Horion

Introduction of Horion M5A

Contents

01 Product Appearance

02 Hardware Configuration

03 Software Function

01 Product Appearance

Front view

4K UI interface

Built-in 13-megapixel camera (updated)

20.3 mm ultra-narrow border design

Magnet area

Magnet area

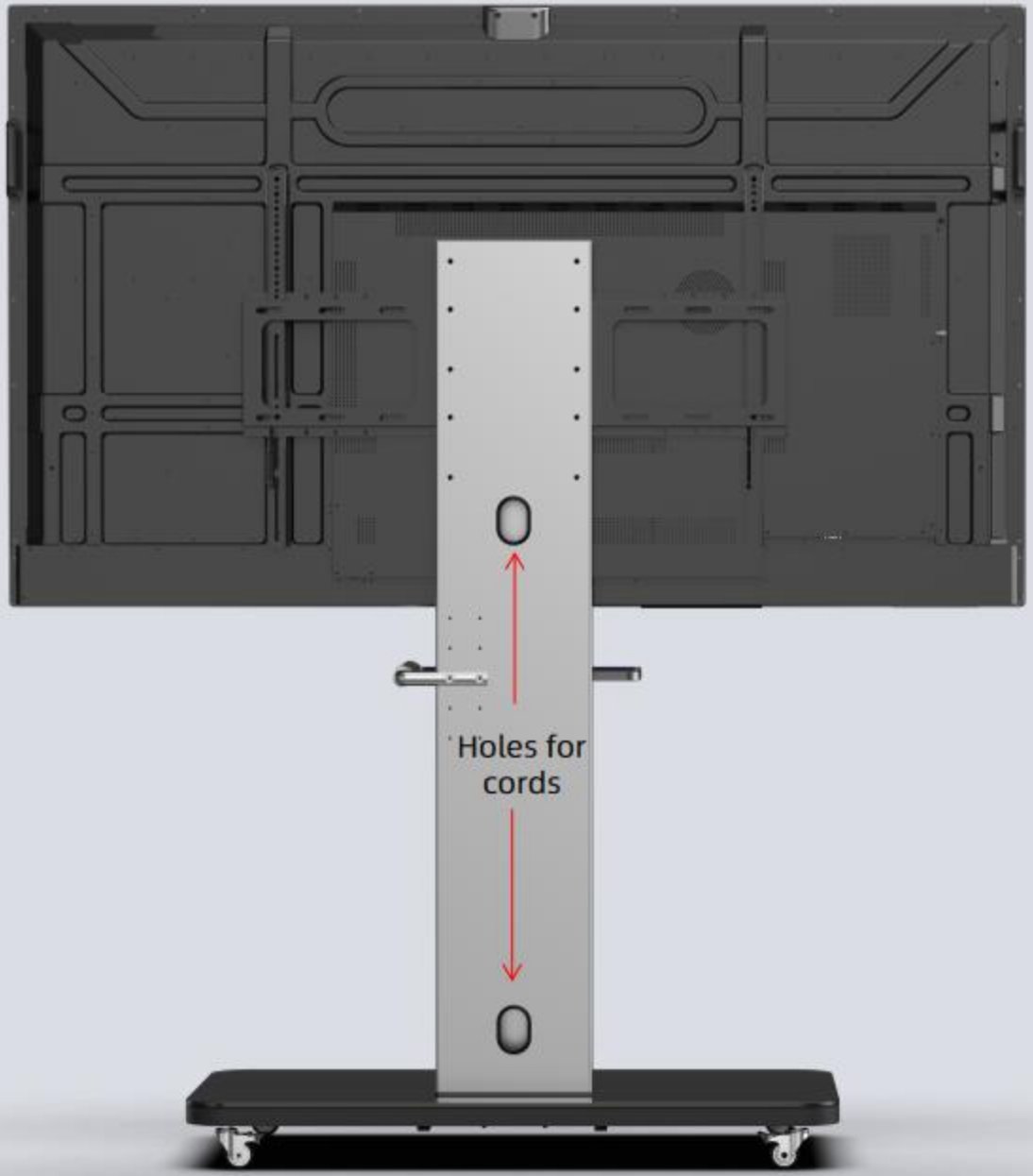
Front dual-channel USB 2.0 port*2, Type-C port*1

Built-in 8-channel pickup microphone

Built-in NFC module

Side view

Back view



02 Hardware Configuration

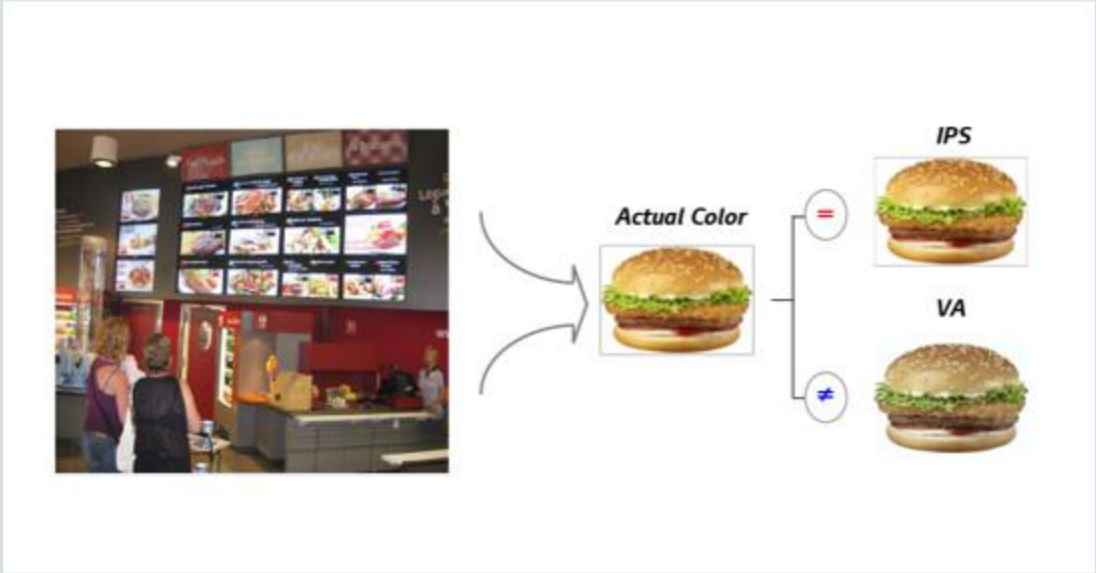
Screen attributions

Category	M5A
Dimensions	65/75/86
Screen supplier	Class A screen
Backlight type	D-LED
Screen bonding technology	Zero bonding
Resolution	3840*2160
Brightness	65:350nit 75:400nit 86:400nit
Contrast	1200： 1
Color gamut	72% NTSC
Colorfulness	1.07B (10bit)
Response time	< 8ms
Frame rate	60Hz
Identification principle	Infrared touch

Advantages of LG IPS commercial screen

— Wide viewing angle, without partial-color

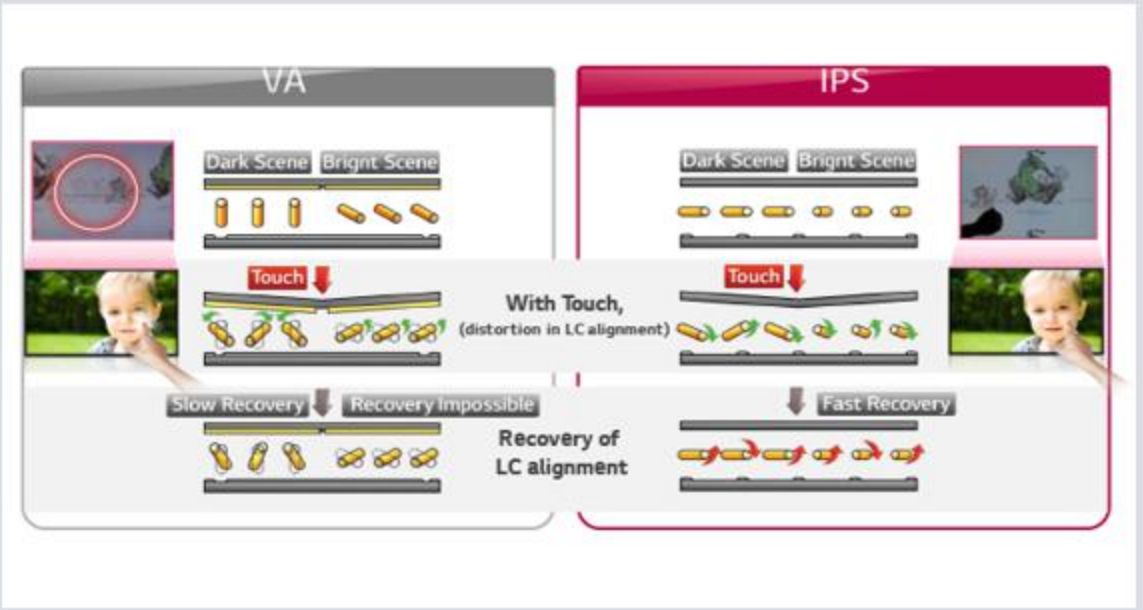
LG IPS commercial screen has better visibility that partial color will never be seen from any viewing angle



LG IPS commercial screen has a higher color rendition that the colors on the screen are consistent with the actual colors

Advantages of LG IPS commercial screen

— High stability



IPS commercial screen has the fast restoring attribute of LCD, so blink will never occur when you touch the screen. But the LCD of VA screen restores relatively slowly, so a blink will occur when you touch the screen.

Summary

Category	IPS	VA
Color rendition	High color rendition The colors on the screen are consistent with the actual colors	The color rendition is lower than that of IPS
Visual angle	178°H/178°V ultra-wide visual angle Partial color will never be seen from any viewing angle	The visual angle is smaller than that of IPS, and partial color will occur (whiting)
Stability	With fast restoring attribution of LCD, no blink will occur when you touch the screen	The LCD restores relatively slow, a blink will occur when you touch the screen
Contrast	About 1200:1 Satisfy the requirements of meeting scenario	About 4000:1 Higher contrast contributes to rich and vivid colors
Summary	Wide visual angle, better color rendition	Higher contrast

System properties

Category	M5A
Master chip	MSD8386
System version	Android 8.0
CPU architecture	ARM Cortex A73+A53
CPU working frequency	1.5GHz
Number of CPU cores	4-core
GPU	Mali-G51
RAM	3 GB
Storage	64 GB
WIFI	2.4G/5.8G dual-band, dual-network card
Bluetooth	Support
NFC	Support

Port information

Category		Functions
Front ports	Public USB	Identify dual-system of Android and Windows, be able to connect devices of USB flash disk, screen mirroring device, smart pen receiver, omnibearing microphone receiver and external camera, etc.
	Type-C	Wired screen mirroring with computers and cell phones; be able to return touch signals; 15W fast charger
Rear ports	HDMI IN	Transfer host signal source to the Interactive Flat Panel for displaying (audio & video)
	DP	Transfer host signal source to the Interactive Flat Panel for displaying (audio & video), with a superior transmission efficiency to HDMI
	VGA	Transfer host signal source to the Interactive Flat Panel for displaying (only video)
	Audio IN	Generally used with a VGA port to transfer the audio of host to Interactive Flat Panel
	USB2.0	Identify Android system, be able to connect devices of USB flash disk, screen mirroring device, smart pen receiver, omnibearing microphone receiver, external camera, etc.
	Touch USB	Generally used with an HDMI port to transfer the touch control signals of Interactive Flat Panel back to the computer, enabling the Interactive Flat Panel to reverse control the computer when mirroring screen
	MIC IN	3.5 mm microphone port for microphone connection
	SPDIF OUT	Optical fiber audio port for digital sound connection
	HDMI OUT	Transfer the audio & video from the Interactive Flat Panel to other displaying devices through an HDMI cable
	Audio OUT	3.5 mm audio output for sound & earphone connection; it is preferred to use a 2-ring & 3-section plug
	LAN	Used to connect devices of router, PC, etc. to access wired network or serve as a switcher by dual LAN design
	RS232	An SCI which is used to connect PC for communication between devices, which controls the Interactive Flat Panel with instructions. E.g., the switchover of signal sources, increase/decrease of volume

Audio & video

Category		M5A
Camera	Pixel	1300W
	Focusing form	Fixed-focus
	Angle of diagonal	78°
MIC	Category	8 omnibearing analog silicon microphones
	Pickup distance	8m
	Pickup angle	180°
Loudspeaker	Power	10W*2

Accessories list

Category	Quantity
Pen	2
Remote Control	1
Expansion Screw	8
User Manual	1
Certificate of quality/ Warranty card	1
HDMI Cable	1
Touch Cable	1
Power Cord	1

03 Software Function

Homepage and sidebar

When connecting with a USB flash disk, the screenshots will be automatically saved on it

Sidebar Features

- Back button, returns to the privious operation;
- Home screen, returns to the home screen;
- Hide Sidebar, conceals the sidebar;
- Common quick setting buttons;
- Annotate button, handwrite annotations on a screen;
- Recent Tasks column displays the most recently visited screens;

The sidebar can be shown or hidden on the left or right

- Click to go to android Settings;
- Open the voting machine or grader, and scan a code to vote or give a score for something;
- Quick screenshot;
- Screen lock;
- Volume adjustment;
- Backlight adjustment;

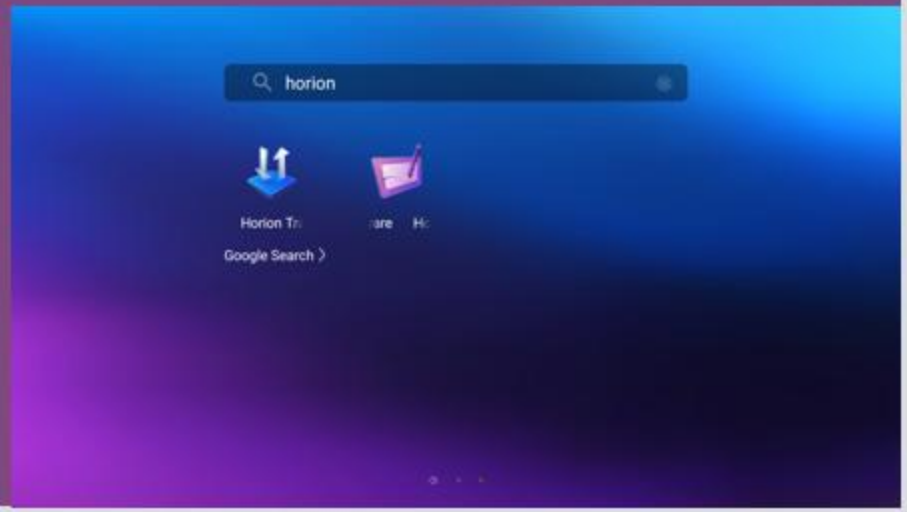
Minus-one Screen

Recently used Apps

- Default apps for a new flat panel: Welcome Page, File Manager, App Store, Instructions
- Apps are sorted by use frequency, with a descending order from upper left to low right
- A maximum of 8 Apps can be shown

App search

- It can retrieve apps in the device according to its first letter or first Chinese character



04 Whiteboard

Horion setting menu — Whiteboard

1. Whiteboard multi-point writing.

When enabling Horion multi-point writing, the entry of nib diameter recognition will be hidden. When disabling it, the entry will be shown.

2. Whiteboard handwriting recognition.

Include handwriting recognition + smart search and smart shape.

3. Whiteboard smart graphics.

Corresponding Adding->Smart Shape->Smart Form.

4. Whiteboard flowchart.

Corresponding Adding->Flow Chart

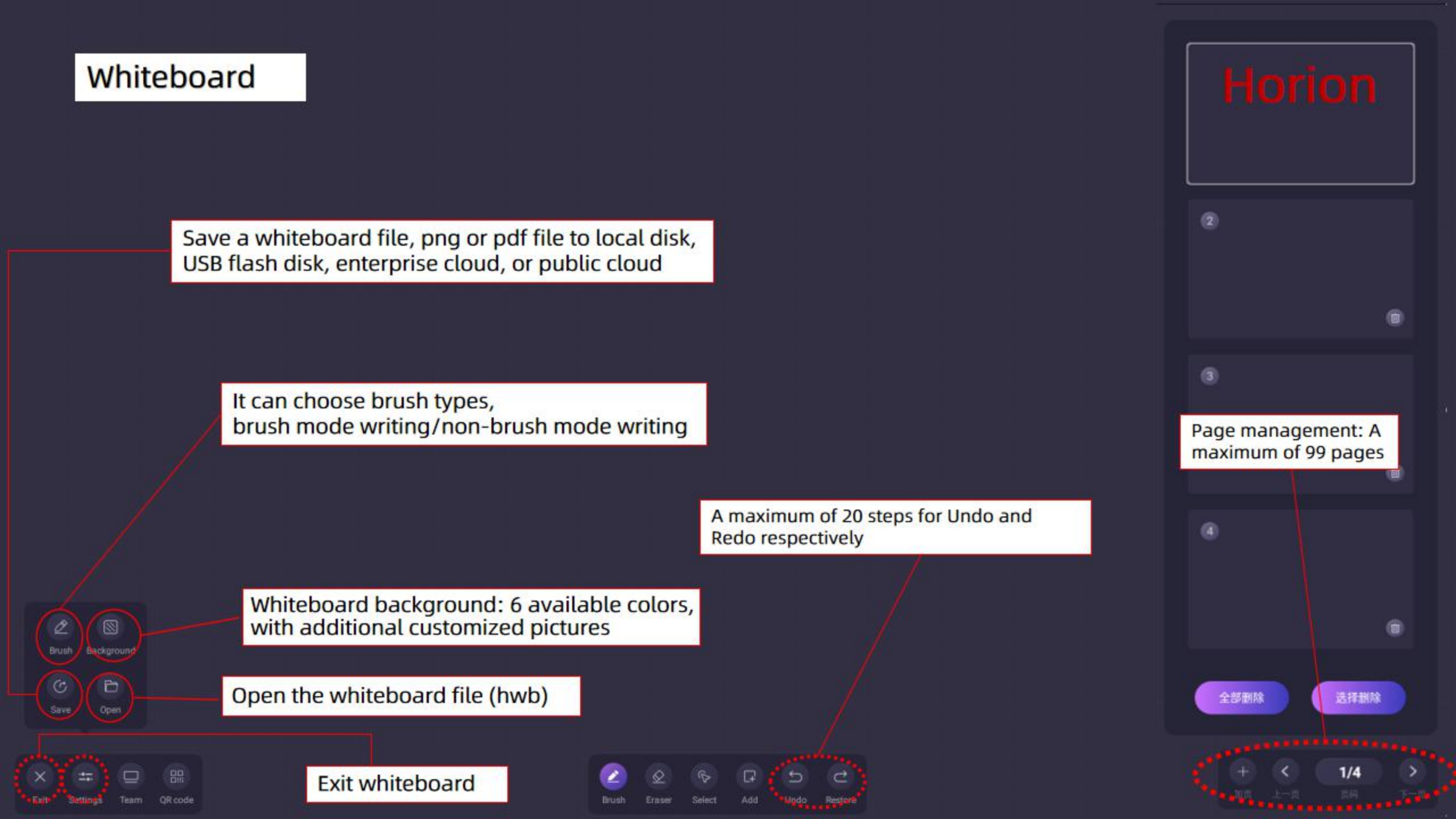
5. Whiteboard saved.

Entry of "Save" and "QR code scan".

6. Back to whiteboard.

Display switch of “Back to whiteboard" on the bottom.

Whiteboard


Horion
Save a whiteboard file, png or pdf file to local disk, USB flash disk, enterprise cloud, or public cloud
It can choose brush types, brush mode writing/non-brush mode writing
Whiteboard background: 6 available colors, with additional customized pictures
Open the whiteboard file (hwb)
Exit whiteboard
A maximum of 20 steps for Undo and Redo respectively
Page management: A maximum of 99 pages
Brush
Background
Save
Open
Exit
Settings
Team
QR code
Brush
Eraser
Select
Add
Undo
Restore
全部删除
选择删除
1/4

Whiteboard — Brush

Tips: As both brush mode writing and multi-point recognition require higher precision, many functions are only available under non-brush mode writing and single-point mode.

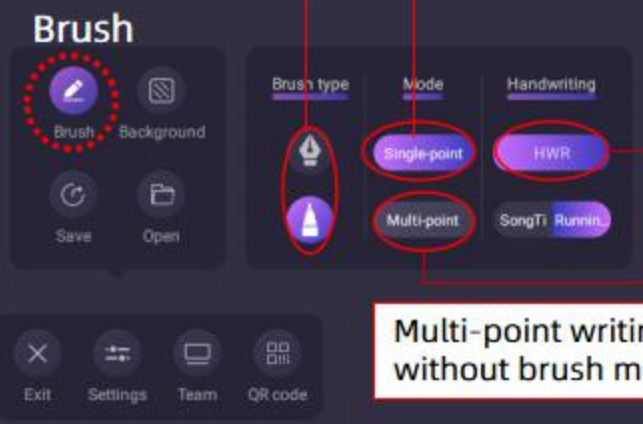
E.g., handwriting recognition; smart form; smart shape

Brush types: With/without brush mode writing

Single-point writing: With brush mode writing

Horion

1. Under online status, handwriting can be recognized as SongTi typeface or Running hand typeface after enabling handwriting recognition.
2. After the handwriting is selected by selection function, it can be used for Baidu Search.



Multi-point writing: 20-point writing, without brush mode

Whiteboard — Brush

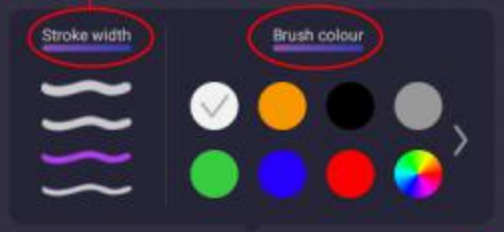
Tips:
Gesture operation: Two-point zoom in/out, three-point (or above) move, an eraser can be evoked by framing a large area

Touch writing

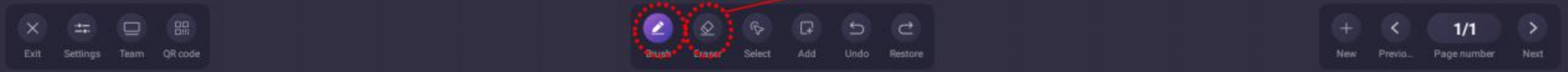
Two kinds of brushes for selection + point/brush mode writing

Nib diameter recognition: It can identify the diameter of two kinds of nibs and define different stroke widths and colors for them respectively (this function conflicts with multi-point writing)

Define brush color

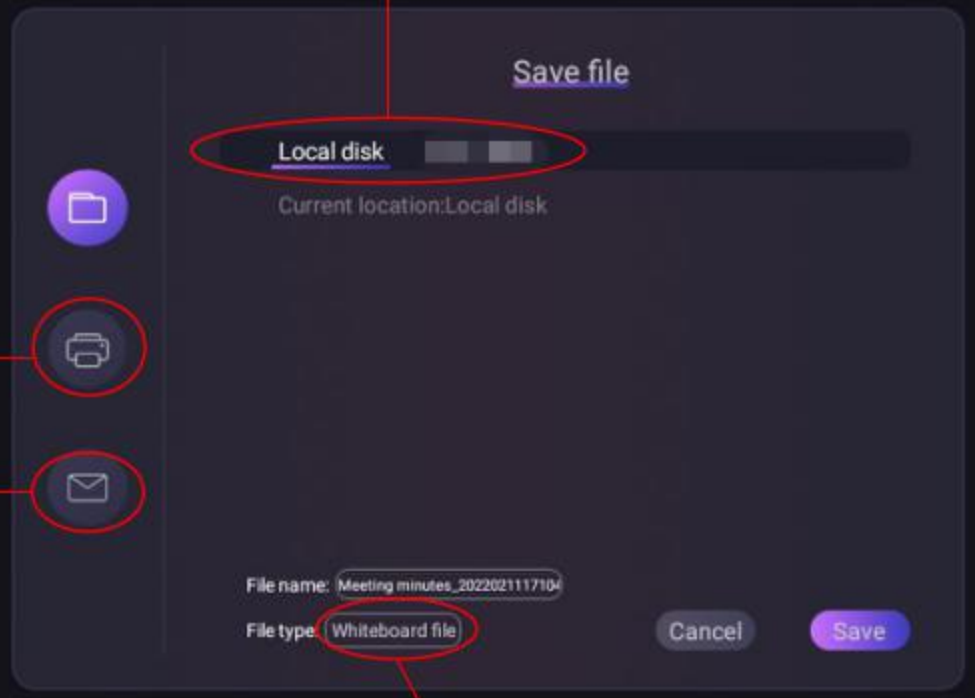


Eraser, which can clear the current screen or rub local points



Whiteboard — Saving method

Saving path: Local disk, USB flash disk



Print

Send to the mailbox

File saving types: pdf, jpg, and whiteboard file

Whiteboard — Scan code to save

Horizon

Create a QR code to scan with a cell phone for taking away

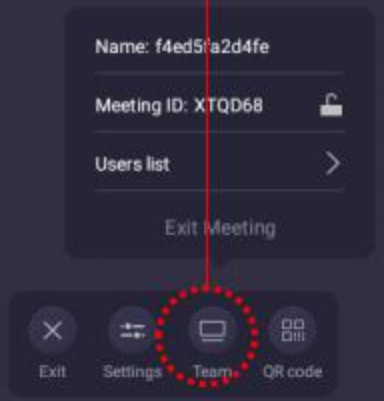
Whiteboard — Remote collaboration

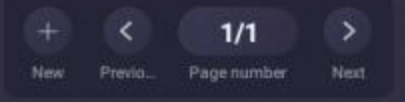
Whiteboard collaboration: Video call, whiteboard content sharing

The video window can be moved, fixed with size. It can set “Participant mute" and “Disable display"

Whiteboard collaboration emphasizes collaboration. This function enhances the local whiteboard to a remote collaborative whiteboard. The most significant function of the whiteboard collaboration is that the whiteboard collaboration function is based on the local whiteboard.

Whiteboard collaboration is capable of collaboration operations of making remote audio & video calls and synchronizing whiteboard contents. It supports a maximum of a 10-party collaboration and a 3-party video screen. It also supports muting all persons, kicking out somebody, and showing operator information, which establishes a good collaboration order.





Whiteboard — Selection

Selection:

1. Delete
2. Copy: It can copy the content to the clipboard, in which discontinuous page copy is available
3. Smart search: It can be used with handwriting recognition to access the Baidu Search interface
4. Thumbtack: Similar to Page Header of Word

Whiteboard — Discontinuous page copy

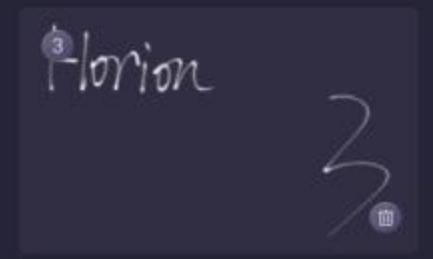
Horion

1

- Either copy the content to the current page or switch to another page to paste
- After content selection, click the Copy button
- The clipboard can be minimized, dragged, with content overriding available
- Copy the content from the center of the screen to the bottom right corner in turn

Whiteboard — Thumbtack

- Select the Handwriting to show the Thumbtack Button
- Set as the thumbtack status and the border of the selected box will be white
- The thumbtack exists in the same position on each page
- Apply to the scenarios such as displaying meeting subject
- The content of other pages will disappear upon removing the thumbtack



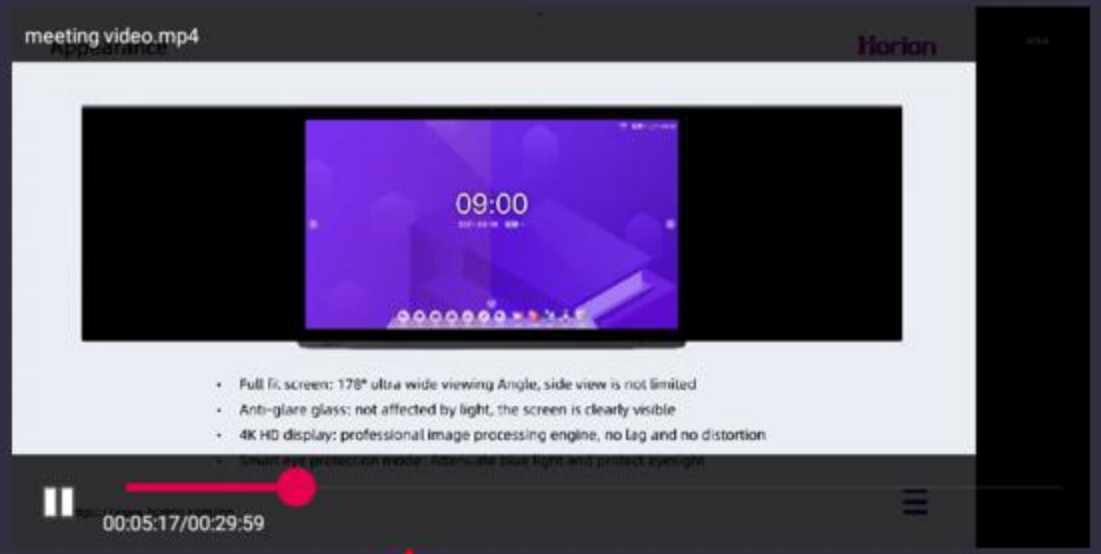
Delete all | Select delete

Exit | Settings | Team | QR code

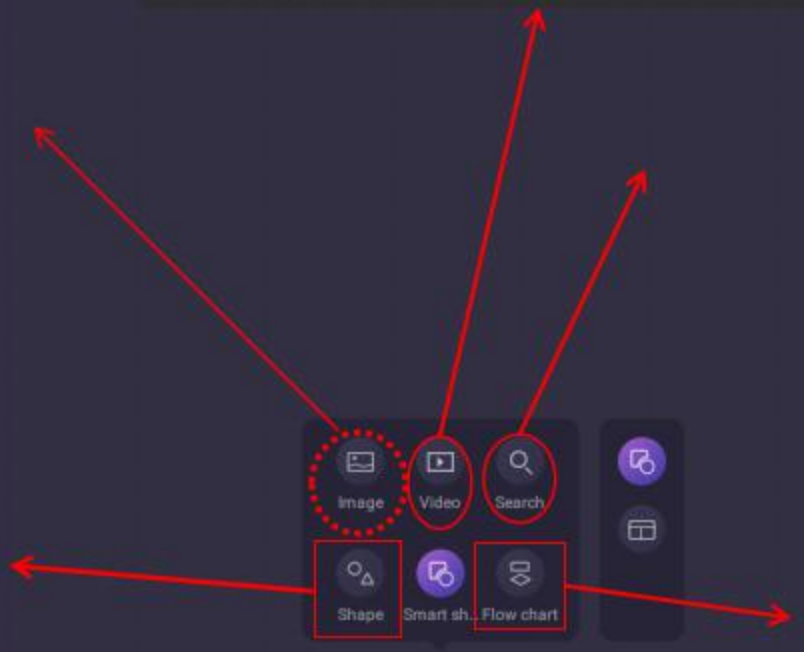
Brush | Eraser | Select | Add | Undo | Restore

New | Previous | 1/5 | Page number | Next

Whiteboard — Add



Horion 皓丽
智 能 会 议 平 板



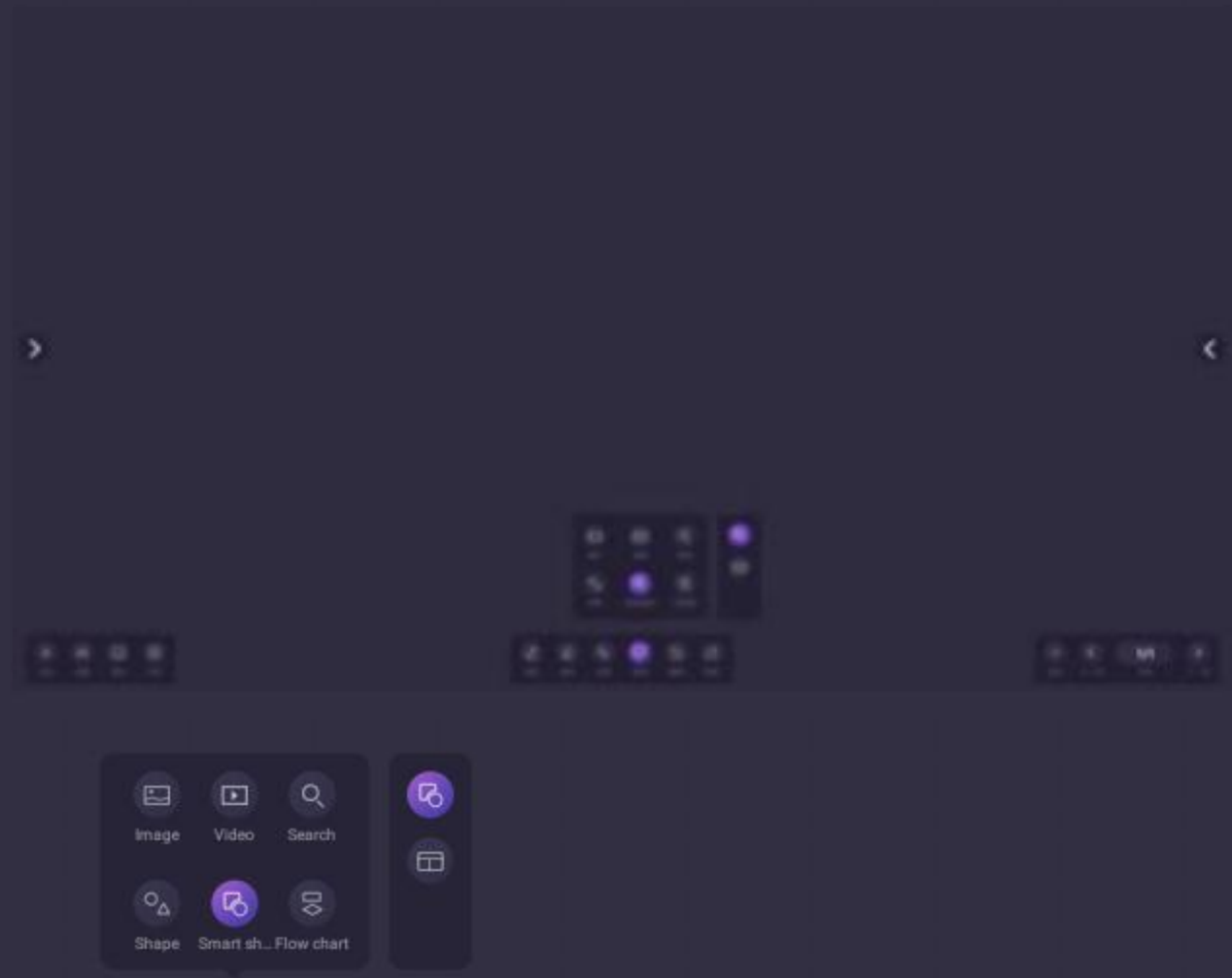
Exit Settings Team QR code

Brush Eraser Select Add Undo Restore

New Previo... 1/1 Page number Next

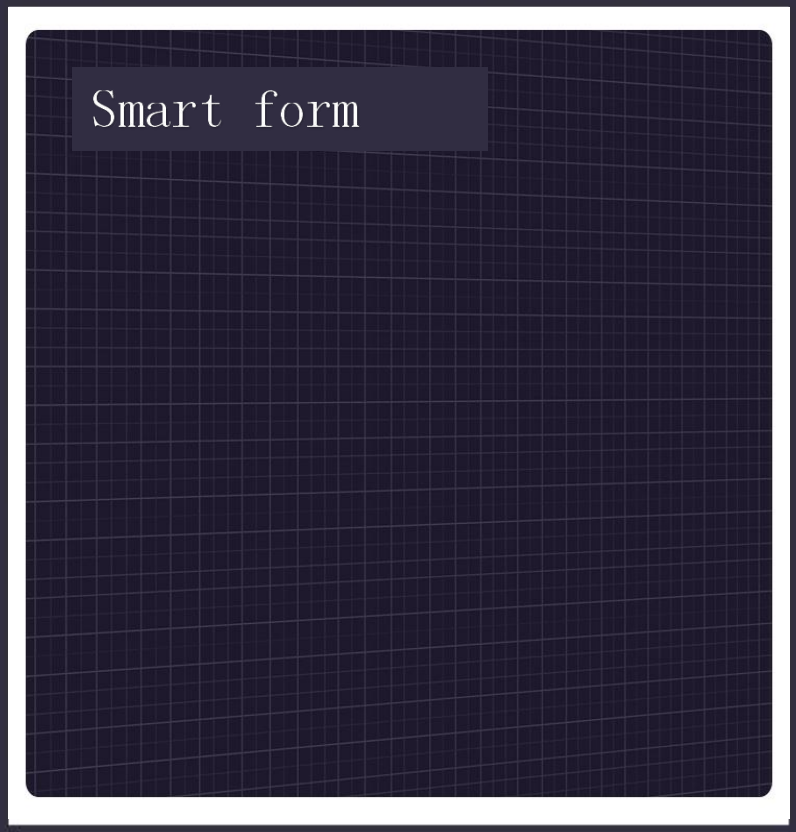
Whiteboard

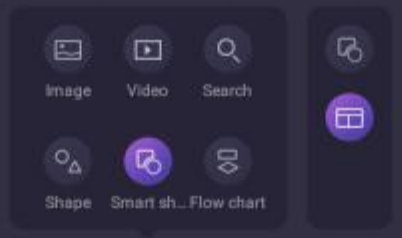
- Intelligent drawing:
- Standardize hand-drawn graphics
- It supports intelligent drawing of the straight line, dotted line, circle, rectangle, and triangle
- The settings of stroke width and color are based on different brushes
- This function can be disabled in the Horion menu, and it is off by default

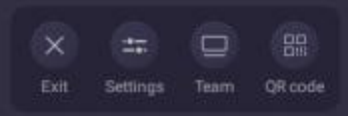


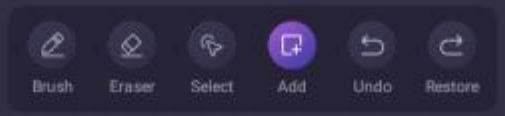
Whiteboard

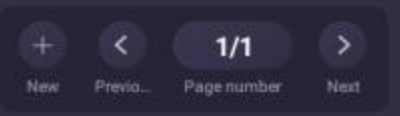
- Smart form: Tabulation will be more convenient and efficient
- Add easily with one-key
- It can freely add or delete rows or columns (add to left or right, top or bottom), adjust row height or column width
- With self-adaptation, the row height or the column width will be adjusted automatically according to the content
- It can fit the content size with one-key
- This function can be disabled in the Horion menu, and it is off by default







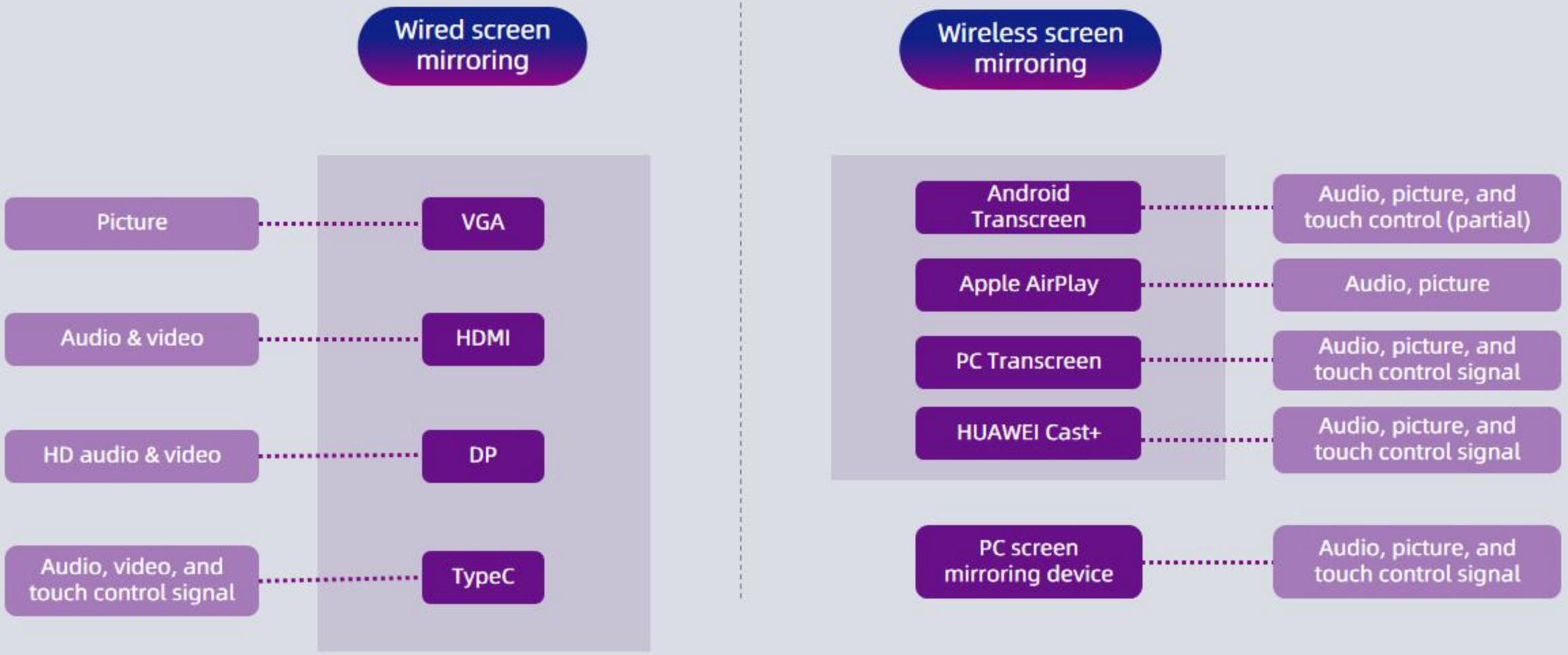




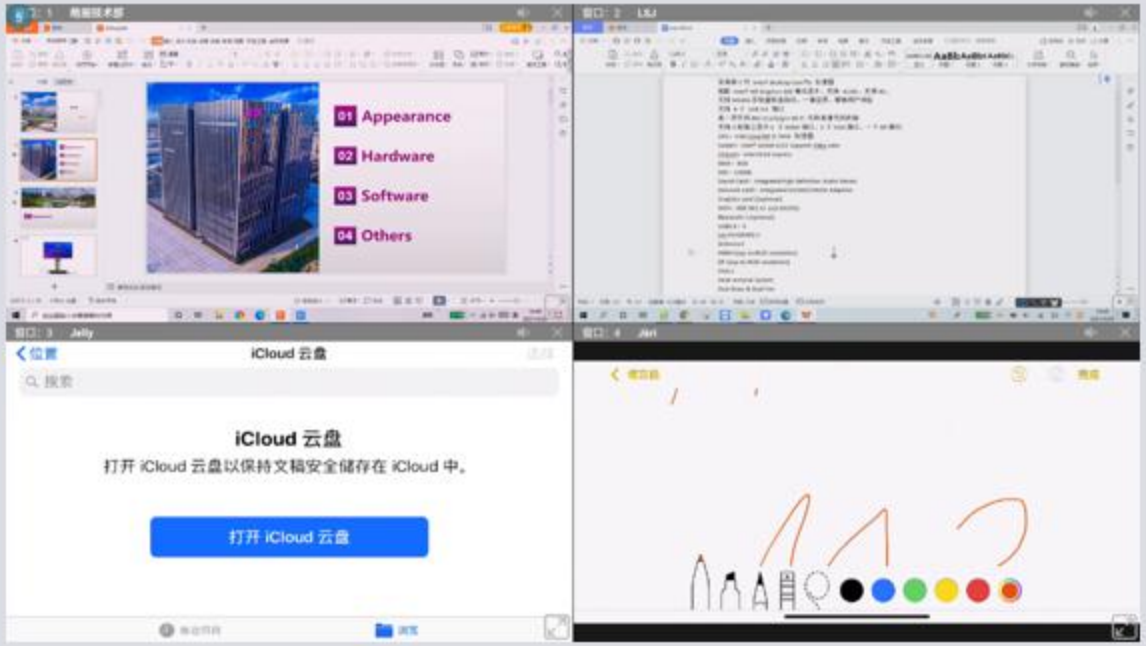
05 Screen Mirror

Screen mirroring protocol:

wired screen mirroring and wireless screen mirroring



Screen mirroring

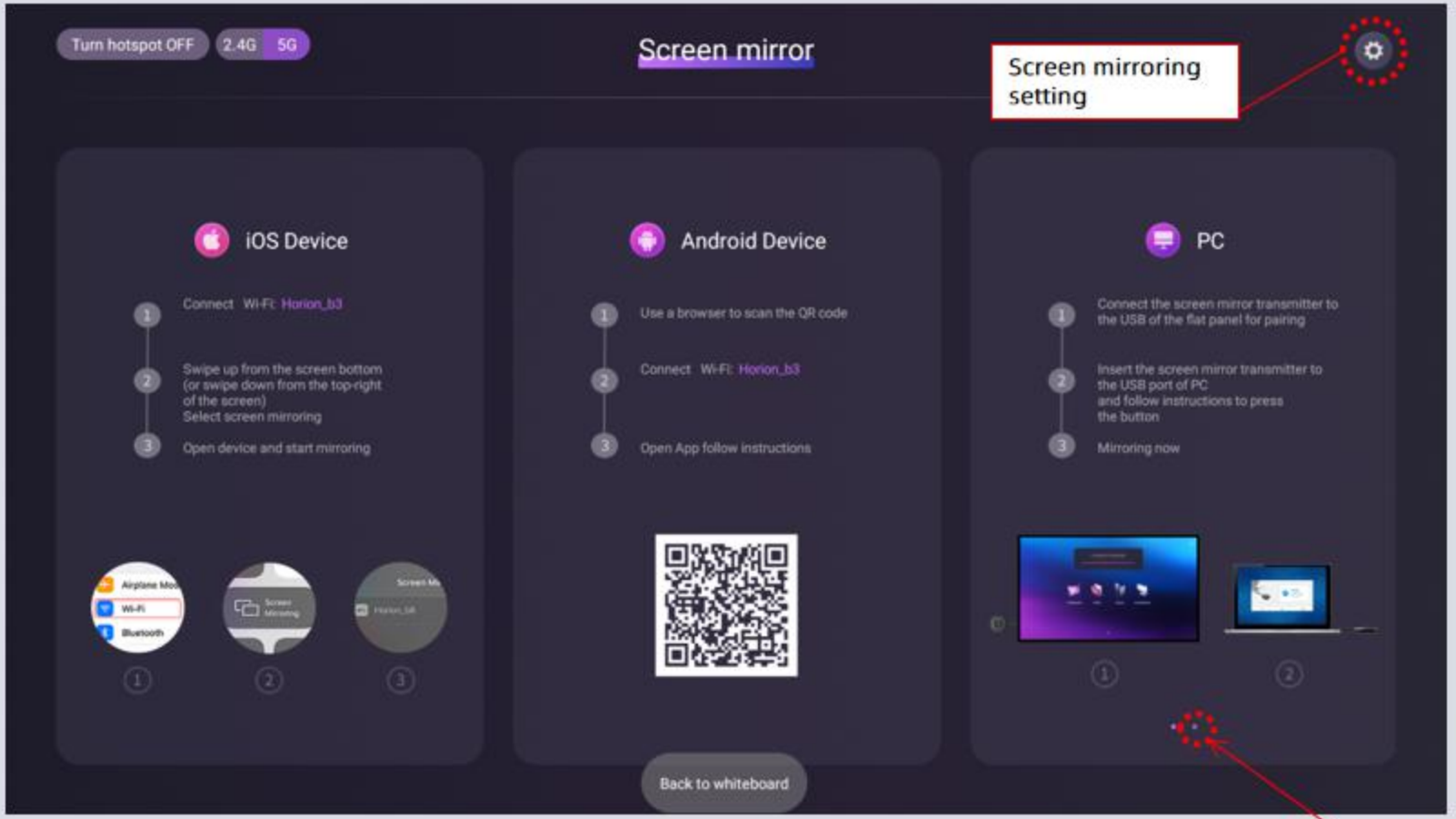


Quadri-split-screen mirroring

- A maximum of 8 devices can be connected simultaneously
- It supports screen mirroring of PC, tablet PC, and cell phone, with a maximum of 4 types of screencasting devices at the same time
- Split-screen mode can be changed at Screen Mirroring Setting - Display Split-Screen Mode
- Tips: If you use Huawei Cast+ to conduct screen mirroring, other devices will be removed from the connection list

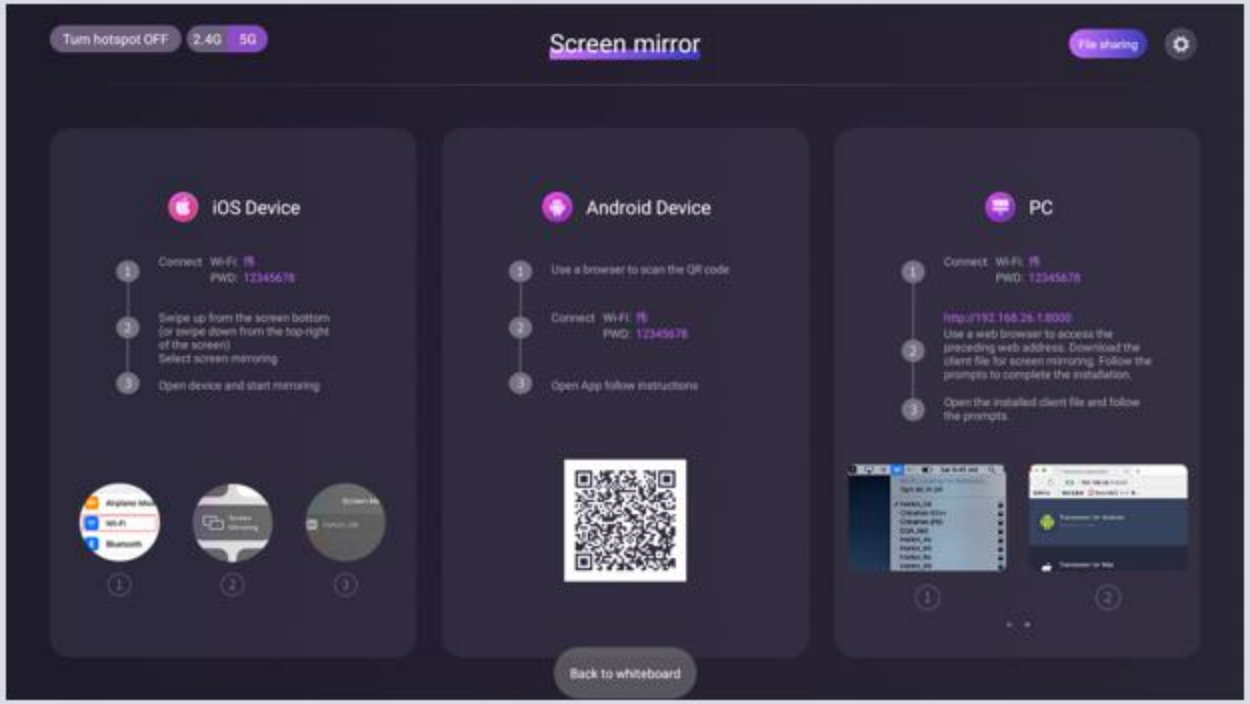
Screen mirroring

- Click Screen Mirror on the Homepage
- Access the screen mirror interface, shown as follow:



Second connection method for PC

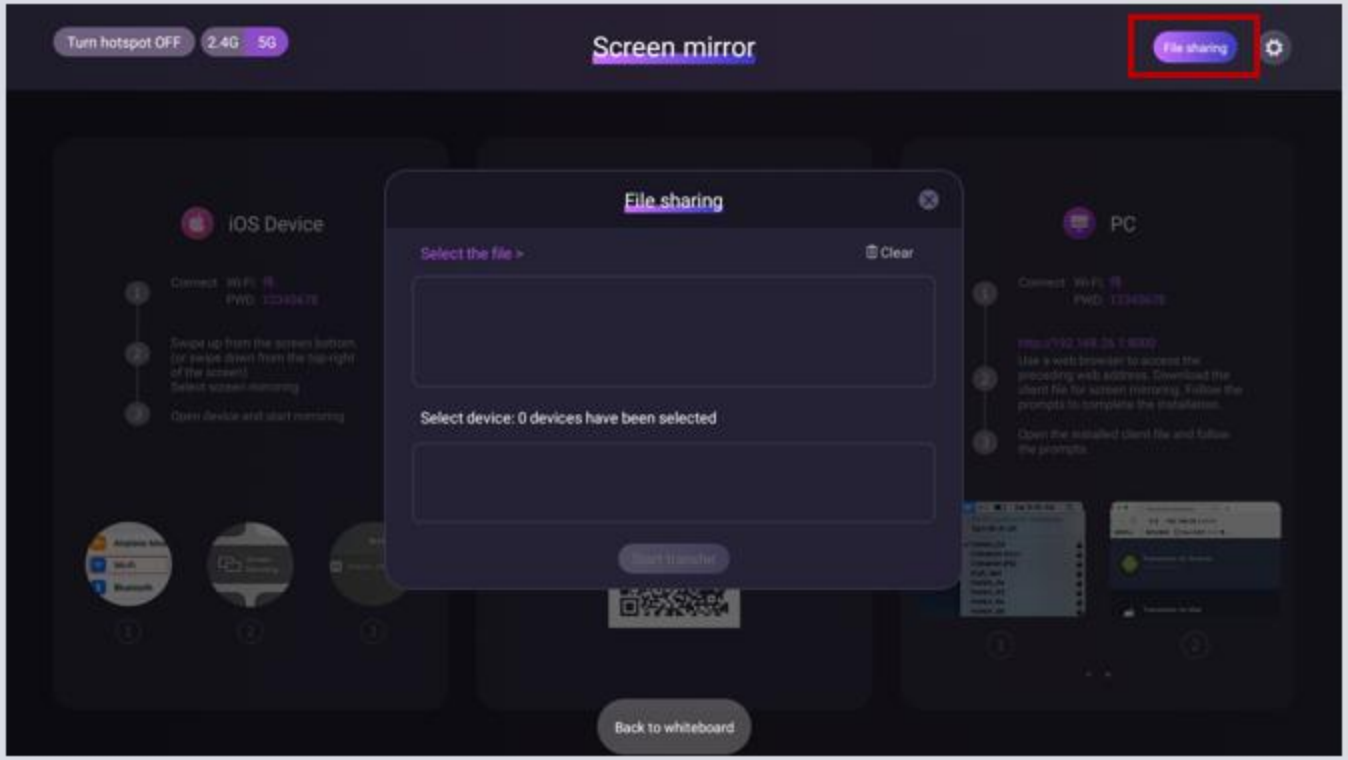
Screen mirroring



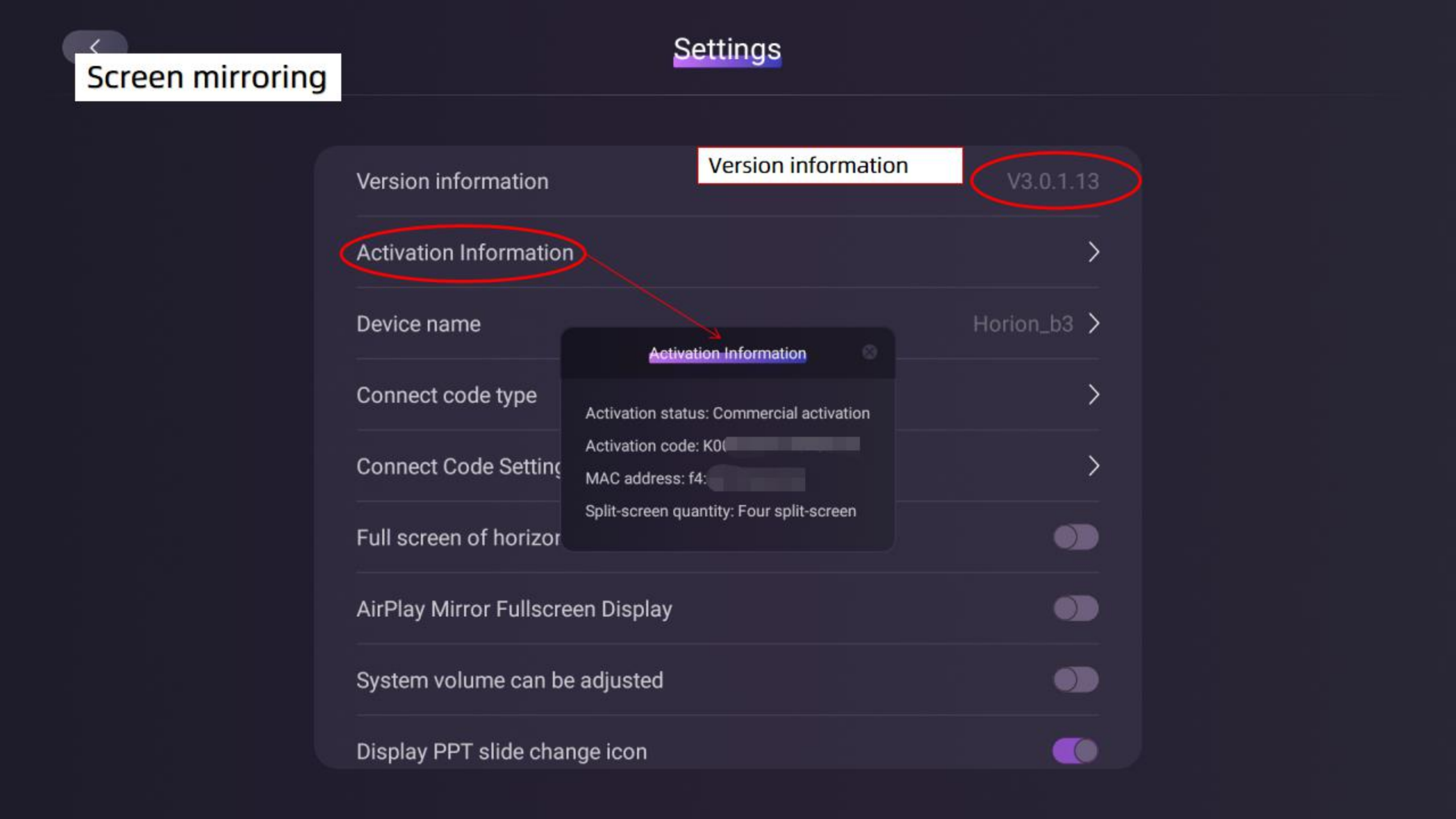
Disposal methods to screen mirroring device issues

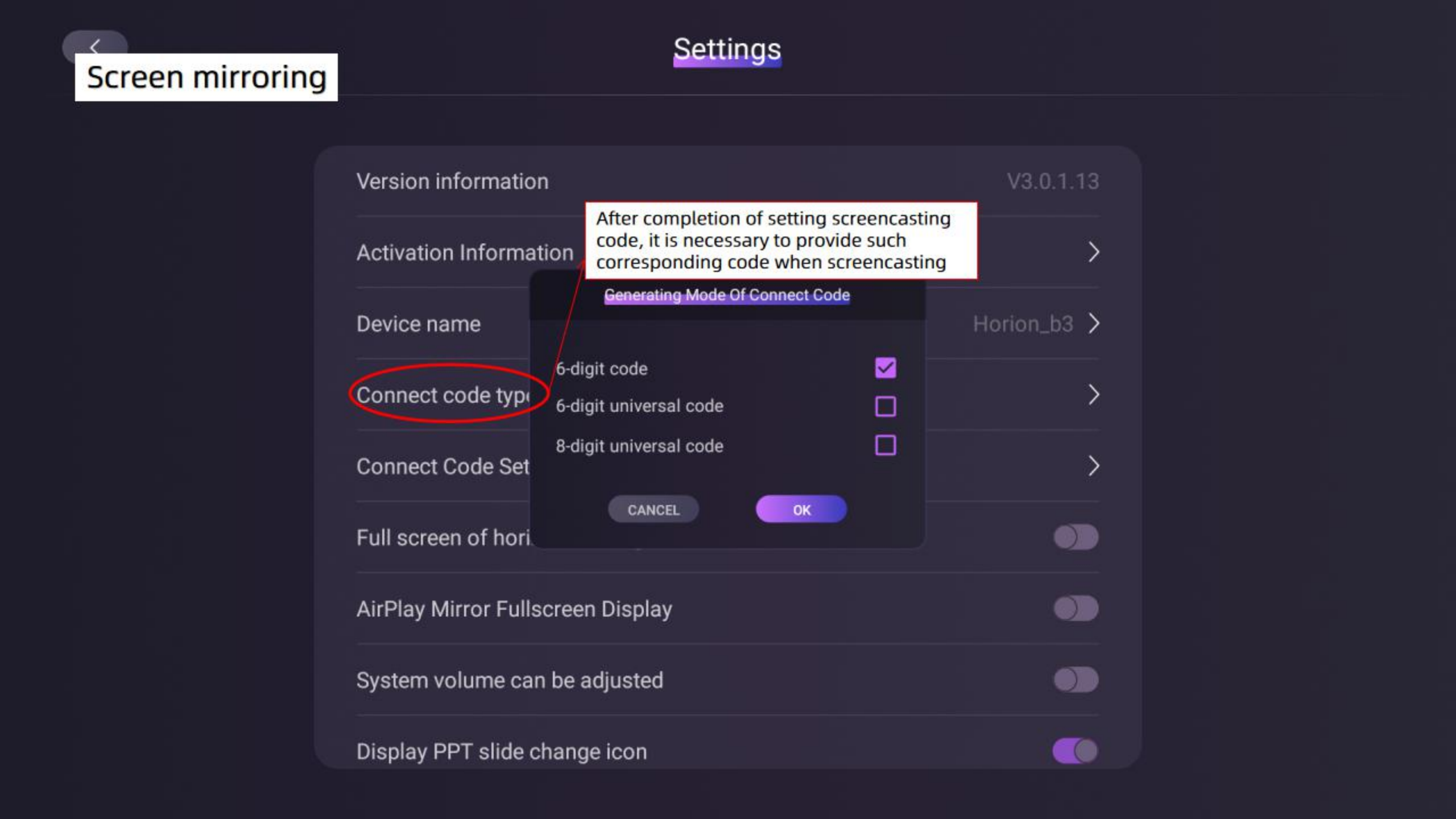
- Switch over the hotspot to 5G
- Setting — App — Screen Mirror — Clear Screen Mirroring Data; conduct pairing again
- Change to a laptop to conduct PC troubleshooting
- Restore factory setting, clear screen mirroring data, then conduct pairing for screen mirroring
- After a system upgrade, clear the data according to the second operation first, then conduct screen mirroring with the screen mirror transmitter; if it still fails, then try the fourth operation

File sharing



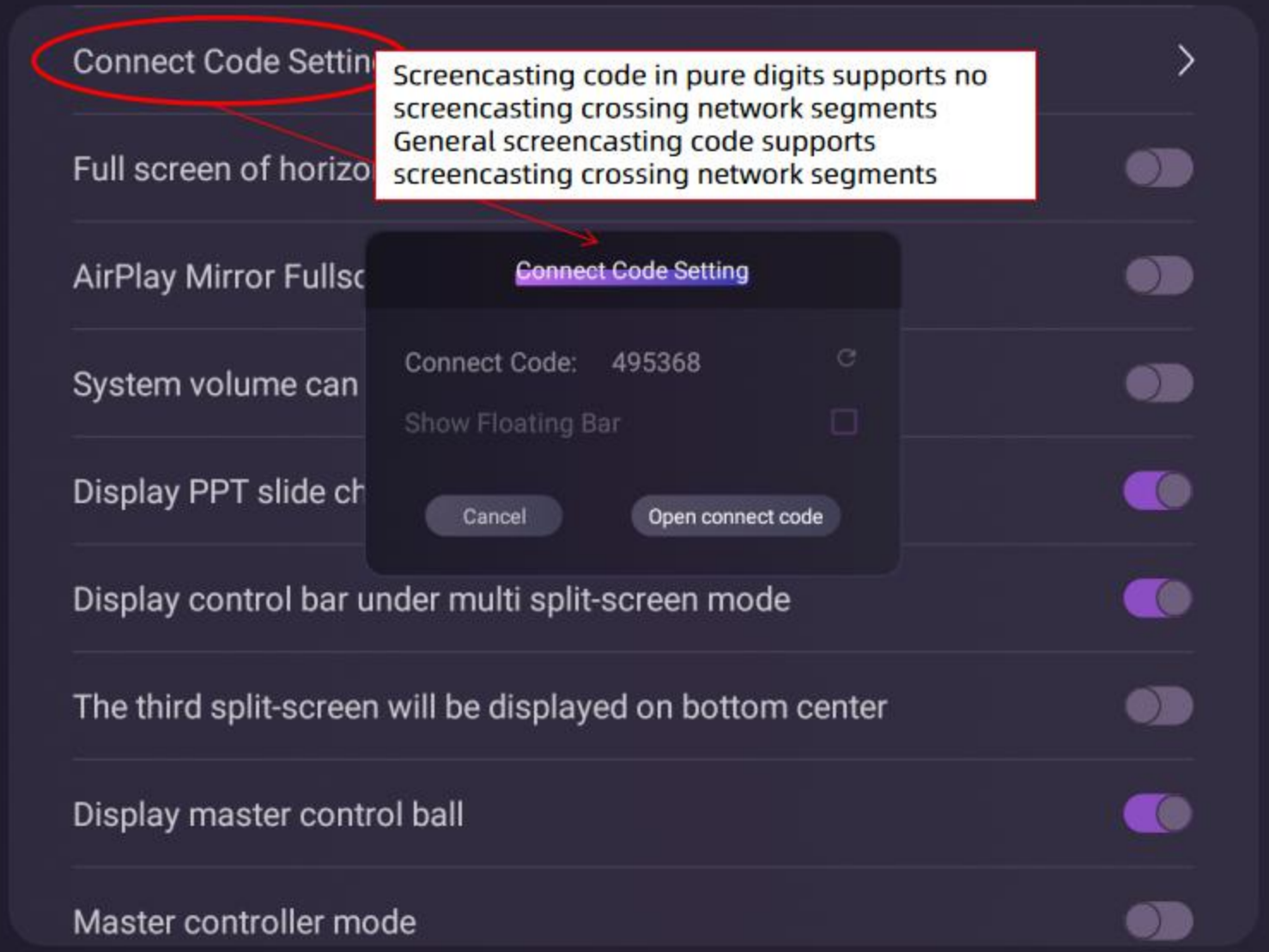
- Click to perform steps and transfer the file to the connected PC
- You can select multiple files and devices
- When IFP receives files, there are prompts and Windows for receiving files, and folders can be opened after receiving files
- While receiving, the receiving window can be minimized to the lower right corner of the screen


Screen mirroring
Settings
Version information
Version information
V3.0.1.13
Activation Information
Device name
Horion_b3
Connect code type
Connect Code Setting
Full screen of horizon
AirPlay Mirror Fullscreen Display
System volume can be adjusted
Display PPT slide change icon
Activation Information
Activation status: Commercial activation
Activation code: K0
MAC address: f4:
Split-screen quantity: Four split-screen

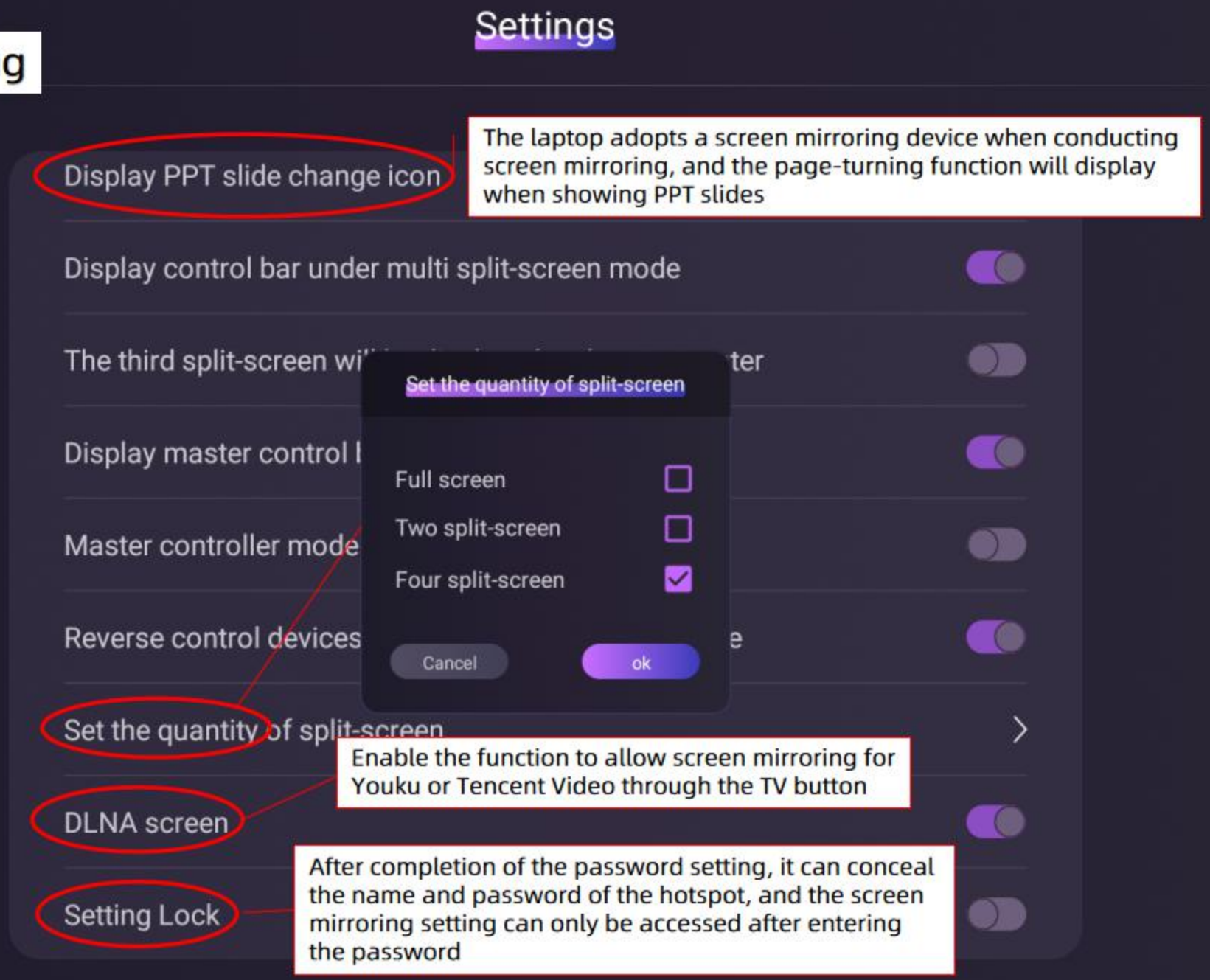

Screen mirroring
Settings
Version information
V3.0.1.13
Activation Information
After completion of setting screencasting code, it is necessary to provide such corresponding code when screencasting
Generating Mode Of Connect Code
Device name
Horion_b3
6-digit code
Connect code typ
6-digit universal code
8-digit universal code
Connect Code Set
CANCEL
OK
Full screen of hori
AirPlay Mirror Fullscreen Display
System volume can be adjusted
Display PPT slide change icon

Screen mirroring

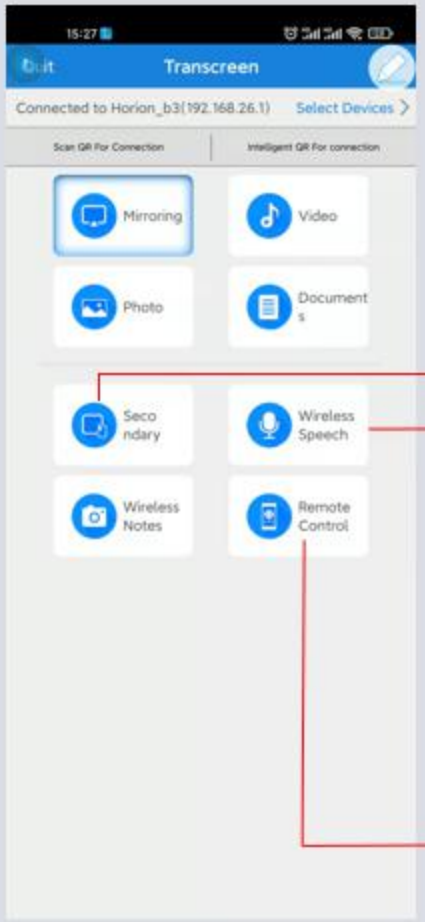
Settings



Screen mirroring



Transcreen



Mirror screencasting / End mirror:: Cast the real-time screen of the cell phone to the Interactive Flat Panel, and exit the screen mirroring when ending the mirror.

Cast audio & video: Directly cast the audios & videos in the cell phone album rather than other content of the cell phone screen to the Interactive Flat Panel

Cast photo: Follow the same principle above

Cast document: Follow the same principle above

Mirror image reverse control: The cell phone shows the screen of the Interactive Flat Panel and controls it

Wireless speech: Display the picture from the cell phone camera, and use the cell phone microphone to implement sound amplification through the Interactive Flat Panel

Wireless snapshot: Display the screenshot of the Interactive Flat Panel on the cell phone

Remote control: Mouse, touch, virtual keyboard, App

Screen mirroring

NFC cell phone screencasting

New upgrade of NFC function

From small screen to large screen by cell phone touch

Screencasting steps:

- ✓ Download Transcreen, enable NFC and WiFi on the cell phone
- ✓ Use the cell phone to close the NFC module of the Interactive Flat Panel to implement automatic screencasting

Transmission from small screen to large screen upon touching

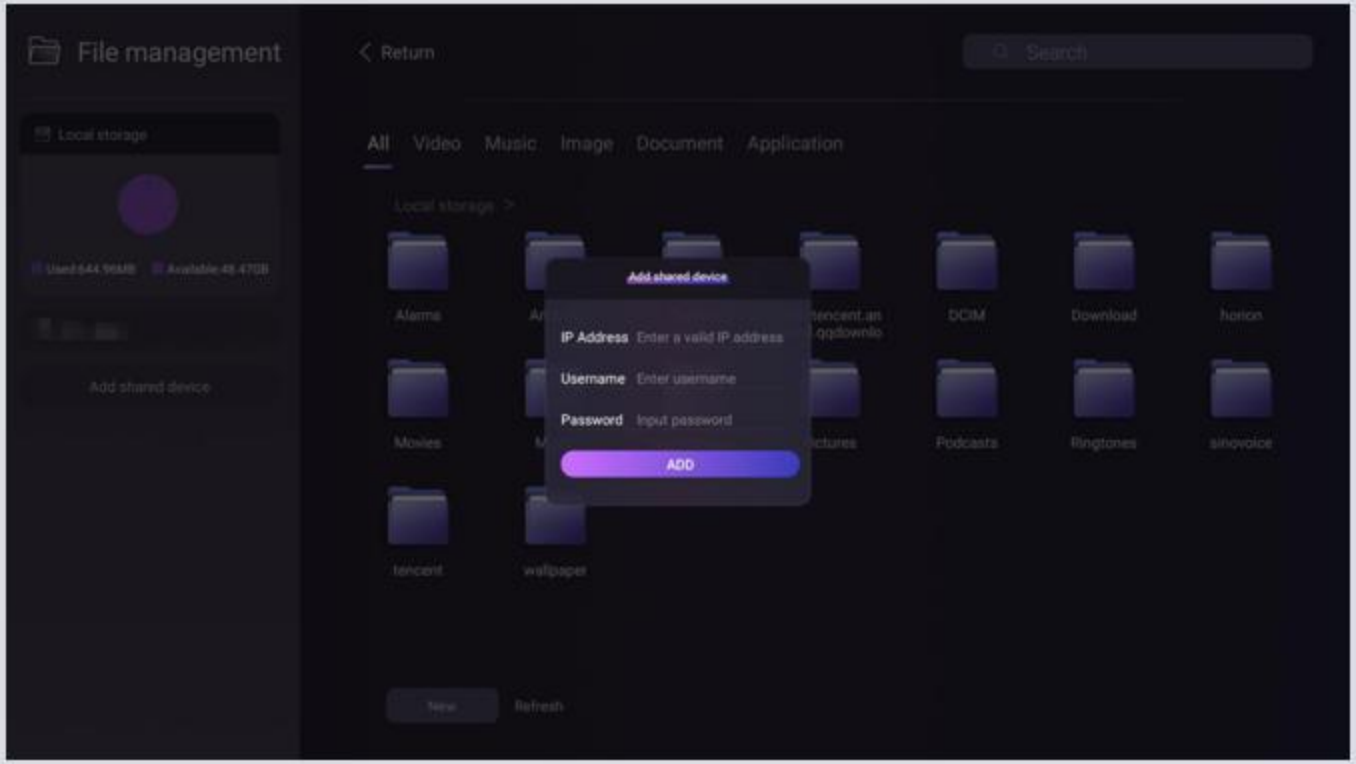
More convenient data sharing experience between multiple devices

06 More Applications

Horion FlyShare

- ✓ "FlyShare" requires no software download, which the files needed to be shown can be quickly selected by scanning the QR code on the "FlyShare" interface with the scanning function of WeChat, Browser, QQ, etc. after the "FlyShare" function is enabled on the Interactive Flat Panel
- ✓ Horion "FlyShare" supports fast uploading and sharing files of multiple formats such as Word, PPT, PDF, image, video, installation package, compressed file. After uploading, such files can be saved on the local disk of the Interactive Flat Panel with one-key, facilitating information sharing on the mobile terminals in the meeting scenario

Samba



Samba:

- Share OPS files
- Share the files of the office computer on the LAN

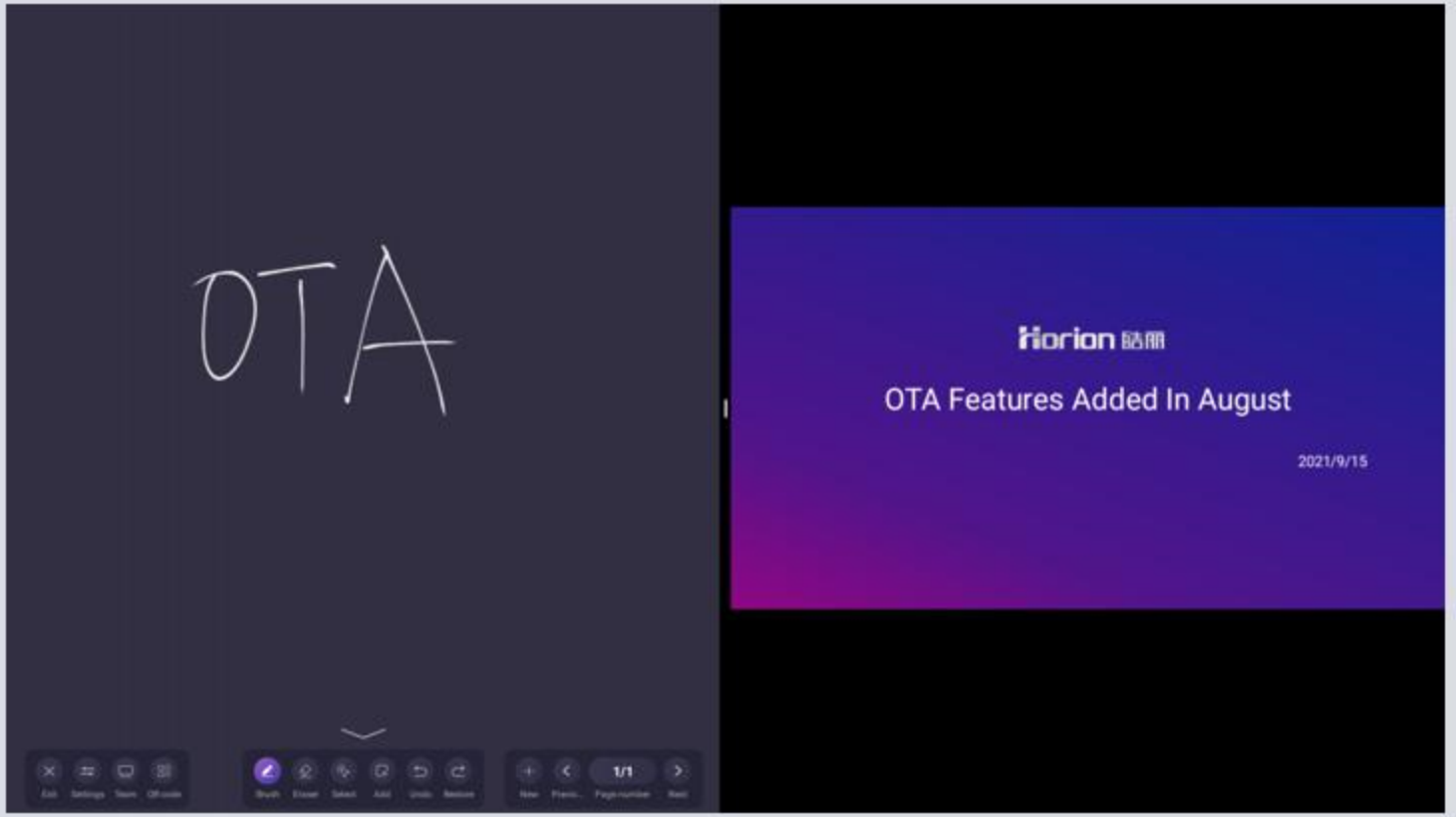
Steps:

- Click "File Manager"
- Click "Add Share"
- Enter the IP address, user name, and password in sequence

One-screen for dual-display

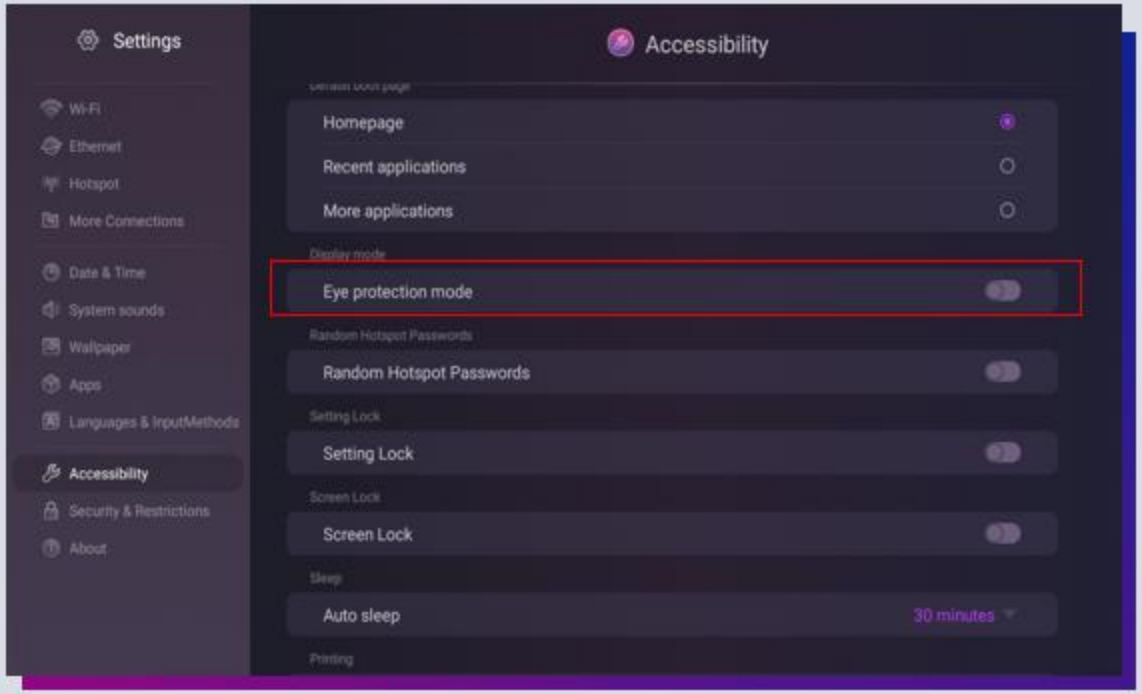
One-screen for dual-display: Multiple windows operation

Operation method: Press and hold the task bar on the sidebar

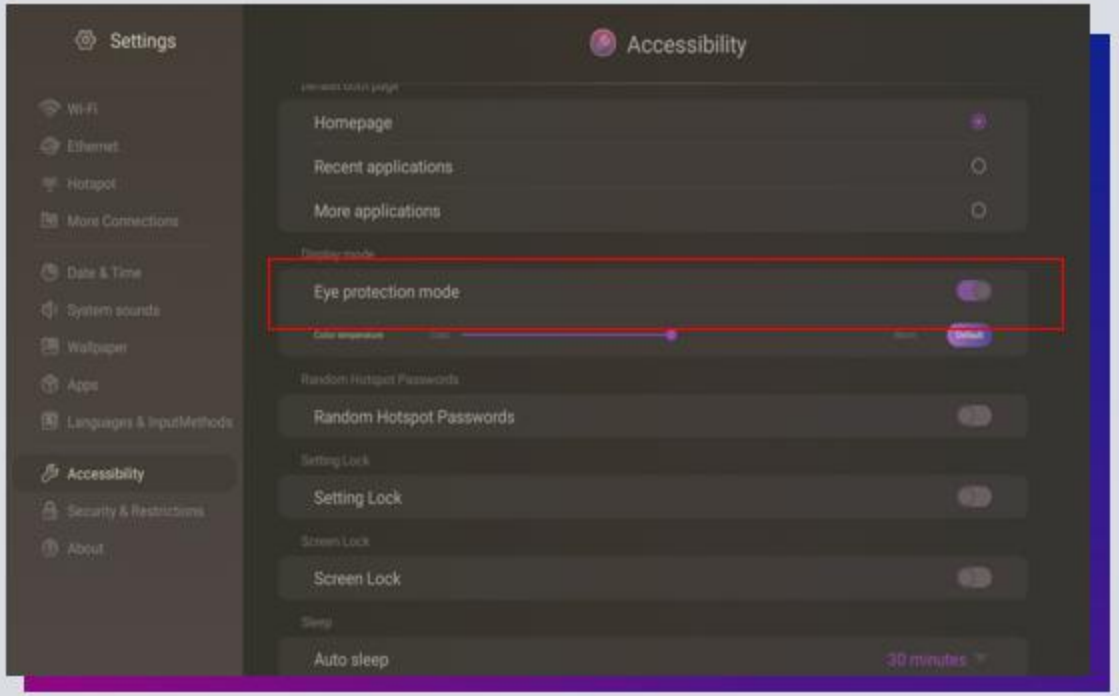


As shown in the figure: One-screen for dual-display, the screen on the left shows the whiteboard software and the remaining half leaves for Huawei Cast+ PC mode

Eye protection mode



Eye protection mode disabled

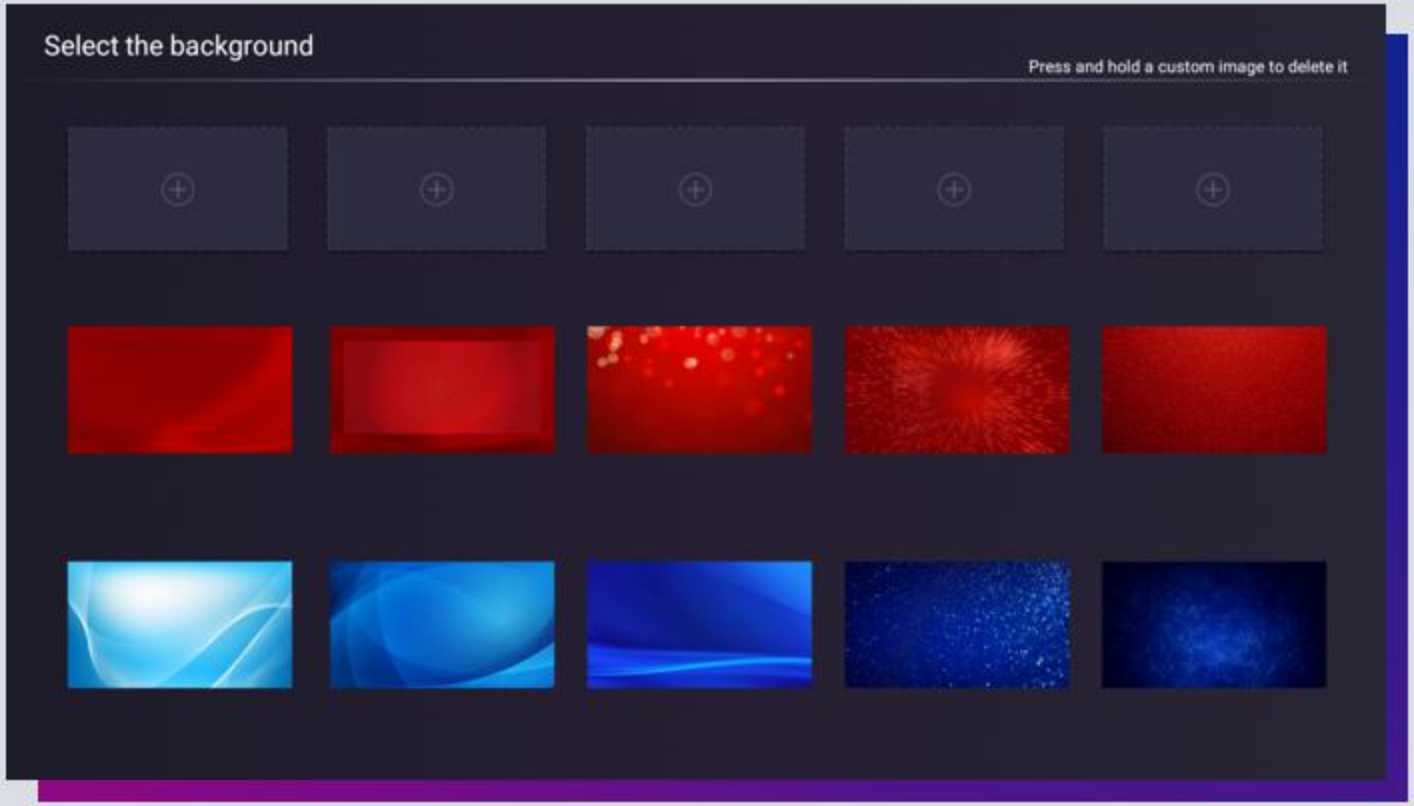


Eye protection mode enabled

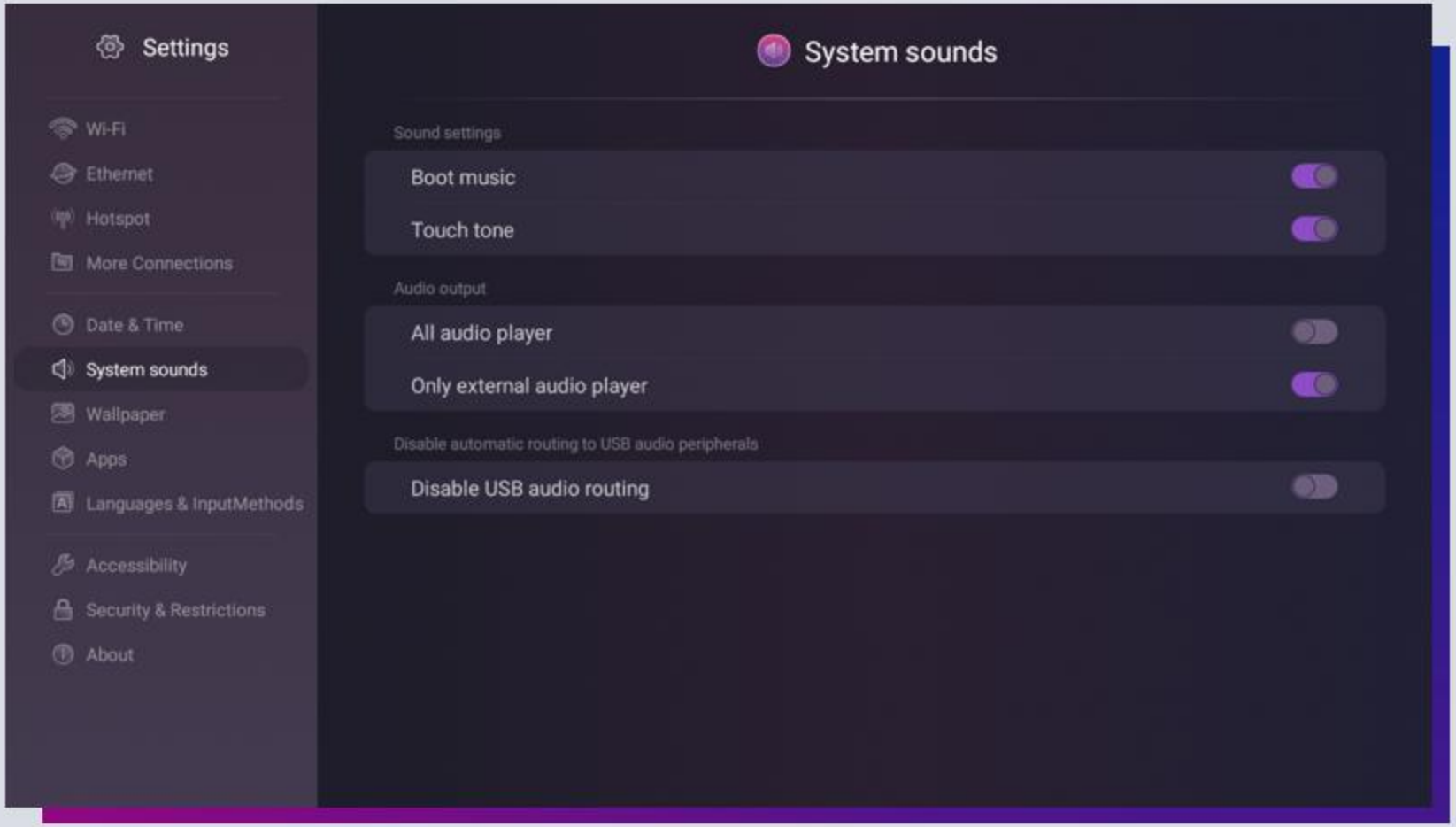
Enable the eye protection mode to effectively filter the blue light to offer users a more healthy visual experience

Welcome Page

1. Templates for multiple scenarios
2. Allow adding background music
3. Signature wall mode



Settings->System sounds->Only external device



How to connect a 3.5 mm audio cable of the sound equipment?

1. Open "Only external device"
2. Connect the cable
3. Adjust the volume of sound equipment

Note: Adjusting the volume bar on the sidebar is not allowed, because it will lead to "Only external device" failure

Settings

Set wallpaper

Wi-Fi

Ethernet

Hotspot

More Connections

Date & Time

System sounds

Wallpaper

Apps

Languages & InputMethods

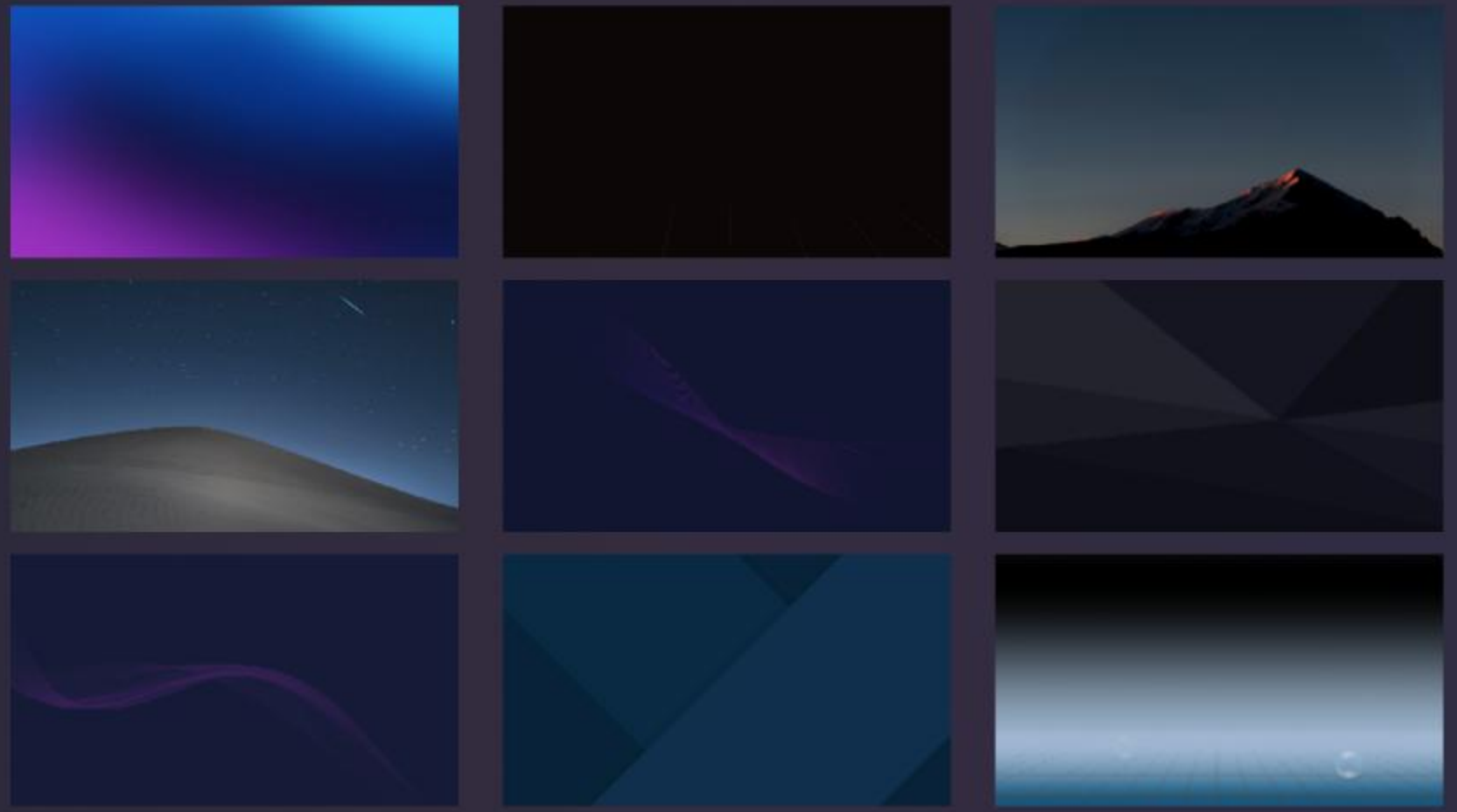
Accessibility

Security & Restrictions

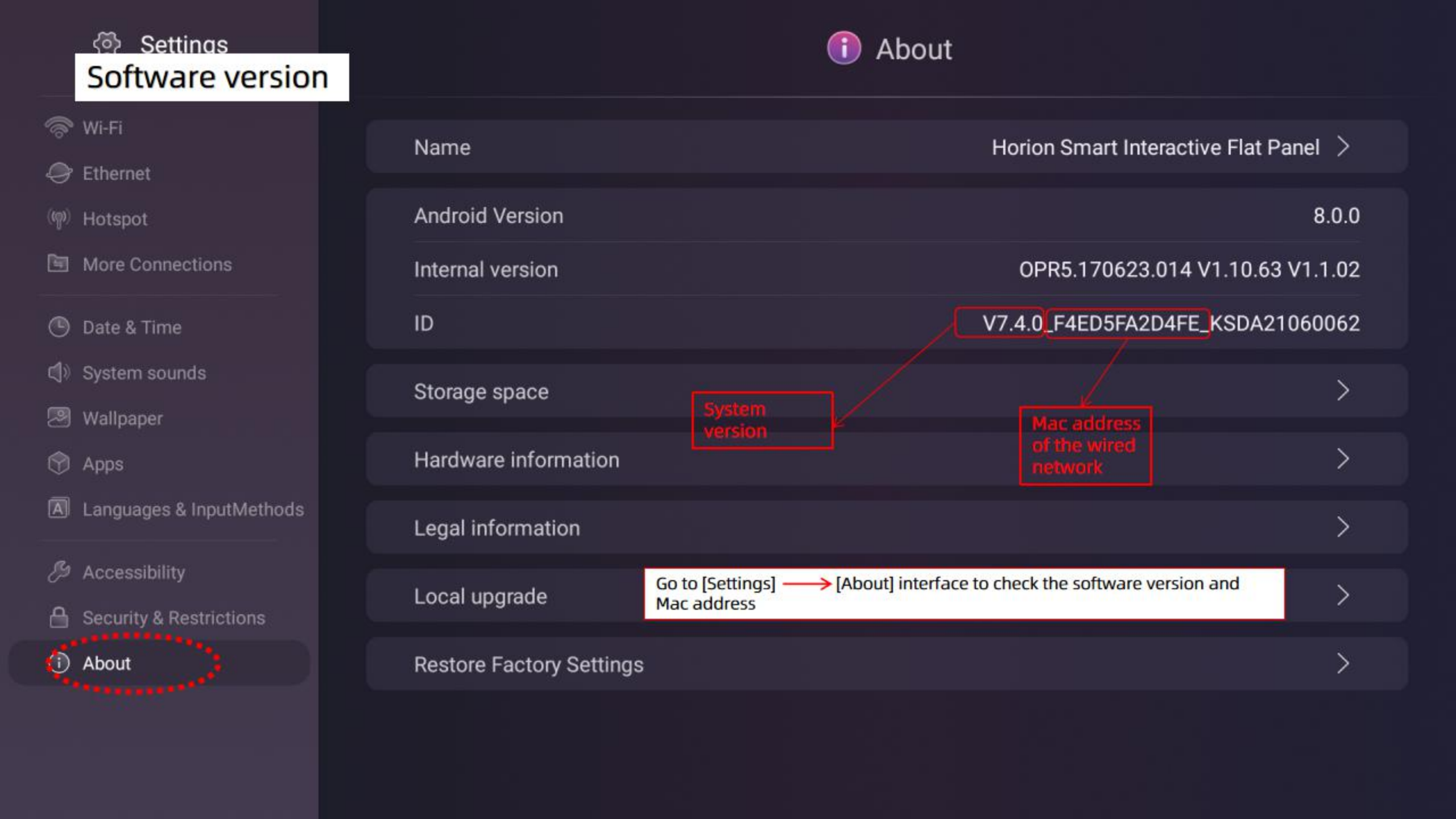
About

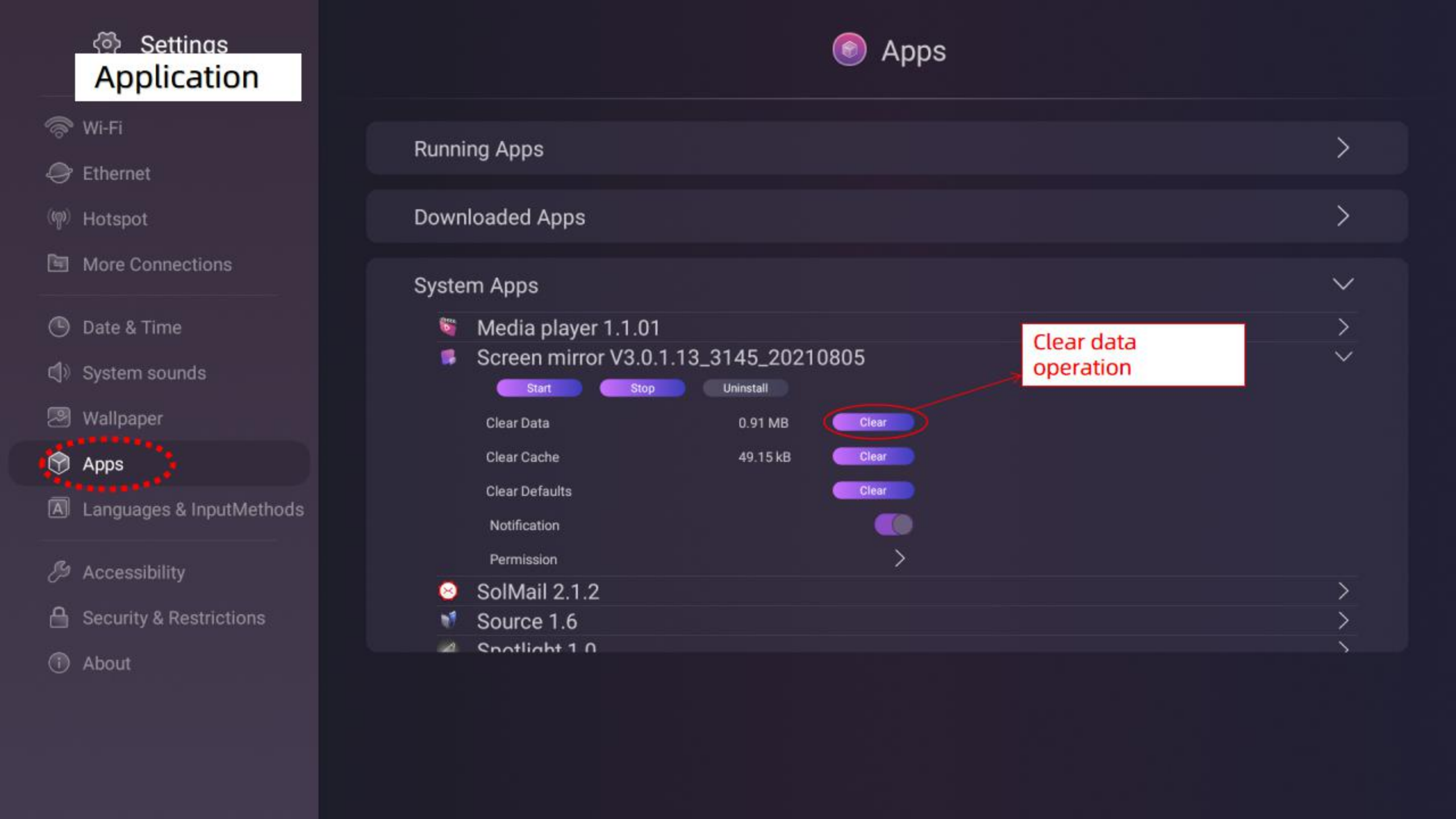
Wallpaper

Choose wallpaper

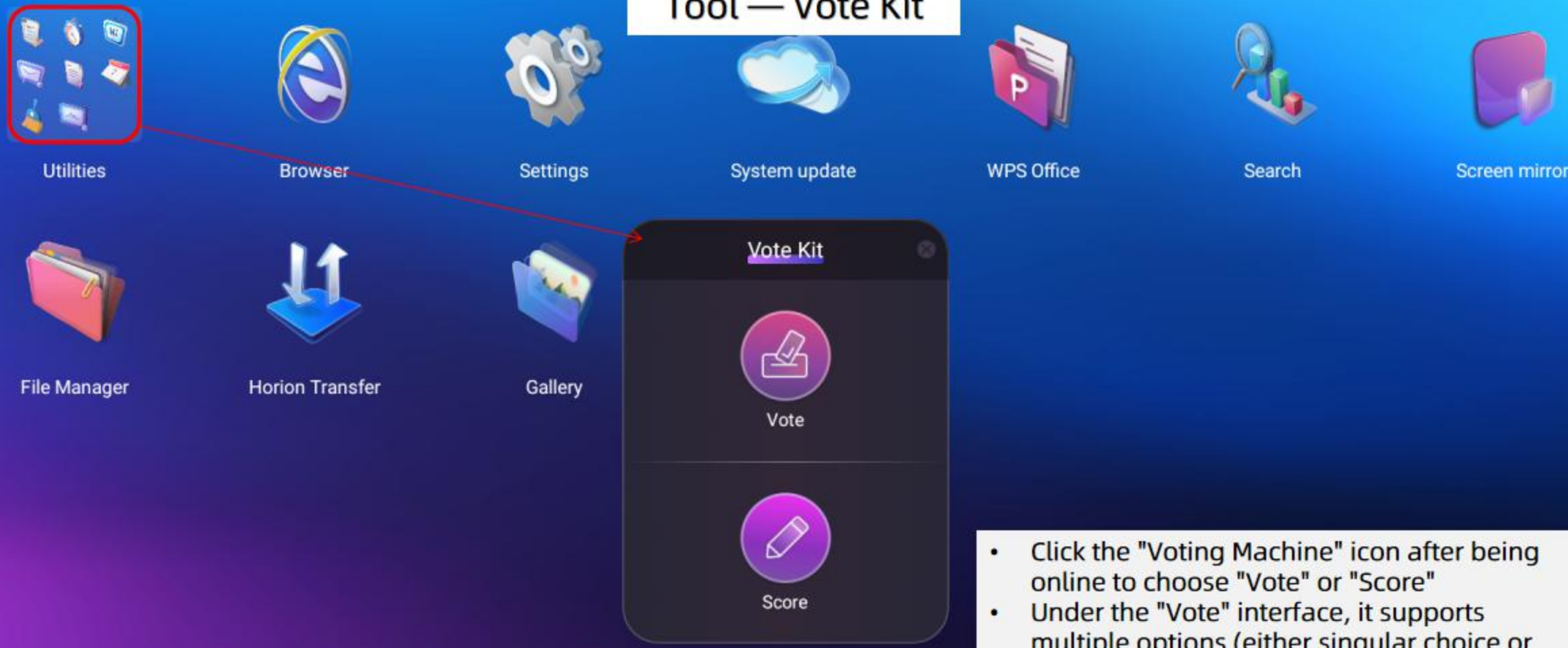


Custom wallpaper


Settings
Software version
Wi-Fi
Ethernet
Hotspot
More Connections
Date & Time
System sounds
Wallpaper
Apps
Languages & InputMethods
Accessibility
Security & Restrictions
About
About
Name
Horion Smart Interactive Flat Panel
Android Version
8.0.0
Internal version
OPR5.170623.014 V1.10.63 V1.1.02
ID
V7.4.0_F4ED5FA2D4FE_KSDA21060062
Storage space
Hardware information
Legal information
Local upgrade
Restore Factory Settings
System version
Mac address of the wired network
Go to [Settings] → [About] interface to check the software version and Mac address


Settings
Application
Wi-Fi
Ethernet
Hotspot
More Connections
Date & Time
System sounds
Wallpaper
Apps
Languages & InputMethods
Accessibility
Security & Restrictions
About
Apps
Running Apps
Downloaded Apps
System Apps
Media player 1.1.01
Screen mirror V3.0.1.13_3145_20210805
Start
Stop
Uninstall
Clear Data
0.91 MB
Clear
Clear Cache
49.15 kB
Clear
Clear Defaults
Clear
Notification
Permission
SolMail 2.1.2
Source 1.6
Clear data operation

Tool — Vote Kit



- Click the "Voting Machine" icon after being online to choose "Vote" or "Score"
- Under the "Vote" interface, it supports multiple options (either singular choice or multiple choice) and voting by scanning QR code;
- Under the "Score" interface, it supports adding itemized scoring for multiple choices and scoring by scanning QR code

Homepage — Agenda timing

Utilities

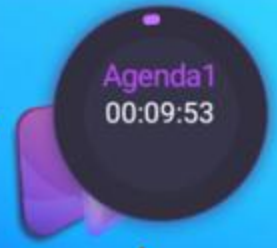
Browser

Settings

System update

WPS Office

Search

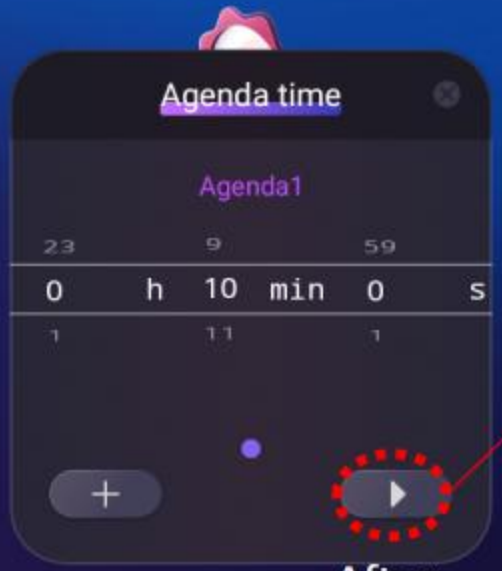


Screen mirror

File Manager

Horion Transfer

Gallery



After clicking

Agenda time floating window effect

Homepage — Notes

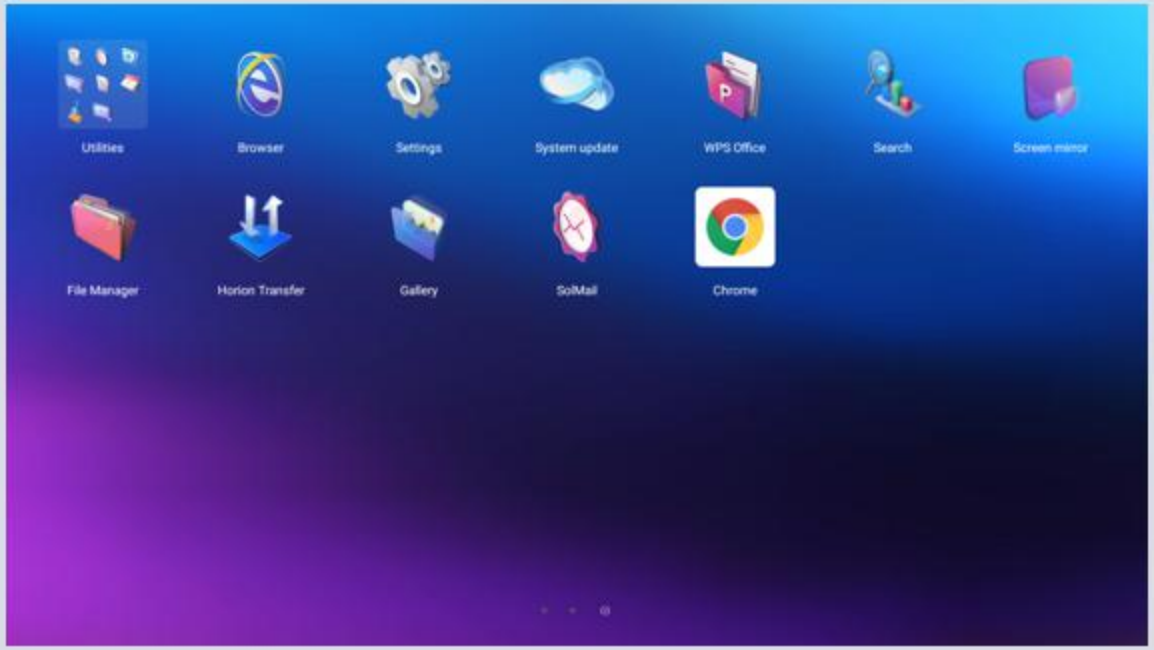
- The memo is in the utilities
- It is only on the Homepage after opening
- A maximum of 3 memos can be added and a maximum of 40 characters for each
- Change the color (four) of the memo, bold font, etc.
- The memo position is fixed

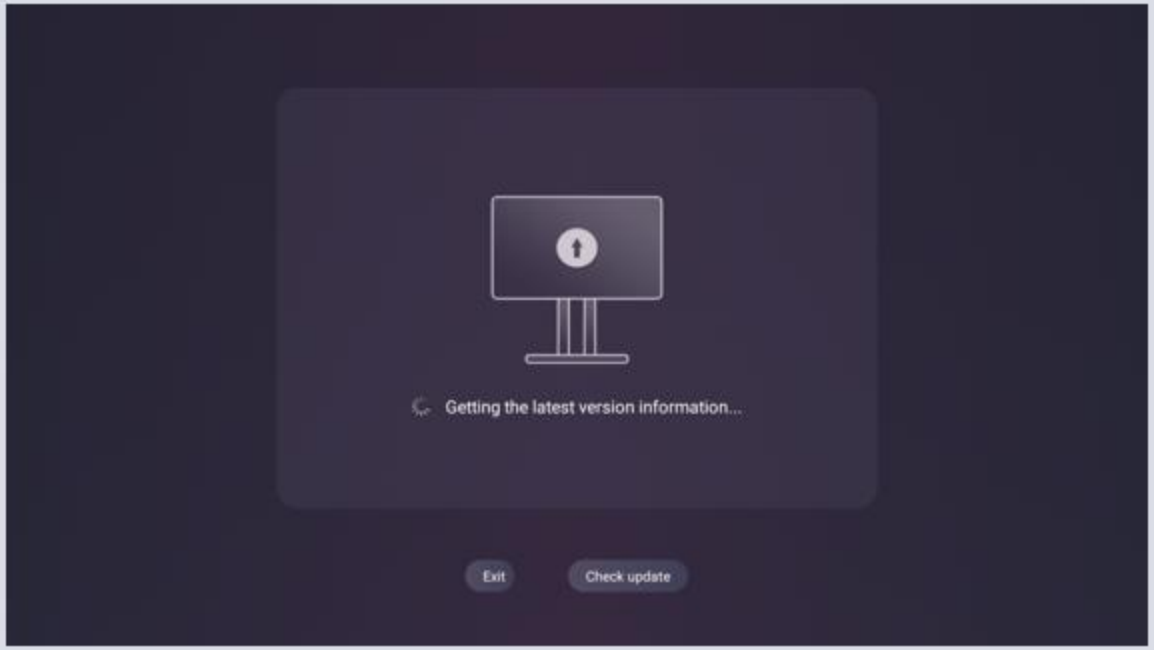
System upgrade method

1. Online upgrade

System upgrade: Click Android interface — More — System upgrade icon to get version update (under online status)

Check update: Under online status, it can get the latest available update version information.

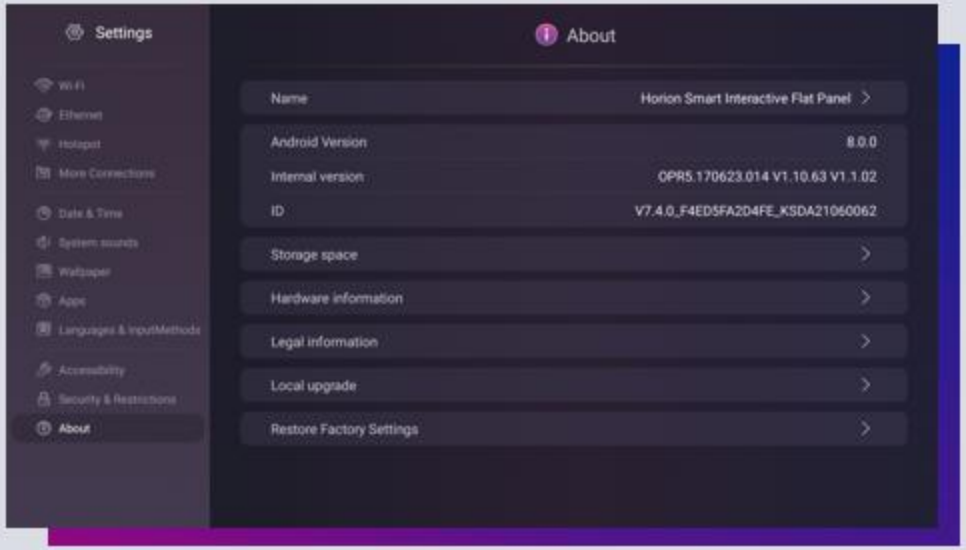




System upgrade method

2. Local upgrade

Before the upgrade, confirm the hardware version to get the corresponding software version according to the barcode on the device;
The USB flash disk local upgrade requires a USB flash disk other than the USB startup disk, or the upgrade will fail;
Upgrade method: Download the upgrade file from Baidu Cloud, then decompress it and copy the file of MstarUpgrade.bin to the root directory of the USB flash disk (i.e., the directory where the USB flash disk is once opened)
Enter Settings — About — Local system upgrade, the system will automatically detect the USB flash disk upgrade software after clicking



Remark: When upgrading, the indicator flashes in red; when the red indicator stops flashing (about 3 minutes), press the standby key to turn on the device; when entering the main interface (about 5 minutes), the device can be used normally (the language selection interface will show for the first time)

System upgrade method

Power switch (right rear)

3. Local disk upgrade

It is mainly used when the system fails to start and the problem is identified as existing in the system software.

Upgrade method: Press and hold the standby key of the flat panel to turn off the power, then turn it on and wait for the indicator to turn red

Note:

1. The software upgrade method is suitable for Horion's M3, M4, M5 series available in the market;
2. Upgrade needs several minutes. If it fails, try again;
3. The software upgrade changes no Android version;
4. If it fails to detect upgrade, you need to contact the customer service personnel to provide you with a link for downloading, and you have to carry out a local USB flash disk upgrade;
5. After local upgrade, Airplay will be automatically activated;
8. After upgrade, the screen mirroring device should be paired again;
9. The screen mirroring software should be activated.

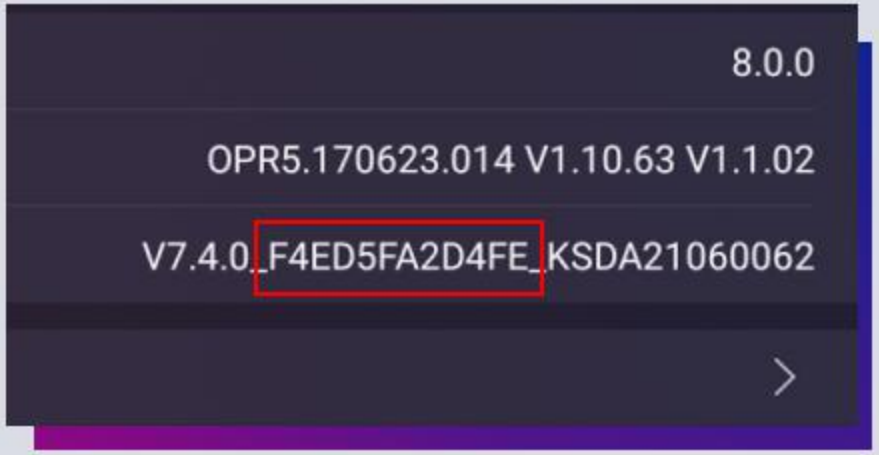
Network related

1. The Interactive Flat Panel supports the 2.4/5G WiFi duplex transceiving;

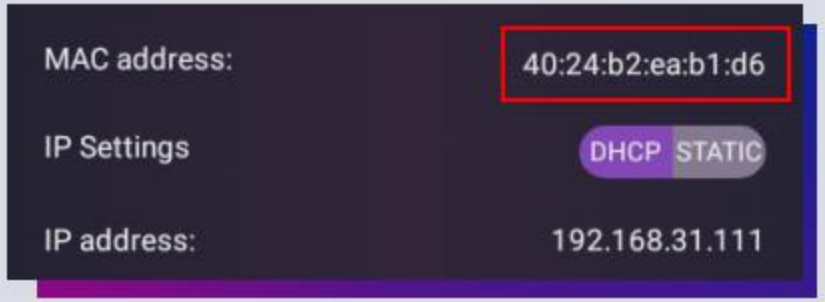
	2.4G	5G
Transmission distance	Remote	Near
Stability	Poor	Stable

2. Mac address of Interactive Flat Panel;

Mac address of a wired network



Mac address of a wireless network
Connect the WiFi hotspot, click the connetced network ID



Dual-system is compatible with the mainstream cloud video conferencing software both home and abroad, making enterprise communication more simple and efficient

Horion settings menu (Opening method: Source↑↑↓↓)

Remark: Items in red are frequently used functions!

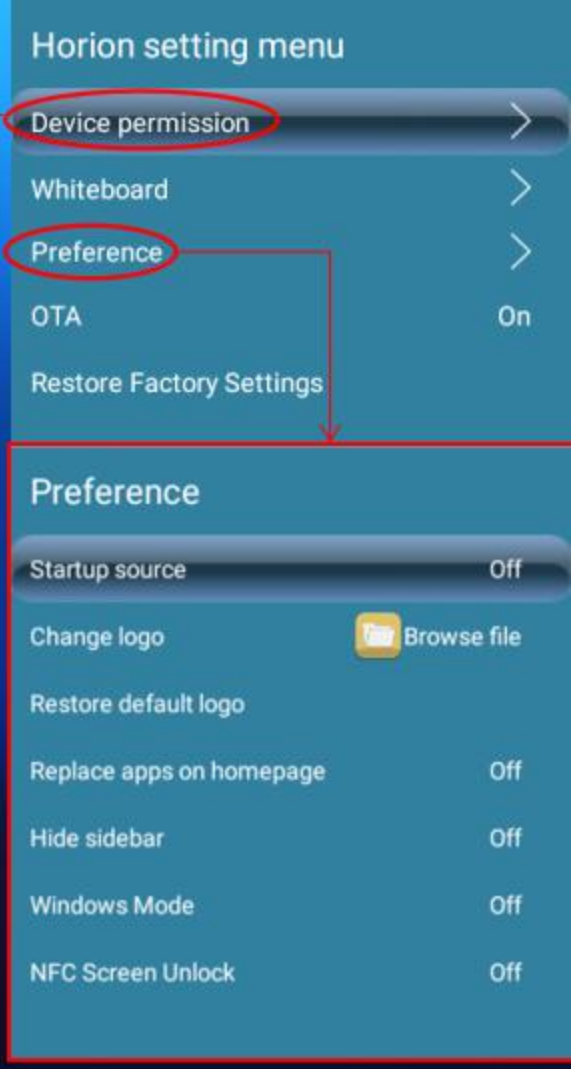
1. Touch lock
2. IR lock
3. Keypad lock
4. Starup source (automatically choose this signal source after powering on)
5. Whiteboard multi-point writing
6. Change power-on logo
7. Restore default power-on logo
8. Restore factory setting
9. Whiteboard intelligent recognition
10. Whiteboard smart form
11. Whiteboard flow chart
12. Windows mode switch

17:5

2022/02/1

Whiteboard

Office



MSD6A848 Factory Menu
Factory restore(Press OK) Off
Age mode(Press OK) Off
Power on mode(Press L/R) Secondary
Mboot upgrade(Press OK)
Main upgrade(Press OK)
Write MAC Addr.(Press OK)
Data Adjust(Press OK)
Power-up mode
Power-on mode of device
Other
Panel Type: K650WDG2_BG350B2_UHD_MN
SDA: KSDA21060062
Software Version: V7.4.0
MAC Addr.: F4:ED:5F:A2:D4:FE
Motherboard Name: MST140B_10ABQM_17425_DTMB
Date: Mon Nov 8 16:45:38 CST 2021
Touch Version: F_3.0.0.2_210705 T_3.2.1
NFC Version: 72 35 75 20 12 24
Factory Menu (Source↑ ↓ ↑ ↓)
15:33
2022/02/12 Saturday
Office
ScreenMirror
Source

horion

www.horion.com/en