
multi-screen extender

Product introduction

The multi-screen extender is also called super-resolution splicing processor, point-to-point splicing processor. The main feature of the product is that it can support a resolution input of more than 4K, and realize point-to-point lossless, equal-scale, non-distorted, and non-stretched display of images.

The multi-screen extender can support any mode setting within 16 splices at most, and can also set different super resolutions for different splicing modes. For example, 3x3 mode supports 5760x3240@30HZ input, 2x3 mode supports 5760x2160@30HZ input, 3x2 mode supports 3840x3240@30HZ input, 1x3 supports 5760x1080@60HZ input, 3x1 supports 3240x1920@60HZ resolution input...

When setting Nx4, such as 1x4, 2x4, 3x4, 4x4, the lateral resolution of the multi-screen extender should not exceed 5450. When setting Nx5, the lateral resolution should not exceed 5100. When setting Nx6, the lateral resolution should not exceed 4900. When setting Nx7, the lateral resolution should not exceed 4750.

By cascading multiple multi-screen extender, it can support super-large-scale point-to-point stitching or more screen stitching with super-large resolution without deformation or stretching. For example, two sets of M9 can form 3x6 point-to-point stitching, and the total resolution reaches 11520x3240.

The main function

- ✓ Support 1 channel DP1.2 and 1 channel HDMI1.4 input;
- ✓ Support any splicing mode customization within 16 splices;
- ✓ Modular design, can customize a variety of different splicing scales;
- ✓ A single DP input port supports 5760x3240@30HZ, 5760x1080@60HZ and other ultra-high resolution input;
- ✓ Support custom resolution function, realize super-resolution display with equal proportion without deformation and stretching;
- ✓ Supports a variety of output resolution options, compatible with LCD screens and projections with different resolutions;
- ✓ Support 1x2, 1x3, 2x1, 2x3, 3x1, 3x2, 3x3 complete point-to-point lossless display, and other modes are proportional display;
- ✓ Multiple units can be used together to achieve point-to-point display of super-large video walls;
- ✓ Supports 180-degree flip and edge shielding of any image;
- ✓ Support infrared remote control, chassis key, RS-232 control;

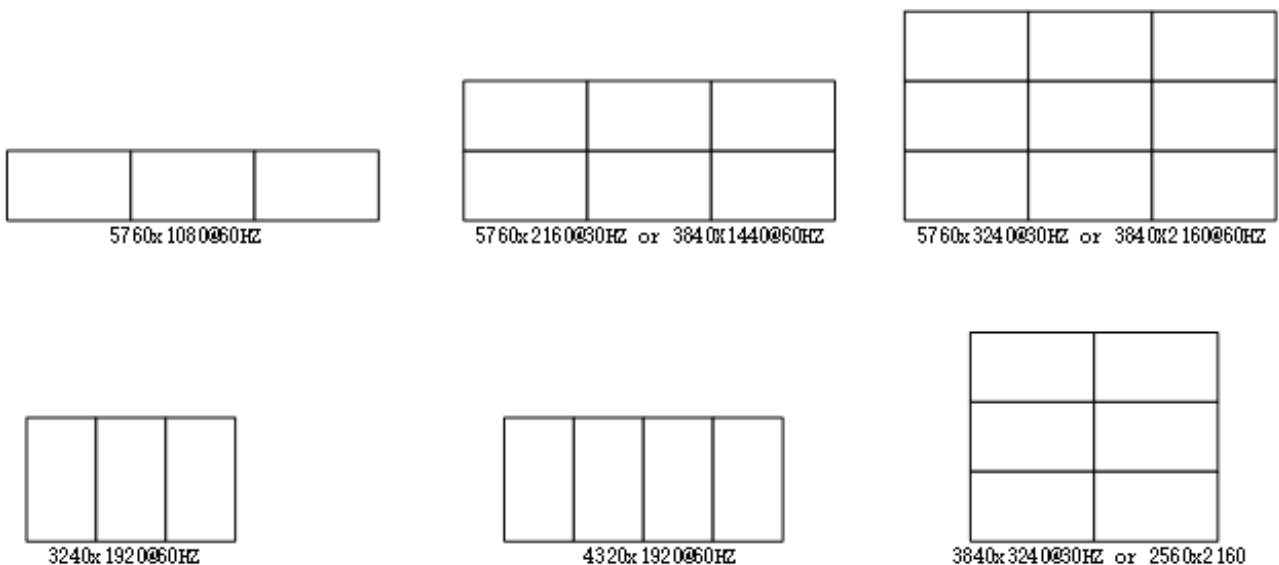
Detailed introduction

1、Input signal and resolution

Support 1 channel HDMI1.4 signal, 1 channel DP1.2 input, HDMI signal only supports up to 3840x2160@30HZ input. According to different splicing modes, DP input can choose a variety of different resolution inputs to realize point-to-point splicing, such as horizontal screen 1x3 mode 5760x1080@60HZ, vertical screen 1x3 mode 3240x1920@60HZ, horizontal screen 3x3 mode 5760x3240@30HZ.

output mode	DP	HDMI
1x2	3840x1080@60hz (point to point)	3840x1080@30hz
1x3	5760x1080@60hz (point to point)	5760x1080@30hz
3x1	1920x3240@60hz (point to point)	1920x3240@30hz
2x2	3840x2160@60hz (point to point)	3840x2160@30hz
2x3	5760x2160@30hz (point to point)	3840x2160@30hz
3x2	3840x3240@30hz (point to point)	3840x2160@30hz
3x3	5760x3240@30hz (point to point)	3840x2160@30hz
1x4	5440x765@60hz (no deformation)	3840x2160@30hz
1x5	5100x574@60hz (no deformation)	3840x2160@30hz
2x4.	5450x1533@30hz (no deformation)	3840x2160@30hz
3x4	5450x2298@30hz (no deformation)	3840x2160@30hz
3x5	5100x1721@30hz (no deformation)	3840x2160@30hz

Some special stitching modes can also realize custom resolution to achieve equal-scale, non-distorted, and non-stretched display, as follows:



2、Stitching mode

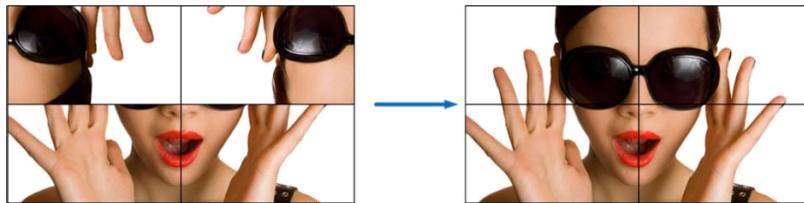
The product uses a modular design, a single machine can achieve a maximum of 16 splices, and a single machine can be set within 16 splices such as 1x2, 1x3, 1x4, 1x5, 1x6, 2x1, 2x2, 2x3, 3x1, 3x2, 4x1, 5x1, 6x1, etc. of any stitching mode. Customize different chassis according to different splicing scales, use a small chassis for 2 to 6 splicing, use a standard 1U chassis for 7 to 13 splicing, and use a standard 2U chassis for 14 to 16 splicing.

3、Output resolution

Supports multiple output resolution options to achieve better compatibility with different display terminals, such as LCD screens, projectors with different resolutions, etc. The machine includes output resolutions of 1024x768, 1280x720, 1280x800, 1600x900, 1920x1080, and 1920x1200.

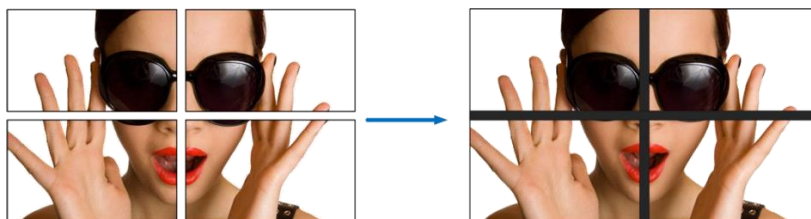
4、Image 180 degree rotation function

Compared with ordinary splicing products, the product a 180-degree mirror flip function for each single display unit. When users use ordinary LCD TVs to splicing, they can turn 180 degrees to the previous row of LCD TVs, thereby greatly reducing the LCD splicing gap and reducing the image distortion caused by excessive edge seams.



5、Edge masking function

All splicing display units have a certain physical frame gap. Without the edge shielding function, the image will be visually pulled apart, which feels very unnatural; the image after edge shielding is not deformed or stretched, and the vision is more natural. lifelike. As shown below, compare the pictures before and after edge masking:



6、Infrared remote control, chassis buttons, serial port control

The product can control the machine through remote control settings, chassis, serial port connection to the host computer software, etc.

7、 Cascading to achieve super-resolution stitching

Through the use of multiple M series multi-screen extender and multi-computer multi-head graphics cards, a set of splicing walls with ultra-high resolution is formed.



Applications

In view of the fact that the product can achieve unconventional 16:9 non-deformation, non-stretching, point-to-point or equal-scale display functions, it is widely used in various fields to achieve personalization or places that have actual needs for ultra-large resolution, such as big data, exhibitions, displays, games and other fields.

1、 game field

At present, the mainstream games in the market have the function of automatically extending the display content according to the increase of the computer resolution, that is to say, a resolution of 5760x1080, the displayed content is three times that of the high-definition resolution of 1920x1080. Through the multi-screen extender, it is easy to achieve super-high resolution output, so that more display content can be presented, allowing players to have more viewing angles, as follows:



2、Exhibition display field

Many places are not limited to traditional high-definition signals or splicing walls with a 16:9 aspect ratio in order to display ultra-wide or ultra-high ratio images to produce shocking or personalized visual effects. The use of multi-screen extender allows users to fully present the visual effects of super-large resolution and different proportions.



3、Big data field

In the power sector, oil pipelines, communication command, logistics, factory business processes, etc., it is often necessary to display super-large data information at the same time, and the super-large data information also requires a computer with super-large resolution to match. Through the M series multi-screen extender, the computer can easily realize the super-resolution display, so that the user data can be displayed clearly and completely on the multi-screen splicing.



Product Topology



Product pictures and size charts

1、small case



technical parameter

name	规格
signal input	
input interface	1 HDMI _{1.4} input、1 DP _{1.2} input
DP input resolution	3840x2160@60HZ、5760x3240@30HZ、1920x3240@60HZ。Backward compatibility and custom resolution;
HDMI input resolution	Support 3840x2160@30HZ, 1920x3240@30HZ, backward compatible and custom resolution;
signal output	
Output Interface	2 to 16 HDMI ports output, support audio and video synchronous output; 1 3.5mm audio left and right channel stereo, used to connect to stereo;
output resolution	1024*768@60HZ, 1280*800@60HZ, 1280*720@60HZ, 1920*1080@60HZ, 1920*1200@60HZ, Resolution can be switched;
color depth	24bit, 16.77 million colors
way to control	Chassis buttons, remote control, RS232;
Input voltage	Small chassis DC12V; 1U and 2U chassis AC110-220V;
display mode	Any mode within 16 stitching
Chassis size, weight, power	
small case	Machine size: 302mm (length) x 152mm (width) x 40mm (height), weight: 1.3KG
	Package Size: 400mm (length) x 250mm (width) x 95mm (height), weight: 1.7KG
1U chassis	Machine size: 440mm (length) x 243mm (width) x 45mm (height), weight: 3.4KG
	Package Size: 565mm (length) x 350mm (width) x 140 (height) weight 4.3KG
2U chassis	Machine size: 440mm (length) x 310mm (width) x 88mm (height), weight 5.5 KG
	Package Size: 565mm (length) x 400mm (width) x 180 (height) weight: 7.3KG