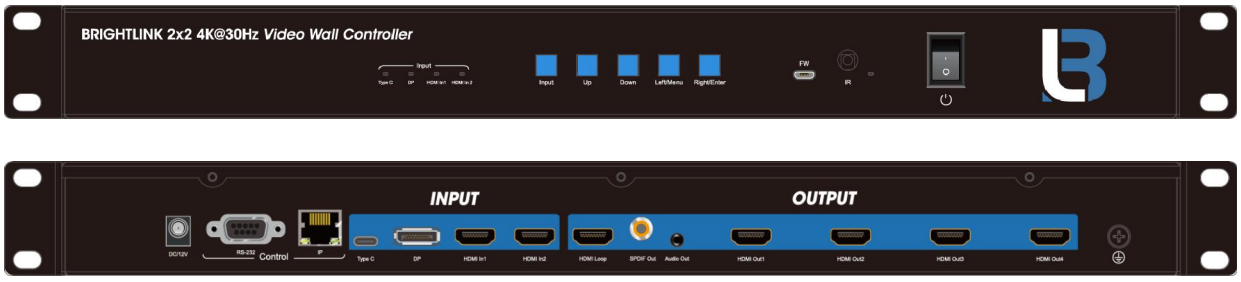
BRIGHTLINK HDMI 2X2 4K Video Wall Controller with Mixed inputs

MODEL : BL-VW22-4K30

Operating Instruction

BRIGHTLINKAV.COM



Directory

1. FEATURES

- Support Type C/DP port/HDMI input.
- Select 1 of 4 source and distribute to 4 displays.
- Create a 2x2 Video Wall Controller from any source to four displays.
- Support multi-level cascading to create 3x3, 4x4...Video Wall (Max 10x10).
- Support 180° rotation.
- Support resolution up to 4K30HZ.
- Support EDID management:Two default EDID: 4K30HZ, 1080P;user can copy the EDID of the loop out and any output port.
- Support HDCP2.2/1.4
- With panel button, Remote Control, RS232 Control, TCP/IP Control to select the source.And support for third-party platform control.

2. NOTICE

Our company reserve the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

3. SPECIFICATIONS

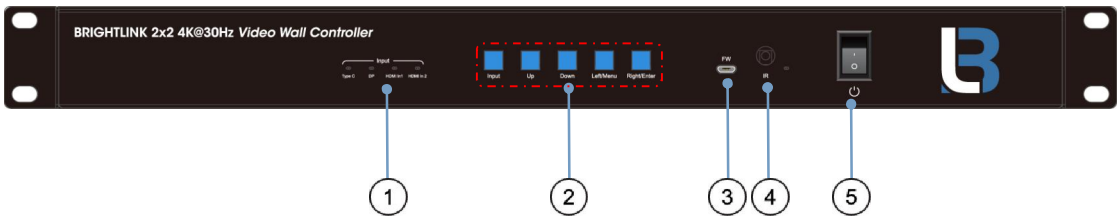
Operating Temperature Range	0 to +40°C (32 to +104°F)
Operating Humidity Range	10% to 90 % RH (no condensation)
Output Video Format Supported	1080P60/720P60/ 1920X1200/1366X768/4K30HZ
Supported input resolution	The maximum input resolution supported by HDMI is 3840x2160@60hz. The maximum input resolution supported by DP is 4K30
Transmission distance	Input: maximum---3 m Output: 4K/30Hz---10 m 1080P/60Hz: maximum---15 m
Audio Format Supported	LPCM
Input ports	2xHDMI, 1xDP, 1xType C
Output ports	5xHDMI
Splitter mode	1x4 HDMI Splitter
Video wall mode	2x2,3x3,4x4.....10x10 video wall
Control Way	Panel control, IR control, RS232 control
Power consumption	15watts(Maximun)
Dimension (mm)	L438XW191.2XH44 mm
Weight	2460g

4. PACKING CONTENTS

1) Main Unit: HDMI 2X2 4K Video Wall Controller
2) 1x Power supply 12V2A
3) 4x Screws
4) 2x detachable mounting ears
5) 1x IR Cable
6) 1x Remote controller

5. PANEL DESCRIPTIONS

Front Panel



1. Input status light
2. Buttons (Input; Up; Down; Left/Menu; Right/Enter)
3. Firmware port
4. IR
5. Power button

Noted: Press the Left/Menu and Right/Enter button together for 5 seconds to reset the system;Long press the UP and DOWN button,The device will loop through the output resolution

Rear Panel

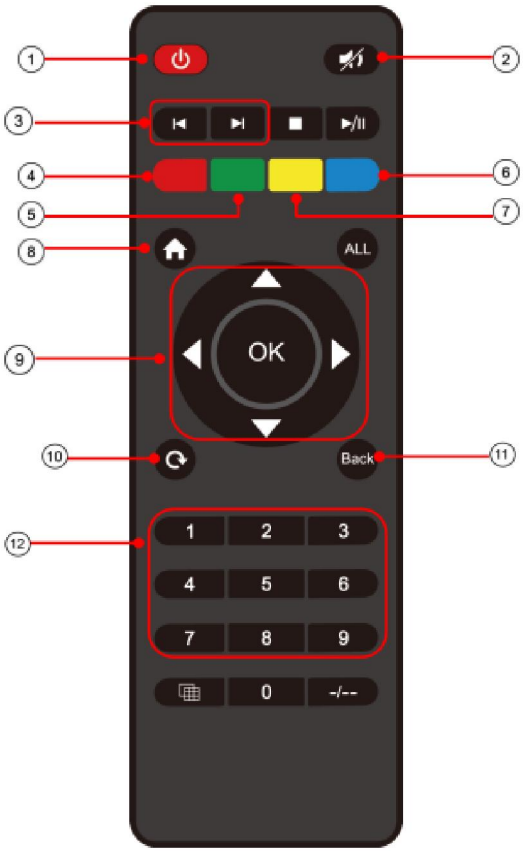
1. Power input port
2. RS232 & IP Control
3. HDMI Inputs (Type-C, DP, 2x HDMI in)
4. HDMI Outputs (HDMI Loop, SPDIF, Audio, 4x HDMI out)

6. CONNECTING AND OPERATING

1) Connect the sources into the video wall controller and Press the button on the remote to choose the input Signal (DP, 2XHDMI, USB,Type C).
2) Connect HDMI OUT to display equipment.

3) Power up the Video Wall Controller.
4) Control the Video Wall Controller by Panel button / Remote / RS232 Command.

7. Remote Control Instruction

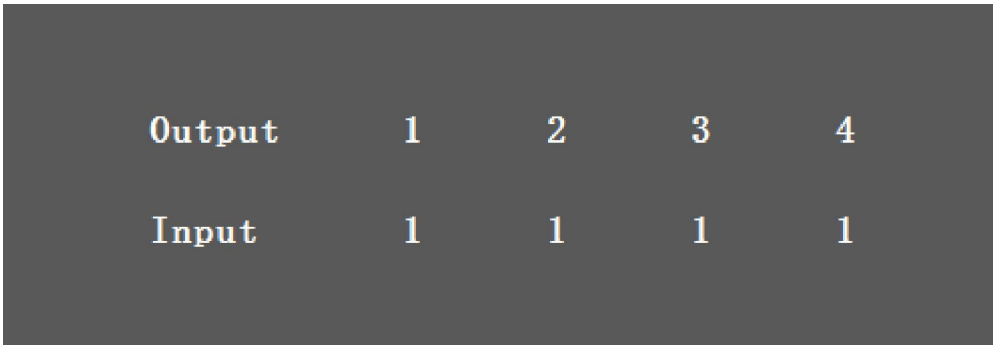


1. Power on/off
2. Mute
3. Source switching
4. Switch signal source of IN1 (TYPE C)
5. Switch signal source of IN2 (DP)
6. Switch signal source of IN4 (HDMI 2)
7. Switch signal source of IN3 (HDMI 1)
8. Menu
9. ▲:UP ▼:Down ◄:Left/Menu ►:Right/Enter OK:Right/Enter
10. Display and hide OSD menu
11. Return to menu interface
12. 1-4: select the input source IN1---IN4

Note 1: ⑨ Right/Enter means that when you select to the Right ,you are applying the functionality of the option on the Righ

7.1 Video switching operation

The OSD display interface of video switching only shows four output channels and the current input signal channels, and can only switch one input signal to all output channels (in the case of input and output access).

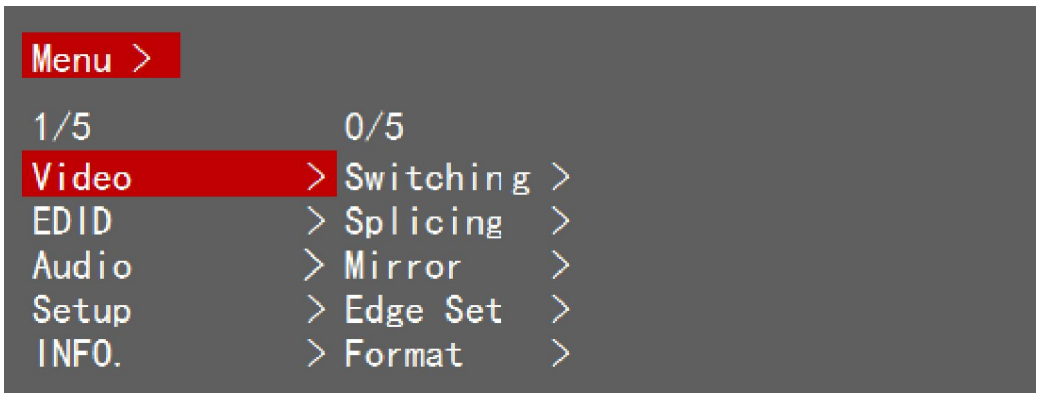


Video switching interface

Operation mode: press the "INPUT" button directly and cycle through the input signal

7.2 Video control

Press "Left/Menu" on the panel to enter the main menu.



The function of the main menu is:

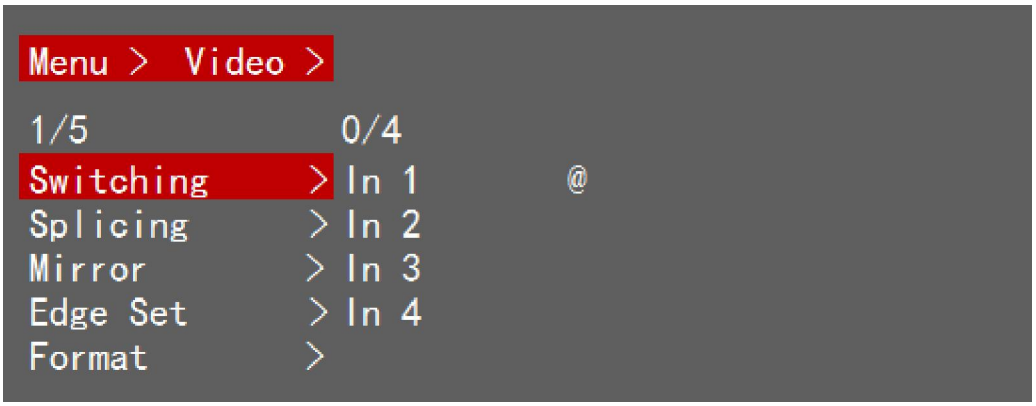
1. switching video signal source
2. EDID settings
3. Audio settings
4. Setup parameter settings.
5. INFO query

Note: the number 1/ 5 represents the first subitem of the five projects

Operation Description: Use the” up and down” to select ,the “Left/ Menu” button to return to the previous projects, and “Right/ Enter” to confirm the option

Video includes five subitem:Switching, Splicing, Mirror, Edge Set, Format.

7.2.1.Video switching



Any input signal can be switched to all outputs. The signal switching includes four input signals, In1 is TYPE C input, In2 is DP input, In3 is HDMI 1 signal, In4 is HDMI 2 signal. It is the default HDMI IN1 input.

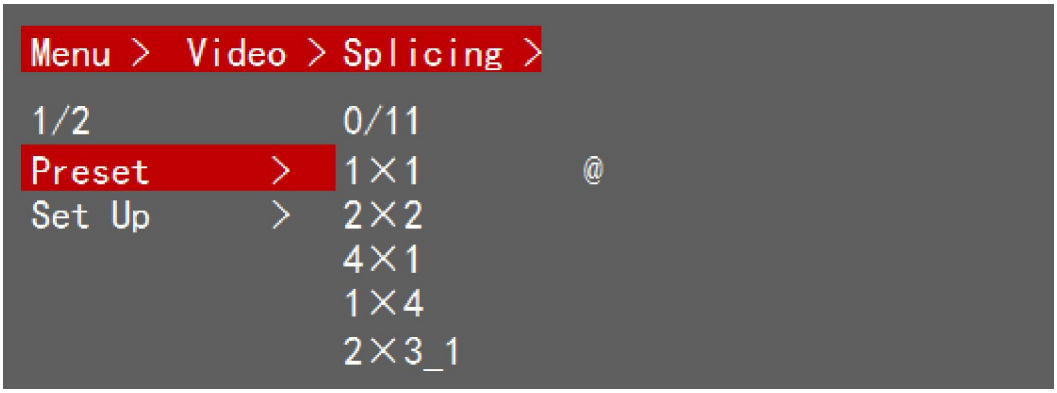
Operation steps:

1. In the main menu, select "Video" to press the "ENTER" button to confirm.
2. Press the “up and down” button to select Switching.
3. Click the "ENTER" button to enter the next sub-item
4. Press the “up and down” button to select the "In" input port, the bottom color of the selected input port becomes red, and the @ (Selected Symbol) is displayed
5. Click the "ENTER" button to confirm that the video switch is complete

7.2.2.Wall pattern

It can perform fixed video wall or cascade video wall Settings on the output video, which has two setting options in this mode:

Preset: it can set up some fixed preset video wall scenarios, default to 1×1

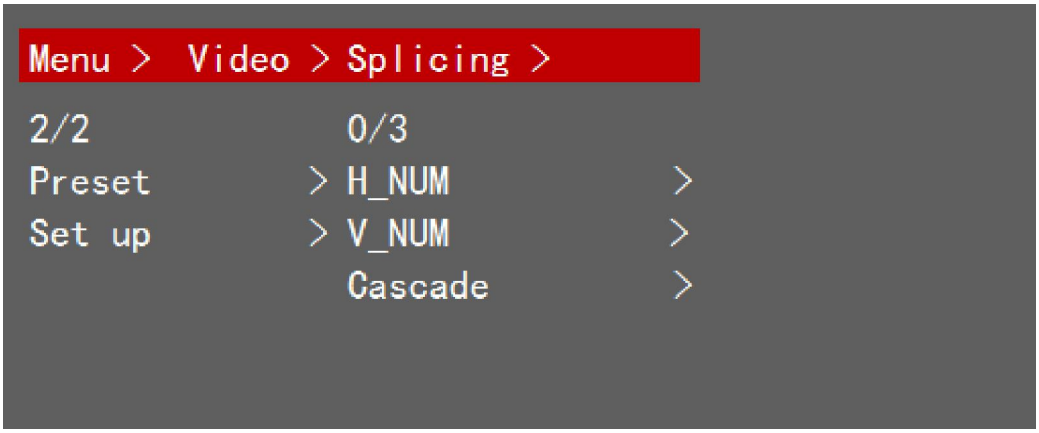


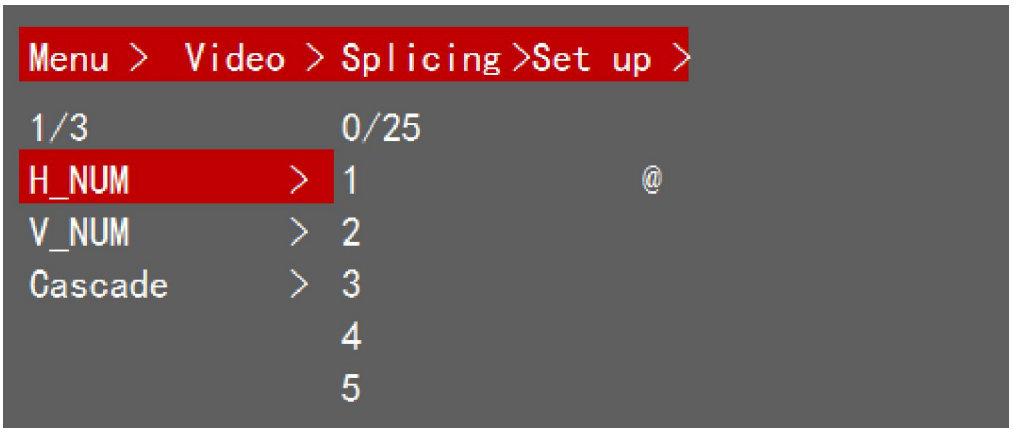
Operational steps:

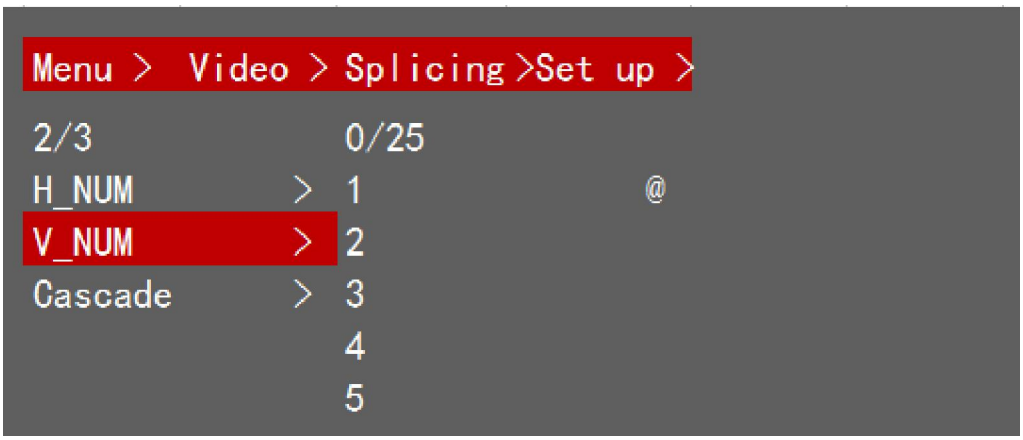
1. In the main menu, select "Video" to press the "ENTER" button to confirm
2. Press the “up and down” button to select 'Splicing'
3. Click the "ENTER" button to enter the next sub-item

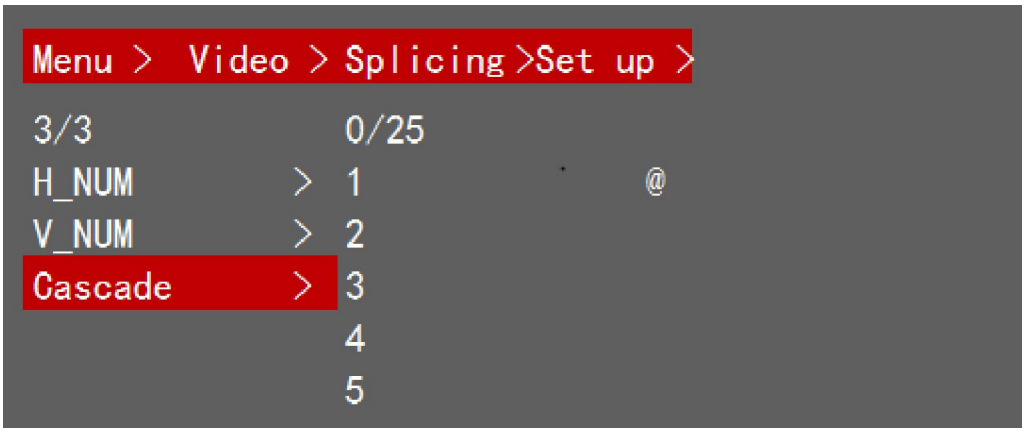
4. Press the “up and down” button to select the "Preset" setting option, the bottom color of the selected input port becomes red, and the @ (Selected Symbol) is displayed.
5. Click on the "ENTER" button to confirm and go to the next submenu
6. Press the “up and down “button to select "1 x 1" and other fixed preset video wall mode,
7. Click on the "ENTER" button to set up the video wall mode successfully

Set Up: H_NUM represents the total number of screens on the horizontal axis, with 1 x 10 selections, the default is 1.
V_NUM represents the total number of screens on the vertical axis, with 1 x 10 selections, which defaults to 1.
Cascade indicates where the device is in the cascade, with options 1-25, which defaults to 1.









Operational steps:

① In the main menu, select "Video" to press the "ENTER" button

② Press the “up and down” button to select 'Splicing'

③ Click the "ENTER" button to enter the next sub-item

④ Press the “up and down”button to select the "Set Up" setting option, and the bottom color of the selected setting option turns red

⑤ Click on the "ENTER" button to confirm and go to the next submenu

⑥ Press the”up and down”button to select "H_NUM",

⑦ Click on the "ENTER" key to enter the next subitem

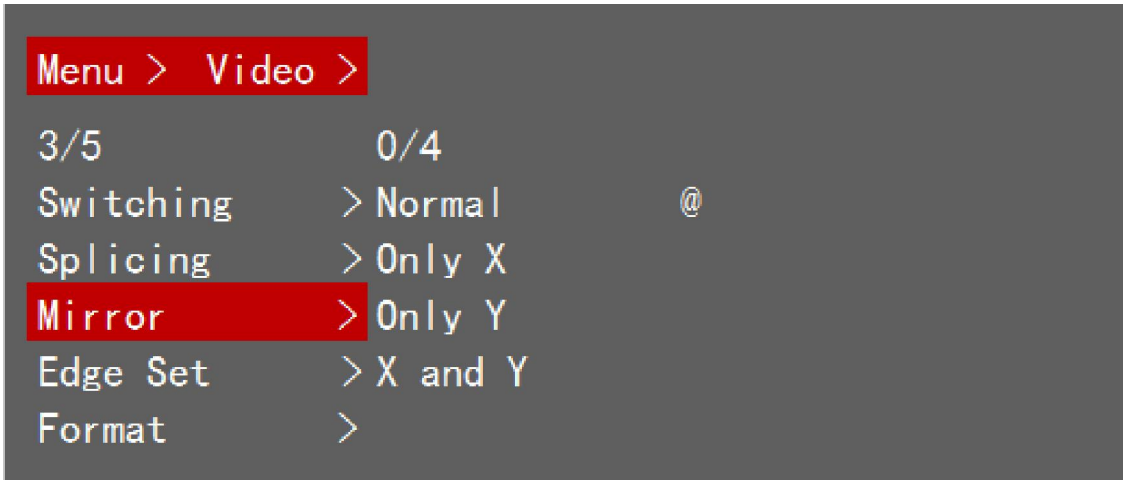
⑧ Press the”up and down”button to select the number of "1" and select the number of screens to set

⑨ Click the "ENTER" button, the number of horizontal axis display set successfully.

⑩ Set up the number of vertical display screens with the above steps, and what level is the cascade

7.2.3. Mirror mode

All output video can be mirrored, which includes four options: Normal---default mode (do not mirror), Only X---horizontal mirror, Only Y---vertical mirror, X and Y horizontal and vertical mirror (that is, 180 degrees rotation);



Operational steps:

1. In the main menu, select "Video" to press the "ENTER" button
2. Press the”up and down”button to select Mirror
3. Click the "ENTER" button to enter the next sub-item
4. Press the “up and down” button to select settings such as "Normal", and the bottom color of the selected setting options becomes red
5. click on the "ENTER" button to confirm that the mirror processing settings are successful

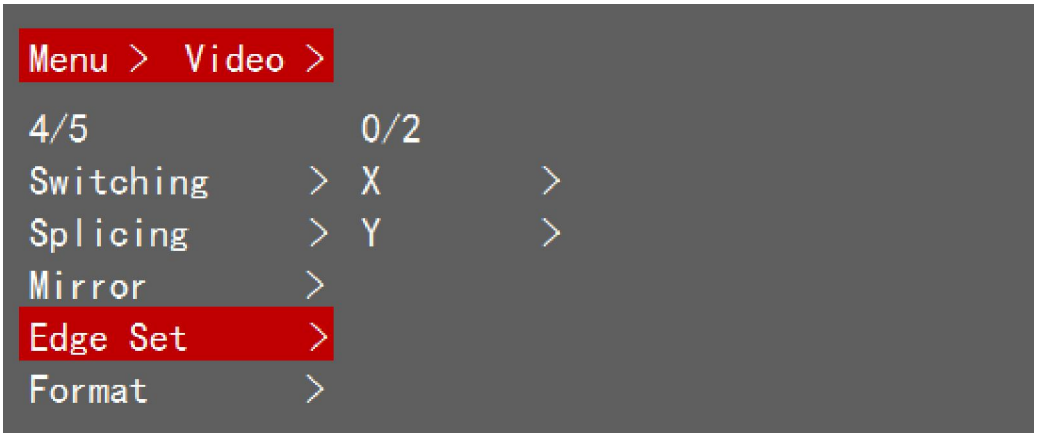
7.2.4.Margin setting

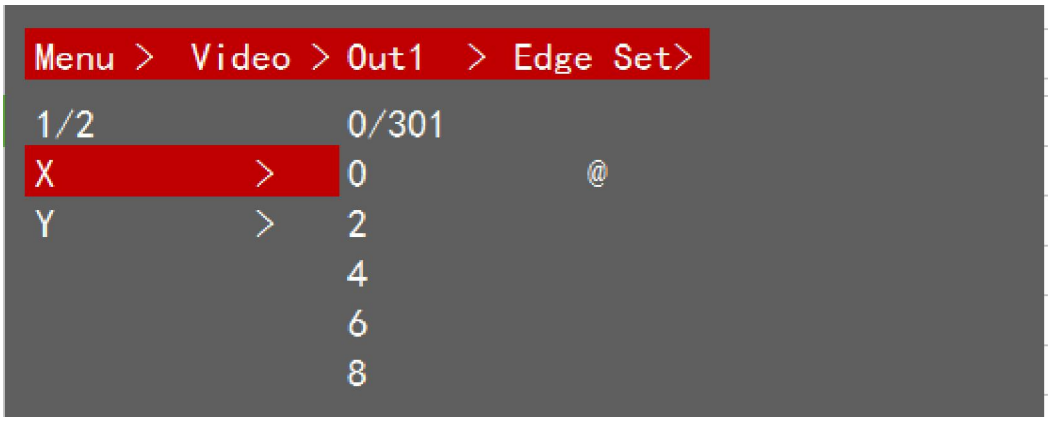
You can set the margins of the output image, including two subitems:

X: the margin setting between the two horizontal displays is set with the 0~600 option, with a minimum unit of 2.

Y： vertical two screen in the middle of the margin settings, there are 0~600 options to set, the minimum unit of 2.

The middle margin of horizontal and vertical display screen defaults to 0;





Operational steps:

1. In the main menu, select "Video" to press the "ENTER"button
2. Press the “up and down” button to select "Edge Set"
3. Click the "ENTER"button to enter the next sub-item
4. Press the “up and down” button to select the "X" setting option, click the "ENTER" button to enter the next subitem.Click the “up and down”button select and

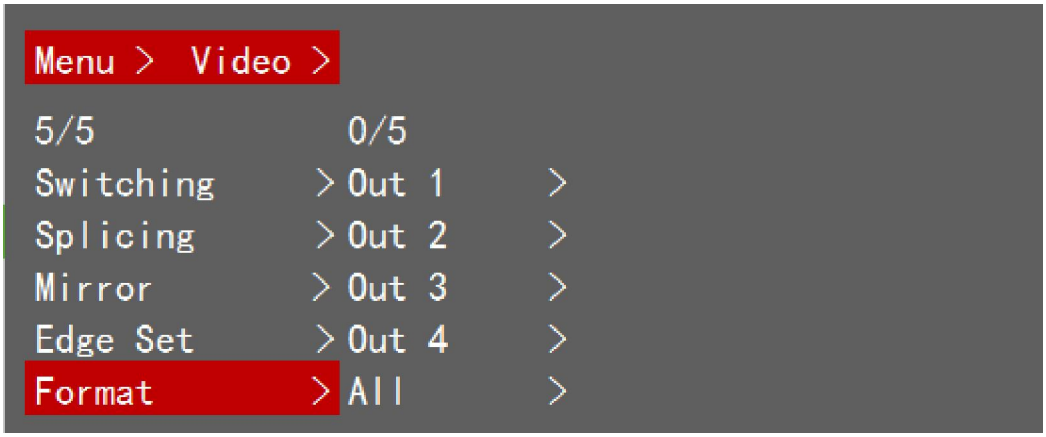
set the margin between the two horizontal displays as required, and click the "ENTER" button to complete the setting

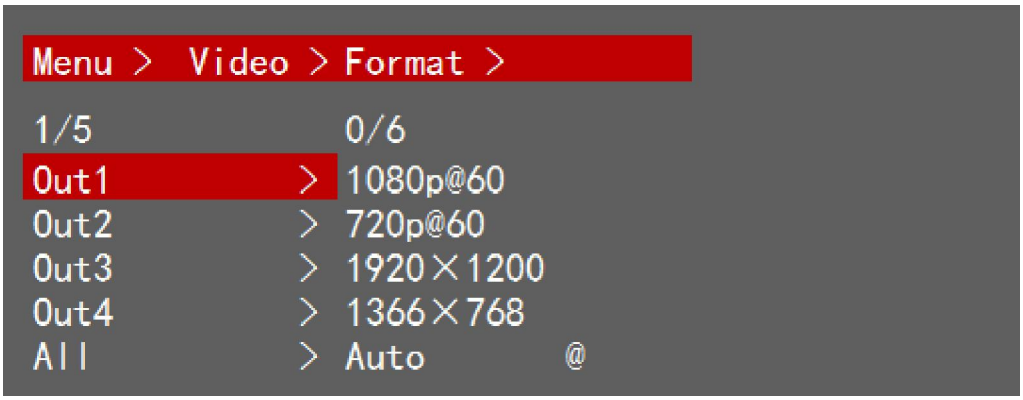
5. press the "Left/Menu" button to return to the previous menu, press the “up and down”button to select the "Y" setting option, click the "ENTER" button to enter the next subitem, click the “up and down”button, select and set the margins between the two vertical displays as required, and click the "ENTER"button to complete the settings

7.2.5.Output resolution

The resolution format of the corresponding output port can be set, one of all output port can be set, and all the output port can also be set.

The default output resolution is Auto mode, which can output the corresponding resolution according to the TV



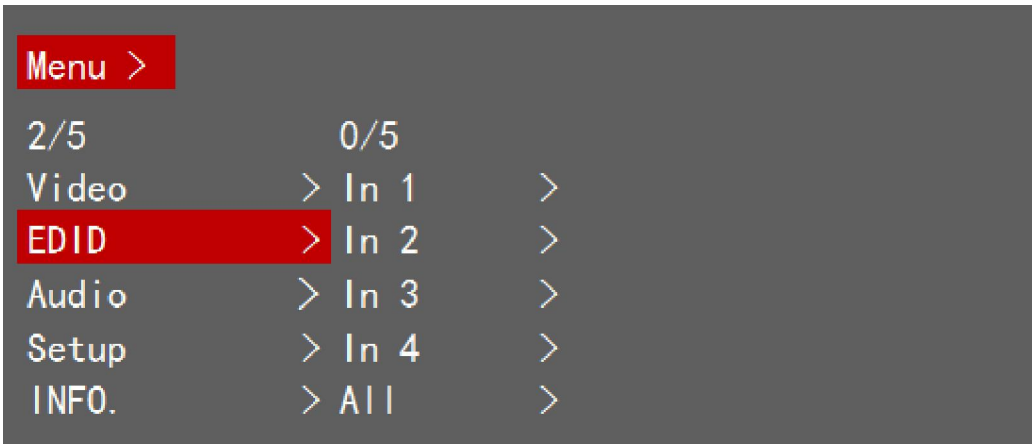


Operational steps:

1. In main Menu, Select “Format” and press “ENTER” to confirm
2. Press the “up and down” button to select the "Out1" output port or option 5---ALL,(ALL means select all outputs)
3. Click the "ENTER" button to enter the next sub-item
4. Press the”up and down”button to select the resolution format (the next sub-items of OUT and ALL support the following 6 resolution formats:4K30,1080P60, 720P60,1920x1200,1366x768, AUTO);
5. Click "ENTER" to confirm that the output resolution format was successfully set.

7.3 EDID setup interface

The EDID setup interface can set the EDID, for each input port and the corresponding input source EDID separately. It also can be set the EDID for all input sources at the same time to select the built-in EDID (4K30HZ/108060HZ), copy EDID (CopyOut1,CopyOut2,CopyOut3,CopyOut4,Copy Loop) and the default EDID is 1080P60



Below are examples of built-in EDID4K@30 to input port 1:

Operational steps:

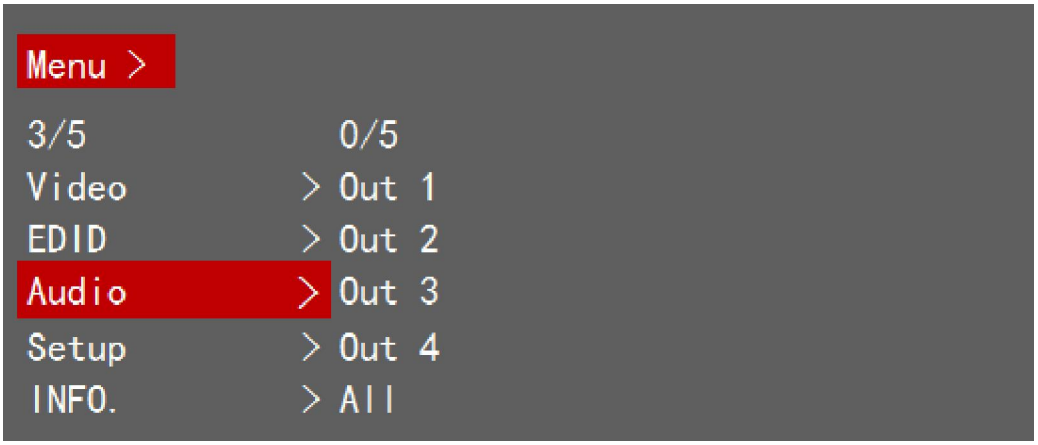
1. Select "EDID" in the main menu and press the "ENTER" button
2. Press the “up and down” button to select the "In 1" input port (the ninth option indicates the selection of all inputs)
3. Click the "ENTER" button to enter the next sub-item
4. Press the “up and down” button to select EDID "4K@30"
5. Click on "ENTER" to confirm that the setup of the built-in EDID "4K@30" to the input port 1 is completed

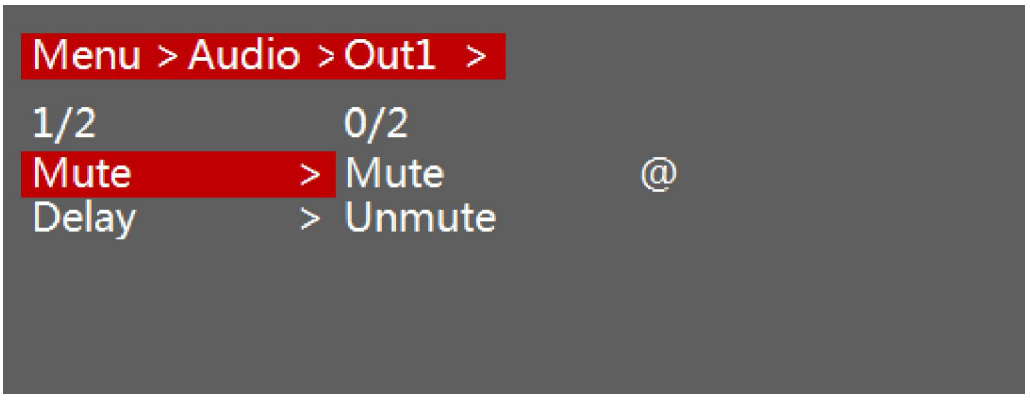
7.4 Audio control

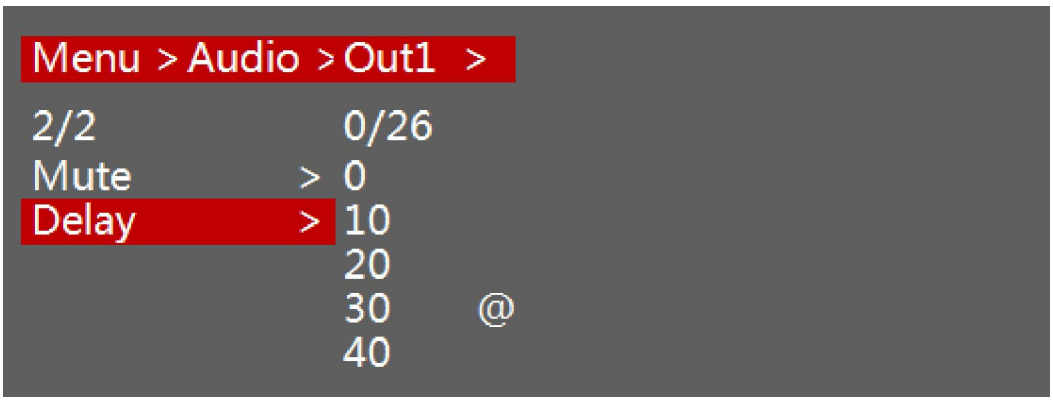
Audio has 5 sub - options, out 1~ out 4(4 output ports) and all (all output ports); Audio setup interface is mainly for each output or all outputs of the audio switch (mute) and audio delay (delay).

Mute: there are two sub-items: mute and unmute;

Delay: There are 0-250 options,the unit is 10;
The default settings are Unmute and delay 30.







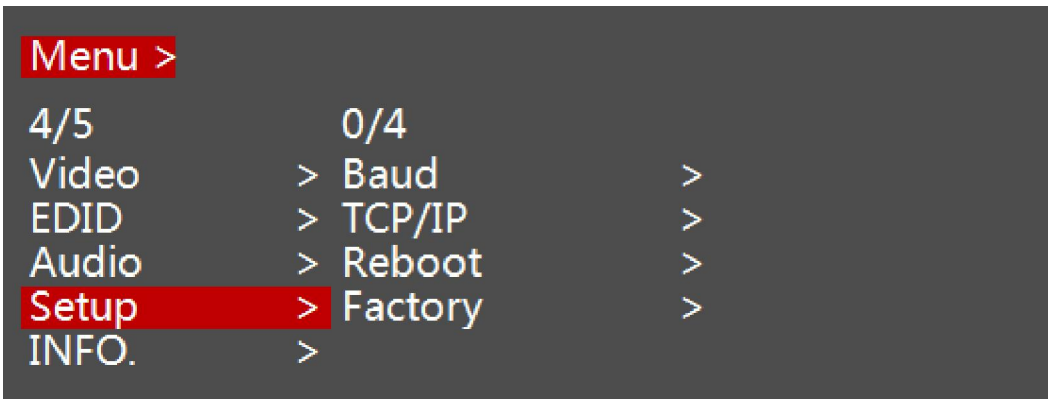
Take OUT1 as the output port, and set mute (mute) and Delay 10 (delay) as examples:

Operational steps:

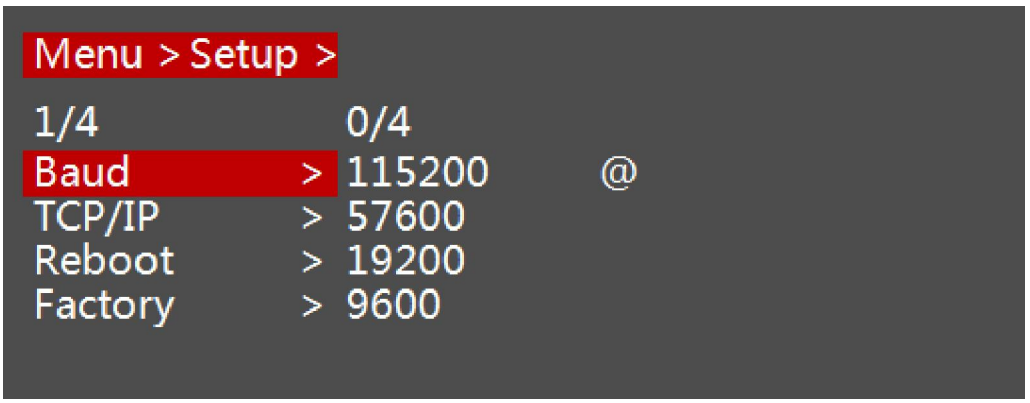
1. Select "Audio" in the main menu and press the "ENTER" button
2. Press the “up and down” button to select the Out 1 output (option 5 for all outputs).
3. Click the "ENTER" button to enter the next sub-item
4. Press the “up and down” button to select mode "mute ".
5. Click "ENTER" to confirm, go to the next submenu, select "mute", and click "ENTER" to confirm
6. Click the "Left/Menu" button to return to the previous submenu
7. Click "Delay" to enter the next submenu
8. Press the “down” button to select the number "10".
9. Click "ENTER" to confirm that the output 1 port audio mute and delay settings are complete.

7.5 Setup interface

The setting interface can set the baud rate, TCP/IP parameters, equipment restart and factory settings of the RS-232 of the device.



7.5.1.Baud rate settings

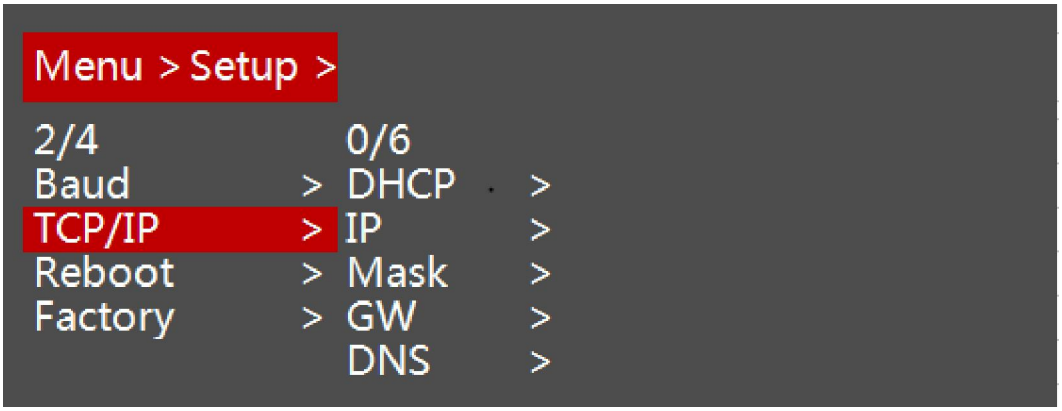


Equipment baud rate provides 4 options 115200,57600,19200,9600.the device default RS232 is 115200.

Operational steps:

1. Select "Setup" in the main menu interface and press "ENTER" to confirm
2. Press the “up and down” button to select the "Baud"---baud rate setting
3. Click the "ENTER" button to enter the next sub-item
4. Press “up and down”button to select baud rate as needed.
5. Click "ENTER" to confirm that the baud rate setting is successful

7.5.2.TCP/IP parameter setting

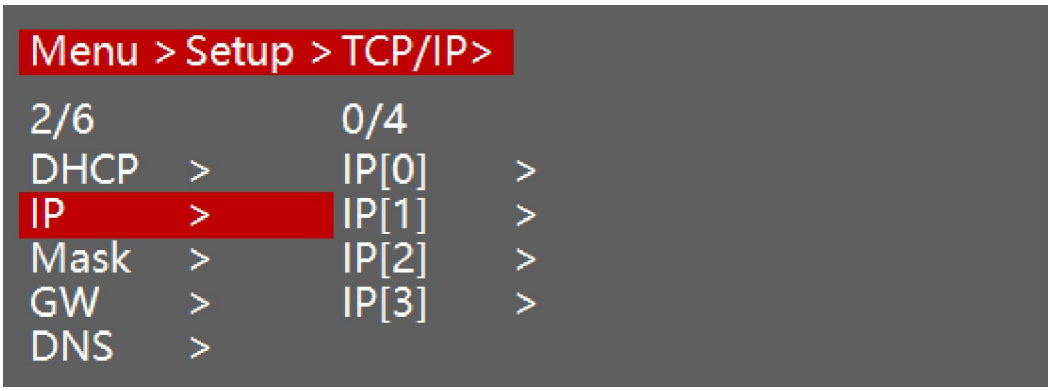


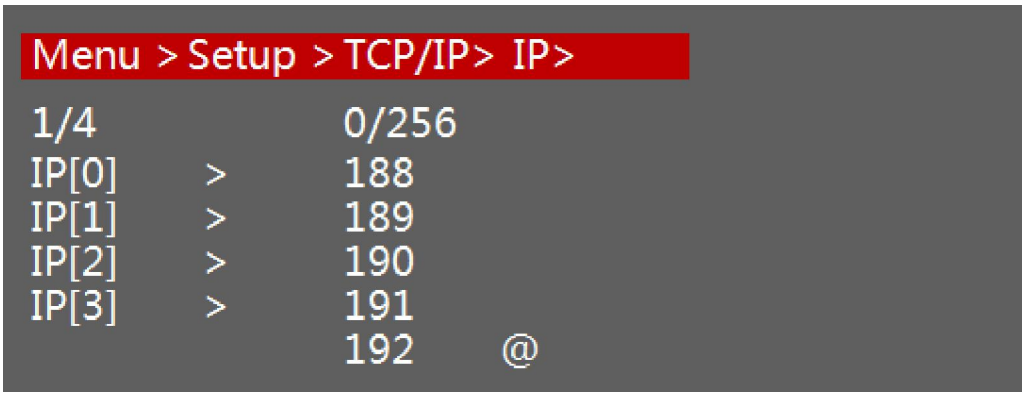
The TCP/IP parameter setting interface can modify the parameters such as DHCP,IP, subnet mask, gateway, DNS and so on.

Setting of DHCP switch: "On" (open) is set for dynamic and "Off" (closed) is set for static.the default DHCP is OFF.

Operation steps:

1. Select "Setup" in the main menu interface and press "ENTER" to confirm.
2. Press the “up and down” buttons to select "TCP/IP" and press "ENTER" to enters the next subitem
3. Press the “up and down” buttons to select "DHCP" and press "ENTER" to confirm
4. Press the “up and down” buttons to select "Off" or "On"
5. Click "ENTER" to confirm

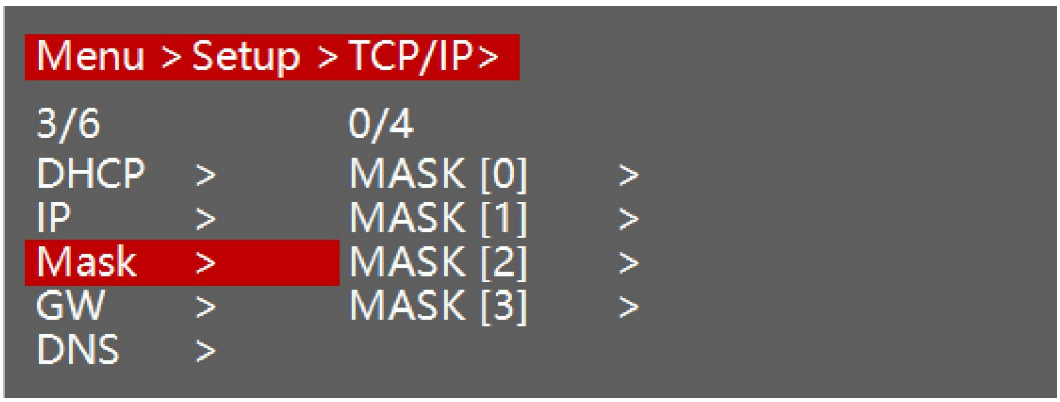


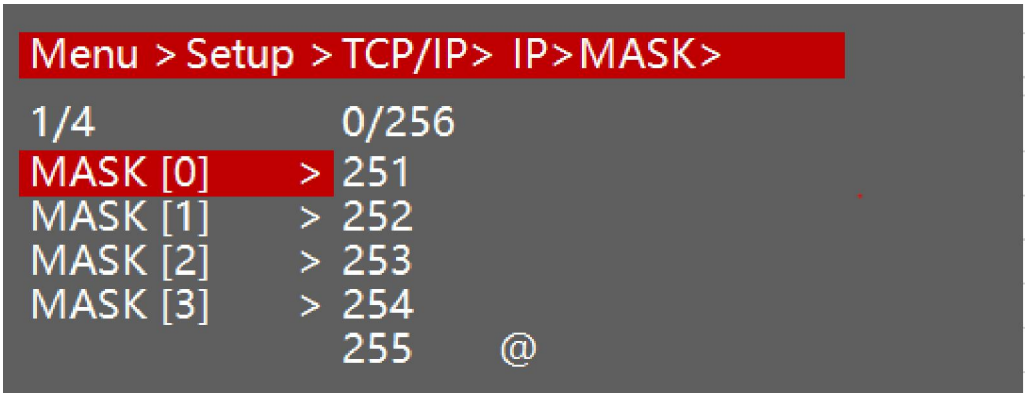


7.5.3.Modify IP: IP defaults to 192.168.1.168

Operational steps:

1. Select "Setup" in the main menu interface and press "ENTER" to confirm
2. Press the “up and down” button to select "TCP/IP" and press "ENTER" to confirm
3. For example, when the IP is modified to 192.168.1.168, press the “up and down”button to select IP [0], IP [1], IP [2], IP [3] to enter the next subitem (You can set a value from 0 to 255 in each subitemt, and the value you need to set can be quickly selected by long pressing the remote controller or the “up” button or “down” button of the panel), and press the “up and down”button to select the “192”“168”“1”“168”. Click the "ENTER" button to confirm and select.

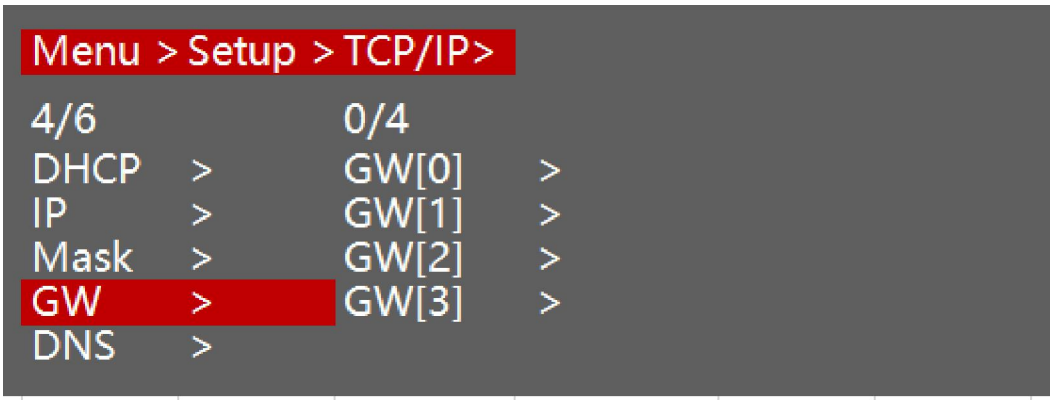


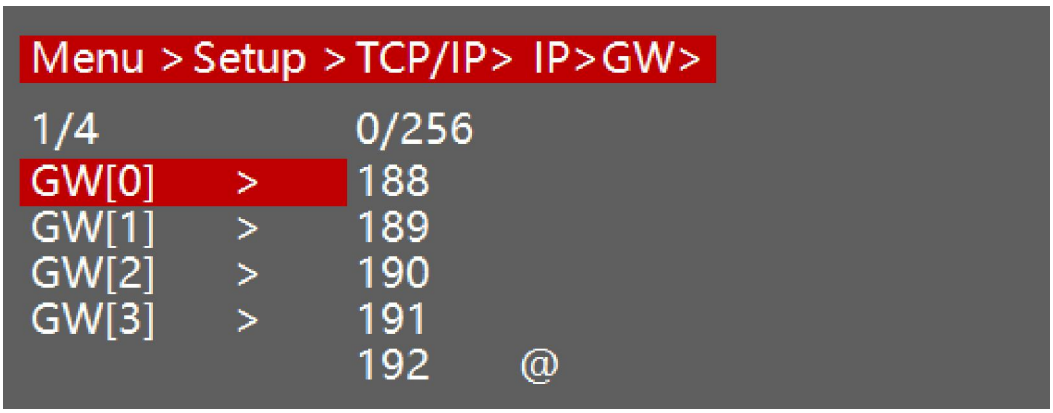


7.5.4. Modify the subnet mask: the default is 255.255.255.0

Operation steps:

1. Select "Setup" in the main menu interface and press "ENTER" to confirm
2. Press the “up and down” buttons to select "TCP/IP" and press "ENTER" to confirm
3. For example: when the MASK is modified to 255.255.255.0, press the “up and down” button in turn select MASK [0], MASK [1], the MASK [2], MASK [3] to the next item (each item can be set up in 0 ~ 255 a numeric value, through the long press or press the “up” button on the panel or “down”button quickly select the value you need to set), press the “up and down” button to select "255" "255" "255" "0", click "ENTER" button to confirm after selected.

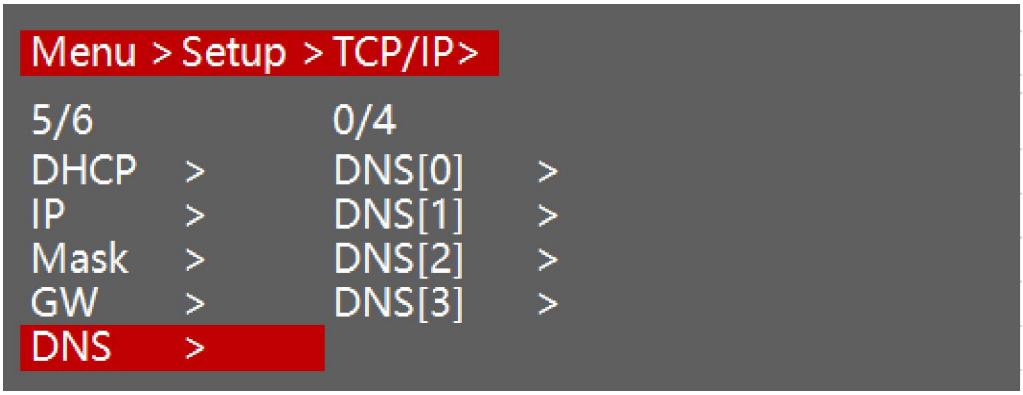


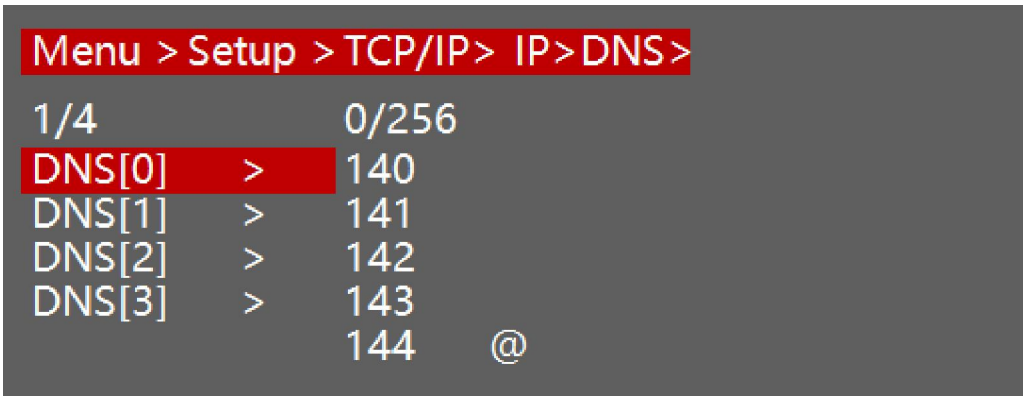


7.5.5.Modify gateway: the default is 192.168.1.1

Operation steps:

1. Select "Setup" in the main menu interface and press "ENTER" to confirm
2. Press the “up and down” buttons to select "TCP/IP" and press "ENTER" to confirm
3. For example: when modification for GW 192.168.1.1, press the “up and down”button in turn select MASK [0], MASK [1], the MASK [2], MASK [3] to the next item (each item can be set up in the 0 ~ 255 a numeric value, can be long press the remote control, or press the “u”p button on the panel or “down”button quickly select the value need to set), press the “up and down” button to select "192" "168" "1" "1", click "ENTER" button to confirm after selected.

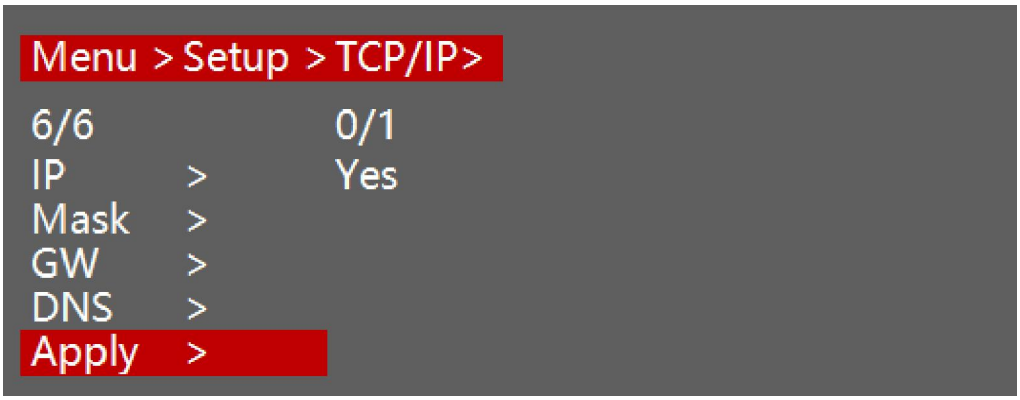


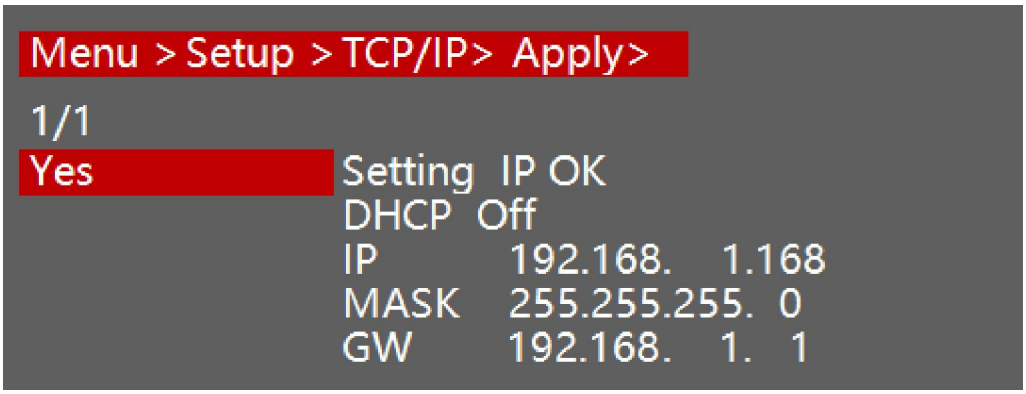


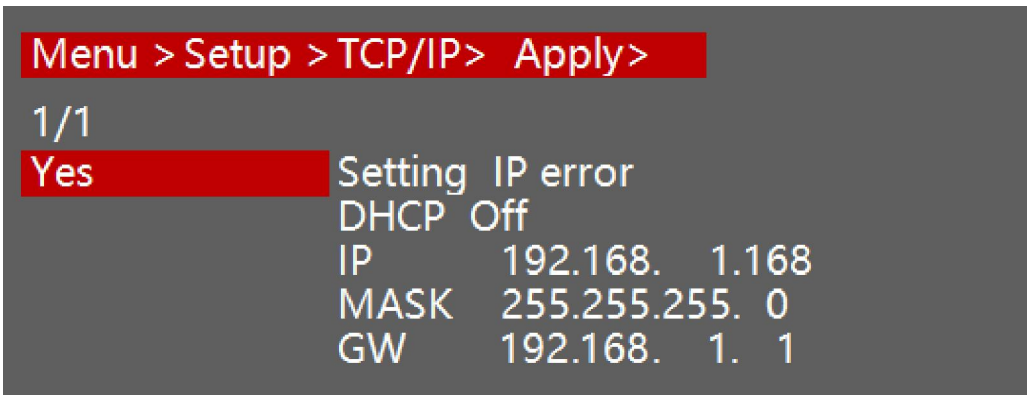
7.5.6.Modify Domain Name: Default is 144.144.144.

Operational steps:

1. Select "Setup" in the main menu interface and press "ENTER" to confirm
2. press the “up and down” button to select "TCP/IP" and press "ENTER" to confirm
3. For example, when the DNS is modified to 144.144.144.144, press the “up and down”button to select MASK [0], MASK [1], MASK [2], MASK [3] to enter the next subitem (each subitem can set a value in 0~ 255. you can quickly select the value that needs to be set by long pressing the remote controller or the “up” button or “down” button), and press the “up and down” button to select "144" 144 "144" 144 "144" 144, respectively. Click the "ENTER" button to confirm and select.


Menu > Setup > TCP/IP>
6/6
0/1
IP >
Yes
Mask >
GW >
DNS >
Apply >


Menu > Setup > TCP/IP> Apply>
1/1
Yes
Setting IP OK
DHCP Off
IP 192.168. 1.168
MASK 255.255.255. 0
GW 192.168. 1. 1


Menu > Setup > TCP/IP> Apply>
1/1
Yes
Setting IP error
DHCP Off
IP 192.168. 1.168
MASK 255.255.255. 0
GW 192.168. 1. 1

36


Menu > Setup > TCP/IP> Apply>
1/1
Yes
Setting is invalid
DHCP ON

37

7.5.7.Set the confirmation to take effect: after selecting the Apply option to confirm, the system will automatically judge the validity of the IP set by the user and prompt whether it is effective or not.

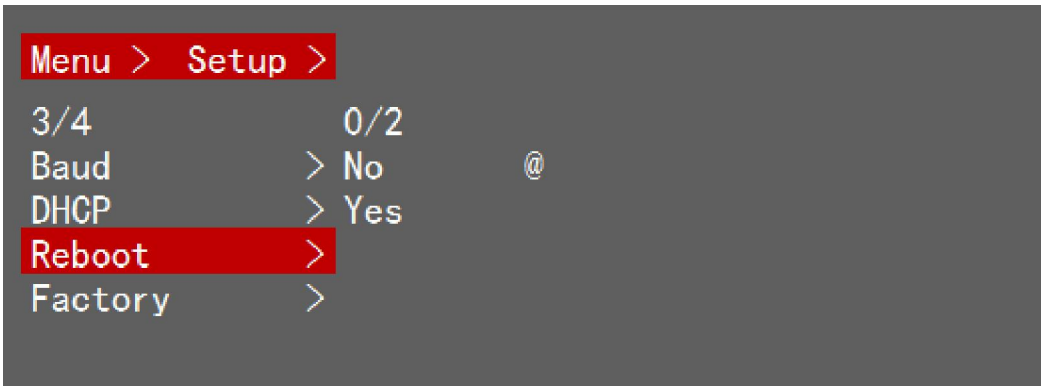
Operation steps:

1. Select "Setup" in the main menu interface and press "ENTER" to confirm the key
2. Press the “up and down” buttons to select "TCP/IP" and press "ENTER" to enters the next subitem
3. Press the “up and down” buttons to select "Apply" and then select "Yes" to check whether the IP Settings are effective

Note: a. if the IP set is not standard, when you click “Apply”, as shown in figure 36, the IP set will not take effect;Setting IP error will be displayed, and the current set parameters of DHCP, IP, MASK and GW will be displayed.

b. when DHCP is opened, the IP setting will not take effect, as shown in figure 37

7.5.8.Reboot.

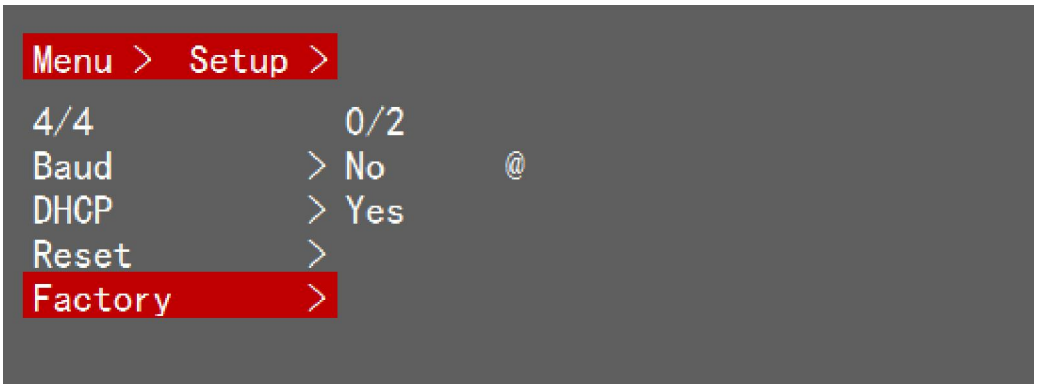


Restart the product with "yes" or "no" options;the default is NO state.

Operation steps:

1. Select "Setup" from the main menu and press "ENTER" to confirm.
2. Press the “up and down” buttons and select "Reboot" to restart the Settings
3. Click "ENTER" to confirm entering the next item
4. Press the “up and down” buttons to select "No" or "Yes"
5. Click "ENTER" to confirm

7.5.9.Restore factory settings

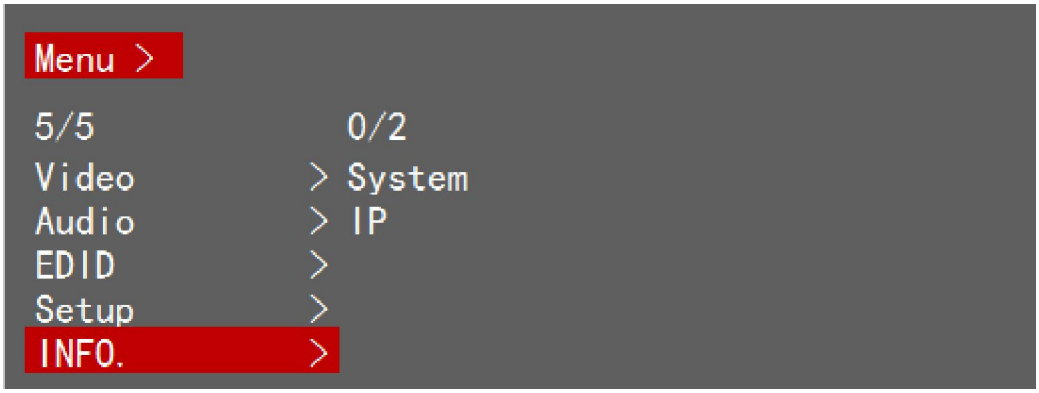


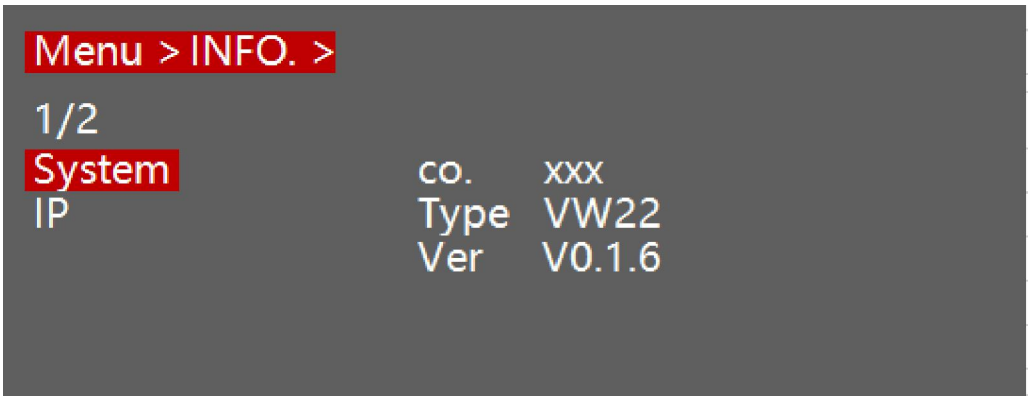
Device functionality can be initialized. There are two options, yes or no, where the default is NO.

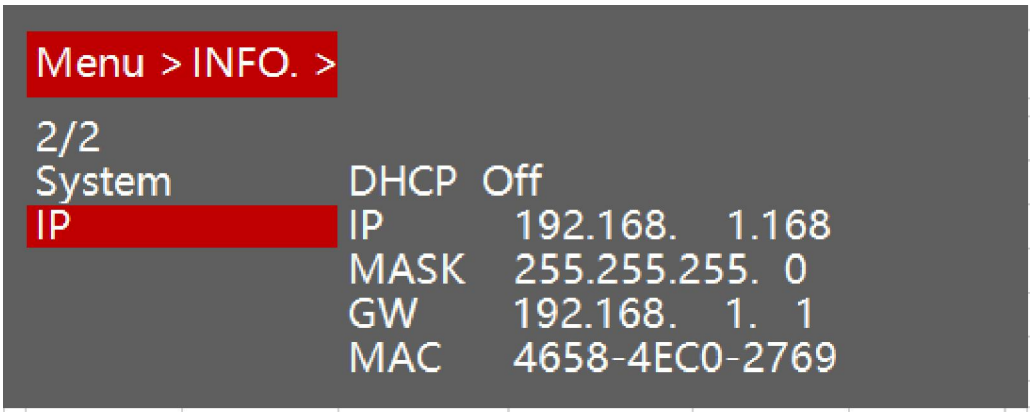
1. In the main menu, select "Setup" to press the "ENTER" button
2. Click the "ENTER" button to enter the next sub-item
3. Press the “up and down” button to select "No" or "Yes"
4. Click "ENTER" to confirm

7.6 INFO query information interface

It can query equipment information, such as: system information, IP information;
System: display copyright, model, version number and other information;
IP: display DHCP status, IP,MASK,GW,MAC and other information;





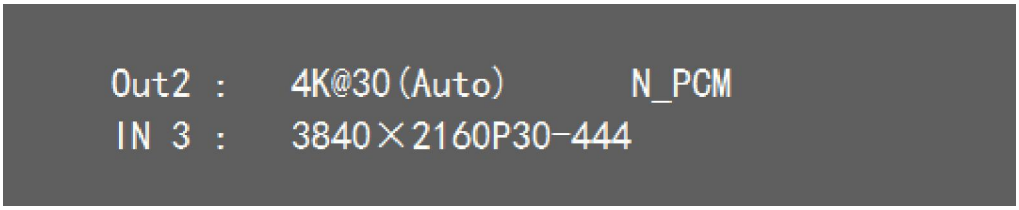


Operational steps:

1. Select "INFO" in the main menu and press "ENTER" to confirm

2. press the “up and down” button to select "System".Click "ENTER", you can view copyright, model, version number and other information
3. Click "Left/Menu" to return to the previous menu
4. Press “up and down” button to select "IP ".Click" ENTER "to confirm, you can view DHCP status, IP, MAC and other information

7.7 Basic information interface



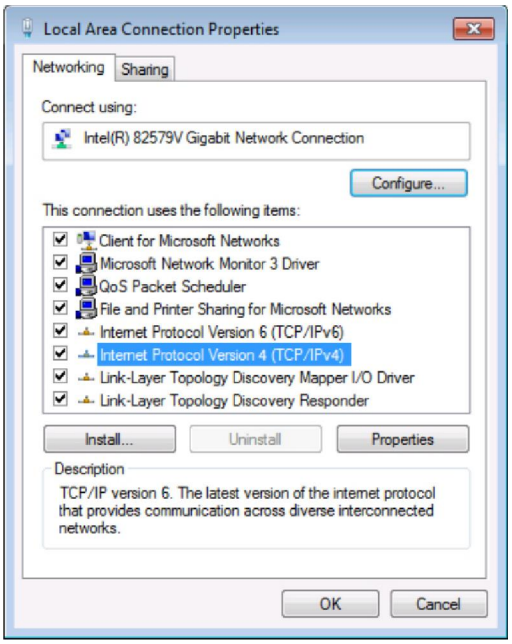
The interface reflects the current input and output basic video information.
As shown in the figure, the output resolution of the output 2 ports is 4K30(AUTO mode);
Input USES 3 ports. Input video format information is: 3840x2160 resolution, 30Hz refresh rate, YUV444 color space

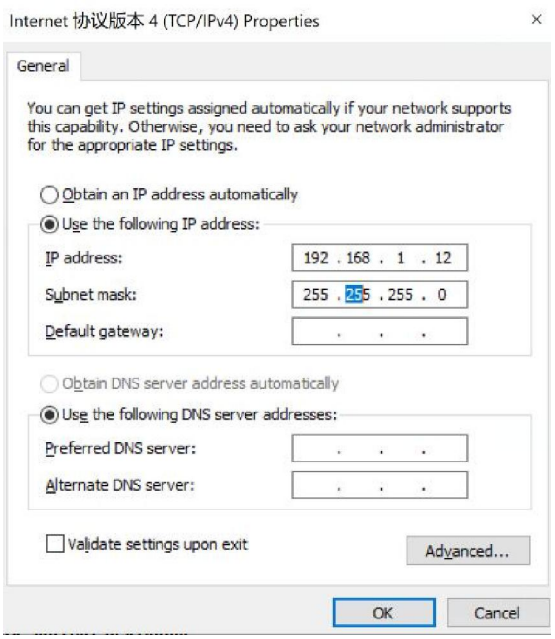
Note:1. When input audio format is non-PCM audio, OSD displays N_PCM and HDMI outputs audio mute

8. Web Control

The host computer is connected to the control device through the TCP/IP network port (such as: PC), it can be controlled by GUI interface)
The control mode is divided into two types: it can be connected with a single non-networked computer for single-machine control; it can also be connected to the LAN to realize multi-machine simultaneous control
Non-networked control:
When the host computer is connected to a single non-networked computer through the TCP/IP port, the host computer is consistent with the control computer network segment. Direct connection can be controlled; when the network segment is inconsistent, the control computer network segment needs to be changed to be consistent with the host network segment

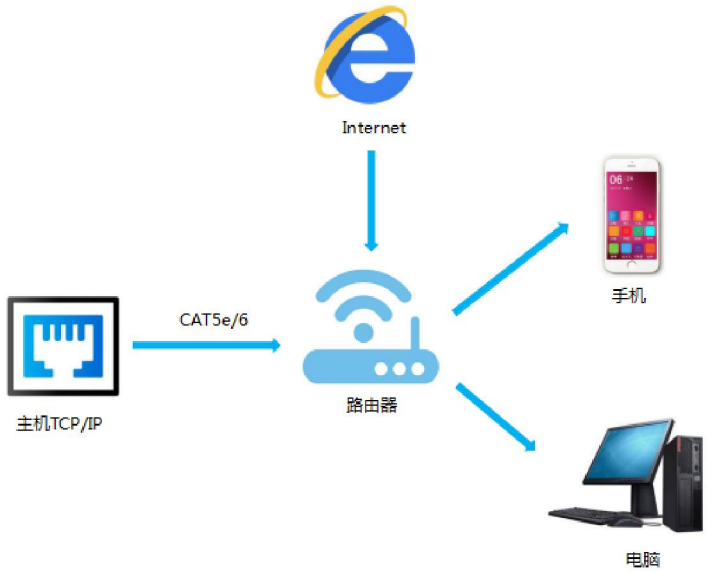
(Page default IP address:192.168.1.168 MASK:255.255.255.0 GW:192.168.1.1)





Multiple device local area networks control at the same time:

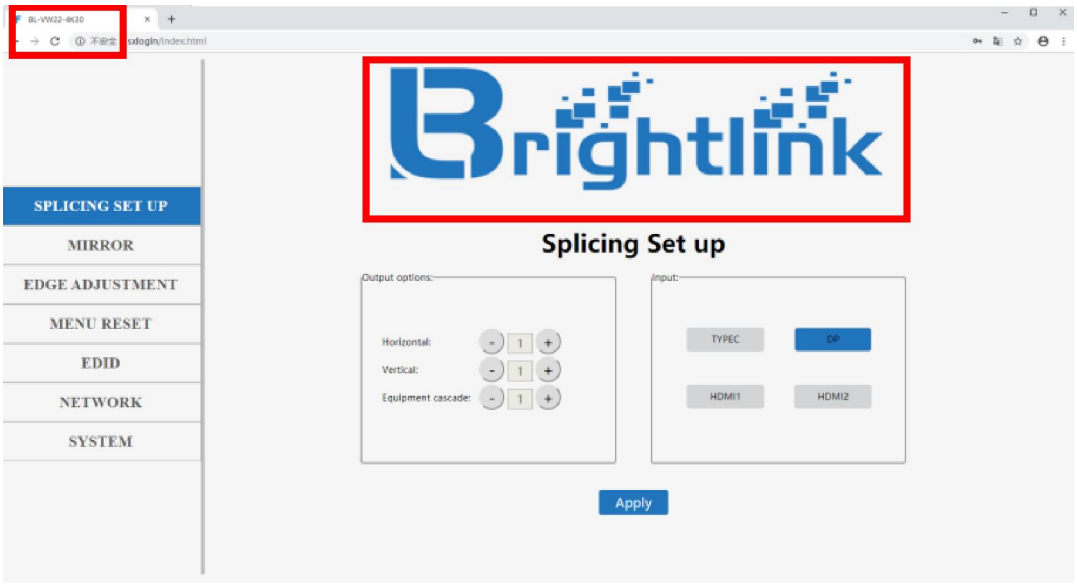
Connecting to LAN to realize multi-user remote control devices (such as mobile phone, other PC) in Ethernet environment, it is necessary to ensure that the IP segment of the host is consistent with that of the connected LAN.In addition, the control computer network segment needs to be changed to be consistent with the host network segment, and the DHCP of the device needs to be opened. After inquiring, enter the IP address of the device can be entered for control.



8.1 Interface Introduction

8.1.1. The icon

The browser page TAB displays the logo and device name.



8.1.2. Status display instructions

① Click the navigation bar above, you can enter the corresponding operation interface;

② Do not click continuously;Click again after the setting is successful. If the setting is invalid, please click the button again.

8.1.3. Browser compatibility

① Web control recommended the use of Google, firefox, apple browser

② The display effect is different in different browsers

③ If the Settings are invalid or error, please refresh the page and get real-time data.

8.2 Login

8.2.1. Login method

Default IP login: enter the correct account and password to enter the interface by 192.168.1.168.

Enter http://sxlogin/login: enter the correct account and password to enter the interface.

Note: a. This web has set cookies, when the password and account are correct, if the browser is not closed, refresh the page again, will log in automatically. Different browsers have different effects.

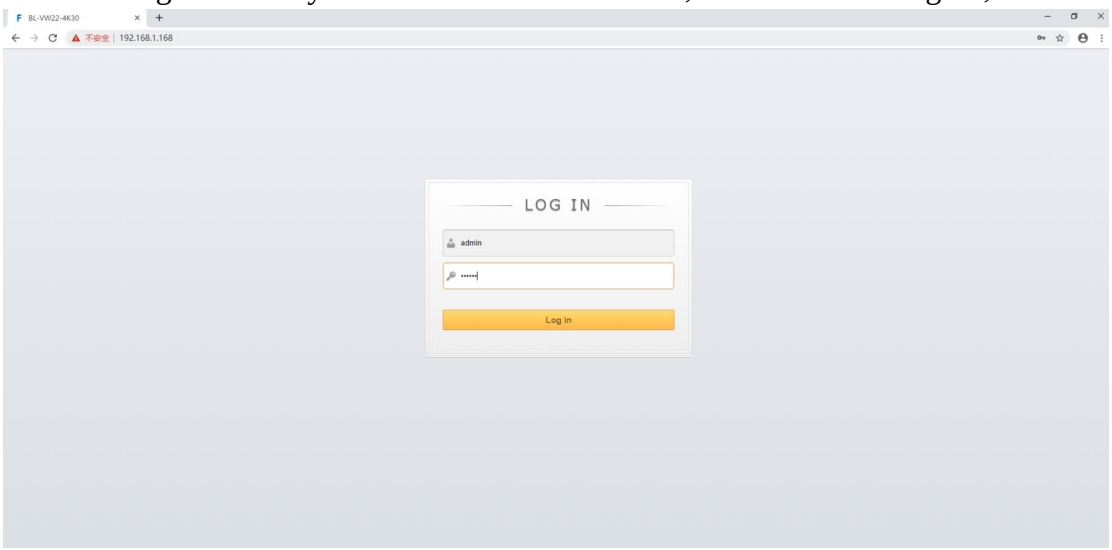
b. After changing the IP ,account or password,when you log in again, you need to enter the reset IP, account and password before you can enter

8.2.2. Operational steps:

Take the default IP address login as an example:

(1) IP configuration: IP configuration is required, whether using click-out control or LAN multi-machine control,

(2) After configuration, pls enter the default IP address into the browser, enter the web end login interface, enter account number: admin, password: 123456 click on the "Log in" of the yellow bar below the account, as shown in the figure;



8.3 Splicing interface

This interface is used to set up video walls or cascades

8.3.1.Interface introduction:

Output column: number of televisions in horizontal and vertical directions and equipment cascade

Input column: select the video source for the wall (TYPE C/DP/HDMI1/HDMI2)

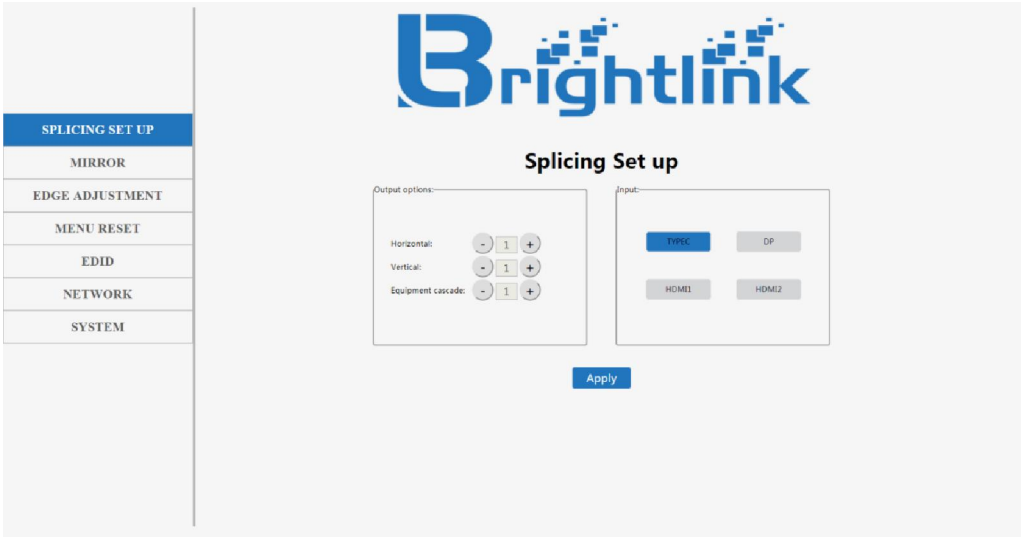
The default of the device is: 2x2 video wall, can also realize 1x1 1x4 4x1 2x3 3x2 3x3 and other video walls through cascade

The maximum number of televisions in the horizontal direction is 10;

The maximum number of televisions in the vertical direction is 10;

The maximum number of cascade equipment is 25.

Note: The parameters can be set by clicking the “add or subtract” button in the Output column.



8.3.2. Instructions for operation:

Eg： The TYPEC as input source to achieve 2x2 video wall, which requires only one piece of equipment,

Operational steps:

① Click the output section with the left mouse button, setting horizon =2, vertical =2, equipment =1(There is only one device.The cascade position must be 1, otherwise the setting is invalid);

② Click on the left mouse button for input section to select TYPEC input. When selected, it is blue. Then click apply.

Eg: 2x3 video wall with DP as input source, requiring two units of equipment;

Device 1 Operation Steps:

① Click the output section on the left mouse button to set horizon =2, vertical =3, equipment =1(The device location is 1);

② Click on the input section to select the DP input, the DP input box will become blue, and then click apply.

Device 2 operation steps:

① horizon =2, vertical =3, equipment =2;

② In the input section, select the input port to connect device 2 from device 1 loop output port, click apply.

8.4 Mirror interface

1. Interface introduction:

Click the MIRROR in the navigation bar on the left. The interface has only one "OUTPUT" column to adjust the output screen's Horizontal /Vertical /Horz and Vert (Choose both horizontal and vertical mirrors)/Default.

Note: You can only choose one of the options on this screen

2. Operating instructions

Click on the corresponding button to send instructions in real time

8.5 Edge interface

1. Interface introduction:

The interface is used to adjust the edge of the screen, with a parameter of 0~600, increasing or decreasing by 2 at a time.

2. Operating instructions

Click on the ”+/-” button to adjust;

Click the “Default” button to get back to the 0/0 default margin.

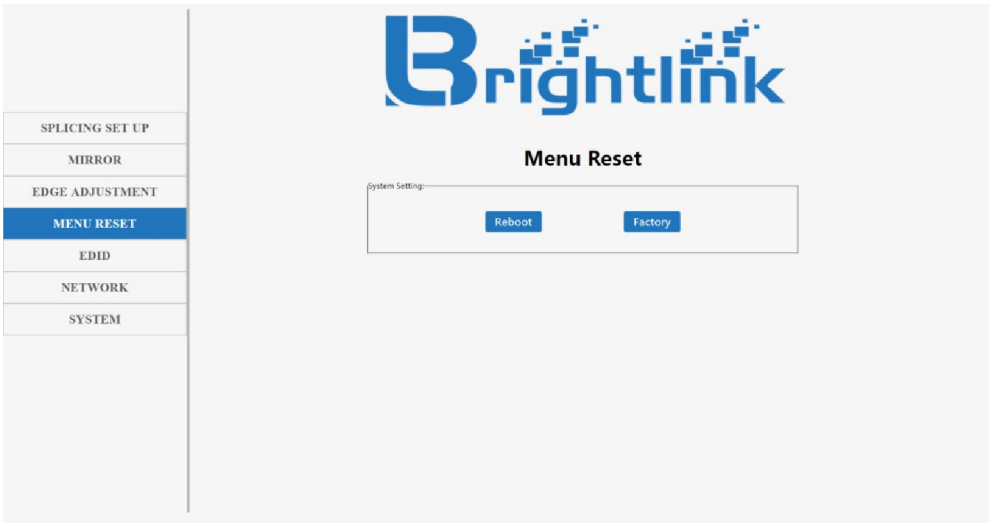
8.6 Menu interface

1. Interface introduction:

The interface is used to restart the device and restore factory settings.

2. Operating instructions

Click on each function button to achieve its function(as shown in the figure below), the bottom of the selection is blue



8.7 EDID interface

8.7.1. Interface introduction:

This interface sets the EDID of the input source.

INPUT column: select the INPUT source >> the INPUT source(DP,type C,HDMI1/2) >> select the information of EDID;

The Input interface will display which EDID is copied in real time.

EDID can be set for different input sources, or the same EDID can be set for all input port.

EDID column: There are two built-in EDID:4k30/1080p

There are four output EDID of HDMI1-HDMI4 and a loop out EDID

8.7.2. Operating instructions

1. Select EDID in the left navigation bar, and then select the INPUT source that needs to change EDID in the INPUT bar (all means select all INPUT sources). The bottom of the selected INPUT source is blue
2. Select the EDID to be copied from the right EDID and click apply to complete the setup

8.8 Network interface

1. Interface description:

It used to set up and display related IP information.

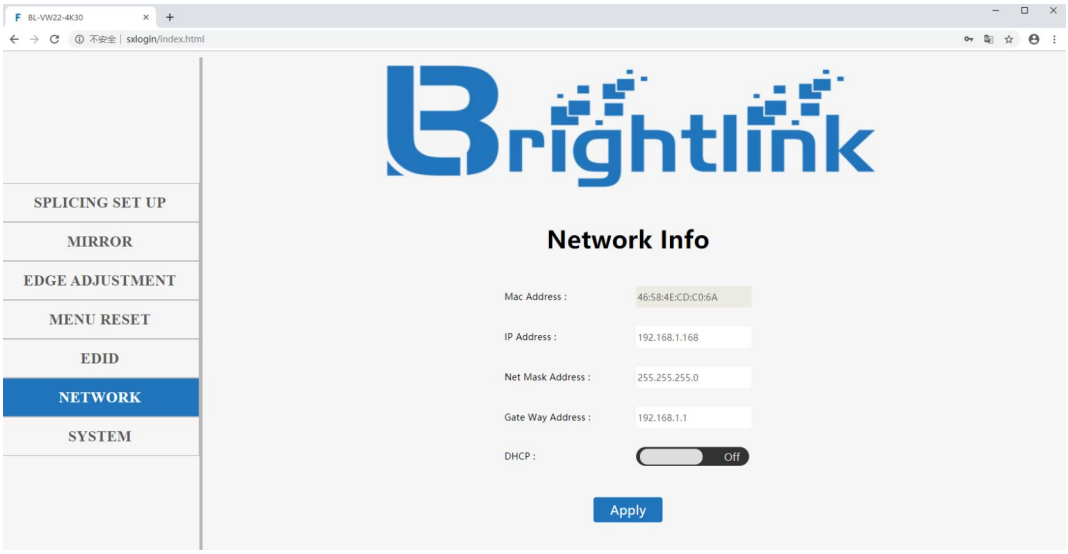
2. Operating instructions:

MAC address can only be displayed and cannot be modified.

Static IP: click DHCP button to adjust to DHCP off state. When using static IP, IP and other addresses can be modified. After the application takes effect, there will be an eight-second countdown, and then automatically re-enter the web interface.

Dynamic IP: click the DHCP button to adjust to the state of DHCP ON. the box of the dynamic IP and the following IP addresses will make gray.It cannot be modified, and the current IP address information can be displayed.

Note: DHCP switch is a compound switch, DHCP On and DHCP Off are two choices. When Off is displayed, DHCP is closed; when On is displayed, DHCP is open (click HDCP button to switch DHCP function, without clicking Apply).



8.9 System interface

1. Interface description:

It use to change the login password. You can only change the current login account password.

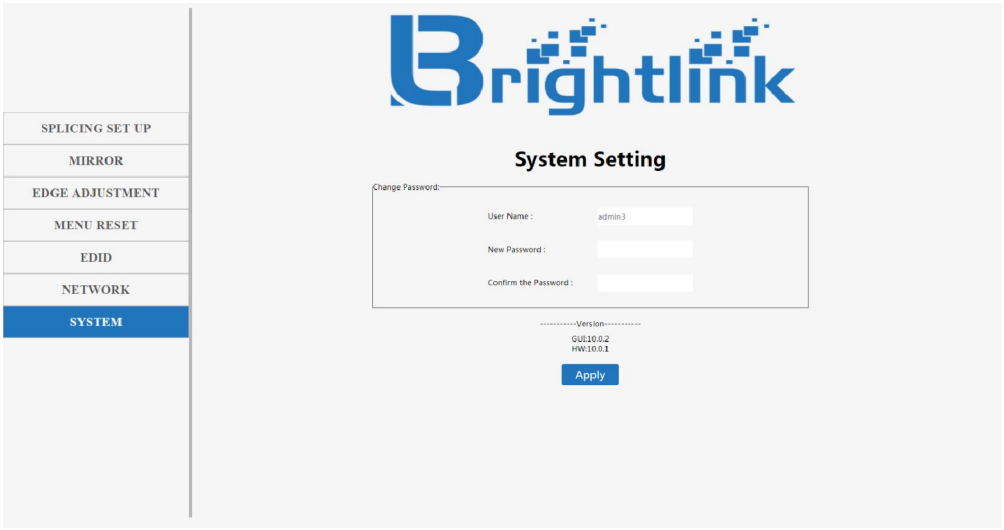
There are 6 groups of default account passwords:

admin 123456
admin2 123456
admin3 123456
admin4 123456
admin5 123456
admin6 123456

2. Operating instructions:

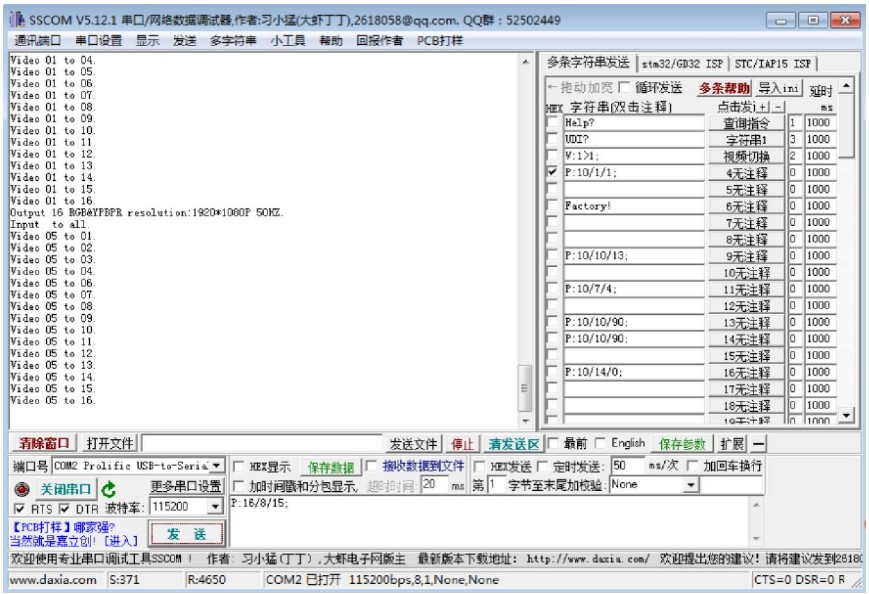
When you Change your account and password,it can support only 5-15 digits, alphanumeric and underlined.

(you can only change the account name and password of the currently logged in account, which will take effect next time).



9. RS232

Function description: VW22 works normally to display images, plug in the USB to RS232 tool, double-click to open the software, and then enter the main interface of the software, as shown below:



Instructions:

1. All instructions begin with "#".

Instruction header c% : d---operation parameter, I---operation lock,

2. "_" means underline, indispensable.

Primary parameter d% : 0---all outputs, 1-X---specifies outputs (1-4), secondary parameters are the same as the first

3. A space should be added between the instruction header, first-level parameters and attribute parameters.Pleas check the instruction sheet for property parameters

5. Note: "/" indicates that this parameter is not used

10. Audio

VW22 audio can be divided into two parts: HDMI audio output, audio separation output

10.1 HDMI audio output

1. The four-channel output only supports uncompressed audio PCM2.0 channel, and the sampling rate supports 192KHZ;Looping out support compressed audio dolby, DTS output.When the input audio is non-PCM2.0 audio, the four-channel HDMI output will automatically mute, and display N_PCM through OSD, HDMI looping out the normal audio output.
2. MUTE: When you set the audio input to MUTE by pressing the front panel button. At this time, the output TV will be MUTE, and the HDMI Loop will sound normal

10.2 Audio separation output

Function description:

1.DP/Type input: when EDID is built in or copied, SPDIF digital audio separation and analog audio separation only support PCM2.0 channel without compression, and the maximum sampling rate is 48KHZ.

2. The HDMI input:

When EDID is built in, SPDIF digital audio separation and analog audio separation only support uncompressed PCM2.0 channel, with a maximum sampling rate of 192KHZ.

When EDID is a copy, SPDIF digital audio separation supports compressed audio dolby, DTS and uncompressed audio PCM, with a maximum support of 5.1 channels and a maximum support of 192KHZ for sampling rate.

Analog audio only supports PCM2.0.

Verification method:

Analog audio separation output and SPDIF digital audio separation output, respectively connect to the speaker and power amplifier with Analog and coaxial interface, input audio according to the above function description, check the power amplifier audio information and sound is normal.

Audio output instructions:

1. Analog audio only supports PCM two-channel output. If the input audio is digital audio, the audio will be automatically shielded

2. When built-in EDID, digital audio and analog audio output is only related to input. When not connected to output TV, audio output is normal

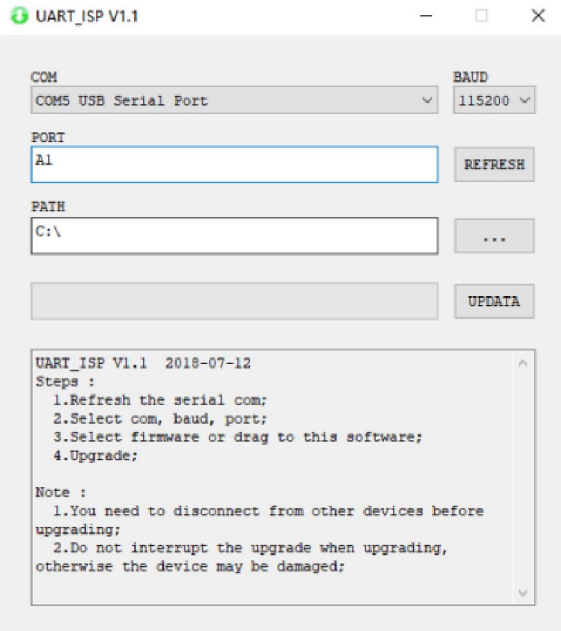
3. When copying EDID, digital audio and analog audio output is related to the TV on the input and copy port

11 Firmware upgrade

11.1 MCU burn

11.1.1. The APP burn

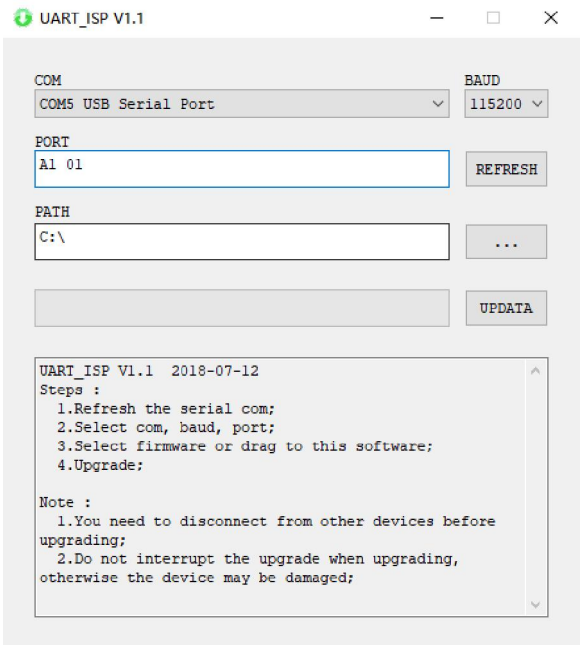
Open the software UART_ISP.exe on the PC, select the correct port and baud rate 115200, enter A1_01 (_ represents space) in the port, then select the program (VW22_xxx_xxx_app_xxx.bin) in the path, and click update to complete the upgrade



11.2 GUI burn

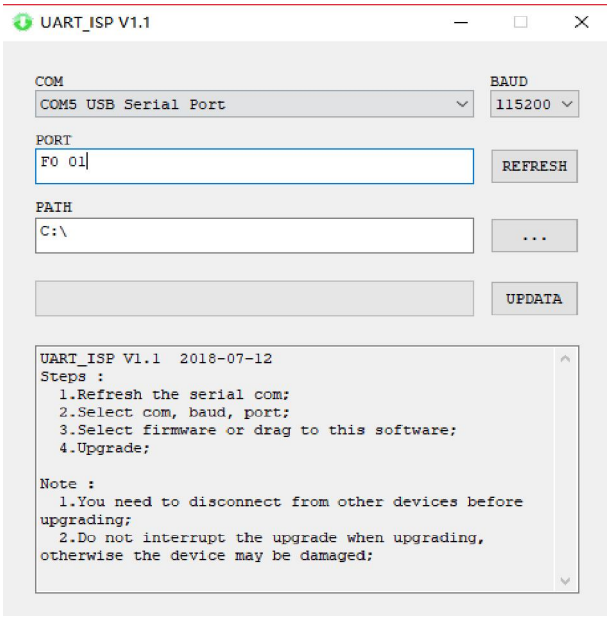
11.2.1 GUI application layer (MCU) burning

Open the software UART_ISP.exe on PC, select the correct port and baud rate 115200, enter A1_01 (_ represents space) in the port, then select the program (xxxx.bin) in the path, and click update to complete the upgrade



11.2.2.Web burning

Open the software UART_ISP.exe on the PC, select the correct port, baud rate 115200, enter F0_01(_for space)in the port and select the program(XXXX.html)in path, and click update to complete the upgrade.



12. CONNECTION DIAGRAM

MAINTENANCE

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner of benzine to clean this unit.

PRODUCT SERVICE

1) **Damage requiring service:**

The unit should be serviced by qualified service personnel if:

(a) The DC power supply cord or AC adaptor has been damaged;

(b) Objects or liquids have gotten into the unit;

(c) The unit has been exposed to rain;

(d) The unit does not operate normally or exhibits a marked change in performance;

(e) The unit has been dropped or the cabinet damaged.

1) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

3) Replacement parts: When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.

4) **Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor") will, for the length of the period indicated as below, **(Parts(2)Year, Labor(90) Days)** which starts with the date of original purchase ("Limited Warranty period"), at its option either(a) repair your product with new or refurbished parts, or (b) replace it with a new of a refurbished product. The decision to repair or replace will be made by the warrantor.
During the "Labor" Limited Warranty period there will be no charge for labor.
During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

MAIL-IN SERVICE

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

LIMITED WARRANTY LIMITS AND EXCLUSIONS

1) This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God.
2) THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRNTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)
3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.