

4K ViewPro

Video Processor



User Manual

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Caution

Double pole, neutral fusing. Disconnect mains before servicing.

ATTENTION. Double pôle / fusible sur le neutre.

Risk of explosion if the battery is replaced by an incorrect type

Disposal if a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.

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1 Overview

1.1 Positioning

The 4K ViewPro is the first real 4K video processor around the globe, which supports 4K×2K@60Hz video input and output.

Designed with a hardware FPGA system architecture and high-performance Scaler core, the 4K ViewPro allows input and output scaling and offers you a perfect experience of image processing.

With powerful capabilities like receiving of a variety of video signals and ultra HD 4K×2K@60Hz image processing and output, the 4K ViewPro can be widely used for high-end rental, stage control, fine-pitch LED displays and video conversion.

1.2 Features

- A wide range of video inputs: 1 × DP 1.2, 1 × HDMI 2.0, 2 × dual link DVI and 2 × 12G-SDI with loop output
- A wide range of video outputs: 1 × HDMI 2.0, 1 × dual link DVI, 1 × 12G-SDI and 1 × HDBaseT
- Up to 6 × input and 5 × output
- Up to 4K×2K@60Hz 4:4:4 video input and input source image scaling supported
- Custom EDID
- Picture in Picture (PIP) function
The position and size of PIP can be adjusted and controlled as you like.
- Layer freezing, blackout, test patterns, output color adjustment and other functions
- Easy device operation, control and monitoring via mobile devices or Web
- Strobe function supported
Simple operations allow for on-site strobe display effect.

2 Appearance

2.1 Front Panel



| No. | Button | Description |
|-----|----------------------|---|
| 1 | Power button | Press the button to turn on the device. Hold down the button and select Yes on the TFT screen to turn off the device. |
| 2 | Input source buttons | Display signal statuses of input sources and switch input sources quickly. Button indicator descriptions: <ul style="list-style-type: none"> • Green: Input source is accessed and in use. • Yellow: Input source is accessed but not in use. • Off: No input source is accessed or input source is abnormal. • Red, off after flashing 5s: Input source is not accessed but in use. • Press the input source button to switch the input source of main layer. Hold it down for 4s to switch the input source of PIP. |
| 3 | TFT screen | Display the current device status and settings menu. |
| 4 | Knob | <ul style="list-style-type: none"> • On the home screen, press the knob to enter the operation menu screen. • On the operation menu screen, rotate the knob to select a menu item, and press the knob to confirm the selection or enter the submenu. • When a menu item with parameters is selected, you can rotate the knob to adjust the parameters. Please note that after adjustment, you need to press the knob again to confirm the adjustment. |
| 5 | ESC | Exit the current menu or cancel the operation. |

| | | |
|---|------------------|--|
| 6 | Function buttons | <ul style="list-style-type: none"> • SCALE: Enter the image scaling menu. • PIP: Enable/Disable PIP. Button indicator descriptions: On: PIP is enabled. Off: PIP is disabled. • FN: Custom function button (Layer Swap) • TEST: Enter the test pattern menu. • FRZ: Freeze the display. • BLACK: Make the display fade to black. |
| 7 | USB | For device update and importing/exporting preset/BKG/LOGO files |

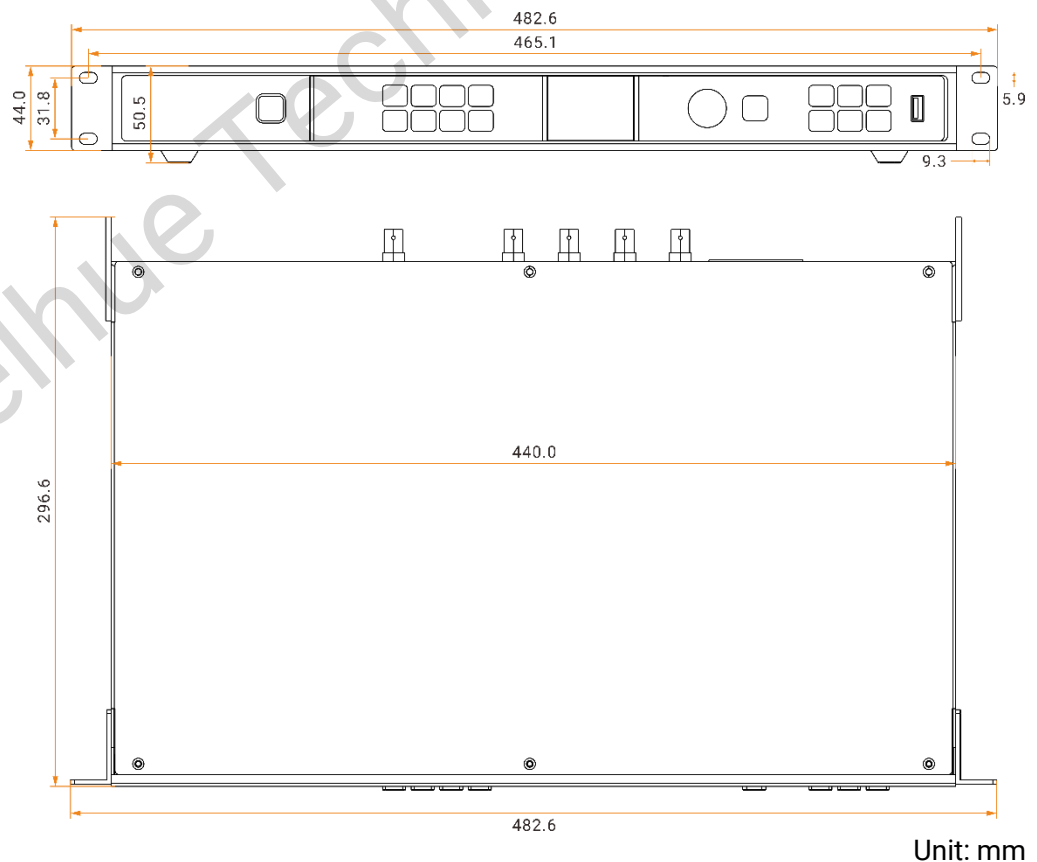
2.2 Rear Panel



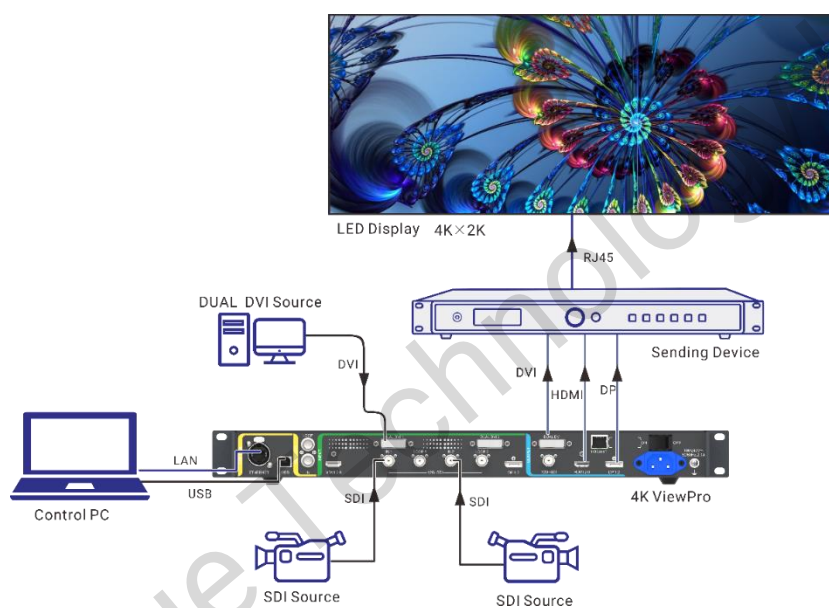
| Input | | |
|-----------|-----|--|
| Connector | Qty | Description |
| DUAL DVI | 2 | VESA standard compliant Input resolution up to 4K×2K@30Hz and downward compatible HDCP 1.4 |
| 12G-SDI | 2 | Input resolution up to 4K×2K@60Hz and downward compatible 12G-SDI loop output |
| DP 1.2 | 1 | Input resolution up to 4K×2K@60Hz and downward compatible |
| HDMI 2.0 | 1 | Input resolution up to 4K×2K@60Hz and downward compatible HDCP 2.2 |
| Output | | |
| Connector | Qty | Description |
| HDBaseT | 1 | Output resolution up to 4K×2K@60Hz when sampling rate is 4:2:0 and downward compatible |
| DUAL DVI | 1 | Output resolution up to 4K×2K@30Hz and downward compatible |
| 12G-SDI | 1 | Output resolution up to 4K×2K@60Hz and downward compatible |
| HDMI 2.0 | 1 | Input resolution up to 4K×2K@60Hz and downward compatible |

| | | |
|-------------------------------|------------|--|
| | | HDCP 2.2 and EDID 1.3 |
| DP 1.2 | 1 | Input resolution up to 4K×2K@60Hz and downward compatible |
| Control | | |
| Connector | Qty | Description |
| ETHERNET | 1 | For PC communication or network connection |
| USB (Type-B) | 1 | For device debugging |
| Genlock IN-LOOP | 1 | For connecting a synchronization signal to synchronize cascaded devices |
| Overall Specifications | | |
| Connector | Qty | Description |
| Power connector | 1 | 100–240V~, 50/60Hz, 2.1A |
| Power switch | 1 | Press ON to power on the device. Press OFF to power off the device. |

2.3 Dimensions

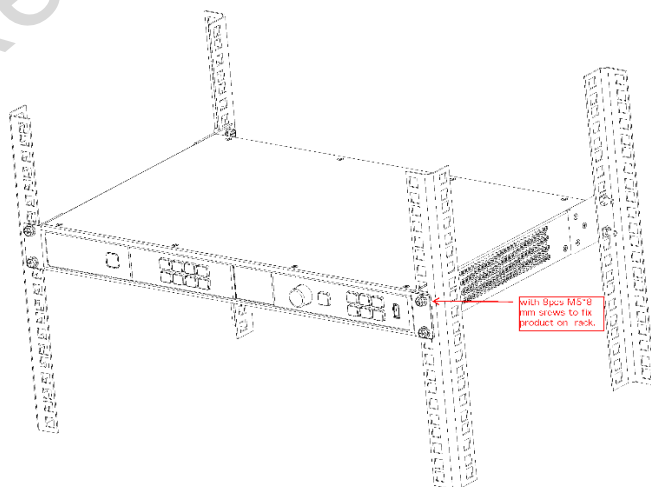


3 Applications



Installation Instructions

When the product needs to be installed on the rack, 8 screws at least M5*8 should be used to fix it. The rack for installation shall bear at least 20 kg weight.



4 Common Operations

4.1 Operation Instructions

Knob

- On the home screen, press the knob to enter the main menu screen.
- On the main menu screen, rotate the knob to select a menu item, and press the knob to confirm the selection or enter the submenu.
- When a menu item with parameters is selected, rotate the knob to adjust the parameters. Please note that after adjustment, please press the knob again to confirm the adjustment.

ESC

Press the button to exit the current menu or cancel the operation.

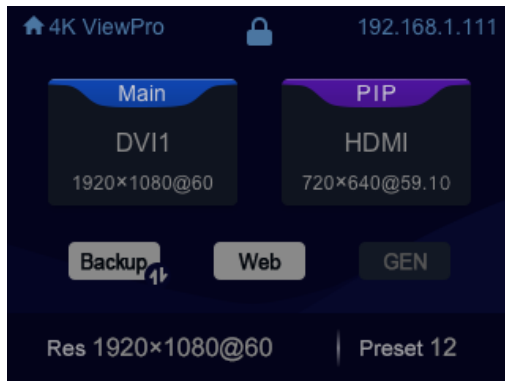
Lock/Unlock

Hold down the knob and **ESC** button for 3s or longer to lock or unlock the buttons.

4.2 Home Screen

When the device is powered on, the TFT screen displays the home screen.

Figure 4-1 Home screen

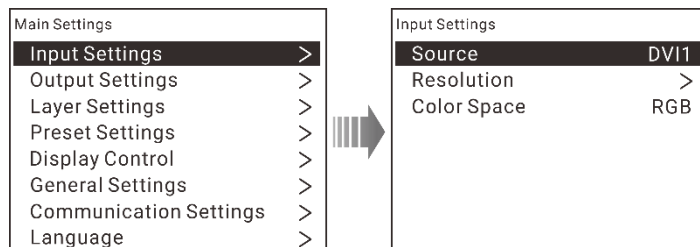


| Icon | Description |
|---------------|---|
| 4K ViewPro | Device name |
| 192.168.1.111 | Device IP address |
| | Front panel buttons locked |
| Main | Main layer status, input source and input resolution of main layer <ul style="list-style-type: none"> • Highlight: Main layer is enabled. • Gray: Main layer is not enabled |
| PIP | PIP status, input source and input resolution of PIP <ul style="list-style-type: none"> • Highlight: PIP is enabled. • Gray: PIP is not enabled |
| Backup | Status of input source hot backup <ul style="list-style-type: none"> • : Input source hot backup is not enabled. • : Input source hot backup is enabled. |
| Web | Device control status <ul style="list-style-type: none"> • : The device is controlled via Web. |
| GEN | Synchronization status <ul style="list-style-type: none"> • : Genlock is not enabled. • : Genlock is enabled. • : Genlock is abnormal. |
| Res | Current output resolution |
| Preset | Current preset name |

4.3 Input Settings

Press the knob to enter the main menu screen. Rotate the knob to select **Input Settings** and press the knob to enter the input settings screen.

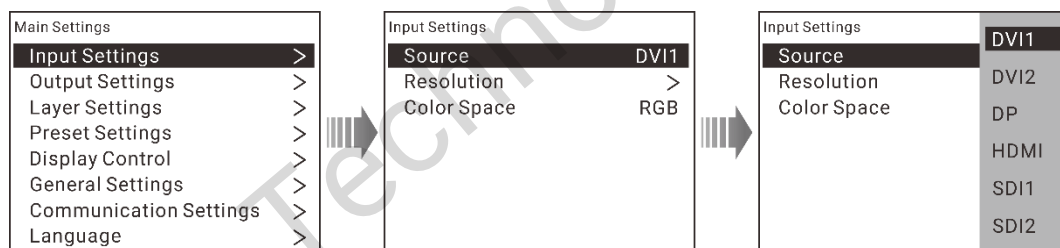
Figure 4-2 Input settings



4.3.1 Input Source

On the **Input Settings** screen, **Source** is selected by default. Press the knob to enter the source selection screen. Rotate the knob to select an input source and press the knob to confirm the selection.

Figure 4-3 Input source



4.3.2 Input Resolution

The 4K ViewPro supports input resolution settings. Standard resolution and custom resolution are both supported.

On the **Input Settings** screen, rotate the knob to select **Resolution** and press the knob to enter the input resolution settings screen.

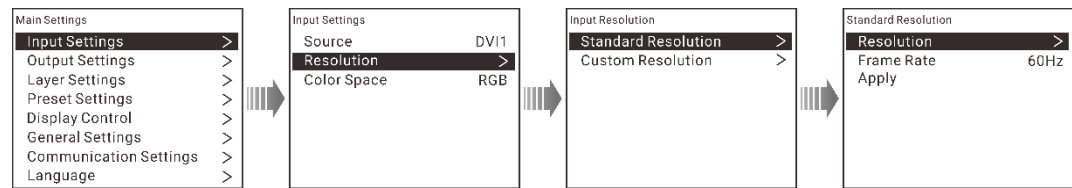
Note:

When the input source is SDI, input resolution settings are not supported.

Standard Resolution

1. **Standard Resolution** is selected by default. You can rotate the knob to select a desired resolution and frame rate.
2. After you have set the resolution and frame rate, rotate the knob to select **Apply** and press the knob to make the settings take effect.

Figure 4-4 Standard resolution settings



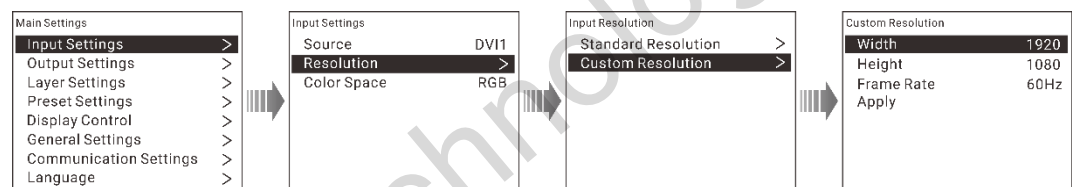
Note:

When you select different input sources, the resolutions under **Standard Resolution** will be different.

Custom Resolution

Rotate the knob to select **Custom Resolution** and press the knob to enter the custom resolution settings screen. Rotate the knob to select a desired width, height and frame rate.

Figure 4-5 Custom resolution settings



After you have set the width, height and frame rate, rotate the knob to select **Apply** and press the knob to make the settings take effect.

4.3.3 Color Space

The device can automatically identify the color space type of the current input source. The color space types supported by the input connector are as followings.

- DVI: RGB, YCbCr
- HDMI: RGB, YCbCr
- DP: RGB, YCbCr
- DUAL DVI: RGB, YCbCr
- SDI: SMPTE level-A, SMPTE level-B

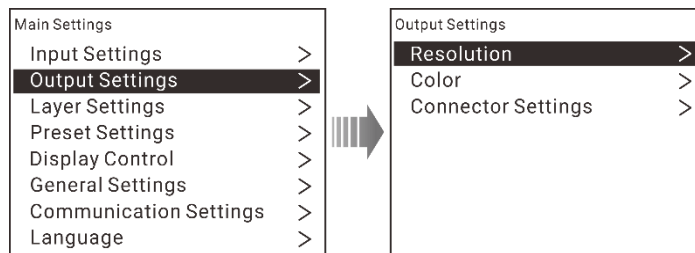
Note:

When there is no input source accessed, **No Signal** is displayed here.

4.4 Output Settings

On the main menu screen, rotate the knob to select **Output Settings** and press the knob to enter the output settings screen.

Figure 4-6 Output settings



4.4.1 Output Resolution

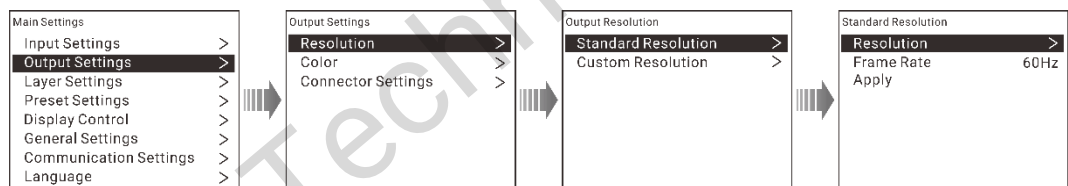
The 4K ViewPro supports output resolution settings. Standard resolution and custom resolution are both supported.

On the **Output Settings** screen, rotate the knob to select **Resolution** and press the knob to enter the output resolution settings screen.

Standard Resolution

Standard Resolution is selected by default. You can rotate the knob to select a desired resolution and frame rate.

Figure 4-7 Standard resolution settings

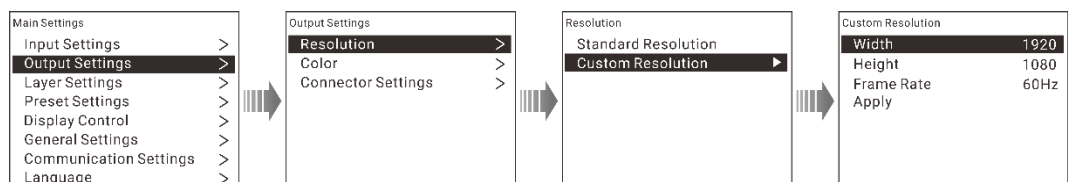


After you have set the resolution and frame rate, rotate the knob to select **Apply** and press the knob to make the settings take effect.

Custom Resolution

Rotate the knob to select **Custom Resolution** and press the knob to enter the custom resolution settings screen. Rotate the knob to select a desired width, height and frame rate.

Figure 4-8 Custom resolution settings



4.4.2 Output Color

Rotate the knob to select **Color** and press the knob to enter the output color settings screen. When a color parameter is selected, press the knob and the parameter color

will turn blue. Then rotate the knob to adjust the parameter value. For detailed parameter settings, please refer to [Table 4-1](#).

Figure 4-9 Output color settings

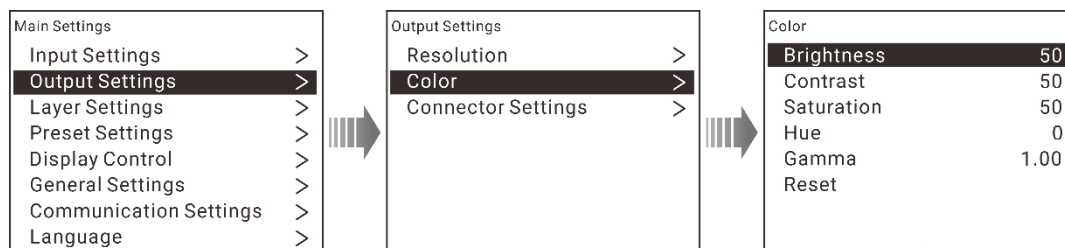


Table 4-1 Output color parameter settings

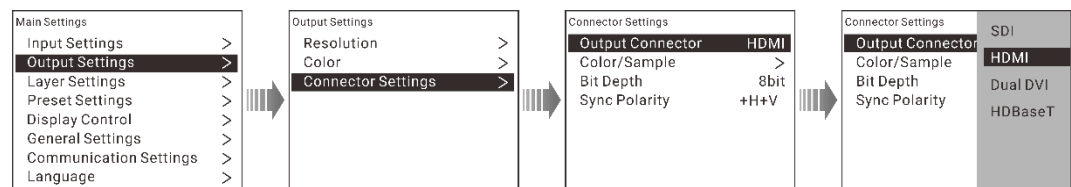
| Name | Value Range | Default Value | Description |
|------------|-------------|---------------|---|
| Brightness | 0–100 | 50 | Adjust the screen brightness. The larger this value is, the brighter the screen will be. |
| Contrast | 0–100 | 50 | Adjust the difference between the darkest and brightest areas of the image displayed on the screen. The larger this value is, the bigger this difference will be. |
| Saturation | 0–100 | 50 | Adjust the purity or vividness grade of the image color. The larger this value is, the purer the color will be. |
| Hue | -180–180 | 0 | Adjust the gradation or variety of the image color. The larger this value is, the intenser the color will be. |
| Gamma | 0.25–4.00 | 1.00 | Adjust the degree of distortion of the image color. The larger this value is, the more distorted the color will be. |
| Reset | | | Reset the settings to defaults. |

4.4.3 Connector Settings

Set the output connector, color space/sampling rate, bit depth and sync polarity.

On the main menu screen, rotate the knob to choose **Output Settings > Connector Settings** and press the knob to enter the output connector settings screen.

Figure 4-10 Output connector settings



Rotate the knob to select the parameters and press the knob to confirm the selection.

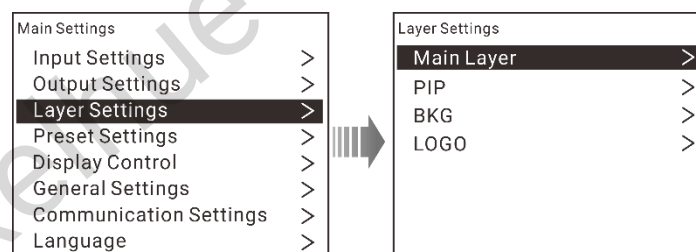
- **Output Connector**
Set the signal output connector. DP is selected by default.
- **Color/Sample**
Set the color space and sampling rate of the current output connector.
- **Bit Depth**
8 bit, 10 bit and 12 bit are supported.
- **Sync Polarity**
Set the output sync polarity for the compatibility with the connected device.

4.5 Layer Settings

The 4K ViewPro supports main layer, PIP, BKG and LOGO setting.

On the main menu screen, rotate the knob to select **Layer Settings** and press the knob to enter the layer settings screen.

Figure 4-11 Layer settings



4.5.1 Main Layer

On the **Layer Settings** screen, rotate the knob to select **Main Layer** and press the knob to enter the main layer settings screen.

Status

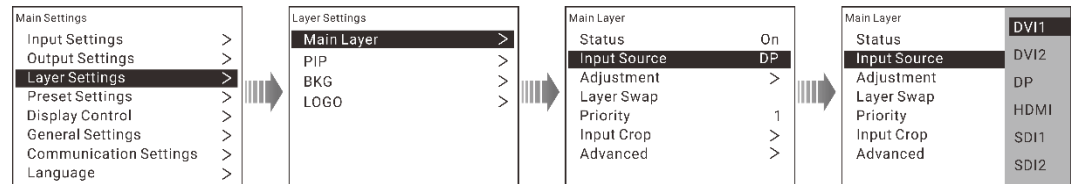
Set to turn on or turn off the main layer function.

- **On:** Turn on the main layer function.
- **Off:** Turn off the main layer function.

Input Source

Rotate the knob to select the input source for main layer.

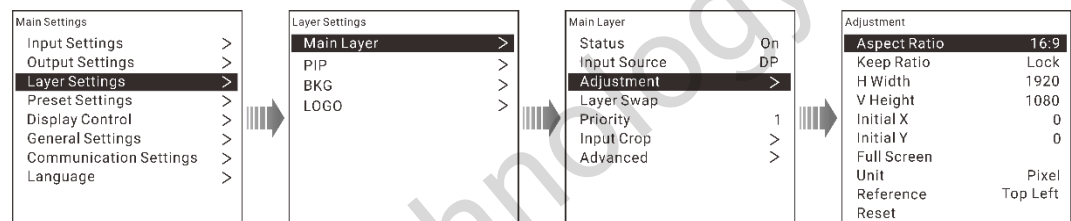
Figure 4-12 Selecting input source



Adjustment

On the **Main Layer** screen, rotate the knob to select **Adjustment** and press the knob to enter the main layer adjustment screen.

Figure 4-13 Adjustment



- **Aspect Ratio:** Set the proportional relationship between the layer width and its height.
- **Keep Ratio:** Lock or unlock the aspect ratio.
 - **Lock:** The aspect ratio is a fixed ratio. You can set the vertical height and horizontal width based on the selected aspect ratio. For example, the aspect ratio is set to 2:1 and you set to lock the ratio, then you can set the vertical height and you cannot set the horizontal width which will be automatically adjusted based on the set aspect ratio.
 - **Unlock:** You can custom the aspect ratio and the vertical height and horizontal width can be adjusted freely.
- **H Width:** Adjust the layer width.
- **V Height:** Adjust the layer height.
- **Initial X:** Adjust the horizontal initial coordinate of the layer. The default value is **0**.
- **Initial Y:** Adjust the vertical initial coordinate of the layer. The default value is **0**.
- **Full Screen:** Set the layer to display in full screen.
 - **H:** The layer fills the screen horizontally, but remains the same vertically.
 - **V:** The layer fills the screen vertically, but remains the same horizontally.
 - **H+V:** The layer fills the whole screen.
- **Unit:** Set the adjustment unit. Pixel and percentage are supported.
- **Reference:** Set the adjustment reference.
 - **Top Left:** Set the top left corner as the reference point.

- Center: Set the center point as the reference point.
- Reset: Reset the settings to defaults.

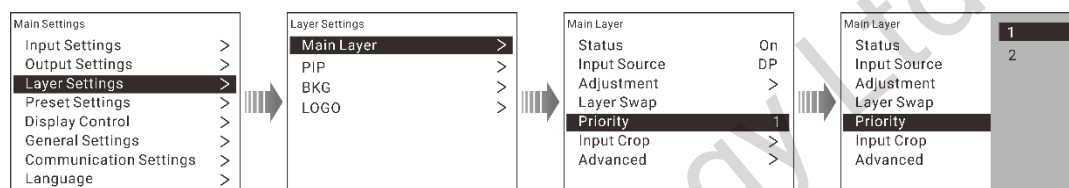
Layer Swap

Swap the input source image of main layer and PIP.

Priority

Set the layer priority. On the **Main Layer** screen, rotate the knob to select **Priority** and press the knob to enter the priority setting screen.

Figure 4-14 Main layer priority

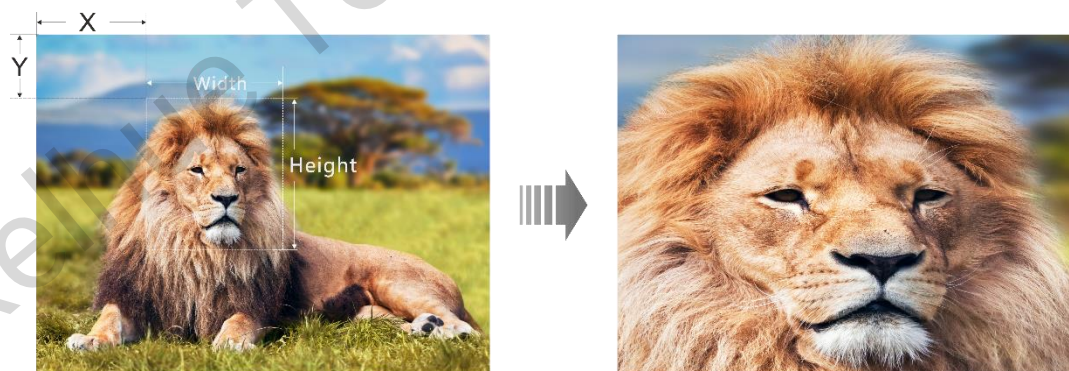


- 1: The main layer is sent to back.
- 2: The main layer is brought to front.

Input Crop

Crop the input source image and display it in full screen.

Figure 4-15 Input crop

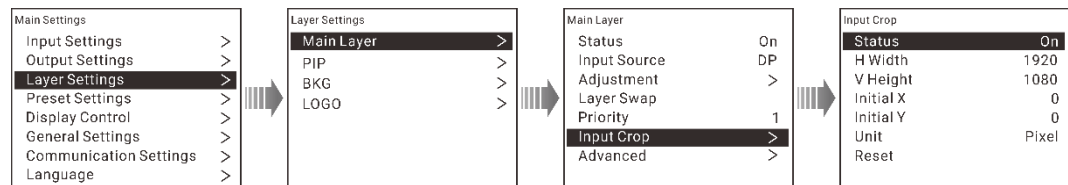


Input: 1920×1080@60Hz

Layer Size : 1920×1080

- Step 1 On the **Layer Settings** screen, rotate the knob to select **Main Layer** and press the knob to enter the main layer settings screen.
- Step 2 Rotate the knob to select **Input Crop** and press the knob to enter the input crop screen.

Figure 4-16 Input crop



Step 3 On the **Input Crop** screen, **Status** is selected by default. Rotate the knob to select **On** to turn on the input crop function.

Step 4 Rotate the knob to set the related parameters for input crop function.

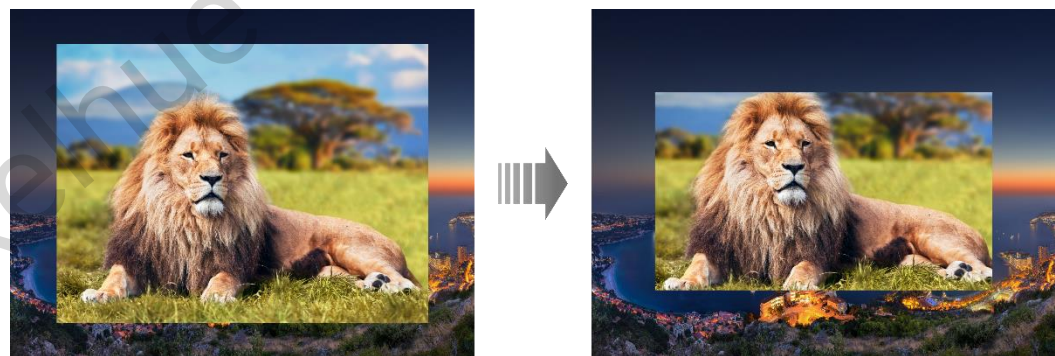
- H Width: Set the horizontal width of the current input source after cropping.
- V Height: Set the vertical height of the current input source after cropping.
- Initial X: Set the horizontal initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.
- Initial Y: Set the vertical initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.
- Unit: Set the adjustment unit. Pixel and percentage are supported.
- Reset: Reset the settings to defaults.

Advanced

Set the layer mask, opacity, flipping and color.

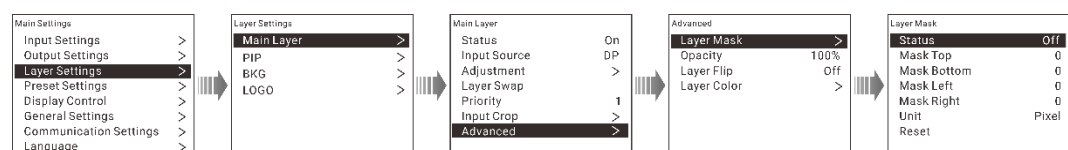
- Layer Mask
Set to mask certain part of the layer.

Figure 4-17 Mask



- On the **Advanced** screen, rotate the knob to select **Layer Mask** and press the knob to enter the layer mask settings screen.

Figure 4-18 Layer mask



- Rotate the knob to set the mask related parameters.

- Mask Top: Set the area to be masked on the top.
- Mask Bottom: Set the area to be masked on the bottom.
- Mask Left: Set the area to be masked on the left.
- Mask Right: Set the area to be masked on the right.
- Unit: Set the unit. Pixel and percentage (default) are supported.
- Reset: Reset the settings to defaults.
- Opacity
Set the opacity of the layer. The range is 0% (transparent)–100% (none-transparent). The default value is **100%**.
- Layer Flip
Set the image flipping mode. The options are **Off, H, V** and **H/V**.
 - Off: No flipping
 - H: The layer is flipped horizontally.
 - V: The layer is flipped vertically.
 - H+V: The layer is flipped both horizontally and vertically.
- Layer Color
Rotate the knob to select **Layer Color** and press the knob to enter the layer color settings screen.

Figure 4-19 Layer color

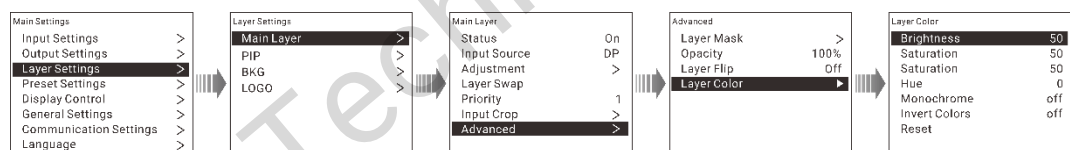


Table 4-2 Layer color

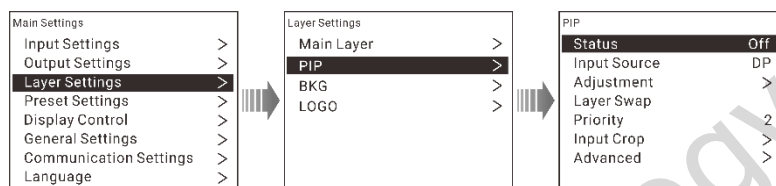
| Name | Value Range | Default Value | Description |
|------------|---|---------------|---|
| Brightness | 0–100 | 50 | Adjust the screen brightness. The larger this value is, the brighter the screen will be. |
| Contrast | 0–100 | 50 | Adjust the difference between the darkest and brightest areas of the image displayed on the screen. The larger this value is, the bigger this difference will be. |
| Saturation | 0–100 | 50 | Adjust the purity or vividness grade of the image color. The larger this value is, the purer the color will be. |
| Hue | -180–180 | 0 | Adjust the gradation or variety of the image color. The larger this value is, the intenser the color will be. |
| Monochrome | <ul style="list-style-type: none"> • On • Off | Off | <ul style="list-style-type: none"> • On: Turn on the monochrome function for main layer. |

| | | | |
|---------------|---|-----|---|
| | | | <ul style="list-style-type: none"> • Off: Turn off the function. |
| Invert Colors | <ul style="list-style-type: none"> • On • Off | Off | <ul style="list-style-type: none"> • On: Turn on the invert colors function for main layer. • Off: Turn off the function. |
| Reset | | | Reset the settings to defaults. |

4.5.2 PIP

On the **Layer Settings** screen, rotate the knob to select **PIP** and press the knob to enter the PIP settings screen.

Figure 4-20 PIP



Status

On the PIP screen, **Status** is selected by default. You can select to turn on or turn off the PIP function.

- On: Turn on the PIP function. When PIP is turned on, the **PIP** button on the front panel is on and green.
- Off: Turn off the PIP function. You can also press the **PIP** button on the front panel to turn off the PIP.

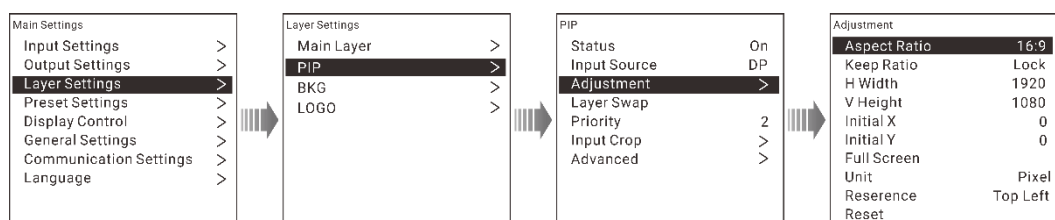
Input Source

Rotate the knob to select the input source for PIP. The input sources include DVI1, DVI2, DP, HDMI, SDI1 and SDI2

Adjustment

On the **PIP** screen, rotate the knob to select **Adjustment** and press the knob to enter the PIP adjustment screen.

Figure 4-21 Adjustment



- Aspect Ratio: Set the proportional relationship between the layer width and its height.

- Keep Ratio: Lock or unlock the aspect ratio.
 - Lock: The aspect ratio is a fixed ratio. You can set the vertical height and horizontal width based on the selected aspect ratio. For example, the aspect ratio is set to 2:1 and you set to lock the ratio, then you can set the vertical height and you cannot set the horizontal width which will be automatically adjusted based on the set aspect ratio.
 - -Unlock: You can custom the aspect ratio and the vertical height and horizontal width can be adjusted freely.
- H Width: Adjust the layer width.
- V Height: Adjust the layer height.
- Initial X: Adjust the horizontal initial coordinate of the layer. The default value is 0.
- Initial Y: Adjust the vertical initial coordinate of the layer. The default value is 0.
- Full Screen: Set the layer to display in full screen.
 - H: The layer fills the screen horizontally, but remains the same vertically.
 - V: The layer fills the screen vertically, but remains the same horizontally.
 - H+V: The layer fills the whole screen.
- Unit: Set the adjustment unit. Pixel and percentage are supported.
- Reference: Set the adjustment reference.
 - Top Left: Set the top left corner as the reference point.
 - Center: Set the center point as the reference point.
- Reset: Reset the settings to defaults.

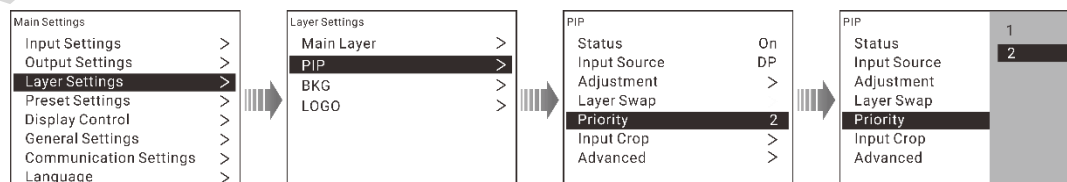
Layer Swap

Swap the input source image of main layer and PIP.

Priority

Set the layer priority. On the **PIP** screen, rotate the knob to select **Priority** and press the knob to enter the priority setting screen.

Figure 4-22 PIP priority

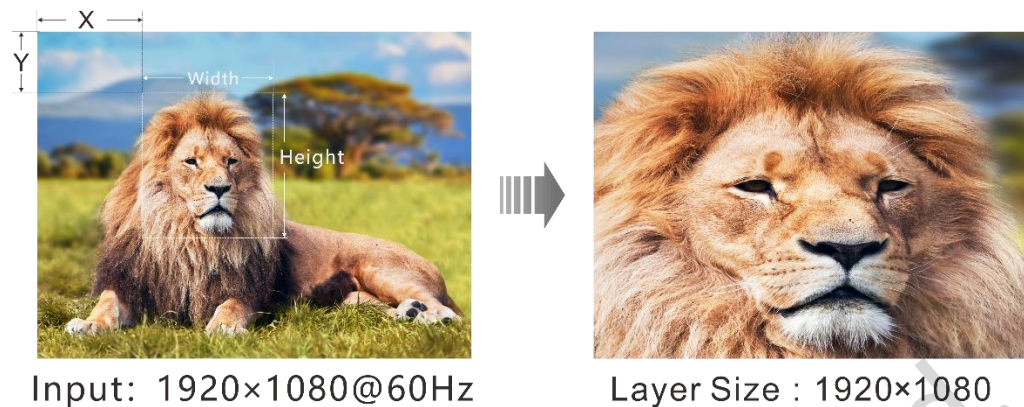


- 1: The PIP is sent to back.
- 2: The PIP is brought to front.

Input Crop

Crop the input source image and make it fill the layer.

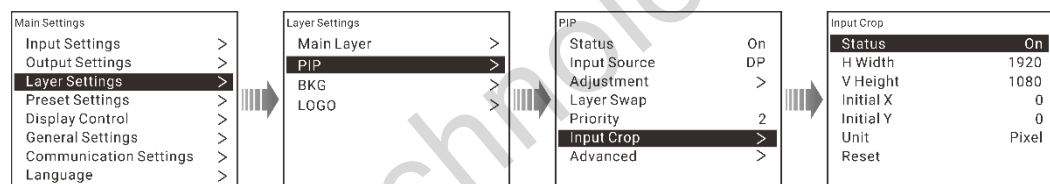
Figure 4-23 Input crop



Step 1 On the **Layer Settings** screen, rotate the knob to select **PIP** and press the knob to enter the PIP settings screen.

Step 2 Rotate the knob to select **Input Crop** and press the knob to enter the input crop screen.

Figure 4-24 Input crop



Step 3 On the **Input Crop** screen, **Status** is selected by default. Rotate the knob to select On to turn on the input crop function.

Step 4 Rotate the knob to set the related parameters for input crop function.

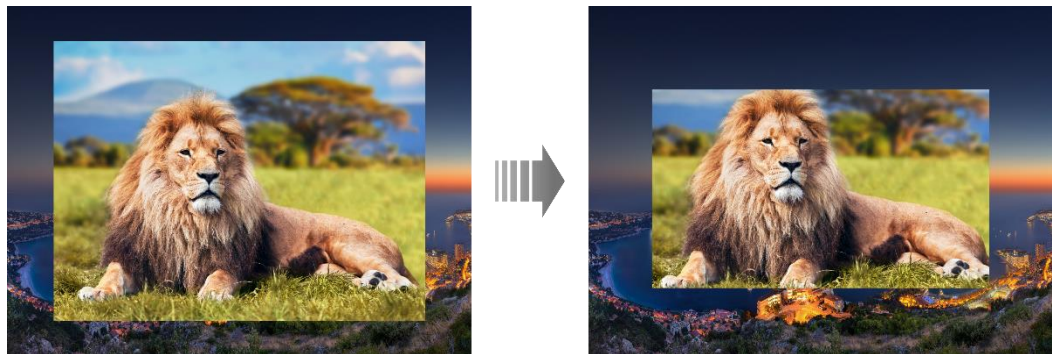
- H Width: Set the horizontal width of the current input source after cropping.
- V Height: Set the vertical height of the current input source after cropping.
- Initial X: Set the horizontal initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.
- Initial Y: Set the vertical initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.
- Unit: Set the adjustment unit. Pixel and percentage are supported.
- Reset: Reset the settings to defaults.

Advanced

Set the layer layout mask, opacity, flipping and color.

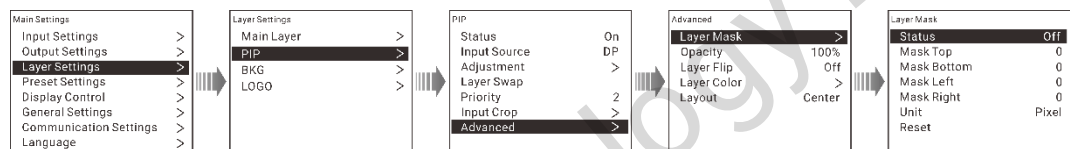
- Layer Mask
Set to mask certain part of the layer.

Figure 4-25 Mask



1. On the **PIP** screen, rotate the knob to choose **Advanced > Layer Mask** and press the knob to enter the layer mask settings screen.

Figure 4-26 PIP mask



2. Rotate the knob to set the mask related parameters.
 - Mask Top: Set the area to be masked on the top.
 - Mask Bottom: Set the area to be masked on the bottom.
 - Mask Left: Set the area to be masked on the left.
 - Mask Right: Set the area to be masked on the right.
 - Unit: Set the unit. Pixel and percentage (default) are supported.
 - Reset: Reset the settings to defaults.
 - Opacity
 - Set the opacity of the layer. The range is 0% (transparent)–100% (none-transparent). The default value is **100%**.
 - Layer Flip
 - Set the image flipping mode. The options are **Off, H, V** and **H/V**.
 - Off: No flipping
 - H: The layer is flipped horizontally.
 - V: The layer is flipped vertically.
 - H+V: The layer is flipped both horizontally and vertically.
 - Layer Color
 - Rotate the knob to select **Layer Color** and press the knob to enter the layer color settings screen.

Figure 4-27 Layer color

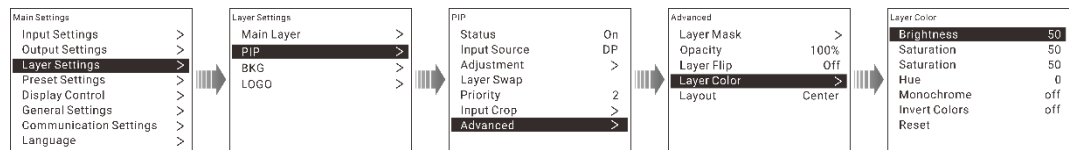


Figure 4-28 Layer color

| Name | Value Range | Default Value | Description |
|---------------|---|---------------|---|
| Brightness | 0–100 | 50 | Adjust the screen brightness. The larger this value is, the brighter the screen will be. |
| Contrast | 0–100 | 50 | Adjust the difference between the darkest and brightest areas of the image displayed on the screen. The larger this value is, the bigger this difference will be. |
| Saturation | 0–100 | 50 | Adjust the purity or vividness grade of the image color. The larger this value is, the purer the color will be. |
| Hue | -180–180 | 0 | Adjust the gradation or variety of the image color. The larger this value is, the intenser the color will be. |
| Monochrome | <ul style="list-style-type: none"> • On • Off | Off | <ul style="list-style-type: none"> • On: Turn on the monochrome function for PIP. • Off: Turn off the function. |
| Invert Colors | <ul style="list-style-type: none"> • On • Off | Off | <ul style="list-style-type: none"> • On: Turn on the invert colors function for PIP. • Off: Turn off the function. |
| Reset | | | Reset the settings to defaults. |

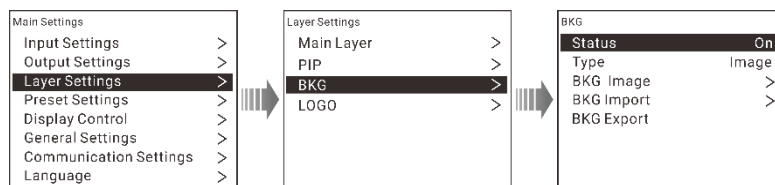
- Layout

Set the layout of PIP and main layer. The supported layouts include **Top Left**, **Bottom Left**, **Top Right**, **Bottom Right**, **Center** (default), **T+B** and **L+R**.

4.5.3 BKG

The 4K ViewPro supports BKG settings. On the **Layer Settings** screen, rotate the knob to select **BKG** and press the knob to enter the BKG settings screen.

Figure 4-29 BKG settings



Step 2 Set to turn on or turn off the BKG function.

Step 3 Set the BKG type. The options are **Pure Color** or **Image**.

- Pure Color: Set the individual R, G and B values to set the color for BKG.
- Image: Select a local image as the BKG image.

Step 4 (Optional) Select **BKG Import** to import BKG images from USB drive.

Step 5 (Optional) Select **BKG Export** to export BKG images to USB drive.

Note:

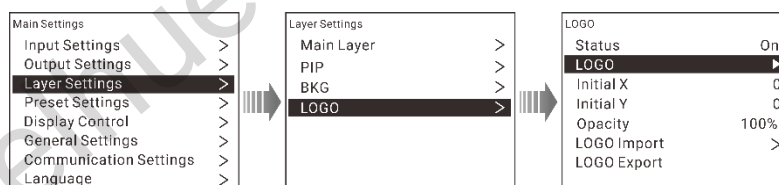
The 4K ViewPro supports importing up to 16 BKG images. The BKG image size should be no greater than 4090×2160.

BKG import and export functions are available when an USB drive is connected to the 4K ViewPro.

4.5.4 LOGO

On the **Layer Settings** screen, rotate the knob to select **LOGO** and press the knob to enter the LOGO settings screen.

Figure 4-30 LOGO settings



Step 1 Set to turn on or turn off the LOGO function.

Step 2 Select the desired LOGO image.

Step 3 Select **Initial X** to set the horizontal initial coordinate of LOGO image.

Step 4 Select **Initial Y** to set the vertical initial coordinate of LOGO image.

Step 5 Select **Opacity** to set the opacity of LOGO image. The range is 0% (transparent)–100% (none-transparent).

Step 6 (Optional) Select **LOGO Import** to import BKG images from USB drive.

Step 7 (Optional) Select **LOGO Export** to export BKG images to USB drive.

Note:

The 4K ViewPro supports importing up to 16 BKG images.

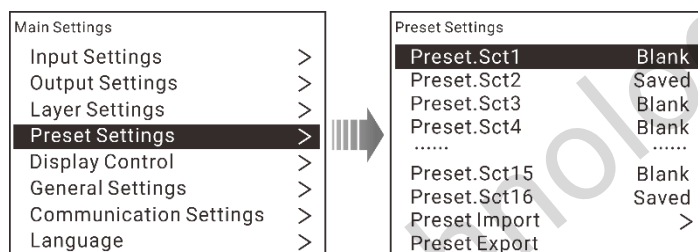
LOGO import and export functions are available when an USB drive is connected to the 4K ViewPro.

4.6 Preset Settings

The 4K ViewPro supports 16 user presets. User can save, load and clear the configured presets.

On the main menu screen, rotate the knob to select **Preset Settings** and press the knob to enter the preset settings screen.

Figure 4-31 Preset settings

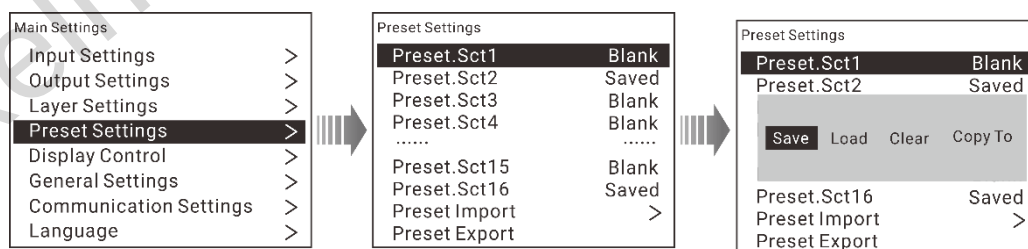


4.6.1 Saving Preset

After you have completed the layer settings, you can save all the settings as a preset.

On the preset settings screen, select a blank preset and press the knob to save the layer settings to the selected preset.

Figure 4-32 Saving preset



4.6.2 Loading Preset

Rotate the knob to select a saved preset and press the knob to enter the preset options screen. You can select **Load** to load the selected preset.

4.6.3 Clearing Preset

Clear all the contents in the selected preset.

Rotate the knob to select a saved preset and press the knob to enter the preset options screen. You can select **Clear** to clear the selected preset.

4.6.4 Copying Preset

The 4K ViewPro supports preset copying function. You can copy a saved preset data to another preset.

Rotate the knob to select a saved preset and press the knob to enter the preset options screen. You can select **Copy to** to copy the selected preset data to another preset.

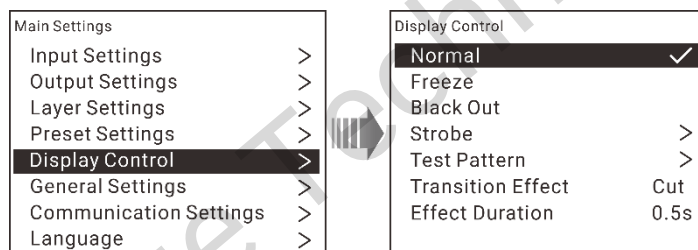
4.6.5 Importing and Exporting Preset

The 4K ViewPro allows for importing preset files from USB drive or exporting preset files to USB drive.

4.7 Display Control

On the main menu screen, rotate the knob to select **Display Control** and press the knob to enter the display control setting screen.

Figure 4-33 Display control



Note:

The display modes (**Normal**, **Strobe**, **Freeze** and **FTB**) are mutual excluded between each other. When you select one, the other one is deselected.

When **Freeze** or **FTB** is selected, test patterns are unavailable.

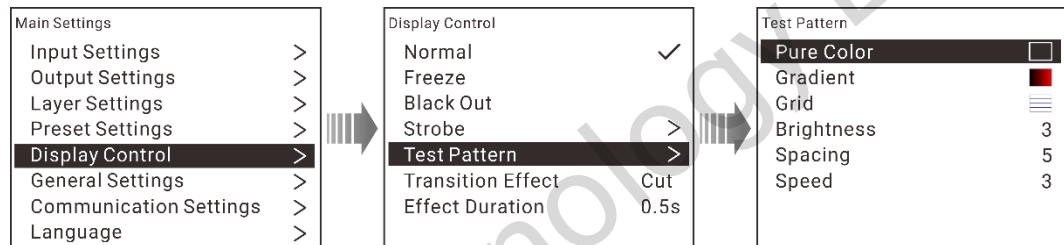
- **Normal**
Display the content of current input source normally.
- **Freeze**
Freeze the current frame of the output image.
- **Black Out**
Make the output image black.
- **Strobe**
 - **Status:** Turn on or turn off the strobe function.
 - **Rate (Frames):** Adjust the strobe rate interval (in frames) to set the duration that the source is frozen until the next grab.

- **Transition Effect**
Set the transition effect when switching the input source. Up to 16 transition effects are supported.
- **Effect Duration**
Set the duration of the transition effect. The range is 0.5s–2s and the default setting is **0.5s**.

Test Pattern

You can test whether the screen can display the output image color normally by comparing the displayed image with the test pattern. On the main menu screen, rotate the knob to select **Test Pattern** and press the knob to enter the test pattern settings screen.

Figure 4-34 Test pattern

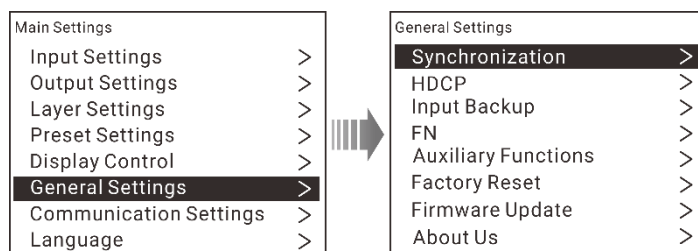


- **Pure Color**
Use pure color to test whether the screen can display the color normally. The 4K ViewPro provides 5 pure colors.
- **Gradient**
Use gradient to test whether the screen can display the image normally. The 4K ViewPro provides 11 gradients.
- **Grid**
Use grid to test whether there are uncontrollable pixels on the screen. The 4K ViewPro provides 6 grids.
- **Brightness**
Set the brightness of the test pattern. The range is 1–4 and the default value is **3**.
- **Spacing**
When the test pattern is **Gradient** or **Grid**, you can set the spacing. When the test pattern is **Pure Color**, this item is unavailable. The range is 1–8 and the default value is **5**.
- **Speed**
When the test pattern is **Grid**, you can set the moving speed. When the test pattern is **Pure Color** or **Gradient**, this item is unavailable. The range is 1–4 and the default value is **3**.

4.8 General Settings

On the main menu screen, rotate the knob to select General Settings and press the knob to enter the general settings screen. You can set the synchronization, input source hot backup, Fn button function, auxiliary functions, factory reset, as well as update firmware version and view device information.

Figure 4-35 General settings

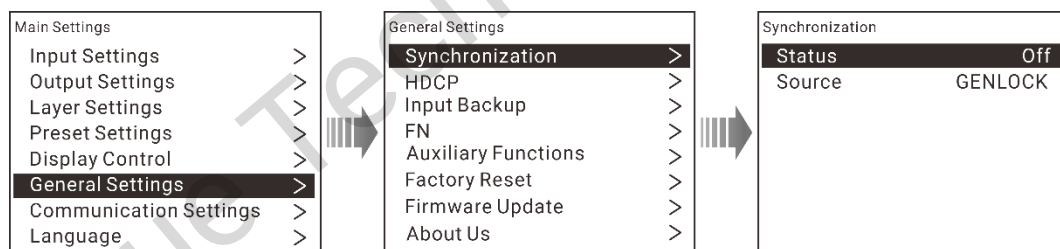


4.8.1 Synchronization

Status: Set to turn on or turn off the synchronization function.

Source: Rotate the knob to select the desired source as the sync source. Genlock signal is selected by default.

Figure 4-36 Synchronization

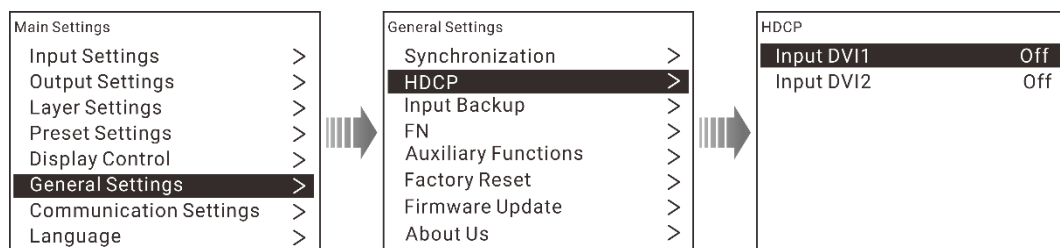


4.8.2 HDCP

DVI input connectors support HDCP processing and output.

- On: Turn on the HDCP function of DVI input connector.
- Off: Turn off the HDCP function of DVI input connector.

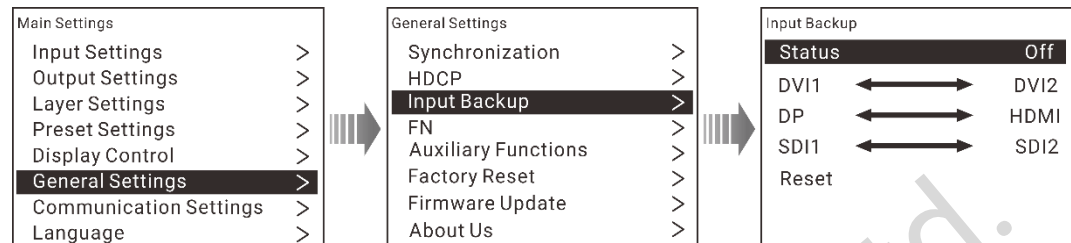
Figure 4-37 HDCP



4.8.3 Input Backup

If you turn on the input backup function, when the input source is abnormal or the connector fails, the LED screen can still work normally.

Figure 4-38 Hot backup



- For each group of signal sources, the left one is the main input source, and the right one is the backup input source.
- When the hot backup function is turned on, if the main input source has no signal but the backup input source has signal, it will switch to the backup input source. Even if the main input source has signal again, it will still switch to the backup input source.
If the backup input source has no signal but the main input source has signal, it will switch back to the main input source.
- If you switch the input source yourself, the hot backup function will not be enabled. Even if the input source you switched to has no signal, it will not switch to the backup input source.
- If the main input source has no signal because of changing preset, the hot backup function will not be enabled.

4.8.4 Fn

The **Fn** button on the device front panel can be customized to a **Synchronization, Main Layer, Preset Settings, Input Source Hot Backup** shortcut button. Then you can press the **Fn** button to enter the corresponding menu screen.

4.8.5 Auxiliary Functions

4.8.5.1 Return to Home

Set the period of time during which the system stays at the current page before returning to the homepage automatically when there is no operation performed.

- Range: 30s–3600s
- Default value: 60s

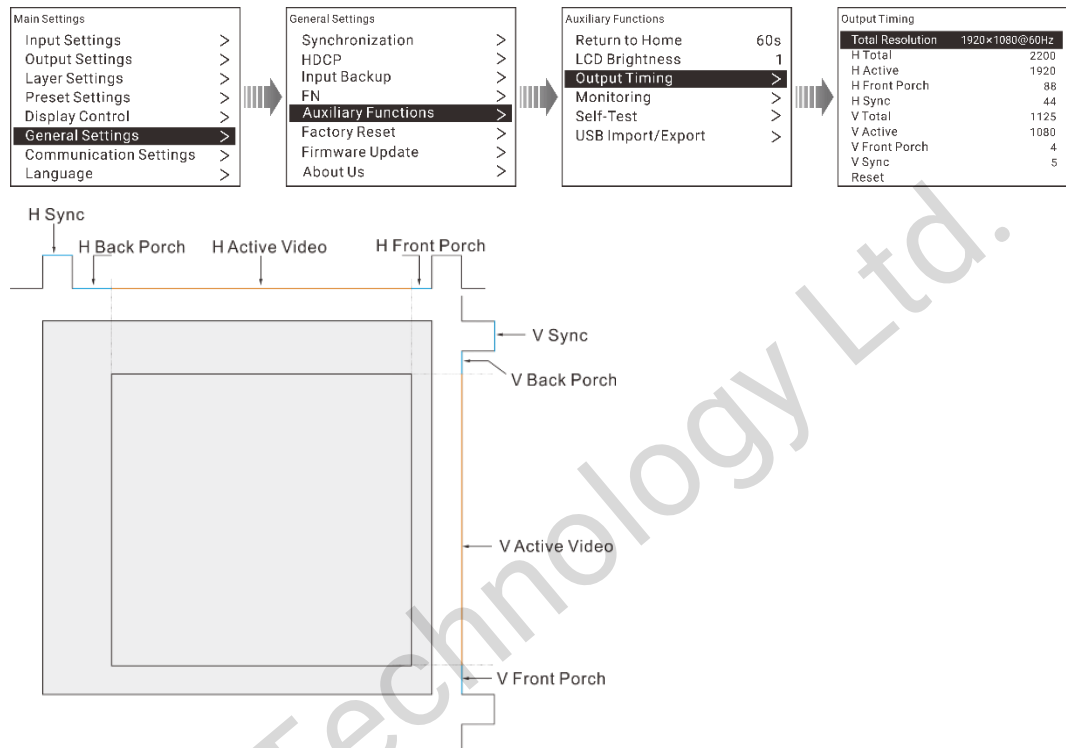
4.8.5.2 LCD Brightness

Adjust the LCD brightness. The range is 1–6 and the default setting is 1.

4.8.5.3 Output Timing

Set the area information of the resolution to be compatible with the connected devices.

Figure 4-39 Output timing



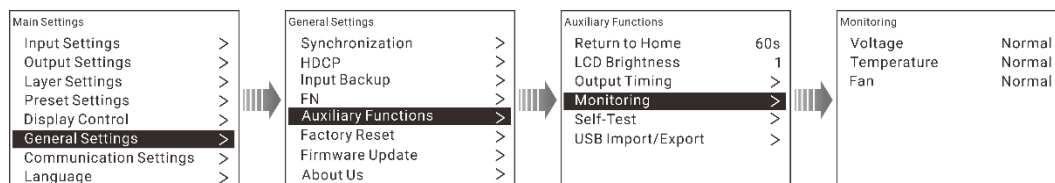
| Parameter | Description |
|------------------|---|
| Total Resolution | Current output resolution that can be set in Output Settings |
| H Total | Total pixel count per line |
| H Active | The horizontal size in pixels of the active area |
| H Front Porch | The offset between the end of the active area and the beginning of H sync |
| H Sync | H sync width in pixels |
| V Total | Total line count per frame |
| V Active | The vertical size of the output active area |
| V Front Porch | The offset in lines between the end of the output active area and the beginning of V sync |
| V Sync | V sync width in lines |

After you have completed the settings, rotate the knob to select **Apply** and press the knob to make the settings take effect. Rotate the knob to select **Reset** to reset all the settings to defaults.

4.8.5.4 Monitoring

Monitor the statuses of power supply, temperature and fan. You can view all these statuses are normal or abnormal.

Figure 4-40 Monitoring

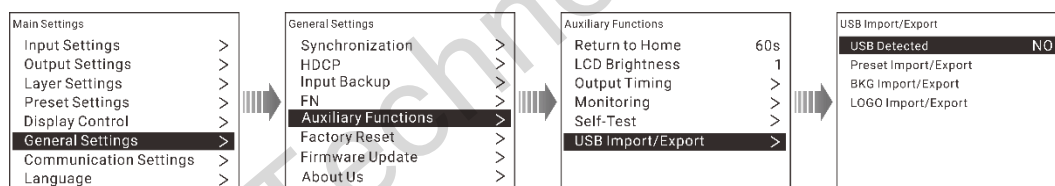


4.8.5.5 Self-Test

Test all the related items to view the device status. If anything is wrong, please feedback to technical support team of Pixelhue Technology Ltd. to solve the problem as soon as possible.

You can test the button, knob and device parameters.

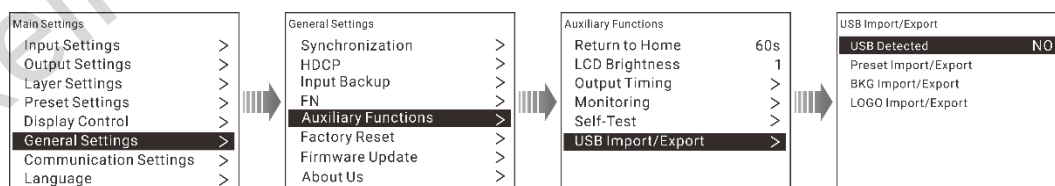
Figure 4-41 Self-test



4.8.5.6 USB Import/Export

You can import and export preset files, BKG and LOGO images via USB drive.

Figure 4-42 USB importing/exporting



USB Detected

The device will detect automatically whether USB drive is connected.

- YES: There is USB drive connected to the device.
- NO: There is no USB drive connected to the device.

USB Import

You can import preset files, BKG and LOGO images via USB drive. Single file or multiple files importing are both supported.

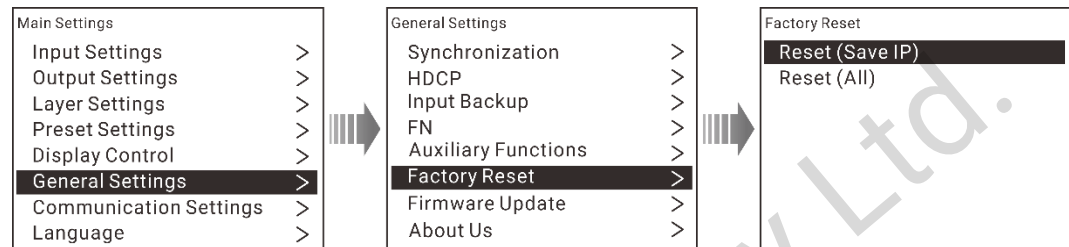
USB Export

You can export preset files, BKG and LOGO images via USB drive. Single file or multiple files exporting are both supported.

4.8.6 Factory Reset

Reset all the settings to factory defaults.

Figure 4-43 Factory reset



4.8.7 Firmware Update

The 4K ViewPro supports firmware update via USB drive.

- Step 1 Store the 4K ViewPro update file to the root directory of an USB drive.
- Step 2 Insert the USB drive to the USB port of the device.
- Step 3 Choose **General Settings** > **Firmware Update**, and the device will automatically search for the update file to perform the firmware update.

4.8.8 About Us

View the device hardware version and manufacturer information, including company website and email address.

Official website: www.pixelhue.com

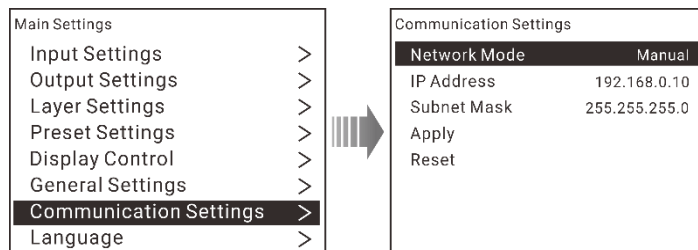
Email: info@pixelhue.com

4.9 Communication Settings

Rotate the knob to select **Communication Settings** and press the knob to enter the communication settings screen.

You can set to obtain the IP address manually or automatically. When you select **Auto**, please note that the device IP address should not conflict with IP addresses of other devices. You can select **Reset** to reset the IP address and subnet mask to default settings.

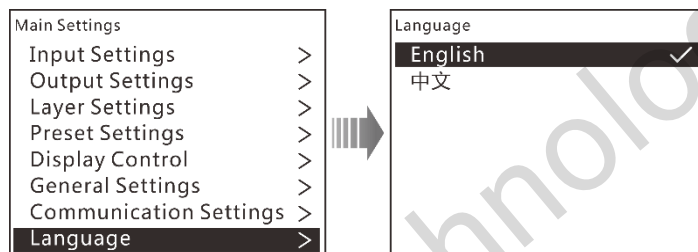
Figure 4-44 Communication settings



4.10 Language

The 4K ViewPro supports both **Chinese** and **English**. You can freely switch to either language.

Figure 4-45 Language



5 Web Operations

The 4K ViewPro supports Web operations through PC or mobile terminals. You can set the device-related parameters by using an Internet browser. The settings are the same with menu operations.

Recommended browsers:

- Chrome 50 or later
- Safari 10 or later
- Firefox 45 or later
- Internet Explorer 10.0 or later

Note:

When a PC or mobile terminal is used to control the device, the front panel buttons will be locked and a lock icon will appear on the front panel screen.

5.1 Connections

Web connection can be established via two ways.

- Ethernet cable

Connect the Ethernet port of the control PC with that of the device with a RJ45 cable.



- Router
 - Connect the Ethernet port of the device with a LAN port of the router, and connect the Ethernet port of the control PC with a LAN port of the router.
 - Connect the mobile terminals to the router through WiFi network.



Open one of the recommended browser and type "http:// the device IP address". Then press the **Enter** key to automatically jump to the device Web control page.

5.2 User Interface

The main user interface of Web page is shown in the below figure which is divided into 6 areas. The detailed information of each area is shown in the below table.

Figure 5-1 Web user interface

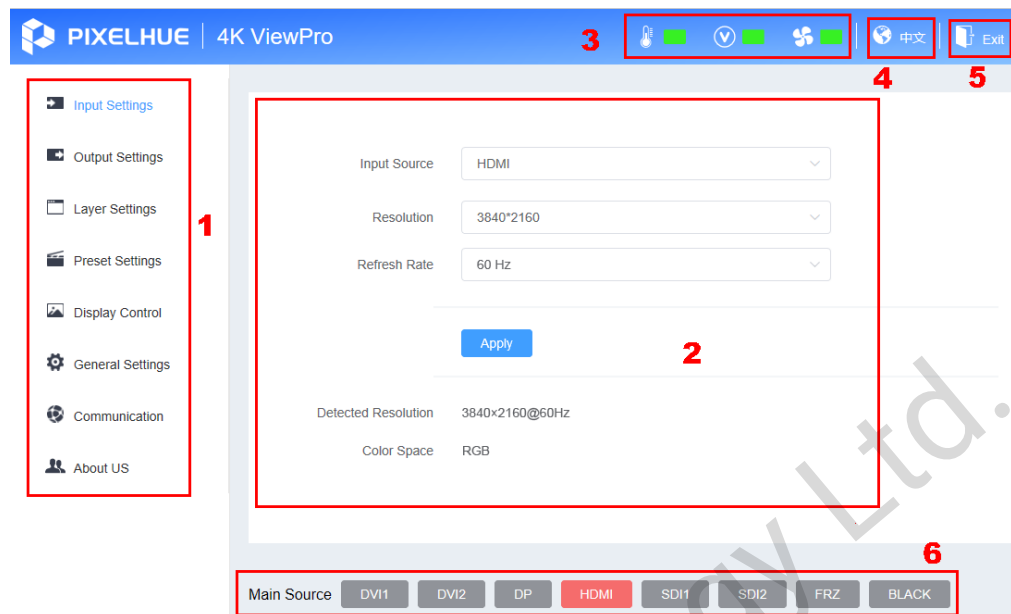


Table 5-1 Web menu descriptions

| No. | Name | Description |
|-----|-----------------------------|---|
| 1 | Main menu | Select a menu item to set. The selected menu name will turn blue. |
| 2 | Operations | Set or view the device parameters. |
| 3 | Monitoring | <ul style="list-style-type: none"> Move the mouse to icon, and the device temperature will be shown. If the temperature is abnormal, the icon will change to . Move the mouse to icon, and the device voltage will be shown. If the voltage is abnormal, the icon will change to . Move the mouse to icon, and the fan speed will be shown. If the speed is abnormal, the icon will change to . |
| 4 | Language | Click to change the language to either Chinese or English. |
| 5 | Exit | Exit web control and unlock front panel buttons. |
| 6 | Input source for main layer | <ul style="list-style-type: none"> Click an input source button to select an input source. <ul style="list-style-type: none"> - Green: The input source is used by main layer. - Orange: The input source is accessed. |

| | | |
|--|--|--|
| | | <ul style="list-style-type: none">- Gray: The input source is not accessed.• Click FRZ to freeze the current frame.• Click BLACK to make the output image fade to black. |
|--|--|--|

5.3 Input Settings

In the menu area, click **Input Settings** to go to input settings page, as shown in [Figure 5-2](#).

Figure 5-2 INDEX



- **Input Source**
Click the drop-down button next to **Input Source** and select an input source from the drop-down list.
- **Resolution**
Set the resolution of current input source.
- **Refresh Rate**
Set the refresh rate of the input source.

After you have completed all the settings, click **Apply** to make the settings take effect.

Current Resolution

The device automatically detects the resolution and refresh rate of current input source. The resolution and refresh rate can be changed in **Input Source**, **Resolution** and **Refresh Rate**.

Color Space

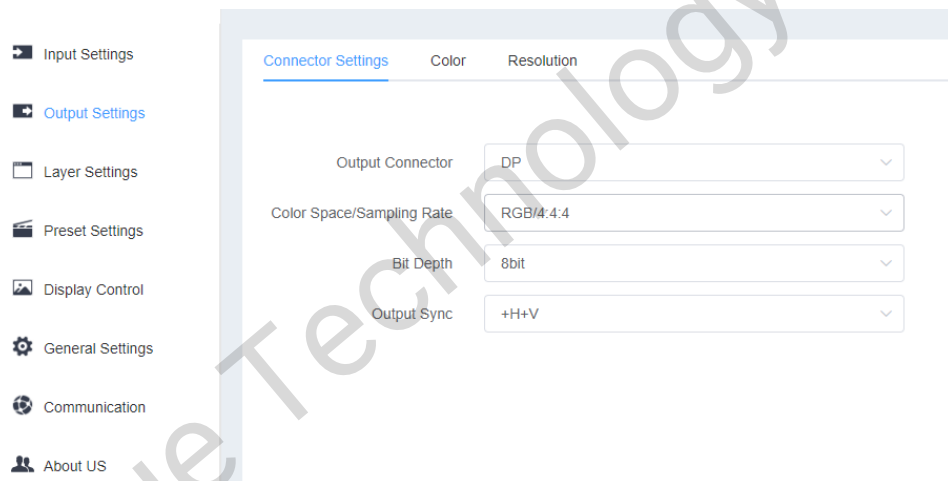
Color space includes settings of the composite video standard of an input source. Color space is determined by the video source. Different video sources correspond to different content. The device automatically identifies the color space type of current input source. If no signal is accessed, **No Signal** will be displayed.

5.4 Output Settings

5.4.1 Connector Settings

In menu area, click **Output Settings** to go to output settings page, as shown in [错误! 未找到引用源。](#). The **Connector Settings** page is displayed by default.

Figure 5-3 Connector Settings

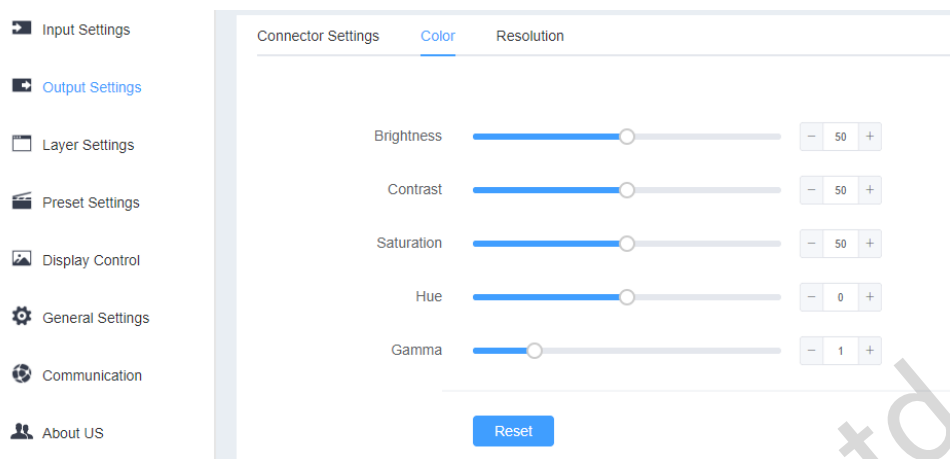


- **Output Connector**
Click the drop-down button next to **Output Connector** and select the target output connector from the drop-down list.
- **Color Space/Sampling Rate**
Click the drop-down button next to **Color Space/Sampling Rate** and select a color space and sampling rate from the drop-down list.
- **Bit Depth**
Bit depth is the number of bits used for each color component of a single pixel.
Click the drop-down button next to **Bit Depth** and select a bit depth of the output video. The options are 8bit, 10bit and 12bit.
- **Output Sync**
Click the drop-down button next to **Output Sync** and set output sync polarity.

5.4.2 Output Color

Click the **Color** tab to go to color settings page, as shown in [Figure 5-4](#).

Figure 5-4 Color



Output color settings include **Brightness, Contrast, Saturation, Hue** and **Gamma**. For detailed parameter settings, see [Table 5-2](#).

Table 5-2 Output color parameter settings

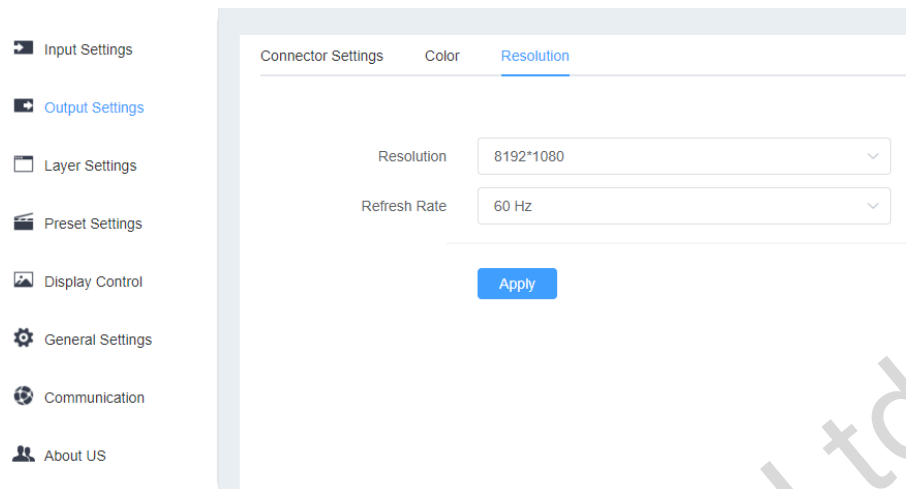
| Name | Value Range | Default Value | Description |
|------------|-------------|---------------|---|
| Brightness | 0–100 | 50 | Adjust the screen brightness. The larger this value is, the brighter the screen will be. |
| Contrast | 0–100 | 50 | Adjust the difference between the darkest and brightest areas of the image displayed on the screen. The larger this value is, the bigger this difference will be. |
| Saturation | 0–100 | 50 | Adjust the purity or vividness grade of the image color. The larger this value is, the purer the color will be. |
| Hue | -180–180 | 0 | Adjust the gradation or variety of the image color. The larger this value is, the intenser the color will be. |
| Gamma | 0.25–4.00 | 1.00 | Adjust the degree of distortion of the image color. The larger this value is, the more distorted the color will be. |

Click **Reset** to reset all the settings to defaults.

5.4.3 Output Resolution

Click the **Resolution** tab to go to output resolution settings page, as shown in [Figure 5-5](#).

Figure 5-5 Output resolution



- Resolution: Click the drop-down button next to **Resolution** and select a resolution preset from the drop-down list.
If you select **Custom** for **Resolution**, set the width and height of resolution manually.
- Refresh rate: Click the drop-down button next to **Refresh Rate** and select the refresh rate of the video from the drop-down list.

Click **Apply** after the output resolution settings are complete.

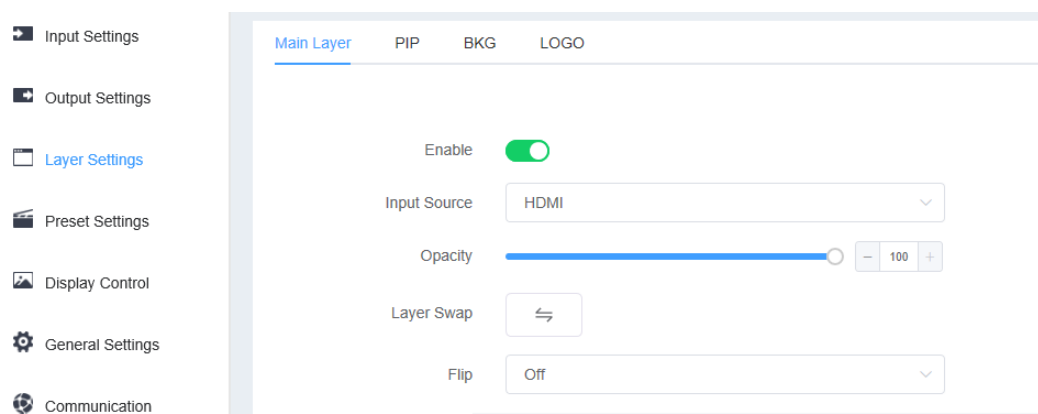
5.5 Layer Settings

In the menu area, click **Layer Settings** to go to the layer settings page where you can set the information of the main layer, PIP, BKG and LOGO.

5.5.1 Main Layer

Go to the **Layer Settings** page. The **Main Layer** page is displayed by default.

Figure 5-6 Main layer



Enable

Toggle on or off the main layer.

Click the slider of the toggle switch next to **Enable** to enable or disable the main layer.


Input Source

Click the drop-down button next to **Input Source** and select an input source for the main layer from the drop-down list.

Opacity

Set the opacity of the main layer. The range is 0% (transparent)–100% (none-transparent).

Layer Swap

Click  next to **Layer Swap** to swap the input sources of the main layer and PIP layer.

Flip

Turn on or turn off the layer flipping function.

- Off: No flipping
- H: The layer is flipped horizontally.
- V: The layer is flipped vertically.
- H+V: The layer is flipped both horizontally and vertically.

Layer Adjustment

Layer Adjustment :

Aspect Ratio

Keep Ratio

Unit Pixel Percentage

H Width

V Height

Initial X

Initial Y

Full Screen

Reference

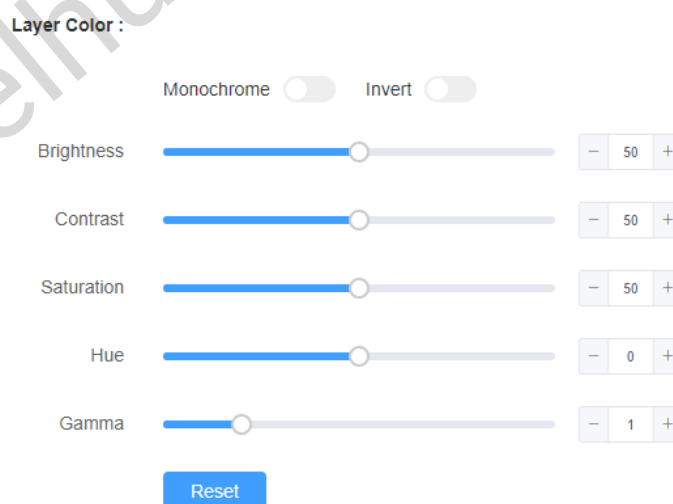
- Aspect Ratio: Set the proportional relationship between the layer width and its height.

- Keep Ratio: Lock or unlock the aspect ratio.
 - Lock: The aspect ratio is a fixed ratio. You can set the vertical height and horizontal width based on the selected aspect ratio. For example, the aspect ratio is set to 2:1 and you set to lock the ratio, then you can set the vertical height and you cannot set the horizontal width which will be automatically adjusted based on the set aspect ratio.
 - Unlock: You can custom the aspect ratio and the vertical height and horizontal width can be adjusted freely.
- Unit: Set the adjustment unit.
Pixel and percentage are supported.
- H Width: Adjust the layer width.
- V Height: Adjust the layer height.
- Initial X: Adjust the horizontal initial coordinate of the layer. The default value is 0.
- Initial Y: Adjust the vertical initial coordinate of the layer. The default value is 0.
- Full Screen: Set the layer to display in full screen.
 - H: The layer fills the screen horizontally, but remains the same vertically.
 - V: The layer fills the screen vertically, but remains the same horizontally.
 - H+V: The layer fills the whole screen.
- Reference: Set the adjustment reference.
 - Top Left: Set the top left corner as the reference point.
 - Center: Set the center point as the reference point.

Layer Color

Scroll down the page to go to color adjustment area, as shown in [Figure 5-7](#).

Figure 5-7 Layer color



Color adjustment parameters are shown in [Table 5-3](#).

Table 5-3 Layer color

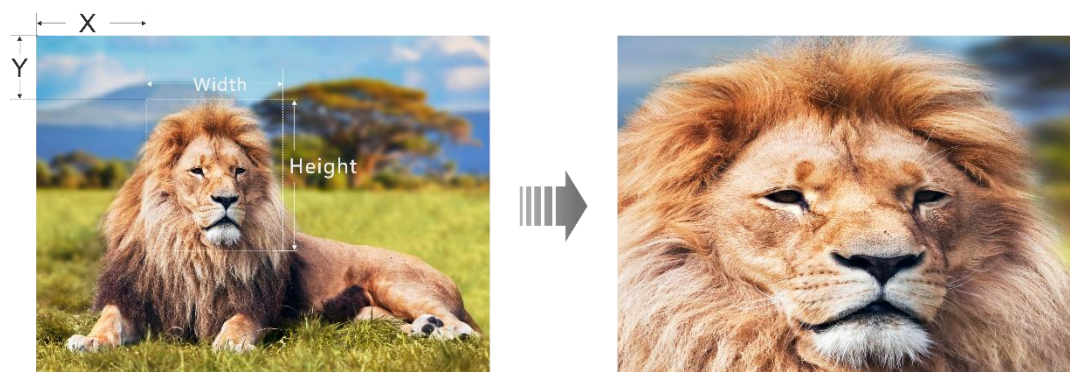
| Name | Value Range | Default Value | Description |
|------------|---|---------------|---|
| Monochrome | <ul style="list-style-type: none"> On Off | Off | <ul style="list-style-type: none"> On: Turn on the monochrome function for main layer. Off: Turn off the function. |
| Invert | <ul style="list-style-type: none"> On Off | Off | <ul style="list-style-type: none"> On: Turn on the invert colors function for main layer. Off: Turn off the function. |
| Brightness | 0–100 | 50 | Adjust the screen brightness. The larger this value is, the brighter the screen will be. |
| Contrast | 0–100 | 50 | Adjust the difference between the darkest and brightest areas of the image displayed on the screen. The larger this value is, the bigger this difference will be. |
| Saturation | 0–100 | 50 | Adjust the purity or vividness grade of the image color. The larger this value is, the purer the color will be. |
| Hue | -180–180 | 0 | Adjust the gradation or variety of the image color. The larger this value is, the intenser the color will be. |
| Gamma | 0.25–4.00 | 1.00 | Adjust the degree of distortion of the image color. The larger this value is, the more distorted the color will be. |

Click **Reset** to reset all the settings to default

Input Crop

Crop the input source image and display it fill the layer as shown in [Figure 5-8](#).

Figure 5-8 Crop



Step 1 On the main layer page, toggle on the **Enable** switch in **Crop** area to enable the crop function.

Step 2 Select the adjustment unit. Pixel and percentage are supported.

Step 3 Set the H width, V height, initial X and initial Y of the cropped layer.

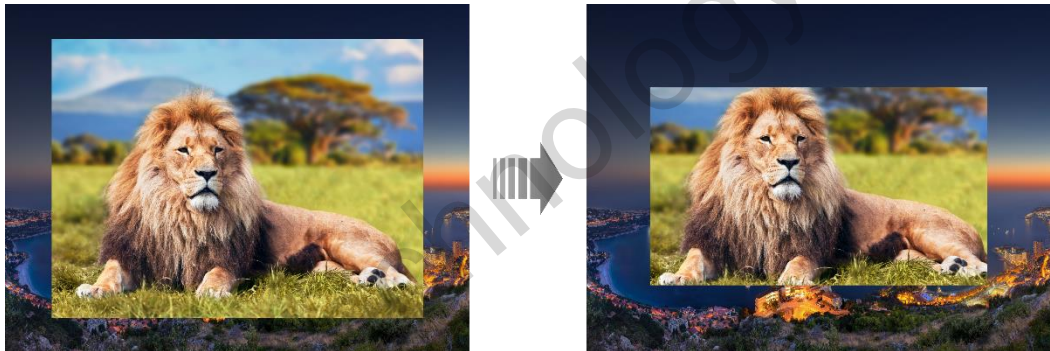
- **H Width:** Set the horizontal width of the current input source after cropping.
- **V Height:** Set the vertical height of the current input source after cropping.
- **Initial X:** Set the horizontal initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.
- **Initial Y:** Set the vertical initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.

Click **Reset** to reset the settings to defaults.

Layer Mask

Set to mask certain part of the layer as shown in [Figure 5-9](#).

Figure 5-9 Mask



Step 1 On the main layer page, toggle on the **Enable** switch in **Mask** area to enable the mask function.

Step 2 Select the adjustment unit. Pixel and percentage are supported.

- **Pixel:** Adjust the remaining area by pixels.
- **Percentage:** Adjust the ratio of the width and height of the remaining area after masking to the width and height of the input source.

Step 3 Set the mask related parameters.

- **Top:** Set the area to be masked on the top.
- **Bottom:** Set the area to be masked on the bottom.
- **Left:** Set the area to be masked on the left.
- **Right:** Set the area to be masked on the right.

Click **Reset** to reset the settings to defaults.

Priority

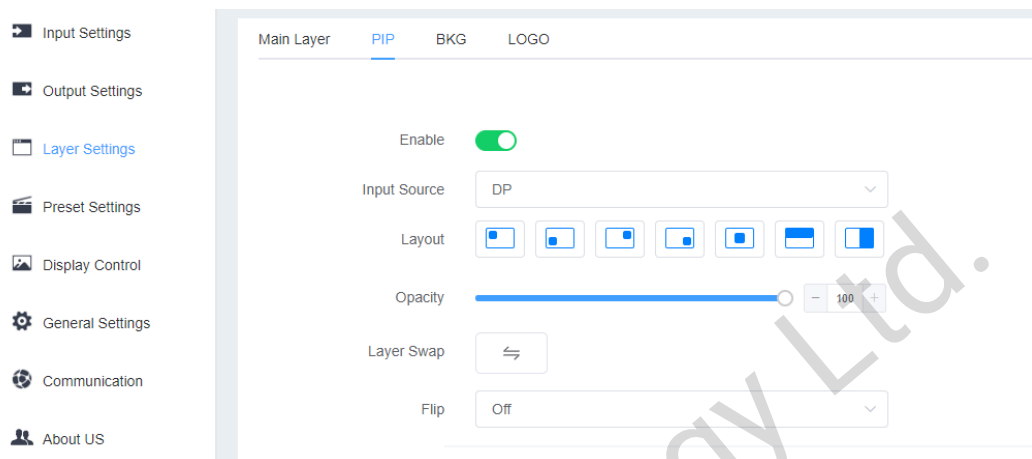
Set the main layer priority.


- 1: The main layer is sent to back.
- 2: The main layer is brought to front.

5.5.2 PIP

Click the **PIP** tab to go to the PIP settings page, as shown in [Figure 5-10](#).

Figure 5-10 PIP



- **Enable**
Toggle on or off PIP.
- **Input Source**
Select the input source for PIP. The supported input sources include DVI 1, DVI 2, DP1, HDMI, SDI 1 and SDI 2.
- **Layout**
Select a layout. The supported layouts include custom layout, Top Left, Bottom Left, Top Right, Bottom Right, Center, T+B and L+R.
- **Opacity**
Set the opacity of the layer. The greater the value is, the opaque the layer will be. The range is 0% (transparent)–100% (none-transparent).
- **Layer Swap**
Click  next to **Layer Swap** to swap the input sources of the main layer and PIP layer.
- **Flip**
 - **Off**: No flipping
 - **H**: The layer is flipped horizontally.
 - **V**: The layer is flipped vertically.
 - **H+V**: The layer is flipped both horizontally and vertically.

PIP Adjustment

PIP Adjustment :

Aspect Ratio

Keep Ratio

Unit Pixel Percentage

H Width

V Height

Initial X

Initial Y

Full Screen

Reference

- Aspect Ratio: Set the proportional relationship between the layer width and its height.
- Keep Ratio: Lock or unlock the aspect ratio.
 - Lock: The aspect ratio is a fixed ratio. You can set the vertical height and horizontal width based on the selected aspect ratio. For example, the aspect ratio is set to 2:1 and you set to lock the ratio, then you can set the vertical height and you cannot set the horizontal width which will be automatically adjusted based on the set aspect ratio.
 - Unlock: You can custom the aspect ratio and the vertical height and horizontal width can be adjusted freely.
- Unit: Set the adjustment unit.
Pixel and percentage are supported.
- H Width: Adjust the layer width. The default value is 800.
- V Height: Adjust the layer height. The default value is 600.
- Initial X: Adjust the horizontal initial coordinate of the layer. The default value is 0.
- Initial Y: Adjust the vertical initial coordinate of the layer. The default value is 0.
- Full Screen: Set the layer to display in full screen.
 - **H**: The layer fills the screen horizontally, but remains the same vertically.
 - **V**: The layer fills the screen vertically, but remains the same horizontally.
 - **H/V**: The layer fills the whole screen.
- Reference: Set the adjustment reference.
 - Top Left: Set the top left corner as the reference point.
 - Center: Set the center point as the reference point.
- Reset

Click **Reset** to reset the settings to defaults.

Color

For layer color parameters, please see [Table 5-4](#).

Table 5-4 Layer color

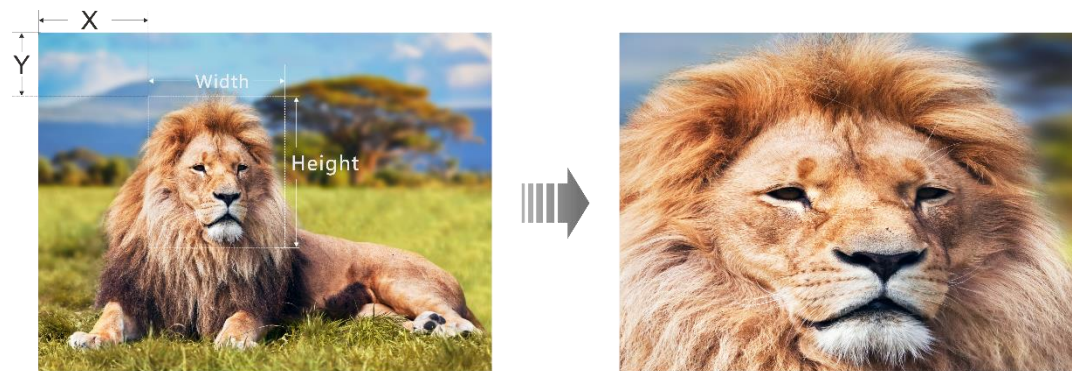
| Name | Value Range | Default Value | Description |
|------------|---|---------------|---|
| Monochrome | <ul style="list-style-type: none"> On Off | Off | <ul style="list-style-type: none"> On: Turn on the monochrome function for PIP. Off: Turn off the function. |
| Invert | <ul style="list-style-type: none"> On Off | Off | <ul style="list-style-type: none"> On: Turn on the invert colors function for PIP. Off: Turn off the function. |
| Brightness | 0–100 | 50 | Adjust the screen brightness. The larger this value is, the brighter the screen will be. |
| Contrast | 0–100 | 50 | Adjust the difference between the darkest and brightest areas of the image displayed on the screen. The larger this value is, the bigger this difference will be. |
| Saturation | 0–100 | 50 | Adjust the purity or vividness grade of the image color. The larger this value is, the purer the color will be. |
| Hue | -180–180 | 0 | Adjust the gradation or variety of the image color. The larger this value is, the intenser the color will be. |
| Gamma | 0.25–4.00 | 1.00 | Adjust the degree of distortion of the image color. The larger this value is, the more distorted the color will be. |

Click **Reset** to reset all the settings to default

Crop

Crop the input source image and display it fill the layer as shown in [Figure 5-11](#).

Figure 5-11 Crop



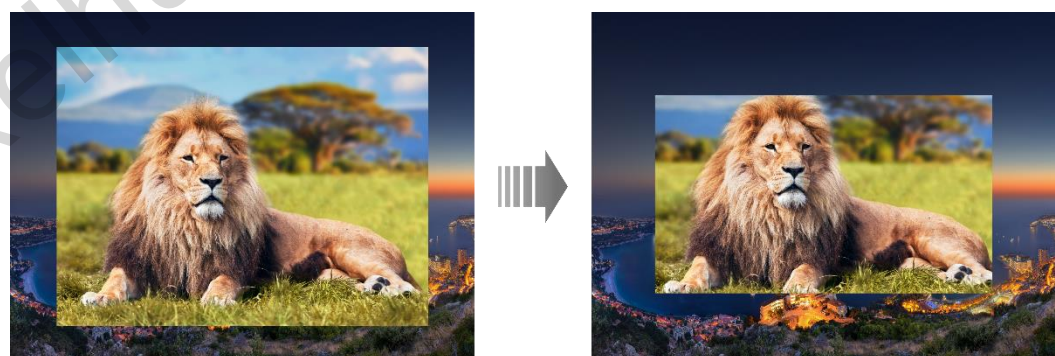
- Step 1 On the PIP page, toggle on the **Enable** switch in **Crop** area to enable the crop function.
- Step 2 Select the adjustment unit. Pixel and percentage are supported.
- Step 3 Set the H width, V height, initial X and initial Y of the cropped layer.
 - **H Width:** Set the horizontal width of the current input source after cropping.
 - **V Height:** Set the vertical height of the current input source after cropping.
 - **Initial X:** Set the horizontal initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.
 - **Initial Y:** Set the vertical initial coordinate of the cropped part upon the current input source with the top left corner as the reference point.

Click **Reset** to reset the settings to defaults.

Mask

Set to mask certain part of the layer as shown in [Figure 5-12](#).

Figure 5-12 Mask



- Step 1 On the PIP page, toggle on the **Enable** switch in **Mask** area to enable the mask function.
- Step 2 Select the adjustment unit. Pixel and percentage are supported.
 - **Pixel:** Adjust the remaining area by pixels.
 - **Percentage:** Adjust the ratio of the width and height of the remaining area after masking to the width and height of the input source.

Step 3 Set the mask related parameters.

- **Top:** Set the area to be masked on the top.
- **Bottom:** Set the area to be masked on the bottom.
- **Left:** Set the area to be masked on the left.
- **Right:** Set the area to be masked on the right.

Click **Reset** to reset the settings to defaults.

Priority

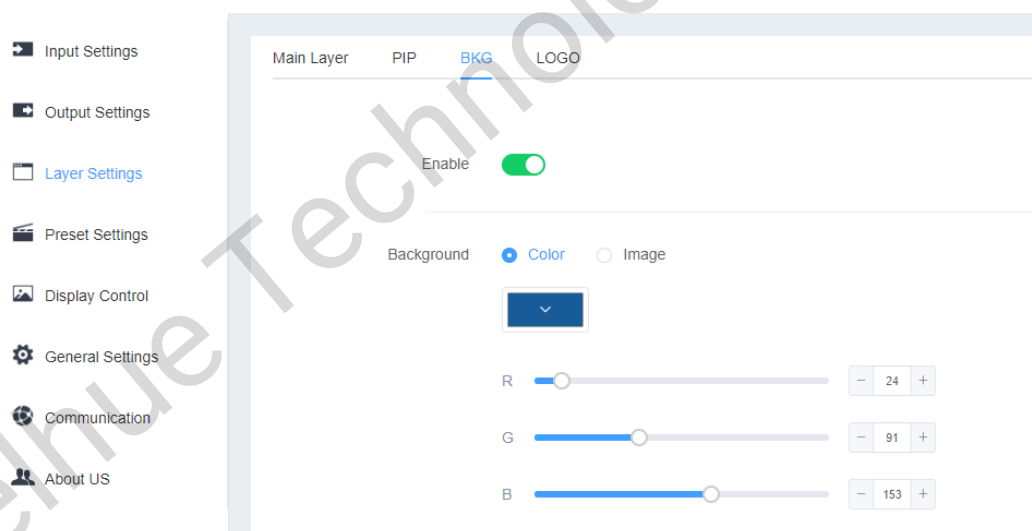
Set the PIP priority.

- 1: The PIP is sent to back.
- 2: The PIP is brought to front.

5.5.3 BKG

Click the **BKG** tab to go to BKG settings page, as shown in [Figure 5-13](#).

Figure 5-13 BKG



Step 1 Toggle on the BKG function.

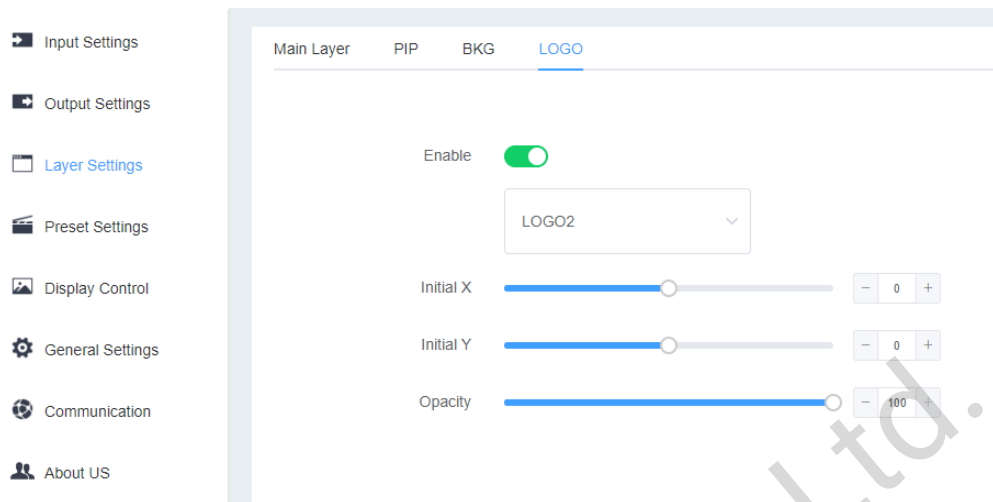
Step 2 You can select to set a pure color BKG or a BKG image.

- **Color:** Set the individual R, G and B color values.
- **Image:** Select an imported BKG image on the device as the BKG image

5.5.4 LOGO


Click the **LOGO** tab to go to LOGO settings page, as shown in [Figure 5-14](#). Import LOGO files into the 4K ViewPro from USB drive before setting LOGO. Below is the procedure to set LOGO.

Figure 5-14 LOGO



- Step 1 Toggle on the LOGO function.
- Step 2 Select an imported LOGO image.
- Step 3 Set the horizontal initial coordinate of the LOGO image.
- Step 4 Set the vertical initial coordinate of the LOGO image.
- Step 5 Set the opacity of the layer. The greater the value is, the opaquer the layer will be. The range is 0% (transparent)–100% (none-transparent).

5.6 Preset Settings

Click **Preset Settings** to go to preset settings page, as shown in [Figure 5-15](#). 




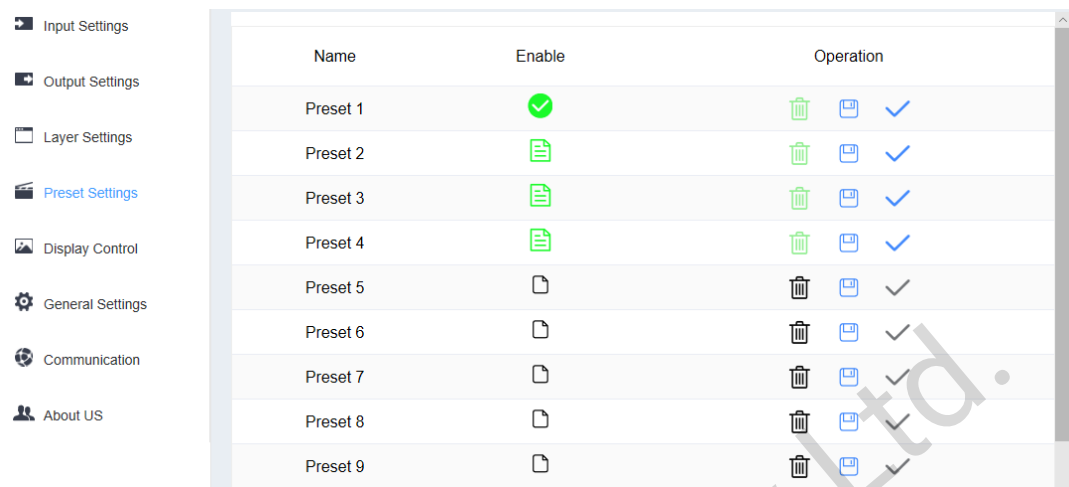
 denotes that the current preset has preset information.  denotes that no preset information is saved in the current preset.  denotes that the current preset has been loaded.

Figure 5-15 Preset



The screenshot shows a sidebar menu on the left with 'Preset Settings' selected. The main area displays a table with the following data:

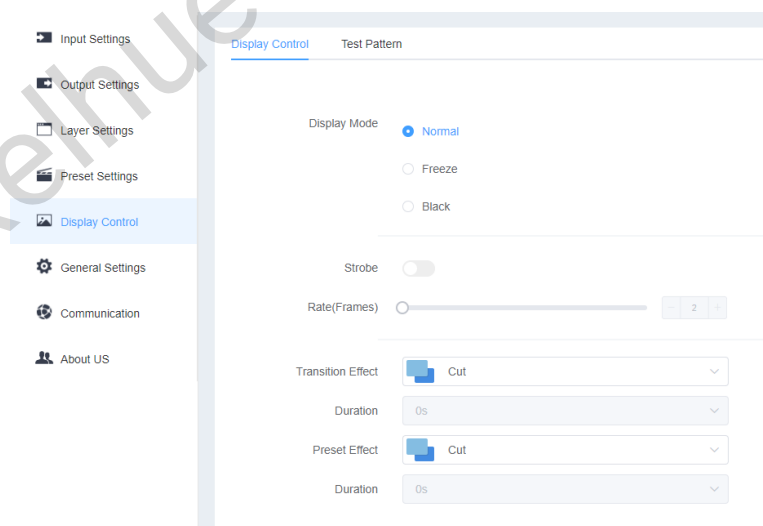
| Name | Enable | Operation |
|----------|-------------------------------------|-----------|
| Preset 1 | <input checked="" type="checkbox"/> | |
| Preset 2 | <input type="checkbox"/> | |
| Preset 3 | <input type="checkbox"/> | |
| Preset 4 | <input type="checkbox"/> | |
| Preset 5 | <input type="checkbox"/> | |
| Preset 6 | <input type="checkbox"/> | |
| Preset 7 | <input type="checkbox"/> | |
| Preset 8 | <input type="checkbox"/> | |
| Preset 9 | <input type="checkbox"/> | |

- Click to clear the selected preset.
- Click to save the preset.
- Click to apply the selected preset.

5.7 Display Control

Click **Display Control** to go to display control page, as shown in [Figure 5-16](#).

Figure 5-16 Display control



Note:

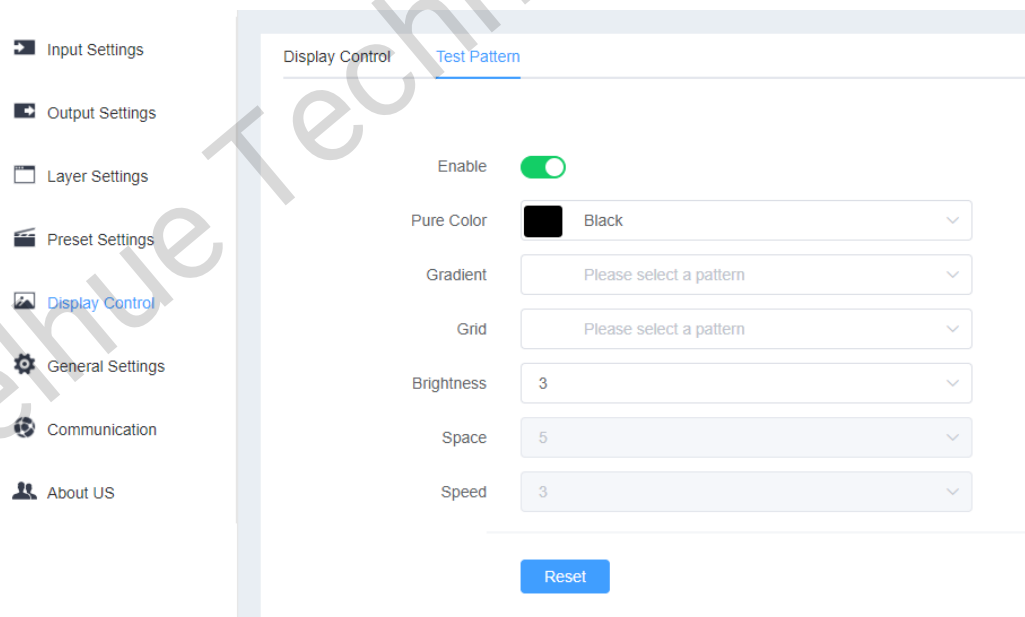
The display modes (Normal, Strobe and Freeze) are mutual excluded between each other. When you select one, the other one is deselected.

Display Control

- **Normal:** Display the content of current input source normally.
- **Freeze:** Freeze the current frame of the output image.
- **Black:** Make the screen fade to black.
- **Strobe:** Toggle on or off the strobe function.
- **Rate (Frames):** Adjust the strobe rate interval (in frames) to set the duration that the source is frozen until the next grab.
- **Transition Effect**
Set the transition effect when switching the input source. Support **CUT** and **Fade**.
- **Effect Duration:** Set the duration of the transition effect. The range is 0.5s–2s and the default setting is 0.5s.
- **Preset Effect**
Set the preset transition effect when switching the preset. Support **CUT** and **Fade**.
- **Effect Duration:** Set the duration of the preset transition effect. The range is 0.5s–2s and the default setting is 0.5s.

Test Pattern

Figure 5-17 Test pattern



- **Enable:** Toggle on or off the test pattern.
- **Pure Color:** 5 pure colors are supported.
- **Gradient:** 11 gradients are supported.
- **Grid:** 6 grids are supported.
- **Brightness:** Test the brightness of the test pattern. The range is 1–4 and the default value is 3.

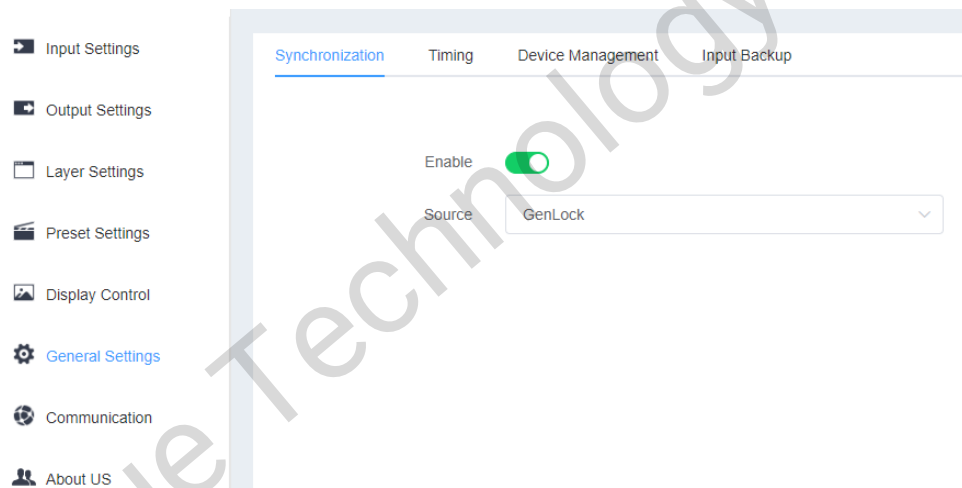
- Spacing: When the test pattern is **Gradient** or **Grid**, you can set the spacing. When the test pattern is **Pure Color**, this item is unavailable. The range is 1–8 and the default value is 5.
- Speed: When the test pattern is **Grid**, you can set the moving speed. When the test pattern is **Pure Color** or **Gradient**, this item is unavailable. The range is 1–4 and the default value is 3.
- Reset: Reset all the settings to defaults.



5.8 General Settings

5.8.1 Synchronization

Click **General Settings** to enter the general settings screen.

Figure 5-18 General INDEX



- Enable: Toggle on or off the synchronization mode. It is disabled by default.
 - : Enable the synchronization mode.
 - : Disable the synchronization mode.
- Source: Select Genlock or an input source as the sync source.

5.8.2 Timing

Set the detailed information of the output resolution so that the 4K ViewPro can be compatible with different display devices, video processors or video sending devices. For timing parameters, please see the table below.

Table 5-5 Timing

| Parameter | Description |
|-------------------|---|
| Output Resolution | Current output resolution that can be set in Output Settings |
| H Total | Total pixel count per line |

| | |
|---------------|---|
| H Active | The horizontal size in pixels of the active area |
| H Front Porch | The offset between the end of the active area and the beginning of H sync |
| H Sync | H sync width in pixels |
| V Total | Total line count per frame |
| V Active | The vertical size of the output active area |
| V Front Porch | The offset in lines between the end of the output active area and the beginning of V sync |
| V Sync | V sync width in lines |
| Reset | Reset the settings to defaults. |

- Click **Apply** to make the settings take effect.
- Click **Reset** to reset all the settings to defaults.

Figure 5-19 Timing

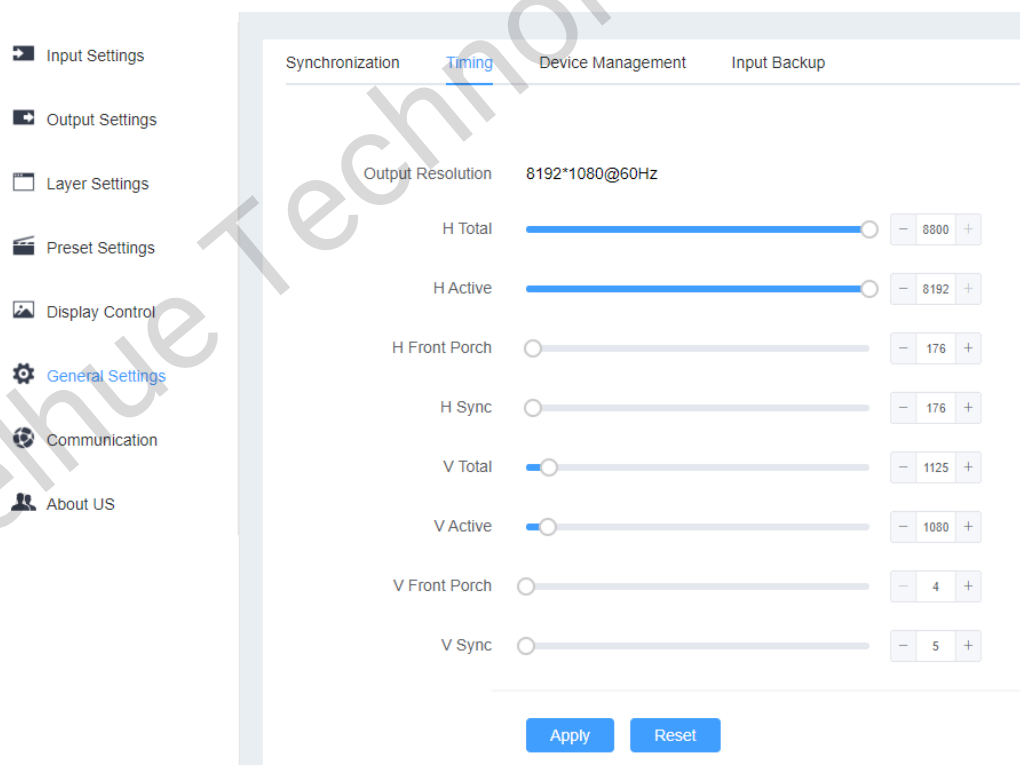
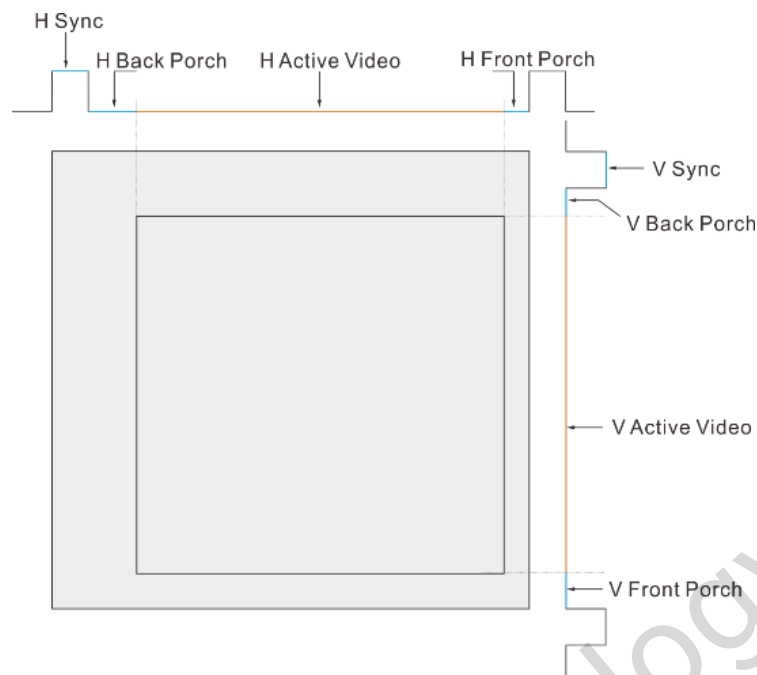


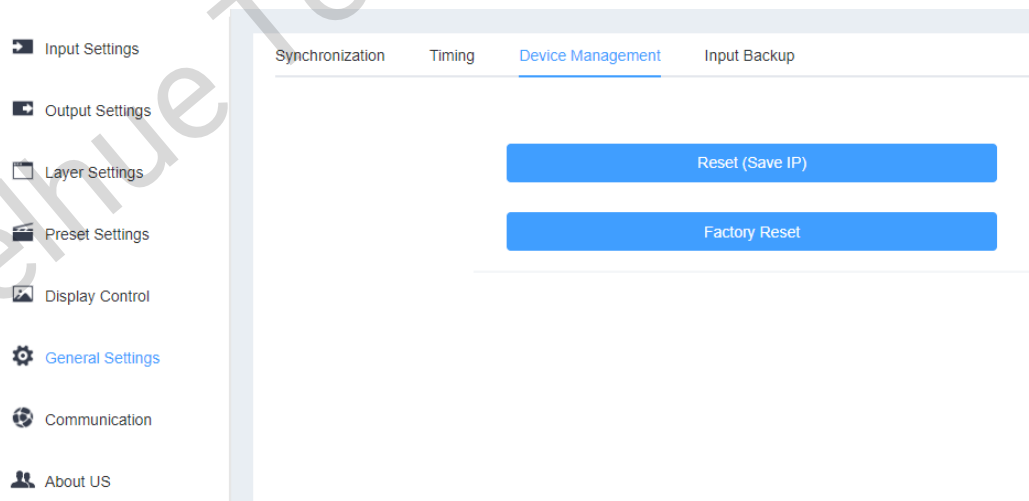
Figure 5-20 Timing



5.8.3 Device Management

Click **Device Management** tab to enter the factory reset screen. If fault occurs on the device, you can select to reset the device to factory settings.

Figure 5-21 Device management



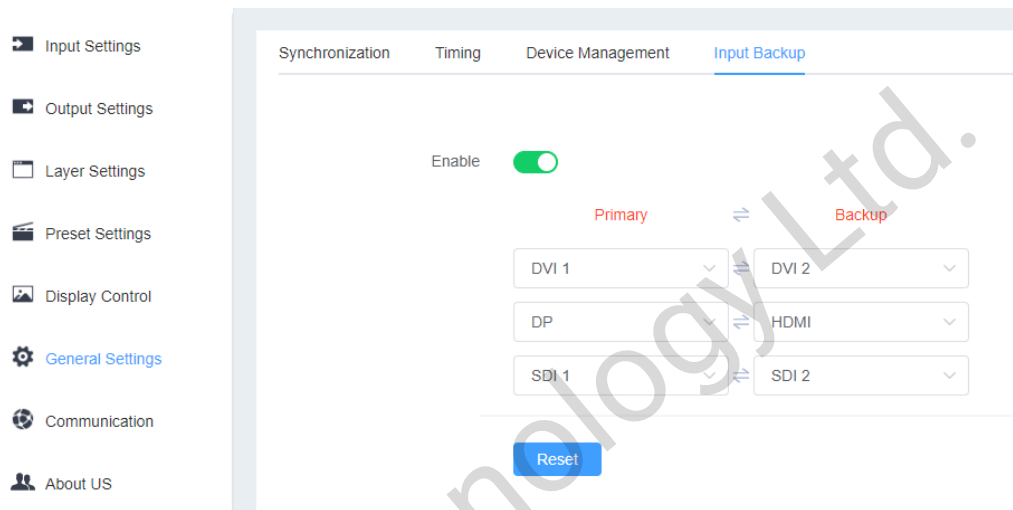
- **Reset (Save IP)**
Reset the settings to factory defaults, except for IP address.
- **Factory Reset**
Reset all the settings to factory defaults.

5.8.4 Input Source Hot Backup

Click **Input Source Hot Backup** tab to set the main input source and backup input source respectively.

If you turn on the input source hot backup function, when the input source is abnormal or the connector fails, the LED screen can still work normally.

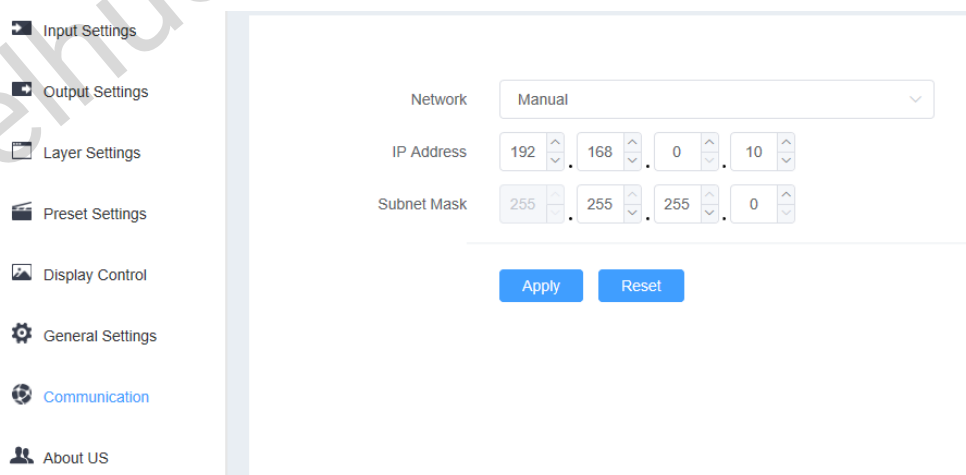
Figure 5-22 Input source hot backup



5.9 Communication Settings

Click **Communication** to enter the communication settings page.

Figure 5-23 Communication settings



You can set to obtain the IP address manually or automatically.

- **Manual:** You need to enter the device IP address and subnet mask.
- **Auto:** The device will obtain the IP address and subnet mask automatically.

After you have completed all the settings, click **Apply** to make the settings take effect, or click **Reset** to reset the settings to default settings.

5.10 About Us

Click **About Us** to view the company related information, including company name, official website, email address and hardware version.

Figure 5-24 About us



6 Specifications

| Input | | |
|-----------|-----|---|
| Connector | Qty | Resolution |
| DUAL DVI | 2 | 1024×768p@48/50/59.94/60/75/85Hz 1152×864p@75Hz 1280×720p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1280×960p@50/59.94/60/85Hz 1280×1024p@48/50/59.94/60/75/85Hz 1366×768p@50/59.94/60Hz 1440×900p@60/75/85Hz 1600×1200p@48/50/59.94/60Hz 1680×1050p@60Hz 1920×1080p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1920×1200p@50/59.94/60Hz 2048×1080p@30/48/50/59.94/60Hz 2048×1152p@30/60Hz 2560×1080p@50/59.94/60Hz 2560×1600p@50/59.94/60Hz 3840×1080p@30/50/59.94/60Hz 3840×2160p@23.98/24/25/29.97/30Hz |
| 12G-SDI | 2 | 12G-SDI loop output 1280×720p@23.98/24/25/29.97/30/50/59.94/60Hz 1920×1080p@23.98/24/25/29.97/30/50/59.94/60Hz 3840×2160p@23.98/24/25/29.97/30/50/59.94/60Hz 4096×2160p@23.98/24/25/29.97/30/50/59.94/60Hz |
| DP 1.2 | 1 | 1024×768p@48/50/59.94/60/75/85Hz |

| | | |
|------------------|------------|---|
| HDMI 2.0 | 1 | 1152×864p@75Hz 1280×720p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1280×960p@50/59.94/60/85Hz 1280×1024p@48/50/59.94/60/75/85Hz 1440×900p@60/75/85Hz 1600×1200p@48/50/59.94/60Hz 1680×1050p@60Hz 1920×1080p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1920×1200p@50/59.94/60Hz 2048×1080p@30/48/50/59.94/60Hz 2048×1152p@30/60Hz 2560×1080p@50/59.94/60Hz 2560×1600p@50/59.94/60/120Hz 3840×1080p@30/50/59.94/60/120Hz 3840×2160p@23.98/24/25/29.97/30/60Hz |
| Output | | |
| Connector | Qty | Resolution |
| HDBaseT | 1 | 1024×768p@48/50/59.94/60/75/85Hz |
| DUAL DVI | 1 | 1152×864p@75Hz 1280×720p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1280×1024p@48/50/59.94/60/75/85Hz 1440×900p@60/75/85Hz 1600×1200p@48/50/59.94/60Hz 1680×1050p@60Hz 1920×1080p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1920×1200p@50/59.94/60Hz 2048×1080p@30/48/50/59.94/60Hz 2048×1152p@30/60Hz 2560×1080p@50/59.94/60Hz 2560×1600p@50/59.94/60Hz 3840×1080p@30/50/59.94/60Hz 3840×2160p@23.98/24/25/29.97/30Hz 4096×2160p@30Hz |
| HDMI 2.0 | 1 | HDCP 2.2 and EDID1.3 |

| | | |
|-------------------------------|-------------------------------|---|
| | | 1024×768p@48/50/59.94/60/75/85Hz 1152×864p@75Hz 1280×720p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1280×1024p@48/50/59.94/60/75/85Hz 1440×900p@60/75/85Hz 1600×1200p@48/50/59.94/60Hz 1680×1050p@60Hz 1920×1080p@23.98/24/25/29.97/30/48/50/59.94/60Hz 1920×1200p@50/59.94/60Hz 2048×1080p@30/48/50/59.94/60Hz 2048×1152p@30/60Hz 2560×1080p@50/59.94/60Hz 2560×1600p@50/59.94/60/120Hz 3840×1080p@30/50/59.94/60/120Hz 3840×2160p@23.98/24/25/29.97/30/60Hz 4096×2160p@30/60Hz 7680×1080@30/60Hz 8192×1080@30/60Hz |
| 12G-SDI | 1 | 1280×720p@23.98/24/25/29.97/30/50/59.94/60Hz 1920×1080p@23.98/24/25/29.97/30/50/59.94/60Hz 3840×2160p@23.98/24/25/29.97/30/50/59.94/60Hz 4096×2160p@23.98/24/25/29.97/30/50/59.94/60Hz |
| Control | | |
| Connector | Qty | Resolution |
| ETHERNET | 1 | For PC communication or network connection |
| USB (Type-B) | 1 | For PC control |
| GENLOCK IN-LOOP | 1 | For connecting a synchronization signal to synchronize cascaded devices |
| Overall Specifications | | |
| Connector | Qty | Resolution |
| Power connector | 1 | 100–240V~, 50/60Hz, 2.1A |
| Operating temperature | 0°C to 50°C | |
| Storage temperature | –10°C to +60°C | |
| Dimensions | 482.6 mm × 50.5 mm × 302.5 mm | |
| Power consumption | 55 W | |
| Net weight | 4.7 kg | |