LED Video Processor LED-550D series

Brief

LED-550D series products are the video processor developed for the large screen display system, adopted the top image processing chips, internal 12 bits processing, with clearer images and richer colors.

Advanced interlaced scanning picture processing technology, to remove video motion tail or flaw, for the normal PAL/NTSC video, output image will be clearer, for the HD 1080i signal, output image details will be rich, full color and image quality is in the leading level. Advanced image scaling technology, support user-defined output resolution, single unit can support horizontal resolution 3840 at maximum, vertical resolution 1920 at maximum, refresh frequency rate 120Hz, can upgrade the output signal bandwidth utilization greatly; furthermore, also can use the traditional standard output resolution, then scaling the output image by pixel to pixel according to the real size of the LED screen.

Accurate dual picture input image intercepting function, can realize the pixel to pixel display and material fusion. Intellectualized large size LED screen seamless splicing technique, the user just needs to have simple setting, they could realize that to send card picture splicing, can support 24576×24576 lattice LED screen; Unique synchronized moving technology, ensure high speed motion picture fluently without tail or flaw. Perfect video image input port, including 2×VGA , 1×DP, 1×DVI (can be extended for 2 DVI simultaneous input), 1×HDMI 、2×video (PAL/NTSC) , 1×SDI (optional),1×USB(optional), support full HD signal input, can be connected with various audio and video equipment. Support seamless switch between different input signal sources and picture in picture function. The whole unit is with pure hardware framework, steady and reliable.

Main characteristics

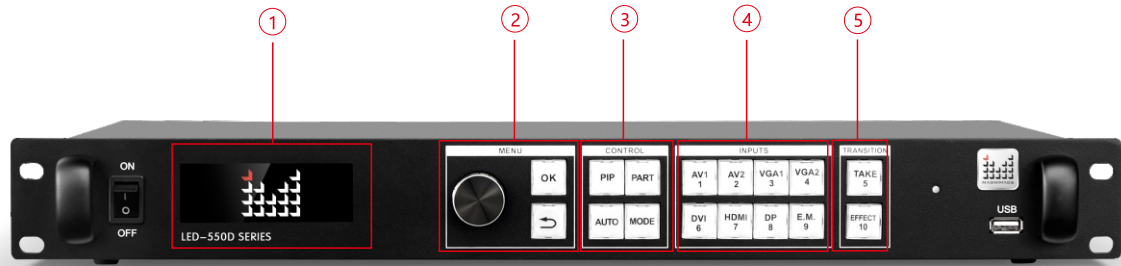|	
Customized output resolution	Save and load mode
Seamless splicing	Customized DVI input resolution
Seamless switching,up to 20 switching effect	Various test graphic cards
Fade in/fade out	Accurate brightness control
Dual image	Hot backup
Dual channel image crop	7 inputs(2 AV,2VGA,1DVI,1HDMI,1DP)
Test overlay	Image enhancement
Image freeze	1 expanded input(vga or dvi or sdi)
DVI loop	Upper computer software control
Support USB disk play (MOV、MP4、MKV、3GP、AVI)	Support DP input
Image size, position any adjustme	

Operating modes

Two kind of operation mode: upper computer software and button control
Upper computer software control: connect computer and video processor through USB,achieve all kinds of operates in the software.
Button control: Control the device manually by button on operation panel.

Host computer control interface

1--The menu display:
The entire menu, in the condition that no user operating or overtime operating, the LCD screen will show the default state, to operate the menu system by using knob and keys, the user can check and set the basic function and state of device intuitively.

2--Operation Keys:
It is used for menu selection and adjustment, makes up of "OK" key, "Return" key and a knob that can be press down, press the knob in a short time, it has the same function with confirmation key, while press it in long time, it will make the menu system return to default state at once. When u press the return key, the menu system will return to previous menu, until to the default state.
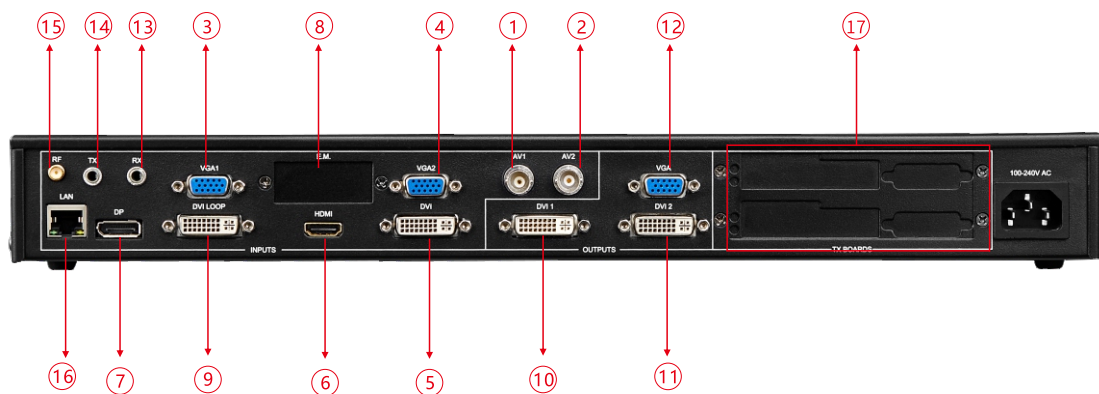
3--Function button:
It contains four buttons :PIP, PART, AUTO and MODE。 PIP:Open or close the function of PIP, if you long press the button, it will change the cascading relationship between image 1 and image 2.;PART: Switch part and full;AUTO: Automatically rectify the image display position when the current input source is VGA. MODE: Select the model loading interface

4--INPUTS area:
In the default menu state, short press the area buttons can switch the image 1 input source to the corresponding input; if long press the button, it will switch the image 2 input sources to the corresponding input. In the main menu, when select the input source interface of image 1 and 2, short press the area buttons, you can set the corresponding menu item parameter to the corresponding input port.
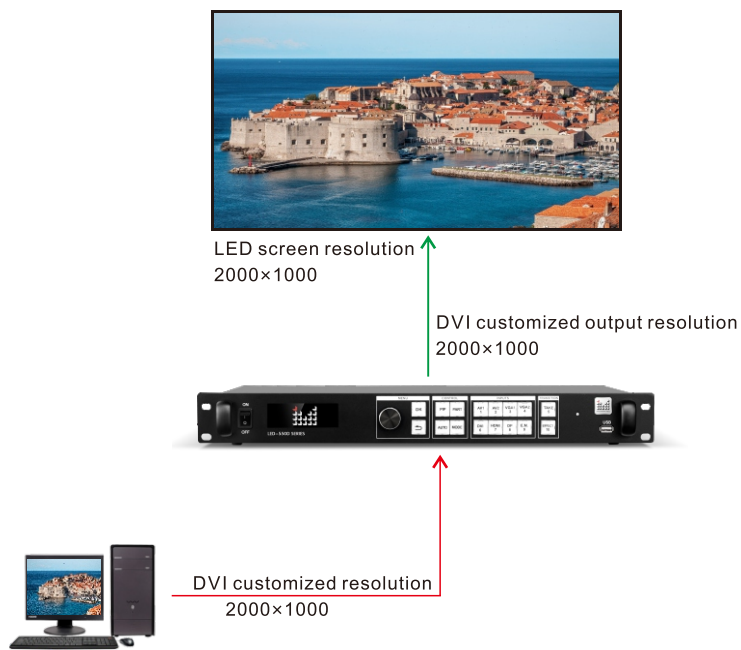
5--TRANSITION area:
Press "TAKE" or "EFFECT" key, in the default menu system state, can call out image switch interface. In the image switch interface, TAKE key is used to implement image switch function, EFFECT key is used to select image switch effect: short press EFFECT key can make the effect parameters positive change, long press EFFECT, it will make the effect parameters reverse change.

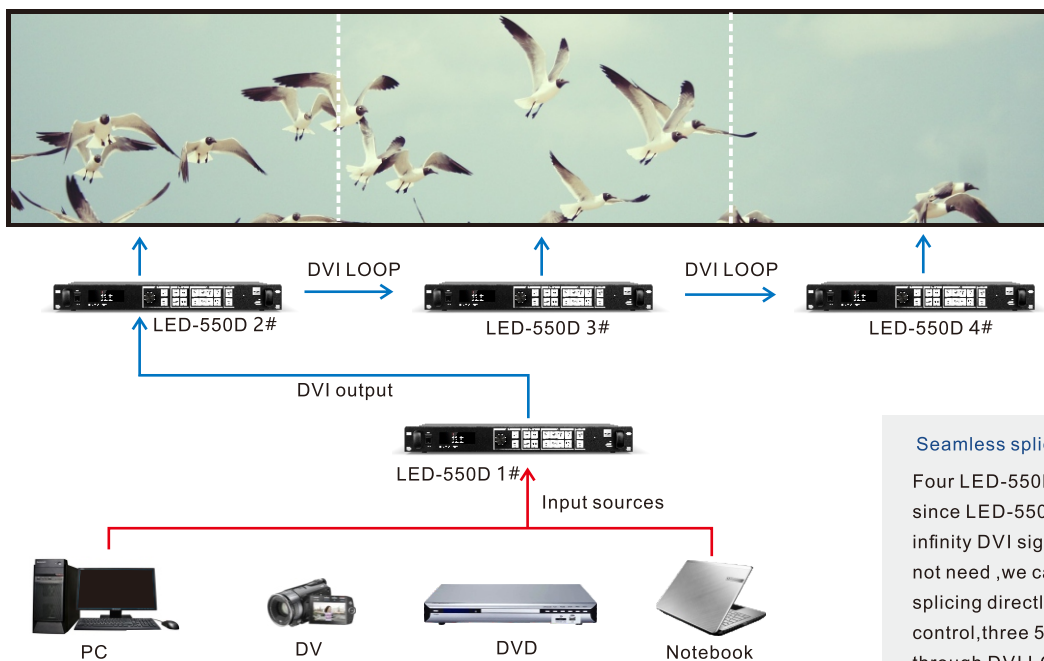|			
1--AV 1 input	5--DVI input	9--DVI loop	13--Cascade input	17--Sending card plugs
2--AV 2 input	6--HDMI input	10--DVI 1 output	14--Cascade output	
3--VGA 1 input	7--DP input	11--DVI 2 output	15--RF remote control	
4--VGA 2 input	8--Expanded input	12--VGA output	16--LAN	

Customized input/output resolution

LED screen resolution
2000×1000

DVI customized output resolution
2000×1000

DVI customized resolution
2000×1000

Customized input/output resolution

LED-550D series video processor have the function of lock input resolution,DVI customized input resolution2000*1000, match customized output resolution 2000*1000,thus point to point in the size of 2K*1K will be complete.
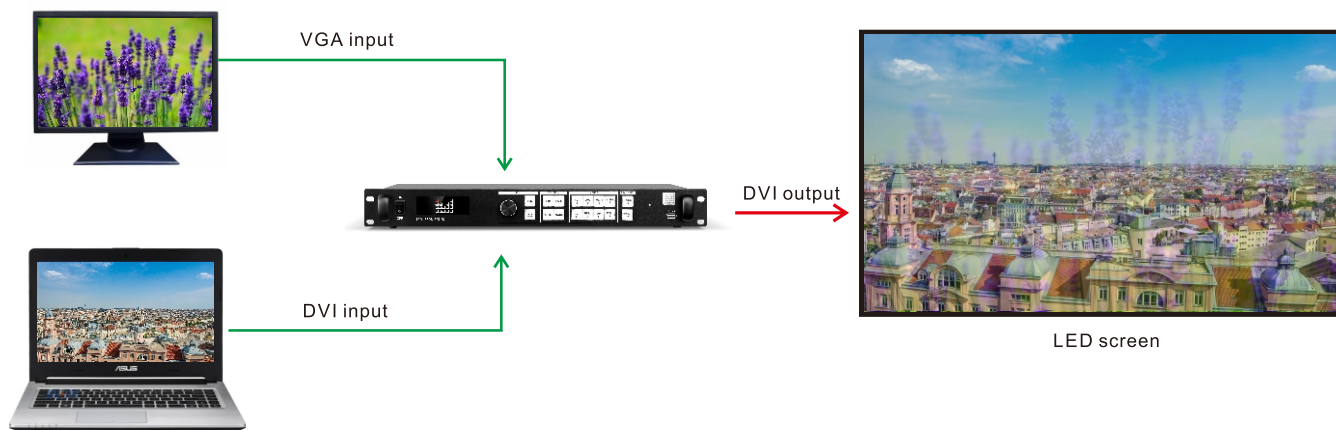
Seamless splicing

DVI LOOP

DVI LOOP

LED-550D 2#

LED-550D 3#

LED-550D 4#

DVI output

LED-550D 1#

Input sources

PC

DV

DVD

Notebook

Seamless splicing

Four LED-550D realize Unequal Mosaic, since LED-550D series processor support infinity DVI signal LOOP,the DVI divider is not need ,we can use Video Processor splicing directly,a 550D is used for main control,three 550D is used for seamless through DVI LOOP,and the processor 2 output the left screen,the proessor3 output the middle screen,and processor4 output the right screen,thus the Unequal Mosaic can be realized .

Fade in/fade out

VGA input

DVI output

DVI input

LED screen

Fade in/fade out

LED-550D series processor has 16 switching effects including fade in/fade out,cut and so on,it avoid the black screen when customer use the signal source to switch;first open the dual image after enter menu,choose input source,adjust the size and position of dual image;then enter the image switching menu,choose the switch mode(fade in/fade out),after then press the "TAKE" button in the front panel, thus we can realize the function of fade in or fade out.

Technical specifications

Inputs

Port	No.	Resolution specifition
AV	2	PAL NTSC
VGA	2+1 (Fixed 2 input,optional expanded 1input)	VESA
DVI	1+1 (Fixed1 input,optional expanded 1 input)	VESA (support 1080i input)
DP	1	EIA/CEA-861，HDMI-1.3
HDMI	1	VESA
SDI*	1	480i、576i、720p、1080i/p(3G SDI)
USB*	1	MOV、MP4、MKV、3GP、AVI 1080p

Outputs

Port	No.	Resolution specifition
DVI loop	1	Consistent with DVI input
VGA	1	1024×768/60Hz/75Hz/85Hz/100Hz/120Hz
DVI	2	1280×1024/60Hz 1440×900/60Hz 1680×1050/60Hz 1600×1200/60Hz 1600×1200/60Hz – Reduced 1920×1080/60Hz/50Hz 2560×816/60Hz 2048×640/60Hz 1920×1200/60Hz 2304×1152/60Hz 2048×1152/60Hz 1024×1280/60Hz 1536×1536/60Hz Customized output resolution(bandwidth optimize): Horizontal resolution:max.3840 Vertical resolution:max.1920
SDI loop*	1	480i、576i、720p、1080i/p (3G SDI)

Console specification

Power supply	100-240V AC 50/60Hz
Power consumption	20W
Operation temperature	0～45℃
Product dimension (L x W x H)	483.0×288.0×54.5mm
Packing dimension (L x W x H)	555.0×395.0×125.0mm
N.W.	2.6kg
G.W.	4.1kg

LED-550D series product mode

Item number	Name	Description
LED-550D	Standard configuration	Standard configuration
LED-550DD	Expanding DVI input module	DVI input
LED-550DS	Expanding SDI input module	SDI input
LED-550DV	Expanding VGA input module	VGA input
LED-550DM	Expanding USB input module	USB port input
LED-550DR	Expanding RS232 module	External control port RS232