GV Series
Video Wall Controller
Powerful Video and Image Processing Device

GV Series Video Wall Controller

GV Series video wall controller is new generation professional 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, GV series has upgraded its system capacity and use 6.25G base exchange processing chip, so that there is a significant advantage on the processing speed and professional display control. Meanwhile, GV series controller supports multiple services, density of I/O interfaces and long term reliability. It is an all-in-one product which has real 4K@60Hz input and output processing, soft KVM, IP-Video Decoding, Monitoring control, Scene preset, Log management, User management and other advanced applications to meet a variety of professional system application requirements.
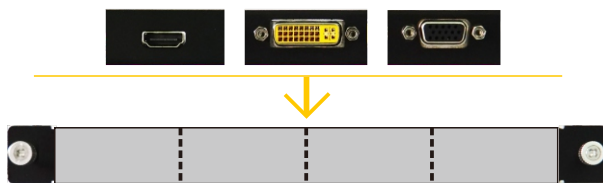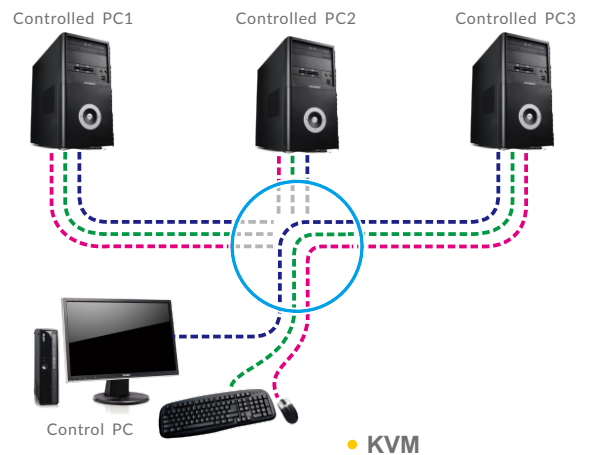

GV Series

Video Wall Controller

FEATURES

- Pure-hardware FPGA Array, modular design, 6.25G/s base exchange processing speed;
- 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@Hz DP/HDMI input and 4K@30Hz HDMI output;
- HDCP2.0 for HDMI input and output;
- Opening at least 8 windows on each two screens;
- Up to 5 video wall groups control on single controller and work with variety of display terminals such as LCD, LED, DLP, projector;
- Scene management, up to setup and display 255 scenes;
- Integrated with hybird matrix function, output windows switching, friendly to system integrator;
- Input source previewing and monitoring(refresh rate 24-30Hz);
- Variety of control methods such as RS232, Network, Keypad 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;
- VGA/DVI/HDMI mixture on single input card and VGA/DVI/HDMI mixture on single output card;
- B/S and C/S dual mode visualization control platform, support roaming, overlay, zoom in/out, multi-window switching, picture-in-picture, signal clip and a variety of display modes such as split screen, full screen and combination screen;
- Mobile visual management applications, support iPad, Surface;
- Soft KVM function, control input PC by control software;
- 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.
- Hard KVM，Control up to 16 input signal sources through KVM card, achieves the true meaning of hardware KVM, uses a set of mouse keyboard to control multiple PCs, and the delay is almost 0.
- Built-in server, Can realize multi-user, synchronous control, WEB control, preview and echo functions.
- Central control system, including 8 RS232 and IR channels, can control many devices through GV (such as matrix, lighting, curtain, TV, DVD, etc.)

RELEVANT FUNCTION INDICATION
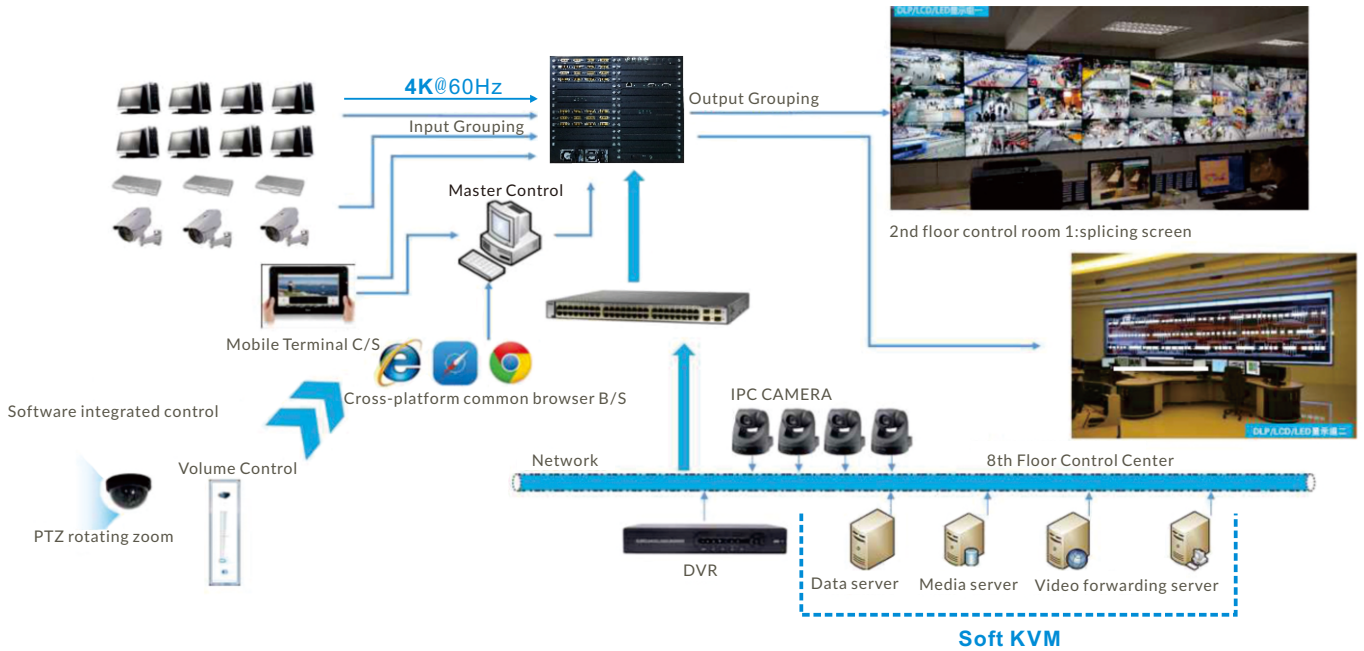

• **Real 4K input 3840 x 2160 @ 60Hz**

• **KVM**

• **VGA**/**DVI**/**HDMI**/ **mixture**

• **Matrix Funtion**

◣ DIAGRAM

4K@60Hz

Input Grouping

Output Grouping

Master Control

Mobile Terminal C/S

Software integrated control

Cross-platform common browser B/S

IPC CAMERA

Volume Control

Network

8th Floor Control Center

PTZ rotating zoom

DVR

Data server   Media server   Video forwarding server

Soft KVM

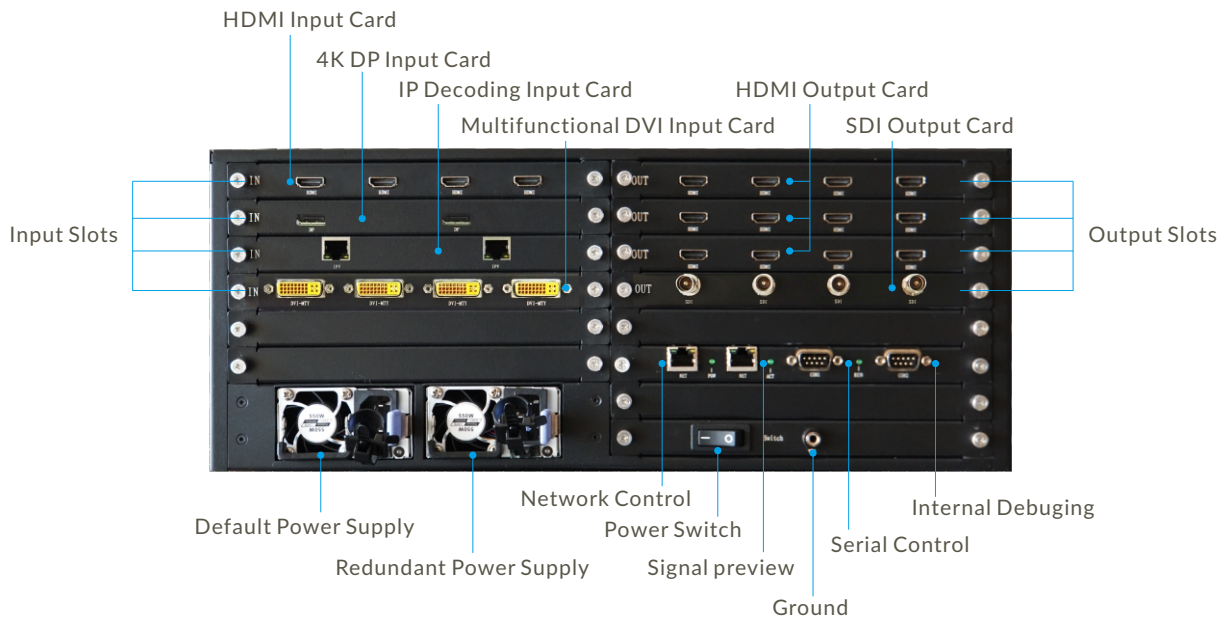2nd floor control room 1:splicing screen

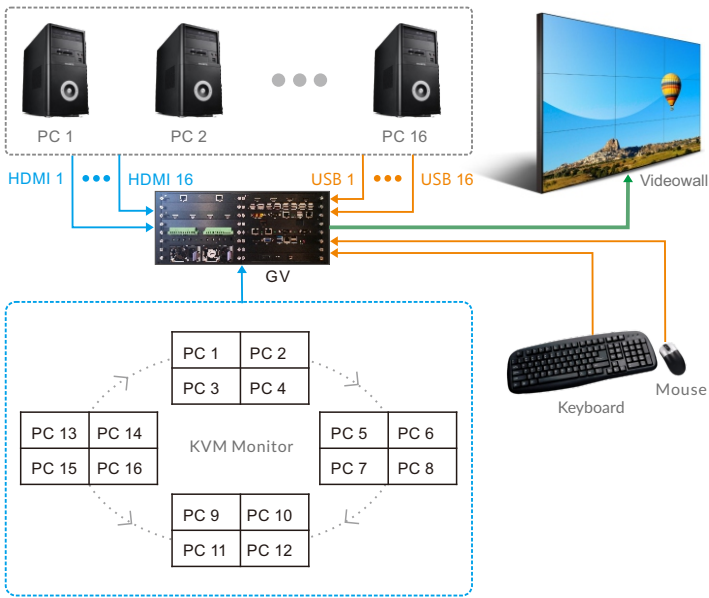Input:VGA/DVI/HDMI/SDI/CVBS/Duallink-DVI/IP-Video/DP/HDBaseT/Fiber

Control:serial,network,third-party control system,ipad etc.
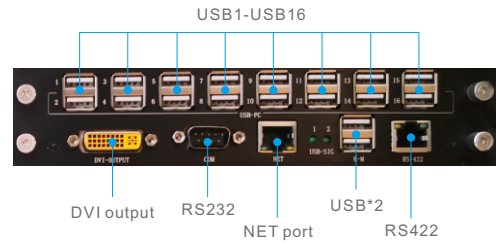
Output:DVI/HDMI/VGA/SDI/4K HDMI/HDBaseT/Fiber;

◣ PRODUCT STRUCTURE

HDMI Input Card

4K DP Input Card

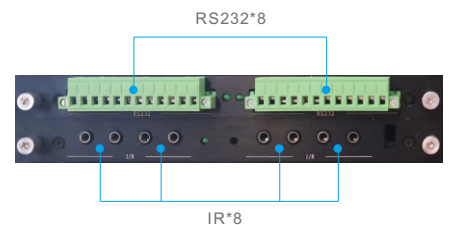IP Decoding Input Card

Multifunctional DVI Input Card

HDMI Output Card

SDI Output Card

Input Slots

Output Slots

Default Power Supply

Redundant Power Supply

Network Control

Power Switch

Signal preview

Ground

Serial Control

Internal Debuging

DIAGRAM

Hard KVM

PC 1   PC 2   •••   PC 16

HDMI 1 ••• HDMI 16   USB 1 ••• USB 16

Videowall

GV

Keyboard   Mouse

PC 1	PC 2
PC 3	PC 4

| PC 13 | PC 14 | KVM Monitor | PC 5 | PC 6 |
| PC 15 | PC 16 | | PC 7 | PC 8 |

| PC 9 | PC 10 |
| PC 11 | PC 12 |

USB1-USB16

DVI output   RS232   NET port   USB*2   RS422

Built-in Server

Camera   PC   DVD

Videowall

GV

Cluster Gateway

Markview Control

WIFI

Ipad Control   PC Control

WEB Control

VGA output   Audio   USB

HDMI output   USB   NET port

Central Control

Control PC

Control PC

Control PC

Cluster Gateway

Videowall

WIFI

GV

RS232*8   IR*8

Ipad Control   PC Control

HD Matrix   Curtain   Lighting

TV   DVD

RS232*8

IR*8

INPUT CARDS

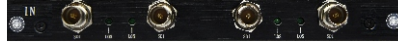Quad-Channel DVI Input Card

Quad-Channel VGA Input Card

Quad-Channel HDMI Input Card

Quad-Channel DP Input Card

Quad-Channel SDI Input Card

8-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

Quad-Channel Fiber Input Card

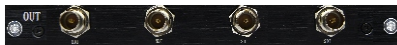Dual-Channel IP Input Card

OUTPUT CARDS

Quad-Channel DVI Output Card

Quad-Channel VGA Output Card

Quad-Channel HDMI Output Card

Quad-Channel SDI Output Card

Quad-Channel CVBS Output Card
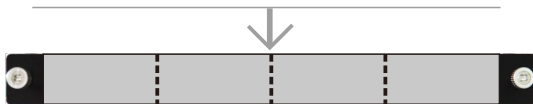
Quad-Channel HDBaseT Output Card

Quad-Channel Fiber Output Card
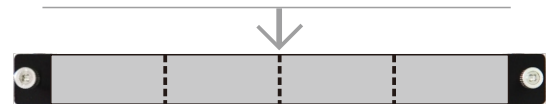
Dual-Channel 4K HDMI Output Card

MIXTURE CARDS

HDMI   DVI   VGA

HDMI   DVI   VGA

Quad-Channel Mixture input Card

Quad-Channel Mixture Output Card

CONTROL CARDS

Control Card A

Control Card B
(With Signal Preview)

REDUNDANT PSU

SPECIFICATIONS

Device size	4U		8U		16U		16UA		16UB		24U		32U(Double)	
	Input	Output	Input	Output	Input	Output	Input	Output	Input	Output	Input	Output	Input	Output
Slots	4	4	9	8	20	20	29	15	15	29	40	40	80	80
Redundant PSU	1+1		1+1		2+2		2+2		2+2		2+2		8+8	

Product hardware information	System structure	Pure hardware FPGA architecture
	Start up	<15s
	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 320 channel,4K up to 80 channel
	Output type	VGA,DVI,HDMI,CVBS,SDI,HDBaseT,Fiber
	Output channel	1080P up to 320 channel,4K up to 80 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@60Hz
	Output resolution	3840*2160@30Hz
	Single-screen window	At least 8 windows on each two screens
	Hot-swappable	Support
	Power supply configuration	N+1 redundant power supply structure
	Signal preview	Support
	Soft/Hard KVM	Support
Control function	Control structure	Software /Hardware
	Maximum scenes	255
	Control method	RS232/Network/Touch screen/Keypad and compatible with third party control system
	Management mode	B/S, C/S, Mobile
	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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