灰度科技
HUIDU TECHNOLOGY

Instruction Manual

Three-in-one processor
HD-KV410

V1.0 20240619

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1 Introduction

HD-KV410 is a powerful 3-in-1 controller integrating single-screen video processing and sending card functions .
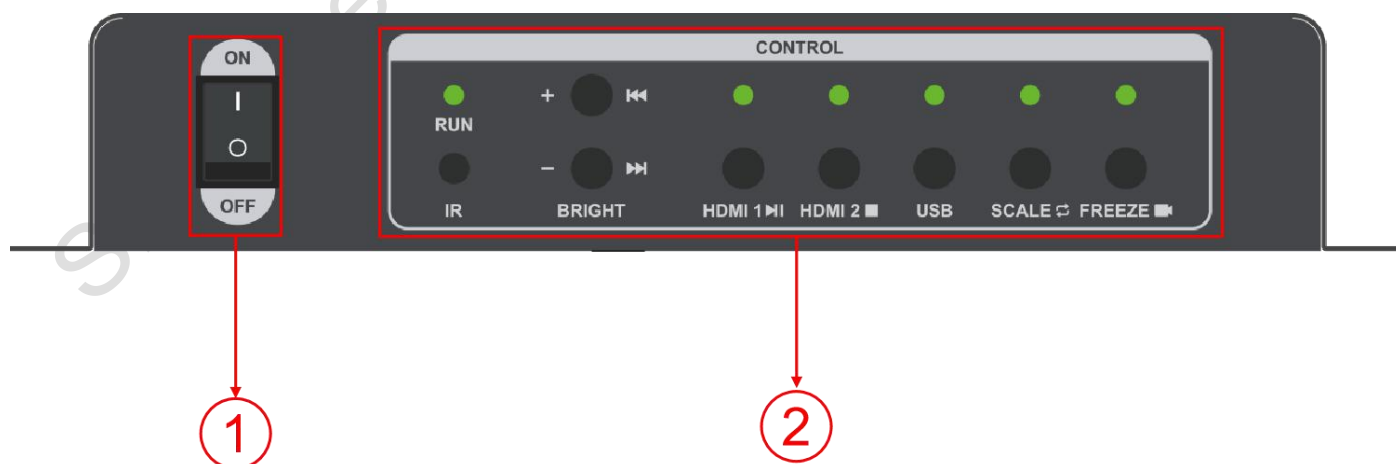
Features:

(1)   Load range: 2.6 million pixels, maximum width 3840 , maximum 2500;

(2)   2- channel digital video input, USB playback of video and picture files;

(3)   2 HDMI audio inputs (choose one for playback), 1 audio output;

(4)   Integrated sending card function, 4 Gigabit Ethernet output ports.

(5)   Support limited to full conversion;

(6)   Support one-key brightness adjustment, no complicated operation required;

(7)   Supports locking buttons to prevent display screen abnormalities caused by misoperation;

(8)   Support arbitrary switching, cropping and scaling of video signals;

(9)   Support infrared remote control (optional).

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1

2 Application Scenarios

3 Appearance

Front Panel

Key Description		
Serial number	button	illustrate

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2

1	switch	Control AC power input
2	RUN	Operation status indicator
	IR	Receive infrared remote control signal
	BRIGHT+	Brightness + / Play a program file on the USB disk
	BRIGHT-	Brightness - / Play the next program file in the USB flash drive
	HDMI 1	Select HDMI 1 signal playback / Pause or play the USB program
	HDMI 2	Select HDMI 2 signal playback / Stop playing the USB program
	USB	Select to play the USB program / Exit U disk quick switch mode
	SCALE	Partial /full screen switch button/U disk program loop playback
	FREEZE	One-click freeze /video and picture switching

Rear Panel
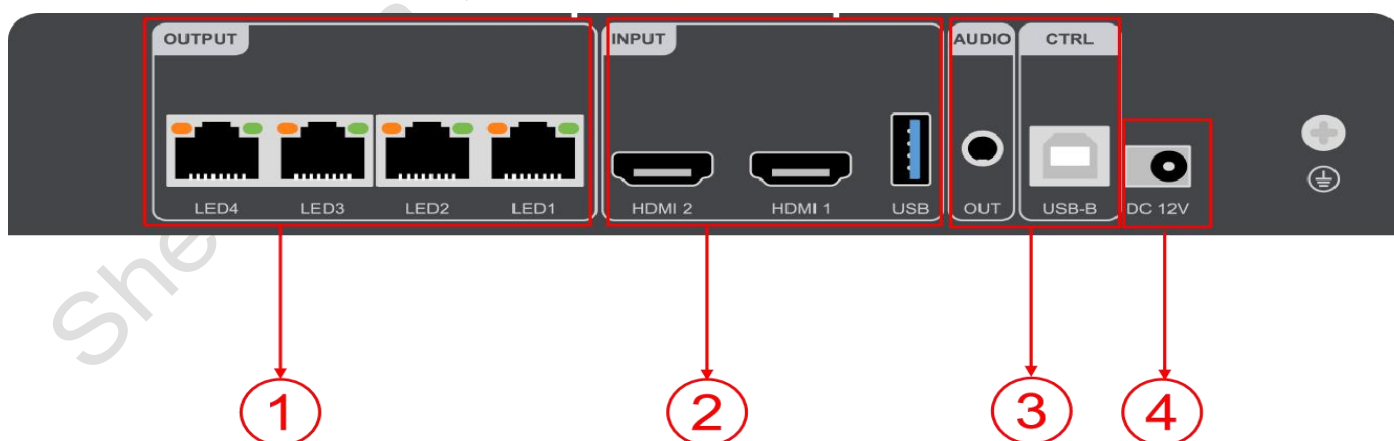
input interface			
Serial number	Interface Name	quantity	illustrate
2	USB	1	USB2.0 input interface, compatible with USB3.0 Can insert U disk to play videos and pictures

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3

|			
			Video file formats: mp4, avi, mpg, mkv, mov, vob and rmvb; Video encoding: MPEG4(MP4), MPEG_SD/HD, H.264(AVI, MKV), FLV; Image file formats: jpg, jpeg, png and bmp Video resolution: Maximum support 1920×1080@30Hz
	HDMI	2	HDMI input interface Interface type: HDMI-A Signal standard: HDMI1.4 backward compatible Resolution: VESA standard, ≤1920×1080@60Hz Support audio input
4	power supply	1	DC 12V⎓ 1.5A

Output Interface			
Serial number	Interface Name	quantity	illustrate
1	Gigabit Ethernet	4	Used to cascade receiving cards to transmit RGB data streams; each network port controls 650,000 pixels. Support docking multi-function card
3	AUDIO OUT	1	TRS 3.5mm dual-channel audio output interface Connect to an audio amplifier for high-power external speakers

Control interface			
Serial number	Interface Name	quantity	illustrate
3	USB-B	1	Connect to a computer for debugging the device

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4

4 Dimensions
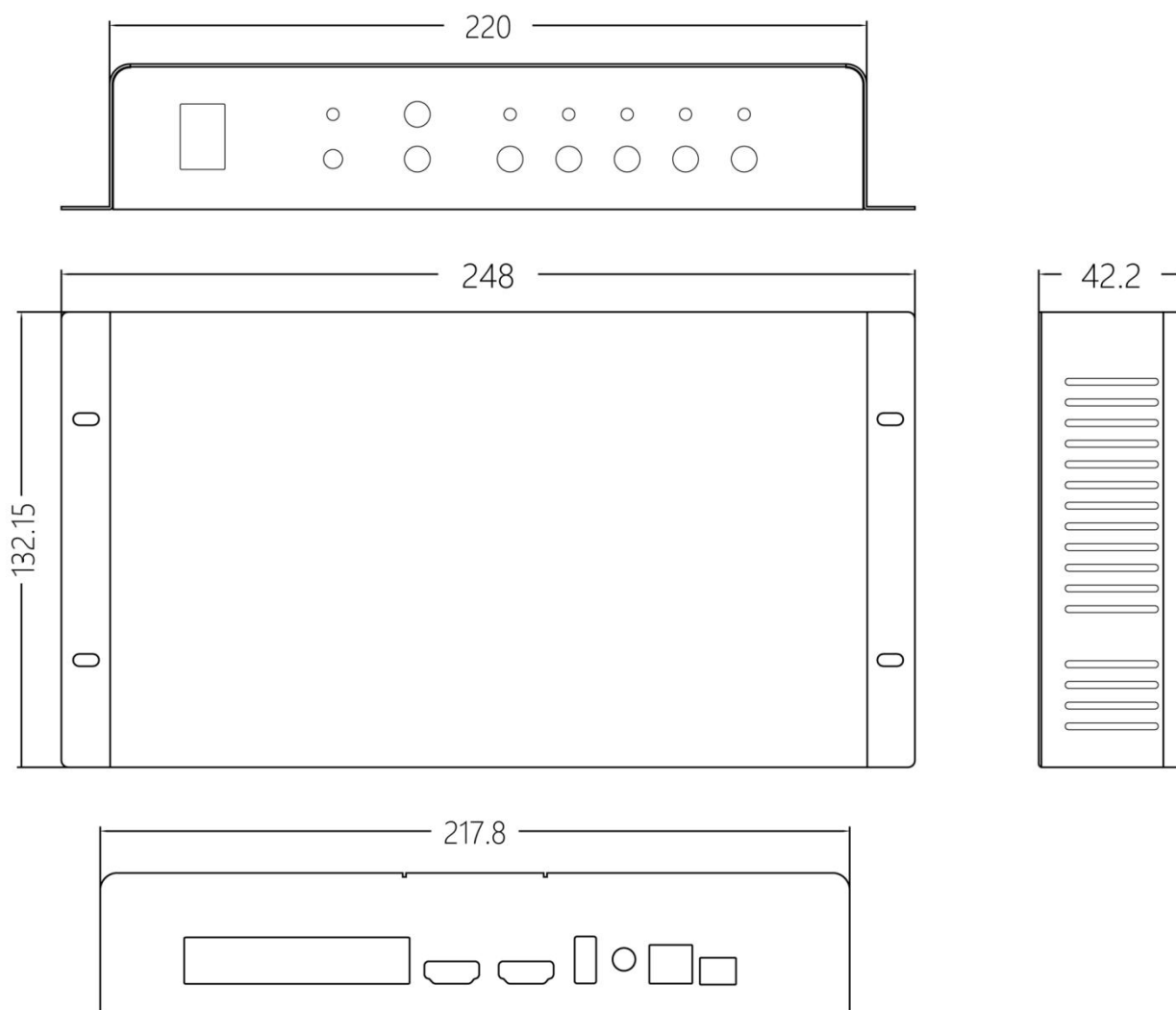
5 Product Use

5.1 Operation steps

step 1   Connect the display power supply to power on the screen

Step 2   Connect a playable input source to the HD- KV410

Step 3   Use USB-B serial cable to connect to computer to debug screen parameters

5.2 Input source switching

HD - KV410 supports simultaneous access to three signal sources and can switch to the input source to

be played at any time according to needs.

Switch input source

There are three ways to switch input sources. One is to press the input source button on the front panel to

switch quickly. One is to select and switch the input source through the software HDSet. One is to select

and switch the input source through the remote control (remote control optional).

5.3 Zoom settings

HD - KV410 supports full screen zoom and point-to-point zoom modes

Full Screen Zoom

The system adaptively scales the current input resolution to full-screen display according to the screen

resolution in the display configuration.

peer to peer

Point-to-point display, without scaling, press the SCALE button, the SCALE button indicator lights up and

the display is point-to-point.

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6

5.4 USB playback

HD - KV410 supports playing pictures or video files stored in USB flash drives.

When the media type is "Picture", it also supports turning on and off "Picture Effects" and setting the interval between picture switching. Such operations need to be set on the software HD Set , as shown below
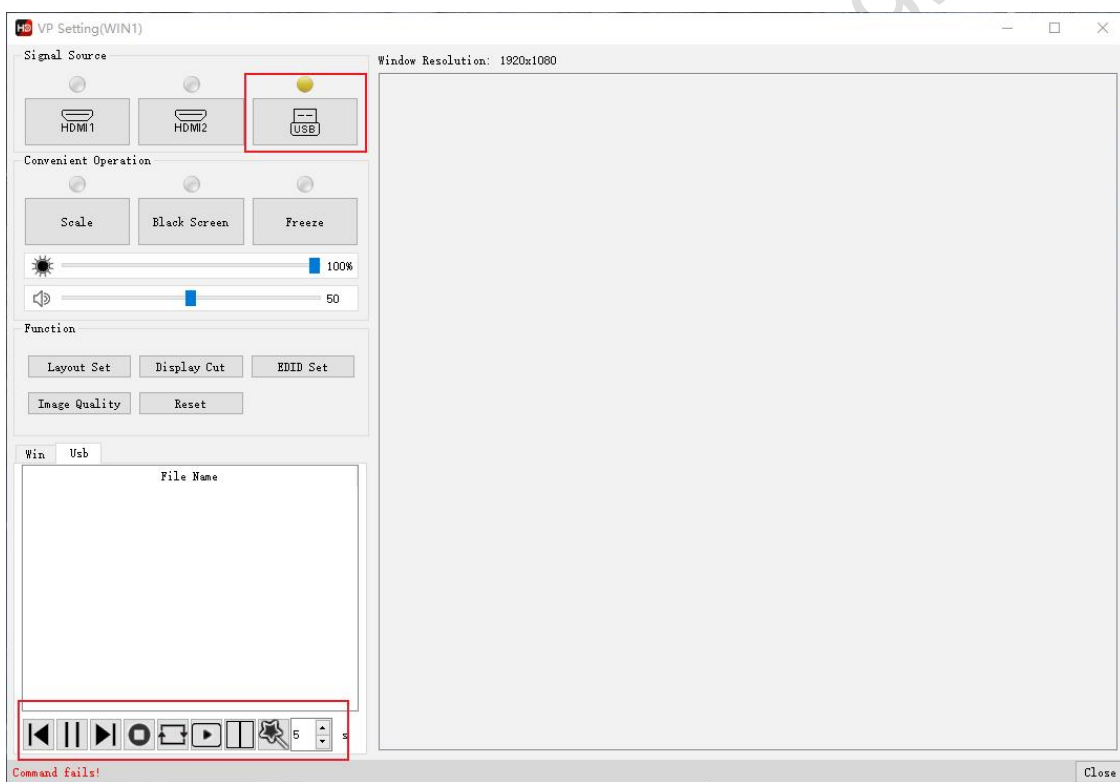
[▮◀] Play the previous file of the current file;

[▮▮] Play or Pause;

[▶▮] Play the next file of the current file;

[⬤] Stop play;

[⬓] Play mode switch;

[▶] Switch the playback file category;

▣▣ Display mode switching;

⭐ Special effects turned on.

Playback Controls

USB " in the input source area of the front panel to switch to the USB input source, press the USB button

again to enter the USB playback control, after enabling the USB playback control, the HDMI 1 and HDMI

2 button lights are on, and the corresponding multiplexing function of the button is enabled. Press USB

again to exit the playback control.

BRIGHT+⏮ Play the previous file of the current file;

BRIGHT-⏭   Play the next file of the current file;

HDMI 1⏯   Play or Pause;

HDM2   Stop play;

SCALE🔁   Play mode switch (sequential play or single file loop);

FREEZE 🎥 Switch the playback file category.

5.5 Button lock

HDMI1 + FREEZE Press HDMI1, FREEZE, 3S at the same time, the key lock function is turned on, HDMI1,

HDMI2, USB lights are all on, and the lights of non-current input sources flash. When in the key lock state,

press HDMI1, FREEZE again at the same time for 3S to release the key lock.

5.6 Button indicator light description

1)   When the device is powered on (i.e. when it starts up), the indicator lights HDMI1, USB, and FREEZE

      light up first, and then all lights up. After the startup is complete, RUN flashes, and the input source

      light that was last saved flashes.

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8

2) RUN: System operation indicator. If the green light flashes, the operating system is running normally. If the green light is always on or off, the system is running abnormally.

3) The indicator light of the currently selected input source with signal input is always on, and the indicator light of the currently selected signal source without signal flashes;

4) When the key lock is enabled, the indicator light of the current input source is always on, and the indicators of other input sources flash;

5) USB playback, in quick operation mode, the HDMI1, HDMI2 USB indicators are always on;

6) In upgrade mode, the HDMI2 and USB FREEZE indicators flash;

7) In the debt collection mode, all indicator lights are always on when the payment is due;

8) In point-to-point mode (local mode), the SCALE indicator light is always on;

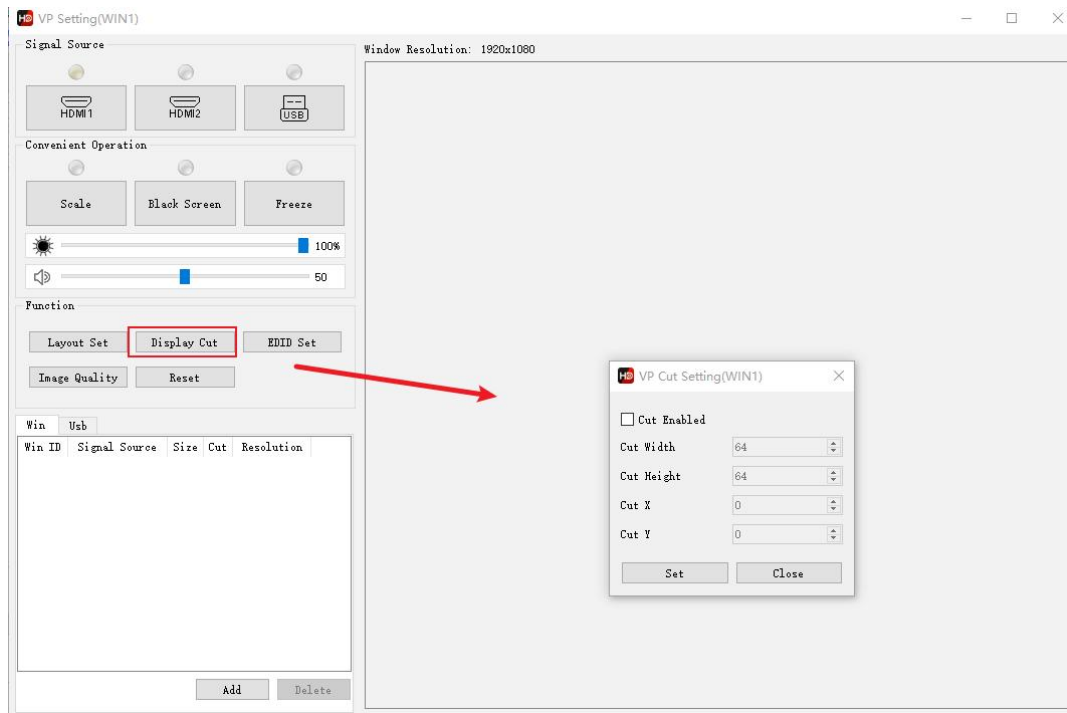9) In freeze mode, the FREEZE indicator light is always on.

5.7 Screen layout

HD - KV410 supports users to manually adjust the image size and position, as shown below

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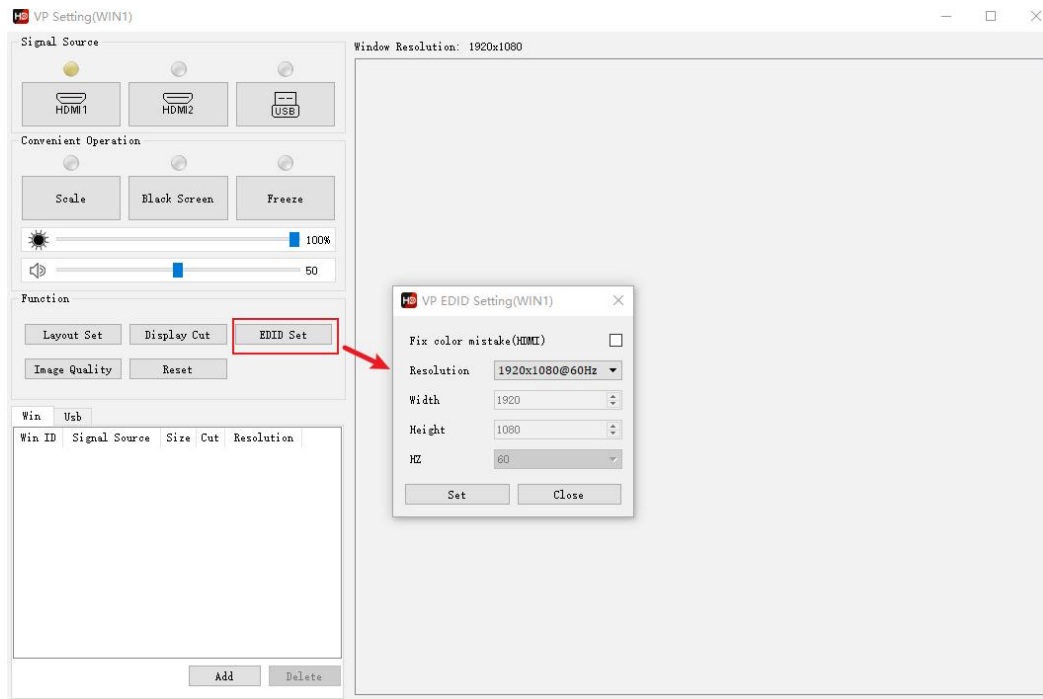
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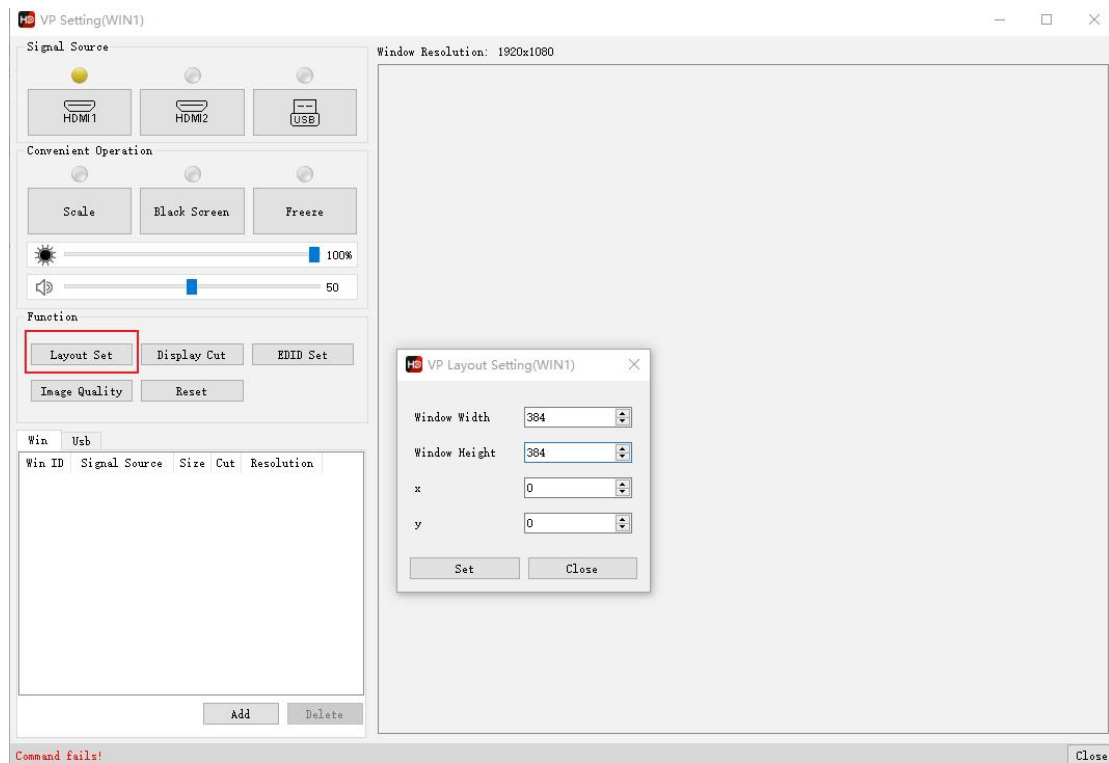
5.8 Interception

HD-KV410 supports users to manually intercept input signals, as shown below

5.9 EDID settings

Modify the input resolution, you can customize the input resolution; HDMI input , if the display is green,

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11

check the HDMI correction color cast, and the setting is successful. As shown below


5. 10 Image quality adjustment

HD-KV410 supports users to manually adjust the image quality of the output image, making the large-screen display more delicate and bright, and improving the display effect. When adjusting the image quality, you need to observe and adjust it at the same time, and there is no specific reference value. This type of operation requires settings on the software HDSet , as shown below.
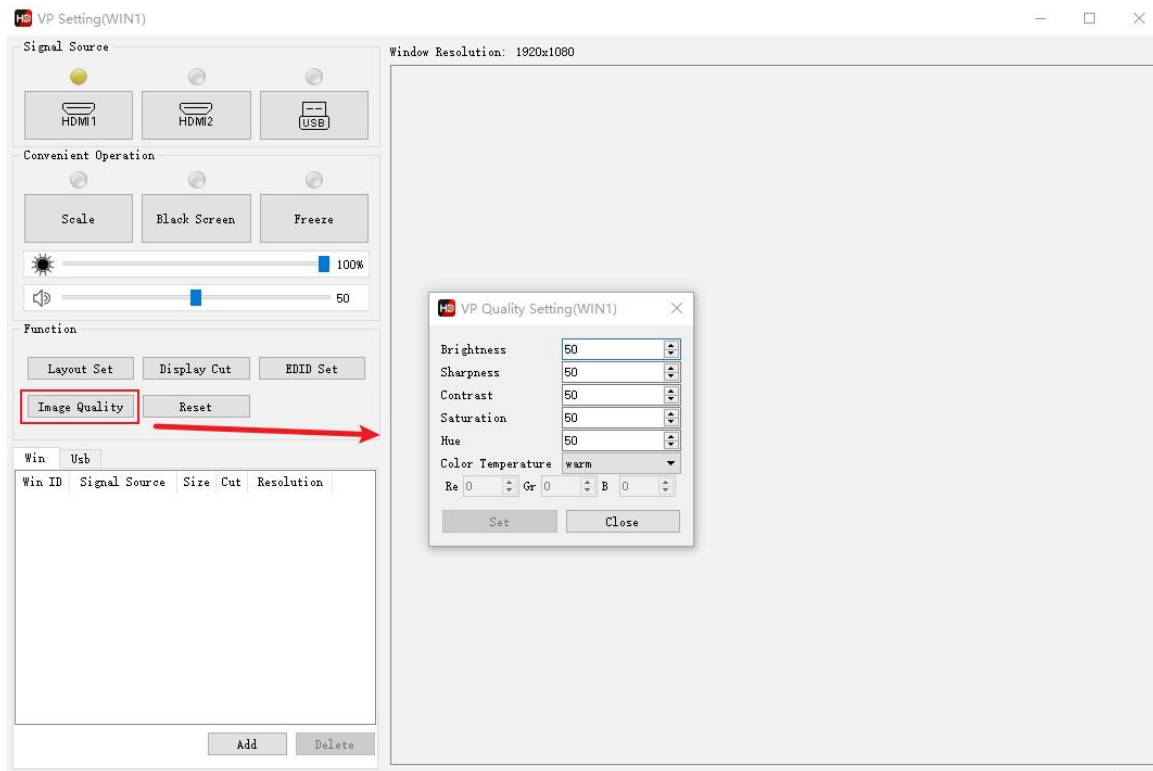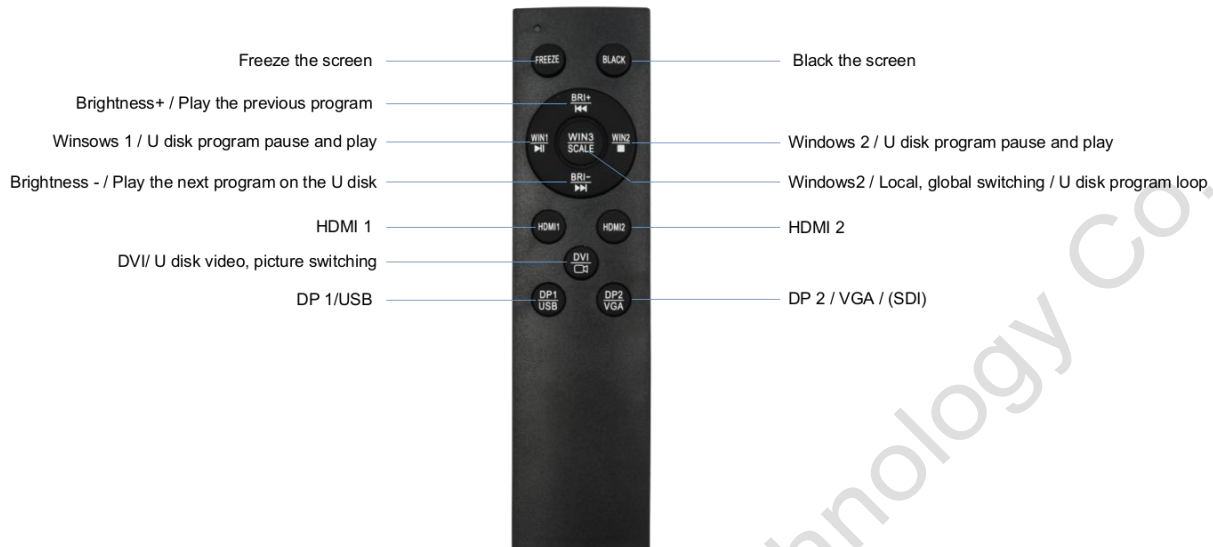
5.11 Factory Reset

HD-KV410 supports factory reset of the device, password 1 68 , as shown below

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13
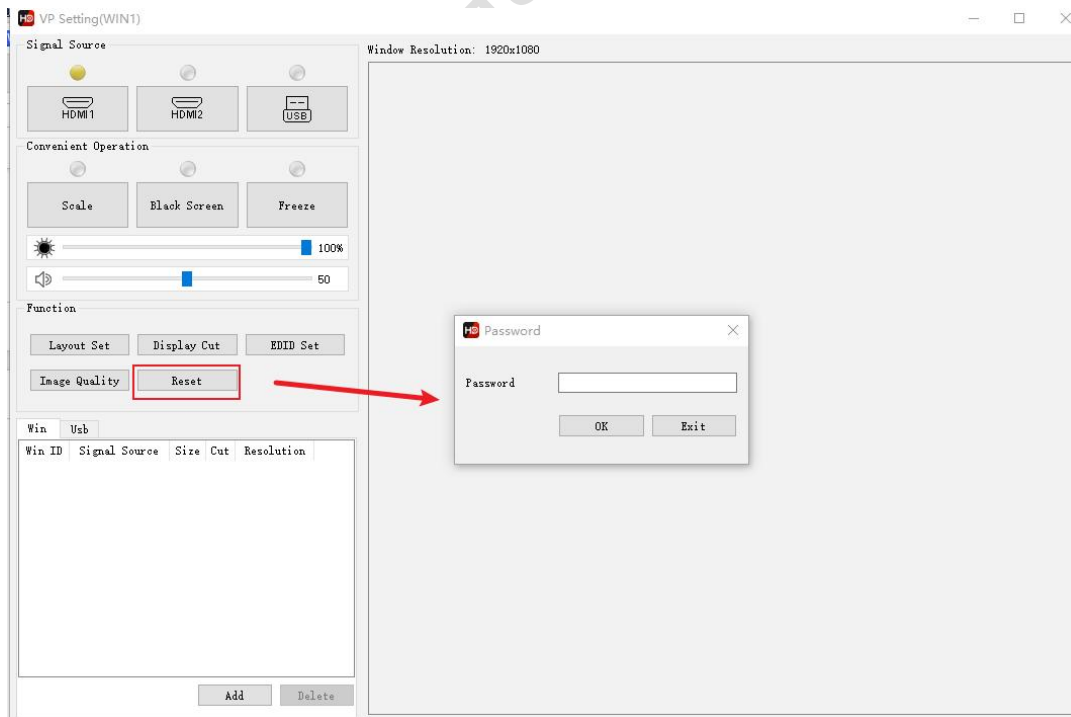
5.12 Remote Control (Optional) Description

other instructions:

1. Welcome to choose Huidu Technology products. There may be slight differences between the product pictures in the specification and the actual appearance. If you have any questions, please contact technical support or salesperson for confirmation.

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14