

# 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

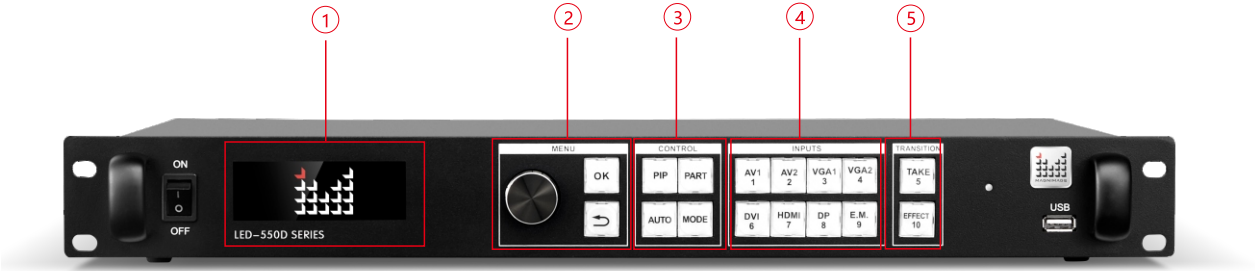
Upper computer software control: connect computer and video processor through USB, achieve all kinds of operates in the software.

Button control: Control the device manually by button on operation panel.

## Host computer control interface



Front and rear panel introduction



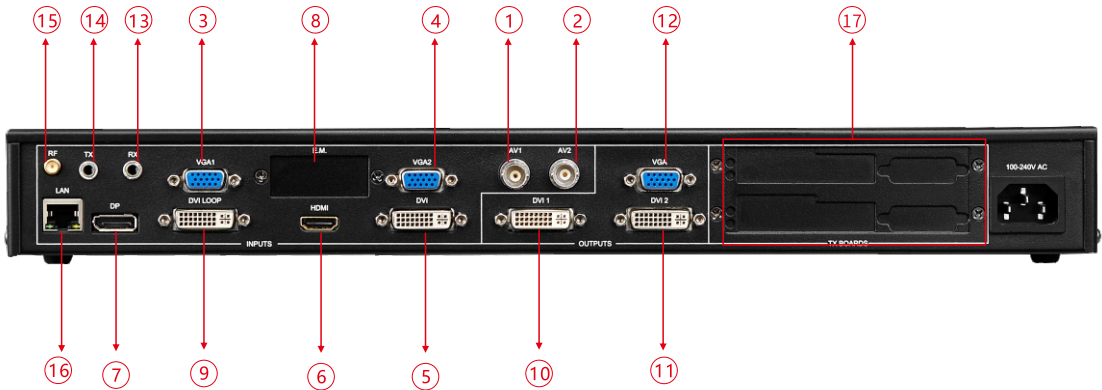
1--The menu display:  
The entire menu, in the condition that no user operating or overtime operating, the LCD screen will show the default state, to operate the menu system by using knob and keys, the user can check and set the basic function and state of device intuitively.

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

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.

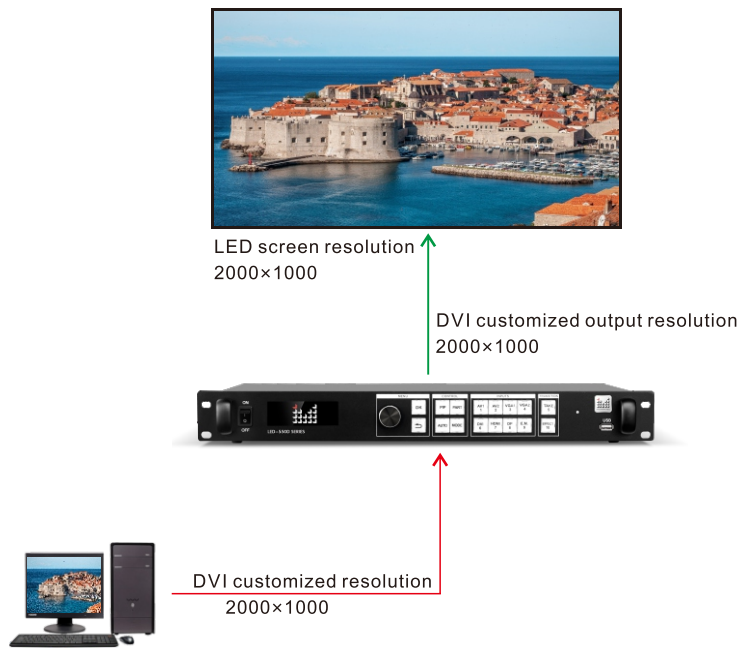
2--Operation Keys:  
It is used for menu selection and adjustment, makes up of "OK" key, "Return" key and a knob that can be press down, press the knob in a short time, it has the same function with confirmation key, while press it in long time, it will make the menu system return to default state at once. When u press the return key, the menu system will return to previous menu, until to the default state.

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.



- |                |                   |                  |                       |                        |
|----------------|-------------------|------------------|-----------------------|------------------------|
| 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               |                        |

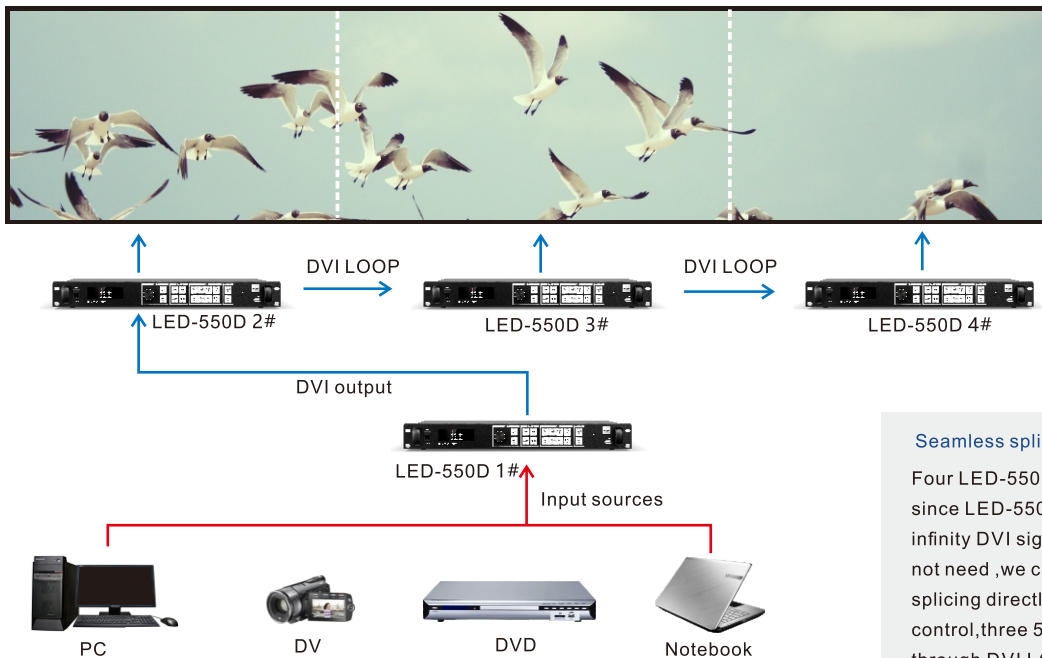
### Customized input/output resolution



#### Customized input/output resolution

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

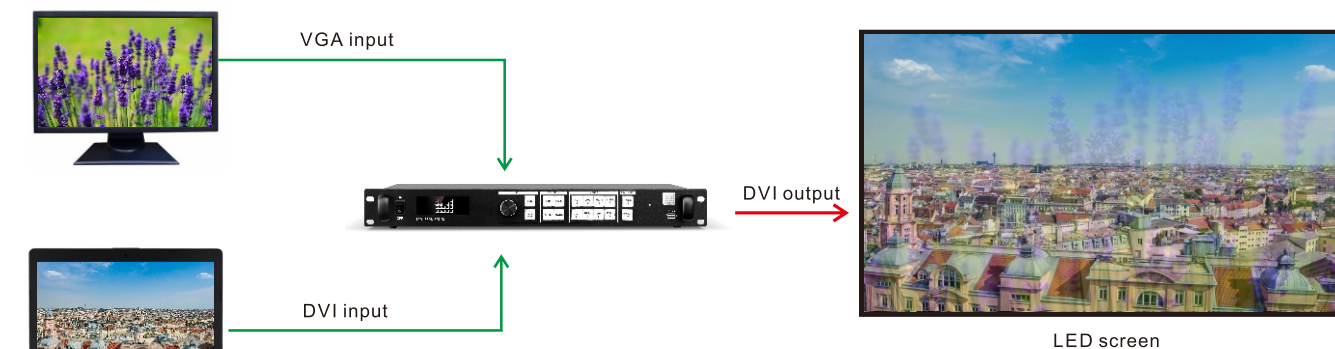
### Seamless splicing



#### 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 processor 3 output the middle screen, and processor 4 output the right screen, thus the Unequal Mosaic can be realized.

## Fade in/fade out



### 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 specification           |
|------|------------------------------------------------|------------------------------------|
| AV   | 2                                              | PAL NTSC                           |
| VGA  | 2+1 (Fixed 2 input, optional expanded 1 input) | VESA                               |
| DVI  | 1+1 (Fixed 1 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 specification                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DVI loop  | 1   | Consistent with DVI input                                                                                                                                                                                                                                                                                                                                                                           |
| VGA       | 1   | 1024×768/60Hz/75Hz/85Hz/100Hz/120Hz<br>1280×1024/60Hz 1440×900/60Hz<br>1680×1050/60Hz 1600×1200/60Hz<br>1600×1200/60Hz – Reduced<br>1920×1080/60Hz/50Hz 2560×816/60Hz<br>2048×640/60Hz 1920×1200/60Hz<br>2304×1152/60Hz 2048×1152/60Hz<br>1024×1280/60Hz 1536×1536/60Hz<br>Customized output resolution (bandwidth optimize):<br>Horizontal resolution: max. 3840<br>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°C            |
| 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 |



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