iSEMC

VK-W Series

Video Wall Controller

Powerful Video and Image Processing Device

Beijing Lema Technology Co., Ltd
www.isemc.com

VK-W

VK-W Series video wall controller is new generation professional video image processing product which is based on the development of multi-windows, ultra-high definition and visual display control technology. Compare to other video wall controller in the market, VK-W series has upgraded its system capacity and use 10G base exchange processing chip, so that there is a significant advantage on the processing speed and professional display control. Meanwhile, VK-W series controller supports multiple services, density of I/O interfaces and long term reliability. It is an all-in-one product which has 4K@30Hz input and output processing, web based control, IP-Video Decoding, Monitoring control, Scene preset, Log management, User management and other advanced applications to meet a variety of professional system application requirements.

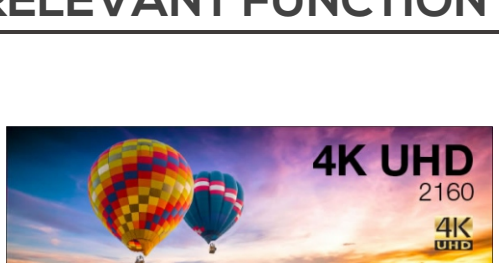
VK-W Series

Video Wall Controller

FEATURES

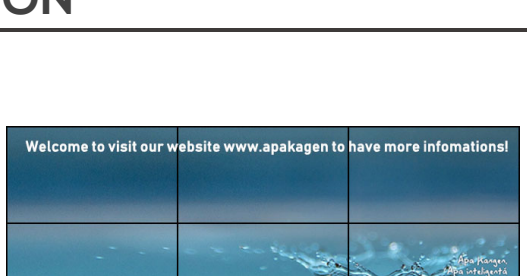
- Pure-hardware FPGA Array, modular design, parallel video processing hardware systems;
- Hot-swappable for I/O modules, control modules, redundant power supply, easy to upgrade and maintenance;
- VGA, DVI, HDMI,CVBS, DP, SDI, HDbaseT, IP-Video, Fiber input sources and VGA, DVI, HDMI, SDI, CVBS, HDbaseT, Fiber output; 4K@30Hz DP/ HDMI input and output;
- HDCP2.0 for HDMI input and output;
- Opening 4 windows on each one screen;
- Up to 4 video wall groups control on single controller and work with variety of display terminals such as LCD, LED, DLP, projector;
- Scene management, including save, switch, recall, recycle;
- Input source previewing and video wall content monitoring;
- Variety of control methods such as RS232, Network and compatible with third party control system;
- Multi-user control management, software can be set through the operation authority, according to the authority level to develop different operating functions, different levels, different operating privileges, and can be set at any output authority range;
- B/S and C/S dual mode visualization control platform, support roaming, overlay, zoom in/out, multi-window switching;
- Scrolling text to show news, notifications, or slogan;
- Dual-control card back up, keep running the current scenario even both breaking down or swapped out;
- Picture-in-picture, signal clip and a variety of display modes such as split screen, full screen and combination screen;
- Suport PC and Web control;
- EDID, customize the output resolution according to the physical resolution of the display system;
- Advanced image decoding technology, compatible with a number of manufacturers' IPC signal and seamless access with variety resolutions such as 1080P, 720P, etc.

RELEVANT FUNCTION INDICATION

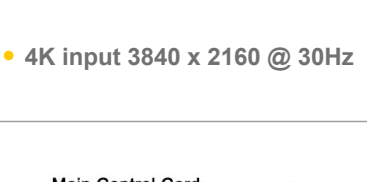


INPUT

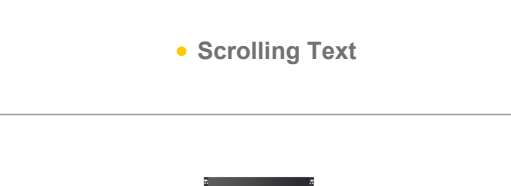
- 4K input 3840 x 2160 @ 30Hz



- Scrolling Text

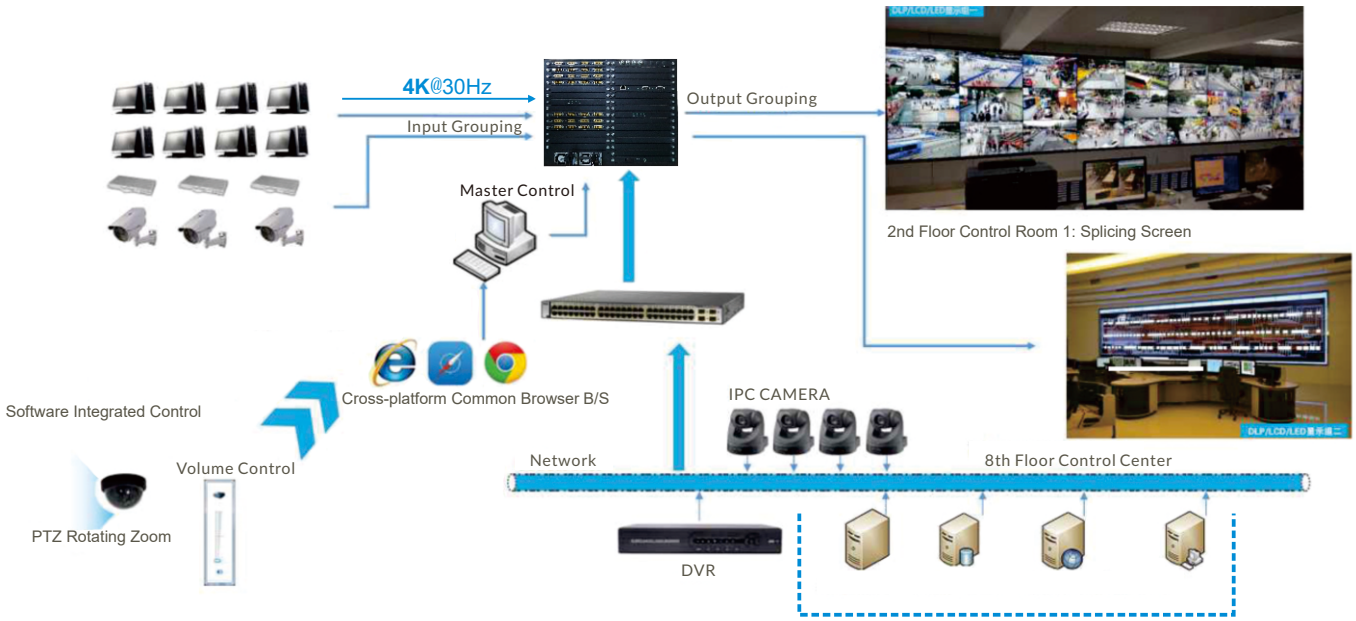


- Two Control Cards Back Up



- Multi-group Control

DIAGRAM

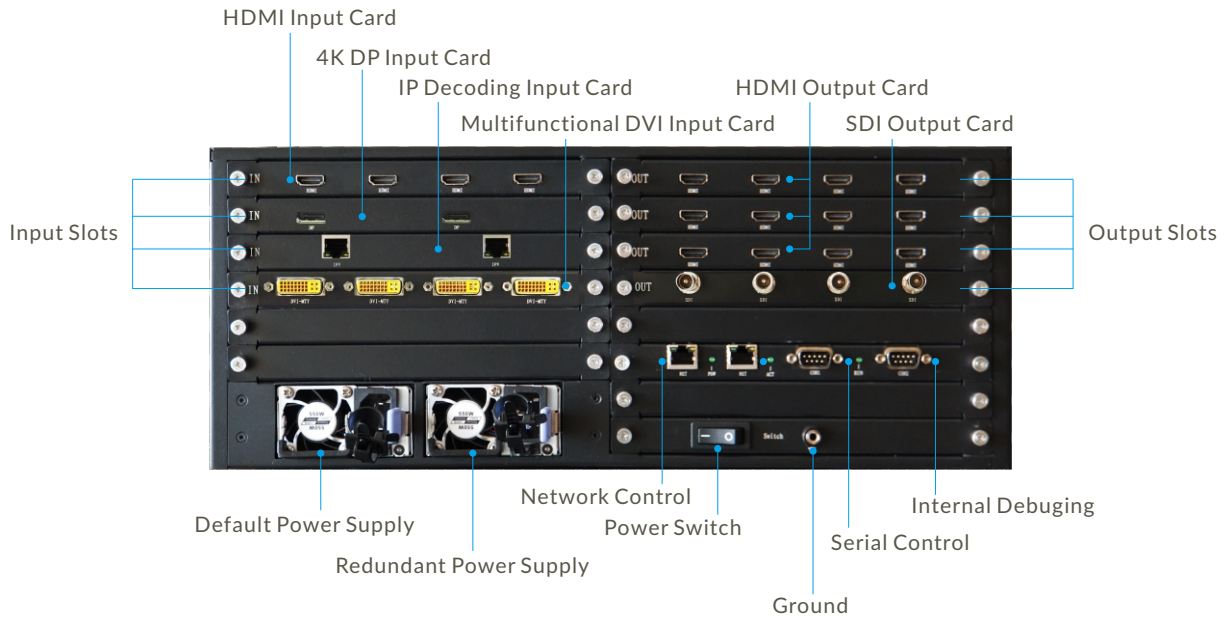


Input:VGA/DVI/HDMI/SDI/CVBS/Duallink-DVI/IP-Video/DP/HDBaseT/Fiber

Control:serial,network,third-party control system etc.

Output:DVI/HDMI/VGA/SDI/4K HDMI/HDBaseT/Fiber;

PRODUCT STRUCTURE



INPUT CARDS


Quad-Channel DVI Input Card


Quad-Channel VGA Input Card


Quad-Channel HDMI Input Card


Quad-Channel DP Input Card


Quad-Channel SDI Input Card


Quad-Channel CVBS Input Card


Dual-Channel 4K DP Input Card


Dual-Link DVI Input Card


Dual-Channel 4K HDMI Input Card


Quad-Channel HDBaseT Input Card


Dual-Channel IP H.264 Input Card


Dual-Channel IP H.265 Input Card

OUTPUT CARDS


Quad-Channel DVI Output Card


Quad-Channel VGA Output Card


Quad-Channel HDMI Output Card


Quad-Channel SDI Output Card


Quad-Channel LED HDMI Output Card


Quad-Channel HDBaseT Output Card

CONTROL CARD


Control Card

REDUNDANT PSU

SPECIFICATIONS

Device size	3U		4U		6U		8U		14U		26U	
	Input	Output	Input	Output	Input	Output	Input	Output	Input	Output	Input	Output
Slots	6	2	8	3	14	5	15	10	21	18	42	36
Redundant PSU	1		1+1		1+1		1+1		1+3		1+3	

Product hardware information	System structure	Pure hardware FPGA architecture
	Start up	<25s
	Operating system	No CPU and operating system
	Board type	Pure hardware pluggable, hot-swappable structure
Input/Output Signal	Input type	VGA,DVI,HDMI,DP,CVBS,SDI,HDBaseT,IP-Video,Fiber
	Input channel	1080P up to 168 channels, 4K up to 84 channels
	Output type	VGA,DVI,HDMI,CVBS,SDI,HDBaseT,Fiber
	Output channel	1080P up to 144 channels, 4K up to 72 channel
Image processing	Display mode	Roaming, overlay, zoom in/out, multi-windowing, scene switch, PIP, full screen and combination screen
	Scene/Signal switching time	Millisecond-level switching
	Number of signal copy	Up to 16
	Max input	3840*2160@30Hz
	Output resolution	1920*1200@30Hz
	Single-screen window	4 windows on one screen
	Hot-swappable	Support
	Power supply configuration	N+1 redundant power supply structure
	Signal preview	Support
	KVM	Not Support
Control function	Control structure	Software /Hardware
	Maximum scenes	255
	Control method	RS232/Network and compatible with third party control system
	Management mode	B/S, C/S
	Matrix control	Supports digital /analog matrix linkage control
Stability	Safety	Hardware structure, no virus interference
	MTBF	50000h
	Continuity	365 days, 7x24 hours operation
Working environment	Operating temperature	-15~60℃
	Storage temperature	-30~75℃
	Operating humidity	10 to 90% without condensation
	Storage humidity	5~95% without condensation

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