VIS-UHD0808-VW-S 8x8
4K HD seamless video wall processor
User Manual

V1.0

VISSONIC ELECTRONICS LIMITED

The meaning of symbols

■ Safety instructions

For your safe and correct use of equipments, we use a lot of symbols on the equipments and in the manuals, demonstrating the risk of body hurt or possible damage to property for the user or others. Indications and their meanings are as follow. Please make sure to correctly understand these instructions before reading the manual.

	This is A level product, which may cause radio interference in the living environment. In this case, users may need to take the feasible measures to get around the interference.
	Remind users that the dangerous voltage without insulation occurring within the equipment may cause people suffer from shock.
	CE certification means that the product has reached the directive safety requirements defined by the European Union. Users can be assured about the use of it.
	SGS certification means that the product has reached the quality inspection standards proposed by the world's largest SGS.
	This product passed the ISO9001 international quality certification (certification body: TUV Rheinland, Germany).
	Warning: in order to avoid electrical shock, do not open the machine cover, nor is the useless part allowed to be placed in the box. Please contact the qualified service personnel.

■ General information instructions

	It lists the factors leading to the unsuccessful operation or set and the relevant information to pay attention.

Important note

Warning

In order to ensure the reliable performance of the equipment and the safety of the user, please observe the following matters during the process of installation, use and maintenance:

The matters needing attention of installation

- Please do not use this product in the following places: the place of dust, soot and electric conductivity dust, corrosive gas, combustible gas; the place exposed to high temperature, condensation, wind and rain; the occasion of vibration and impact . Electric shock, fire, wrong operation can lead to damage and deterioration to the product, either;
- In processing the screw holes and wiring, make sure that metal scraps and wire head will not fall into the shaft of controller, as it could cause a fire, fault, or incorrect operation;
- When the installation work is over, it should be assured there is nothing on the ventilated face, including packaging items like dust paper. Otherwise this may cause a fire, fault, incorrect operation for the cooling is not free;
- Should avoid wiring and inserting cable plug in charged state, otherwise it is easy to cause the shock, or electrical damage;
- The installation and wiring should be strong and reliable, contact undesirable may lead to false action;
- For a serious interference in applications, should choose shield cable as the high frequency signal input or output cable, so as to improve the anti-jamming ability of the system.

Attention in the wiring

- Only after cutting down all external power source, can install, wiring operation begin, or it may cause electric shock or equipment damage;
- This product grounds by the grounding wires .To avoid electric shocks, grounding wires and the earth must be linked together. Before the connection of input or output terminal, please make sure this product is correctly grounded;
- Immediately remove all other things after the wiring installation. Please cover the terminals of the products cover before electrification so as to avoid cause electric shock.

Matters needing attention during operation and maintenance

- Please do not touch terminals in a current state, or it may cause a shock, incorrect operation;
- Please do cleaning and terminal tighten work after turning off the power supply. These operations can lead to electric shock in a current state;
- Please do the connection or dismantle work of the communication signal cable , the expansion module cable or control unit cable after turning off the power supply, or it may cause damage to the equipment, incorrect operation;
- Please do not dismantle the equipment, avoid damaging the internal electrical component;
- Should be sure to read the manual, fully confirm the safety, only after that can do program changes, commissioning, start and stop operation.

Matters needing attention in discarding product

- Electrolytic explosion: the burning of electrolytic capacitor on circuit boards may lead to explosion;
- Please collect and process according to the classification, do not put into life garbage;
- Please process it as industrial waste, or according to the local environmental protection regulations.

Preface

This manual mainly provides an explanation of the VISSONIC VIS-4K seamless video wall processor, including its features, panel, performance parameters, PC software operation, and troubleshooting.

If the technical parameters and system usage in this manual are changed, the manufacturer will update the version of the manual. Please use the latest user manual.

Version	Update	Date
1.0	Publish	2024.11.1

Contents

1. System overview

1.1 System features

The VIS-UHD0808-VW-S is a powerful audio-video processor designed for high-end display needs. It supports 4K@60 4:4:4 input/output, ensuring clear visuals and vibrant colors. Key features include seamless switching, fast splicing, volume control, EDID management, on-screen display, subtitles, and test images. Ideal for various applications, it offers frame synchronization, multiple control options (serial, IR, network), and analog audio output for external devices, delivering an outstanding audio-visual experience.

1.2 Features

1) Supports 4K@60 4:4:4 for clear video signals.
2) Seamless switching with no flicker, blackouts, or distortion.
3) Quick splicing, ideal for large video walls.
4) Provides power for external HDMI output devices.
5) On-screen input display with customizable labels.
6) Generates test images for setup and troubleshooting.
7) Frame synchronization for precise output alignment.
8) Supports one-touch freeze and unfreeze of output.
9) One-touch output screen on/off control.
10) Scenario management with saving and recall options.
11) Sets output to no-signal or black screen on input loss.
12) Offers multiple output modes, including full-screen and proportional scaling.
13) Multi-user management with customizable permissions.
14) Input equalization compensates for signal loss in challenging setups.
15) Ensures correct port and display connection with test images.
16) Convenient control options: serial, IR, PC, and web-based.
17) Intelligent management shows real-time input/output connection status.
18) Adjustable HDCP version, DHCP support, toggle via software or front panel.
19) 3.5mm analog audio output and HDMI audio for external devices.

20) Input volume control with HDMI audio adjustments and one-touch mute.
21) Flexible EDID management with multiple built-in EDID options, intelligent analysis, and optimal resolution output based on display EDID.

2. Panel introduction

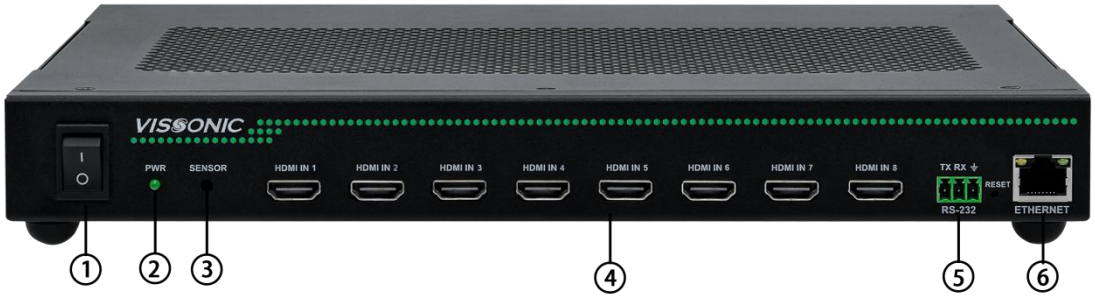


Figure 1: VIS-UHD0808-VW-S Front Panel

The front and rear panels of the VIS-UHD0808-VW-S seamless UHD matrix switcher include:

1. Power Switch-Turns the matrix switch on or off.
2. Power Indicator-Shows the power status.
3. IR Sensor-Receives signals from the remote control.
4. HDMI Ports 1-8-Provides 8 HDMI input channels.
5. PC/Central Control Port-For centralized control by PC or control device.
6. Ethernet RJ45 Port-Connects to LAN/Internet; green LED indicates connection, orange LED flashes for data transmission.

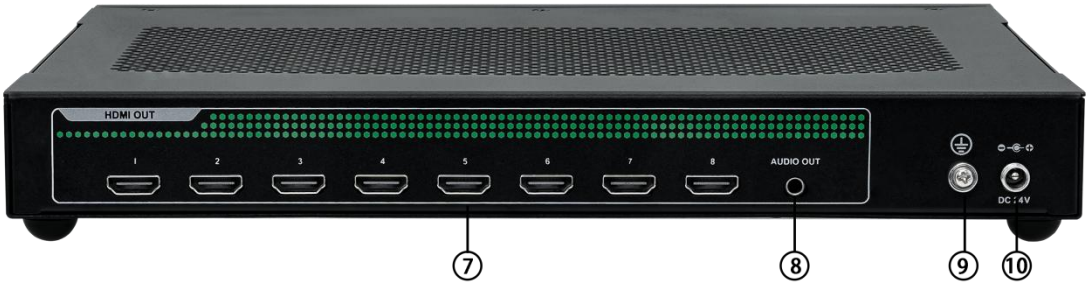


Figure 2: VIS-UHD0409-VW-S Rear Panel

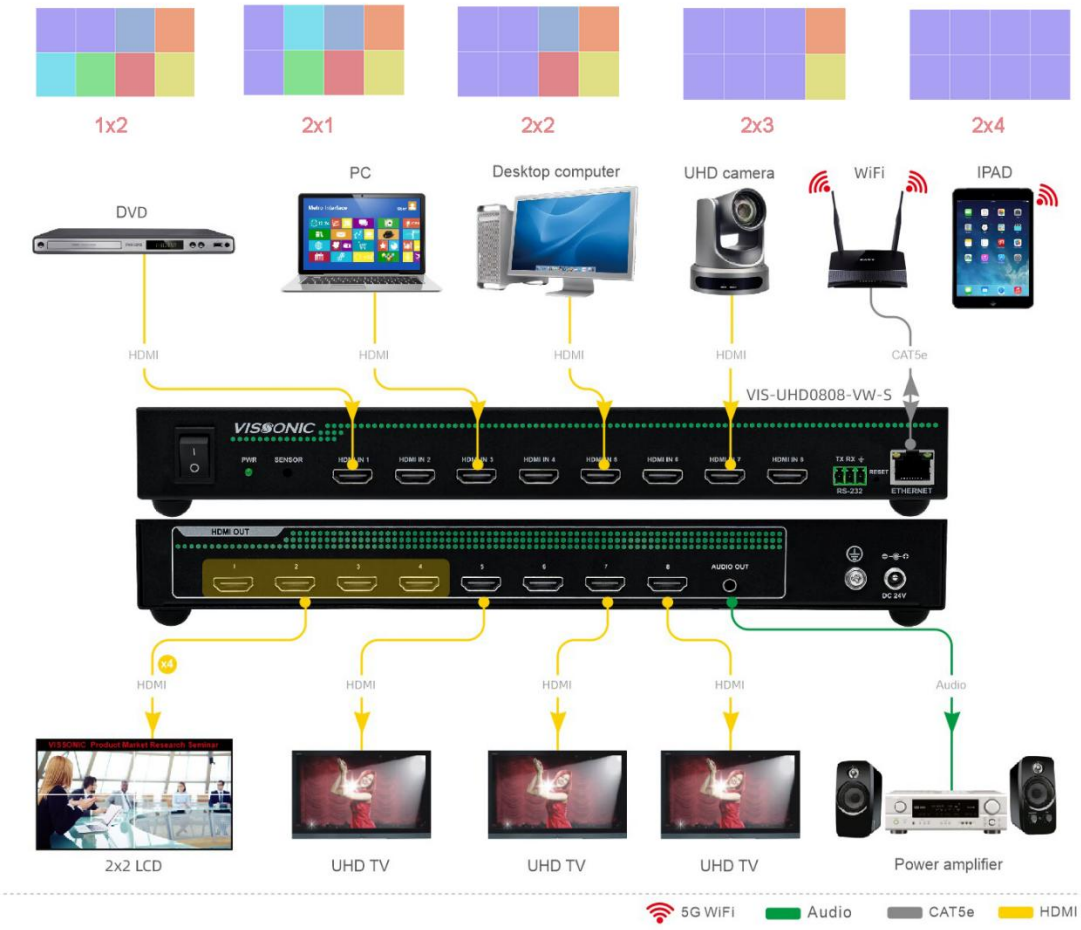
7. HDMI Ports 1-8-Provides 8 HDMI output channels.
8. Audio Output-3.5mm audio output.
9. Grounding Terminal.
10. Power Input Port-Supplies power to the system, supporting DC 24V.

3. Specifications

Model	VIS-UHD0808-VW-S
Input type	8xHDMI
Output type	8xHDMI
Protocol	HDMI 2.0, HDCP 2.2
Resolution,	Up to 4096 x 2160@60Hz (4:4:4)
HDMI port	Type A, 19 pin, female
Serial interface	RS-232 IN, DB9, Female
Input cable length	10m
output cable length	10m
Impedance	100±15ohm
RJ45 control protocol	TCP/IP
Ethernet rate	10M/100M
Storage environment	Temperature：-20℃~+70℃，humidity：10%~90%
Work environment	Temperature：-20℃~+70℃，humidity：10%~90%
Power	DC 12V
Power consumption	48W
Dimensions (length x depth x height).	300*260*35mm
Weight	2.1kg
MTBF	30,000h
Warranty	One year warranty and lifetime maintenance

4. System connection

System diagram：



Device Connections:

Front Interface

The 8 HDMI input ports allow connection to various external video sources and link to the main unit for controlling background software to achieve video splicing functionality. The inputs support a maximum resolution of 4K@60Hz. The Ethernet port on the far right connects to the PC host for background software control of the splicing.

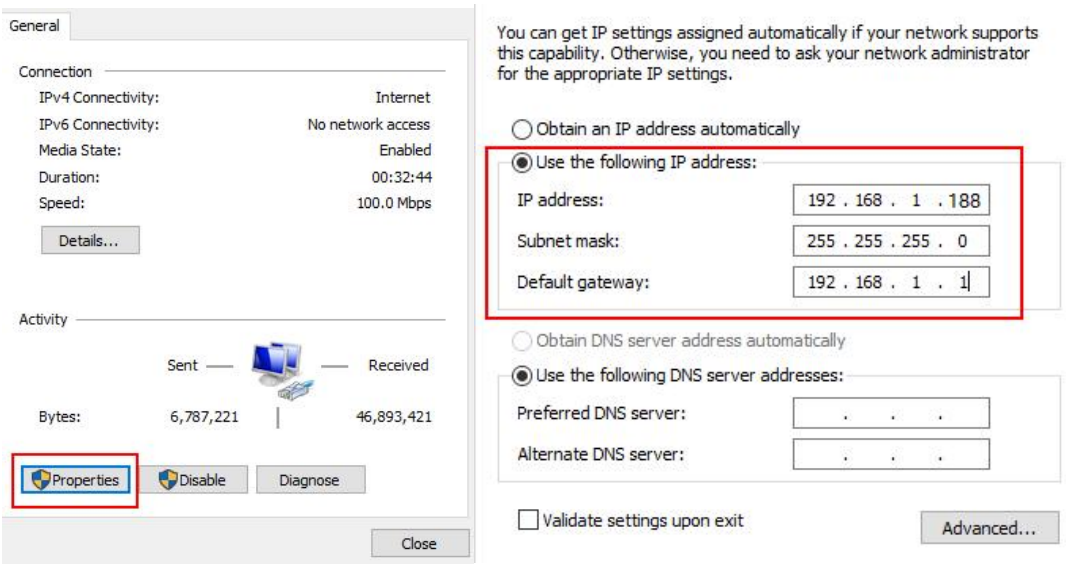
Rear Interface

Depending on the type of splicing required, different output splicing screens can be selected, while other ports can be connected to external display devices. The audio output port can connect to external audio devices to output sound from different input sources, and the system can switch output audio sources independently in the background. The outputs support a maximum resolution of 4K@60Hz, and the power port connects to a DC12V 96W power supply.

5. PC Software Control

5.1 Download and run UHDControl Software

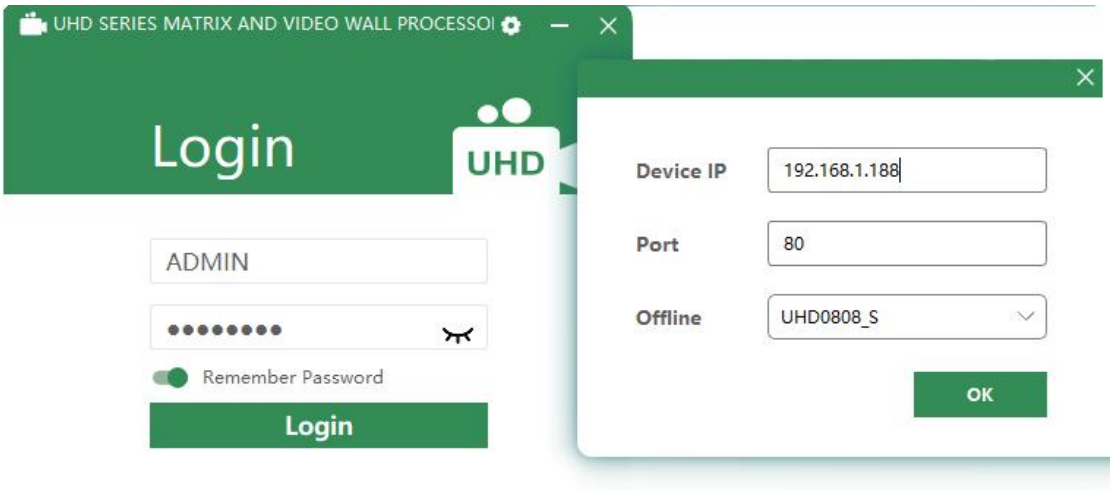
Connect the router using a CAT5e Ethernet cable for TCP/IP communication. The matrix's default address is 192.168.1.188, and the device and PC must be in the same subnet. In the network settings, access the Ethernet properties and select Internet Protocol Version 4 (TCP/IPv4). Enter an appropriate IP address within the range of 192.168.1.0 to 192.168.1.188, then save the changes. After configuration, you can communicate with the matrix using the UHDControl software.



5.2 Login in

Install the current version of UHDControl 2.0.7 on your PC. Once the settings and device connections are complete, click on the application to launch it. 

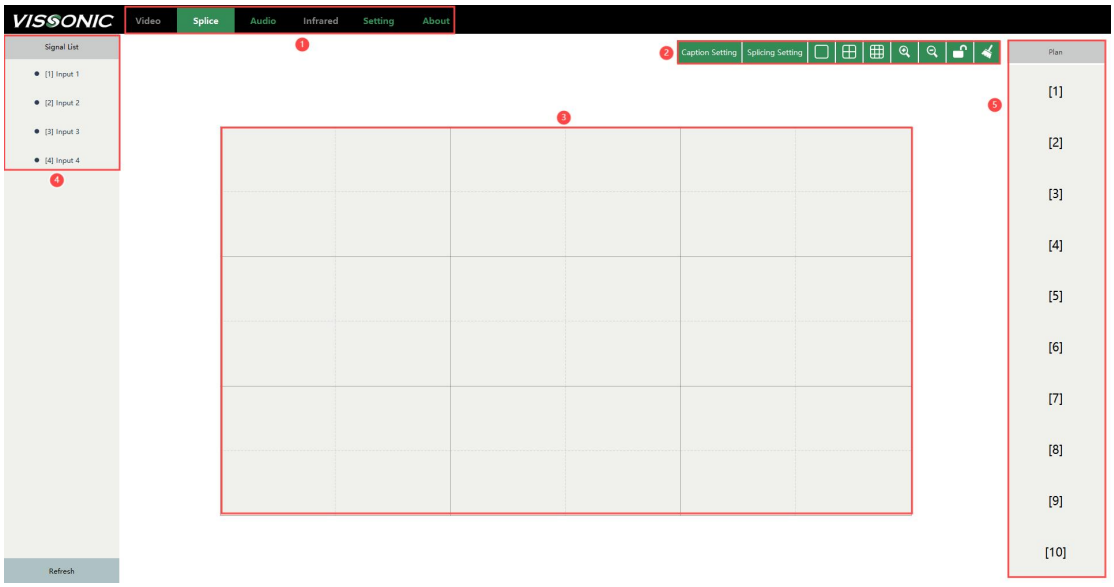
Run the software, select the corresponding device in the settings, and press the power button on the device. Then use the backend software for video splicing and processing.



IP Address: 192.168.1.188, Port Number: 80, Login Username: ADMIN, Password: admin123

5.3 Video Function

When arranging the screen layout, click on the corresponding input signal source on the left. On the right, in the video wall area, you can drag, scale, and perform basic splicing of the display.



① Menu List.

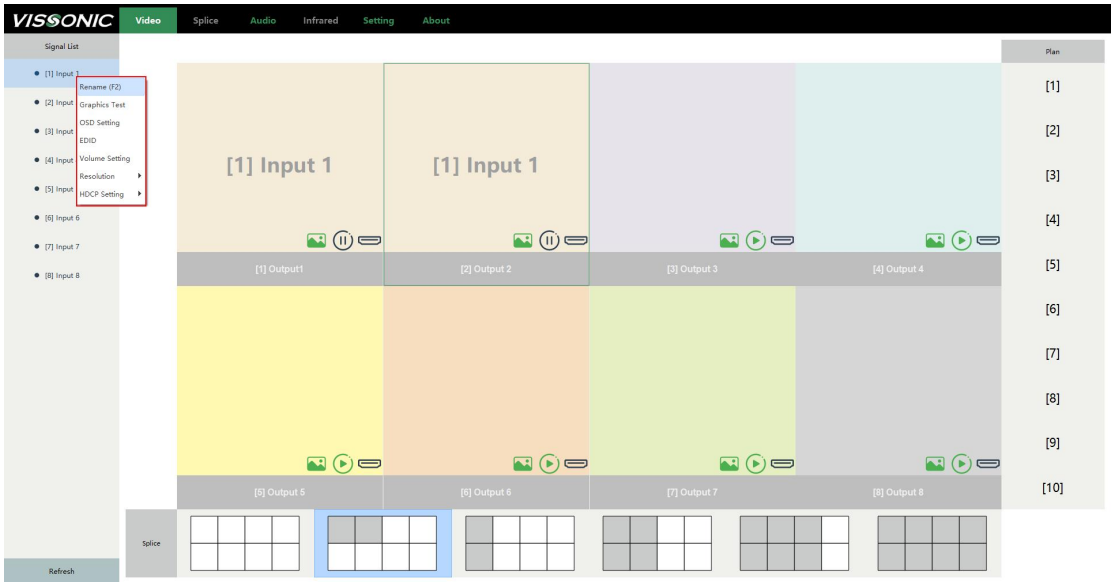
② Signal List: Displays 8 input signals (supports up to 8 windows).

③ Video Wall: Supports standalone video display or screen splicing with modes like 1x2, 2x1, 2x2, 3x2, 4x2, etc.

④ Preset Management: Manages presets for the current display status, allowing preset recall, save, and clear functions.

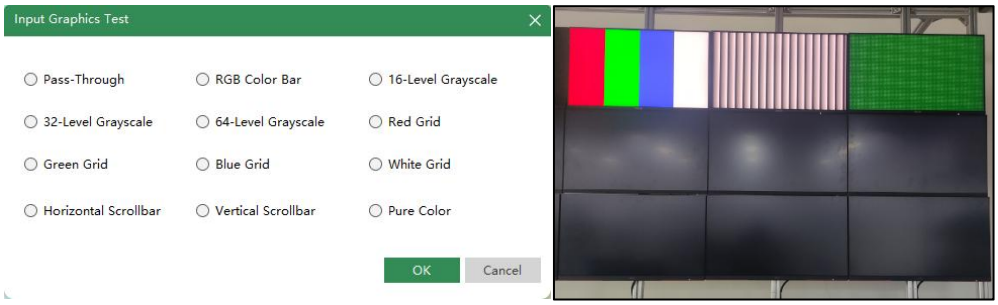
⑤ Splicing: Enables simple screen splicing for the current input signal source.

5.3.1 Signal List Settings

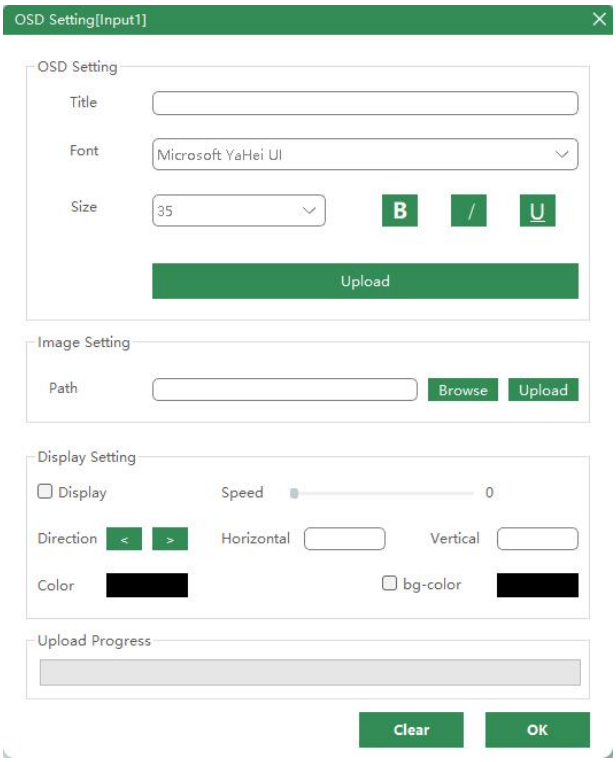


① Rename: Allows renaming of input signal labels.

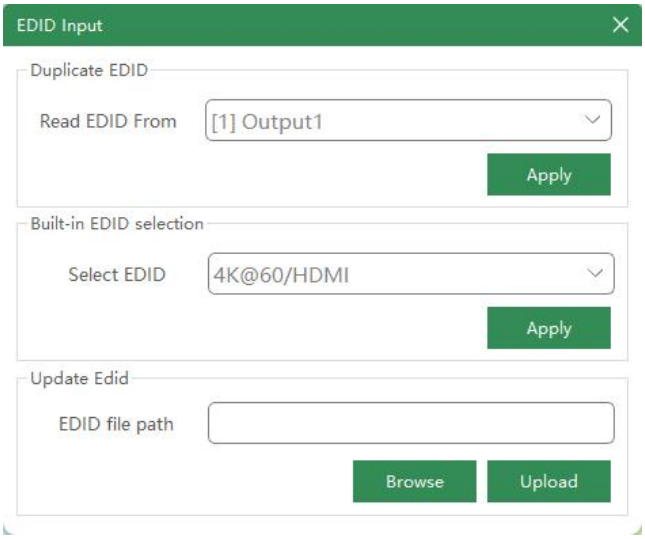
② Graphic Test: Generates test images for engineering debugging and testing. Different image types can be selected based on testing needs.



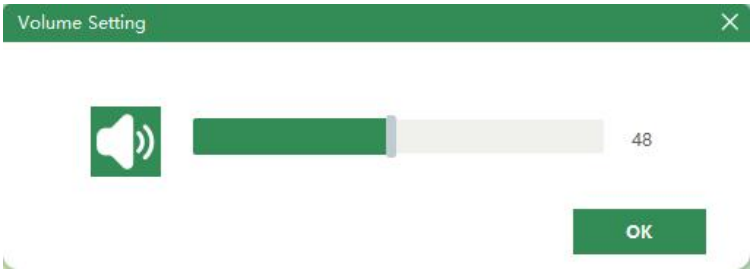
③ OSD Setting: Add a logo to each input signal for easy differentiation.



④ EDID: Allows the output device to read the capabilities of the display device and automatically adjust the signal output to ensure optimal image and audio quality.

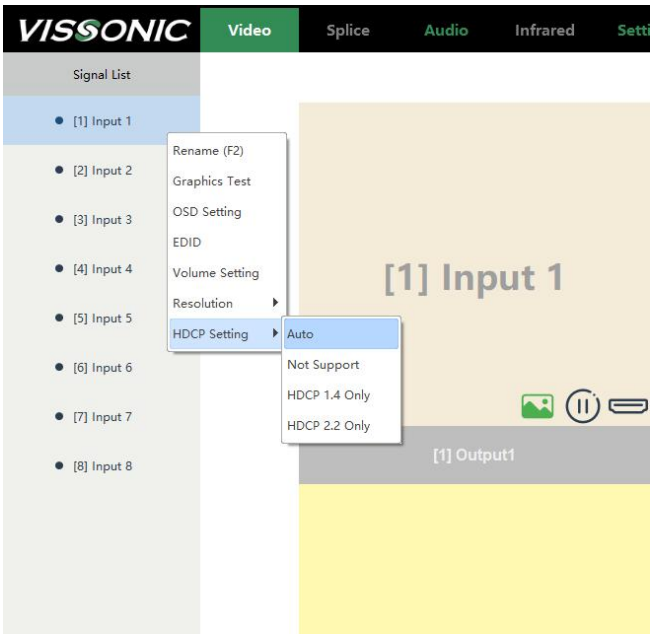


⑤ Volume Adjustment: Provides volume control for audio inputs, ensuring that changes in volume are reflected on the corresponding outputs.



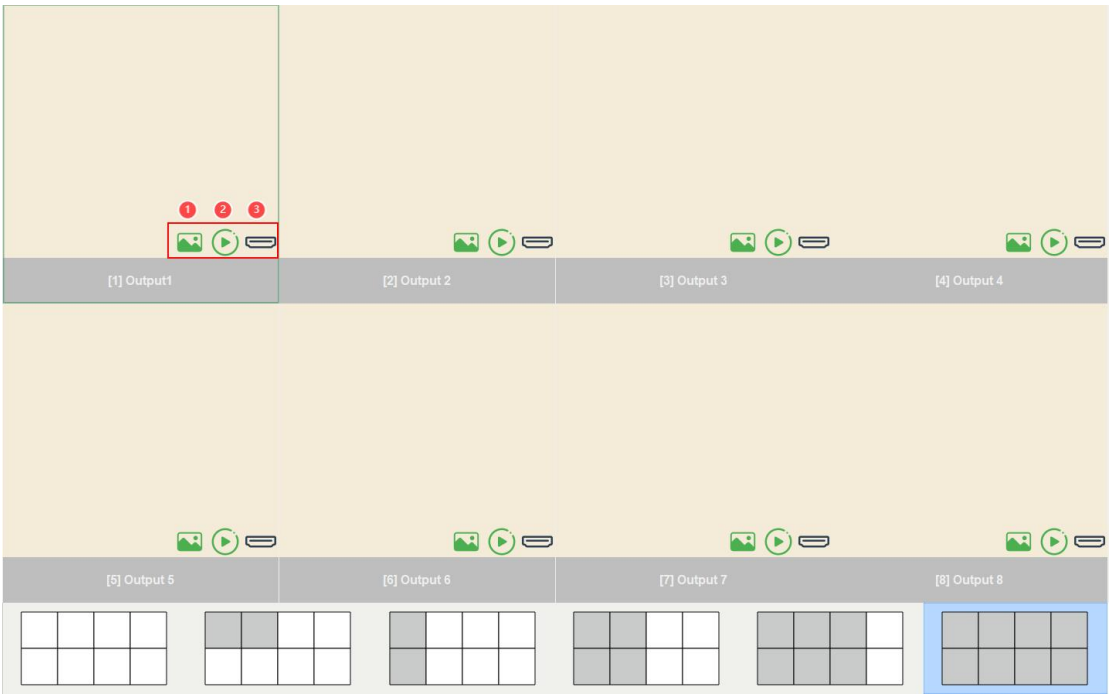
⑥ Resolution: Displays the resolution of the input device.

⑦ HDCP Settings: Supports HDCP 2.2 for 4K UHD and is compatible with version 1.4. Different HDCP settings can be selected based on the signal source.



5.3.2 Video Output Window

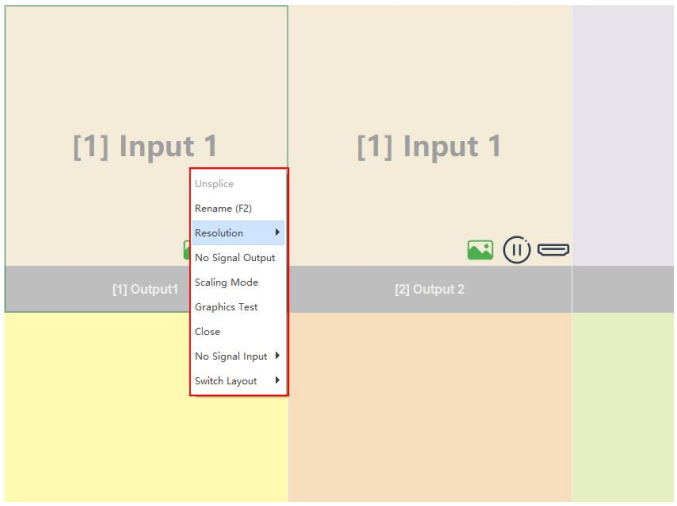
Screen Settings:



①  →  : Close Current Screen: Allows for simultaneous closure of the display during splicing. Double-clicking the corresponding screen exits the input when a signal is present.

②  →  : Pause Current Screen: Allows for simultaneous pausing of the display during splicing.

③  : The input signal changes to green when connected.

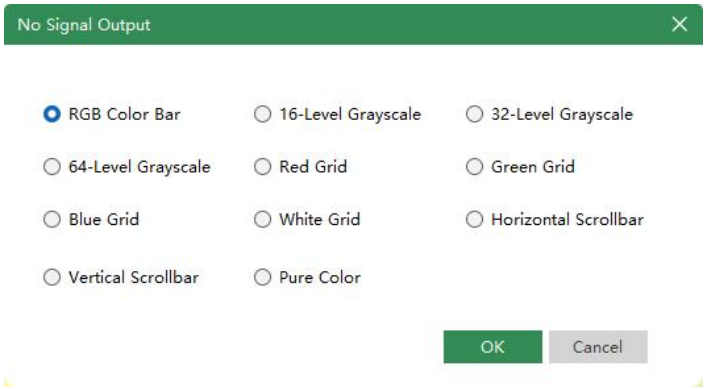


① Rename: Allows renaming of the input signal labels.

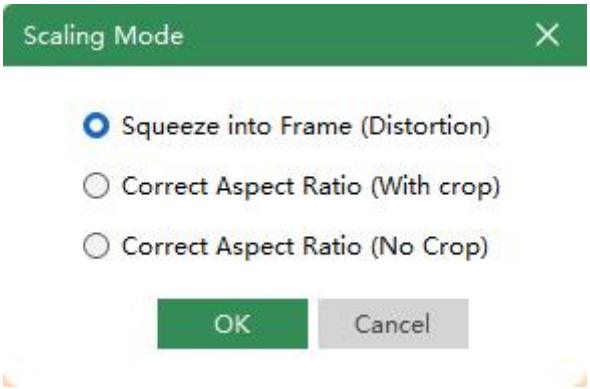
② Resolution: Supports various output resolutions.

1) 800x600x60Hz
2) 1024x768x60Hz
3) 1280x720x50Hz
4) 1280x720x60Hz
5) 1280x768x60Hz
6) 1280x800x60Hz
7) 1280x960x60Hz
8) 1280x1024x60Hz
9) 1360x768x60Hz
10) 1366x768x60Hz
11) 1440x900x60Hz
12) 1600x900x60Hz
13) 1600x1200x60Hz
14) 1920x540x50Hz
15) 1920x540x60Hz
16) 1920x1080x30Hz
17) 1920x1080x50Hz
18) 1920x1080x60Hz
19) 1920x1200x60Hz
20) 2560x1440x60Hz
21) 3840x2160x30Hz
22) 4096x2160x30Hz
23) 3840x2160x60Hz
24) 4096x2160x60Hz

③ No Signal Output: Allows selection of a display image when there is no input signal.



④ Scaling Mode: Ensures proportional scaling of input and output. The cropping mode removes excess images after full-screen display to enhance continuity, while the no-crop mode retains black borders during proportional scaling.

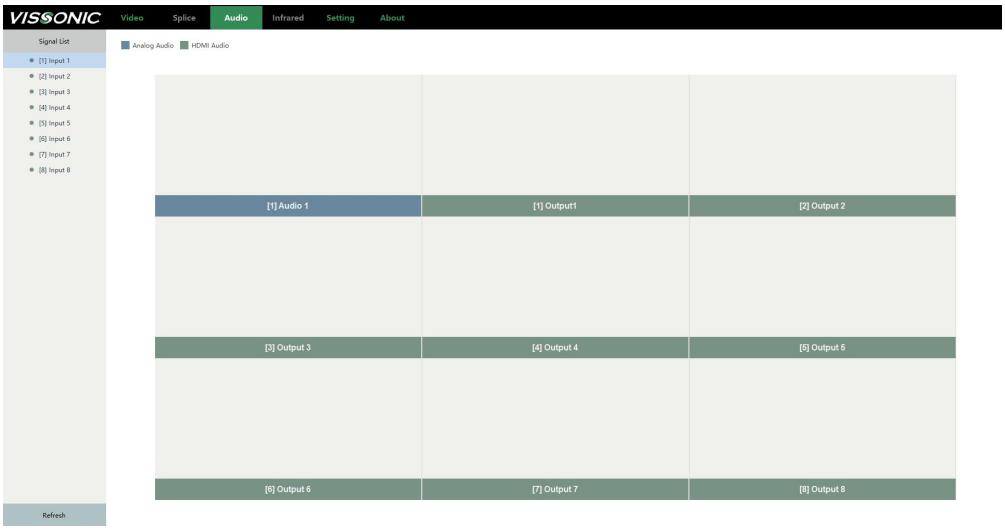


⑤ Graphic Test: Similar to signal input graphics, allows selection of different display types for test images based on requirements.

⑥ Standby: Option to enable or disable standby mode.

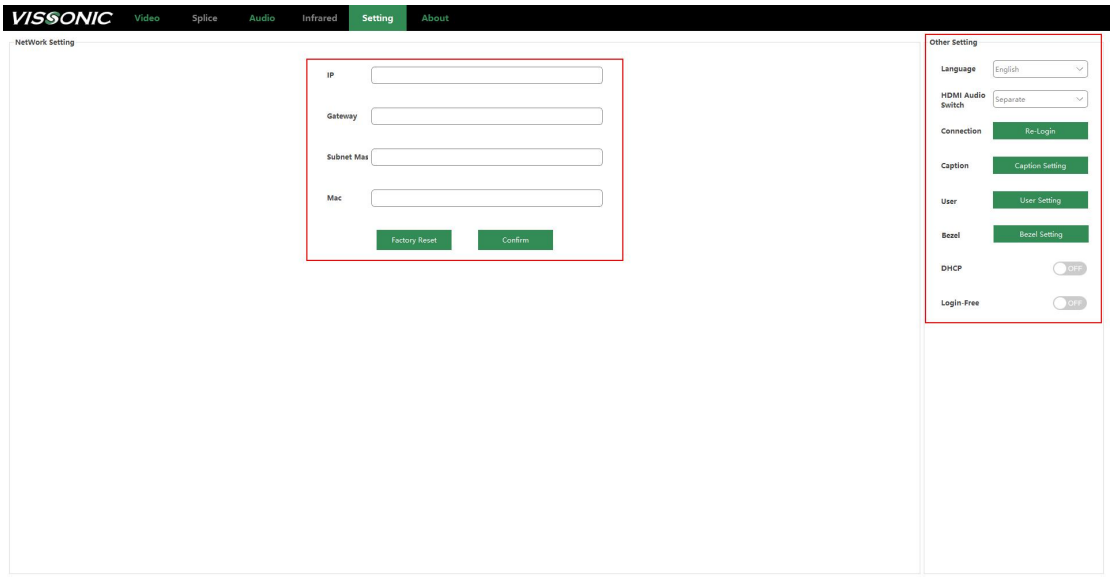
⑦ Layout Switch: Allows setting different layout types, such as 2x4 or 3x3, based on the output device.

5.4 Audio Function



Can drag the selected options from the signal list on the left to the right to choose the desired audio source for output.

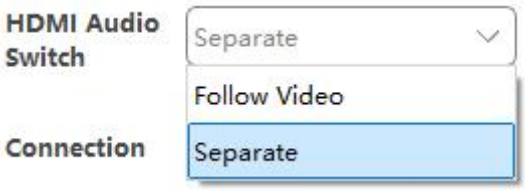
5.5 Setting



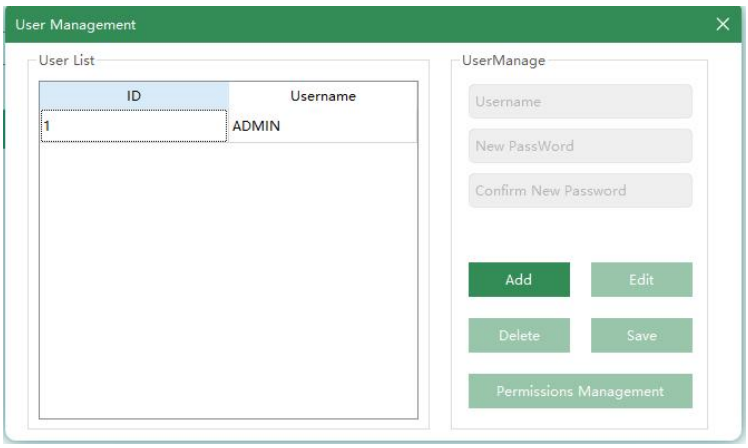
① Network Settings: View the network IP of connected devices, change network settings, and restore factory settings.

② Other Settings: Language settings, HDMI audio switching, connection settings, subtitle settings, user management, edge blending compensation, DHCP switch (on/off), and login bypass switch.

HDMI Audio Switching: Allows the HDMI audio to automatically switch with the video or to be independently selected for switching.

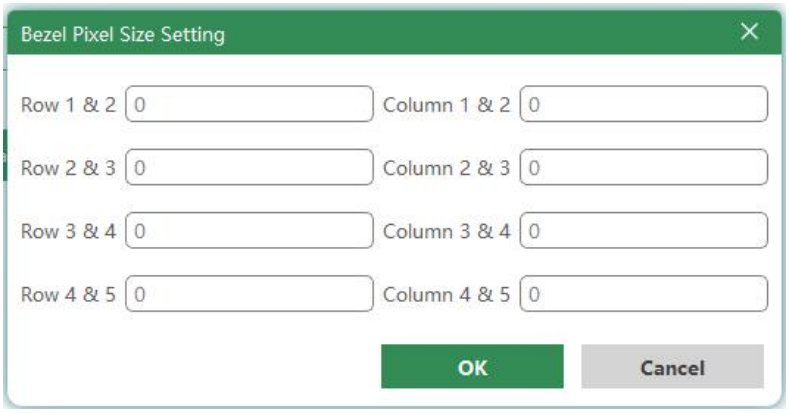


User Settings:



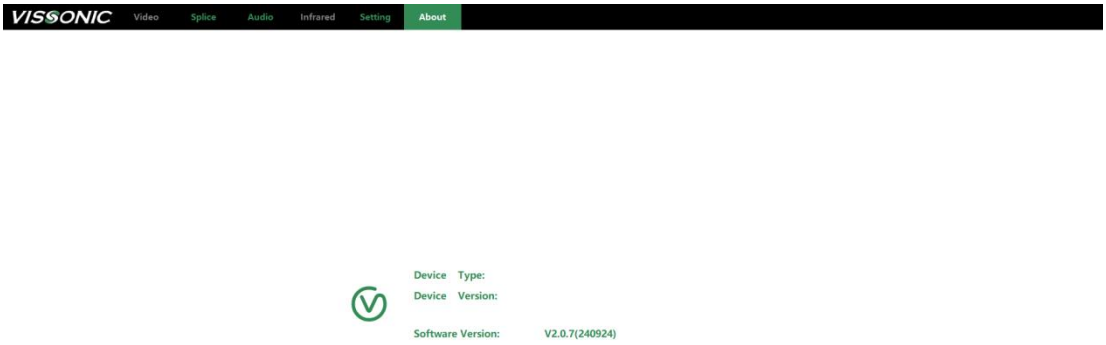
In this interface, you can add, edit, delete, and save user names and passwords.

Bezel:Input the corresponding pixel size for rows and columns to compensate for the seams in the splicing.



5.6.About

View the software and hardware versions of the connected devices.



6.Common Issues and Solutions

Fault Symptoms	Solutions
Matrix Not Switching	● Verify that the commands are correct.
	● If there is no response, check the device wiring.
	● Make sure the device is properly powered.
No Image Output	● Use commands or the PC web interface to ensure all ports and firmware are functioning properly.
	● Confirm that the input signal is reaching the matrix; "No Input" will display if it’s absent.
	● The matrix outputs a black signal when no input source is present. Ensure the display detects this.
	● If there’s still no signal, connect the input directly to the display to check its functionality. Make sure the display supports the matrix's output resolution; adjust if necessary.