

Quad Outputs Video Processor LED-780H

Overview

LED-780H, a superior approach to better visual performance for LED walls. 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 121Hz).

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 any 2 inputs among VGA、DVI、SDI and USB or any one 4K input between DP1.1 and HDMI1.4

It accepts network linking, USB linking or RS232 linking for different control demands.

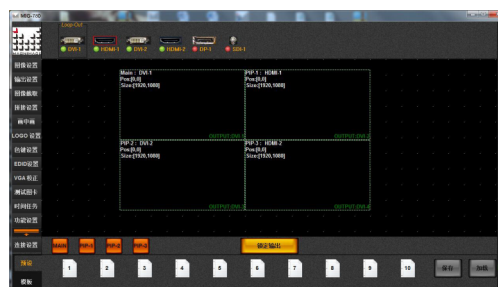
Main Features

- ↔ 4 screens mosaic in 1 processor:
 - 8 DVI output ports are divided into 4 groups for horizontal mosaic, vertical mosaic, same size mosaic, and different size mosaic. A single unit up-loads 8,000,000 pixels and accepts mosaic for 4 screens.
- ↔ 4 windows output
 - On non-mosaic 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
- ↔ More input ports
 - DVIx2, HDMIx2, DP(4Kx2K)x1, SDI(3G SDI)x1, 2 Extended 2K Inputs(VGA、DVI、SDI and USB), Or one 4K extended input (DP 1.1,HDMI 1.4 optional)
- ↔ EDID management
 - User-defined input resolution for DP, DVI, HDMI and VGA.
- ↔ Rotary output
 - Mosaic 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)
- ↔ Serial port for future developing

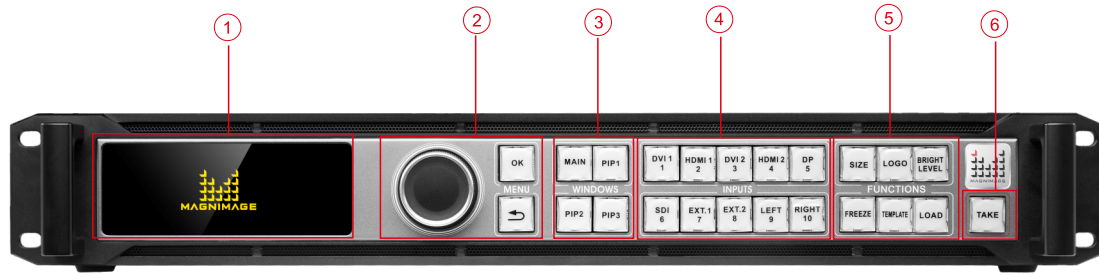
Operating Mode

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

Operating Interface



Front And Rear Panel Introduction



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

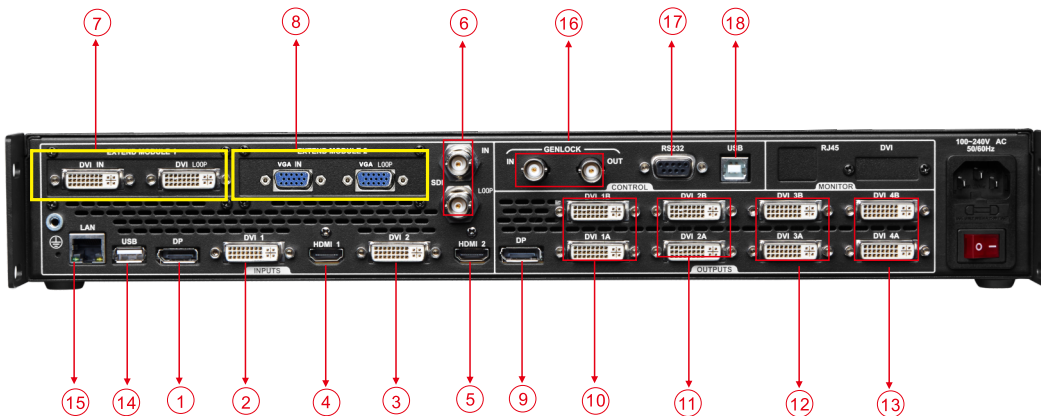
Together with window keys, window switching can be done by these keys. Also, they can be used as number keys when setting any resolution or other value.

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.



- | | | | | |
|----------------|---------------------|-----------------|-------------------------------|-------------------------|
| 1--DP input | 5--HDMI2 input | 9--DP loop | 13--DVI4 output | 17--RS 232 control port |
| 2--DVI1 input | 6--SDI input & loop | 10--DVI1 output | 14--USB upgrade port | 18--USB control |
| 3--DVI2 input | 7--Extended input 1 | 11--DVI2 output | 15--Network host control port | |
| 4--HDMI1 input | 8--Extended input 2 | 12--DVI3 output | 16--Genlock input & loop | |

Ports in the yellow box are not included in a standard unit.

4 Screens Mosaic In 1 Processor



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

Dual DP inputs

Single Machine Supports 4 Screens Mosaic

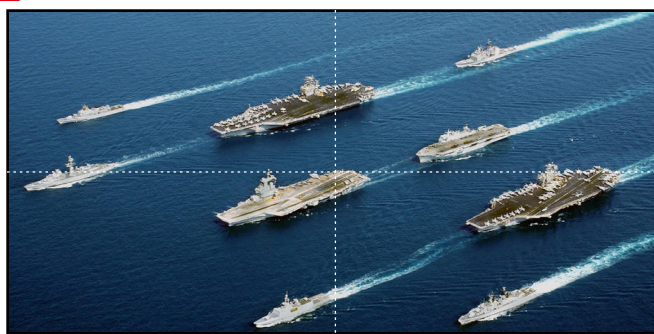
With user-defined input/output resolution and synchronous follow-up function, LED-780H is able to realize pixel-to-pixel mosaic for multiple inputs, or zoom mosaic for one single input. As the picture shows, the DP resolution is 3840*1080/60Hz. By dual DP inputs operating, the processor is able to realize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

4 Screens Mosaic In 1 Processor

LED screen 1 LED screen 2



LED screen 3 LED screen 4

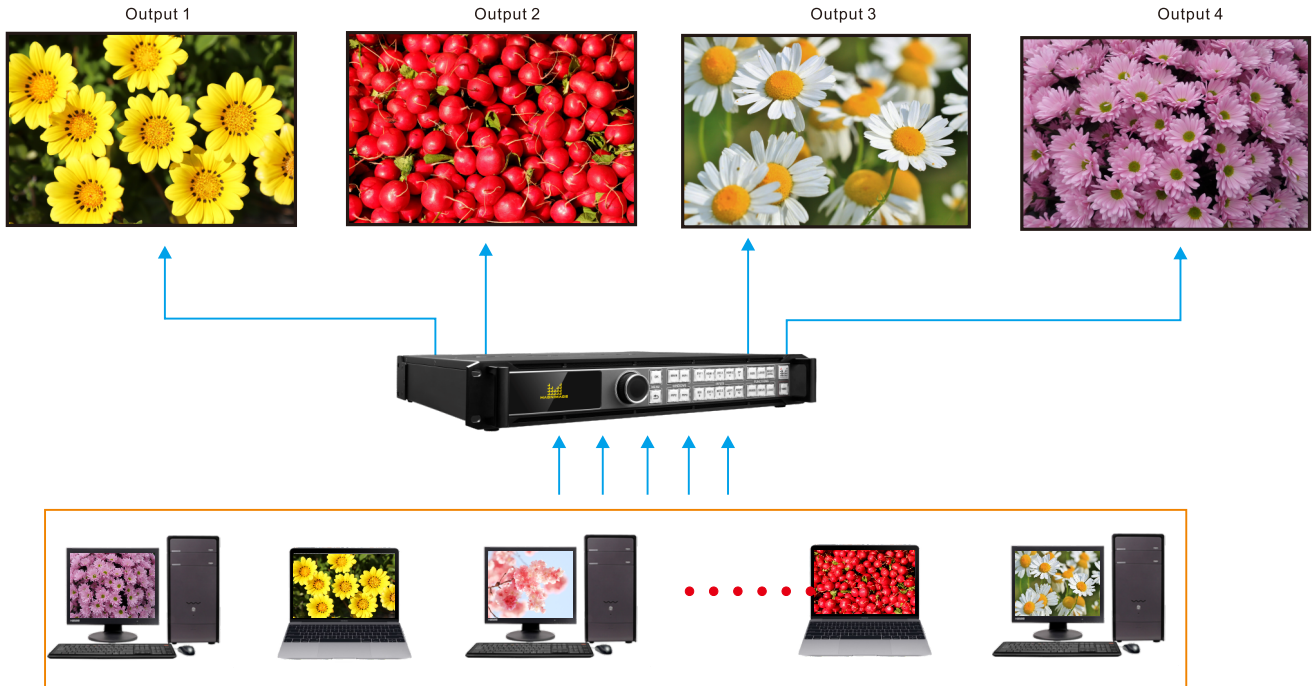


Input signal(DP, DVI, HDMI, VGA, SDI)

4 Screens Mosaic In 1 Processor

Horizontal mosaic,vertical mosaic, same size mosaic, or different size mosaic.

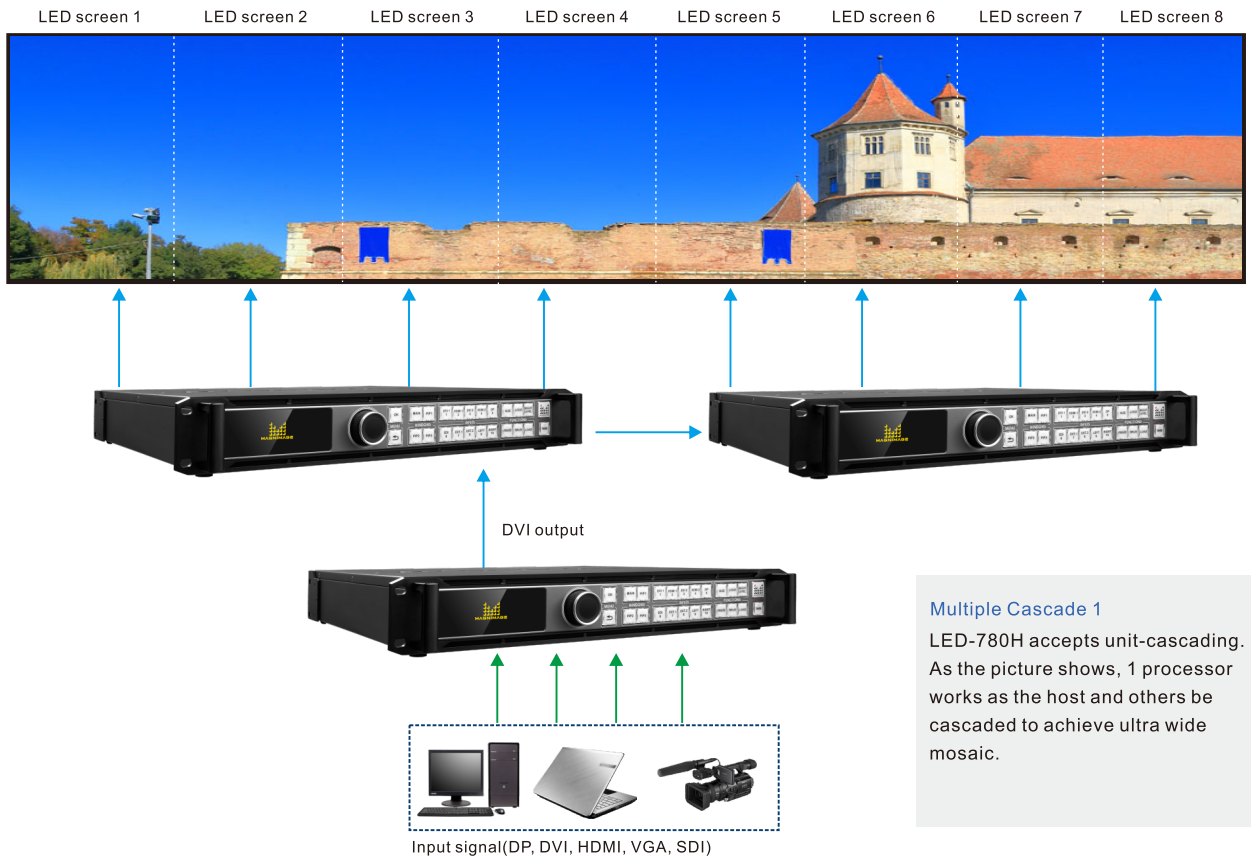
4 Independent Outputs



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.

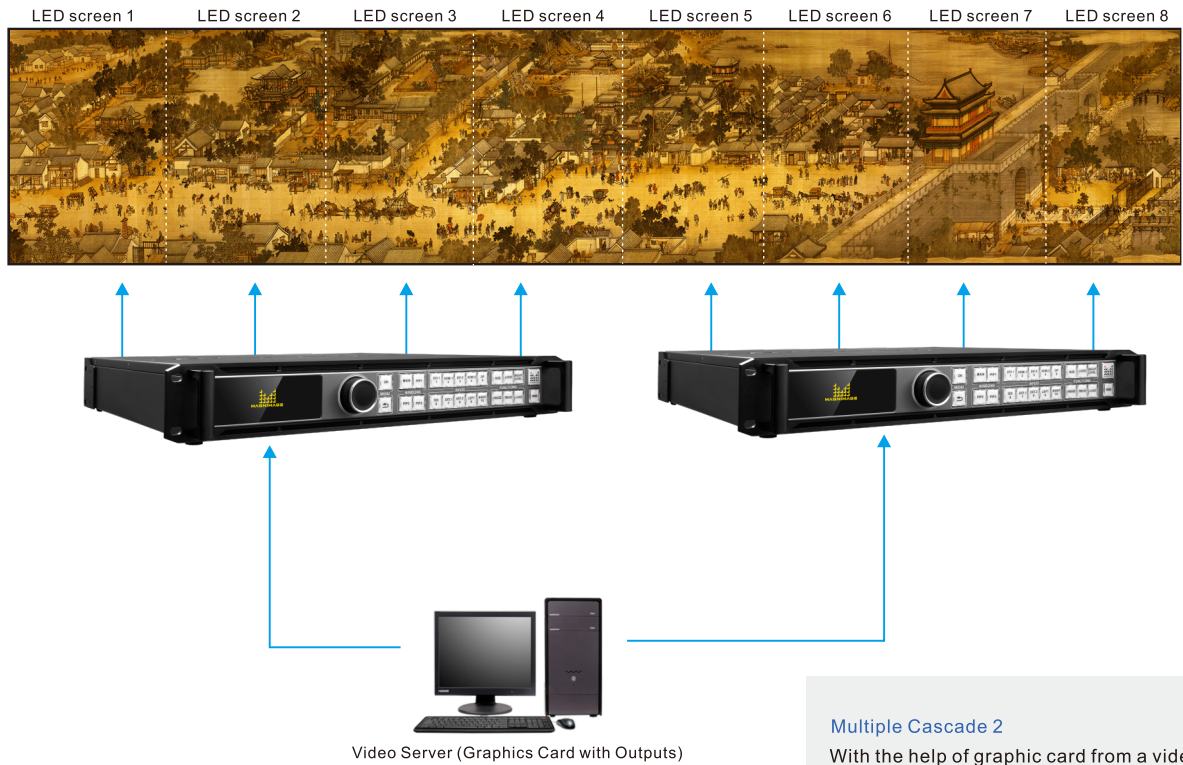
Multiple Cascade 1



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 mosaic.

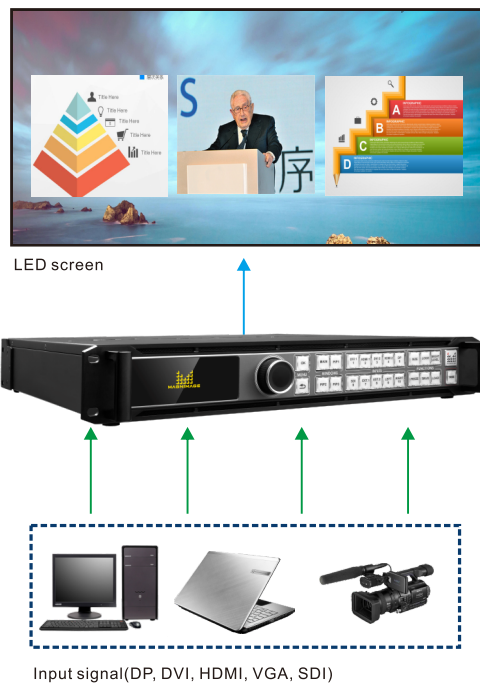
Multiple Cascade 2



Multiple Cascade 2

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

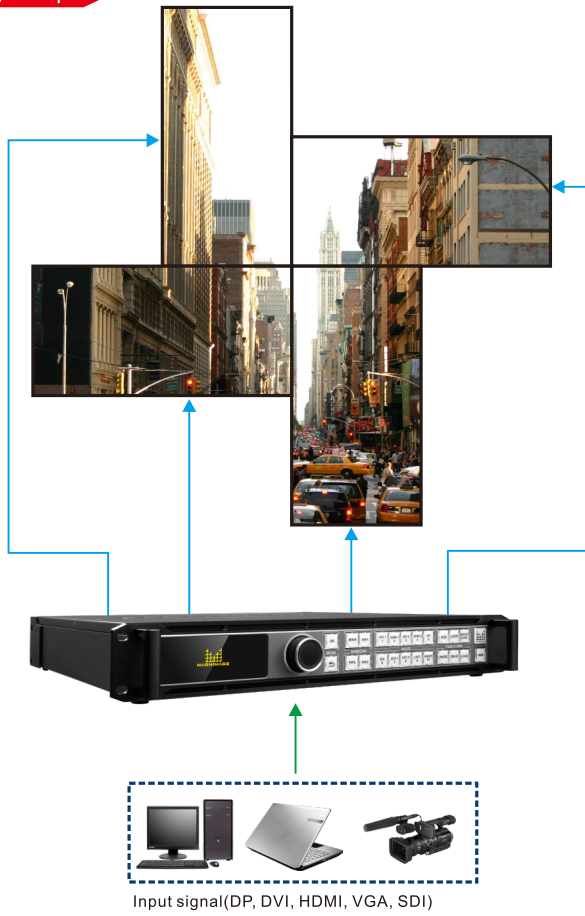
4 Layers Per Output



4 Layers Per Output

In 1-panel mode, each output supports 4 independent layers; input signal, size and position of each layer can be customized separately

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.

Technical Specifications

Input Indication

Port	Quantity	Resolution
DVI	2	1920×1080/60Hz and EDID management
DP	1	3840×1080/60Hz,3840×2160/30Hz and EDID management
HDMI	2	1920×1080/60Hz and EDID management
SDI	1	480i/60Hz 576i/50Hz 720p/60Hz 1080i/50Hz/60Hz 1080p/50Hz/60Hz(3G SDI)

Extend Module Specification

Mode	Quantity	Resolution
DVI	DVI×1、DVILOOP×1	1920×1080/60Hz and EDID management
VGA	VGA×1、VGALOOP×1	1920×1080/60Hz and EDID management
SDI	SDI×1、SDILOOP×1	480i/60Hz 576i/50Hz 720p/60Hz 1080i/50Hz/60Hz 1080p/50Hz/60Hz(3G SDI)
DP1.1	DP×1、DVI×1	3840×1080/60Hz,3840×2160/30Hz
HDMI1.4	HDMI×1、DVI×1	3840×1080/60Hz,3840×2160/30Hz
USB	USB×1	1920×1080/60Hz, Supports MP4/MKV/MOV/AVI/3GP video format, and BMP/JPG/PNG image format

User can choose any 2 inputs among VGA、DVI、SDI and USB or any one 4K input between DP1.1 and HDMI1.4

Output Indication

Port	Quantity	Resolution (for each DVI output)
DVI	4×2	1024×768/60Hz 1280×1024/60Hz 1024×768/120Hz 1280×720/60Hz 1440×900/60Hz 1600×1200/60Hz 1600×1200/60Hz- Reduced 1680×1050/60Hz 1920×1080/60Hz 1920×1080/50Hz 2176×1168/60Hz 1920×1200/60Hz 1936×1280/60Hz 2048×1152/60Hz 1024×1280/60Hz 1536×1536/60Hz 1280×720/59.94Hz 1920×1080/59.94Hz The user-defined output resolution is 3840 for maximum width or 2160 for maximum height.
DP loop	1	Looping any input signal
Genlock	IN×1、OUT×1	
SDI loop	1+2*	Same as SDI input
Monitor*	RJ45×1、DVI×1	Output monitor to the whole unit

Console Specification

Power Supply	100~240V AC 50/60Hz
Power Consumption	55W
Operating Temperature	0~45°C
Overall Dimension (L×W×H)	482.6×452×66.75mm
Net Weight	6.0kg



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