



VS Series LED/LCD Video Wall Processor Up to 4K@60Hz 4:4:4

conference rooms, command centers, security monitoring, exhibition displays, education and research, government announcements...

VS Series is a LED/LCD splicing matrix switcher with modular design and plug-in structure. It is the first hybrid plug-in splicing matrix switcher for asymmetrical signals, using hybrid plug-in cards to achieve excess number of input and reasonable number of output.





Core Features

- 1 Overlay
- 2 Vertical sync
- 3 Intelligent banner
- 4 Logo display
- 5 Background image
- 6 Local clipping



IPC 01



IPC 02



IPC 03



IPC 04



IPC 05



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IPC 100



Full 4K splicing

4 input/output of one card all can be up to 4K@60Hz 4:4:4 resolution, and the signal source can generate the window, PIP, roam, and zoom arbitrarily on the video wall. The vertical sync technology ensures the synchronization and smooth display of high-speed moving images on each splicing screen, and customized resolution of LED single screen.

Intelligent banner

Set a large-screen banner, customized the welcome slogan or upload pictures, modified the color, font, size, position, and other information of the banner, and display the real-time clock.

Background image

Upload a local HD image as background image without affecting the number of window layers. No loss when power off, and automatic recovery after power on.

Full digital seamless switching technology

Full digital splicing switching technology, to ensure the switch without black field, no flash screen, no fragmentation, and no static picture. It can meet arbitrary switch of 2K and 4K signals, and adopts 4:4:4 full frame rate graphics processing algorithm, and the delay is as low as 0ms.

IPC decoding

Mass IPC signal access. A single card can decode up to 100 IPC signals on the screen at the same time. IPC unified management. IPC can be dragged from the software interface directly onto the video wall.

Signal source management

The image of the input source is partially cropped as the new video source. Station logo display. Superimpose pictures on the signal source or customize text in any language or font. Provides setting for test image output.



Core Features



Dual control cards, one master and one backup

Optional dual control cards, one main and one standby, ensure the stable operation of the system.



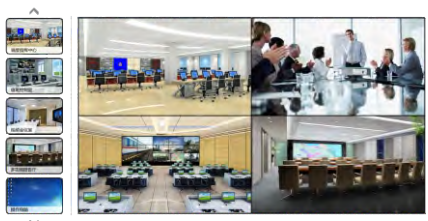
Modular hardware architecture

Hardware modularization can realize arbitrary hybrid plug-in of input and output cards, online maintenance and expansion, hot-pluggable fans, individual replacement, and redundant power supplies.



Monitoring alerts

Signal visualization preview. In any system, on any PC/mobile phone/tablet, it can realize visualization, movement, touch management, and multiple operation terminals can be controlled and synchronized at the same time.



Input signal full preview

Signal visualization preview. In any system, on any PC/mobile phone/tablet, it can realize visualization, movement, touch management, and multiple operation terminals can be controlled and synchronized at the same time.



Modular hardware architecture

Hardware modularization can realize arbitrary hybrid plug-in of input and output cards, online maintenance and expansion, hot-pluggable fans, individual replacement, and redundant power supplies.



Visual operation of multi-terminal

Signal visualization preview. In any system, on any PC/mobile phone/tablet, it can realize visualization, movement, touch management, and multiple operation terminals can be controlled and synchronized at the same time.



KVM management

A set of mouse and keyboard can control multiple computers, and can switch the matrix remotely through the keyboard.



Multi-device intelligent control

It can send control commands to third-party devices, implementing operations such as large screen switches, curtains lift etc.

Basic Function

- The LED/LCD splicing processor supports up to 32x32, 64x64, 136x136 hybrid plug-in.
- Pure hardware architecture based on FPGA.
- Front panel has LCD display and lights buttons to display and configure the device IP address.
- Hardware modularization can realize arbitrary hybrid plug-in of input and output cards, flexible configuration, online maintenance and expansion, hot-swappable fans, individual replacement, and redundant power supplies.
- The matrix supports the cross conversion of the following signals: Fiber, Fiber 4K, DVI, HDMI 4K, HDBaseT and HDBaseT 4K, can achieve true real-time seamless switching.
- 4 input channels of one card all can be up to 4Kx2K@60Hz 4:4:4 resolution, 4K seamless output and 4K splicing output, compatible with all standard resolution and resolution customization.
- Up to 120 channels of 4Kx2K@60Hz 4:4:4 input, up to 68 channels of 4Kx2K@60Hz 4:4:4 splicing output.
- Each splicing output card can realize the video splicing function, and the image window can be arbitrarily zoomed, superimposed, crossed screen and roamed within the full-screen range.
- For each output port, set irregular resolution which maximum 4Kx2K@60Hz 4:4:4 corresponding to each transmitting card, to realize flexible splicing of LED screen.
- Upload image as background image through PC software or web page without affecting the number of window opening layers. Data will be not lost during power-off and will be automatically recovered after power-on.
- The input video can be cropped at any position and size to achieve real-time processing functions.
- Support large-screen banners settings, customize welcome slogans or upload pictures, modify banners, fonts, size, position, etc., and support the on-real time clock display.
- Full digital splicing switching technology ensures that the switch no black field, no flash screen, no fragmentation, and no static picture. It can meet arbitrary switch of 2K and 4K signals, and adopts 4:4:4 full frame rate, and the delay is as low as 0 ms.
- A set of mouse and keyboard can control multiple computers, and can switch the matrix remotely through the keyboard.
- Station logo display. Superimpose pictures on the signal source or customize text in any language or font.
- The splicing output supports single display with 1 layer, 2 layers or 4 layers optional at 4Kx2K@60Hz 4:4:4 resolution.
- After the client operation pre-switching mode is enabled, the operations in all windows will not take effect immediately. After clicking Confirm, all operations will take effect at one time. Window lock is supported.
- More than 5 display wall groups can be managed at the same time. Each display wall can be a different display device, resolution or size, and all display wall groups can be managed in real time.
- Output mapping, more flexibility in on-site construction, and can be quickly adjusted in the software.
- 60Hz frame synchronization processing technology, perfectly solve the dislocation and tearing phenomenon when display high-speed moving pictures.
- Intelligent zoom technology. The image zoom adopts the intelligent multi-phase filtering algorithm. The image has vector-level zoom effect, ensuring more details, no jagged edges and good sharpness.
- Input signal automatic detection, real-time detection of whether each input port has signal access, input card indicator light and client software have status indication.
- Output signal automatic detection, real-time detection of whether each output port has a successful connection with the display, the output card indicator, the background color of the display and the client software have status indications.
- Optional dual control cards, one main and one standby, ensure the stable operation of the system.
- Optional redundant power supply, the redundant power supply will automatically take over without interrupting the operation.
- Hot plug-and-play input cards and output cards without affecting the normal operation of other systems.
- Real-time status monitoring of any module card temperature, version, manufacturing information and fan speed.
- Automatic adjustment of the cooling fan speed according to temperature changes.
- Automatic and manual backup of configuration, export of configuration files, import of configuration files into the control card.
- Support firmware online upgrade.
- EDID reading and EDID management.
- The configuration of the preview card can realize the video preview and switching on the PC and tablet, and supports real-time monitoring of the contents from the large screen.
- Support DVI 1.0 protocol, comply with HDCP 2.3 standard, compatible with HDMI 2.0.
- With correction and compensation signal characteristics to reduce the video stream error, DVI, HDMI input up to 35 meters.
- 200 sets of matrix preset switching commands and 200 sets of splicing plan commands can be stored.
- The system contains a variety of test images which is convenient for quick debugging and system maintenance.
- HDBaseT input and output signals support embedded (or local) bidirectional RS232 and bidirectional IR signals, and can choose to switch with the video signal, or separate switching mode, and support POC external power supply.
- Flexible control methods, including front panel button control, IR control, RS232 control and RS232 loop-out control, Ethernet port for software and web page control, RS422 external panel control, visual preview control.
- Using B/S architecture, the product itself supports mobile phone and tablet control, supports Android, IOS, Windows systems, and does not need to install any software and plug-ins.
- Support multiple client visualization. Multiple clients can be controlled and synchronized at the same time.
- It can send control commands to third-party devices, and meets the customer's control requirements for peripheral equipment.
- SDI input/output card with loop-out function.
- HDMI input card with digital audio and analog audio, digital audio de-embedding analog output.
- HDMI output card embedded digital audio and analog audio output at the same time.
- The IP card has access of the network monitoring dome camera, supports onvif, RTP, RTSP, RTCP, TCP, UDP and other network protocols, and can directly decode the network camera signal.
- Single net port supports up to 64 channels of D1, 32 channels of 720P, 16 channels of 1080P, and 4 channels of 4K decoding capability. The IP input card supports 100 channels of IPC decoding on the video wall, and supports the function of screen splitting. One picture channel supports single picture, 4-picture, 9-picture, 16-picture or 25-picture split display.
- Has signal automatic backup function of any input and output signals. When any signal is interrupted, the processor will intelligently detect, judge, and automatically switch.
- Input signal full preview. Full echo of the splicing large-screen. Provide web page and software for visually preview all input signal sources, and real-time echo of the splicing large-screen content. Also support HDMI echo card connect to the monitor for hardware echo of the splicing large-screen content.
- Allows DTS-HD and Dolby TrueHD audio formats input and output.
- Provides audio switching independent or along with video.

Chassis Specifications

Model	Chassis	Specifications	Number of input cards	Number of hybrid plug-in cards	Number of output cards	Number of control cards	Power Supply Default power supply Backup power supply	Power	Dimensions (mm)
VW-VH1616	3U	32 hybrid plug-in channels	4	3	1	2	1-1	18W	445x400x132
VW-VH3232	7U	64 hybrid plug-in channels	8	8	0	2	1-3	30W	445x400x310
VW-VH6868	12U	136 hybrid plug-in channels	17	13	4	2	1-3	45W	445x400x532

Conventional card

input card	
output card	HDMI 4K, HDBaseT 4K

Control mode

Network control	1 RJ45 interface, 10M/100M adaptive, support the management and configuration of the machine
Serial control	2 RS232, can be connected to the central control, and support loop-out control matrix, screen and other third-party equipment
Front panel control	Support front panel LCD display and switch button control, can modify IP address and other parameters
Other control	IR infrared control, RS485 remote 4-inch touch screen control (optional), web page visualization control (optional), HDBaseT remote serial port control (optional)

Image processing

Switch effect	4K fast and seamless switching, no black field, no flicker, no fragmentation, no static picture, single and multi-channel audio and video synchronization switching
Transmission bandwidth	18Gbps
Output resolution	Support 4K x 2K HD resolution, can customize configuration resolution

Environmental parameters

Working temperature	-10~+55°C
Working humidity	<90% Non-condensing



VW-VH1616





VW-VH3232








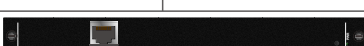
VW-VH6868

Card Specifications

Conventional input interface

Model	Port type	Card	Port No.	Signal type	Maximum resolution	Number of audio interface	Other interface
							
VS-HM4I-4K	HDMI+3.5mm audio	4*HDMI	4	HDMI2.0	4096 x 2160@60Hz	8	-
							
VS-HD4I-4K	RJ45+phoenix terminal	4*HDBaseT	4	HDBaseT 4K	4096 x 2160@60Hz	4	4*two-way RS232

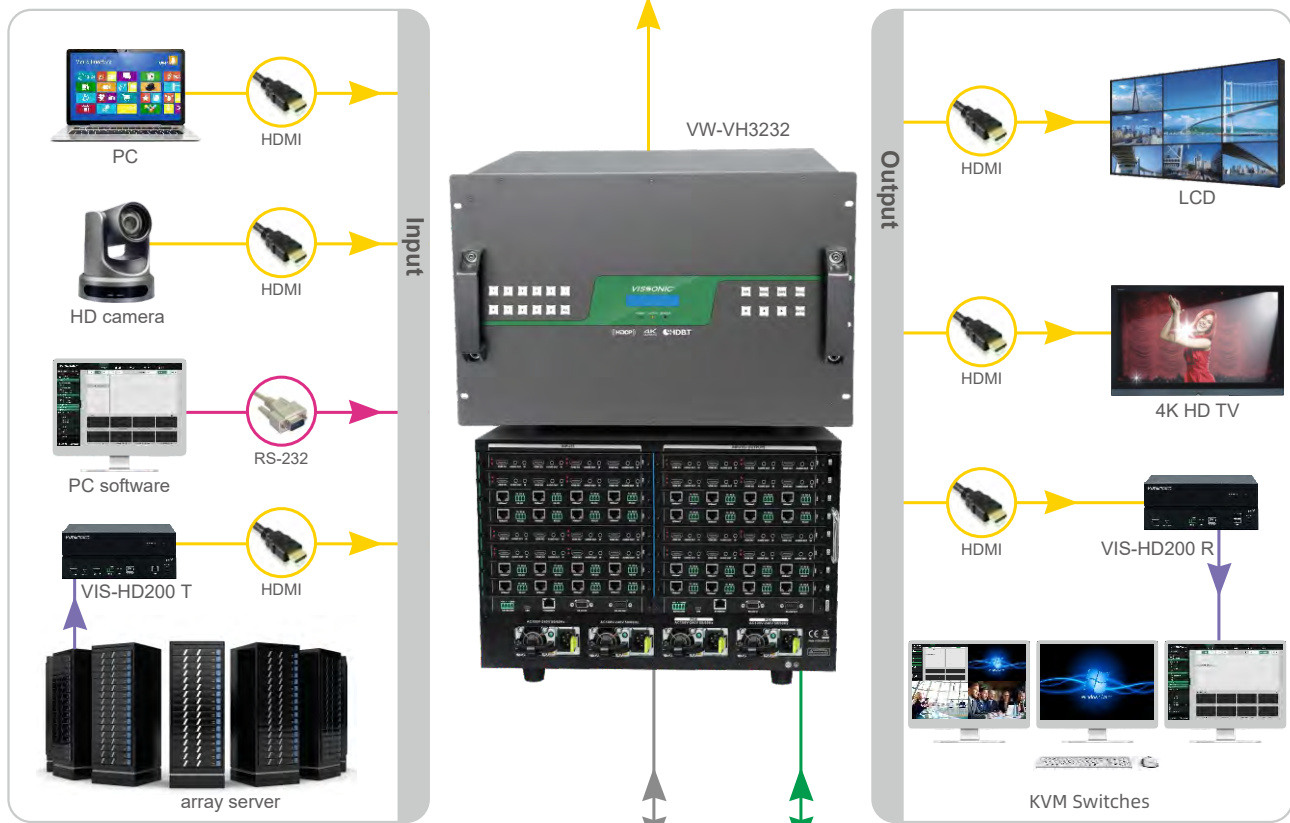
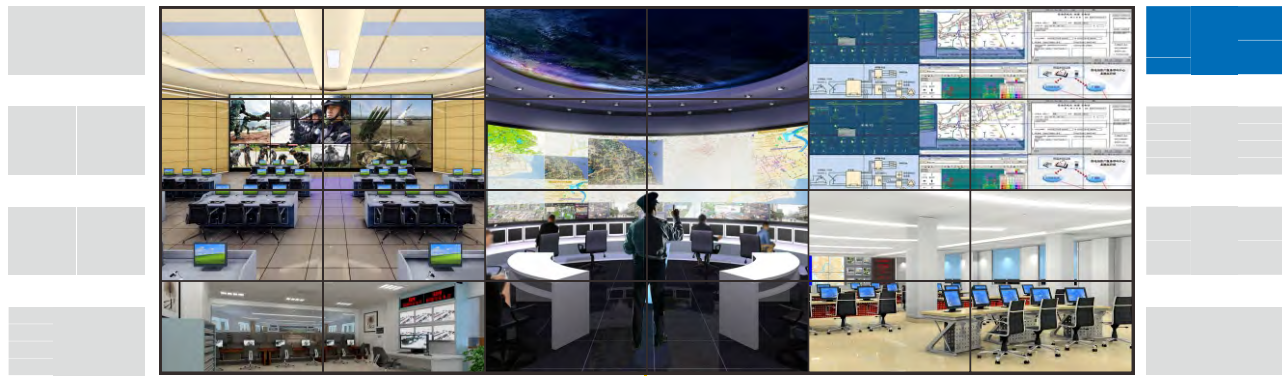
Conventional output interface

Model	Port type	Card	Port No.	Signal type	Maximum resolution	Number of audio interface	Windows/port
							
VSP-HM4O-4K	HDMI+3.5mm audio	4*HDMI	4	HDMI2.0	4096 x 2160@60Hz	4	2
							
VSP-HM2O-4K	HDMI+3.5mm audio	2*HDMI	2	HDMI2.0	4096 x 2160@60Hz	2	4
							
VSP-HD4O-4K	RJ45+phoenix terminal	4*HDBaseT	4	HDBaseT 4K	4096 x 2160@60Hz	-	2
							
VSP-HD2O-4K	RJ45+phoenix terminal	2*HDBaseT	2	HDBaseT 4K	4096 x 2160@60Hz	-	4
							
VS-PVHM-4K	HDMI	HDMI hardware echo	4	HDMI2.0	4096 x 2160@60Hz	-	-
							
VS-PVW	RJ45	1*Network echo preview	1	IP	1920X1080P@60Hz	-	-

Optional

Model	Description
VIS-CKB100	4 inch touch screen embedded remote control panel
VIS-RPWR	PSU backup power supply
VIS-VSSOFT	professional matrix splicing WINDOWS control software

System Diagram



WiFi RS-232 Audio CAT5e HDMI USB



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