LED Video Processor LED-570E series

Brief

LED-570E series products are the video processor which focus on large LED display system, it used the most advanced image processing chip with 12 bits digital processing, to make more distinct image and abundant color. This processor is several times the bandwidth for showing of the previous devices, it can process the DVI and DP input with dual link.The advanced interlaced scanning self-adoptiontechnology, it can eliminate the trailing and flaw in the motion of video. For the normal PAL/NTSC video,the output image will be more clearly. While for the HD 1080i signal, it can enrich the detail of image and color, make the quality of image as the leading level in the industry.

Advanced image reducing and enlarging technology, which supports customized output resolution, can achieve maximum horizontal resolution in 3840 pixel, and maximum vertical resolution in 3840 pixel, the maximum refresh rate will be 120 Hz, it can maximizing the utilization of bandwidth capability. Furthermore, it can also use the conventional resolution rate, to enlarging or reducing image according to the actual size of the LED display

The accurate dual image input crop function, it can achieve the pixel to pixel display and material integration facilely.

Complete video image input and output ports, which involve 1×VGA(it can extend to 2×VGA,), 1×DVI(it can extend to 2×DVI,), 1×DP, 1×HDMI. 1×Video(PAL/NTSC), 1×SDI(it can be selected), support full HD signal input, it can connect with multiple audio and video equipment, it support multiple input signal seamless switching and PIP function.

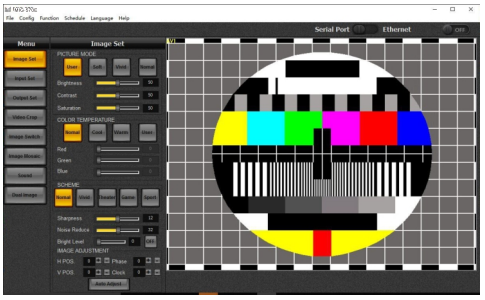
Main characteristic

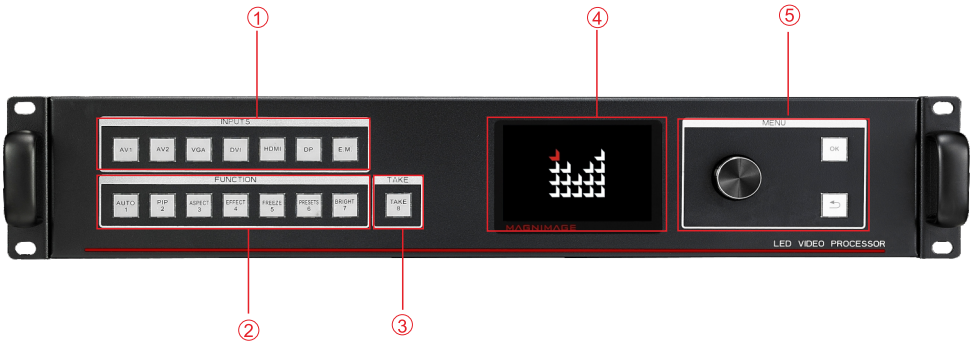
4k input/output
Customize input / output resolution within 4k
Single device mosaic, dual DVI output
DP loop or output
Standardized 6 input(AV*2,VGA*1,DVI*1,HDMI*1,DP*1)
1 expending port space(DVI or VGA or SDI)
Dual image
Modify size and position arbitrarily
Freeze image
Save and load mode
Image effect enhancement
Accurate brightness control
Support series port secondary development
Fade in/fade out
Image crop function
Customized output depth-width ratio
Time Task function
Text overlay
Built-in test graphic cards
Multiple machine splicing
Hot backup
Support host machine control
Preview switch
Support USB upgrade

Operating modes

Two types of operating mode: host computer software control or button control
Host computer software control: it should use network cable or RS232 series to connect with video processor, and to utilize the host machine to control to achieve real-time processing and operating.
Button control: Control the device manually by button on operation panel.

Host computer control interface





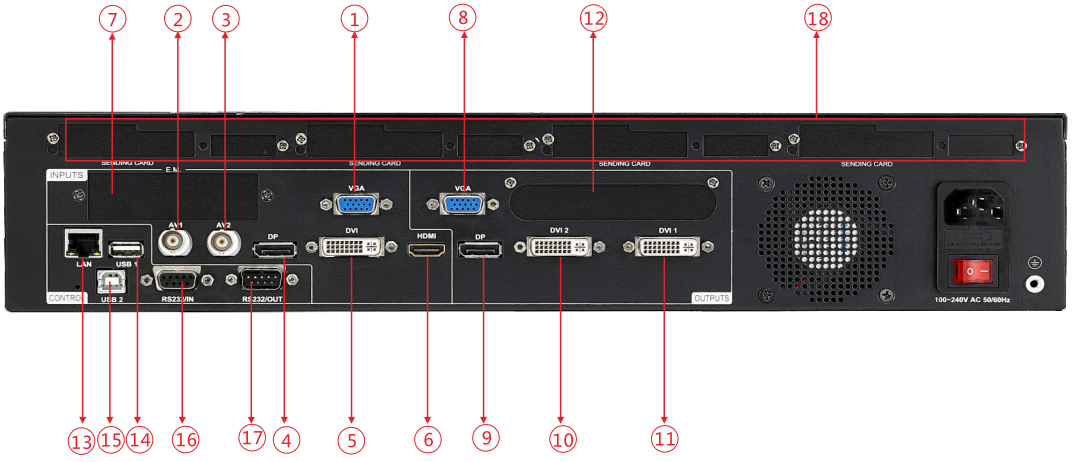
1--Input signal switch buttons:
7 buttons:av1 av2 VGA DVI HDMI DP and E.M. In the default state of menu,press the buttons, change corresponding input port signal.

3--switching function buttons:
In the default state of menu,press TAKE button,then show image switching interface,in this state,TAKE button is used to realize image switching function.

5--Operation keys:
It is used for menu selection and adjustment, which makes up of “OK” and “Return” key, in the default state, OK key can open menu, while in the menu state, OK key refers to confirmation key; “Return” key returns to the previous menu; gently touch the knob, the main menu will be opened in the default state. In the menu state, the knob will be a confirmation key. Rotate the knob, in the menu operation, it can select the sub-menu and adjust the value

2--Function keys:
It is the shortcut keys and numerical key, AUTO/1 is used to automatically adjust position for VGA input/ template No 1., PIP/2 is the dual images switch shortcut key/template No. 2, ASPECT/3 is the shortcut key to open the window ratio adjustment menu/template No 4., EFFECT/4 is the shortcut key to adjust fade in/out period/template No5, PRESETS/ 6 is the shortcut key to open the template load and save menu/template load and save menu/template No6, BRIGHT/7 is the shortcut key to adjust brightness menu/ template No 7.

4--menu display screen
Display the whole menu system,when user don’t any operation,the screen will show the default state.you can use knob and buttons to operate system,you can search convenient and set the function and state.



1--VGA input
2--AV 1 input
3--AV 2 input
4--DP input

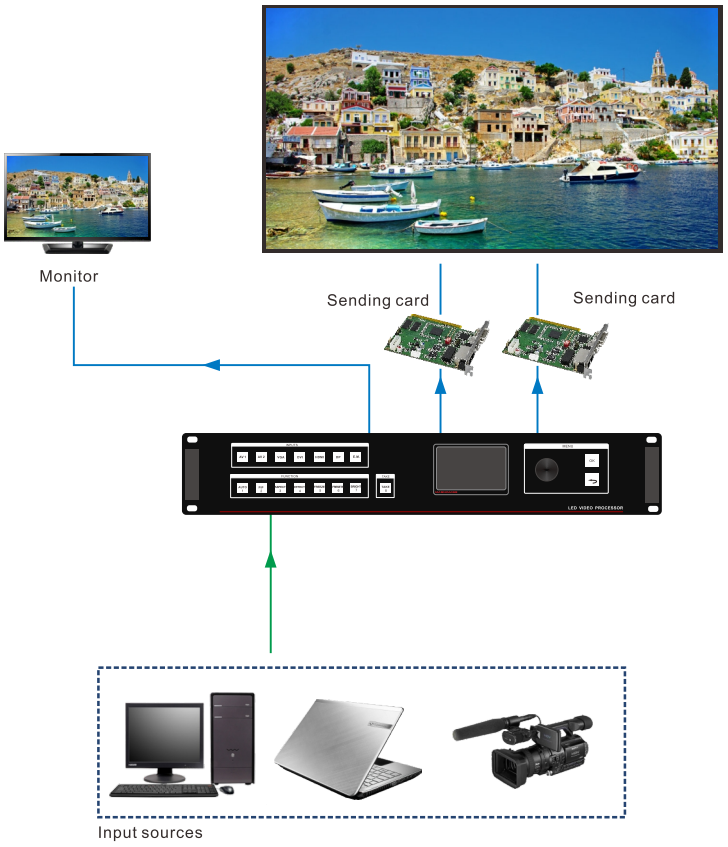
5--DVI input
6--HDMI input
7--E.M. input
8--VGA output

9--DP output
10--DVI input
11--DVI output
12--E.M. output

13--LAN
14--USB for software upgrade
15--PC control plugs
16--RS 232 input

17--RS 232 output
18--Sending card plugs×4

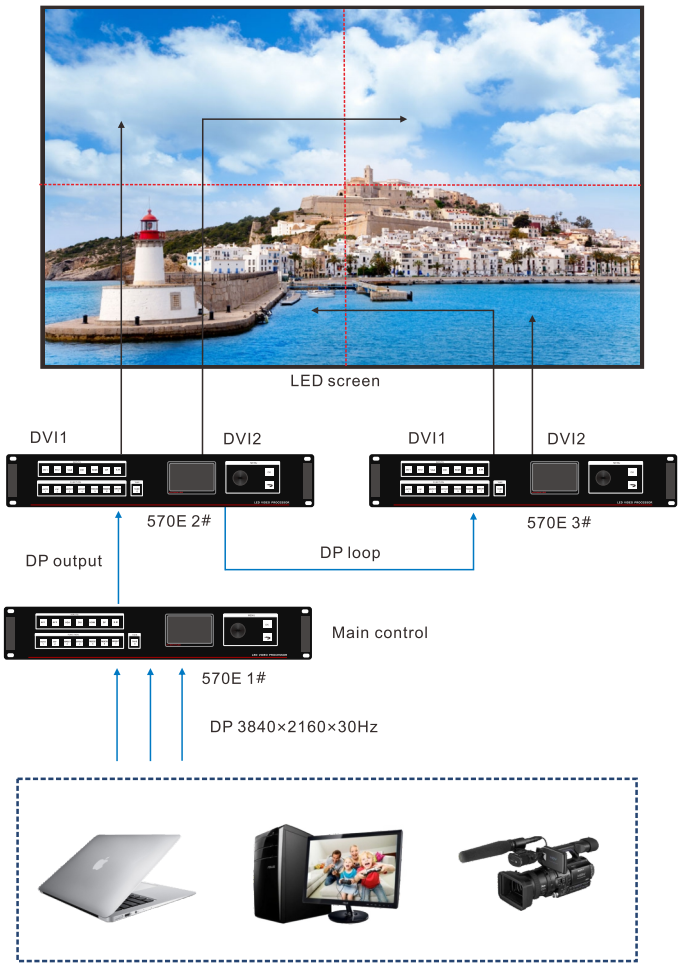
Main characteristics and application



Single machine splicing within 4K

LED-570E series processors have 2 DVI output ports (DVI1, DVI2). We can use LED-570E split screen output function in the high resolution condition with customized output resolution. Then it can achieve random pixel splicing in horizontal and vertical within 4K. it can use “Dual link DVI” or “DP” input, and use the customized “dual link DVI” or “DP” EDID function to make PC output required resolution.

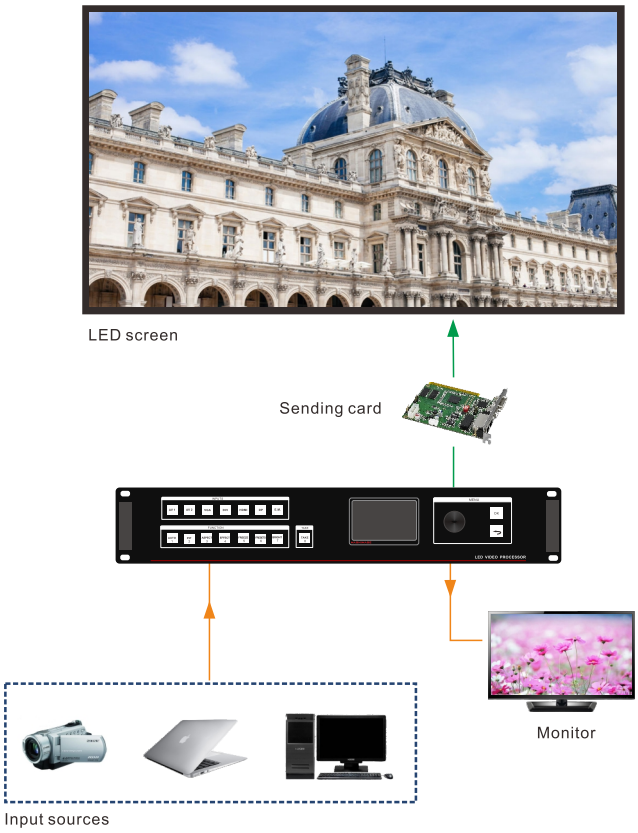
Multiple Machine splicing, 4K * 2K pixel to pixel output



Multi machine 4K*2K pixel to pixel mosaic

3 sets of LED-570E achieve 4K*2K pixel to pixel splicing, full screen 3840*2160, each area part is 1920*1080. Single 570 can load 3840*1080 resolution, to achieve 4K*2K pixel to pixel, we need multiple machines of 570 for splicing, one of 570 is utilized as main controller. Other 2 sets of 570 are taken for splicing by connect with DP loop in vertical direction. The processor 2 output into top two screen, processor 3 outputs into the bottom two screen, achieving 4k*2k pixel to pixel perfectly.

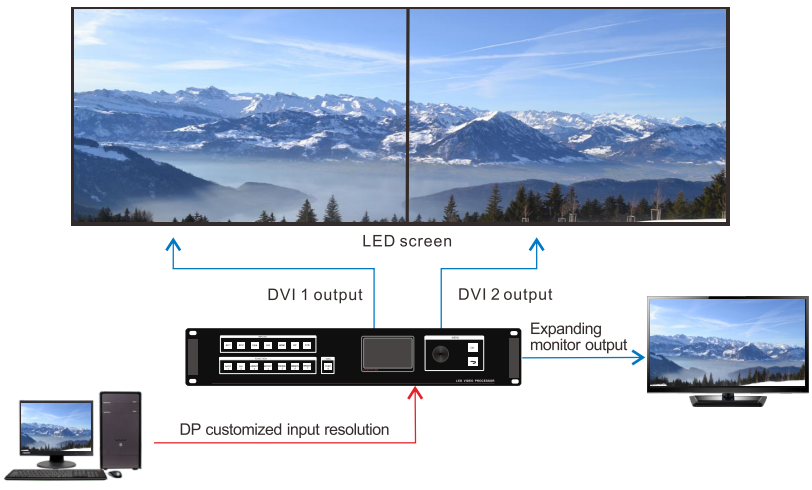
Preview switching



Preview switching

Supposing a customer intends to switch a new signal into the main screen which is displaying image. We can preview the new images on a monitor first, and to confirm the new image is workable. This function which can preview images in advance is named preview mode. First, we need to modify the output resolution into 2K*2K resolution(we suggest using 3840*1080 with 60Hz), and then, under the TAKE sub-menu we select and turn on “preview mode”, DVI 1 will display sub-channel information, Next step to use the front panel “Function” area ”TAKE” key, open the TAKE menu, it display the information of the images which is displaying(PROGRAM) and previewing (PREVIEW) . in the TAKE menu interface, user can adjust the input source under “PREVIEW” (preview image)by the keys in the “INPUTS” area, when users had switched to the image which he need, use “TAKE” key, to switch the preview image to the displaying image, and it support fade in and fade out effect.

Monitor function



Preview function (573E series models)

573E adds extend monitor output module based on the original 580F, the monitor module is consisted with VGA+DVI output port, it can compress the original DVI1+ DVI2 output 4K images to three available resolution to output to monitor display. 1920*1080、1280*1024、1024*768 there available resolution to output to the monitor display.

Technical Specifications

Input

Ports	No	Resolution Specification
AV	2	PAL NTSC SECAM
VGA	1	VESA
DVI	1	VESA
DP	1	Displayport1.1/1.2
HDMI	1	HDMI 1.3/1.4
SDI*	1	480i/60Hz 576i/50Hz 720p/60Hz 1080i/50Hz/60Hz 1080p/50Hz/60Hz(3G SDI)

Outputs

Ports	No.	Resolution Specification
VGA*	1	2K×1K resolution: 1024×768/60Hz 1280×1024/60Hz 1280×720/50Hz/60Hz 1440×900/60Hz 1680×1050/60Hz 1600×1200/60Hz 1600×1200/60Hz-Reduced 1920×1080/60Hz/50Hz 1920×1200/60Hz 2560×816/60Hz 2048×1152/60Hz 2304×1152/60Hz 1024×1280/60Hz 1536×1536/60Hz 2K×2K resolution: 2560×1024/60Hz 2560×1600/60Hz 2560×1440/60Hz 1080×3840/60Hz 3840×1080/60Hz 1920×1080/120Hz 1920×1080/100Hz Customized output resolution : Horizontal resolution:max.3840 Vertical resolution:max.3840
DVI	2	
DP	1	
SDI*	1	480i/59.94Hz 480i/60Hz 576i/50Hz 720p/50Hz 720p/60Hz 1080i/50Hz 1080i/59.94Hz 1080i/60Hz 1080p/23.9Hz 1080p/24Hz 1080p/25Hz 1080p/29.9Hz 1080p/30Hz 1080p/50Hz 1080p/59.94Hz 1080p/60Hz

VGA support 2K×1K Standard only SDI is the extended type

Console specification

Power supply	100-240V AC 50/60Hz 0.8A
Power consumption	40W
Operation temperature	0～45℃
Product dimension（L x W x H）	482.6×304.0×88.0mm
N.W.	4.5kg

LED-570Eseries product versions

Extended template		Product type	Description
Input template	External extended VGA modul	LED-570EV	External VGA input port
	External extended DVI module	LED-570ED	External DVI input port
	External extended SDI module	LED-570ES	External SDI input port, with one channel output loop
Output template	External extended DVI module	LED-572E	External DVI output port
	External extended VGA module	LED-573E	External VGA and DVI output port
	External extended SDI module	LED-575E	External SDI output port

Including Accessories

Provided accessories:

Instructions ×1
Power cable ×1
DVI cable ×1
USB cable ×1
232 serial cable ×1
CD ×1
AV cable ×1
Screw ×16
Certificate ×1

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