MAGNIMAGE

MIG-V16 Pro

Video Switcher

The MIG-V16 Pro is the latest high-performance 4K video switcher launched by Magnimage. It is based on a hardware architecture that uses a large-capacity high-speed FPGA and a high-speed digital bus matrix.It is equipped with an advanced scaling engine that enables seamless multi-screen output stitching, delivering images that are sharp, vivid in color, rich in detail, and fluid in motion, all without latency. The device employs a hybrid matrix input system, ensuring full 4K input and output capabilities, and supports real-time preview monitoring of both input and output images. The switcher boasts a suite of layer processing capabilities, including support for layer color key, borders, shadows, feathering, and mirroring effects.

Cooperate with MIG-H9/H9 Mini event controller, it can realize fade switch among multi-layers and multi-scenes, widely applied in the auto shows, commercial meetings, product launches and stage performances etc.

Product Features

- 16*4K main output, 4*4K AUX output
- 1*multi-window preview, the preview interface supports customization, 1* HDMI console monitoring , 1 network IP monitoring
- Each output board resolution can be customized independently,with a maximum resolution of horizontal 7680 and vertical 3500
- Support 10G OPT output, can be used with the Magnimage control system
- Maximum support for 16*4K×2K/60Hz inputs
- Each output board supports 12*4K layers, layer roaming within output boards, whole machine supports 48*4K layers
- Input signal supports EDID management
- Support image CROP, layer ZOOM function
- Support layer feathering, borders, shadows, and mirror functions
- Support color key , single output board supports 4 color key layers
- Support test pattern
- External synchronization, Multi-machine cascade
- Dual redundant power supply
- Support 8 pixel to pixel backgrounds
- 4K@60Hz RGB 4:4:4
- HDCP 1.4&2.2

Switcher Introduction

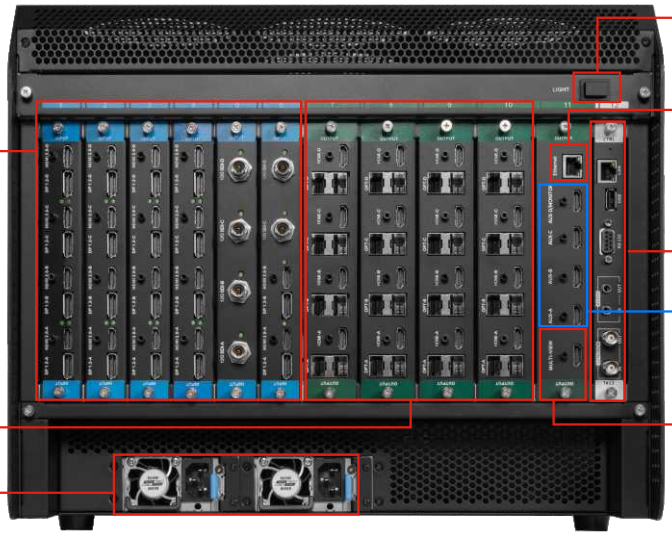
Menu Display

Show MIG-V16 Pro current operation status,able to check input information/electric status/firmware version,etc.

Power Switch

Menu Button

Including knob, OK, return button for menu selection and operation



Light Switch

IP Monitoring

Inputs

Control Board

4*AUX/1*HDMI Monitoring

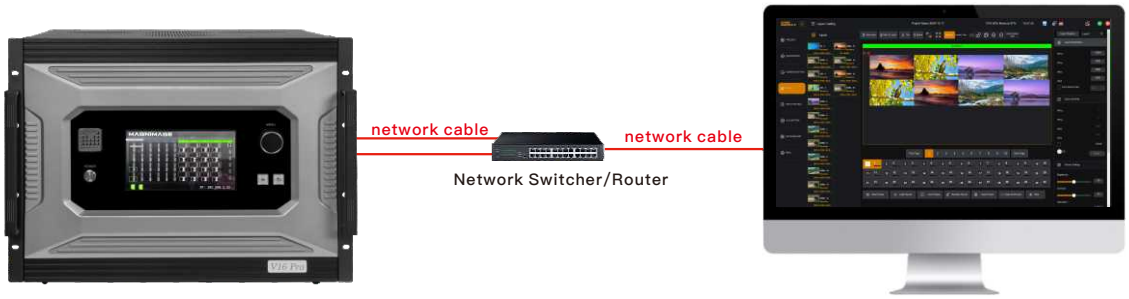
16*4K Program Outputs

Multi-preview

Dual redundant power supply

Software Control

MIG-V16 Pro video switcher can be controlled by software, easy and quick operation

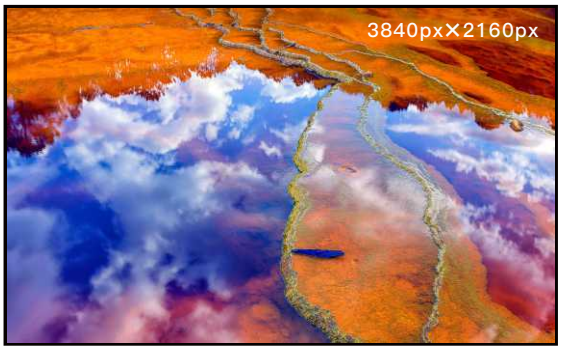


Various Inputs and Outputs

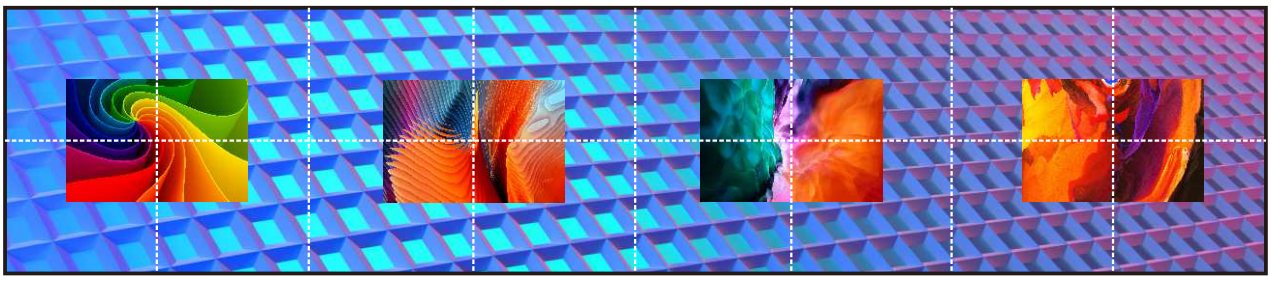
Inputs

Max. 6 input card slots, user can select input card freely;
4K input card: 4*DP/HDMI、2*DP/HDMI+2*12G SDI、4*12G SDI

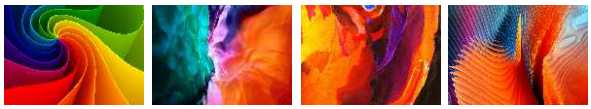
4K*2K@60Hz/8K*1K@60Hz



Outputs



16*Outputs: Customized for output resolution and splicing layout , supporting 48 layers on the main output.

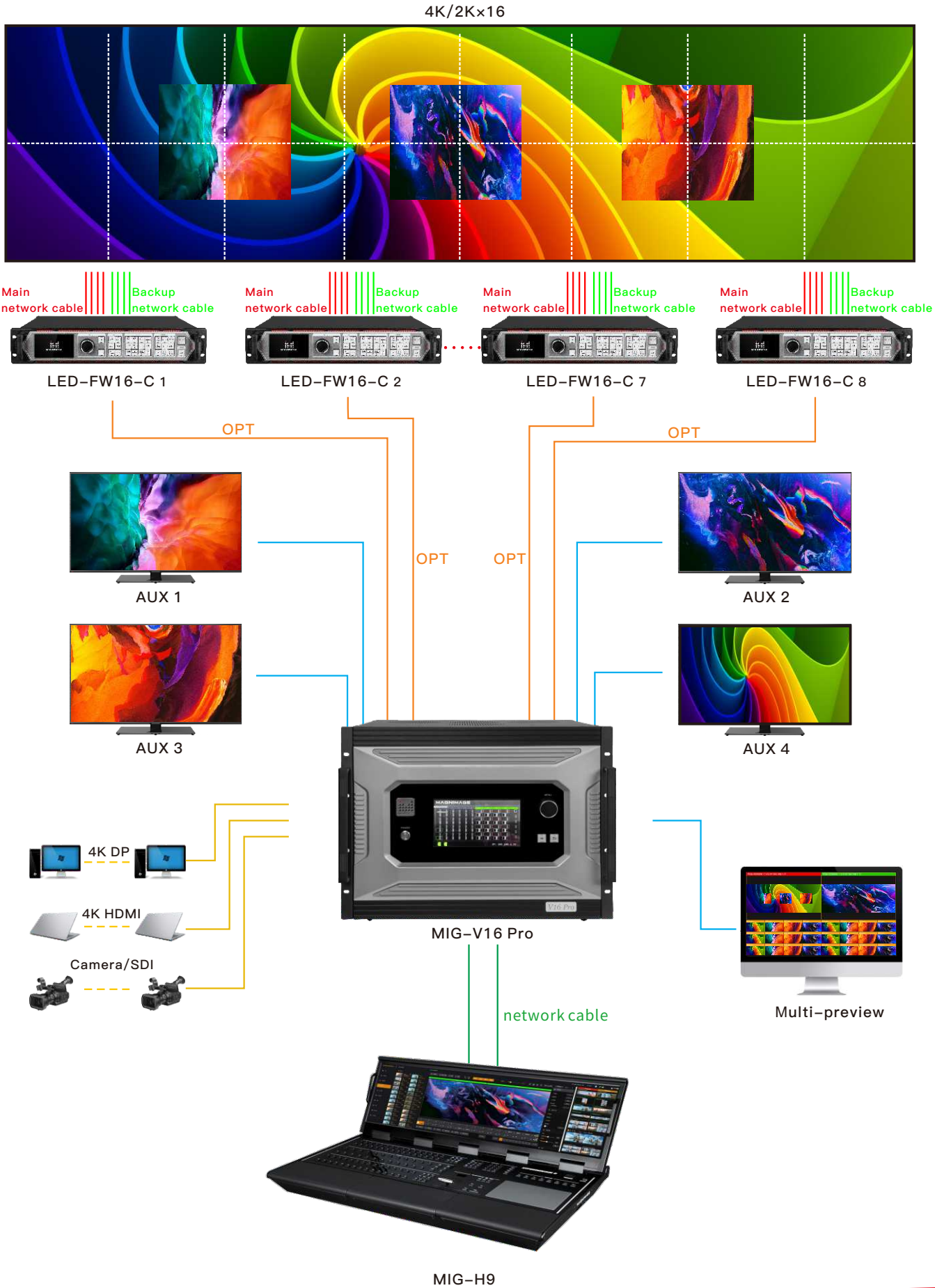


4*AUX Outputs: Select input or a screen for preview/output or preview/output for whole machine to the corresponding AUX output, supporting quick switching.

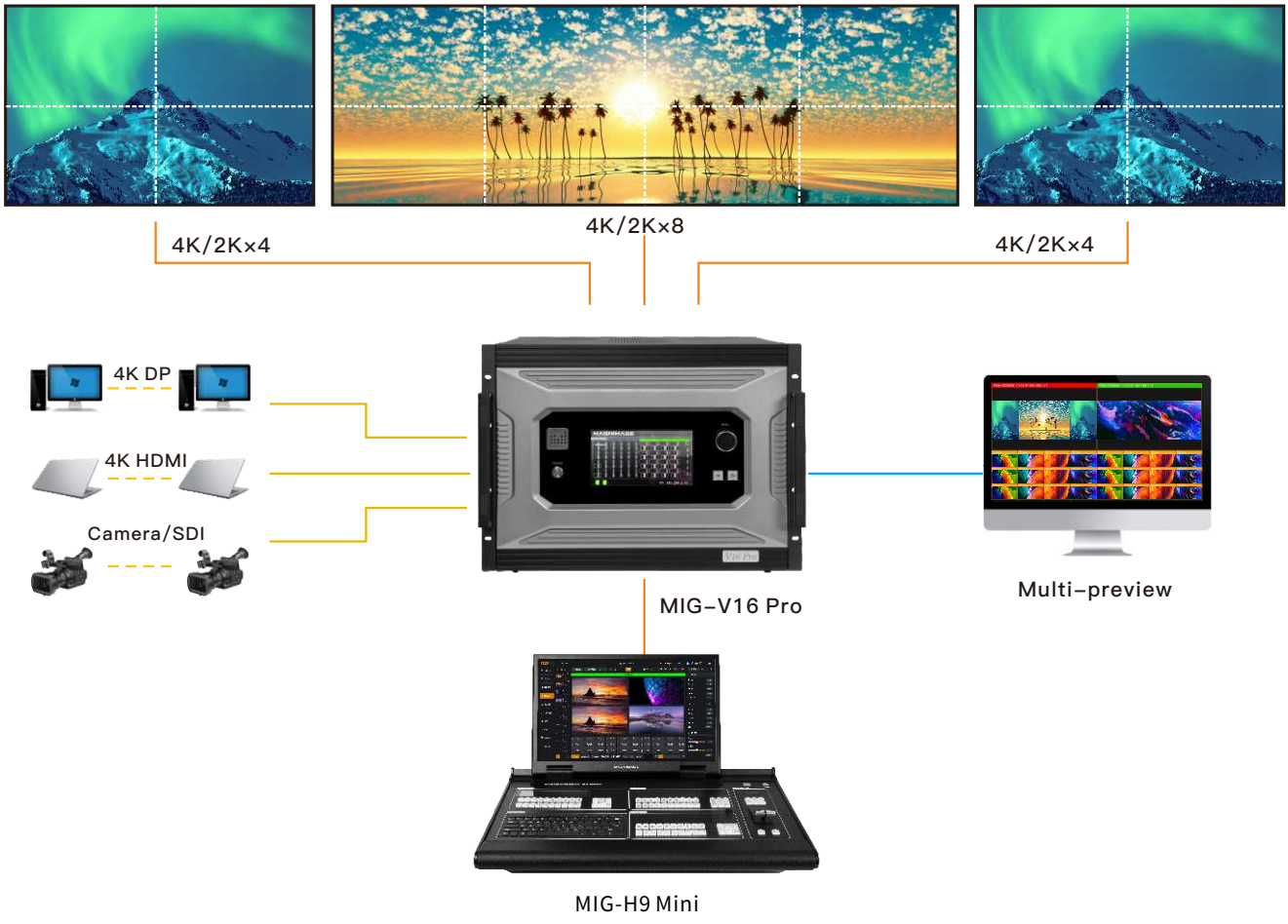
1*HDMI/IP monitoring output

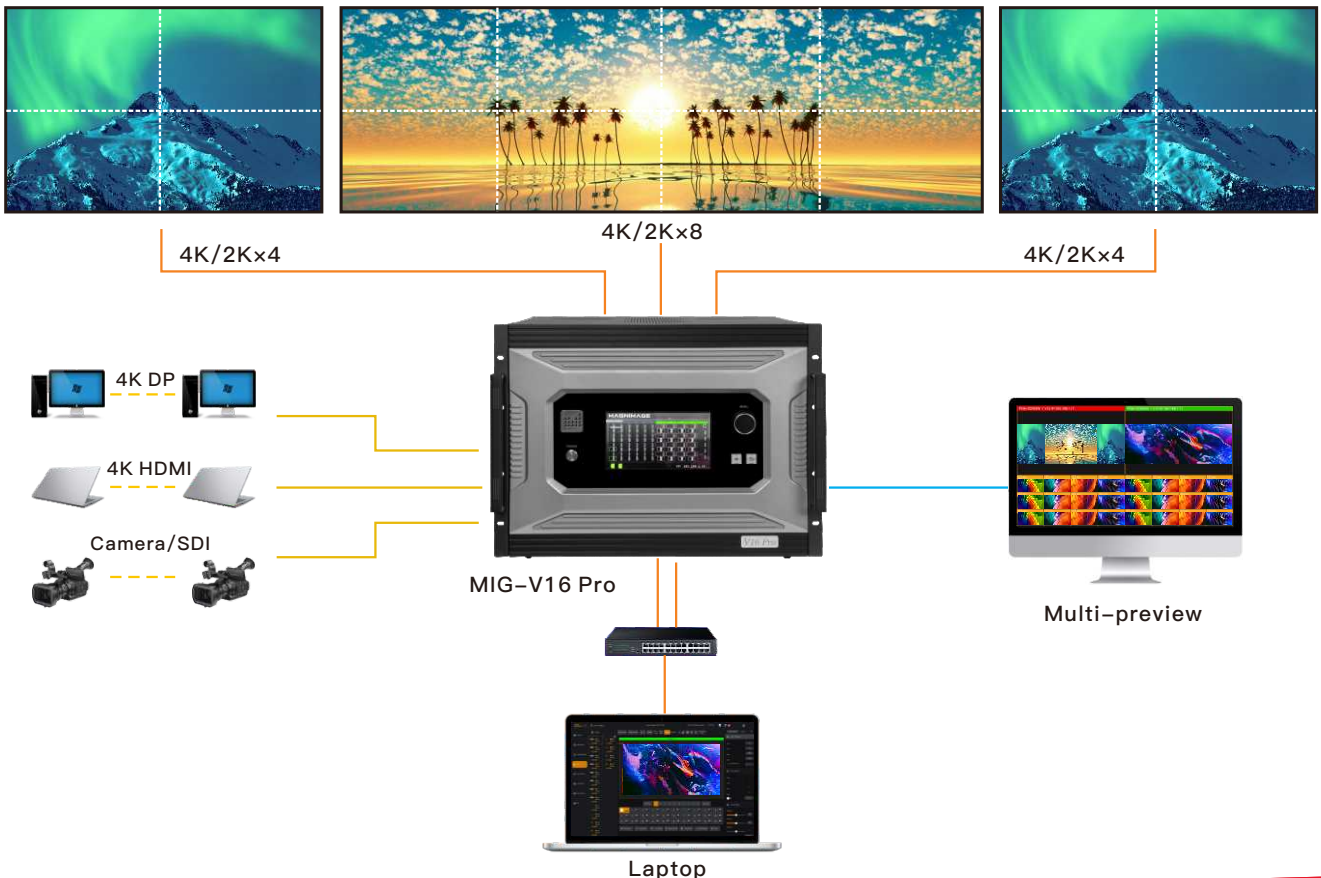
1*Multi-preview

Connection Diagram



Connection Diagram





Main Features and Applications

Multi-layer Display

Each output board of MIG-V16 Pro supports 12*4K layers . The layers can roam and overlay without restrictions, and the entire system supports 48*4K layers displayed simultaneously.

Color Key

The MIG-V16 Pro single output board supports 4 color key, for color key operations on text, images, green screens, and other materials.

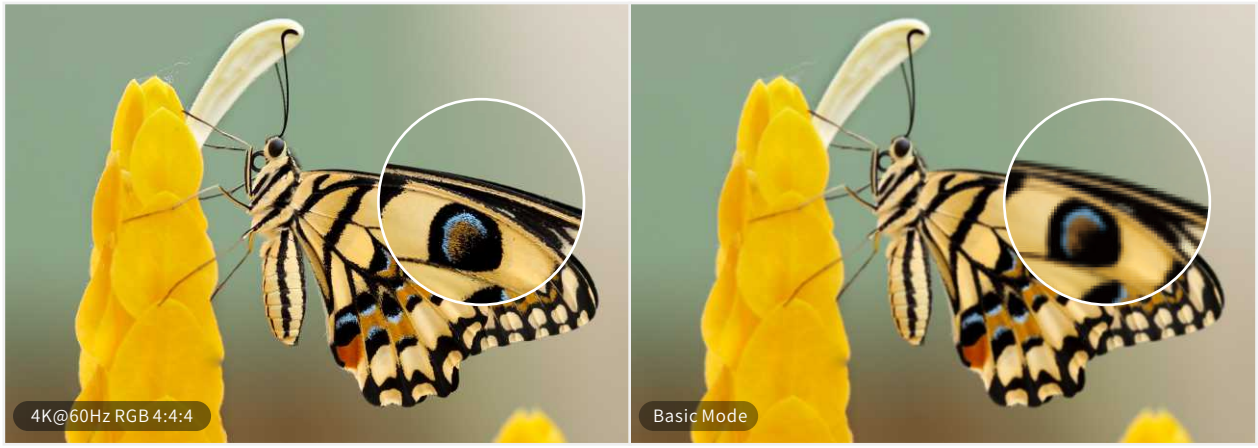
Main Features and Applications

Layer Effects

Layers support mirror, any layer can have custom line-style borders added, and shadow is supported for achieving a three-dimensional floating effect, while feathering effects for layers are also supported.

4K@60Hz RGB 4:4:4

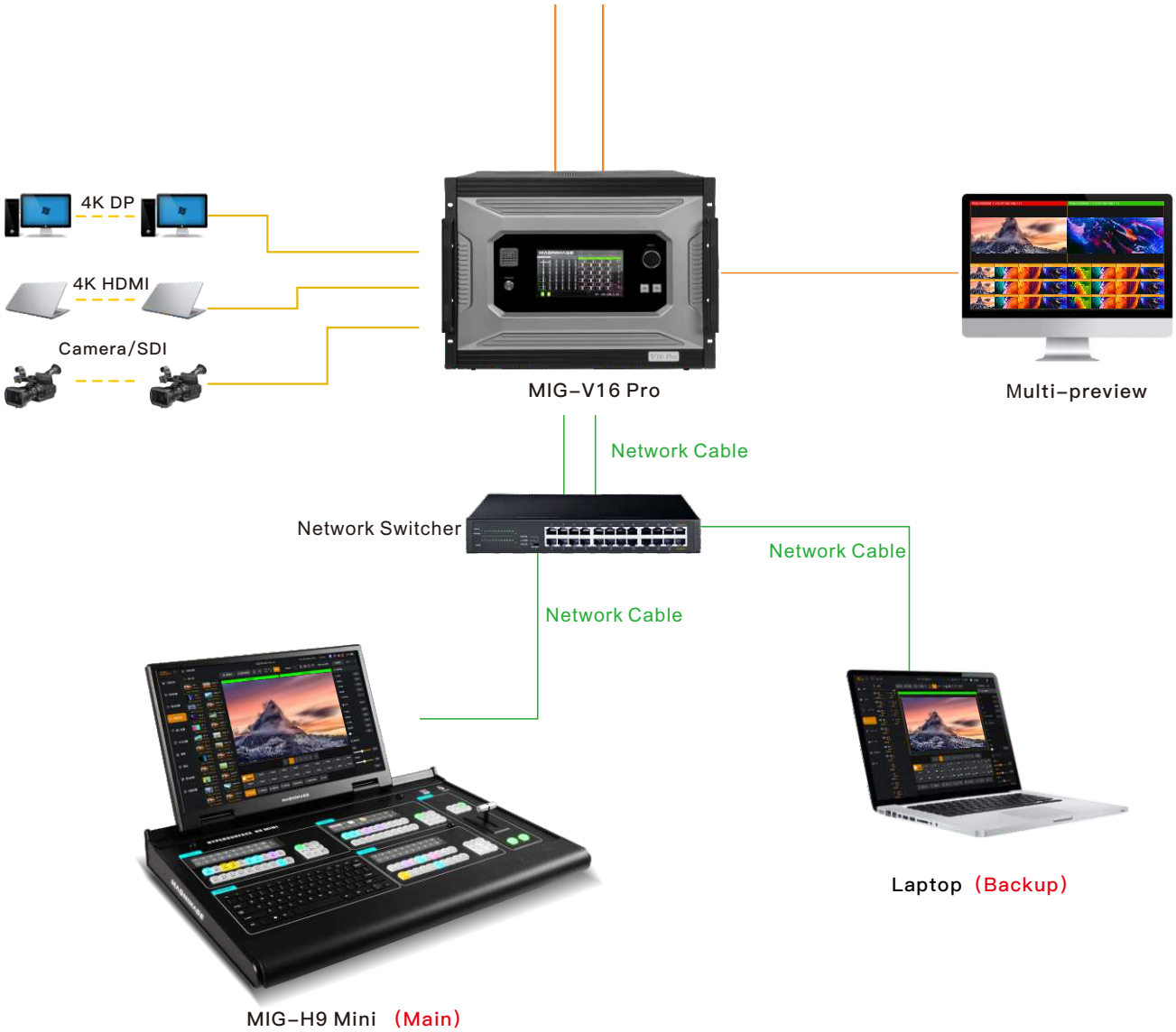
Both input and output, as well as internal processing, use RGB 4:4:4 , which can accurately restore the details of the source image. The image is clear and delicate, while the internal processing of the switcher handles all channels without frame drops or loss, resulting in smoother video playback and a complete presentation of image details.



Backup Control

MIG–V16 Pro supports multiple control terminals to operate simultaneously, and allows for the establishment of a backup relationship between two of the control terminals. The primary and backup control terminals can operate synchronously. In the event of a failure of the primary control terminal, the backup terminal can be used for operations, minimizing operational risks to the greatest extent.

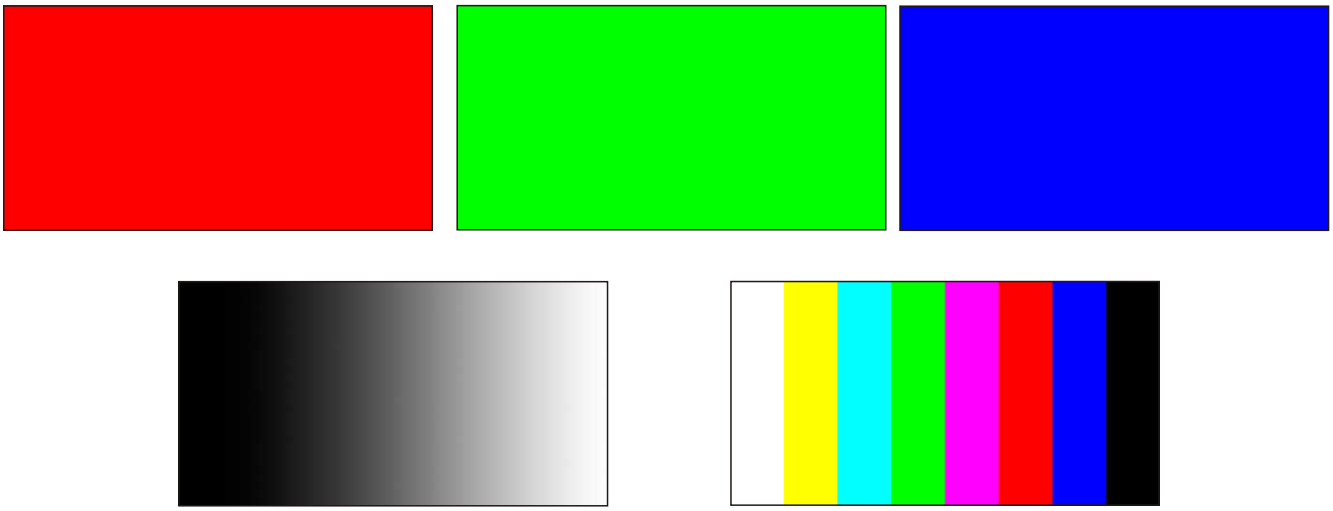
4K/2K×16



Main Features and Applications

Test Pattern

MIG–V12 Pro comes with various built–in test card key , supporting static, dynamic, and other test screen , making it convenient for users to test the LED screen in situations with no signal input or other circumstances.



Multi–machine Synchronous Control

A single MIG–H9 event controller can control up to 8*MIG–V16 Pro units simultaneously, allowing users to perform centralized control over multiple hosts, simplifying on–site processes and reducing the risk of errors.

Technical Parameters

Input parameter

Type	Port	Quantity	Resolution
4DP+4HDMI	DP1.2 /HDMI2.0	4/4	3840×2160/60Hz、7680×1080/60Hz and customized
2DP/2HDMI+2SDI	DP1.2 /HDMI2.0+12G SDI	2/2+2	3840×2160/60Hz、7680×1080/60Hz and customized/2160P、1080P and 12G SDI backward compatibility
4SDI	12G SDI	4	2160P、1080P、1080I2160P、1080P and 12G SDI backward compatibility

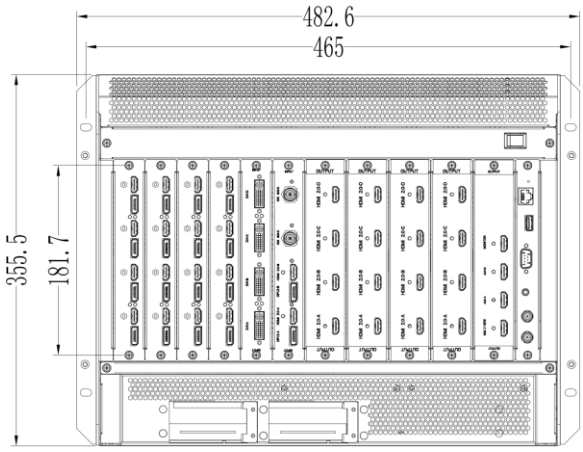
Output parameter

Board Type	Interface Type	Port	Quantity	Resolution
Main Output Board	HDMI+OPT	HDMI2.0+10G OPT	4+8	VESA 3840×2160/60Hz、7680×1080/60hz and customized maximum resolution of horizontal is 7680,maximum resolution of vertical is 3500
Aux Output Board	AUX	HDMI2.0	4	VESA 3840×2160/60Hz、7680×1080/60hz and customized maximum resolution of horizontal is 7680,maximum resolution of vertical is 2600
	HDMI/IP Monitoring	HDMI2.0/RJ45	1/1	1920×1080/60Hz
	Multi-preview	HDMI1.3	1	1920×1080/60Hz

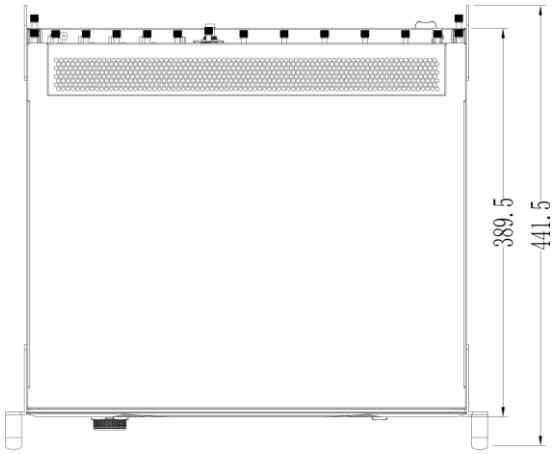
Specification

Power Supply	100-240V AC
Frequency	50/60Hz
Working Temperature	0~30℃
Working Humidity	5%RH-75%RH
Consumption	600W
Net Weight	32.6Kg
Overall dimension(L×W×H)	482.6×441.5×355.5mm (L×W×H)

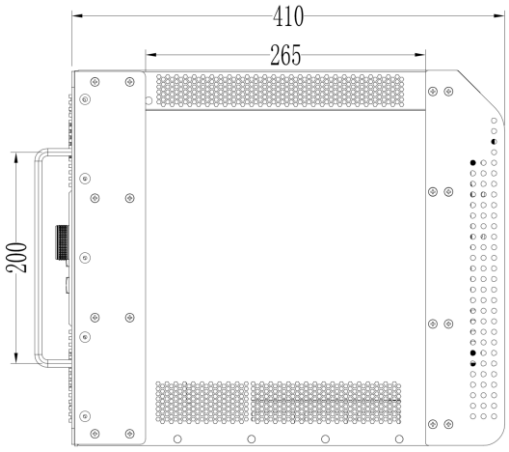
Product Dimension



Front View



Bottom View



Left View

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