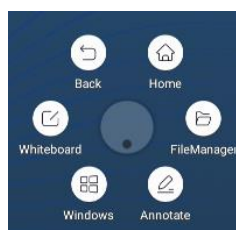


Table 3-2 Description of assistive touch

Icon	Description
	Go back to the home screen.
	Go back to the previous screen.
	Go to the electronic whiteboard screen. For details, see "3.2 Electronic Whiteboard".
	After you insert the computer module, tap the icon to switch to the Windows system.

Icon	Description
	Turn on the annotation mode. • Tap Fountain to select the type of pen and the size of the brush. • Tap  to clear content. ◊ Tap Erase to clear unwanted content. ◊ Tap Circle and Erase to circle unwanted content, and then erase the selected content. ◊ Tap  to clear all content on the screen. • Tap Cancel to exit the current annotation screen. • Tap Finish to finish the annotation on the current page and choose a new background for the next annotation. A page number will appear in the lower right corner, which you can tap to select the annotated page. It supports sharing, saving, and exiting the annotation. • Tap Save, and then select the path to save your annotations. • Tap Exit to exit the annotation mode.
	Manage files.

3.1.2 Quick Tools

Procedure

- Step 1 Tap  on the left and right sides of the home screen to bring up the navigation bar.
- Step 2 Tap  to display the common tools.

Figure 3-3 Quick tools

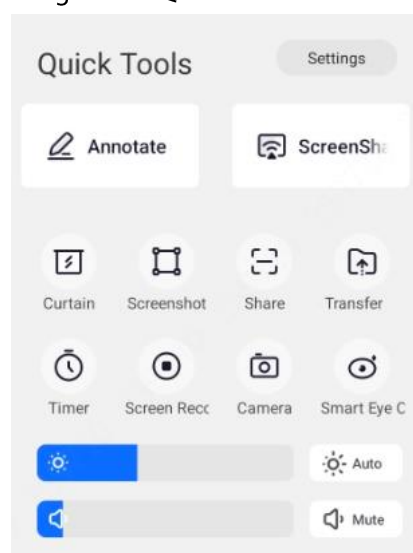


Table 3-3 Description of quick tools

Section	Function	Description
Quick tools	Settings	Go to the Settings screen. For details, see "3.5 System Settings".

Section	Function	Description
	Comment	Turn on the annotation mode. • Tap Fountain to select the type of pen and the size of the brush. • Tap  to clear content. ◇ Tap Erase to clear unwanted content. ◇ Tap Circle and Erase to circle unwanted content, and then erase the selected content. ◇ Tap  to clear all content on the screen. • Tap Cancel to exit the current annotation screen. • Tap Finish to finish the annotation on the current page and choose a new background for the next annotation. A page number will appear in the lower right corner, which you can tap to select the annotated page. It supports sharing, saving, and exiting the annotation. • Tap Save, and then select the path to save your annotations. • Tap Exit to exit the annotation mode.
	Wireless Screen Sharing	Tap the icon to use the wireless screen sharing function. You can transfer content to the whiteboard through the computer or phone.
	Screenshot	Tap the icon, and then the middle area is selected by default. You can drag the four corners of the square to customize the area size. • Tap , and then you can import the screenshot to the whiteboard with one tap. • Tap  to capture the full screen. • Tap  to cancel the screenshot. • Tap , and then the screenshot named year - month - day - hour - minute - second.jpg will be saved to the screenshot folder.

Section	Function	Description
	Share	Tap the icon, and then select the files that you want to share. You can select different types of files but cannot select folders. The size of a single file must not exceed 200 MB. Tap OK to compress 2 or more files into a zip file for transmission. After a QR code is generated, you can scan the QR code to download the file, or tap Continue to Select under the QR code to return to the file selection screen to select more files. Supports QR code. After you connect to the hotspot, use the camera app or browser on your phone to scan the code. If encryption is enabled, you need to enter the verification password after scanning the code, and the download screen will be displayed after the verification is successful.  - File sharing poses a risk of data leakage. Keep the QR code safe. - When the selected files have the same name, the QR code cannot be generated.
	File Transfer	Tap the icon to transfer files. 1. Connect your mobile phone to the whiteboard hotspot or connect the wireless network of the whiteboard to the hotspot of your phone, and then scan the QR code with a camera or browser. 2. Select the files (the file format can be PDF, Excel, Word, and PPT) /videos/pictures, and then tap Send. 3. Tap Files Uploaded to check the uploaded information. And the files will be saved to File Management automatically.
	Timer	Tap the icon, and then the timer setting screen is displayed. You can start and pause the timer, set full-screen display of information on the timer, and reset the timer (reset is only available when the timer is paused, and it will reset to the initial state 00:00:00).

Section	Function	Description
	Screen Recording	Tap the icon to record the screen.  : Tap it to start recording after the 3-second countdown ends;  : Tap it to pause the recording;  : Tap it to continue the recording;  : Tap it to end the recording and save. After saving it, the screen will prompt whether to open the file to view.;  : Tap it to expand the bar, and tap it again to collapse;  : Tap it to set the resolution and path to save the recording;  : Tap it to exit the screen recording feature.
	Camera	It requires external cameras. Tap it to take a picture. Supports camera settings, including switching cameras and changing the resolution.
	Smart Eye Care	Enable or disable the eye care function. With this function enabled, the whiteboard will reduce the intensity of its blue light and change the screen to eye care mode.
	Brightness	Drag the slider to adjust the backlight brightness. You can tap AUTO to enable the auto adjustment function. The whiteboard can automatically adjust the brightness according to the environment.
	Volume	Drag the slider to adjust the volume. Tap MUTE to enable mute.

3.2 Electronic Whiteboard

Tap **Whiteboard** on the home screen to open the whiteboard software. You can write or draw

pictures on the screen.

Figure 3-4 Electronic whiteboard

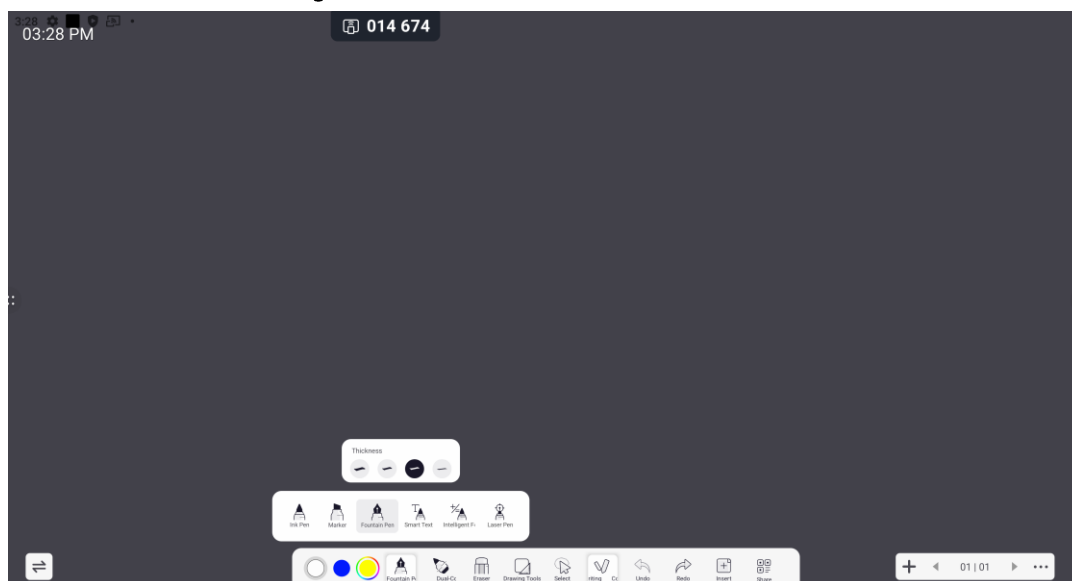


Table 3-4 Description of whiteboard icons

Icon	Description
	Select or customize the color of the pen.
	Select the type of pen and the thickness of the brush. • Oily pen: By default, the color of the brush is white. • Mark pen: By default, the color of the brush is yellow. • Fountain pen: By default, the color of the brush is white. • Smart text: The handwritten content is recognized and transformed to the standard font with the color and thickness the same as the oily pen. • Intelligent formula: Simple equations (such as addition, subtraction, multiplication and division) can be calculated by the system. • Laser pen: The written content appears with a trail and disappears in 1 second. The color can be green, red, and pink.
	Tap to use the dual-color function, which defaults to the pen. The fine tip of the writing pen is white, while the broad tip is red. The type, color, and thickness of both tips can be customized. The dual-color feature only supports single-user writing.

Icon	Description
	Erase content. • Tap  to clear unwanted content. • Tap , circle unwanted content, and then erase the selected content. • Tap  to clear all content on the screen.  • You cannot erase graphics or tables directly. • You can press your palm on the screen and then move your hand over the words and graphics to erase them.
	Tap the icon to draw the following shapes. • Plane figures: Straight line, dashed line, arrow, triangle, circle, rectangle, etc. • Solid figures: Cube, cuboid, tetrahedron, cone, frustum, sphere, etc. • Measuring tools: Ruler, triangle ruler, isosceles triangle ruler, protractor, and compass.
	Select content on the screen to zoom in, zoom out, move or rotate.
	Switch between zoom mode and co-write mode. • Zoom mode: Only supports 1-point writing. You can zoom in and zoom out the canvas. • Co-write mode: ◇ Supports up to 2-points writing simultaneously. You cannot zoom in or zoom out the canvas. ◇ Supports writing and erasing on a canvas at the same time. To use this function, you can only write in oily pen, mark pen, or fountain pen.
	Undo the previous action. You can undo up to 10 actions.
	Redo the action that has been undone. You can redo up to 10 actions.

Icon	Description
	• Online Video: You can search the online video, and then display the video on the whiteboard. • Online Image: You can search the online image, and then insert it. • Image: You can insert images in the bmp, png, jpg, or jpeg format. Up to 10 images in total can be inserted and each one should be no more than 5 M. • Table: The default table layout is 3 × 3. The table supports up to 12 columns and 12 rows. • Mind Map: You can insert horizontal and vertical mind maps. ◇ Supports adding and deleting mind map controls. ◇ The text box in the mind map supports handwriting and automatic text recognition. The recognized text is adapted to fit within the box. ◇ Mind maps can be exported together with whiteboard files or separately as images. • Local Video: You can insert up to 10 local videos for a single whiteboard file, and each video cannot exceed 400 M.  Functions might be vary depending on the whiteboard models.
	Tap the icon to generate a QR code, and then you can scan the QR code to view or download the file. Tap I have read it, enter a password containing 4 – 8 characters and then tap OK.
	Add a whiteboard page. You can add up to 50 pages.
	Tap  to preview the saved file list. Tap the file to edit. When you have created several files, tap  or  to switch to the previous file and the next file. You can browse the thumbnail of the switch page.

Icon	Description
	Tap the icon, and then you can perform the following operations. • New: Create a new whiteboard file. Remember to save your content before creating a new file, or else you will lose all your changes. • Open: Open the saved writing file. Only the whiteboard file format can be opened. After you tap Open, the system will jump to the whiteboard file column on file management screen. • Change Background: You can use a local background template or custom template.  The custom template only supports images in bmp, png, jpg and jpeg formats. The image size is limited to 5 MB. The recommended image ratio is 16:9. • Save: Save the file. The default name of the file is year-month-day-hour-minute-second. You can customize the file name. The file format can be wbh (source file format), pdf, and png. The source file format is used by default. • Save as: Save as a new file. The default file name is year-month-day-hour-minute-second. The file format can be wbh (source file format), pdf, and png. The source file format is used by default. • Exit: Exit the whiteboard app.  Remember to save your modifications before exiting, or you will lose all your changes.

3.3 File Management

Swipe up from the middle and lower part of the screen to display all apps, and then tap **Finder** to manage files from Google Drive and OneDrive, files from USB drive and local files, such as whiteboard files, images, documents and more.



- You need to bind a Google Drive or OneDrive account before you can view the thumbnails in the drive.
- You have to download thumbnails in the drive to the local and go to the local path to see the full-size images.



- Tap a file or folder to select it.
- Double-tap a file or folder to open the file or folder.

Figure 3-5 File management

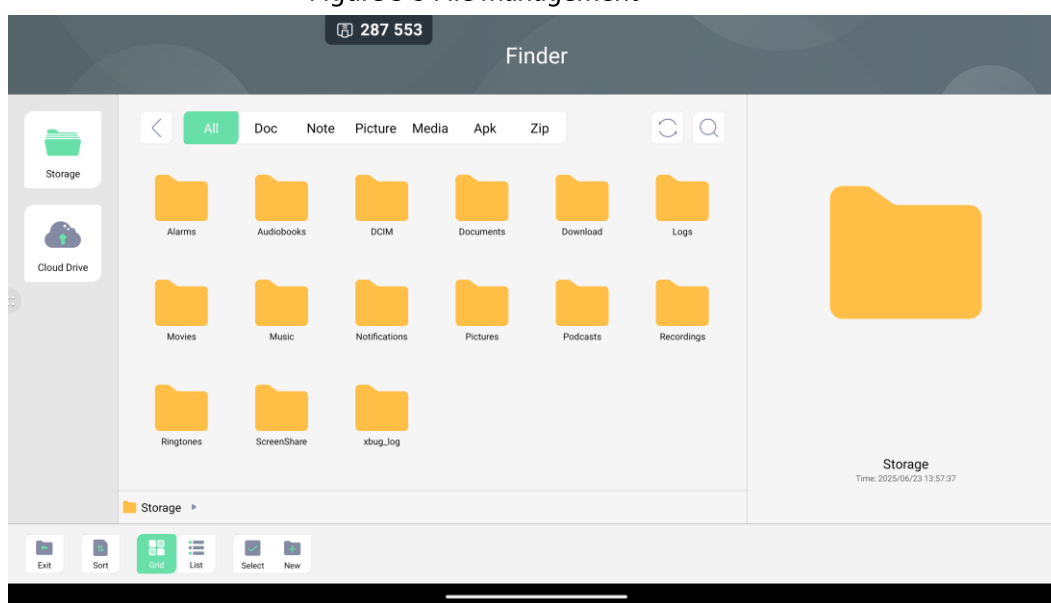
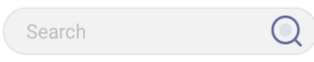


Table 3-5 File management icons

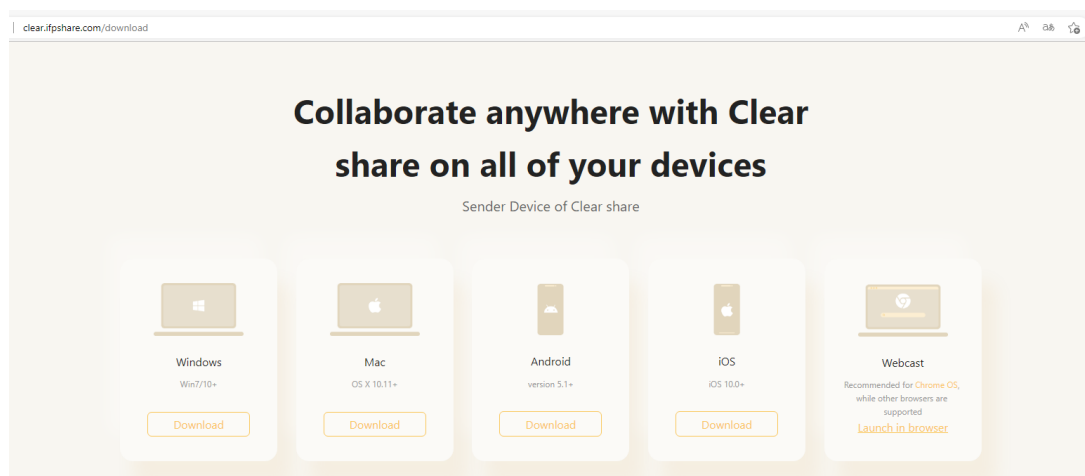
Icon	Description
	return to the previous page.
	Enter file names to search for.
	Display files in thumbnail or list format.
	Sort files in the ascending or descending order by name, size, type and time.
	You can select multiple files or all the files.
	Create a new folder.

Icon	Description
	Select a file or folder, tap Copy or Cut , and then tap Paste to paste the file or folder.
	
	
	Delete files or folders.
	Rename the files and folders.

3.4 Screen Casting

By entering <http://clear.ifpshare.com/download> in any browser, you can download and install the Clear Share for Windows, macOS, Android, and iOS, as well as access the Webcast feature. Alternatively, scan the QR code found under “User Guide” in the bottom-right corner of the device’s home screen to download the screen-casting sender app.

Figure 3-6 Client download of Clear Share



You can remotely control the whiteboard on the phone, computer, or tablet, and project the content to the whiteboard screen.

On the home screen, select **Clear share**, or bring up the navigation bar and select **Quick Tools > Screen Sharing** to display the main interface of screen sharing.

Figure 3-7 The main interface of screen sharing

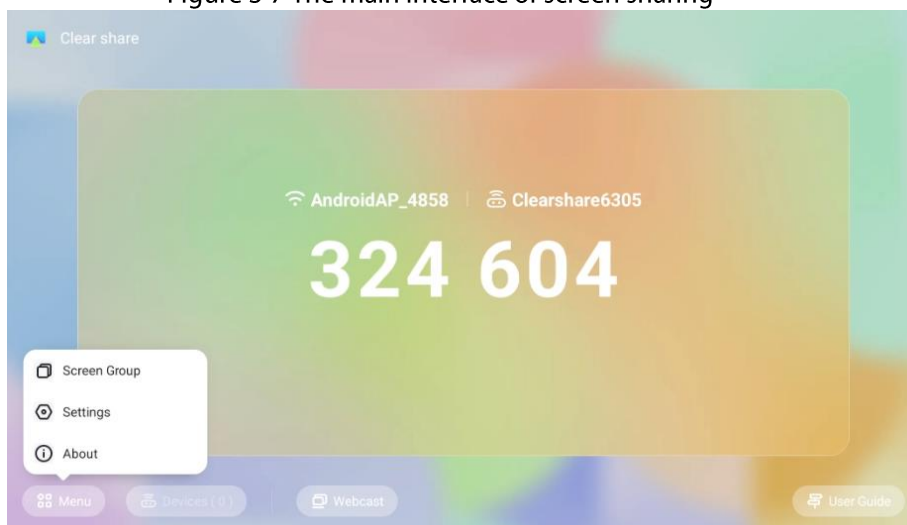


Table 3-6 Clear share description

Icon	Description
Current network	Displays the network currently connected to the device.
Device name	You can customize the device name.
Connection Code	After the feature is enabled, the system will automatically generate a 6-digit PIN code.
Menu	Screen sharing settings. • Screen Group: You can create groups to share the screen of the whiteboard to the devices of these groups. • Settings: You can set the connection permissions of the whiteboard and supported devices for screen sharing without client. • About: Displays the information of the current software version.
Devices	Displays the information of the currently connected devices.
Webcast	Enable WebCast so that you can use a browser to share the screen without the help of the Clear share app.
User guide	Tap the icon to see the user guide on how to use Clear share..

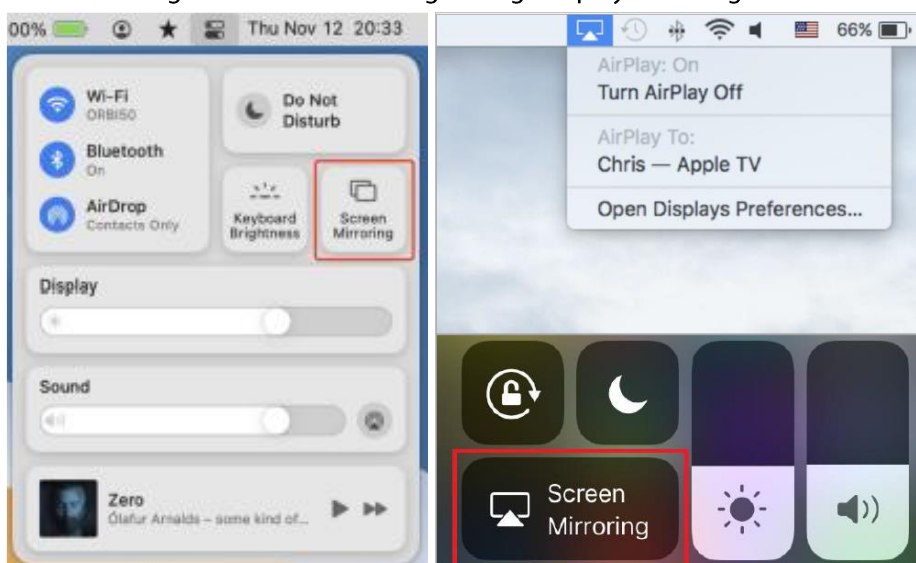
3.4.1 Screen Casting via Standard Protocol

3.4.1.1 Airplay Mirroring

For security consideration, Airplay support is enabled by default.

When Apple device is in the same network with the Clear share server. You can simply cast the screen by choosing the "Screen Mirroring" from Control Center (the entry may different due to the OS versions).

Figure 3-8 Screen casting through airplay mirroring



3.4.1.2 Android Miracast/Chromecast

For security consideration, Miracast support is disabled by default, and it could be enable in sever settings. Chromecast is enabled by default.

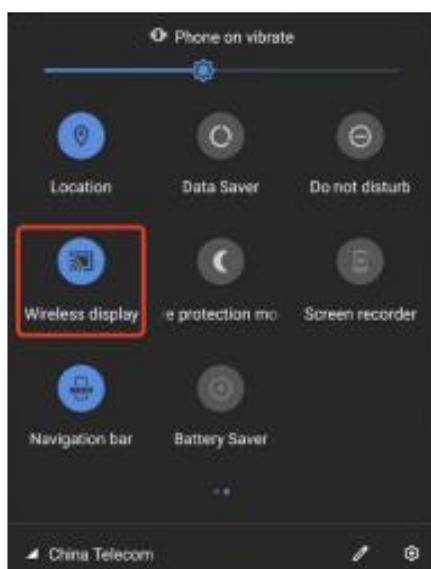
For Miracast, please make sure the client device is nearby the server device;

For Chromecast, please make sure the client and server are in the same network.

Android Device:

Find "Wireless Display" in Quick Setting menu or settings, then choose the target device.

Figure 3-9 Screen casting through Android Miracast/Chromecast



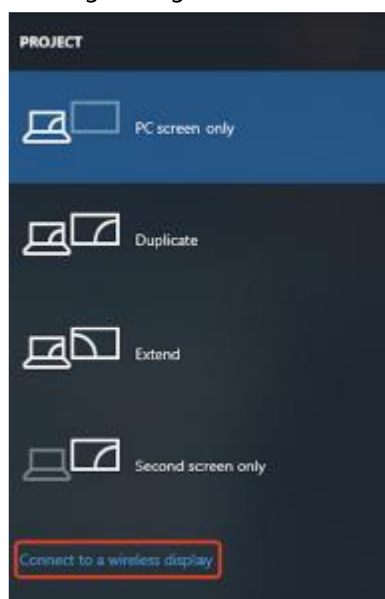
Windows Devices:

Press Win+K, click "Connect to a wireless display", choose the target device.

Not all windows devices support Miracast, please check the below link:

<https://www.tenforums.com/tutorials/59107-check-miracast-support-windows-10-pc.html>

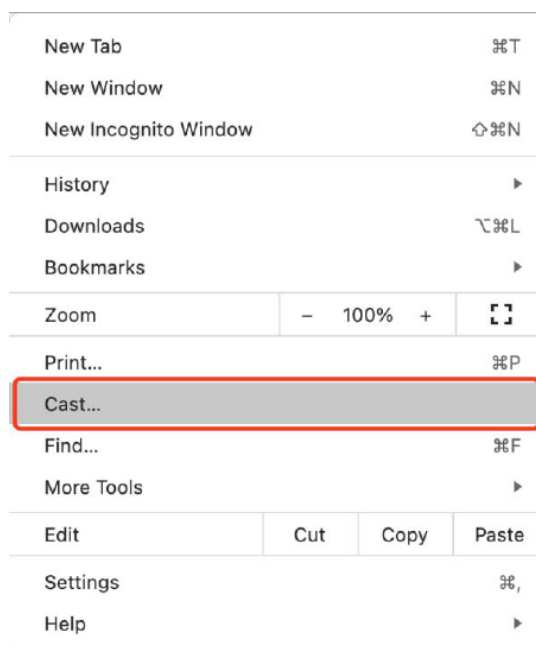
Figure 3-10 Screen casting through windows devices



Chrome OS/Browser:

Choose "Cast..." from the menu.

Figure 3-11 Screen casting through Chrome OS/browser



3.4.2 Screen Casting by Client Application

3.4.2.1 Connect (with a code)

A connection code is displayed on the server
Input the connection code on client to connect to the server.

Note: If the connection code on the server is 6-digits, please switch to 6-digits input mode on the sender.

Figure 3-12 Connect on Windows (1)

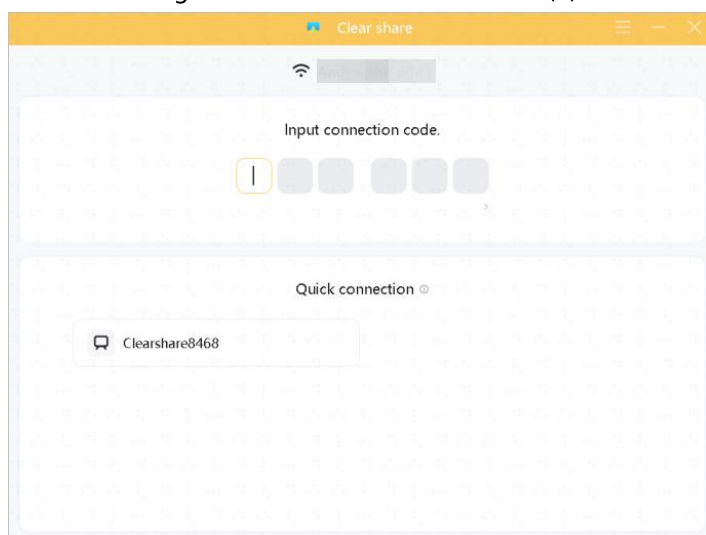
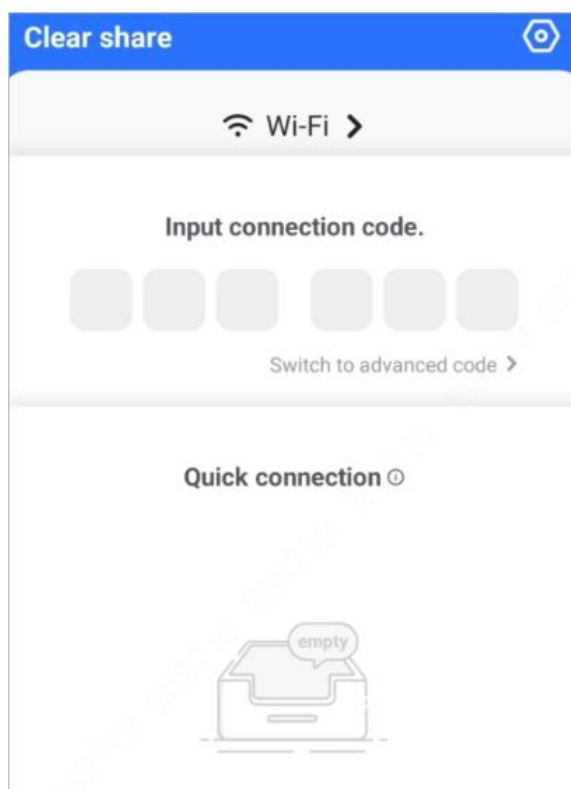


Figure 3-13 Connect on Android (1)



3.4.2.2 Connect (by services discovery)

Available server devices can be found in connection page. Simply connect by choosing the right server.

Figure 3-14 Connect on Windows (2)

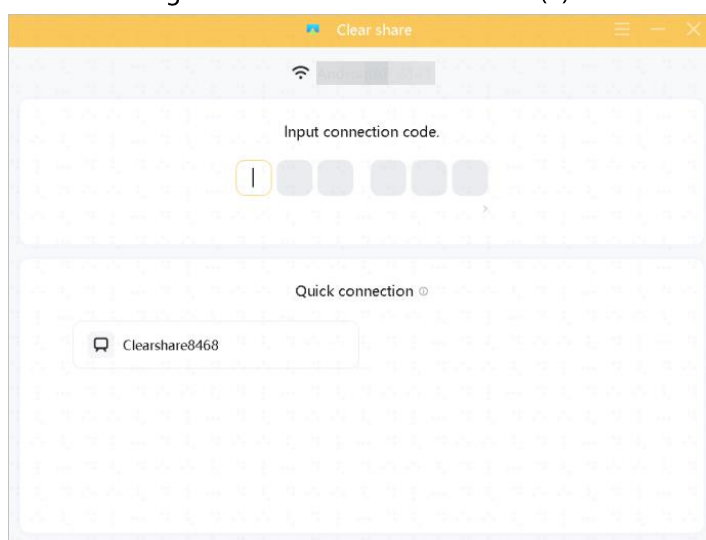
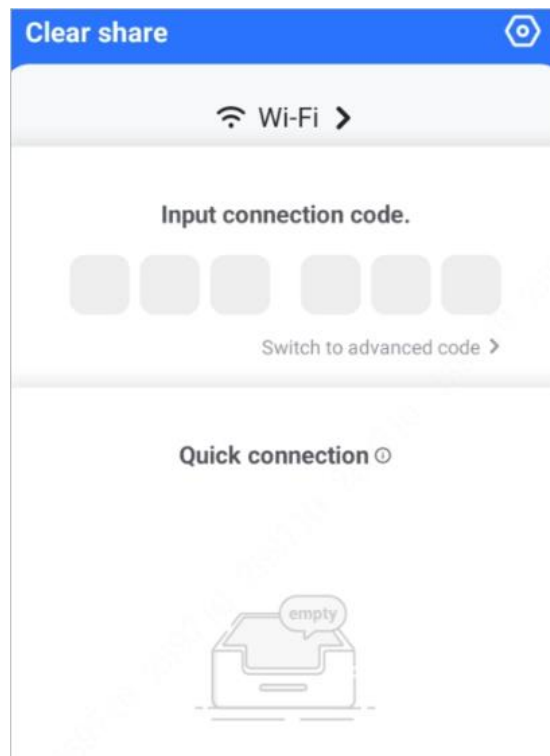


Figure 3-15 Connect on Android (2)



3.4.2.3 Mirroring

Click "Start" will casting the client to the server.

Figure 3-16 Mirroring from Windows

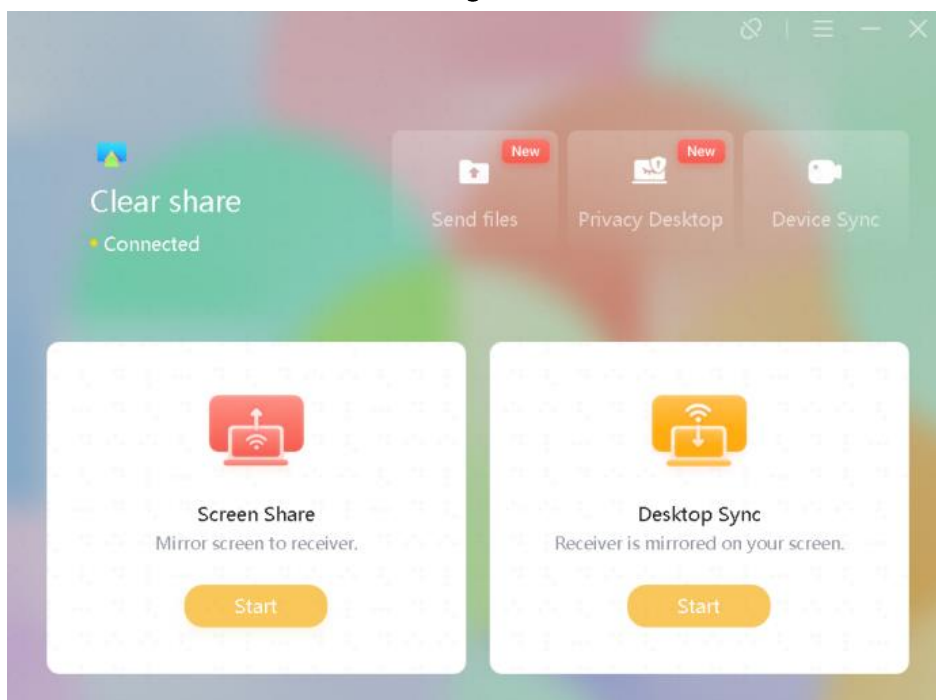
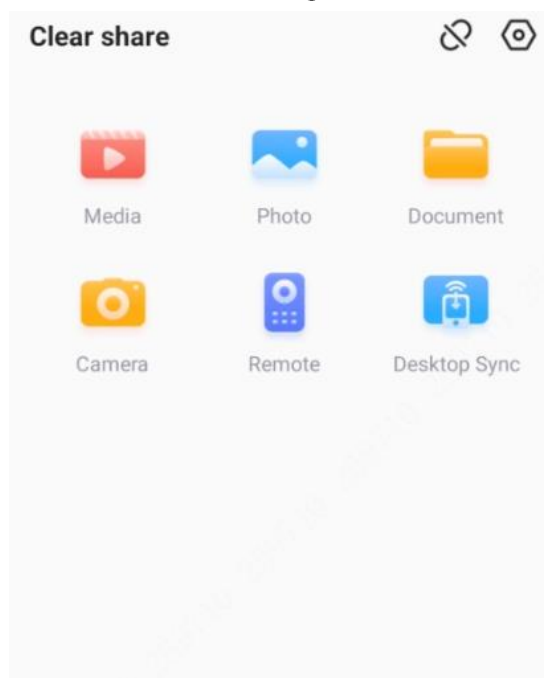
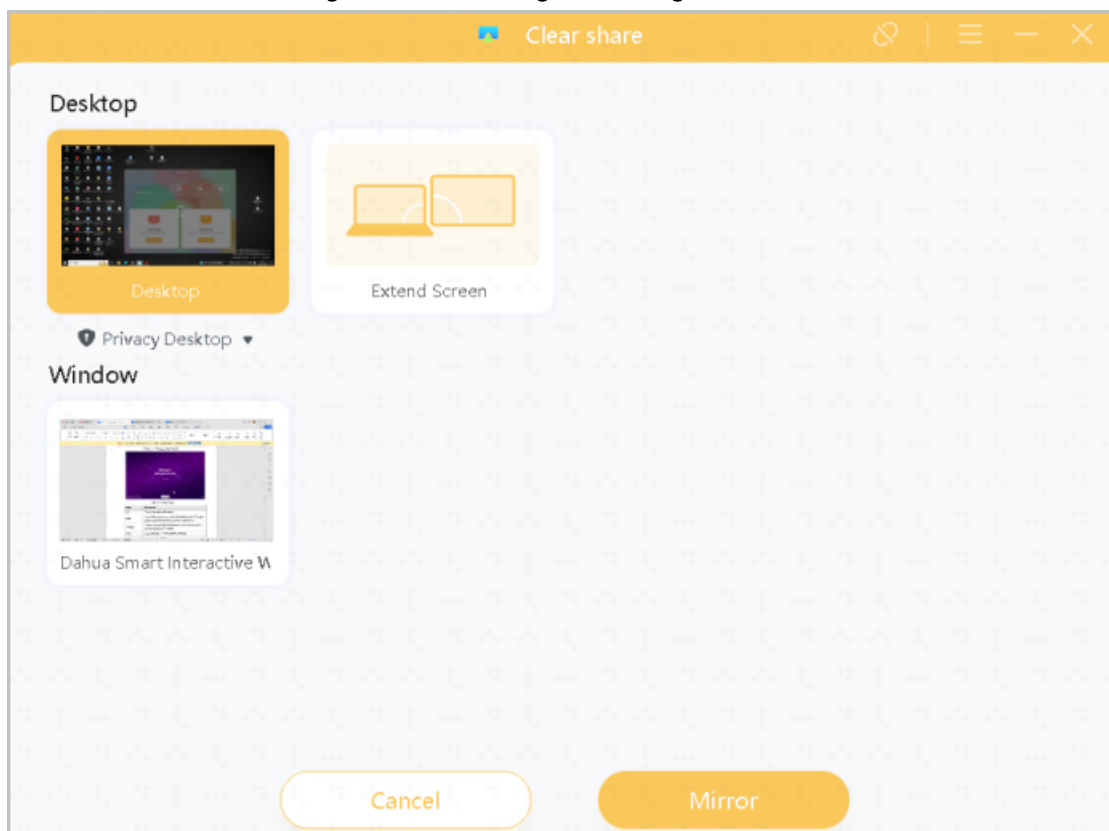


Figure 3-17 Mirroring from Android



For Windows/mac OS, you can share one application or window instead of entire desktop, or you can choose to share primary or extended screen.

Figure 3-18 Selecting the casting area



Notes:

1. Touchback control is only available when casting entire desktop and needs to be authorized

from the server-side in device management page.

2. When multi-screen sharing at the same time, touchback only available on the maximized screen.
3. Touchback could not be used on mobile systems (Android, iOS) due to system limitation.
4. For the IFP system that supports free-form mode, the sharing content could be shown as a window by sliding down from the top of the screen.

3.5 System Settings

Configure network settings, general and advanced settings, and other system settings.

3.5.1 Configuring Network Connection

On the home screen, swipe up > **Settings** to configure the network settings.



You can enable wired network. The whiteboard itself can also act as a hotspot to share network connection with other devices.

Figure 3-19 Network

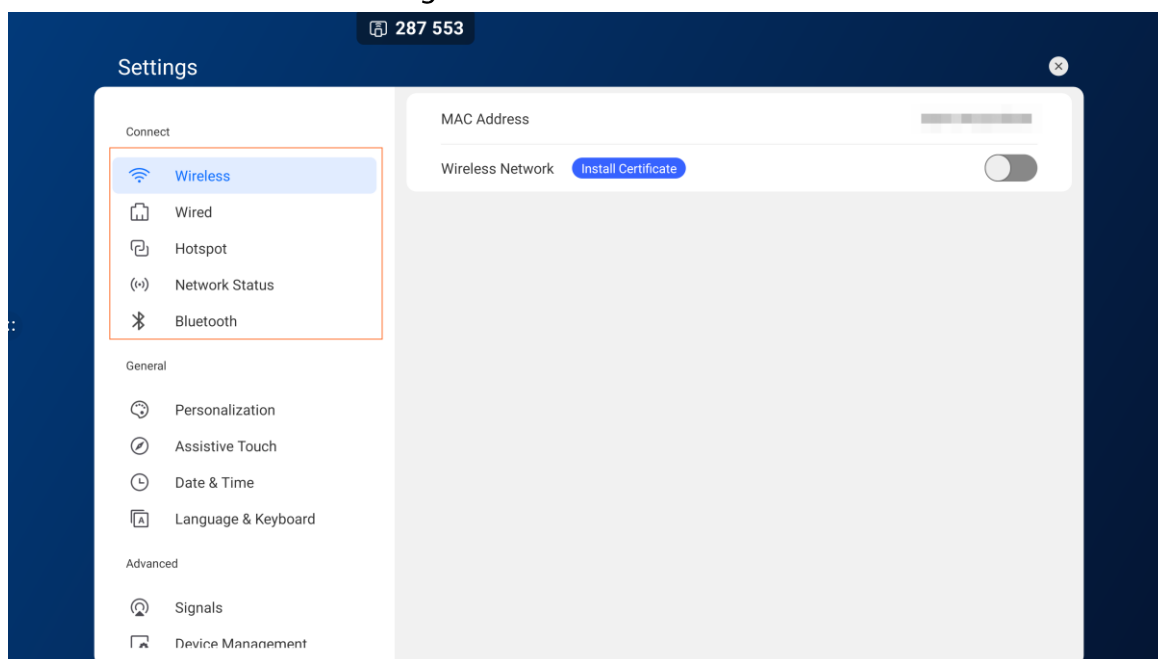


Table 3-7 Network parameters

Parameter	Description
Wireless	Enable Wireless Network, and then the whiteboard can connect to an available Wi-Fi network in the area. To add a wireless network, tap Add Network, enter the SSID network name and password, and then configure advanced settings as needed.  - You can tap Install Certificate to install certificates from local files. - We recommend you select a secure authentication method to connect to a wireless network.
Wired	Configure wired network connection parameters. DHCP: When there is a DHCP server on the network, you can enable Wired, and then the whiteboard gets a dynamic IP address automatically. Static: Set IP address, subnet mask, default gateway and DNS manually for the whiteboard.
Hotspot	Enable Hotspot, configure the network SSID and then enter the password. You can view hotspot name, hotspot password, encryption method, frequency band and other information.
Network Status	Displays information such as the current network connection mode, IP address, default gateway, subnet mask, and DNS.
Bluetooth	Enable Bluetooth, and then the whiteboard can connect to an available Bluetooth in the area. Supports connecting wireless audio equipment, keyboards and more.

3.5.2 Configuring General Settings

On the home screen, swipe up > **Settings** to configure the general settings.

Figure 3-20 General settings

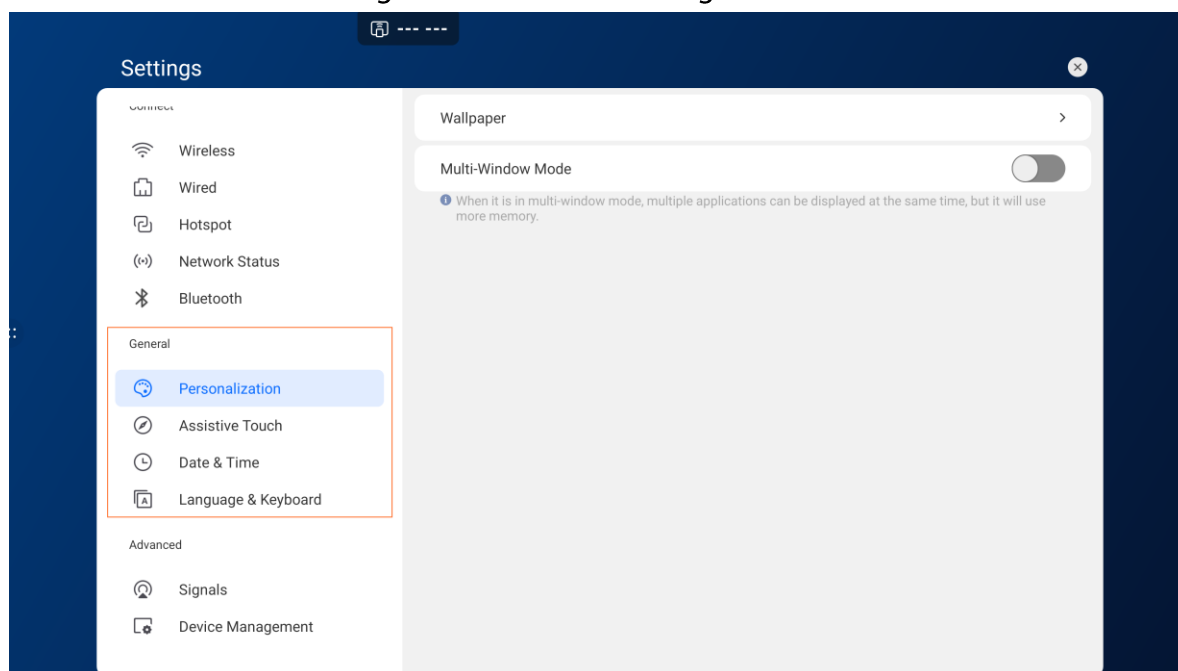


Table 3-8 General settings description

Parameter	Description
Personalization	- Set the wallpaper. - The system provides 8 wallpapers by default. - You can also customize and upload wallpapers. The recommended image ratio is 16:9. - Multi-window mode: Enable the mode, and then the application interface supports zooming in, zooming out, exiting, and defining positions (top-left, top-right, bottom-left, bottom-right, left half of the screen, right half of the screen). Tap Title Bar Style to choose the position of the title bar, supporting top, left and right.  Enabling or disabling the feature will need device reboot.
Assistive Touch	Enable for disable the assistive touch. Select or customize when the assistive touch is automatically hidden away, and the manner in which it is hidden (small circle or disappear).  After you enable the assistive touch, double-tap with 3 fingers in 2 seconds to bring it up.

Parameter	Description
Date & Time	Set the date and time automatically or manually. You can configure the format of the time, date and time zone. With Auto Sync Time enabled, the system time is synchronized with the server time. When it is disabled, you need to manually set the date and time.
Language & Keyboard	Select the system language and the input method.

3.5.3 Configuring Advanced Parameters

On the home screen, swipe up > **Settings** to configure the advanced parameters.

Figure 3-21 Advanced parameters

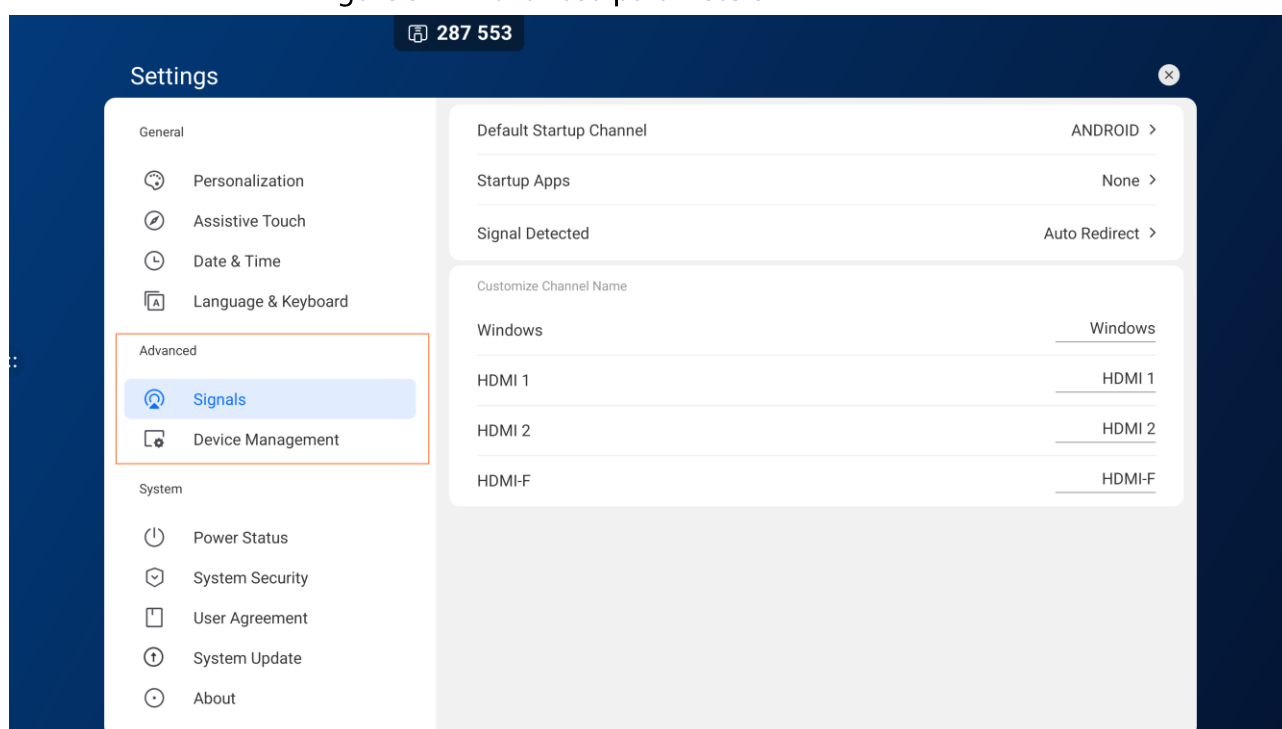


Table 3-9 Description of advanced parameters

Parameter	Description
Signals	• Default Startup Channel: Select the channel to be enabled at startup. • Default Apps: Select an application that is on the whiteboard to be opened every time the system starts. • Signal Detected: ◇ Auto Redirect: Connect to the signal source and automatically redirect to the corresponding channel. ◇ Pop-up Window: When a signal source is connected, a pop-up window appears asking whether to jump to the connected source channel. • Customize Channel Name: Customize the channel name. After the name is modified, the corresponding channel name of the whole system will be modified synchronously.
Device Management	• Five fingers close screen: If the five-finger switch screen is turned on, the five-finger Press and Hold can wake up the Device for more than 3 s after the screen is turned off. • RS-232 Control: With RS-232 Control enabled, you can connect the whiteboard to the RS-232 transparent debugging serial port for data transmission between devices.

3.5.4 Configuring System Parameters

On the home screen, tap **More > Settings** to configure the system parameters.

Figure 3-22 System parameters

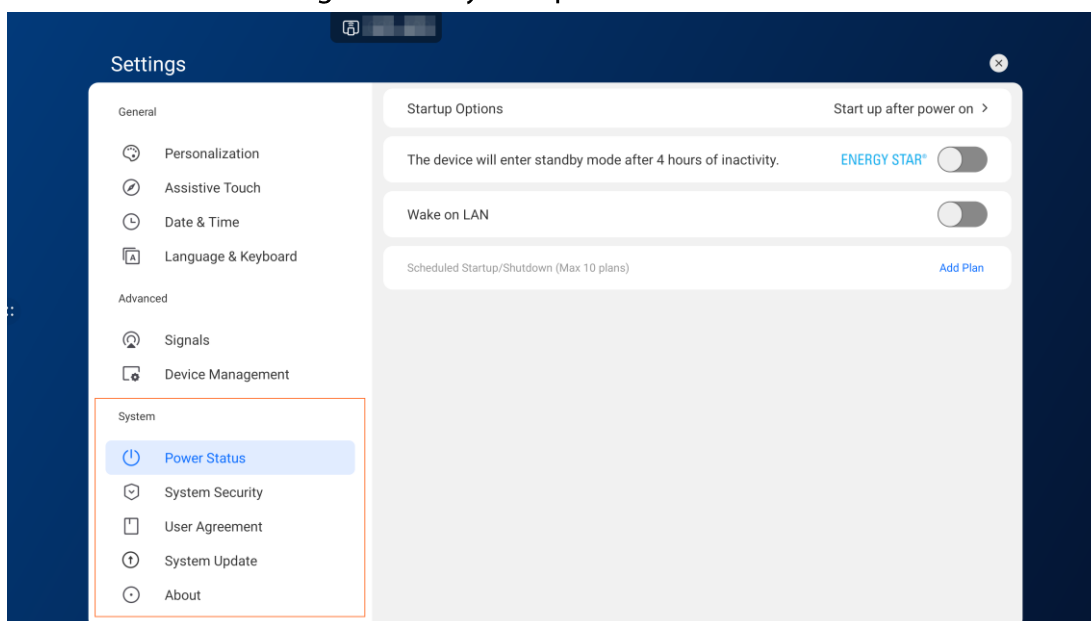


Table 3-10 System parameter description

Parameter	Description
Power Status	Set the startup and shutdown functions of the whiteboard. • Startup Options: Select standby after power on or startup after power on (default). • ENERGY STAR: The device will enter standby mode after 4 hours of inactivity. • Wake on LAN: After you enable this function, you can wake up or power on the whiteboard through the wired network.
System Security	USB Permission: With USB permissions disabled, the system does not detect the access of USB devices.
User Agreement	View the open source agreement, privacy policy, and software license agreement.
System Update	View the current system version. When the whiteboard is connected to a network, tap CHECK FOR UPDATES to check whether there is a new version available.
About	View MAC address, device serial number, device name (can be edited), system version, Android version, and security baseline version.  The device name can consist of up to 31 characters and contain letters, numbers, and special characters (-@.).

3.6 Android Drop Down Bar

Provide quick settings operation options and display related information. You can view the notifications about the device on the lower right corner of the screen.

Figure 3-23 Android Drop down bar

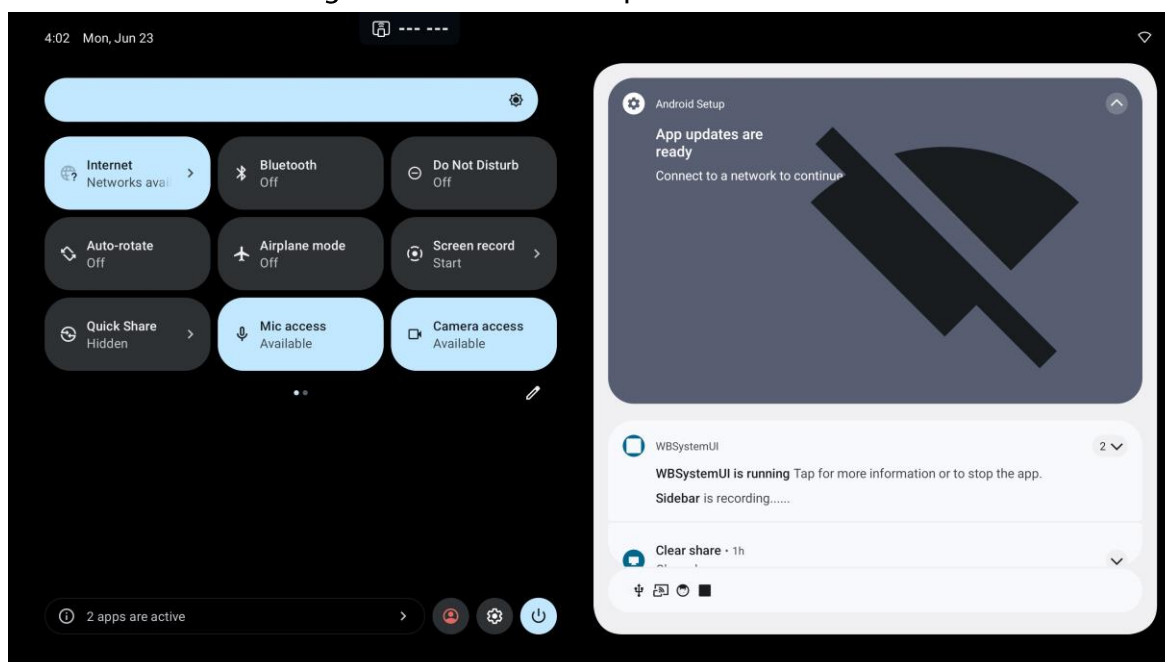


Table 3-11 Android drop down bar options description

Option	Description
Internet	Configure wired or Wi-Fi network connection.
Bluetooth	Set Bluetooth connection on/off.
Do not Disturb	Set up do-not-Disturb mode.
Auto-rotate	Not support.
Airplane mode	Set up airplane mode.
Screen record	Records the operations in the screen, supporting audio recording and showing touches on screen.
Quick share	Set up nearby share.
MIC access	Allow using the device's microphone.
Camera access	Allow using the device's camera.
Quick share	Set up nearby share.
Security & Privacy	Checks the security status and privacy controls of the device
Screenshot	Tap to screenshot the current page, supporting sharing and editing the screenshot.

Option	Description
Hotspot	Enable Hotspot , configure the network SSID and then enter the password. You can view hotspot name, hotspot password, encryption method, frequency band and other information.
One-hand mode	Enable it, and then it supports operations with just one hand.
	Show apps that are currently active and running.
	User setting management.
	Android Settings menu: Configure network, hotspot, Bluetooth, general settings, and other system settings.
	Power Options: Select Power off or Restart system.

4 Shutdown

After the whiteboard is turned on, press and hold the power button for 5 s, and then the system will prompt you whether to shut down the whiteboard. Tap **OK** to shut down the whiteboard.

5 System Update

You can update the system online or through USB.



Please be advised that downgrading to a lower version will make the whiteboard vulnerable to security attacks.

5.1 Online Update

Prerequisites

- Make sure that the whiteboard is connected to the network.
- Make sure that you have enabled OTA platform in **More > Settings > System Update**.
- Make sure that you have more than 6GB of space, otherwise the OTA update may fail.

Procedure

- Step 1 On the home screen, select **More > Settings > System Upgrade**.
- Step 2 Tap **CHECK FOR UPDATES**.
- Step 3 When the system detects that a newer version available, tap **Download** to download the update package.
- Step 4 After the package is downloaded, you can select to install the package immediately. After it updates, the whiteboard restarts automatically.

5.2 Update through USB

You can upload update package file into a USB flash drive and then use the update file to update the system.

Prerequisites

Prepare a USB disk (SanDisk, Format FAT32) *1PCS.

Procedure

- Step 1 Get the update package from the technical support.
Extract upgrade file to the U disk (FAT32) in the root directory. You will get "upgrade_9679" folder.
- Step 2 Turned off the AC power, and plug the USB flash drive into the USB2.0 port of the whiteboard.



Update the system with a USB flash drive in the FAT 32 format. Otherwise, update might fail.

- Step 3 Turn on the AC power, and press the **POWER** key and hold it until the power LED twinkles

in red and white.

Step 3 After upgrade successfully, the whiteboard restarts automatically.



During the update, make sure the device is always powered on.

6 FAQ

1. The indicator light is off.

- Check whether the power supply is normal.
- Check whether the rocker switch of the whiteboard is turned on.

2. Missing or abnormal colors.

If the whiteboard is connected to a computer, check whether the HDMI cable is intact and correctly connected.

3. The image is not displayed in full screen or part of the image is outside the screen.

- Check whether the resolution is 16:9.
- If the whiteboard is connected to an external computer, unplug the HDMI cable and then plug it back in.

4. The whiteboard displays images but has no sound.

- Adjust the volume.
- If the whiteboard is connected to a computer, check whether the audio cable is correctly connected.

5. Touch response is poor and the location that responds is not accurate.

- Check whether other objects such as paper or your sleeves are in contact with the screen.
- Check whether the resolution is 16:9.

6. Touch control is not working.

If the whiteboard is connected to a computer, check whether the TOUCH port of the whiteboard is correctly connected to the USB port of the computer.

7. The external MIC IN cannot pick up sound.

Only active mic in is supported, and mic in sound pickup is only supported under the Android signal source.

8. The whiteboard side cannot control the volume of the external Line out device.

Volume control of the external Line out device from the whiteboard is not supported. Please adjust the volume on the external device.

9. The mobile phone's Bluetooth cannot find the Bluetooth of the whiteboard, or the whiteboard cannot find the Bluetooth of another whiteboard.

To ensure the safe use of the whiteboard, only the whiteboard can search for the mobile phone's Bluetooth. The connection with the mobile phone's Bluetooth can be established through the whiteboard side for data interaction and transmission.

10. Unable to play rmvb format videos.

The chip does not support this video format.

11. The sharing feature of the whiteboard prompts that the upload failed.

Please connect to a Wi - Fi network for Internet transmission or turn on a hotspot for local area network transmission.

12. After switching from Android to OPS, the USB drive inserted into the front I/O panel is not recognized.

This is a USB timing-compatibility issue. Unplug and re-insert the USB drive; it should then mount correctly.

13. After switching from Android to OPS, touch input stops working in OPS.

Open Task Manager and end the "Desktop Window Manager" (dwm.exe) process. Touch will resume.

14. Clicking the Clear Share icon does nothing.

Check whether Screen Group mode is enabled in Clear Share. If it is, verify whether the network has changed since Screen Group was turned on. If so, reconnect to the first wireless network that was active when Screen Group was originally enabled.

15. Clear Share crashes or shows "Incorrect password."

Confirm that both the sender and receiver are on the same network and that both devices are actually connected to that network.

16. Screen casting from a Chromebook fails.

Chromebooks are not supported.

17. Startup animation plays sound but displays no video.

Videos encoded with MPEG-4 Visual are not supported; use a compatible format such as H.264.

Appendix 1 Touch Operation

You can use the stylus pen or directly use your fingers to operate the device screen.



This section uses operation with stylus pen as an example.

Appendix Table 1-1 Touch operations

Operation	Description
Tap	Tap the screen once with the stylus pen.
Double-tap	Tap the screen twice with the stylus pen (The time gap between the taps is around 0.5 s).
Context menu	Slightly touch the screen for 1 to 2 seconds with the stylus pen. Lift the stylus pen when there is a circle on the screen, and then the context menu is displayed.
Drag	Hold the icon that needs to be dragged with the stylus pen and then move the stylus pen to the target place. Lift the stylus pen to drop the item.
Slide	Hold the screen (such as the slider that is used for the web browser) that you want to slide with the stylus pen, and then slide the stylus pen toward the direction you want. Lift the stylus pen to release the screen.
Zoom	Use the stylus pen to press and hold the window (such as the web pages and images), and then use another stylus pen to drag the window to zoom in and zoom out.

Appendix 2 Security Commitment and Recommendation

Dahua Vision Technology Co., Ltd. (hereinafter referred to as "Dahua") attaches great importance to cybersecurity and privacy protection, and continues to invest special funds to comprehensively improve the security awareness and capabilities of Dahua employees and provide adequate security for products. Dahua has established a professional security team to provide full life cycle security empowerment and control for product design, development, testing, production, delivery and maintenance. While adhering to the principle of minimizing data collection, minimizing services, prohibiting backdoor implantation, and removing unnecessary and insecure services (such as Telnet), Dahua products continue to introduce innovative security technologies, and strive to improve the product security assurance capabilities, providing global users with security alarm and 24/7 security incident response services to better protect users' security rights and interests. At the same time, Dahua encourages users, partners, suppliers, government agencies, industry organizations and independent researchers to report any potential risks or vulnerabilities discovered on Dahua devices to Dahua PSIRT, for specific reporting methods, please refer to the cyber security section of Dahua's official website.

Product security requires not only the continuous attention and efforts of manufacturers in R&D, production, and delivery, but also the active participation of users that can help improve the environment and methods of product usage, so as to better ensure the security of products after they are put into use. For this reason, we recommend that users safely use the device, including but not limited to:

1. Account Management

1.1 Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

1.2 Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

1.3 Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

1.4 Enable account lockout function

The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

1.5 Set and update password reset information in a timely manner

Dahua device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

2. Service Configuration

2.1 Enable HTTPS

It is recommended that you enable HTTPS to access Web services through secure channels.

2.2 Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, we recommend you to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

2.3 Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

2.4 Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

3. Network Configuration

3.1 Enable Allow list

It is recommended that you turn on the allow list function, and only allow IP in the allow list to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allow list.

3.2 MAC address binding

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

3.3 Build a secure network environment

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;

According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;

Stablish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

4. Security auditing

4.1 Check online users

It is recommended to check online users regularly to identify illegal users.

4.2 Check device log

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

4.3 Configure network log

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

5. Software Security

5.1 Update firmware in time

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

5.2 Update client software in time

We recommend you to download and use the latest client software.

6. Physical protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).

ENABLING A SMARTER SOCIETY AND BETTER LIVING

ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

Address: No. 1399, Binxing Road, Binjiang District, Hangzhou, P. R. China | Website: www.dahuasecurity.com | Postcode: 310053

Email: dhoverseas@dhvisiontech.com | Tel: +86-571-87688888 28933188