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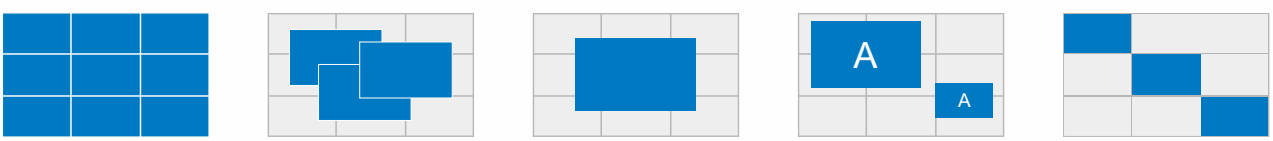
X9-A Series 4K@60 Modular Splicing Seamless Switching Video Wall Processor

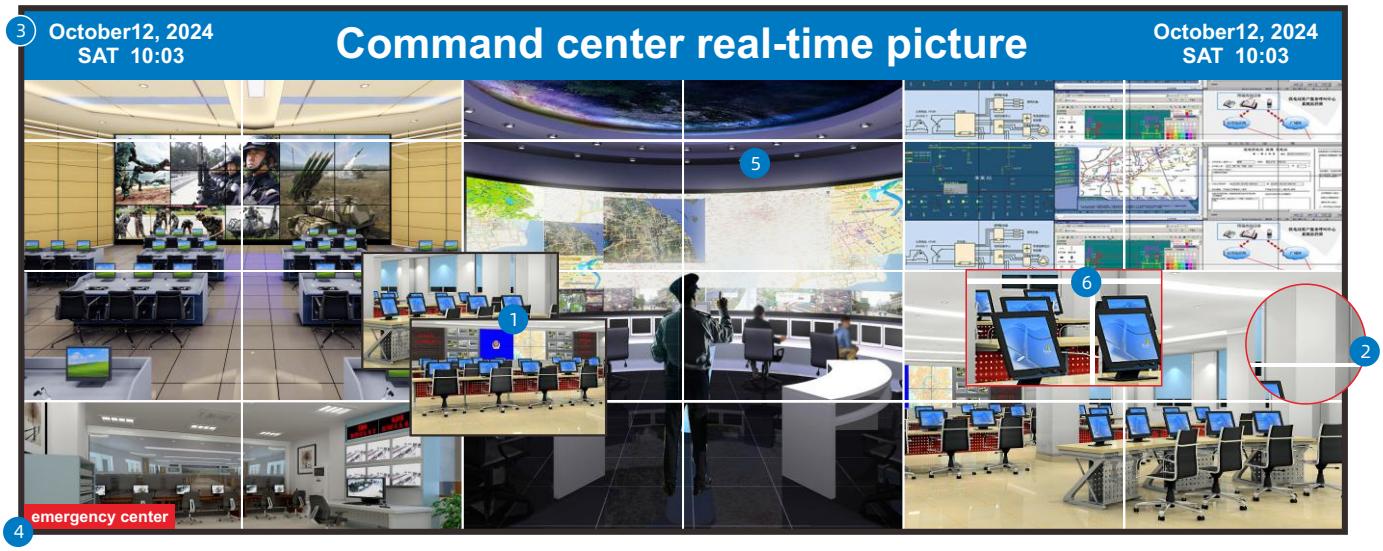
The X9-A hybrid stamping processing system is an LED/LCD/DL enhanced model with a plug-in card structure.Supports seamless switching between 4k@60Hz and ultra-high resolution. Up to 72 input signals and 72 output signals, suitable for crowd display application scenarios, excellent hardware reliability supports higher intensity work!

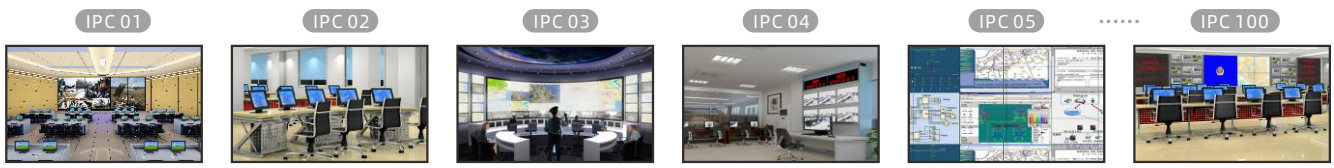


Full-screen | Overlay | Roaming | Zooming | Single-screen

Core Features

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





Full 4K splicing

Can be up to 4K 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, and output settings can 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.

Pure hardware architecture

FPGA pure hardware architecture is adopted to avoid virus intrusion of equipment, reduce boot time and improve system stability.

Monitoring alerts

It monitors the status of each module, and can actively alert and prompt when the equipment fails.

Visual operation of multi-terminal

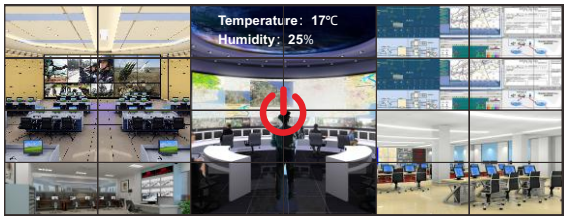
Signal visualization preview. In any system, on any PC/mobile phone/tablet, it can realize visualization, movement, touch management, and multiple operation terminals can be controlled and synchronized at the same time.

KVM management

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

Input preview, stitching hard echo

Supports echoing of splicing walls, and outputs the real-time status of the entire splicing wall to the monitor through the HDMI port.



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

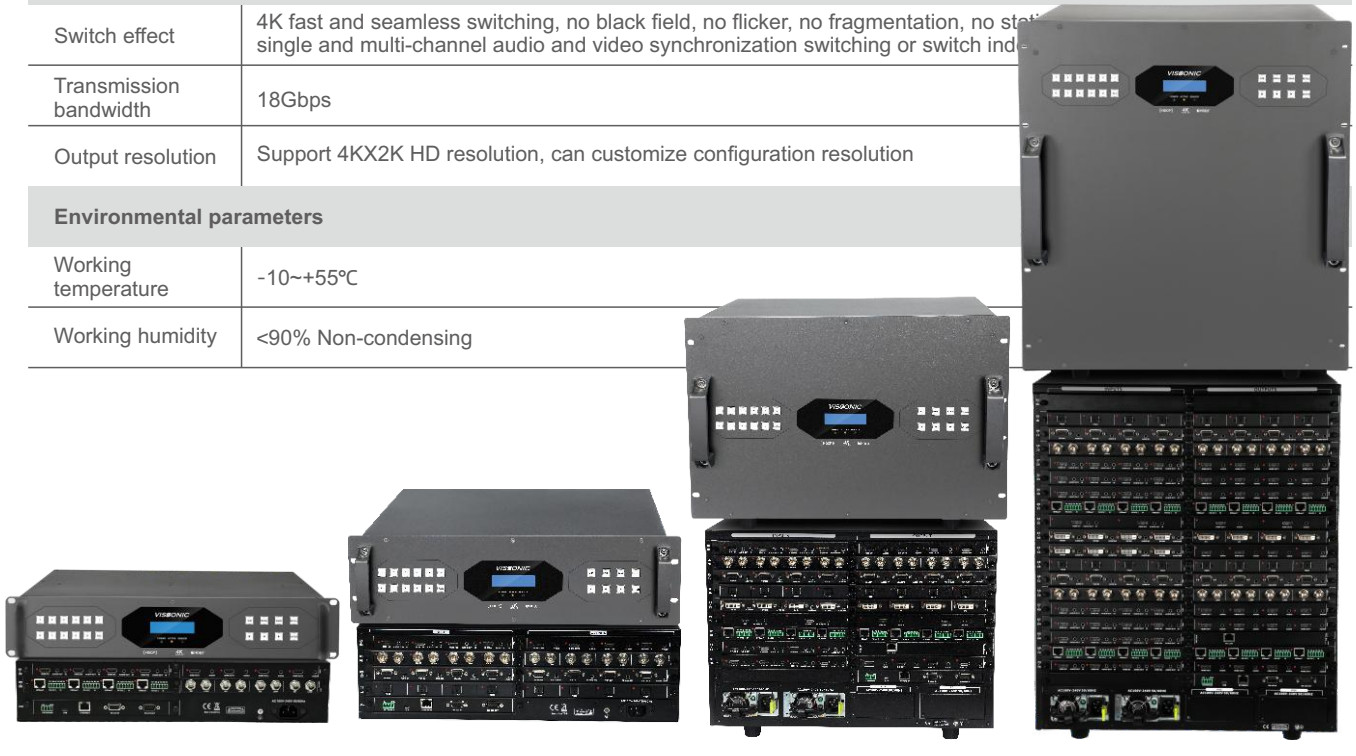
- The LED/LCD splicing processor host has chassis options in 2U, 3U, 7U, 12U, supporting up to 72 input/output channels.
- FPGA-based architecture supports audio matrix, seamless video matrix, LCD/LED splicing processor, and fiber KVM functions.
- LCD display and illuminated buttons on the front panel allow control of matrix switching, splicing, and scenario settings.
- Modular design for flexible configuration of input/output cards, power modules, control cards, IP preview, and echo cards.
- Supports cross-conversion for DVI HD, HDMI 4K, SD-HDI, HD-SDI, HDBaseT HD/4K signals, with real-time seamless switching.
- Supports 4 inputs per card and 4 outputs per card 4Kx2K@60Hz 4:4:4 signals, supports 4K60Hz input acquisition, 4K60Hz seamless output and 4K60Hz splicing output, and is backward compatible with all standard resolutions
- Compatible with 2K/4K signals, with up/down scaling for seamless mixing, switching, and splicing.
- Redundant power ensures no interruption in operation during power failures.
- Dual control cards enable backup.
- Input backup automatically switches to secondary signal if primary disconnects.
- Signal detection with LED indicators; software customizes output color when no input signal is detected.
- Hot-swappable input/output cards; system continues uninterrupted.
- Operational data display and export for chassis, input/output cards, control cards, and fans.
- Fan speed auto-adjusts based on temperature.
- Configuration files support import/export, and manual/automatic backup.
- Network firmware updates supported.
- Each input supports logos or scrolling banners with customizable text, font, and color.
- Input cropping available via PC/web software to adjust source signal size.
- EDID read and management supported.
- LCD and LED splicing, synchronized screen output, and custom resolutions supported.
- Background images for large screens are saved on the device and maintained with power-off memory.
- Supports banners on spliced screens with customizable text, font, color, and real-time clock display.
- Auto-detects output signal status, with indicators for successful handshake and software feedback.
- IP-based preview for all input signals with mobile and touch control on any device, supporting multiple users with synchronized control.
- Matrix input preview and output echo are available; PC software enables input preview and output switching with echo.
- Supports HDMI hard echo for large screens, with up to four video wall echoes. Provides one HDMI port for a 4-way split or four HDMI ports for separate video walls.
- Optional advanced control card with built-in visualization, compatible with Android, iOS, and Windows systems, enabling full preview and echo without occupying output slots.
- Supports DVI 1.0 and HDCP2.2, compatible with HDMI2.0.
- Stores up to 200 matrix and splicing presets for one-click switching.
- Built-in signal generator provides 12 test images per input/output channel.
- HDBaseT signals support embedded two-way RS-232 and IR, and POC power. Allows switching with or separately from video signal.
- Offers flexible control: front panel, infrared, RS-232/422, network interface, web control, and remote HDBaseT serial control.
- Centralized control supports over 1,000 commands to manage display and environmental equipment via web/PC software.
- Supports selectable output layers (1, 2, 4, 8, or 16) with layer-sharing functionality.
- SDI cards support loop-out; HDMI cards support audio selection, digital/analog audio outputs, and IP board integrates network camera protocols (ONVIF, RTP, RTSP).
- Window lock function fixes window size and position.
- Supports management of more than five video wall groups simultaneously.
- Seamless matrix output with independently adjustable resolution and latency under 17 ms.
- Audio matrix allows independent or synchronized audio/video switching.
- Input audio control for volume, monitoring, and pre-adjustment with UV level indicators.
- Optical KVM switching supports up to 72 computers with low latency (under 32 ms) using optical KVM boxes.
- IP board supports network camera integration and protocol setup via web, decoding signals directly.

★Each network port decodes up to 64 D1, 32 720p, 16 1080p, or 4 4K channels. IP input supports 100 IPC streams and split display in single, 4, 9, 16, or 25-screen layouts.

Chassis Specifications

Model	Chassis	Specifications	Number of input cards	Number of output cards	Number of control cards	Power Supply (● Optional)	Power	Dimensions (mm)
VW-VM0808-A	2U	supports up to 8 inputs and 8 outputs	2	2	1	Default - 1 ● Redundant - 1 ● PoC - 1	15W	483x400x88
VW-VM1616-A	3U	supports up to 16 inputs and 16 outputs	4	4	1	Default - 1 ● Redundant - 1 ● PoC - 1	30W	483x400x132
VW-VM3636-A	7U	supports up to 36 inputs and 36 outputs Last card slot, not support splicing cards	9	9	2	Default - 1 ● Redundant - 1 ● PoC - 2	50W	483x400x311
VW-VM7272-A	12U	supports up to 72 inputs and 72 outputs Last card slot, not support splicing cards	18	18	2	Default - 2 ● PoC - 2	90W	483x400x532

Format	
Input card	DVI HD, HDMI HD, HDMI 4K, SD-SDI, HD-SDI, 3G-SDI, 12G-SDI, Fiber, HDBaseT HD和HDBaseT 4K
Output card	DVI HD, HDMI HD, HDMI 4K, SD-SDI, HD-SDI, 3G-SDI, 12G-SDI,Fiber, HDBaseT HD和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, KVM switch control, RS485 remote 4-inch touch screen control (optional), web 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 sta single and multi-channel audio and video synchronization switching or switch ind
Transmission bandwidth	18Gbps
Output resolution	Support 4KX2K HD resolution, can customize configuration resolution
Environmental parameters	
Working temperature	-10~+55℃
Working humidity	<90% Non-condensing



VW-VM0808-A VW-VM1616-A VW-VM3636-A VW-VM7272-A

Card Specifications

Input interface

Model	Port type	Card	Port No.	Signal type	Maximum resolution	Number of audio interface	Other interface
VW-HM4I-4K-A	HDMI+3.5mm audio	4*HDMI	4	HDMI2.0	4096*2160@60Hz	8	-
VW-SDI4I-12G-A	SDI	4*SDI	4	SDI	3840*2160@60Hz	-	4*SDI loop out
VW-HD4I-4K-A	RJ45+phoenix terminal	4*HDBaeT	4	HDBaseT	4096*2160@60Hz	-	4*two-way RS232, 4*two-way IR
VW-HM4I-A	HDMI+3.5mm audio	4*HDMI	4	HDMI1.3	1920*1200@60Hz	8	-
VW-HD4I-A	RJ45+phoenix terminal	4*HDBaeT	4	HDBaseT	1920*1200@60Hz	-	4*two-way RS232, 4*two-way IR
VW-IP2I-A	RJ45	2*IP	2	IP	1920x1080@60Hz	-	Decoding Performance Reference ★ Annotation — Basic Function Page —
VW-SDI4I-A	SDI	4*SDI	4	SDI	1920*1080@60Hz	-	4*SDI loop out
VW-DV4I-A	DVI+3.5mm audio	4*DVI	4	DVI	1920*1200@60Hz	4	-
VW-SF4I-KVM-A	Optical fiber module slot	4*optical fiber	4	Fiber	1920*1200@60Hz	-	-

Video wall output interface (4K card input layer halving)

Model	Port type	Card	Port No.	Signal type	Maximum resolution	Number of audio interface	Number of Windows for one port
VP-HM4O-A	HDMI+3.5mm audio	4*HDMI	4	HDMI1.3	1920*1200@60Hz	4	4
VP-HM2O-4K60-A	HDMI+3.5mm audio	2*HDMI	2	HDMI2.0	4096*2160@60Hz	2	8
VP-HM4O-4K60-A	HDMI+3.5mm audio	4*HDMI	4	HDMI2.0	4096*2160@60Hz	4	4

Seamless 4K@60 output interface

Model	Port type	Card	Port No.	Signal type	Maximum resolution	Number of audio interface	Number of Windows for one port
VW-HM4O-4K-A	HDMI+3.5mm audio	4*HDMI	4	HDMI2.0	4096*2160@60Hz	4	-

Seamless 2K output interface

Model	Port type	Card	Port No.	Signal type	Maximum resolution	Number of audio interface	Other interface
VW-HM4O-A	HDMI+3.5mm audio	4*HDMI	4	HDMI1.3	1920*1200@60Hz	4	-
VW-SDI4O-A	SDI	4*SDI	4	SDI	1920*1080@60Hz	-	4*SDI loop out
VW-HD4O-A	RJ45+phoenix terminal	4*HDBaeT	4	HDBaseT	1920*1200@60Hz	-	4*two-way RS232, 4*two-way IR
VW-DV4O-A	DVI+3.5mm audio	4*DVI	4	DVI	1920*1200@60Hz	4	-
VW-SF4O-KVM-A	Optical fiber module slot	4*optical fiber	4	Fiber	1920*1200@60Hz	-	-
VW-STM4-A	RJ45	1*IP	1	IP	1920*1080@30Hz	-	-

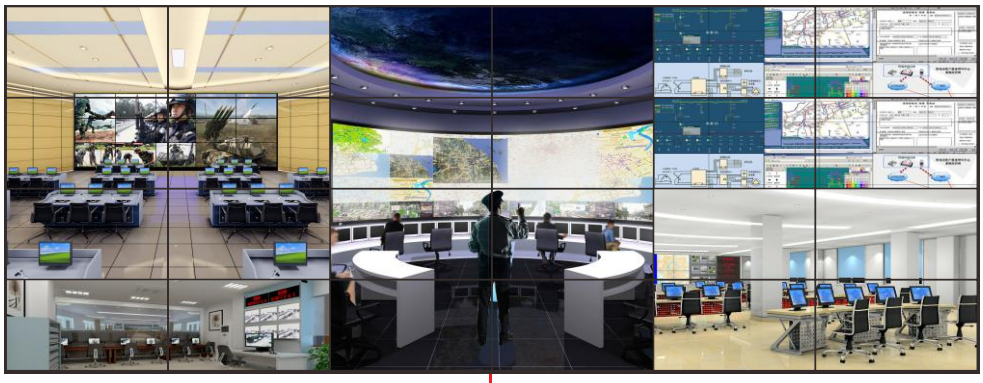
Full preview

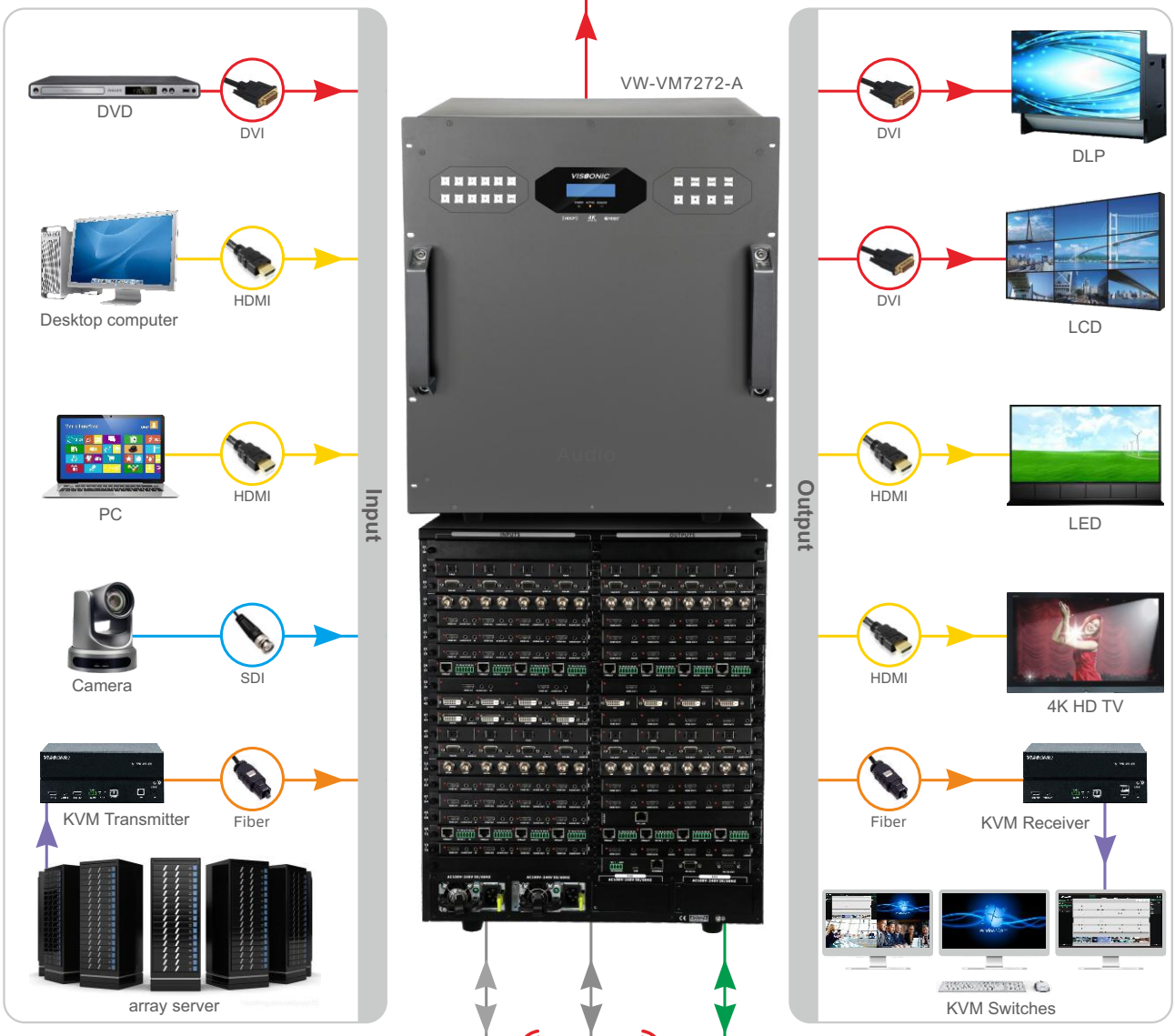
Model	Port type	Card	Port No.	Signal type	Maximum resolution	Number of audio interface	Number of Windows for one port
VW-PVHM-A	HDMI+3.5MM audio	4*HDMI hard echo	4	HDMI	1920*1080@60Hz	-	-
VW-PVW-A	RJ45	1*IP preview	1	IP	1920*1080@30Hz	-	-
VW-PVW-H-A	RJ45+HDMI	IP preview / HDMI echo	2	HDMI2.0	3840*2160@60Hz	-	-

Optional

Model	Description
VIS-MKB100	4 inch touch screen embedded remote control panel
VIS-RPWR-S	Built-in backup power supply (optional for 08/16 chassis)
VIS-RPWR	PSU backup power supply (optional for 36/72 chassis)
VIS-X9SOFT	professional matrix splicing WINDOWS control software
VIS-CON ENT5-A	Integrated Advanced Video Preview Control Card
VIS-CON ENT5-B	Visual preview advanced control card (no preview card required)

System Diagram





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