Instruction Manual

2-in-1 Video Processor
HD-VP2060

V1.3 20240628

1Introduction

HD-VP2060 is a two-in-one video processor for LED display screens, integrating 20- channel Gigabit Ethernet output. Supports six-screen display. It has 6 -way synchronous signal input, supports up to 4K video signal input (partial interface) and can switch multiple synchronous signals at will. It can be used in hotels, shopping malls, conference rooms, exhibitions, studios and other occasions that require synchronous playback. At the same time, VP2060 comes standard with Wi-Fi function and supports mobile phone APP wireless control.

Features:

enter

- Maximum 4096×2160@60Hz input resolution;
- 2 -way 4K input: 1×DP1.2, 1×HDMI2.0;
- 4 -way 2K input: 4×HDMI1.3;
- Supports 1 -way TRS 3.5mm standard dual-channel audio input and HDMI/DP audio input.

Output

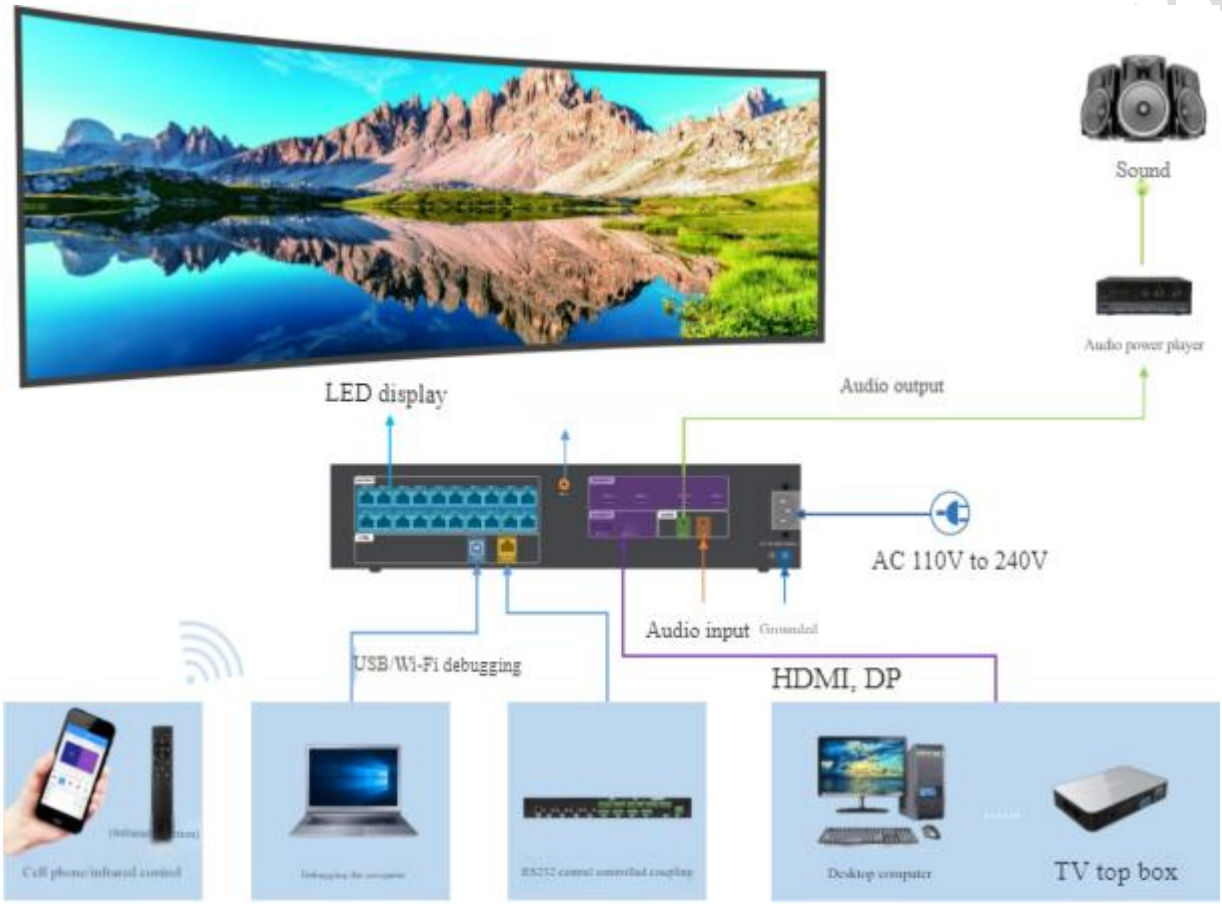
- Standard 20 -channel Gigabit network ports, directly cascade receiving card;
- Maximum control of 13.1 million pixels, maximum horizontal support of 16384 pixels, maximum vertical support of 8192 pixels ;

- 1- way TRS 3.5mm standard two-channel audio output.

Function

- Video signals can be switched, cropped, and scaled at will;
- Supports up to six screens display and supports any screen layout;
- Support 16 scene presets and calls;
- Support brightness and key lock functions;
- Support limited to full functionality;
- Supports retaining the last frame after unplugging the input source;
- Support docking with central control equipment;
- Support infrared remote control (optional)

2Application Scenario



Connection diagram

3Exterior

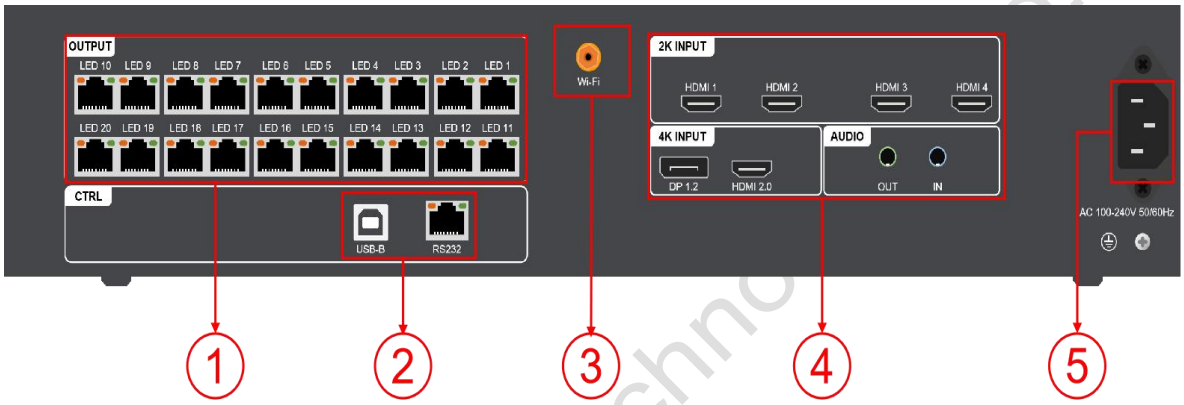
Front Panel

Key Description		
Serial number	**button**	**illustrate**
1	switch	Control AC power input
2	LCD Display	Debugging display menu, screen parameters and other information
3	IR&MIC	IR: infrared remote control receiver MIC: Microphone voice input (optional)
4	MENU knob	Press the knob to enter a submenu or confirm a selection Rotate the knob to select menu items or adjust parameters
5	WIN1~ WIN6	Select an open window Function key: The key multiplexing function is digital selection, generally used when setting the resolution
	ESC	Exit key/Back key
	MODE	Quickly call up the preset mode call menu
	BLACK	One-touch black screen button

6	**SOURCE**	**Input signal selection area**

		Function key: The key multiplexing function is digital selection, generally used when setting the resolution

Rear Panel



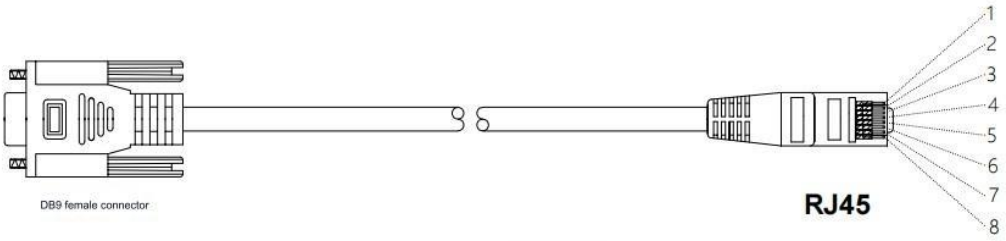
input interface			
Serial number	Interface Name	quantity	illustrate
4	DP1.2	1	DP input interface Interface type: DP Signal standard: DP1.2 backward compatible Resolution: VESA standard, maximum resolution 4096x2160@60Hz;minimum resolution 1920*1080@60Hz EDID management: support preset resolution, support custom input resolution Support audio input
	HDMI2.0	1	HDMI2.0 input interface Interface type: HDMI-A

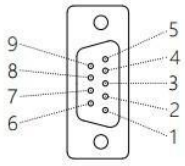
			Signal standard: HDMI 2.0 Backward Compatibility Resolution: VESA standard, maximum resolution 4096x2160@60Hz; minimum resolution 1920*1080@60Hz EDID management: support preset resolution, support custom input resolution Support audio input
	HDMI 1-4	4	HDMI1.4 input interface × 4 (HDMI1~4) Interface type: HDMI-A Signal standard: HDMI 1.4 Backward Compatibility Resolution: VESA standard, maximum resolution 1920x1200@60Hz; minimum resolution 800x600@60Hz EDID management: support preset resolution, support custom input resolution Support audio input
	AUDIO IN	1	TRS 3.5mm dual-channel audio input interface
5	power supply	1	AC100~240V, 50/60Hz

Output Interface			
Serial number	Interface Name	quantity	illustrate
1	Gigabit Ethernet	20	Used to cascade receiving cards to transmit RGB data streams; each network port controls 650,000 pixels. Support docking multi-function card
4	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
2	USB-B	1	Connect to a computer for debugging the device
	RS232	1	RJ45 interface, connected to the central control device
3	4G	1	Used to connect 4G antenna (optional)
	Wi-Fi	1	Connect a Wi-Fi antenna to enhance Wi-Fi signal

RJ45 **Convert** DB9 **The connection cable diagram is as follows** . **It is optional** . **If you have any needs ,** please contact Huidu sales or technical support in advance .

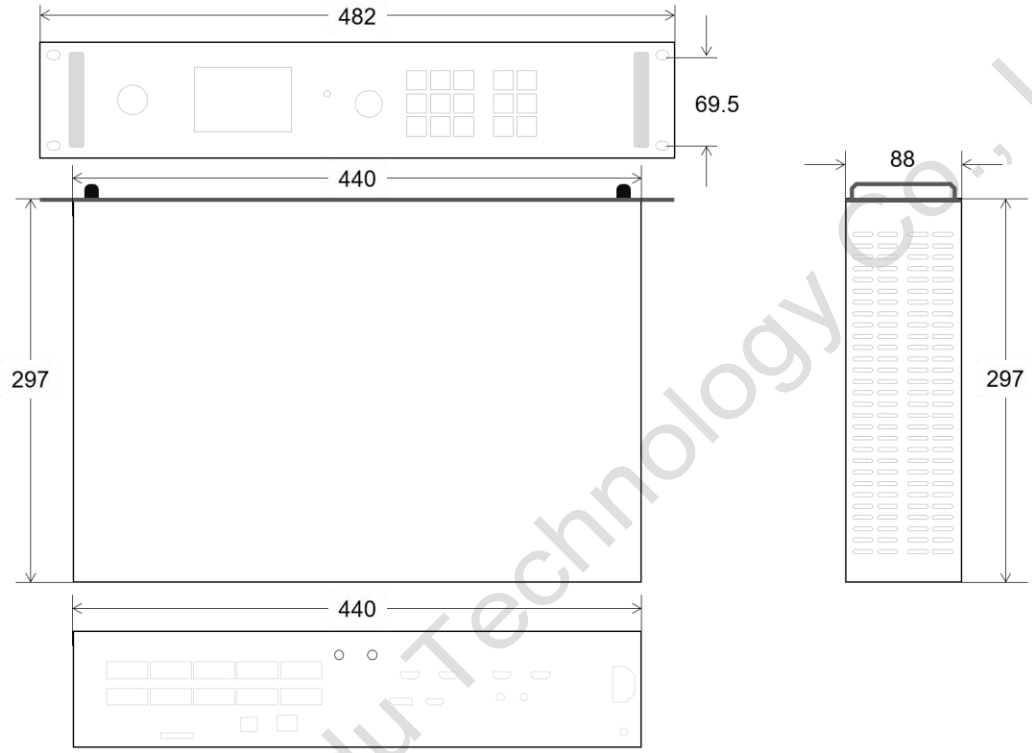




Line sequence diagram:

DB9 female connector		Crystal Head
2-RX	.....	TX-1(red)
3-TX	.....	RX-2(blue)
5-GND	.....	GND-3(black)

4Dimensions



5Product Usage

5.1Steps

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

Step 2 : Connect a playable input source t o HD-VP2060

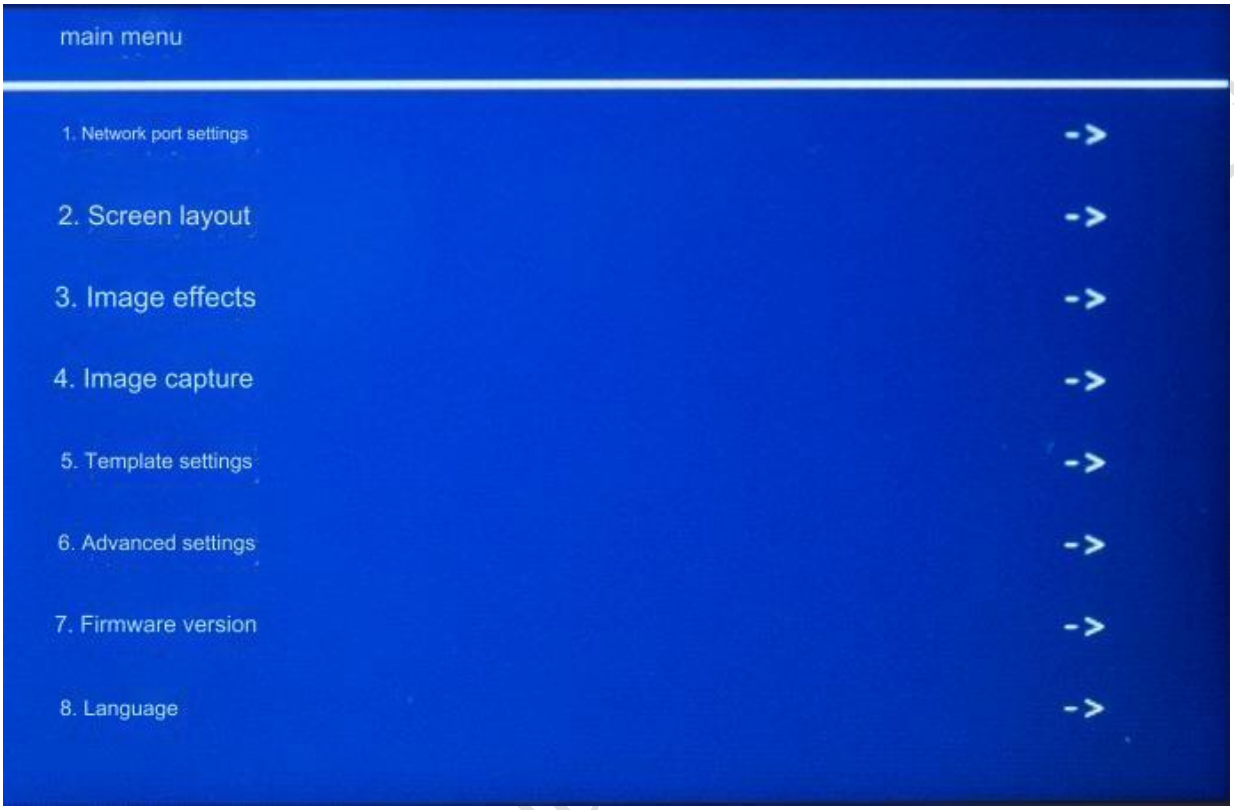
Step 3 Use the USB serial port to connect to the computer to debug the screen parameters **(refer to the HDSet user manual for debugging screen parameters)**

5.2Input source switching

HD-VP2060 supports connecting to 6 signal sources at the same time, and can switch to the input source you need to play at any time according to your needs. To switch the input source, just press the "SOURCE" area button on the front panel for quick switching.

5.3Interface Description

The icons in the next column from left to right are: output size, brightness, sound, network port usage status, and internal temperature of the chassis.



1.The network port setting is used to set the load range and connection relationship of the sending card network port.

2.The screen layout is used to set the output screen, and supports up to 6 screens to be displayed simultaneously.

3.Image effects are used to set brightness, limited to full, and other settings.

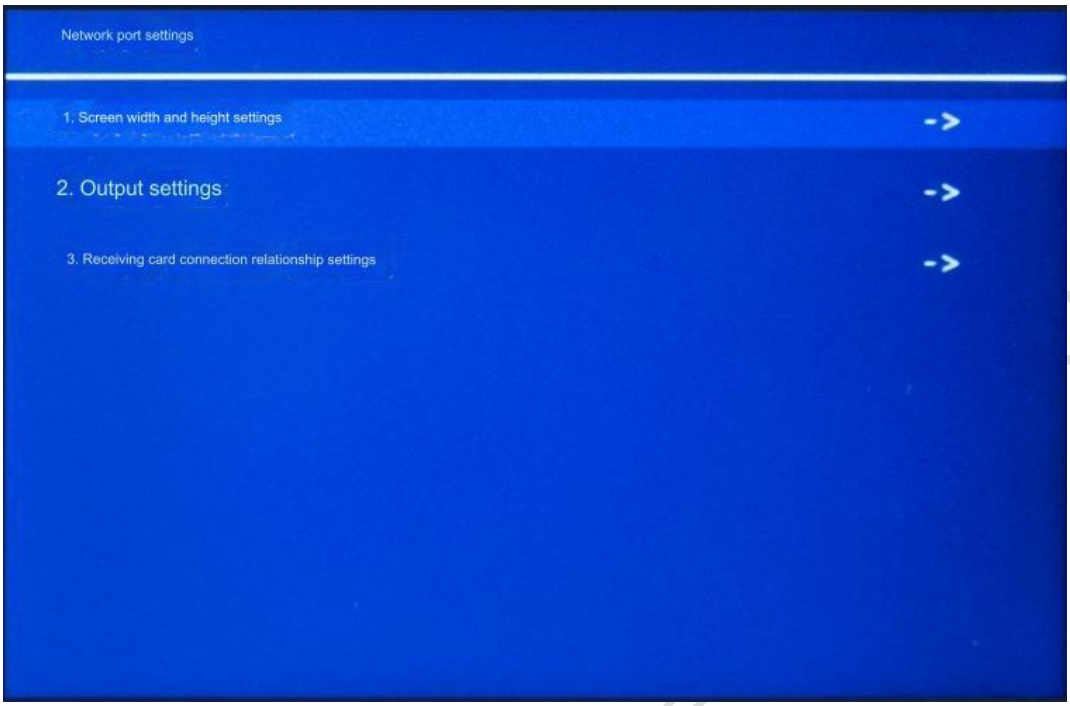
4.Image capture is used to capture the screen input source. The screen and coordinates of the captured input source can be set.

5.Mode save is used to save the currently set parameters to form a template file for quick subsequent settings.

6.Advanced settings are used to set input source resolution, restore factory settings, sound management, key lock settings, and language management.

7.Firmware version is used to display the firmware version.

8.Language is used for device language switching.



1.Screen width and height settings, the screen width is the wide pixel point of the display screen, and the screen height is the high pixel point of the display screen.

2.Output settings are used to set the coordinates of the network port

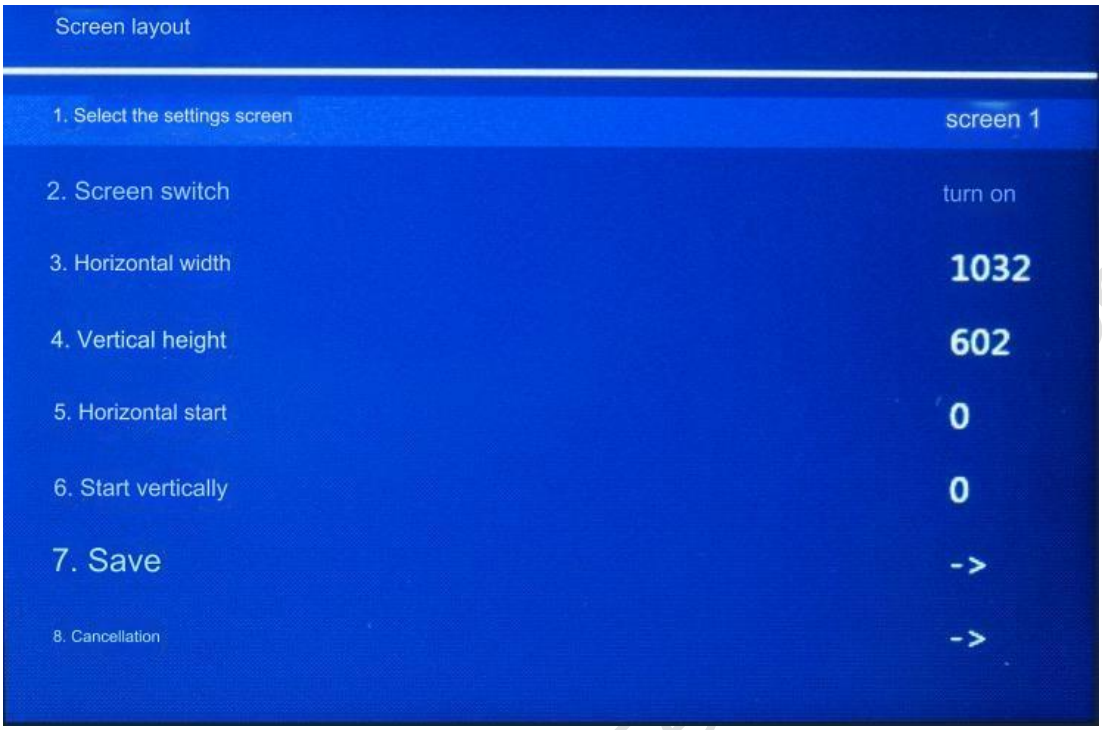
Horizontal width: 256 - the width of the LED screen

Vertical height: 256 — the height of the LED screen

Horizontal start: Set the parameter range = LED screen width - horizontal width

Vertical start: Set the parameter range = LED screen height - vertical height

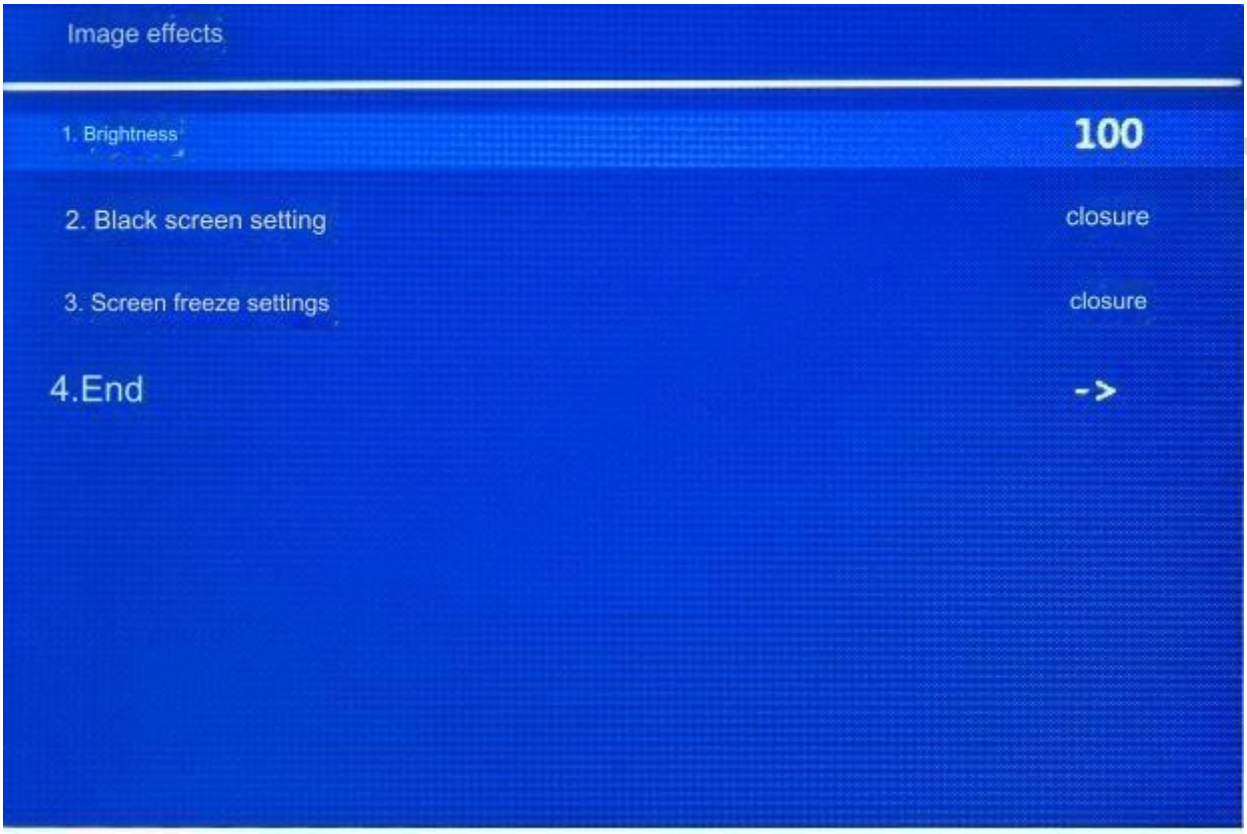
3.The connection relationship is set to the connection relationship of the receiving card. Currently, only the standard general mode is supported, and complex connection relationships are not supported.



The screen switch setting of screen 1 cannot be set to off

The horizontal starting value + horizontal width cannot exceed the width of the LED screen.

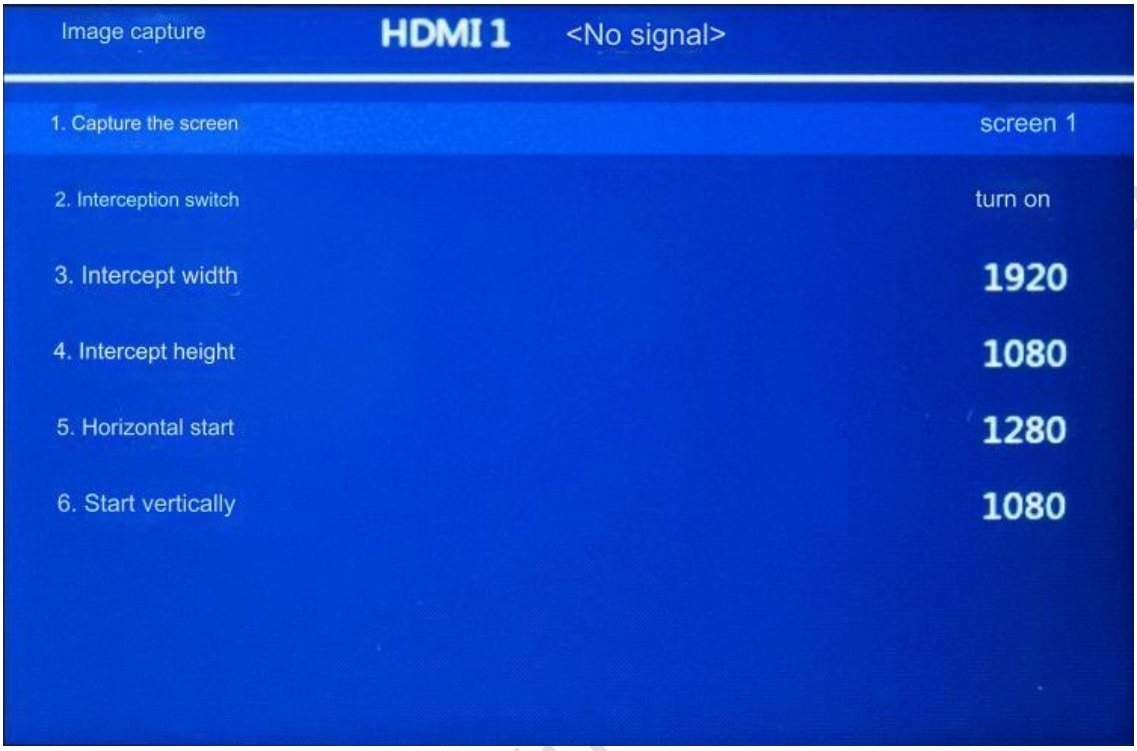
The vertical starting value + vertical width cannot exceed the height of the LED screen.



Brightness: 0-100, default 100

The device can set the color format to limited to full, YCbCr, YCbCr

full, direct mode



When the capture switch is off, the knob cannot select the capture width, height, horizontal, and vertical start.

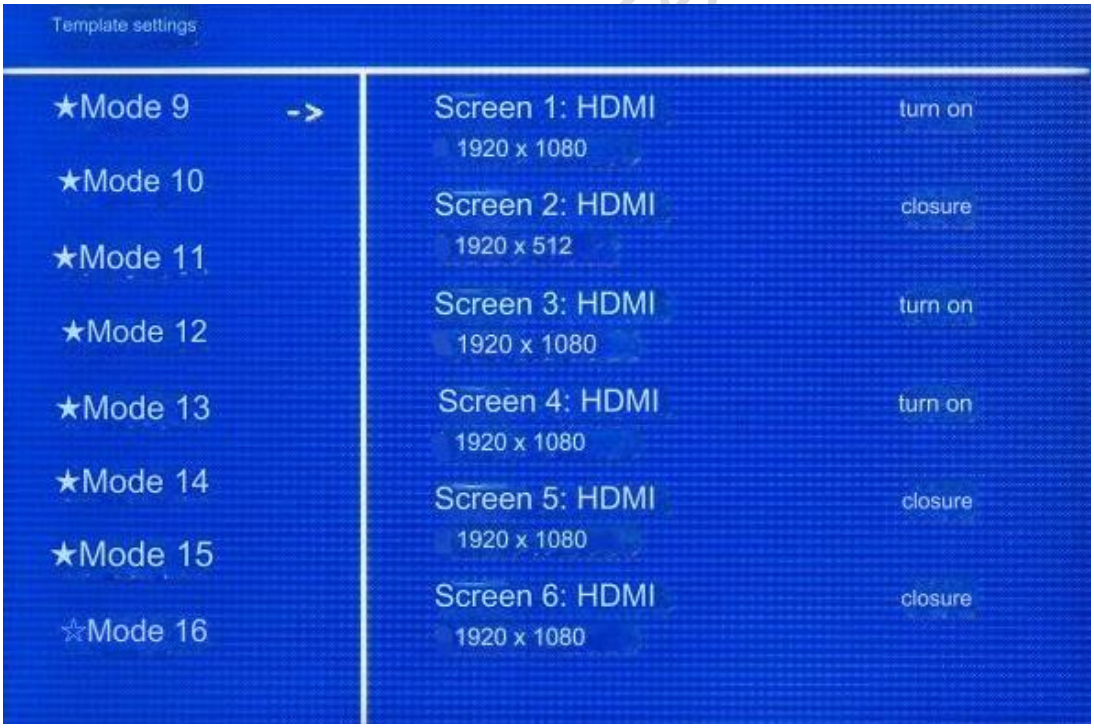
Intercept width: 128—the maximum width of the input source

Intercept height: 128—maximum height of input source

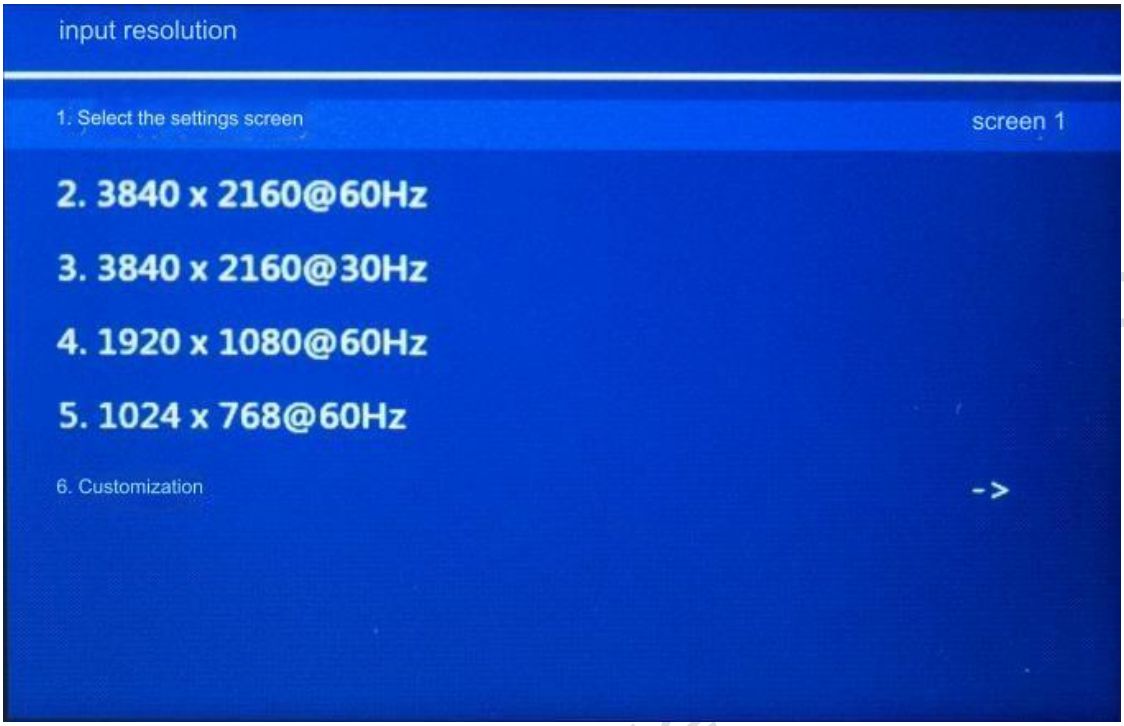
Horizontal start: Horizontal start value range = input source width - interception width

Vertical start: Vertical start value range = input source height - interception height

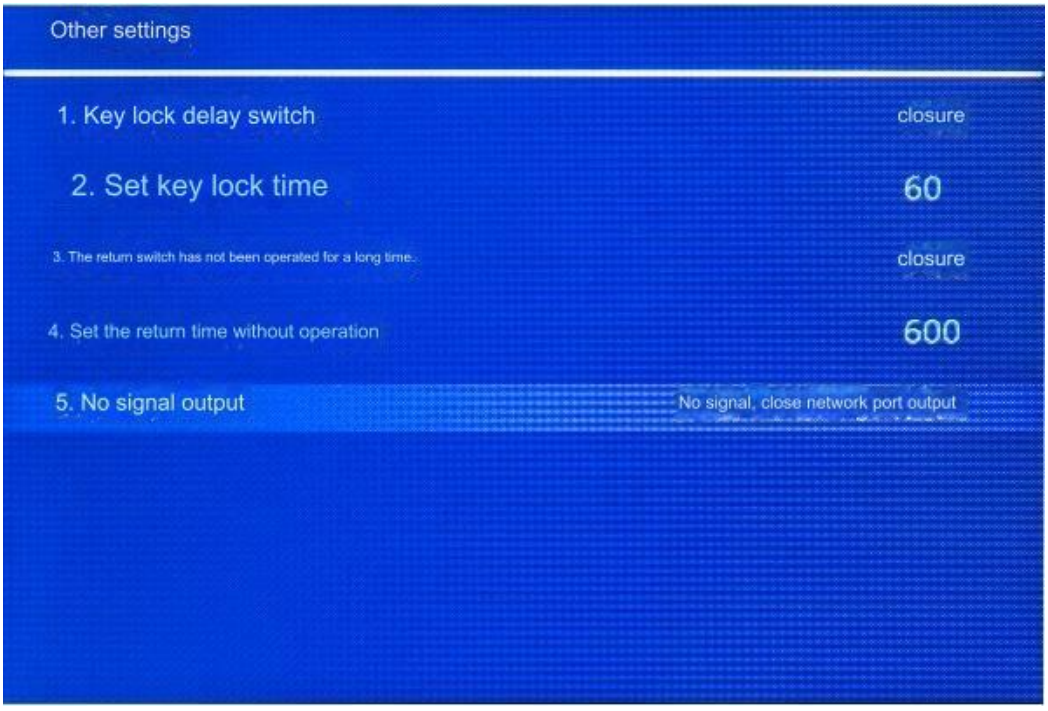
Note: If the captured image size is the same as the output image size, it is a point-to-point display. If the captured image size is different from the output image size , it is a zoom display.



Existing templates support replacement, deletion, loading
non-existent template options support for saving
Supports up to 16 template files

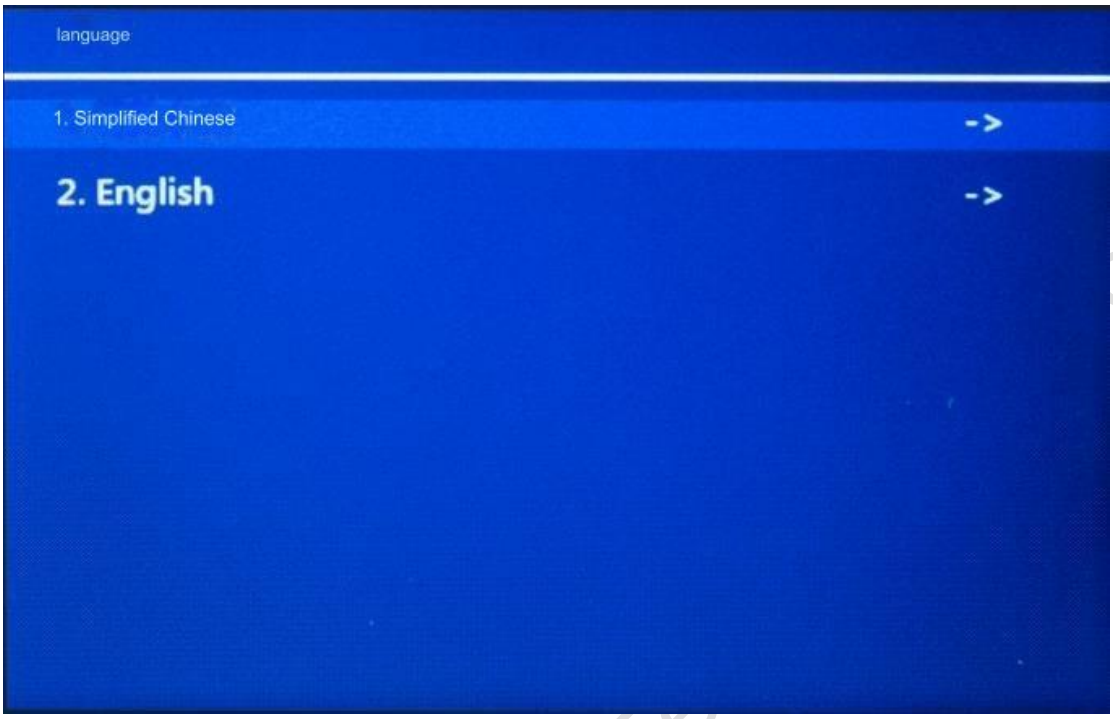


Supports 4 sets of general resolutions and supports custom resolution settings. The default is 60Hz

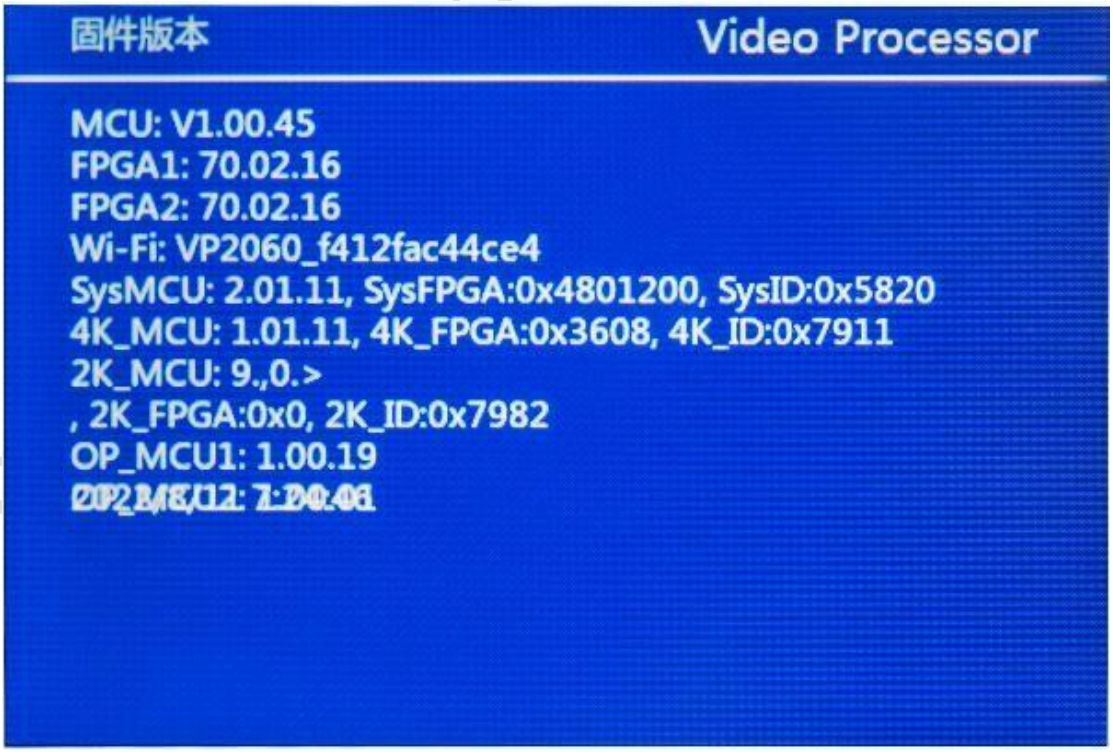


The key lock delay switch is enabled, and the maximum supported time is 3600 seconds. When the set time is exceeded, the key lock is automatically locked. To release the key lock, press and hold the ESC key and the BLACK key for 3 seconds, and the key lock will be automatically unlocked.

No signal output, turn it on to retain the last frame of the device signal source.



Language selection: Support English, Chinese



Firmware version display

Digital function description:

When entering a situation where you need to enter numbers, such as setting the width and height of the screen, the keypad reuses related buttons. During the input of numbers , except for the reused buttons and ESC, the knob can be used, and other key functions are prohibited until you exit and can continue to use them. The key reuse is as follows:

Raw button function	Function after reuse
WIN 1	1
WIN 2	2
WIN 3	3
DP	4
HDMI2.0	5
WIN 4	6
WIN 5	7
WIN 6	8
HDMI1	9
HDMI2	0

Button status light description

1.When the button is pressed, the light of the button will be lit, and it will go out if it is released without any other needs.

2.If the input source of the current window is HDMI1/HDMI2//HDMI3/HDMI4/HDMI2.0/DP, if there is no input source signal, it will flash off at an interval of 125ms until an input sourcesignal is detected and then it will be always on. If the input source signal is lost in the middle, it will continue to flash off.

3.When the BLACK button is pressed, the lights of HDMI1/HDMI2/HDMI3/HDMI4/HDMI2.0/ DP Pare all off, and the BLACK light is always on . After pressing the BLACK button again, the BLACK light goes off, and then the light status of step 2 is performed according to the input source light of the current window .

4.pressing the FREEZE button, the button light will be on and it will go out when pressed again.

5.WIN1, WIN2 , WIN3, WIN4, WIN5, WIN6 The button light of the window currently selected by the TV will be lit. When switching different windows, the button light of the input source needs to be synchronized with the input source type of the current window.

6.The following states need to be saved after power off and restart: input source type of the current window, status of BLACK light, status of FREEZE , selection status of win1, win2, win3, win4, win5, win6.