VISSONIC
Professional Audio/Visual Manufacturer

stage performances, digital classrooms, and video conference rooms…

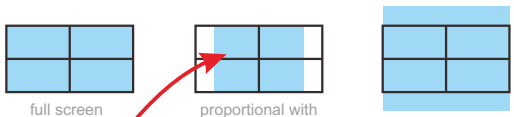
VIS-UHD Series 4K Seamless Multi-Function Matrix and Splicing Processor

VIS-UHD Series is a professional seamless UHD video matrix switching and stitching wall processor, supporting HDMI signal synchronized switching up to 4K@60, 4:4:4, with ultra-high data transmission rates. It features an intuitive Web GUI for creating creative video wall layouts and is based on a pure FPGA hardware structure.

Core Features

Aspect Ratio Adjustment

Output supports automatic full screen, proportional full screen with cropping, and proportional with black borders to meet various scenario needs.

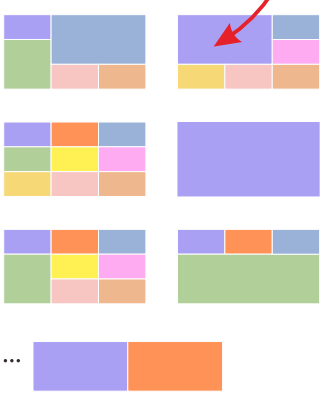


Spliced Subtitles

Rolling subtitles or welcome messages can be added to the video wall.

Logo

Add a logo for each input signal to easily distinguish between different inputs.

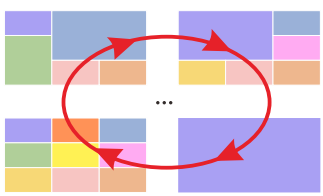


Video wall

Create creative video wall layouts through an intuitive Web GUI, easily configuring multiple monitors into a single large screen.

Seamless Switching

The FPGA-based hardware supports peak data rates up to 4K@60, ensuring perfect synchronized HDMI switching.

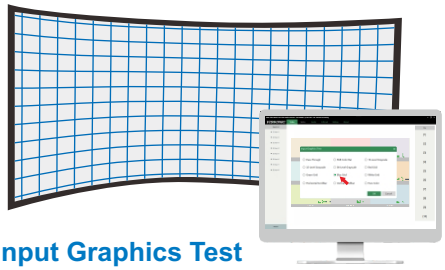


Presets

The matrix can store 10 different presets, easily recalled via panel buttons, RS232 serial port, software, or web interface.

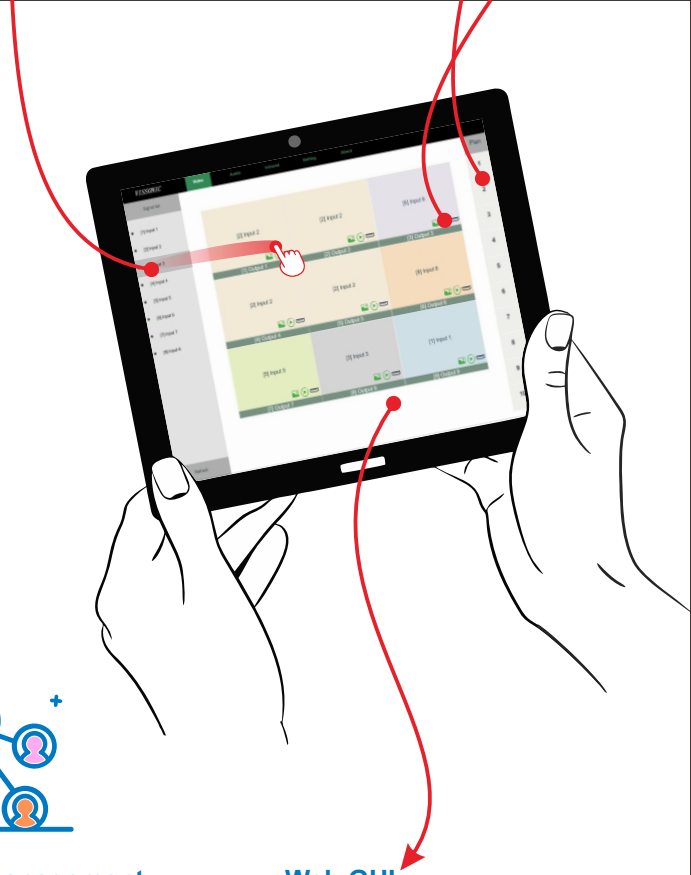
Freeze Frame

The output can be frozen or resumed with a single button press.



Input Graphics Test

Input and output can automatically generate test images for engineering debugging. The output test image is used to check if the connection between the output port and the display device is correct and if all output units are synchronized.



HDMI matrix

Entire signal path from input to output meets 18G signal processing requirements. It can handle HDR signals and resolutions up to 4K@60, 4:4:4, with a total bandwidth of 18Gbps.

Multi-user management

Supports simultaneous login of multiple users, allowing the administrator to assign different functionality or port permissions to different accounts.

Web GUI

Provides intuitive visual control of parameters.

Ethernet Monitoring and Control

Enables active monitoring, management, or control of LAN, WAN, or Internet using standard TCP/IP protocols.

Audio Matrix

Allows independent switching of 8 input audio channels to 8 output channels.

External Power Supply

External power supply: provides +5 VDC, 250 mA for HDMI output peripherals.

Audio Embedder and De-Embedder

Analog audio can be embedded into the output HDMI signal or extracted from the input HDMI signal.

Panel Lock

We can set the panel to 'lock' to prevent accidental switching.

4K Scaler

4K scaling technology converts input resolutions to the monitor's native resolution for optimal image and video quality.

Automatic Input Cable Equalization

Actively adjusts HDMI signals to compensate for loss with long or low-quality cables. With HDMI 2.0 professional cables, 4K/60 signals are equalized up to 17 feet (5.2 meters).

Intelligent management

Outputs the optimal resolution and displays the connection status of input and output signals in real time.

Input Volume Control

Provides volume control for audio input, so that adjusting the volume corresponds to changes in each output.

HDMI to DVI Format Correction

Automatically reformats the output HDMI source signal to connect to the DVI display.

Output clock recovery

Reconstructs and recovers the HDMI signal clock at each output to ensure long-distance transmission over HDMI cables.

EDID Management

EDID of display device can be copied to the input port, or available EDID files can be updated to the input port, or a built-in EDID file can be reselected.

Output Disable Control

It provides the ability to turn off one or all outputs at any time. For example, allows content to be viewed on a local monitor before appearing on the main display screen.

Front Panel

Controls all video routing, saves and recalls presets, manages IP settings, and checks or configures network parameters.

Infrared matrix

Independent infrared matrix switcher that supports controlling 8 infrared devices simultaneously across 8 different scenarios.

Features

VIS-UHD0404-VW
4K Seamless Multi-Function
Matrix and Splicing Processor

Overview

The VIS-UHD0404-VW is a professional seamless UHD video matrix switcher and stitching processor with 4 HDMI inputs and outputs. It supports resolutions up to 4K@60, 4:4:4, offers ultra-high data transmission rates, and allows creative video wall layouts via an intuitive Web GUI, based on a pure FPGA hardware architecture.

Basic Functions

- 4 HDMI inputs and 4 HDMI outputs with real-time seamless switching;
- Input and output support up to 4K@60, 4:4:4, compatible with HDMI 2.0 and HDCP 2.2;
- Intelligent analysis that automatically analyzes the EDID of display devices to output the best resolution;
- EDID management that supports selecting from multiple built-in EDID files, reading the EDID of output display devices to the input, and updating EDID files;
- Supports input image clipping, allowing part of the input image to be displayed as a signal;
- Supports adding logos to input images;
- Built-in signal generator with 11 professional test images on input and output channels;
- Outputs can be configured for seamless matrix output or single-layer stitching output;
- Supports synchronized stitching for LED or LCD large screens, with a maximum of 2x2 configurations;
- Supports scrolling subtitles on stitched large screens;
- Independent switching for audio;
- Supports graphical software control;
- Input volume control with adjustable channels and one-button mute;
- Multiple control methods including front panel buttons with LCD screen, RS232 control, TCP/IP control software, and web control for flexibility;
- Supports multiple flexible stitching configurations for any port to meet various application needs;
- Supports DHCP, with the ability to enable or disable via software or front panel;
- Various output modes available, including full screen and proportional scaling;
- Supports one-button freeze/unfreeze for output images;
- Intelligent management that shows real-time input signal status and output connection status on software;
- Adjustable HDCP version for inputs;
- One-button output screen on/off;
- Supports multiple connections and user management, with different management permissions and port management for different users;
- Supports preset management, with one-button save and recall of presets;
- Supports seam settings to compensate for gaps during screen stitching.

VIS-UHD0808-VW
4K Seamless Multi-Function
Matrix and Splicing Processor

Overview

The VIS-UHD0808-VW is a professional seamless UHD video matrix switcher and stitching processor with 8 HDMI inputs and outputs. It supports resolutions up to 4K@60, 4:4:4, offers ultra-high data transmission rates, and allows creative video wall layouts via an intuitive Web GUI, based on a pure FPGA hardware architecture.

Basic Functions

- 8 HDMI inputs and 8 HDMI outputs with real-time seamless switching;
- 8 IR and 8 analog audio inputs, along with 8 IR and 8 analog audio outputs;
- Input and output support up to 4K@60, 4:4:4, compatible with HDMI 2.0 and HDCP 2.2;
- Intelligent analysis that automatically analyzes the EDID of display devices to output the best resolution;
- EDID management that supports selecting from multiple built-in EDID files, reading the EDID of output display devices to the input, and updating EDID files;
- Supports input image clipping, allowing part of the input image to be displayed as a signal;
- Supports adding logos to input images;
- Built-in signal generator with 11 professional test images on input and output channels;
- Outputs can be configured for seamless matrix output or single-layer stitching output;
- Supports synchronized stitching for LED or LCD large screens, with a maximum of 2x4 configurations;
- Supports scrolling subtitles on stitched large screens;
- Independent switching for audio and infrared;
- Supports graphical software control;
- Input volume control with adjustable channels and one-button mute;
- Multiple control methods including front panel buttons with LCD screen, RS232 control, TCP/IP control software, and web control for flexibility;
- Supports multiple flexible stitching configurations for any port to meet various application needs;
- Supports DHCP, with the ability to enable or disable via software or front panel;
- Various output modes available, including full screen and proportional scaling;
- Supports one-button freeze/unfreeze for output images;
- Intelligent management that shows real-time input signal status and output connection status on software;
- Adjustable HDCP version for inputs;
- One-button output screen on/off;
- Supports multiple connections and user management, with different management permissions and port management for different users;
- Supports preset management, with one-button save and recall of presets;
- Supports seam settings to compensate for gaps during screen stitching.

Features

VIS-UHD0809-VW
4K Seamless Multi-Function Matrix and Splicing Processor

Overview

The VIS-UHD0809-VW is a professional seamless UHD video matrix switcher and stitching processor with 8 HDMI inputs and 9 outputs. It supports resolutions up to 4K@60, 4:4:4, offers ultra-high data transmission rates, and allows creative video wall layouts via an intuitive Web GUI, based on a pure FPGA hardware architecture.

Basic Functions

- 8 HDMI inputs and 9 HDMI outputs with real-time seamless switching;
- 8 IR and 8 analog audio inputs, along with 9 IR and 9 analog audio outputs;
- Input and output support up to 4K@60, 4:4:4, compatible with HDMI 2.0 and HDCP 2.2;
- Intelligent analysis that automatically analyzes the EDID of display devices to output the best resolution;
- EDID management that supports selecting from multiple built-in EDID files, reading the EDID of output display devices to the input, and updating EDID files;
- Supports input image clipping, allowing part of the input image to be displayed as a signal;
- Supports adding logos to input images;
- Built-in signal generator with 11 professional test images on input and output channels;
- Outputs can be configured for seamless matrix output or single-layer stitching output;
- Supports synchronized stitching for LED or LCD large screens, with a maximum of 3x3 or 2x4 configurations;
- Supports scrolling subtitles on stitched large screens;
- Independent switching for audio and infrared;
- Supports graphical software control;
- Input volume control with adjustable channels and one-button mute;
- Multiple control methods including front panel buttons with LCD screen, RS232 control, TCP/IP control software, and web control for flexibility;
- Supports multiple flexible stitching configurations for any port to meet various application needs;
- Supports DHCP, with the ability to enable or disable via software or front panel;
- Various output modes available, including full screen and proportional scaling;
- Supports one-button freeze/unfreeze for output images;
- Intelligent management that shows real-time input signal status and output connection status on software;
- Adjustable HDCP version for inputs;
- One-button output screen on/off;
- Supports multiple connections and user management, with different management permissions and port management for different users;
- Supports preset management, with one-button save and recall of presets;
- Supports seam settings to compensate for gaps during screen stitching.

VIS-UHD0809-M-VW
4K Seamless Multi-Function Matrix and Splicing Processor

Overview

The VIS-UHD0809-M-VW is a professional seamless UHD video matrix switcher and stitching processor with 8 HDMI inputs and 9 outputs. It supports resolutions up to 4K@60, 4:4:4, offers ultra-high data transmission rates, and allows creative video wall layouts via an intuitive Web GUI, based on a pure FPGA hardware architecture.

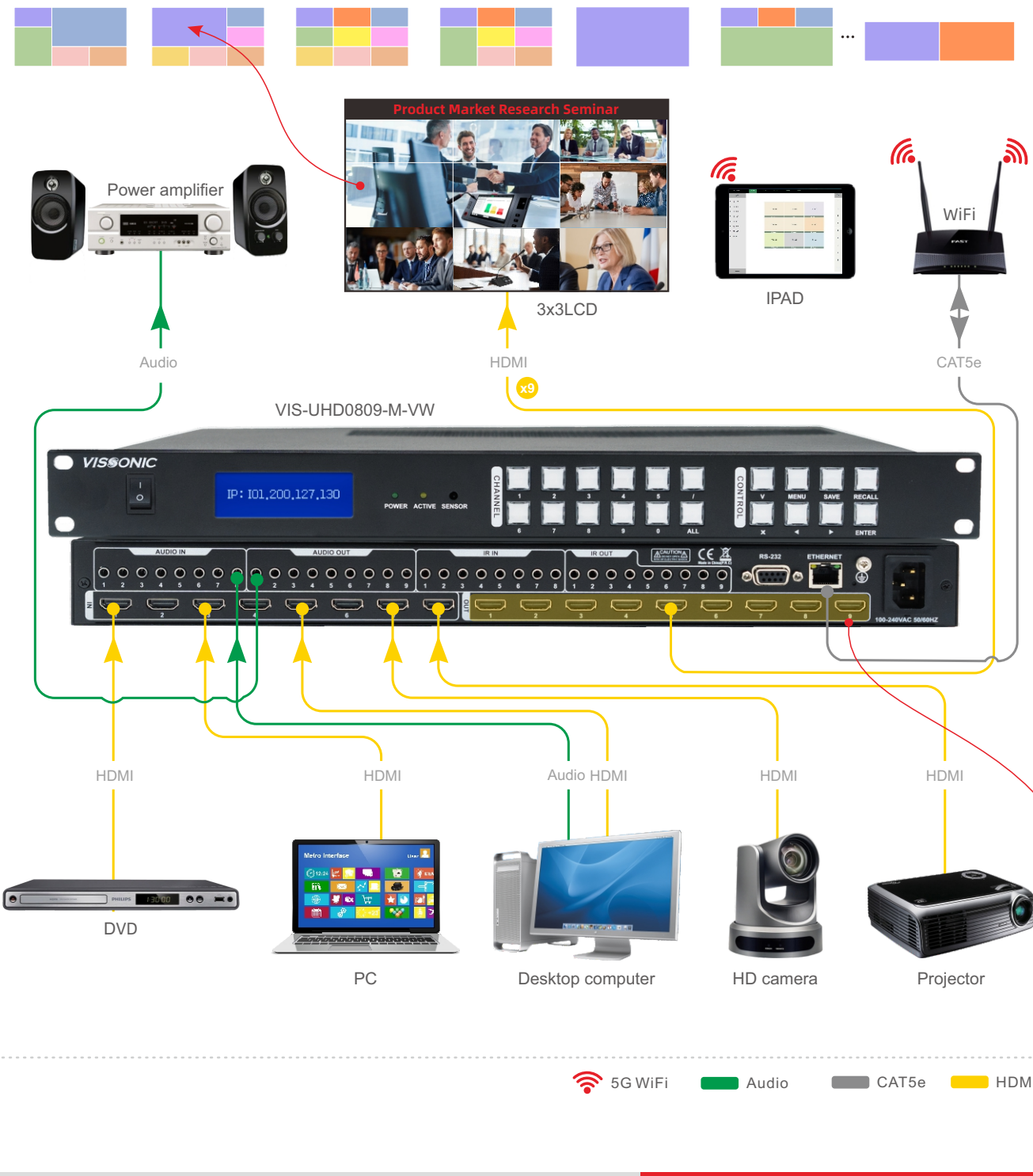
Basic Functions

- 8 HDMI inputs and 9 HDMI outputs with real-time seamless switching;
- 8 IR and 8 analog audio inputs, along with 9 IR and 9 analog audio outputs;
- The 9th output port seamlessly switches between video wall and multi-screen modes;
- The system supports PIP, quad split, 3x3 grid, and POP configurations. POP offers customizable modes like 1 large 7 small, 1 large 5 small, and 1 large 3 small screens, ideal for input monitoring or multi-participant conferences;
- Input and output support up to 4K@60, 4:4:4, compatible with HDMI 2.0 and HDCP 2.2;
- Intelligent analysis that automatically analyzes the EDID of display devices to output the best resolution;
- EDID management: select from built-in files, read from output devices, update EDID;
- Supports input image clipping, allowing part of the input image to be displayed as a signal;
- Supports adding logos to input images;
- Built-in signal generator with 11 professional test images on input and output channels;
- Outputs can be configured for seamless matrix output or single-layer stitching output;
- Supports synchronized stitching for LED or LCD large screens, with a maximum of 3x3 or 2x4 configurations;
- Supports scrolling subtitles on stitched large screens;
- Independent switching for audio and infrared;
- Supports graphical software control;
- Input volume controls adjustable channels and mute button;
- Multiple control methods: front panel, RS232, TCP/IP software, web control;
- Supports multiple flexible stitching configurations for any port to meet various application needs;
- Supports DHCP, with the ability to enable or disable via software or front panel;
- Various output modes available, including full screen and proportional scaling;
- Supports one-button freeze/unfreeze for output images;
- Intelligent management that shows real-time input signal status and output connection status on software;
- Adjustable HDCP version for inputs;
- One-button output screen on/off;
- Supports multi-user management with customizable permissions and port control;
- Supports preset management with one-button save/recall;
- Supports seam settings to compensate for gaps during screen stitching.

Specifications

Model	VIS-UHD0404-VW	VIS-UHD0808-VW	VIS-UHD0809-VW	VIS-UHD0809-M-VW
Inputs	4x HDMI, 4xAnalog Audio	8x HDMI, 8x IR, 8xAnalog Audio	8x HDMI, 8x IR, 8xAnalog Audio	8x HDMI, 8x IR, 8xAnalog Audio
outputs	4x HDMI, 4xAnalog Audio	8x HDMI, 8x IR, 8xAnalog Audio	9x HDMI, 9x IR, 9xAnalog Audio	9x HDMI, 9x IR, 9xAnalog Audio
Multiple screen split modes	None	None	None	Support
Video Standard	HDMI 2.0, HDCP 2.2			
Max Resolution	4096 x 2160@60Hz (4:4:4)			
HDMI Connector	Type A, 19 pin, Female			
Control Interface	RS-232 IN, DB9, Female; RS-232 OUT, DB9, Male			
Input Cable Length	5m HDMI 2.0			
Output Cable Length	5m HDMI 2.0			
Impedance	100±15ohm			
Control Method	TCP/IP			
Network Rate	Self-adaptive 10M/100M			
Storage Environment	Temperature: -20°C ~ +70°C; Humidity: 10% ~ 90%			
Operating Environment	Temperature: 0°C ~ +50°C; Humidity: 10% ~ 90%			
Power Supply	AC 110~240V			
Max Power Consumption	100W			
Rack Mount	1U			
Size (WxDxH)	482x350x46.3 mm			
Weight	3.5Kg			
MTBF	30,000 hours			
Warranty	1 year warranty with long-term maintenance			

System Diagram



The 9th port supports multiview monitoring mode

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