![RGBlink 视诚] **VIEWSIZE THE WORLD**

VSP 516S Quick Start

- Max 2048×1152@60Hz/2560×816×60Hz

  input/output resolution

- User customize output resolution

- 3G/HD/SD-SDI input

- Multiple cascade mapping for super resolution

- Seamless switching between inputs

- Auto input format detect and conversion

- Picture in picture

- Audio and video sync

CONTENT

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Product Introduction

VSP 516S is a video scan converter and scaler. It has nine video and graphic inputs and five pairs of audio inputs. It accepts all video signals including RGB computer video, HDTV and standard definition video. It automatically detects input formats and converts input resolutions, as well as process synchronized audio and video.

It supports seamless switching, higher resolution and refresh rate features, meeting the demand for quick AV synchronization and application requirements. VSP 516S had been introduced into LED video processor market for 3 years, and it is a welcome model for its incomparable cost performance.

System Connection

RGBlink offers solutions to demanding technical problems. Any application questions, or required further information, please contact with our customer Support Engineers.
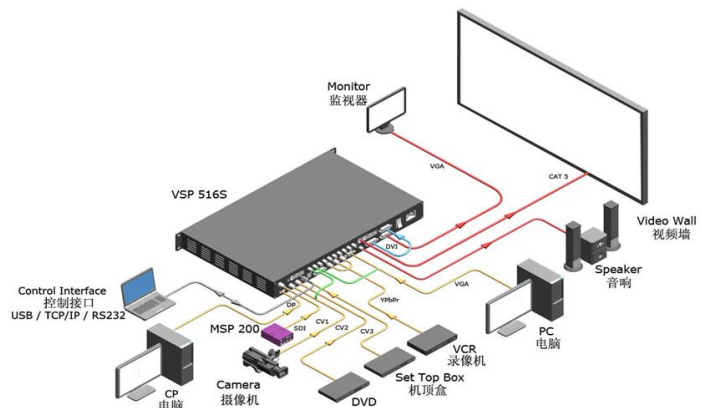
VSP 516S (with audio) System Connection Diagram
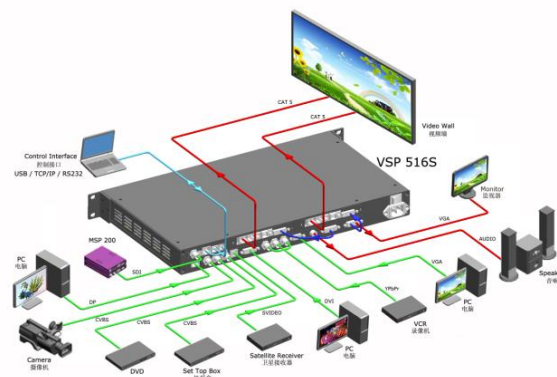
VSP 516S (with two sending cards) System Connection Diagram

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Packing Configuration

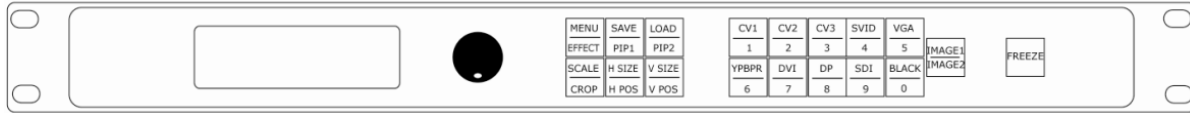|			
Power Cord	**SDI Cable**	**DB9 to RJ11 Cable**	**RCA to BNC Cable**
DVI-D Cable	**USB Cable**	**Quick Start**	**DVD Disk**
Antistatic Bag	**Certification**		
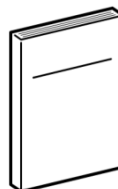
Note: SDI cable is only for VSP 516S.

Chinese Standard, American Standard or European Standard power cord is option.

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Hardware Orientation

## Front Panel

Button Instruction			
MENU/EFFECT	Menu and effect reuse button	DVI	DVI signal source button
SAVE/PIP1	Save and PIP reuse button	DP	Displayport signal source button
LOAD/PIP2	Load and PIP reuse button	SDI	SDI signal source button
SCALE/CROP	Scale and crop reuse button	BLACK	Black button
H SIZE/H POS	Width and horizontal position setting reuse button	IMAGE1/ IMAGE2	IMAGEA and IMAGE B select reuse button
V SIZE/V POS	Height and vertical position setting reuse button	FREEZE	Freeze button
CV1,CV2,CV3	CVBS signal source button	0~9	Number button, use for scale and custom setting
SVID	S-Video signal source button	OLED Panel	Show operation menu items
VGA	VGA signal source button	Knob	Confirm and adjust LCD menu
YPBPR	YPBPR signal source button		

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Back Panel

VSP 516S back panel with audio:
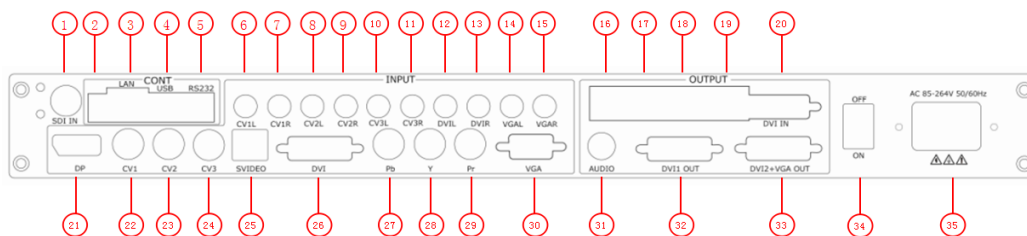
Input Interface	
1	3G-SDI input BNC Port
6~15	Audio Input Port
21	Displayport Input Port
22~24	CVBS Input BNC port
25	S-Video Input DIN 4 Port
26	DVI Input DVI-I Port
27~29	YPbPr Input
30	VGA Input DB15 Port

Other Interface	
2	Dial Switch
3. 16. 17	10/100M Interface RJ45
4. 19	USB Interface USB-B Port
5	RS232 Interface
18	Power Supply Port of Sending Card
20	DVI Input Port of Sending Card
34	Power Switch
35	Power IEC-3

Output Interface	
31	Audio Output
32	DVI Output DVI-I port
33	VGA Output DB15 port

VSP 516S back panel with sending card:
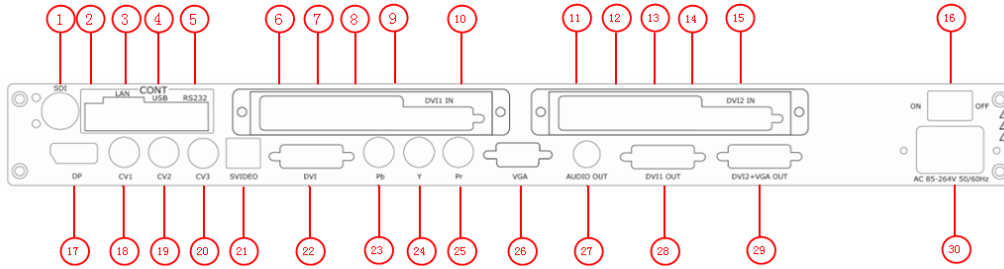
Input Interface

1	3G-SDI input BNC Port
17	Displayport Input Port
18~20	CVBS Input BNC port
21	S-Video Input DIN 4 Port
22	DVI Input DVI-I Port
23~25	YPbPr Input
26	VGA Input DB15 Port

Other Interface

2	Dial Switch
3.6.7.11.12	10/100M Interface RJ45
4. 9.14	USB Interface USB-B Port
5	RS232 Interface
8.13	Power Supply Port of Sending Card
10.15	DVI Input Port of Sending Card
16	Power Switch
30	Power IEC-3

Output Interface

27	Audio Output
28	DVI Output DVI-I port
29	VGA Output DB15 port

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Operating Instruction

Content

How to Realize Single Image Switching

1. Boot the system default CV1 to the current input source, if need seamless switching other source such as DVI, push DVI button.

2. CV1 button light turns off after pushing DVI button. DVI button light is on if the DVI signal is effective and stable. And if the DVI signal is invalid or no input, DVI button light will flash. The same method can be switched CV2, CV3, SVID, YPbPr, VGA, SDI and DP.

Note: Only cut switching is supported among the switch of CV1, CV2 and CV3.

How to Set up the PIP

Push the [SAVE/PIP1] or [LOAD/PIP2] button for two times，button led light turn on, and enter the PIP function menu.

LAYOUT: Can choose PIP layout, the corresponding results are as follows:

PIP L+T   PBP L+R   PBP T+B

SWAP IMAGE: It can set PIP to swap exchange, when choose ON, it can realize the IMAGE A and IMAGE B exchange.

ALPHA: Can set the image transparency, the regulating range is among 0 to 16.

SELECT: Can choose to set the size or position of IMAGE A or IMAGE B individually.

Downloaded from www.Manualslib.com manuals search engine

How to Do Customized Output Resolution

Push the [MENU/EFFECT] button to enter the menu items, turn the knob and choose [OUTPUT], push the knob to confirm. Turn the knob, choose [OUTPUT FORMAT], push knob to confirm and go into the output format menus, as following:

STANDARD--Standard resolution.

CUSTOM--Used defined resolution setting.

Push knob and go into <CUSTOM> menu:

1. Turn knob on each digital position, and change the value of the digital by the digital buttons on the front panel.

2. After the digital, push the Knob will add *, means before * is the horizontal size. Same operation for vertical size:

3. After the digital, push the Knob will add @, means before the @ is the vertical size, and after the @ is the refresh rate. Only digital 50 or digital 60 supports for the refresh rate. Use the digital buttons to finish the settings.

4. After input all the values, push knob to enable VSP 516S to output this resolution. VSP 516S will take 5-10 seconds to enable this output resolution.

How to Set up the Size and Position of the Single Image

Push the [SCALE/CROP] button, and enter the scale function menus, the OLED module show as

follows.

The lights of number button 0~9 turn on, user can adjust the following items by knob or number buttons.

H SIZE: Width setting.

V SIZE: Height setting.

H POS: Horizontal phase setting.

V POS: Vertical phase setting.

RESET: If image quality distorts by improper operation, it can be recover by reset.

How to Set up Image Zoom

The image can be zoom in horizontal or vertical separately, to meet the special effects required.

Push the [MENU/EFFECT] button to go into the menu items, turn the knob and choose [INPUT], push

the knob to confirm. Turn the knob, and choose "ZOOM", show the menus as following:

V UP--Zoom in vertical and the image will be zoom in to the top direction from its bottom.

V DOWN--Zoom in vertical and the image will be zoom in to the down direction from its top.

V UP/DOWN--Zoom in vertical but in both top and down direction from its middle.

H LEFT--Zoom in horizontal and the image will be zoom in to the left direction from its right.

H RIGHT--Zoom in horizontal and the image will be zoom in to the right direction from its left.

H LIFT/RIGHT--Zoom in horizontal but in both left and right direction from its middle.

CENTER--Zoom in 4 corner direction from center.

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How to Realize the Screen Size and Full Size Switching

VSP 516S supports the screen parameters to meet the requirement where user want to switch between scale screen size and full display size (like monitor). This is only enable for a single display window. Following is an example of a screen size is1408 x 832.

Operator can defined the VSP 516S output resolution from standard output resolution list or customized the output resolution which is higher than 1408 x 832. For this application 1440x900 is an example:

Push the [MENU/EFFECT] button to go into the menu items, turn the knob and choose <OUTPUT>, push the knob to confirm, then turn the knob and choose "SCREEN", push the knob and goes into the screen menus as following:

H SIZE--Horizontal pixels, turn knob or use the digital button to input the value1408.

V SIZE--Vertical pixels, turn knob or use the digital button to input the value 832.

H POS--Horizontal position, default value is 0, set the value as the way of H SIZE and V SIZE.

V POS--Vertical position, default value is 0, set the value as the way of H SIZE and V SIZE.

MODE-- Mode option, choose SCREEN SIZE.

SCREEN SIZE   FS   FULL SIZE

How to Realize the Text Overlay Setting

1. Push the [MENU/EFFECT] button, turn the knob, choose [OUTPUT], push the knob to confirm, turn the knob, choose [TEXT OVERLAY] and enter to [TEXT OVERLAY] menu items, push the knob to confirm.

2. Turn the knob, choose "TEXT OVERLAY" option, choose ON, and enable the TEXT OVERLAY function.

3. Push the [MENU/EFFECT] button, return to [TEXT OVERLAY], turn the knob, OLED screen displays menu options, select 13 modes in PRESET, or select BLEND MODE, which includes two modes:

   Mode 1: Graphic content locate at the top and is non-transparent, background transparency is controlled by double-image transparency.

   Mode 2: Graphic content is controlled by double-image transparency, the background is completely transparent.

   Rotate the knob and choose the mode.

4. Push the [MENU/EFFECT] button, return to [TEXT OVERLAY], turn the knob, choose ABOVE/BELOW to select the layer position for IMAGE B.

5. Push the [MENU/EFFECT] button, return to [TEXT OVERLAY], turn the knob, choose BLEND LEVEL, and set the image display transparency, the regulating range is among 0 to 16.

6. Push the [MENU/EFFECT] button, return to [TEXT OVERLAY], turn the knob, choose the color value:

   RED: The value range of color RED that to be set, regulating range between 0~255.

   GREEN: The value range of color GREEN that to be set, regulating range between 0~255.

   BLUE: The value range of color BLUE that to be set, regulating range between 0~255.

7. At the same time, user can view the effect through the screen, to get a better setting.

   Note: All the above settings are available only for IMAGE B.

How to Set up the Volume

In single image mode, the operations are as follows:

1. Push [MENU/EFFECT] to enter the menu items, turn the knob, choose [AUDIO], push the knob to confirm, turn the knob, and choose [MUTE].

2. Turn the knob, and choose "OFF", disable the mute function.

3. Turn the knob, choose <VOLUME>, turn the knob to adjust the volume.

In PIP mode, first, choose IMAGE A or IMAGE B as audio input source, specific steps are as follows:

MENU→ AUDIO →AUDIO IN →IMAGE A/IMAGE B, or push the [IMAGE1/IMAGE2] button, choose IMAGE A or IMAGE B, then repeat the step1 to 3 above.

How to Set up the Playlist

Users can set up VSP 516S in "Device Schedule" in windows control program to play the appointed input video automatically in appointed time and operation of single or dual channels, and set up the ratio and position.

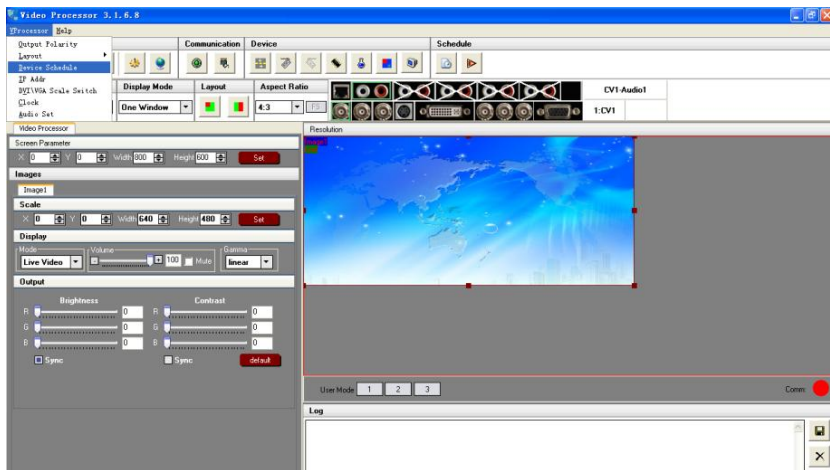Users can setup up to 10 timing operations in the schedule.

1. First, make sure the VSP 516S has been connected to windows control program.

2. Double click the VSP 516S software, software interface is shown as follows:
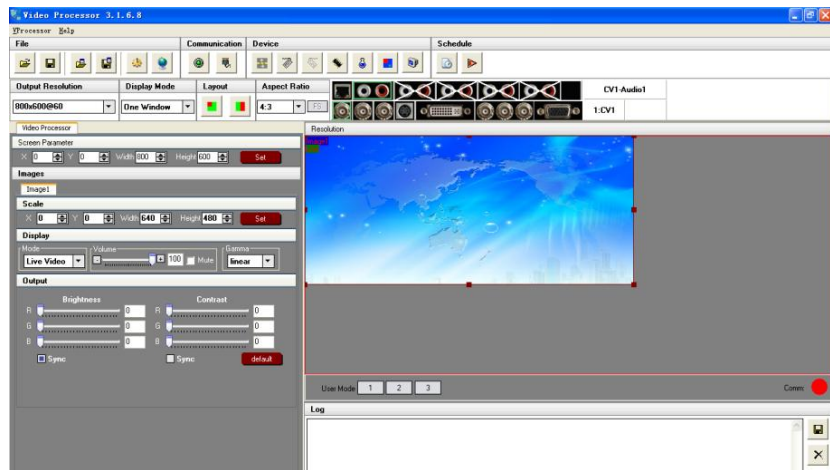
3. Click the [VP Processor] option on the top left, then show the drop-down menu as follows:

4. Choose "Device Schedule" option in the drop-down menu:

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Timer Index: Timer index, currently , users can setup up to 10 timing operation in the schedule.

Date Settings: The date timing play appoint.

Time: The time timing play appoint.

Operating Mode: User can choose single or dual channels.

Scale: User can set the image ratio and position for Image 1 and Image 2 (Dual channels).

 :

Automatic play signal source selection.

5. Click set icon to save after setting.

6. If need to get certain timing content, input the timer index, and click the get icon to see

the specific content. For example: choose timer index 2, show the interface as follows:
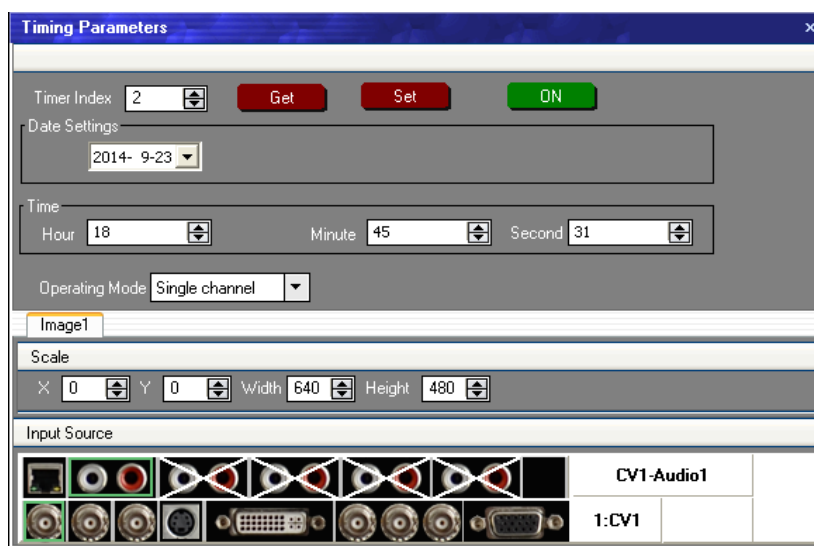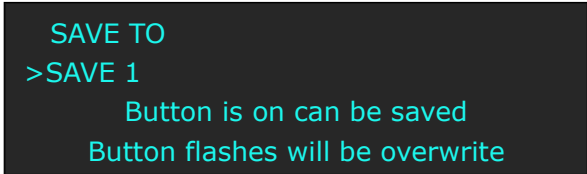

7. The software default "Device Schedule" function close, user should click on icon to

realize automatically play.
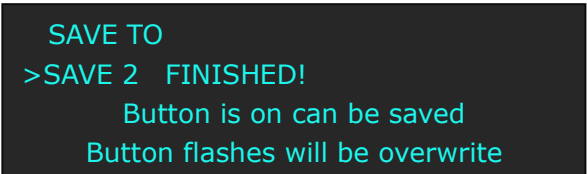
How to Save the Parameter

Save user mode to the customer for different scene directly call, leave out the edit operation inconvenience, VSP 516S provides ten save preferences.

1. Push the [SAVE/PIP1] button, the button light is on, and enable the SAVE function.

```
   SAVE TO
>SAVE 1
         Button is on can be saved
         Button flashes will be overwrite
```

2. Turn the knob, and choose the position that will save, push the knob to confirm.

3. The figure: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 means SAVE1~10, user can push any button on to save. For

   example, save to SAVE 2, push button 2, the OLED panel will show as follows after saving.

```
   SAVE TO
>SAVE 2   FINISHED!
         Button is on can be saved
         Button flashes will be overwrite
```
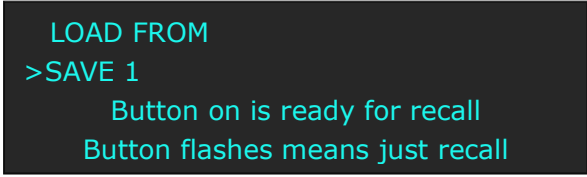
User can also push the [MENU/EFFECT] button to enter to the menu items, turn the knob to choose <SAVE SETUP>, and choose "SAVE TO" to save the parameter.

4. Again push the [SAVE/PIP1] button, the button light is off, and disable the SAVE function.

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How to Load the Saved Parameter

Save user mode to the customer for different scene directly call, leave out the edit operation inconvenience, VSP 516S provides ten save preferences.

1. Push the[LOAD/PIP2] button, the button light is on, and enable the LOAD function.

```
 LOAD FROM
>SAVE 1
        Button on is ready for recall
        Button flashes means just recall
```

2. Turn the knob, and choose the position that will load, push the knob to confirm.

   User can also push the [MENU/EFFECT] button to enter to the menu items, turn the knob to choose

   <SAVE SETUP>, and choose "LOAD FROM" to load the saved parameter.

3. Push the [LOAD/PIP2] button again, the button light if off, and disable the LOAD function.

How to Achieve Multiple Cascade

The working principle of VSP 516S multiple cascade is assigned the front signal to corresponding VSP 516S video processors, again synchronous external timing through processor, and wholly enlarge the picture and intercept corresponding display area according to the corresponding control area to achieve the function of integral display a complete picture, through the central control or computer, it can realize the synchronous broadcasting and at the same time seamless switching.

Here, we will illustrate the operation. For example, the LED display is 2400 * 1024, and now we will cascade with 2 pieces of VSP 516S, specific steps are as follows:

1. Connection and Setting

(1) Connect the DVI signal to DVI interface of the two VSP 516S through DVI distributor (DXP 0108).

(2) Divide the LED display into two parts, respectively for 1152*1024 and 1248*1024, and connect the DVI output interface of the two VSP 516S to two sending cards.

(4) Choose DVI input signal for the two VSP 516S, and set both the VSP 516S output resolution for 1280 * 1024.

2. Multiple Cascade

(1) Push the [SCALE/CROP] button of the first VSP 516S, and scale the screen to the actual points. Choose <H SIZE> in menu option, and set the width as 1152 by the knob or number button, push the knob to confirm.
Turn the knob, and choose <V SIZE> in menu option, and set the height as 1024 by the knob or number button, push the knob to confirm. If input the wrong value, push [MENU/EFFECT] button to exit.
The same method, set the width and height of the second VSP 516S as 1248*1024.

(2) Push the [SCALE/CROP] button of the first VSP 516S, and choose [SPLIT], turn the knob and choose <SPLIT>, push the knob to confirm, then turn the knob and choose [ON] to enable the SPLIT function.
Set the following items by knob or number button, (The operations are same with [SCALE]).

Set [H TOTAL] as 2400 (The total width points of the two screens).

Set [V TOTAL] as 1024 (Horizontal split, so the height is unchanged).

Set [H SIZE] as 1152 (The screen width of VSP 516S).

Set [V SIZE] as 1024 (The screen height of VSP 516S).

Set [H POS] as 0 (The horizontal position of VSP 516S).

Set [V POS] as 0 (The vertical position of VSP 516S).

(3) The same method, enable the [SPLIT] function for the second VSP 516S.

Set the following values by knob or number button (The operations are same with [SCALE]).

Set [H TOTAL] as 2400 (The total width points of the two screens).

Set [V TOTAL] as 1024 (Horizontal split, so the height is unchanged).

Set [H SIZE] as 1248 (The screen width of VSP 516S).

Set [V SIZE] as 1024 (The screen height of VSP 516S).

Set [H POS] for 1152 (The horizontal position of VSP 516S, that is the screen width of the first

VSP 516S).

Set the vertical position [V POS] for (The vertical position of VSP 516S, that is horizontal split, so the

vertical value is unchanged).

3. Save

Push the [SAVE/PIP1] button, the key lights, start the SAVE function.

Select the location that need to save, push the corresponding button, such as save to SAVE1, push

[CV1/1] button can complete parameter preservation.

It is automatically load SAVE1, if save to other channel, please push the [LOAD/PIP2] button and

push corresponding button to load the saved parameter.

4. Sketch

RGBlink
视诚

VSP 516S

VSP 516S

DXP 0108

DVI

DVI

DVI

DVI

DVI

DVI

Video Wall
视频墙

PC
电脑

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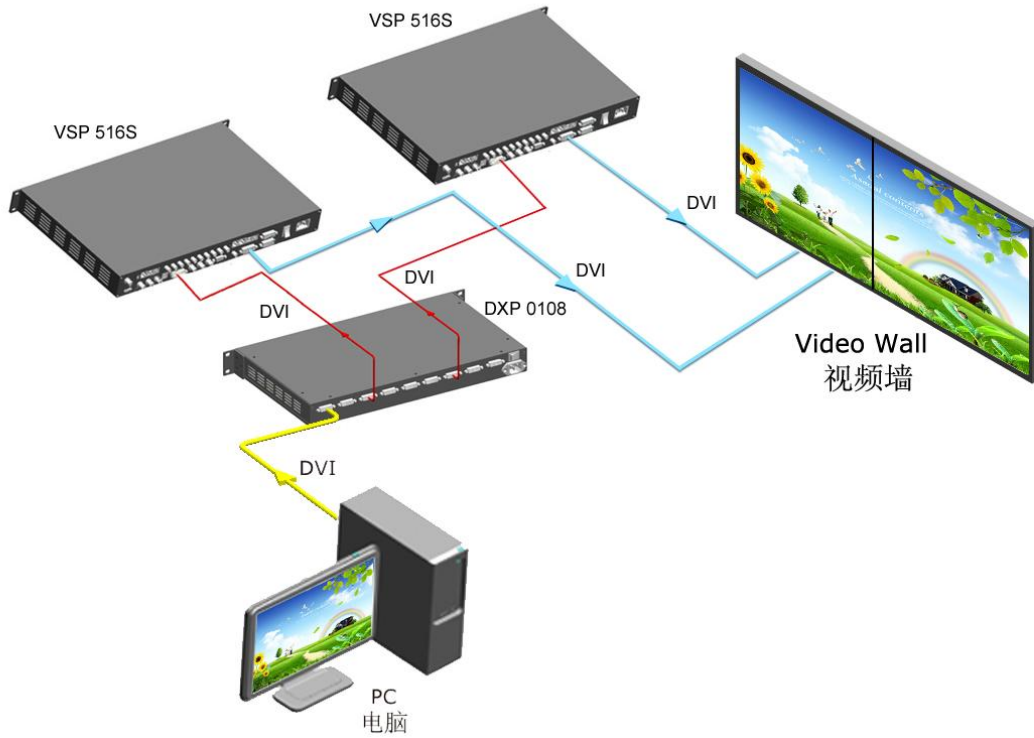
Product Application

Multiple Mosaic

Project 1: Set VSP 516S/1# as PIP mode, and output signal to VSP 516S/2#, VSP 516S/3#, VSP 516S/4# and VSP 516S/5# for cascade by DVI matrix (DXP D0404). The split modes include "FIELD GLYPH", "HORIZONTAL 1/4", "VERTICAL 1/4" and "IRREGULAR".

Project 2: VSP 516S/1# output signal to VSP 516S/2#, VSP 516S/3#, VSP 516S/4# and VSP 516S/5# for cascade by DVI matrix (DXP D0404).

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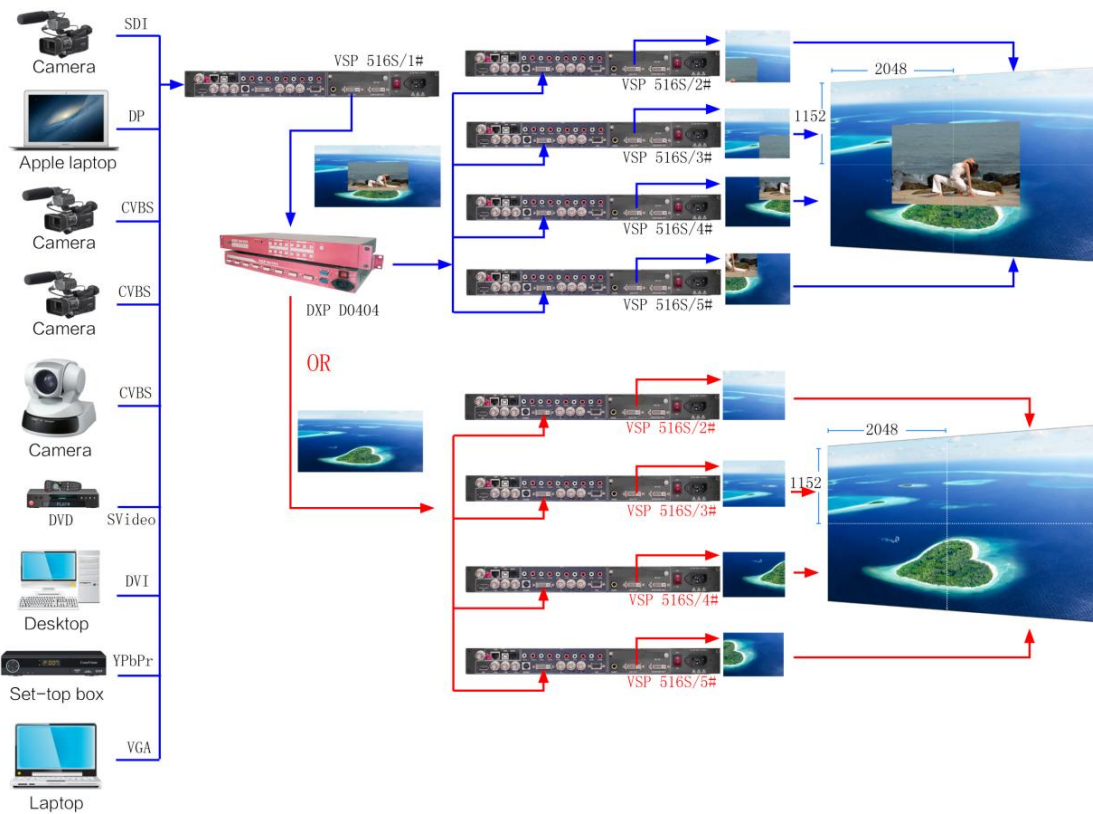
Project Description: The project is divide VSP 516S/1# signal to VSP 516S/2# to VSP 516S/17# for cascade by using DVI matrix (DXP D1616), and then output to LED display. This project can achieve super resolution cascade and custom resolution cascade, also can switch among different signals.
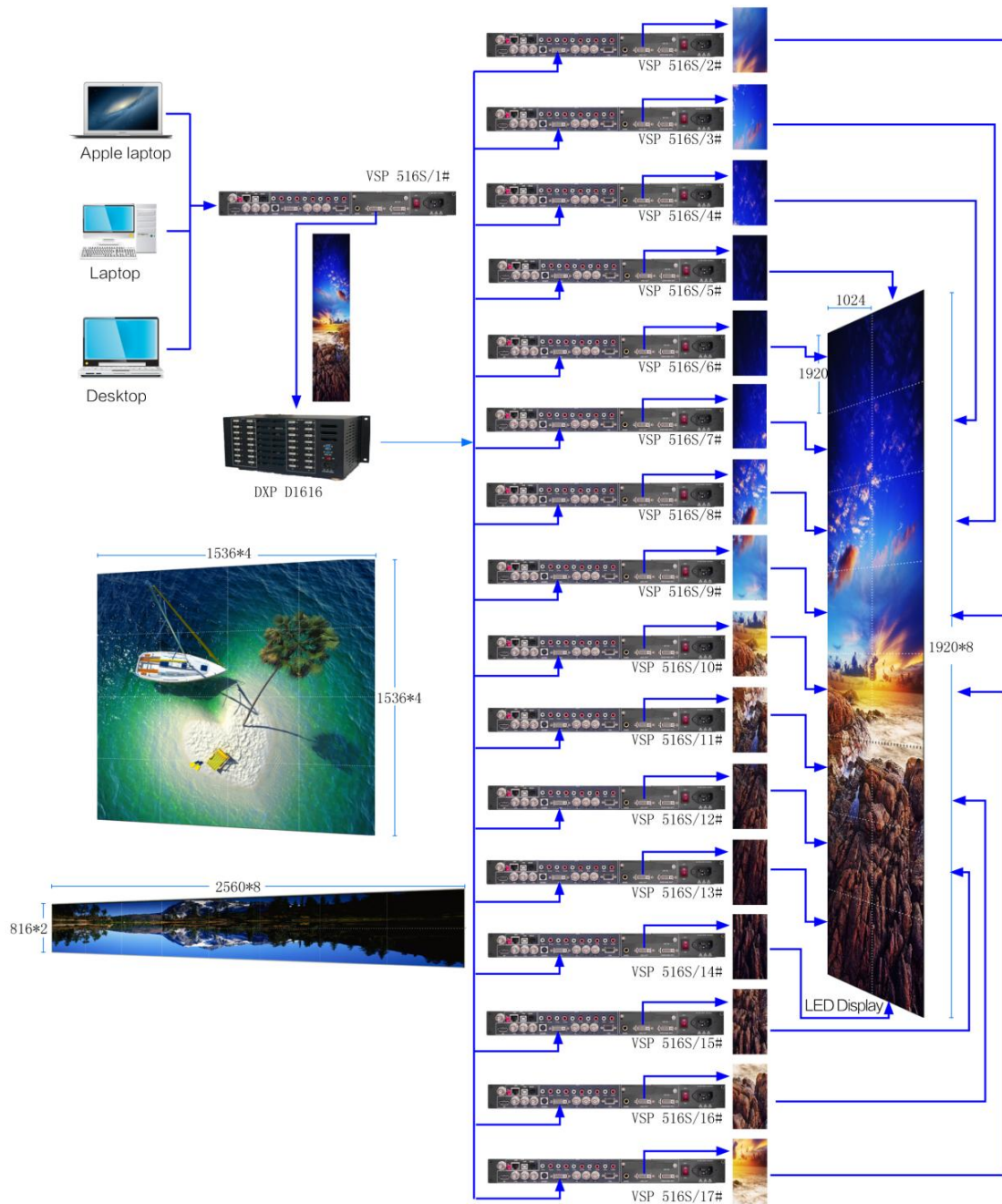
Warranty:

All video products are designed and tested to the highest quality standard and backed by a full 3-year parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

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