MIG-CL9600 series
Video Wall Controller

MIG-CL9600 series is the latest pure hardware video wall controller from Magnimage. With a high-performance scaling engine, it is able to build up screens of multi-layers and pixel to pixel seamless mosaic. Based on advanced FPGA array and high speed digital bus-matrix, its RGB 24bit/60Hz processing capacity will perfectly output any video or image at very low latency. It is designed for security monitoring, administrative management, military command, exhibition, research & education office, and multimedia conference.

On the input part, you can customize the machine with different input options from DVI, HDMI, SDI, DP, and IP camera. It supports 4K×2K / 60Hz input and EDID management.

On the output part, it supports customized output resolution, up to 12 layers per output channel, layer roaming, mosaic of different screen pixel pitch, background saving. These functions make MIG-CL9600 a great solution for big fixed installation of LCD/DLP/LED/projector mosaic.

Features

- Pure FPGA hardware build-ups
- 12 independent layers per output
- Over 8 times scaling
- Splice LED wall of different pixel pitch
- Internal 24 bit RGB processing
- 60Hz real time processing
- Input EDID management
- Support HDCP1.4&2.2
- 4K×2K/60Hz input
- Real time seamless switching
- Layer grouping
- Support SDI output

- 9 window per channel
- Random adjustment for the window's size and position
- Full screen roaming
- Customized output resolution
- Input/output monitoring
- Capture 4 background picture
- Dual Power supply backup
- Operation's real time monitoring
- Real time IP monitoring
- Projector edge blending splicing
- Fade effect among layers
- Caption and label

Video wall controller introduction

LCD screen

Mainly used for displaying the machine status information, including input/output cards' specification, firmware version, temperature, network setting etc.

Menu button

OK button, ⤺ return button, and knob. Browse the menu system with the coordination of LCD screen.

Function button

Button 1~10, used for inputting the equipment configuration information, such as IP address and Subnet mask of network setting, etc. and manual switching for presets.
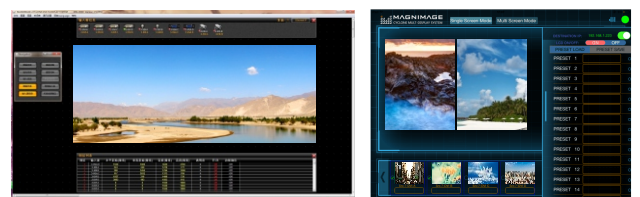

1	SDI outputs	**2**	DVI output	**3**	4 DVI inputs	**4**	4 VGA inputs
5	4 HDMI inputs	**6**	HDMI2.0、DP1.2 input	**7**	DP 1.1 input	**8**	4 SDI input
9	IP monitoring	**10**	Network control port	**11**	USB upgrade port	**12**	RS232 control port
13	Frame lock input/output	**14**	Power button	**15**	Dual power backup		

Control pattern and control interface

Control modes

3 ways to control: computer host control , iPad software control, button control;

Computer host control: connect the controller with a computer via lan cable or RS232 cable, All operation will be done through the host coftware;

iPad control: install software to iPad, control the controller via software;

Button control: manually select and load the templates.

Operating Interface

Computer host interface

iPad control interface

Large resolution LED screen splicing

Large resolution LED Wall mosaic will be realized with corresponding sending cards and the machine's output customization.
One MIG-CL9604 machine supports maximum 24 screens mosaic without frame missing or image tearing. It supports maximum 4K×2K/60Hz of DP or HDMI input source for large resolution pixel-to-pixel display.

LED screen

DVI

VGA

SDI

HDMI

IP camera

AV

Input/output monitoring

control

IP monitoring

Router

Host control

4K×2K/60Hz Input

You can select the input cards according to your project demands.
2K input cards include DVI, HDMI, VGA, SDI, VGA+SDI(mixed module). 4K input cards include DP/HDMI(mixed module) and DP(2 ports).

3840px×2160px

Each port 4K× 2K/60Hz

⬛ IP monitoring

By connecting the network control port, the IP monitor and the host computer into one local area network, you monitoring all the input and output status on the software.

LED screen

Control

IP monitoring

Router

Input sources

Host control

⬛ 12 Independent layers output per channel

Each DVI output channel is able to display 12 independent layers and one high definition background picture. The position, size and order of each layer can be set freely. Input source of any layer can also be set freely with the machine's inner video matrix function.

Background

layer 1
layer 2
layer 3
layer 4
layer 5
layer 6

layer 7
layer 8
layer 9
layer 10
layer 11
layer 12

LED screen

Host control

Input sources

▢ Caption & Label

You can set the caption's size, color, moving speed, background color without PC or USB memory disk. You can also insert a picture to serve as a label.
Label function allows you mark the layers by words to help memorizing and selecting the right layer.

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Conference room 1

Conference room 2

▢ Edge blending for projection

One MIG-CL9604 controller supports maximum 24 projectors edge blending; Size, position and other parameters of the blending area can be adjusted via edge blending function.

CYCLONE
Video Wall Controller

Host control

Input sources

MAGNIMAGE

Multiviewer Output

One multiviewer output allows monitoring up to 9 input sources. The window layout can be customized.

⬨ Technical specifications

Chassis specification

Chasis	4U	14U
Input channels	24	72
Output channels	24	72
Power voltage	110-240V	
Power frequency	50/60Hz	
Operation temperature	0~45℃	
Chasis N.W.(KG)	11.0	41.0
Overall power consumption(W)	650	1900
Dimension(mm)	482.6×371×177	482.6×570×645

Input card

Input card type	Port type	Port quantity	Resolution
VGA	RGBHV	4	1920×1080/60Hz
DVI	DVI-D	4	1920×1080/60Hz& EDID management
HDMI	HDMI1.3	4	1920×1080/60Hz
2SDI+2VGA	3G SDI,RGBHV	2 + 2	1920×1080/60Hz
SDI	3G SDI	4	1080i/60Hz,1080P/60Hz
DP	DP1.1	2	3840×2160/30Hz
IP	H.264	2	1920×1080/60Hz
HDMI(4K)+DP(4K)	HDMI2.0, DP1.2	1 + 1	3840×2160/60Hz & EDID management
2SDI+2DVI	3G SDI,DVI-D	2 + 2	1920×1080/60Hz

Output card

Output card type	Port type	Port quantity	Resolution
DVI	DVI-D(4 layers)	4	1920×1080/60Hz,2560×816/60Hz,1440×1440/60Hz & EDID management
DVI	DVI-D(6 layers)	4	1920×1080/60Hz,2560×816/60Hz,1440×1440/60Hz & EDID management
DVI	DVI-D(Preview output)	2	1920×1080/60Hz (Horizontally 9 windows)
SDI	3G SDI(4 layers)	4	1080i/60Hz,1080P/60Hz
IP	H.264	1	IP Monitoring

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