

LED-780H series

Led Video Processor



LED-780H series Processor

LED-780, an superior approach to better visual performance for LED walls. It is a 4K x 2K/60Hz capable video processor for 4 screens splicing. With EDID and user-defined output management, it delivers high quality pixel-to-pixel display via its user-friendly controls. It is an ideal choice for multi-media hall, multi-purpose room, theater, studio and showroom. Supporting all kinds of input ports, it outperforms competitor products in terms of loading capacity and broadband utilizing rate {the up-processes width is 15360, and refresh rate reaches up to 121 Hz}. Also, 16 selective built-in resolutions allow user to scale and match the real size of LED walls. Input ports include DVIx2, HDMIx2, DPx1 (4K), SDIx1 (with loop function). For extended inputs, user can choose 2 ports from VGA, DVI and SDI or 1 DP. It accepts network linking, USB linking or RS232 linking for different control demands.

FEATURES

- 4 screens splicing in 1 processor: 8 dvi output ports are divided into 4 groups for horizontal splicing, vertical splicing, same size splicing, and different size splicing. A single unit uploads 8,000,000 pixels and accepts splicing for 4 screen
- 4 windows output on non-splicing mode, each output is capable of displaying 4 layers with any size or position.
- Output monitoring: real time monitoring can be seen on the computer or monitor after adding an extended module.
- Multiple cascade: machines can be cascaded to realize ultra wide display.
- Built-in input matrix for seamless switching between 8 inputs
- Logo saving
- Image freezing
- Preset saving & loading
- Accurate control for brightness & high grey level
- Serial port for future developing
- More input ports: DVIx2, HDMIx2, DP (4Kx2K)x1, SDL (3g SDL)x1, 2 extended 2K Inputs (VGA, DVI OR SDI), or 1 extended DP Inputs (4Kx2K).
- EDID management user-defined input resolution for DP, DVI, HDMI and VGA.
- Rotary output splicing after rotary output
- DP loop 1 DP loop (for any input signal)
- User-defined output resolution
- Image crop
- Task manager
- Internal graphic card for testing
- Computer host control
- Preview switching
- USB upgrade
- Low latency(16ms@60Hz)



INPUT INDICATION

User can add 2 X 2K inputs (VGA , DVI, SDI), or one 4K input (DP)

PORTS	QUANTITY	RESOLUTION
DVI	2	VESA
DP	1	Displayport 1.1 3840x1080/60Hz,3840x2160/30Hz, customised output resolution
HDMI	2	HDMI 1.3
SDI	1	480i/60Hz 576i/50Hz 720p/60Hz 1080i/50Hz/60Hz 1080p/50Hz/60Hz(3G SDI)

EXTENDMODULE SPECIFICATION

MODE	QUANTITY	RESOLUTION
DVI	DVIx1, DVILOOPx1	VESA
VGA	VGAx1, VGALOOPx1	VESA
SDI	SDIx1, SDILOOPx1	480i/60Hz 576i/50Hz 720p/60Hz 1080i/50Hz/60Hz 1080p/50Hz/60Hz(3G SDI)
DP1.1	DPx1, DVIx1	3840x1080/60Hz,3840x2160/30Hz, customised output resolution
HDMI1.4	HDMIx1, DVIx1	3840x1080/60Hz,3840x2160/30Hz, customised output resolution

OUTPUT INDICATION

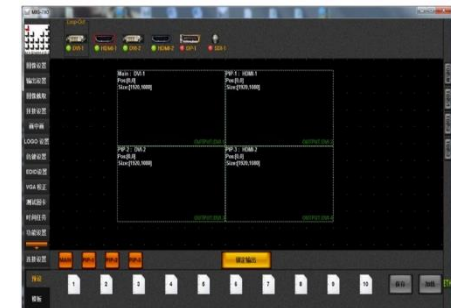
PORTS	QUANTITY	RESOLUTION (for each DVI output)
DVI	4x2	1024x768/60Hz 1280x 1024/60Hz 1024x768/120Hz 1280x720/60Hz 1440x900/60Hz 1600x1200/60Hz 1600x 1200/60Hz- Reduced 1680x 1050/60Hz 1920x1080/60Hz 1920x 1080/50Hz 2176x1168/60Hz 1920x 1200/60Hz 1936x 1280/60Hz 2048x 1152/60Hz 1024x1280/60Hz 1536x 1536/60Hz The user-defined output resolution is 3840 for maximum width or 2160 for maximum height.
DP LOOP	1	Looping any input signal
GENLOCK*	1Nx1, OUTx1	
MONITOR*	RJ45x1, DVIx1	Output monitoring to the whole unit

MACHINE SPECIFICATION

Power supply	100-240 AC 50/60Hz
Power consumption	55W
Operation temperature	0-45°C
Size	482.6x452x66.75mm
Weight	6Kg

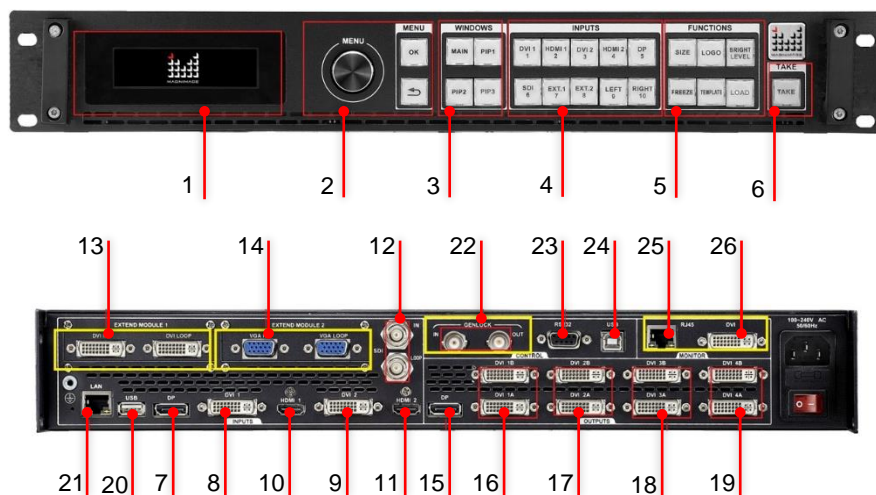


OPERATING INTERFACE



Windows control requires a RS232 or USB cable for operation.
By manual pressing, button control is a quick access to any setting.

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INTERFACE DESCRIPTION BACK PANEL

7	DP input	17	DVI 2 output
8	DVI 1 input	18	DVI 3 output
9	DVI 2 input	19	DVI 4 output
10	HDMI 1 input	20	USB upgrade port
11	HDMI 2 input	21	Network host control port
12	SDI input & loop	22	Genlock input & loop
13	Extended input 1	23	RS 232 control port
14	Extended input 2	24	USB control
15	DP loop	25	Input preview via IP
16	DVI 1 output	26	DVI output monitor

INTERFACE DESCRIPTION FRONT PANEL

1	Screen : The screen tells the current operating details. On default mode, press "OK" or rotate the knob to enter the main menu, where 16 options are shown on 4 pages.
2	Operating Keys : Selecting or setting operations will be done with "OK", "OK" and the knob. "←" is for entering the menu or confirming any setting. "←" is for backward. The knob is for selecting or setting.
3	Layer Keys : Long press will turn on or turn off the current window. Fast press will choose the selecting window. Also, fast any window and any input at the same time, window switching can be done.
4	Input Selecting & Number Keys Together with window keys, window switching can be done by these keys. Also, they can be used as number keys when setting any resolution or other value.
5	Shortcut Keys : "SIZE" is for setting the size of an image. "LOGO" is for turning on or off the logo. "BRIGHT LEVEL" is for setting the brightness. "FREEZE" is for freezing an image. "TEMPLATE" is for entering fixed templates. "LOAD" is for entering user's presets.
6	TAKE Function : On switching mode, press "TAKE" to switch from preview to program.

LED-780H Processor

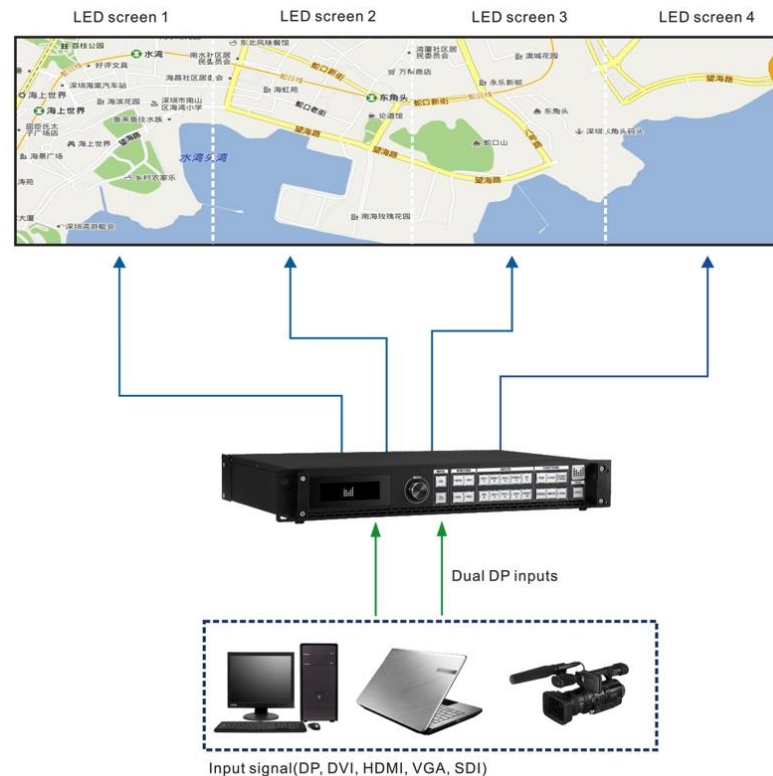
SIZE: 19"x17.79"x2.62" (482.6x452x66.75mm)

WEIGHT: 13.22 lb (6 kg)

ORDER CODE: UNIPRO780H



SCREENS SPLICING IN 1 PROCESSOR



SINGLE MACHINE SUPPORTS 4 SCREENS SPLICING

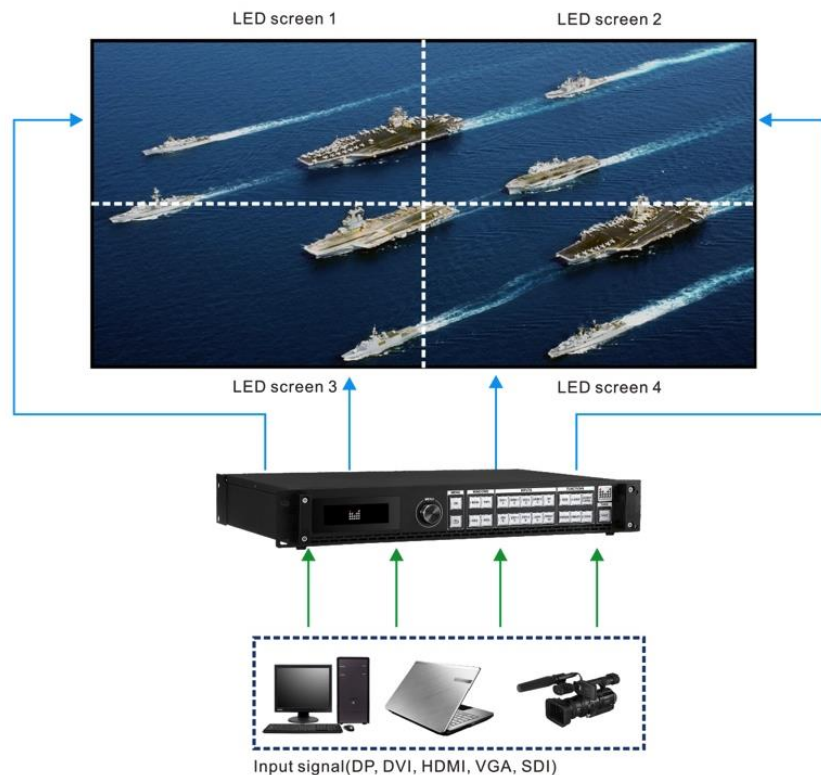
With user-defined input/output resolution and synchronous follow-up function, LED-780H is able to realize pixel-to-pixel splicing for multiple inputs, or zoom splicing for one single input. As the picture shows, the DP resolution is 3840*1080/60Hz. By dual DP inputs operating, the processor is able to realize 7680*1080/60Hz pixel-to-pixel display.

USER-DEFINED INPUT/OUTPUT RESOLUTION

With EDID management, LED-780H is able to customize the input resolution of DVI, HDMI and DP. For the output part, there are 16 available fixed resolutions and user-defined output function. In order to adjust pixel-to-pixel display from different size LED walls, user can also set an accurate resolution.

LED-780H series Processor

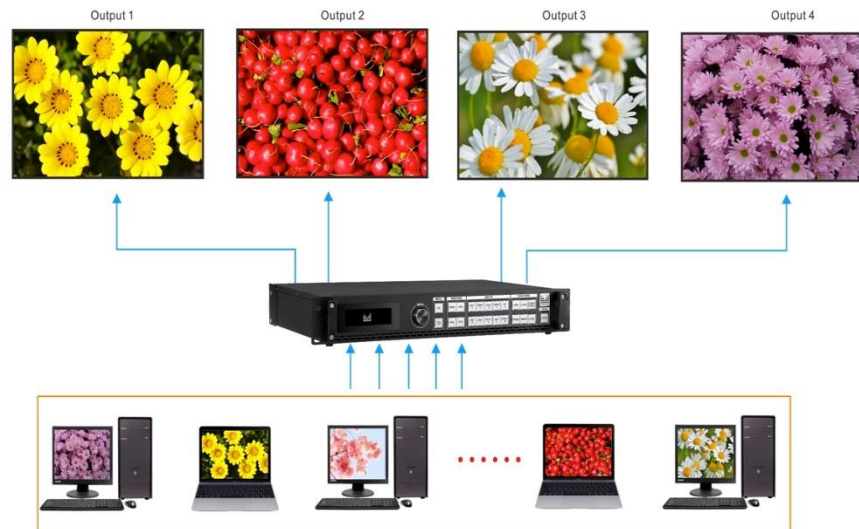
SCREENS SPLICING IN 1 PROCESSOR



4 SCREENS SPLICING IN 1 PROCESSOR

Horizontal splicing, vertical splicing, same size splicing, or different size splicing

4 INDEPENDENT OUTPUTS

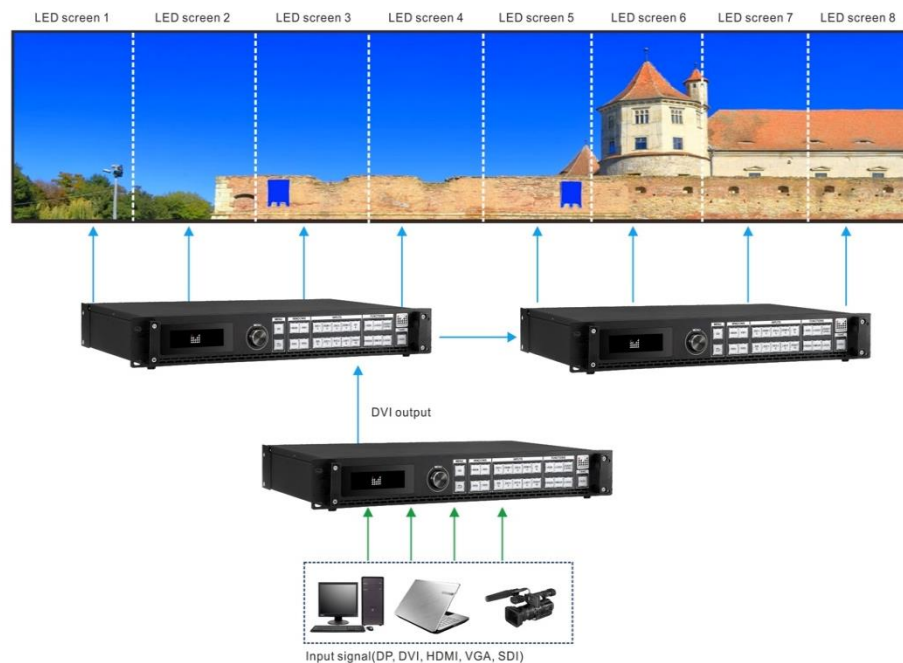


4 INDEPENDENT OUTPUTS

The maximum input quantity of one LED-780H is 8. It can be used as matrix of 8 inputs and 4 outputs. It can also control 4 different screens with independent content. Any input can be quickly switched to any output without the black or signal break-off. .

LED-780H series Processor

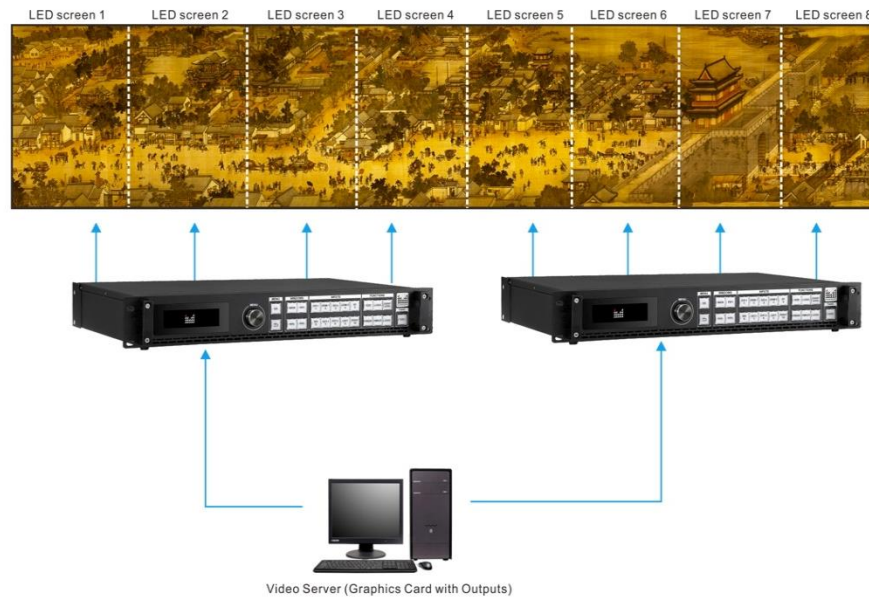
MULTIPLE CASCADE 1



MULTIPLE CASCADE 1

LED-780H accepts unit-cascading. As the picture shows, 1 processor works as the host and others be cascaded to achieve ultra wide splicing.

MULTIPLE CASCADE 2



MULTIPLE CASCADE 2

With the help of graphic card from a video server, sets of LED-780H are able to realize ultra wide splicing.

The diagram illustrates a 4K multi-screen display system architecture. At the top, four LED screens (LED screen 1, LED screen 2, LED screen 3, and LED screen 4) are arranged in a 2x2 grid, displaying a large image. Below them is a central processing unit (CPU) with multiple ports. To the left, input signals (DP, DVI, HDMI, VGA, SDI) are connected to the CPU. To the right, a monitor displays the same image. Below the CPU, a router is connected to the CPU and a host computer. The host computer is connected to the router via a network cable. The router is also connected to the LED screens via network cables. The host computer is connected to the LED screens via network cables. The host computer is connected to the LED screens via network cables.

There are 2 ways of output monitoring. The first one is using IP input preview and the computer host. The other way is connecting the monitor with "Monitor DVI" in the processor.

LAYERS OUTPUT



LED screen



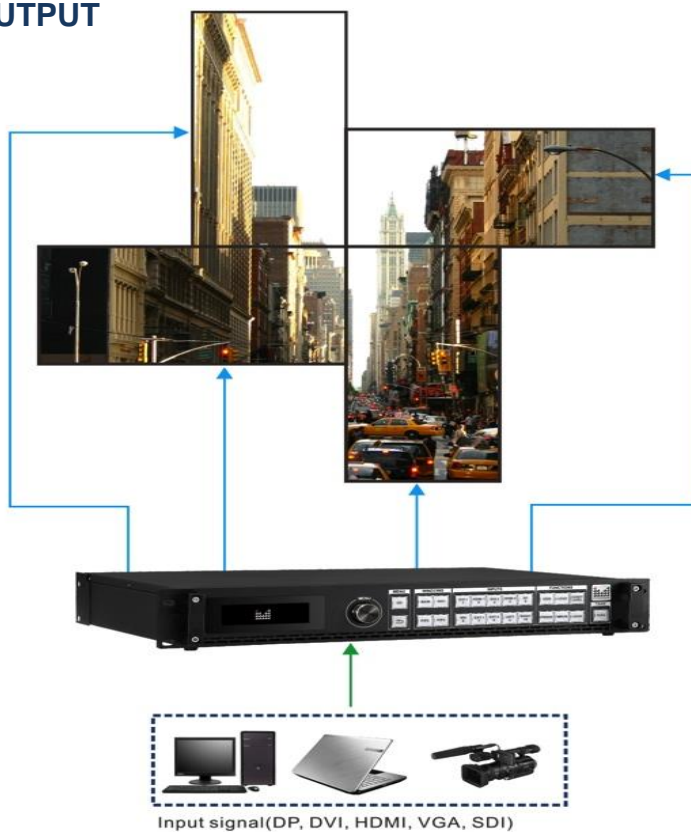
Input signal(DP, DVI, HDMI, VGA, SDI)

4 LAYERS OUTPUT

In the non-splicing mode, each pori is able to display 4 independent pictures. Input signal, size and position of these 4 pictures can be changed.

LED-780H series Processor

ROTARY OUTPUT



ROTARY OUTPUT

The 4 program outputs of LED-780H can be spliced after rotating every 90 degrees independently. Based on the rotation, the images can also be up-and-down reversed or left-and-right reversed.