



Video Wall Controller

User Manual

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

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

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Preface

Applicable Models

This manual is applicable to C30S series video wall controllers.

About the Default

This device has the following defaults.

Category	Parameter	Default Value
Device	Login username and IP address	User name: admin IP Address: 192.0.0.64



In order to improve system security, it is strongly recommended to reset your password regularly. In order to protect your personal privacy and corporate data, and avoid network security issues on your device, it is recommended that you set a high-strength password that complies with security regulations.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 Note	Provides additional information to emphasize or supplement important points of the main text.
 Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions



Caution

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- During the operations such as wring and dismounting, make sure to disconnect the power supply of the device. Do not operate with the power on.
- In case of cyber security problems when the device is accessing the Internet, please strengthen the protection of your personal information and data security. Pease contact us in time if there is any possible network security risks.
- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

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Chapter 1 Introduction

1.1 Overview

The DS-C30S series video wall controller is a new-generation pure hardware image processing device based on Field Programmable Gate Array (FPGA). Compared with the traditional controller, the device has a brand-new system architecture and adopts data dual exchange technology to support large-capacity data transmission and processing. With high image processing performance, the device supports the access and real-time processing of multi-channel high definition and ultra-high-definition signals. Adopting the main control board and input and output board structure, the input and output boards can be figured arbitrarily, which can realize multi-screen management. This product is mainly used in large-screen splicing control system and considered the core control device of the system.

1.2 Operation Instructions

The device logs in through the browser to configure the device parameters. And the video wall operation can be configured through the Smart Wall Configuration Client and the Smart Wall Control Client.



Note

Please contact the technical support for the Smart Wall Configuration Client and Smart Wall Control Client.

1.2.1 Introduction of Smart Wall Configuration Client

Smart Wall Configuration Client is a B/S-based server that supports video wall, real-time preview, video storage, alarm linkage and other functions. It can realize centralized management with scalability and reliability.

1.2.2 Introduction of Smart Wall Control Client

Smart Wall Control Client is a C/S (Client/Server) software that supports functions such as video wall, real-time preview, pan-tilt control, video playback, download, alarm reception, and log query. It provides diversified functions and is easy to operate.

Chapter 2 Device Activation

Please activate your device when using it for the first time.

2.1 Activate Device via SADP Software

Step 1 Open SADP.

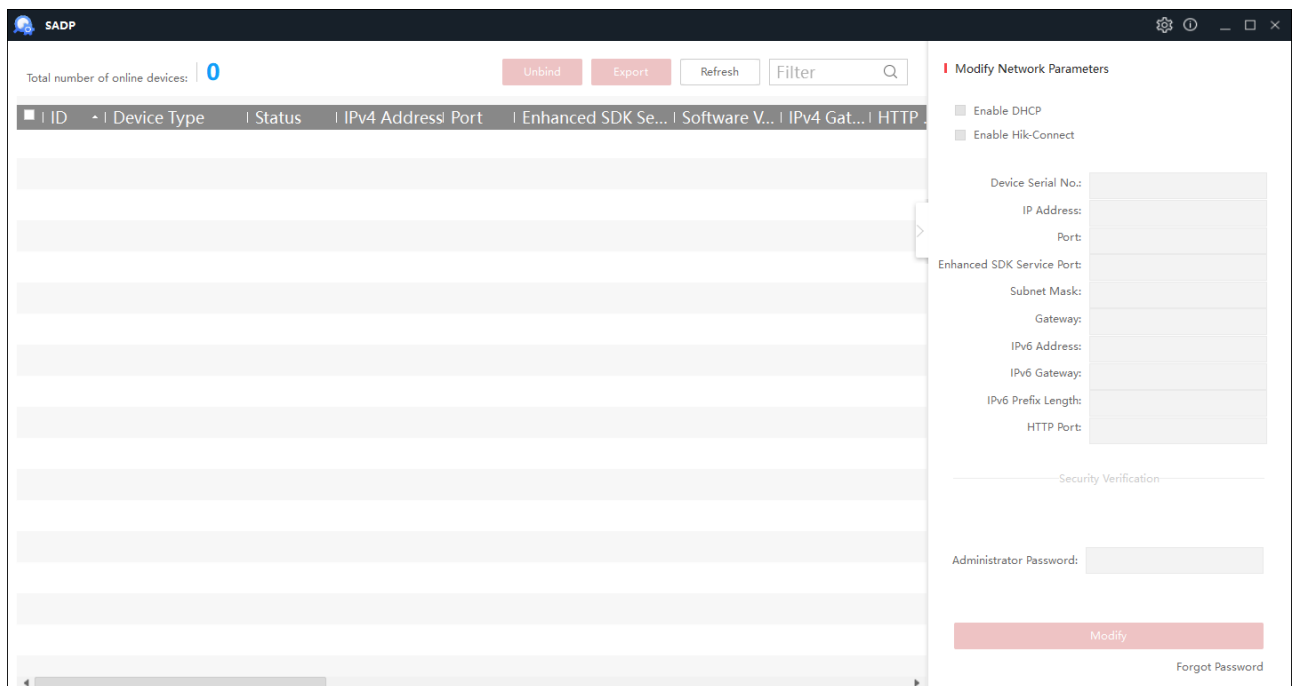


Figure 2-1 Activate Device

Step 2 Select the device that is not activated.

Step 3 Enter the password and confirm it on the right corner.

Step 4 Click Activate.

2.2 Activate Device via Browser

You can also access and activate the device through the browser.

Step 1 Connect the device to the network, and make sure that the device and the computer are in the same LAN.

Step 2 Modify the computer IP address and the device IP address to make them in the same network segment.



The factory IP address of the device is 192.0.0.64. The computer IP address can be set to anywhere between 192.0.0.2 to 192.0.0.253 such as 192.0.0.100.

Step 3 Enter 192.0.0.64 in the browser to view the activation interface.

Step 4 Set the device activation password.



In order to improve system security, it is strongly recommended to reset your password regularly. In order to protect your personal privacy and corporate data, and avoid network security issues on your device, it is recommended that you set a high-strength password that complies with security regulations.

Step 5 Click OK.

Step 6 Enter the activation password to log in to the device.

Chapter 3 Web Configuration

3.1 Log in to the Web

After the device is activated, enter the IP address of the device in the browser. Enter the account number and the password to log in to the Web of the device. The account number is admin and the password is the activation password. The Web is used to configure the signal source, network, system and other parameters of the device.

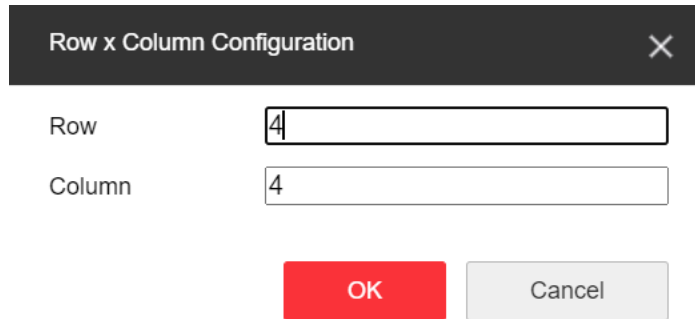
3.2 Configure Decoding Output

Introduces the parameter configuration of the output channels.

3.2.1 Configure Signal Source on the Wall

Step 1 Enter Video Wall Configuration → Decoding Output. View the connected output channels in the Output List.

Step 2 Select a video wall on the right. Click  below the video wall. Set the row number and column number of the video wall according to the requirement. Click OK.



Row x Column Configuration	
Row	4
Column	4
OK Cancel	

Figure 3-1 Configure the Number of Row and Column

Step 3 Drag the output channel on the right to the video wall. The signal source will be displayed on the video wall.

3.2.2 Configure Sending Card

Configure Signal Cable

Configure the signal connection of the sending card and the receiving card between different cabinets based on the site conditions.

Step 1 Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Signal Cable Configuration.

Step 2 Configure parameters of display screen. Click OK after completion.

- **Display Screen (Row X Column):** Set the number according to the number and layout of the cabinets on site (devices installed with the receiving card and the screen).
- **Custom Screen Resolution:** It refers to the screen resolution of spliced cabinets. The resolution should be consistent with display image. Otherwise, there may be problems such as incomplete screen display, inconsistencies in brightness and color, etc.

Display Screen (R... 6 X 4

Screen Type

Screen Resolution ▼

Custom Screen R... 1920 X 1080

Figure 3-2 Set Receiving Card Layout and Resolution

Step 3 Click Signal Cable Configuration. The connection of the signal cable should be consistent with that of the cabinet screen.

1. Click the sending port of the sending card on the left.
2. According to the cabinet number on site, click the frame on the right to connect the sending card with the cabinet screen.
3. Click OK.

The following figure shows an example: The sending port numbered 1 is connected to the cabinet screen numbered 1-1 and 1-2 from left to right.

Please select sending port to connect.

☐ Display Actual Lines on Screen

Line Type

Reset Current Signal Sending Port

Figure 3-3 Set Connection

Step 4 Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Receiving Card Status.

The following figure shows an example: The receiving card has 2 sending ports. Blue means that the receiving card is in normal state. On the right, users can view the video wall size, screen type, receiving card type, version and other information.



Figure 3-4 View the Receiving Card Status

Step 5 Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Signal Cable Configuration.

1. Click Load from the Screen, the screen type will be displayed automatically.
2. Click Signal Source Configuration. Check Display Actual Lines on Screen.
3. Click the sending port of the sending card on the left.
4. According to the cabinet number on site, click the frame on the right to connect the sending card with the cabinet screen.
5. The following parameters can also be set during the connection.
 - Marking Type: Supports quick connection according to the layout of the receiving card on site.

Example: When the marking type is Z Shape, select the sending port of the sending card, and click the start point and end point of the frame on the right according to the cabinet number on site to make quick connection.

- **Cancel:** Cancel the previous operation.
- **Restore:** Restore the previous operation.
- **Reset Current Sending Port:** Click the sending port of the sending card on the left. Then click Reset Current Sending Port to reset the connection settings of the selected sending port.
- **Reset All Sending Ports:** Reset the connection settings of all sending ports.

6. Click OK.

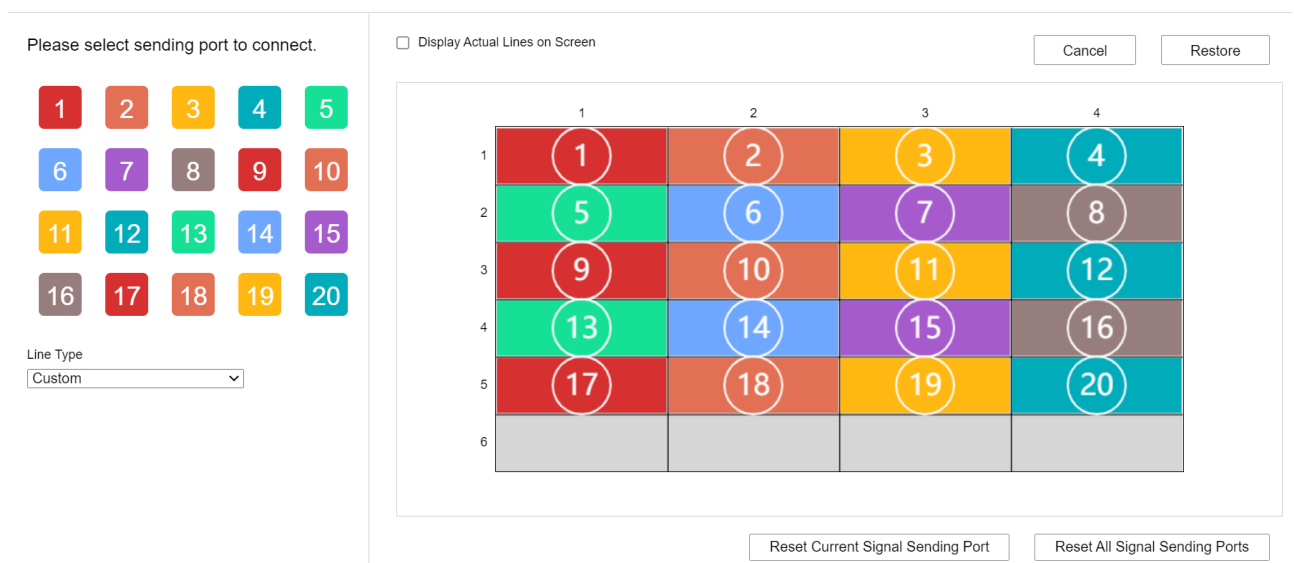


Figure 3-5 Set On-Site Connection



Note

After the setting, the cabinet screen on site will display black.

Set Basic Parameters

Set basic parameters of the receiving card display.

Step 1 Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Basic Control.

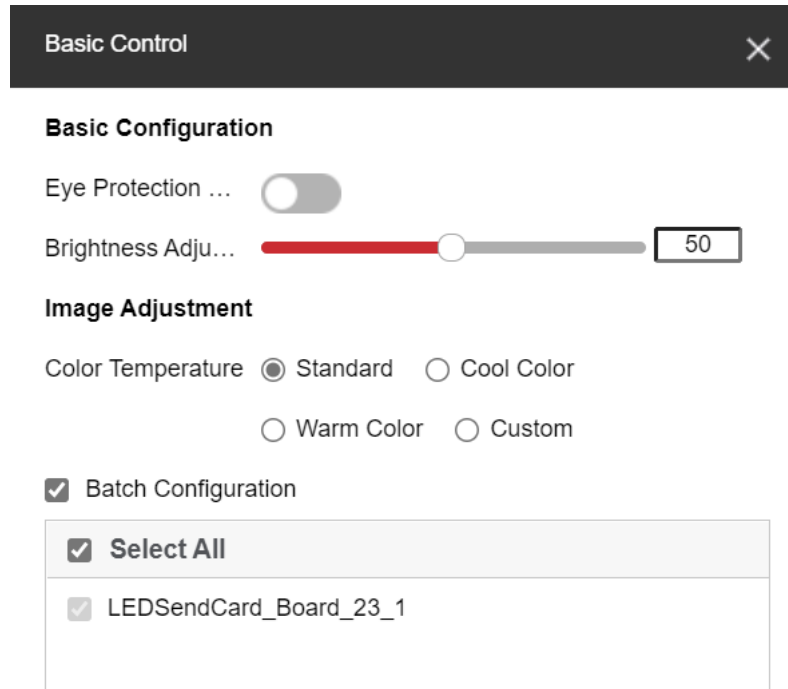


Figure 3-6 Basic Control

Step 2 Set basic parameters.

- **Eye Protection:** Turn on to filter blue light. Please operate according to the requirement.
- **Brightness Adjustment:** When turned on, the screen will automatically adjust the screen brightness according to the ambient brightness. Please operate according to the requirement.

Step 3 Set Image Adjustment. Adjust the color temperature and color standard of the screen as required.

Step 4 (Optional) Check Batch Configuration to apply the setting to other receiving cards.

Step 5 Click OK.

Manuel Correction

Set the correction parameters to keep the screen brightness and color of different cabinets consistent.

Step 1 Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Advanced Configuration.

Step 2 Click Correct → Manuel Correction. Check Enable Correction.

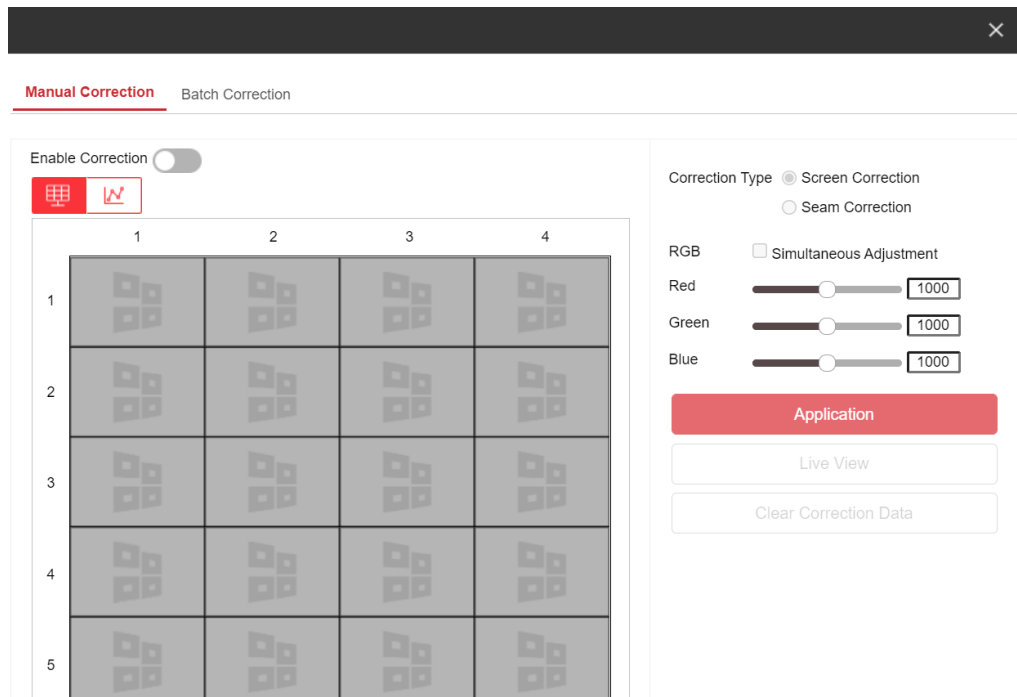


Figure 3-7 Manual Correction

Step 3 Select the correction range.

- Click  to correct the entire cabinet screen. Select the screen as required.
- Click  to correct part of the cabinet screen. Set the start and end coordinates as required.

Step 4 Select Correction Type.

- Screen Correction

Correct the cabinet.

1. Click Screen Correction.
2. Adjust the red, green, and blue progress bar and the RGB value. The correction will take effect when the value of the on-site screen is greater than the parameter value of the progress bar.

Note

Check Simultaneous Adjustment. All RGB parameter values will be consistent when adjust any RGB progress bar.

- Seam Correction

Correct the seam between cabinets.

1. Click Seam Correction.
2. Select the correction range.
 - Click All, correct all the seams.

- Click Horizontal Line, correct all the horizontal seams.
- Click Vertical Line, correct all the vertical seams.

3. Adjust the process bar of Seam Width.

4. Adjust the red, green, and blue progress bars and the RGB value. When the value of the on-site screen is greater than the parameter value of the progress bar, the correction will be carried out.

Note

Check Simultaneous Adjustment. All RGB parameter values will be consistent when adjust any RGB progress bar.

Step 5 Click Preview to view the display effect. The parameter value can be readjusted to achieve the desired effect.

Step 6 Click Application.

Step 7 (Optional) Adjust the following data as required.

- Clear Correction Data.
- Correct Original Data Preview.
- Load Original Data.

Note

Please refer to the actual device for the above parameter settings.

Batch Correction

Batch correcting the screen/seam by importing correction files.

Note

- The correction file has already been obtained.
- Select a screen as the starting point for batch correction in the manual correction interface.

Step 1 Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Advanced Configuration.

Step 2 Click Correct → Batch Correction.

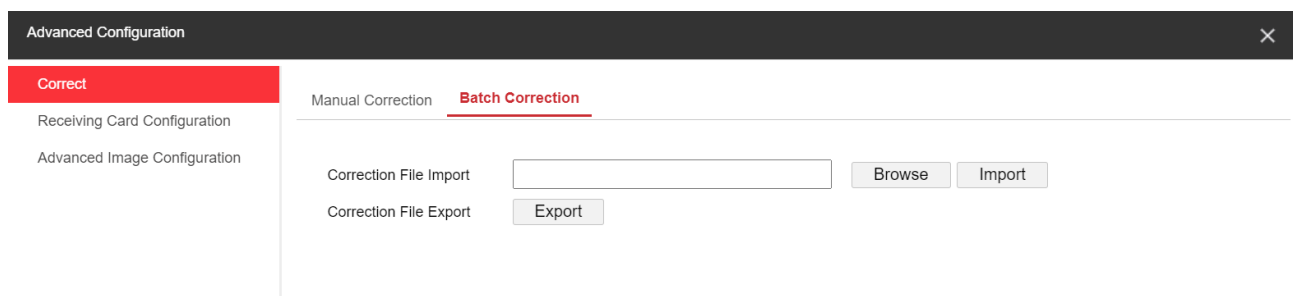


Figure 3-8 Batch Correction

Step 3 Click Browse, select the correction file to Upload.

Step 4 (Optional) If you need to back up the correction file, click Export, and select the download path to export the correction file.

Configure the Receiving Card

It is used to configure the display parameters of the receiving card. Please contact technical personnel for configuration.

Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Advanced Configuration. Click Receiving Card Configuration.

- Basic Parameters: View the basic information of the receiving card.
- Gamma Table and Extended Attributes: It is used to adjust the display effect and image enhancement parameters of the receiving card. Please contact our company's technical professionals for configuration.

Configure Advanced Image

It is used to improve the display effect of the screen by setting the gray level and gray brightness level.

Step 1 Enter Video Wall Configuration → Decoding Output. Select LED sending card in the Output List (Example of naming the LED sending card: LEDSendCard_Board19_1). Right-click and select Advanced Configuration. Click Advanced Image Configuration.

Advanced Image Configuration

Gray Level	0
Gray Brightness Level	0

Save

Figure 3-9 Advanced Image Configuration

Step 2 Adjust image parameters.

- Gray Level: It refers to the number of colors that can be displayed on the screen. The more colors, the finer the picture.
- Gray Brightness Level: It means the brightness of the corresponding gray level.

Step 3 Click Save.

3.2.3 Configure Virtual LED

It is used to superimpose a virtual LED display frame on the video wall to display information.

Step 1 Enter Video Wall Configuration → Virtual LED.

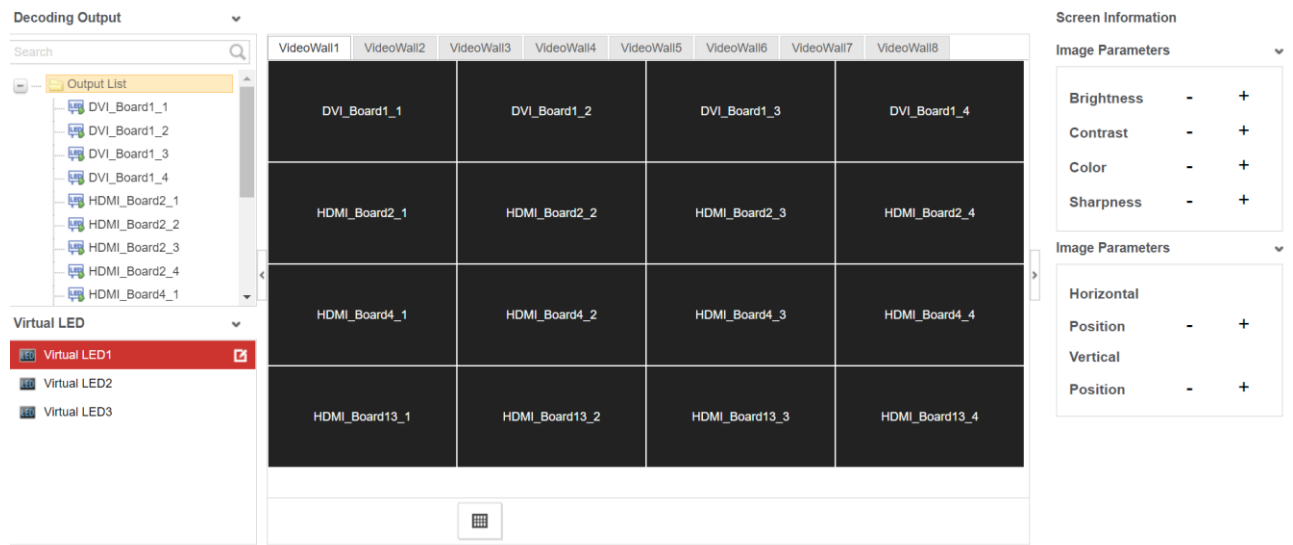


Figure 3-10 Virtual LED

Step 2 Select a virtual LED. Click  to set the following parameters.

Modify

✕

Text Settings

☒ Enable

Content

✓

Time Settings

☐ Enable

Time Type

Time Format

Time

AM Format

PM Format

Text and Backg...

Display Mode

Font Color

Background Color

Font Direction
 ☒ Horizontal
 ☐ Vertical

Alignment

Action Settings

Moving Mode

Moving Direction

Moving Speed

OK

Cancel

Figure 3-11 Modify Virtua LED

Table 3-1 The Meanings of Virtual LED Parameters

Parameter Item	Parameter Name	Meaning
Text Settings	The text of the virtual LED frame.	
Time Settings	The time displayed in the virtual LED frame.	
Text and Background Settings	Display Mode	The transparency degree of the information displayed in virtual LED frame, including coverage, transparency, and translucency.
	Font Color	The default color is green. It is adjustable.

Parameter Item	Parameter Name	Meaning
	Background Color	The default color is red. It is adjustable.
	Font Direction	Horizontal or vertical. Multiple virtual LED frames can only apply the same font direction, which cannot be mixed.
	Alignment	Align Left, Center, or Right.
Action Settings	Moving Mode	normal or static.
	Moving Direction	Only supports Left<-Right.
	Moving Speed	The moving speed of content in the virtual LED frame.

Step 3 Click OK. Then drag the virtual LED to the Video Wall with output signal on the right.

3.3 Configure Signal Source

Introduces the configuration of signal source.

3.3.1 Video Parameters

It is used to configure video parameters of the signal source. Save after setting.

Enter Configuration → Signal Source Configuration → Video Parameter. Select a signal source, adjust ICR mode and brightness. The color mode supports bright, standard, and soft custom. After selecting Custom, click Restore Default Settings to restore the video parameter values to the default values.

Video Parameter

Signal Source

Slot 03 Camera 01

Video Parameter

ICR Mode

Standard

Brightness

128

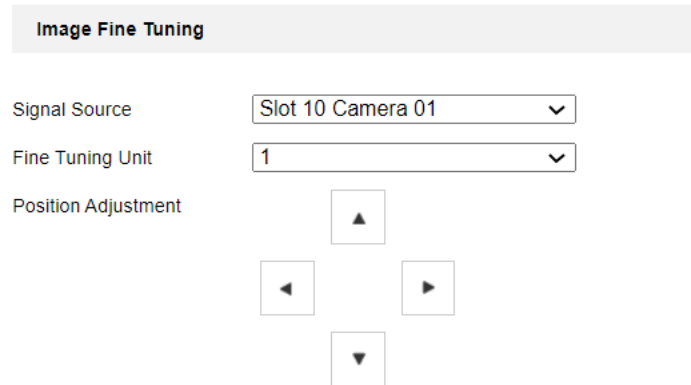
Save

Figure 3-12 Video Parameters

3.3.2 Image Fine Tuning

It is used to fine tune the image pixels and crop the signal source.

Step 1 Enter Configuration → Signal Source Configuration → Image Fine Tuning.



The screenshot shows the 'Image Fine Tuning' configuration window. It has a title bar 'Image Fine Tuning'. Below it, there are three settings: 'Signal Source' set to 'Slot 10 Camera 01', 'Fine Tuning Unit' set to '1', and 'Position Adjustment'. The 'Position Adjustment' section contains four directional buttons: up, down, left, and right, arranged in a cross pattern.

Figure 3-13 Image Fine Tuning

Step 2 Select a signal source.

Step 3 Set the unit of fine tuning. Up to 10 pixels are supported in each direction.

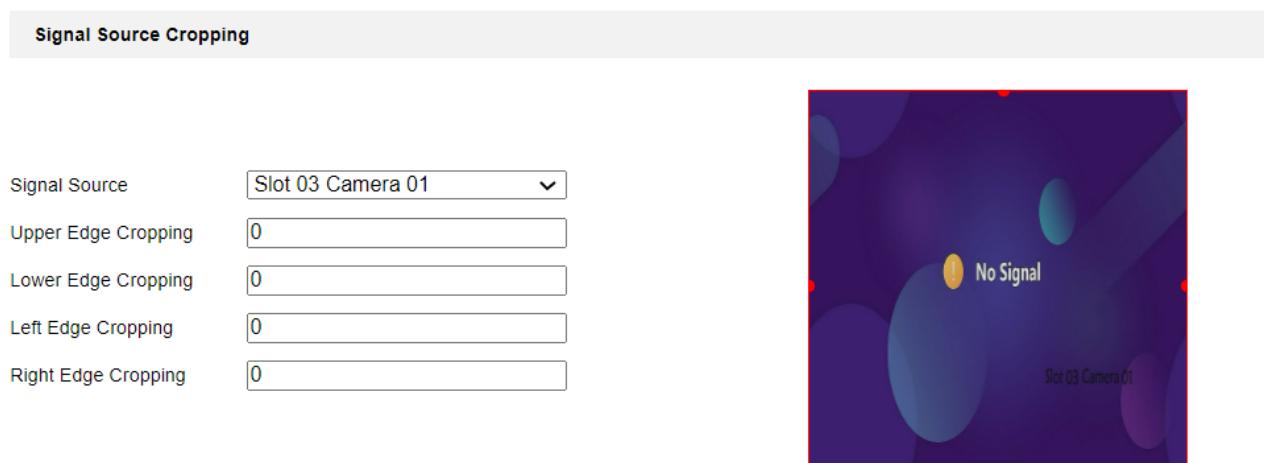
Step 4 Click the direction keys to adjust the direction of the image.

Step 5 Click Save.

3.3.3 Signal Source Cropping

It is used to crop the edge of the signal source.

Step 1 Enter Configuration → Signal Source Configuration → Signal Source Cropping.



The screenshot shows the 'Signal Source Cropping' configuration window. It has a title bar 'Signal Source Cropping'. Below it, there are five settings: 'Signal Source' set to 'Slot 03 Camera 01', 'Upper Edge Cropping' set to '0', 'Lower Edge Cropping' set to '0', 'Left Edge Cropping' set to '0', and 'Right Edge Cropping' set to '0'. To the right of these settings is a preview window showing a dark blue background with a yellow circle and the text 'No Signal' in the center. The text 'Slot 03 Camera 01' is visible in the bottom right corner of the preview window.

Figure 3-14 Signal Source Cropping

Step 2 Select a signal source.

Step 3 Set the cropping pixels of four edges.



The pixel range of cropping in all directions is between 0 and 200. It is required to be a multiple of 2, and 4 × 2 alignment.

Step 4 Click Save.

3.3.4 Signal Source Splicing

The signal source splicing can combine multiple signal source images according to a certain splicing scale to form a new spliced picture. The spliced picture is output as a single signal source, and the spliced signal source will not be shown in the signal source list. This function is only supported by ultra-high definition signal sources (such as 4K HDMI input channel or DP input channel). Signal sources will be spliced to form a new image with higher resolution.



- Only local signal source can be spliced.
- All spliced signal sources should have the same resolution. Different resolution may affect display effect.
- The new spliced picture will be presented in a single-screen window when displayed on the wall.
- When the new spliced picture is roaming and zooming, the signal source also roams and zooms along with it.

Step 1 Enter Configuration → Signal Source Configuration → Signal Source Splicing.

Step 2 Click Add.

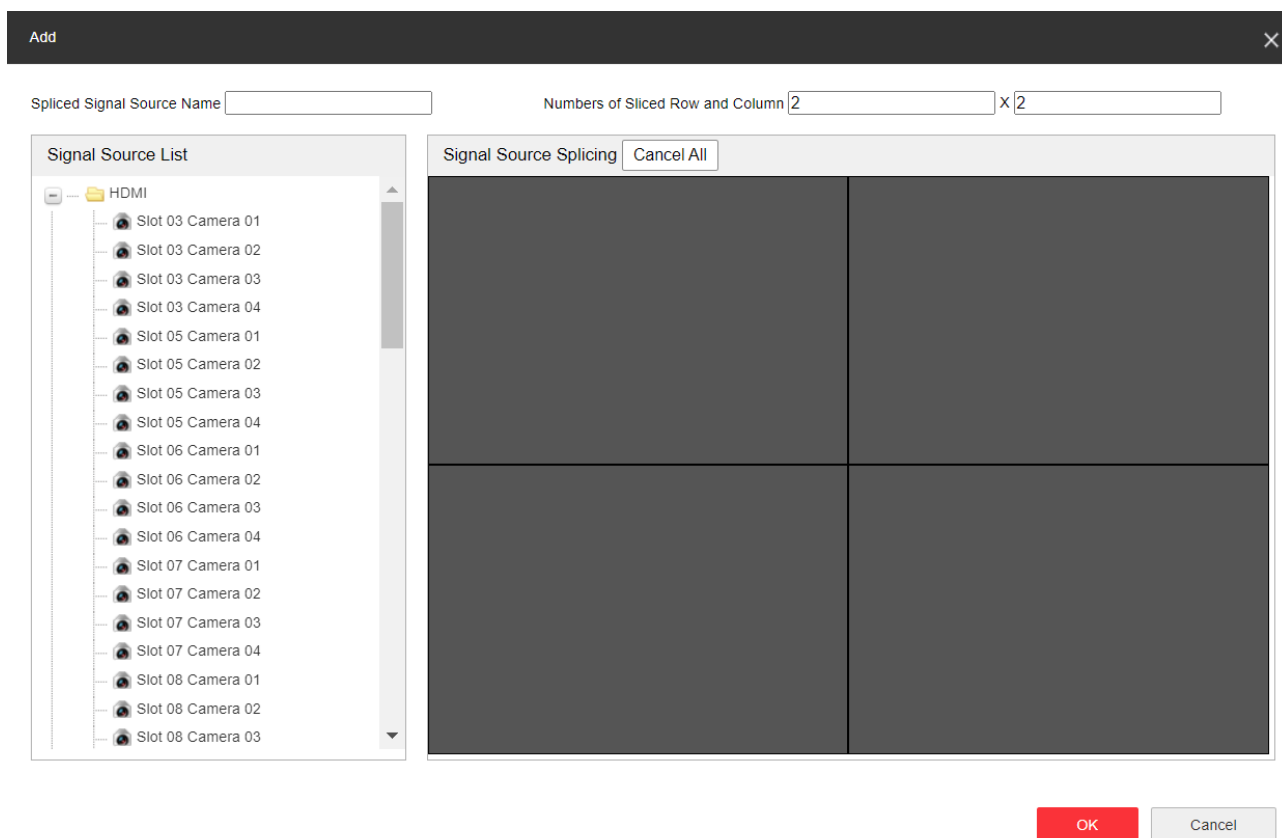


Figure 3-15 Add Signal Source Splicing

Step 3 Customize the name and scale of the signal source.

Step 4 Drag the channel in the signal source list on the left to the splicing grid on the right.

Step 5 Click OK.

Step 6 (Optional) Select a spliced signal source to perform the following operations.

- Click Modify, select a splicing grid, click Cancel All to cancel the previously spliced signal source and re-configure. The name and the scale of the spliced signal source can also be modified at the same time.
- Click Delete to delete the spliced signal source.



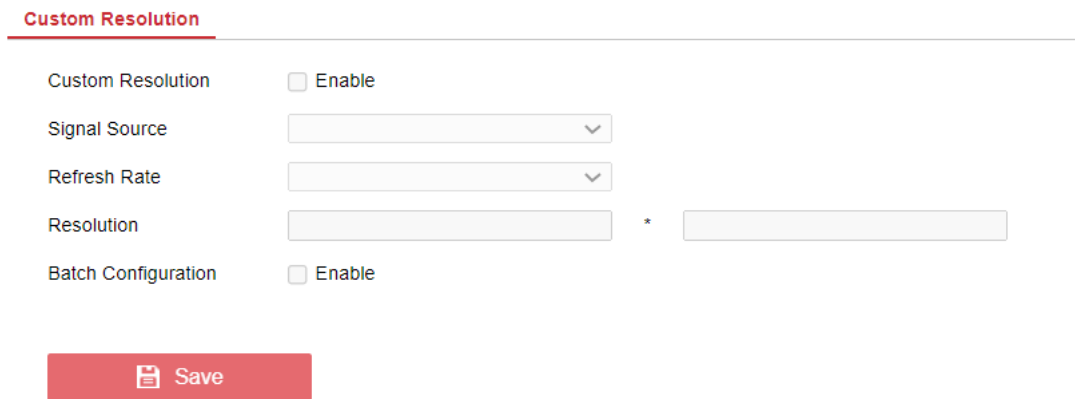
Note

The signal source dragged to the splicing grid on the right will be output as a single signal.

3.3.5 Custom Resolution

When the resolution of the input signal source is inconsistent with the resolution of the large screen on site, the resolution of the input signal source can be customized to realize point-to-point display. This function is only supported by UHD signal sources (such as 4K HDMI input channel or DP input channel).

Step 1 Enter Configuration → Signal Source Configuration → Custom Resolution.



The screenshot shows a web interface for configuring video wall settings. At the top, there is a red header bar with the text "Custom Resolution". Below this, there are several configuration options: "Custom Resolution" with an "Enable" checkbox, "Signal Source" with a dropdown menu, "Refresh Rate" with a dropdown menu, "Resolution" with two input fields separated by a multiplication symbol (*), and "Batch Configuration" with an "Enable" checkbox. At the bottom, there is a red button with a save icon and the text "Save".

Figure 3-16 Custom Resolution

Step 2 Enable Custom Resolution.

Step 3 Select a signal source.

Step 4 Set the refresh rate and resolution.



The resolution supports down to 1280×720 and up to 4092×2160 . And the width must be a multiple of 4, the height a multiple of 2.

Step 5 (Optional) Click Batch Configuration to copy the configuration of this signal source to other signal sources.

Step 6 Click Save.

3.3.6 OSD

OSD can be used to superimpose OSD information on image of the input signal.

Step 1 Enter Configuration → Signal Source Configuration → OSD.



Figure 3-17 Set OSD

Step 2 Select a signal source.

Step 3 Set the OSD ID. Up to 4 pieces of OSD information can be superimposed.

Step 4 Set the parameters such as OSD font size, font color, X coordinate and Y coordinate as required.

Step 5 Enable String, and enter the OSD information to be displayed.

Step 6 (Optional) Click Batch Configuration to copy the configuration of this signal source to other signal sources.

Step 7 Click Save.

Note

The position of OSD information on the screen can be adjusted by dragging it with the mouse or setting the X and Y coordinate values.

3.4 Configure Display on Client

Video wall display on client refers to viewing the image of the entire TV wall on iSecure VMS client. The window content of the entire video wall can be viewed intuitively.

Note

Up to 4 video walls can be displayed on client at one time.

Step 1 Enter Configuration → Remote Display on Client → Display on Client Configuration.

Display on Client Configuration

Network Display on Client Configuration

Video Wall Display on Cli...	Video Wall1 ▼
Resolution	HD1080P(1920*1080) ▼
Frame Rate	30 ▼
I Frame Interval	25 ▼
Bitrate Type	CBR ▼
Bitrate	8192 ▼

 Save

Figure 3-18 Configure Display on Client

Step 2 Select a video wall.

Step 3 Set parameter values.

- Resolution: Select the resolution according to the requirement for video clarity. The higher the resolution, the higher the required network bandwidth.
- Frame rate: It refers to the number of frames per second of the video. The higher the frame rate, the smoother and more vivid the picture, which also means higher bandwidth and more storage space. Please set the rate according to the actual bandwidth.
- I frame interval: It refers to the number of frames between two continuous key frames. The larger the I frame interval, the smaller the code stream, but also the poorer image quality. On the contrary, the larger the code stream, the better the image quality.
- Bitrate Type and Bitrate.
 - CBR (Constant Bitrate): It refers to that the bit rate is maintained at the average bit rate for transmission, and the compression speed is fast, but video mosaic may appear. Set the bit rate value as required.
 - VBR (Variable Bitrate): It refers to that the bit rate can be adjusted by itself without exceeding the upper limit of the bit rate. The compression speed is relatively slow, but the clarity of the image in complex scenes can be ensured. Set the maximum bit rate value according to the requirement.

Step 4 Click Save.

3.5 Set Sub-Stream for Window Division

During the configuration of the video wall, when the number of screen divisions is greater than or equal to the threshold value of sub stream divisions, the sub stream will be automatically taken for

decoding. The sub-stream is suitable for low bandwidth networks, with smooth images and small bandwidth.

Enter Configuration → Decoding Configuration → Sub-Stream for Window Division. Select Enable, set the Threshold Value of Sub-Stream Divisions, and click Save.



Enable ☒

Window Division Threshold

Save

Figure 3-19 Set the Sub-Stream for Window Division

Note

Example: When the threshold value of sub-stream divisions is set to 6, the sub-stream will be automatically selected for decoding when the number of screen divisions is greater than or equal to 6.

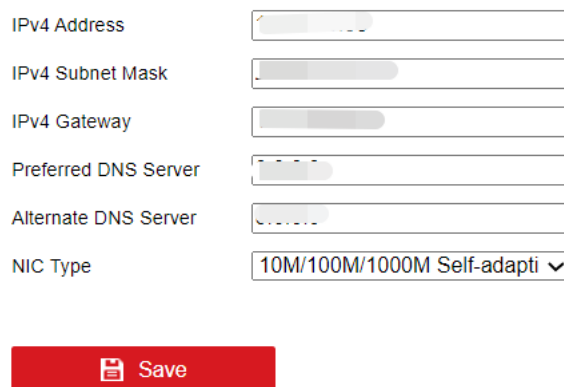
3.6 Configure the Network

This part introduces how to configure network parameters.

3.6.1 Set TCP/IP Parameters

Configure the TCP / IP parameters of the device so that the device can function normally in the network.

Enter Configuration → Network → TCP/IP. Set the basic network parameters of the device according to the local area network parameters, and click Save.



IPv4 Address

IPv4 Subnet Mask

IPv4 Gateway

Preferred DNS Server

Alternate DNS Server

NIC Type

Save

Figure 3-20 Set TCP/IP Parameters

3.6.2 Set Port

The device port can be modified when the device is unable to access the network.

Caution

Please do not modify the default port parameters randomly, otherwise the device will be unable to access.

Enter Configuration → Network → Port. Set the port parameters and click Save to take effect.

HTTP Port	80
Service Port	8000

 Save

Figure 3-21 Set Port

- HTTP Port: It refers to the port to access the device in the browser. For example, when the HTTP port is 81, you need to enter `http://192.168.1.64:81` in the browser to access.
- Service port: It refers to the port of the client to add new devices.

3.7 Configure Device Exception Alarm

When an abnormal situation such as a network disconnection occurs on the device, the device is triggered to perform a linkage action. In order to grasp the operating status of the equipment in time.

Step 1 Enter Configuration → Event → Device Exception Alarm Configuration.

Linkage Method

IP Address Conflicted	☐ Linkage Equipment Alarm Sound	☐ Reporting Platform
Illegal Login Exception	☐ Linkage Equipment Alarm Sound	☐ Reporting Platform
Network Disconnection Exception	☐ Linkage Equipment Alarm Sound	☐ Reporting Platform
Temperature Exception	☐ Linkage Equipment Alarm Sound	☐ Reporting Platform
Fan Exception	☐ Linkage Equipment Alarm Sound	☐ Reporting Platform

 Save

Figure 3-22 Configure Device Exception Alarm

Step 2 Exception Types.

- IP Address Conflicted: It means that the linkage action will be triggered when the IP address of the device is the same as that of other device in the network.

- **Illegal Login Exception:** It means that the device will trigger the linkage action when the wrong user name or password is entered.
- **Network Disconnection Exception:** It means that the linkage action will be triggered if the device is not connected to the network cable or the network cable falls off.
- **Temperature Exception:** It means that the linkage action will be triggered when the operating temperature of the device is abnormal.
- **Fan Exception:** It means that the linkage action will be triggered when the fan status is abnormal during the running of the device.

Step 3 Set the Linkage Method.

- **Linkage Equipment Alarm Sound:** When an exception occurs, the alarm will be generated by the device and buzzer of linkage equipment.
- **Reporting Platform:** When an exception occurs, the alarm information will be uploaded to the platform.

Step 4 Click Save.

3.8 Upgrade LED Receiving Card

This part introduces how to upgrade LED receiving card.



Note

Obtain the correct upgrade package and store it in the computer.

Step 1 Enter Configuration → LED Receiving Card Upgrade.

LED Receiving Card Upgrade

Sending Card:

Upgrade Configuration:

Status:

Firmware:

Status:

The upgrading process will be 1 to 10 minutes, please don't disconnect power to the device during the process. The device reboots automatically after upgrading.

Figure 3-23 Upgrade LED Receiving Card

Step 2 Select the card that needs to be upgraded.

Step 3 To configure the upgrade, click Browse, select the configuration file and click Import. Complete the configuration parameters according to the interface prompts.

Step 4 To upgrade the firmware, click Browse, select the upgrade file and click Upgrade.

**Caution**

Please do not turn off the power during the upgrade. The device will automatically restart after the upgrade.

3.9 Set up Security Service

Enter Configuration → Security Control → Security Service. Turn on or off the security service of the device according to the requirement. Click Save after setting.

☒ enabled SSH

☐ enabled Https

☒ enabled SADP

 Save

Figure 3-24 Set Up Security Service

- Enable SSH: It means to provide security for remote login. The device will shut down automatically after restart.

**Note**

When logging in to the device via SSH, the default user name is admin and the password is the device password when it is activated.

- Enable Https: It means to effectively prevent information leakage during the remote management process and provide security for data transmission.
- Enable SADP: It means that the device can be searched by SADP in the same network segment.

3.10 System Parameters

This part introduces the system maintenance, system configuration and other related parameter settings of the device.

3.10.1 Check Device Information

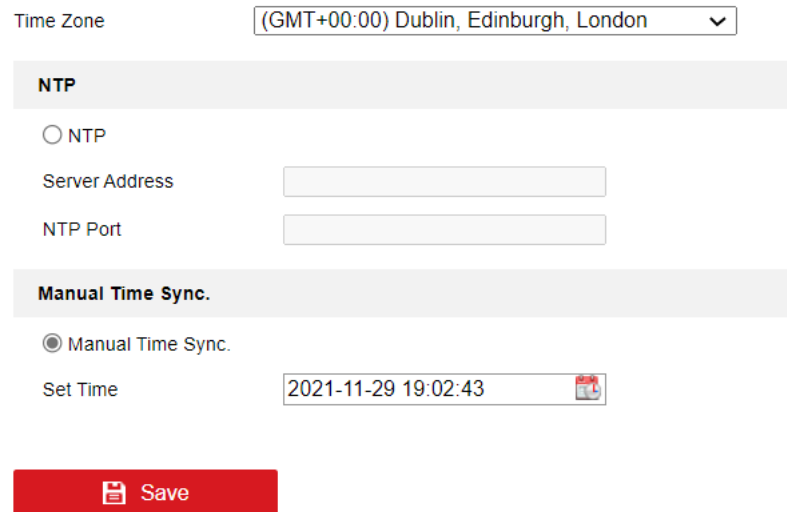
You can view device information such as device number, device model, serial number and version. Enter Configuration → System → System Settings → Basic Information. View the device information.

Note

The device name can be customized according to the requirement.

3.10.2 Set Time

Set the time zone, timing and daylight saving time of the device.



Time Zone (GMT+00:00) Dublin, Edinburgh, London

NTP

☐ NTP

Server Address

NTP Port

Manual Time Sync.

☒ Manual Time Sync.

Set Time 2021-11-29 19:02:43

Save

Figure 3-25 Set Time

Set Time Manually

It is used to manually set the device time.

Step 1 Enter Configuration → System → System Settings → Time Settings.

Step 2 Select Time Zone.

Step 3 Click Manual Time Sync. Set the device time by manually enter the time or select time from the calendar.

Step 4 Click Save.

Set NTP Timing

Use NTP for accurate and reliable timing.

Note

Please build or obtain the NTP server information first. ◦

Step 1 Enter Configuration → System → System Settings → Time Settings.

Step 2 Select the time zone.

Step 3 Click NTP.

Step 4 Fill in the Server Address and NTP port.



Note

The server address is the IP address or the domain name of the NTP server.

Step 5 Click Save.

3.10.3 Set RS-485/RS-232

RS-485/RS-232 is used to access control signals.



Note

Use RS-485 cable to connect the device to the computer or the terminal.。

Step 1 Enter Configuration → System → System Settings → Serial Port Configuration.

Port	1
Port Type	RS485
Duplex	Full-duplex
Baud Rate	115200
Data Bit	8
Stop Bit	2
Parity	Even
Flow Control	Soft Flow
Working Mode	Screen Control
Serial Port Protocol	HIK_LCD_H1

Save

Figure 3-26 Set Serial Port Parameters

Step 2 Set the RS-485 / RS-232 parameters according to the requirement. Please keep the parameters of the device consistent with those of the computer or the terminal.

Step 3 Click Save.

3.10.4 Configure Font

It is used to set the font of OSD and subtitles. The default font can be used. Enter Configuration → System → System Settings → Font Configuration, click Browse to import a new font according to the requirement.

Font Selection

Note: Applicable to the global, including OSD input, subtitle input, etc. Only support TTF files with English fonts. The file cannot exceed 15 MB, and its name cannot be repeated.

Figure 3-27 Configure Font



Caution

Only Chinese TTF fonts are supported. The file size cannot exceed 15m, and the font file name cannot be repeated.

3.10.5 About the Device

It is used to view the open source software licenses of the device.

Enter configuration → System → System Settings → About. Click Export to export the licenses.

3.10.6 Upgrade and Maintenance

Reboot	
Reboot	Reboot the device.
Default	
Restore	Reset all the parameters, except the IP parameters and user information, to the default settings.
Default	Restore all parameters to default settings.
Export	
Export	
Import Config. File	
Device Parameters	Browse Import
Status	
Upgrade	
Firmware	Browse Upgrade
Status	

Note: The upgrading process will be 1 to 10 minutes, please don't disconnect power to the device during the process. The device reboots automatically after upgrading.

Figure 3-28 Upgrade and Maintenance

Reboot

Enter Configuration → System → Maintenance → Upgrade & Maintenance. Click Reboot to reboot the device.

Restore

Enter Configuration → System → Maintenance → Upgrade & Maintenance. Click Restore according to the requirement. Except for IP parameters, user information, and video formats, other parameters will be restored to the factory state. Please click with caution.

Default

Enter Configuration → System → Maintenance → Upgrade & Maintenance. Click Default according to the requirement. All parameters of the device will be restored to the factory state. Please click with caution.

Import/Export Configuration Parameters

The configuration parameters of the device can be obtained by importing/exporting the configuration file of the device. Users can conveniently configure other devices with the same parameters.

- Import configuration parameters: Enter Configuration → System → Maintenance → Upgrade & Maintenance. Select the device parameters. Follow the interface prompts to complete the configuration of parameters.
- Export configuration parameters: Enter Configuration → System → Maintenance → Upgrade & Maintenance. Set the file encryption password. Select the device parameters. Follow the interface prompts to complete the configuration of parameters.



Note

The exported configuration file has an encrypted password, which needs to be verified when importing the configuration file.

Upgrade

This part introduces how to upgrade the device.



Note

Obtain the correct upgrade package and store it in the computer.

Step 1 Enter Configuration → System → Maintenance → Upgrade & Maintenance.

Step 2 Click Browse to select the upgrade file.

Step 3 Click Upgrade.



Caution

Please do not turn off the power during the upgrade of the device, the device will restart automatically after the upgrade.

3.10.7 Diagnosis



Note

Please insert the formatted U disk first.

After it is turned on, the system debugging log can be exported and saved to the USB flash disk or to the syslog server. Enter Configuration → System → Maintenance → Diagnose. Click Start.

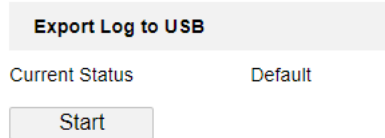


Figure 3-29 Set Diagnosis

3.10.8 Set syslog

Configure the syslog server. When the device generates logs, upload the logs to the syslog server.



Note

Please complete the deployment and configuration of the syslog server first.。

Step 1 Enter Configuration → System → Maintenance → syslog.

☐ Enable syslog

Basic Settings

Server IP

Port

Upload Cycle

Hour

Protocol Type

Save

Figure 3-30 Set syslog

Step 2 Check Enable syslog.

Step 3 Set server parameters.

- Server IP: The IP address of the syslog server.
- Port: The port of the syslog server.
- Upload Cycle: it is used to set the log upload cycle in hours.
- Protocol Type
 - TCP and UDP: No device or server certificate verification is required.
 - One-way authentication and two-way authentication: Device or server certificate verification is required.

Step 4 Click Save.

3.10.9 User Management

This part introduces how to add, edit and delete users of the device.

Caution

In order to improve the security of product network usage, please change your username and password regularly. It is recommended to update and maintain it every 3 months. If the device is used in a higher security risk environment, it is recommended to update it once a month or a week.

Step 1 Enter Configuration → System → User Management → User Management.

User Management

IP Filter Setting

User List		Add	Modify	Delete
No	User Name			
1	admin			
2	test			

Figure 3-31 User Management

Step 2 Click Add, set user name and admin password.

Add

User Name

Admin Password

Password

Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.

Confirm

OK

Cancel

Figure 3-32 Add User

Step 3 Select a user to perform the following operations.

- Click Modify to modify the password and other information of the selected user.
- Click Delete to delete the selected user.

Step 4 Click OK.

3.10.10 Set IP Filter Control

It is used to turn on or turn off the computer or terminal access to the device. IP addresses all refer to IPv4 addresses.

Enter Configuration → System → User Management → IP Filter Setting.

Enabled ☒ Enable
 Type ☐ White User ☒ Black User

Note: If the local IP is not in the blocklist, please operate with caution. When the blocklist is saved, the logged-in non-blocklist client IP will be automatically logged out.

Black User	
IP Address	Description

Figure 3-33 IP Filter Setting

- White User: It indicates that the IP addresses in the list are allowed to access the device.
- Black User: It indicates that none of the IP addresses in the list can access the device.

Note

Only admin users can add white user and black user. No more than 64 allow lists and 64 block lists can be added.

- When the white user is added, the client non-white-user IP that has been logged in will be automatically logged out.
- When the black user is added, the client non-black-user IP that has been logged in will be automatically logged out.

After setting, click Save.

3.10.11 Log Management

When an unknown fault occurs in the system, you can locate and troubleshoot the problem in time by referring to the log.

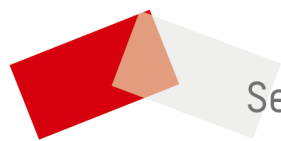
Step 1 Enter Configuration → System → Log Management.

Step 2 Select the log type, start time and end time.

Step 3 Click Search, and all log information that meets the query conditions will be displayed in the log list.

Main Type	All Types	Subtype	All Types		
Start Time	2021-11-29 00:00:00	End Time	2021-11-29 23:59:59	Search	
No	Operation Time	Main Type	Subtype	Remote Host Ad...	Description

Figure 3-34 Search Log



See Far, Go Further

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