



Video Processor User Manual

VSP 5162



RGBlink Science & Technology Co., Ltd.

The pictures and data in the user manual are reference only, any modification please check with real device!

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Revision

| Format | Time | ECO# | Description | Principal |
|--------|------------|------|-------------|-----------|
| 1.0 | 2011-12-22 | 0000 | Release | |
| | | | | |
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| | | | | |

Note: We mention the term "seamless transitions" in the user manual version 1.0, but only Dissolving Effect is available currently. Moreover, we reserve other functions: PIP, multiple processors cascaded for mosaic. Those functions will be issued in version 1.1 whenever available.

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1.0 Safety

The general safety information in this summary is for operating person. Any requirement, please feel freely to contact our service engineer.

| | |
|---|--|
|  | <p>Power Source</p> <p>This product is intended to operate from a power source between 85~265 volts rms . This product is only workable under correct power condition, which is already mark on the back panel of the power.</p> |
|  | <p>High Voltage</p> <p>There are many high voltage components inside.</p> |
|  | <p>Do not Remove Covers and Panels</p> <p>Do not remove Covers in any conditions. There are not any spare components inside for maintenance, so do not maintain this product by userselves, any requirement, please feel free to contact our service engineer. Keep heavy device from power cord.</p> |
|  | <p>Grounding the Product and Use the Proper Fuse</p> <p>This product is grounded through the grounding conductor of the power cord. To Avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals.</p> |
|  | <p>Keep away from Magnet, Motor, TV and Transformer.</p> |
|  | <p>Guard Against Damp</p> <p>Keep using inside clean and dryness environment, once the device get wet, must remove power cord right now.</p> |
|  | <p>Keep away Exploder</p> <p>Do not operate the device inside dangerous and easy explosive gas, which it may make fire, blast or something without expectation.</p> |
|  | <p>Keep away Pour Liquid and Fragment</p> <p>It is forbid to pour liquid, metal fragment or anything else inside this device to avoid fire and other accident. Once that happens, must remove power cord and try to make it clean before power on again.</p> |

2.0 Specification

The VSP 5162 is a dual channel video processor that accepts a wide variety of video signals, including RGB computer video, HDTV video. It combines truly seamless, glitch-free switching with advanced scaling technologies to meet the requirements of high quality, high resolution video presentations. With multiple transition effects like curtain, wipe, fade in fade out etc, it makes the performance perfect. It supports user defined image size and coordinate, dual image processing, multiple splicing modes, pixel to pixel mapping, several user configurations and multiple ways of controlling, lots of advanced functions in high-end show are available.

Features:

Processing:

- True Seamless switching
- High quality scaling technology
- 10-bit sampling and internal processing/scaling
- Short video delay

Multiple inputs

- VSP 5162 provides 4xcomposite(CVBS) , 2x DVI (compatible with HDMI 1.3) 2xVGA, 1 x3G self-adaptive SDI input (3G SDI module) , 2x reuse DVI input (Compatible with HDTV and HDMI , HD Component , PC DVI video or PC RGB video signal)for the application in different environments. Wherein, both 3G SDI input or DVI+VGA input is optional module.

Multiple outputs:

- 1 x Preview VGA output
- 2 X DVI outputs are provided for splitting into two different pictures or distributing the same two pictures, the two DVI outputs can be connected with LED display or other display.

Loop-out Interface

- designed to boost the signal strength
- the same video can be connected to a local monitor
- the same video available for other equipments.

Preview Operation

- Users can preview all the inputs one by one or monitor the current output signal from the LCD monitor, this flexibility makes VSP 5162 perfect for live event.

Multiple Control Methods

Front Panel, RS232、USB, Etherent

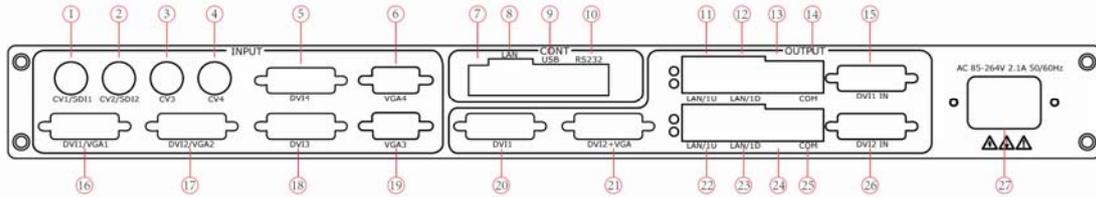
3.0 Parameters

| CVBS Input | |
|-----------------------------|--|
| Number of Inputs | 4 |
| Connector | Standard BNC Socket |
| Supported Standards | PAL/NTSC |
| Signal Level | 1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm |
| Multiplex | 480i,576i |
| VGA Input | |
| Number of Inputs | 4 |
| Connector | Standard DB9 Socket X2+Standard DVI-I socket X2 |
| Supported Standard | VGA-UXGA |
| Signal Level | R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level: 300mV Sync-tip: 0V |
| Supported Resolution | VGA-UXGA (800*600@60, 1024*768@60, 1280*1024@60, 1440*900@60,1600*1200@60) |
| DVI Input | |
| Number of Inputs | 4 |
| Connector | Standard DVI-I socket |
| Supported Resolution | SMPTE: 625/25/50 PAL, 525/29.97/59.94 NTSC, 1080P50,1080P59.94/60,1080i50,1080i59.94/60, 720p50,720p59.94/60 VESA: 800×600×60Hz, 1024×768×60Hz, 1280×768×60Hz, 1280×1024×60Hz, 1600×1200×60Hz, 1920×1080×60Hz |
| Signal Level | TMDS pwl,single pixel input,165MHz bandwidth |
| Format Standard | HDMI 1.3 |
| SDI Input(3G module) | |
| Number of Inputs | 1 |
| Connector | Standard BNC Socket |
| Transmission speed | 19.4Mbps~3Gbps |
| Supported Standard | ITU-R BT.656,ITU-R BT.601,SMPTE 259M, SMPTE 292, SMPTE 297 |
| Balance | Belden 1694A 100m self-adaptive 3G,200m self-adaptive 1.485G,350m self-adaptive 270Mbps |
| Signal Level | TMDS pwl , 165MHz bandwidth |
| YPbPr Input | |
| Number of Inputs | 2 |
| Connector | Standard DVI-I socket |

| | |
|-----------------------------|---|
| Format Standard | HD analog input |
| Signal Level | Y: 1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm Pb/Pr: 0.7Vpp±3dB 75 ohm |
| Supported Resolution | 480i,576i,480p,576p,720p50,720p60,1080i50,1080p50 1080i60,1080p60 |
| VGA Output | |
| Number of Inputs | 1 |
| Connector | Standard DVI-I socket |
| Supported Resolution | VESA : 800×600×60Hz , 1024×768×60Hz , 1024×768×75Hz , 1280×768×60Hz, 1280×1024×60Hz, 1440×900×60Hz, 1400×1200×60Hz, 1600×1200×60Hz, 1920×1080×60Hz |
| Signal Level | R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level: 300mV Sync-tip: 0V |
| DVI Output | |
| Number of Inputs | 2 |
| Connector | Standard DVI-I socket |
| Signal Level | TMDS pwl,single pixel input,165MHz bandwidth |
| Supported Resolution | VESA: 800×600×60Hz , 1024×768×60Hz , 1024×768×75Hz , 1280×768×60Hz, 1280×1024×60Hz, 1440×900×60Hz, 1400×1200×60Hz, 1600×1200×60Hz, 1920×1080×60Hz |
| Function | |
| Input channel configuration | support each input channel signal programming configuration |
| PIP | Support PIP、PBP for any two inputs |
| Transition effects | Fade in and fade out switching between any two inputs |
| Extras | |
| Communication | RS232 USB TCP/IP |
| Power Supply | 85-264V 2.1A IEC-3 |
| Working Environment | 0°C~45°C |
| Stored Environment | 10% to 90% |
| Product Warranty | 1year |

4.0 Connection

4.1 VSP 5162 Back Panel



1~4、 Composite Video inputs,support audio signals from DVD player , Set-top box , HD player sources via the BNC connector of 75 ohm; **If installed 3G SDI optional module, Connector 1 will be reused as 3G-SDI input;**



16/17、 DVI input (Compatible with HDMI 1.3), Input the video signal from HD player, DVD, Computer video signal via DVI connector; **5/18 can only accept standard computer-graph DVI signal;**



6/19、 VGA input interface, DB-15, used to support Analog RGB input from Laptop or others;



| | |
|---|---|
|  | <p>16/17 Via  adapter, users can connect both DVI and</p> <p>VGA, or via  VGA to DVI adapter to connect VGA only.</p> |
|---|---|

7、 Dial switch;

8、 10/100M interface (copper RJ45).

9、 USB interface,Used to connect the computer

10、 RS232 interface (RJ11) for AVDSP processor. Used to connect the computer;

11/12/22/23、 Gigabit copper port, connect to LED screen;



13/24、 Power supply port of Sending Card, but power has been already supplied by video processor itself, no external power supply needed.

14/25、 USB control port of sending card;

15/26、 DVI input, Input the DVI out originating from other video processors. (This DVI connector does not suggest hot-plugging)



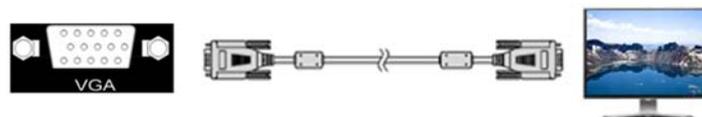
20、 DVI output, connect to the monitor or LED screen which has DVI interface (This DVI connector does not suggest hot-plugging) .



21、 DVI +VGA output via DVI connector, connect to the monitor or LED screen which has DVI interface. (This DVI connector does not suggest hot-plugging) .



DVI +VGA , VGA output connector can be connected to monitor or projector which has VGA interface.

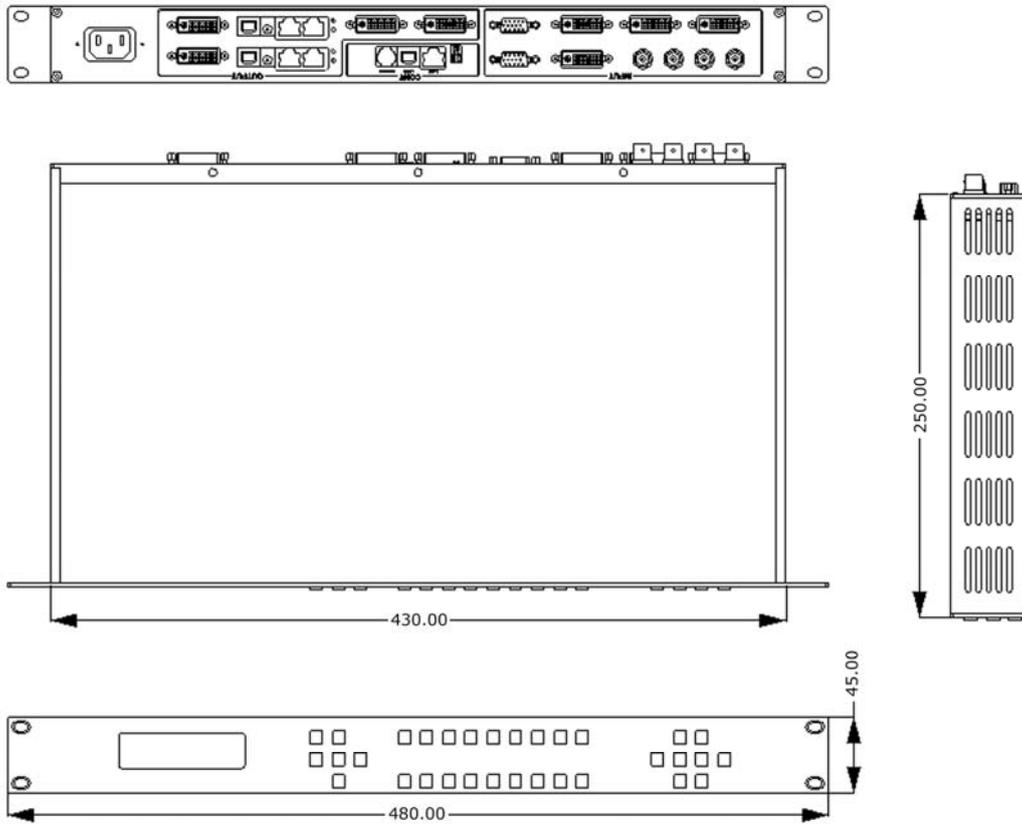


| | |
|---|--|
|  | <p>21 Via  adapter, can connect with DVI-based or VGA-based equipment, and via  DVI to VGA adapter, can output VGA only.</p> |
|---|--|

27、 Switch and power. It must use IEC-3 power line. Always ground to avoid electric shock.

4.2 How to install

VSP 5162 frame size

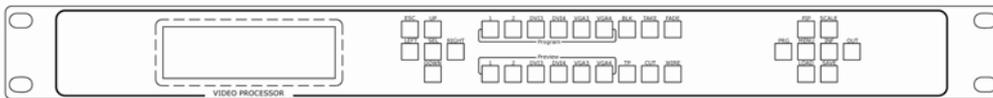


5.0 Front Panel Keyboard Operation

Insert power cord and push power to ON position. LCD module on the front panel will show RGBLINK and go into self verification before it load last setting config and send processed image to the target monitor. For the first setup, DVI input is default source. With front panel keyboard, user can operate VSP 5162 through the menus on LCD panel.

5.1 VSP 5162 Operator Guideline

VSP 5162 front panel as following:



1、LCD panel , used to show button menu and menus for interactive communication.

2、Buttons

ESC: press **ESC** to quit from current menu;

SEL: Press **SEL** to confirm the current menu or value;

UP: press this buton to select the previous item or increase a value;

DOWN: press this buton to select the previous item or decrease a value;

LEFT: press this buton to select the item on the left;

RIGHT: press this buton to select the item on the right;

3、Signal keys:

Program

1: Program Button **1**, Press the button, its LED light turns on, Program output will be swithced to this channel 1;

2: Program Button **2**, Press the button, its LED light turns on, Program output will be swithced to this channel 2;

DVI 3: DVI3 input selection Button, its LED light turns on, Program output will be swithced to this channel;

DVI4: DVI4 input selection Button, its LED light turns on, Program output will be switched to this channel;

VGA3: VGA3 input selection Button, its LED light turns on, Program output will be switched to this channel;

VGA4: VGA4 input selection Button, its LED light turns on, Program output will be switched to this channel;

Preview

1: Preview Button 1, Press the button, its LED light turns on, Preview output will be switched to this Program Channel 1;

2: Preview Button 2, Press the button, its LED light turns on, Preview output will be switched to this Program Channel 2;

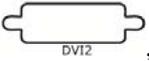
| | |
|---|--|
|  | <p>Program guideline for Button 1, Button 2: Firstly: Press Preview Button 1 or Button 2; Secondly, Press  button; Thirdly, LCD panel will give message and ask users to select input source by pressing   buttons. Press  to confirm; Fourthly, Press  to quit from program and finish.</p> |
|---|--|

DVI3: DVI3 input selection Button, Press the button, its LED light turns on, Preview output will be switched to DVI3 channel;

DVI4: DVI4 input selection Button, its LED light turns on, its LED light turns on, Preview output will be switched to DVI4 channel;

VGA3: VGA3 input selection Button, its LED light turns on, its LED light turns on, Preview output will be switched to VGA3 channel;

VGA4: VGA4 input selection Button, its LED light turns on, its LED light turns on, Preview output will be switched to VGA 4 channel;

| | |
|---|---|
|  | <p>Program output goes through the connector , Preview output goes through the connector , DVI+VGA output goes through cable , to output DVI and VGA</p> |
|---|---|

| | |
|--|--|
| | video, or use  adapter to output VGA video. |
|--|--|

4、 Function

BLK: The BLK button can be thought of as an additional input video source. When selected the BLK button LED light will turn on and the preview output will be black. Press TAKE Button, Program output will be black; Press again BLK button to disable BLK signal and video processor returns to original Preview output, Press TAKE, Program output the same picture of Preview output, Preview out is the former previewed input signal.

TP: Test Pattern, press this button, will output test pattern picture, test pattern can be set and selected from LCD panel, press the **TP** button again, to disable TP.

TP Enable : DVI1
 >OFF

Press SEL to enter TP setting menu, when enabled/disabled, shows TP is turned on/off:

TP Enable : DVI1
 >ON

Press LEFT/RIGHT button, can output TP through DVI2 and VGA:

TP Enable : DVI2
 >OFF

TP Enable : VGA
 >OFF

| | |
|---|---|
|  | TP is the picture of Color Bar at the resolution of 1024x768x60. |
|---|---|

CUT: seamless cutting button, press the button to switch preview out to Program Output;

TAKE: seamless dissolving, press the button to to switch preview out to Program Output with dissovling transition effect;

WIRE: Press the button to enter Effects Configuration Menu, multiples effects are available, such as Wipe hard (soft), Wipe Plus out.

FADE: Press the button to enter fade in fade out configuration menu, users can set the duration time of fade effect.

| | |
|---|--|
|  | <p>CUT, FADE or TAKE , WIRE is what we mean fade in and fade out or switch with transition effect.</p> |
|---|--|

PRG: Program button, press to enter channel configuration;

| | |
|---|--|
|  | <p>Program guideline for Button 1, Button 2: Firstly: Press Preview Button 1or Button 2; Press  button; Thirdly, LCD panel will give message and ask users to select input source by pressing   buttons. Press  to confirm; Fourthly, Press  to quit from program and finish.</p> |
|---|--|

PIP: press the button to show picture in picture on the screen;press the button again to return single picture window;

SCALE: SCALE SIZE AND POSITION SETTING,Press the button and goes from Hsize→Vsize→HPOS→VPOS to set Size value and position value;

Push LEFT/RIGHT and push UP/DOWN and SEL to confirm the relevant items;

| |
|------------------------|
| Scale Width: *1920 |
| Scale Height: *1080 |
| Scale Pos X: *0 |
| Scale Pos Y: *0 |

PROG: Program Button, press the button to program for Button 1 and Button2.

MENU: Advanced menu, Press the **MENU** to enter the main menu, the submenus: Device information, Factory Reset, Languageand Alpha setting are all included. Push the LEFT/RIGHT to select the relevant submenu

INF: Press the button to update system information;

INPUT: DVI
1920x1080X60

Output Format:
1920x1080X60

Software version:
1.0

RGBLINK
SN: *****

OUT: Output resolution selection button, Push **OUT** to enter the Output menu,

Output Format:
*1920x1080X60

Press the UP or DOWN to select different output resolution , Push **SEL** to select.

Output Format:
>1920x1080X60

LOAD: Parameter Recalling Button, Press LOAD to recall the saving parameters , users can load data from SAVE1 or SAVE2.

Load Setting From:
>SAVE1 SAVE2

Press the UP or DOWN to select modes SAVE1 or SAVE 2, Push **SEL** to confirm.

Load Setting From:
*SAVE1 SAVE2

SAVE: Saving Button, press the button to save the parameters to SAVE1 or SAVE2.

Save Setting From:
>SAVE1 SAVE2

Press the UP or DOWN to select saving destination SAVE1 or SAVE 2, Push **SEL** to confirm.

Save Setting From:
*SAVE1 SAVE2

5.2 VSP 5162 Video Processor Menu

While VSP 5162 is initializing, the following messages will be displayed on the LCD panel.



VSP 5162 can be connected via network cable to the LAN, but when the device is not connected to the network, there will be a prompt: DHCP Failed; The device does not show DHCP Failed when you access the network: as following:



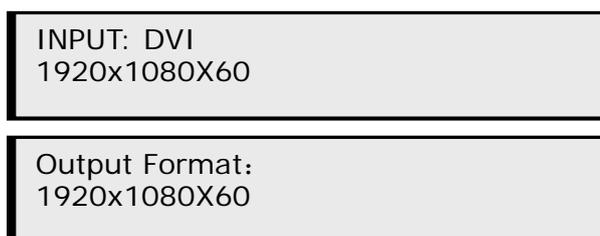
When connected with network successfully, it will get a IP automatically. Like menu as following:



Press **【MENU】** button go to main menu, as followings:



The first line shown on LCD is VSP 5162. Select DEV Info(i.e.: Device Information and serial number) to show relevant information about current input. As following:



```
Software version:
1.0
```

```
RGBLINK
SN:*****
```

Press **【ESC】** to go back the main menu, as following; Press **【right】** and **【left】** and select **Reset** submenu. Press **SEL**.

```
>VSP 5162
Dev Info *Reset
```

after successful reset you will see the menu as follows:

```
Reset Finished
```

Press **【ESC】** to go back the main menu, Press U **【UP】** or **【DOWN】** to find

LANGUAGE

Submenu:

```
>VSP 5162
*Language OUT
```

Press **【SEL】** select the relevant submenu. LANGUAGE submenu as follows

```
* Language select
> English 中文
```

Press **【right】** and **【left】** to select the LCD language.

Press **【ESC】** to go back the main menu, Press **【right】** and **【left】**, select HDMI OUT menu;

```
>VSP 5162
Language * OUT
```

Press **【SEL】** and enter the corresponding sub-menu settings; go to program sub-menu DVI1 as shown:

```
OUT
>DVI1 DVI2
```




Likewise, above operation can also be applied for setting Preview output.

Press **【ESC】** to return to the previous menu, Press **【UP】** or **【DOWN】**, scroll the menus;

And find the menu (Time) and (Calendar) ;



Press **【SEL】** to enter Time setting;



Press **【SEL】** to activate the Time setting, if there is a * sign, means the menu item has been selected; spin the knob from the front keyboard to revise the time.



Press **【ESC】** to return to the previous menu, Press **【right】** and **【left】**, find the Calendar as following;



Press **【SEL】** to enter Calendar setting; Date shows on the left side, Day shows on the right side.



Press **【SEL】** to activate the Calendar setting, if there is a * sign, means the menu item has been selected, Press **【UP】** or **【DOWN】** to change the value;



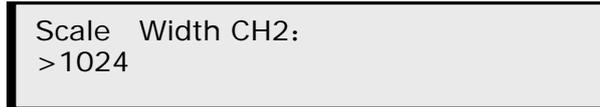
Press **【ESC】** to return to the previous menu, scrolling the menu, find the Scale

menu:

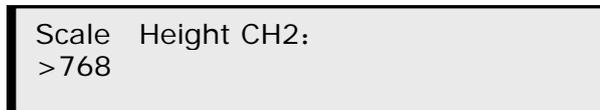


Press **【SEL】** to enter the Scale setting, Scale menu means the zoom menu, including the following settings:

Scale Width: Scale in horizontal



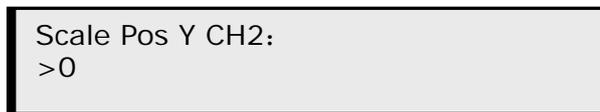
Scale Height: Scale in vertical



Scale Pos X: Scale X position

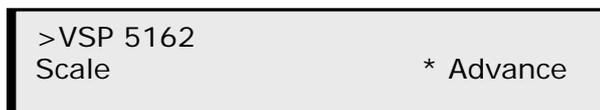


Scale Pos Y: Scale Y position

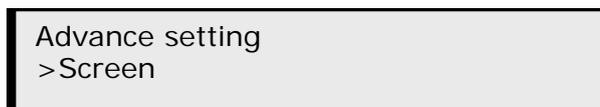


| | |
|---|--|
|  | <p>Scaling setting only effects for program output channel, while preview is always shown in fullscreen. Users can modify the scaling parameters so as to resize the image and position shown in LED display</p> |
|---|--|

Press **【ESC】**, return to the main menu, scrolling to find Advance submenu;



Press **【LEFT】** or **【RIGHT】** to set values for screen parameter and aspect ratio.



Press **【SEL】**, enter the advance menu, scrolling to find Screen:

non-transparent mode, wipe right, wipe down, wipe up, wipe square in/out, wipe center out, transparent DISSOVLE Switch mode.

Setup AB Mode
> CUT Switch

Setup AB Mode
> DISSOVLE Switch

| | |
|---|---|
|  | Press Button 【WIRE】 to go to AB Mode setting directly. |
|---|---|

Press **【SEL】** to enter the fade switch to confirm the time setting; Press **【UP】** or **【DOWN】** to adjust the duration of dissolve effect, which ranges "0.5 s-30.0 s".

Dissolve Duration:
>3.0 s

| | |
|---|---|
|  | Press button 【FADE】 to go to AB Mode menu to adjust the duration of fade effect. |
|---|---|

Press **【SEL】** to enter (WIPE HARD Switch) setting;

Setup AB Mode
> WIPE HARD Switch

Setup AB Mode
> WIPE SOFT Switch

Press **【LEFT】** or **【RIGHT】**, can check the multiple seamless transition effects:

WIPE Mode
> WIPE RIGHT

WIPE Mode
*WIPE LEFT

WIPE Mode
*WIPE DOWN

WIPE Mode
*WIPE UP

WIPE Mode
*WIPE PLUS OUT

WIPE Mode
*WIPE CURTAIN OUT

WIPE Mode
*WIPE CENTER OUT

WIPE RIGHT SOFT



WIPE RIGHT HARD



WIPE LEFT SOFT



WIPE LEFT HARD



WIPE UP SOFT



WIPE UP HARD



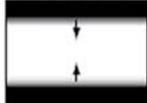
WIPE DOWN SOFT



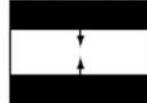
WIPE DOWN HARD



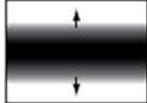
WIPE CENTER IN SOFT



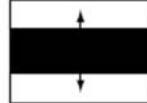
WIPE CENTER IN HARD



WIPE CENTER OUT SOFT



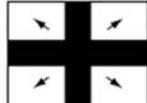
WIPE CENTER OUT HARD



WIPE PLUS OUT SOFT



WIPE PLUS OUT HARD



Press **【ESC】**, return to the main menu, Press **【LEFT】** or **【RIGHT】**, find Crop setting option;

>VSP 5162
AB Mode *Crop

Press **【SEL】** to enter CROP setting, Crop setting includes following submenu:

Crop Width:

Crop Width CH2:
>1024

Crop Height:

Crop Height CH2:
>768

Crop Pos X:

Crop Pos X CH2:
>0

Crop Pos Y:

Crop Pos Y CH2:
>0

Press ESC to return to the main menu, scroll and find the submenu Picture

【Picture】 :

>VSP 5162
*Picture Matrix

Press **【SEL】** to enter Picture setting, Picture menu includes parameters options for adjusting image quality.

Set Brightness: to change the brightness value of image;

Set Contrast: to change the contrast value of image;

Set Saturation: to change the saturation value of image;

Set Color Red : to change the red color value of image;

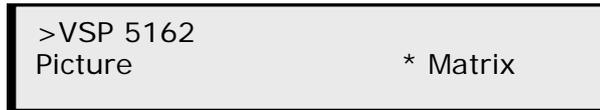
Set Color Green: to change the green color value of image;

Set Color Blue: to change the blue color value of image;

Users can adjust the settings according to the actual situation, this function is mainly applied to the technician who is very professional at the image quality.

However, if there is any improper operation and image quality errors or distortion occur, reset the device from main menu Recall.

Press **【ESC】**, return to the main menu, Press **【LEFT】** or **【RIGHT】**, and set **【Matrix】**

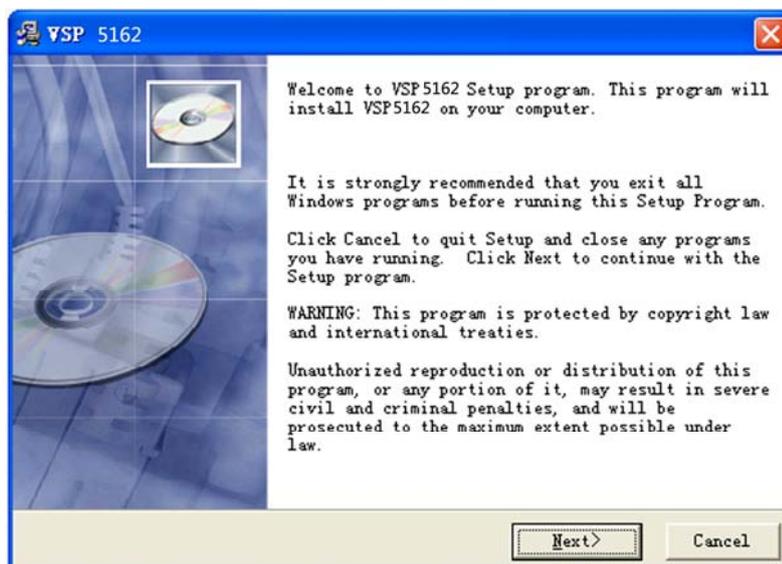


6.0 Communication Software Guideline

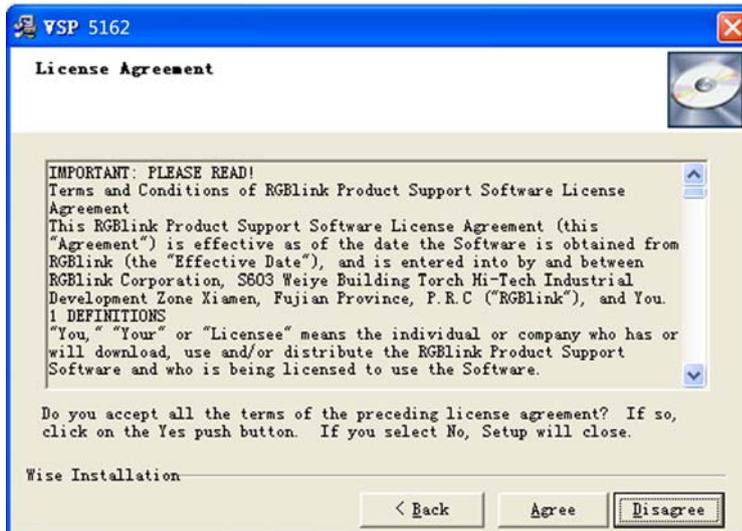
AVDSP video processor is very easy to be configured with user friendly communication software, support drag and drop operation for edit and display. Also can customized with schedule function.

6.1 Install Software

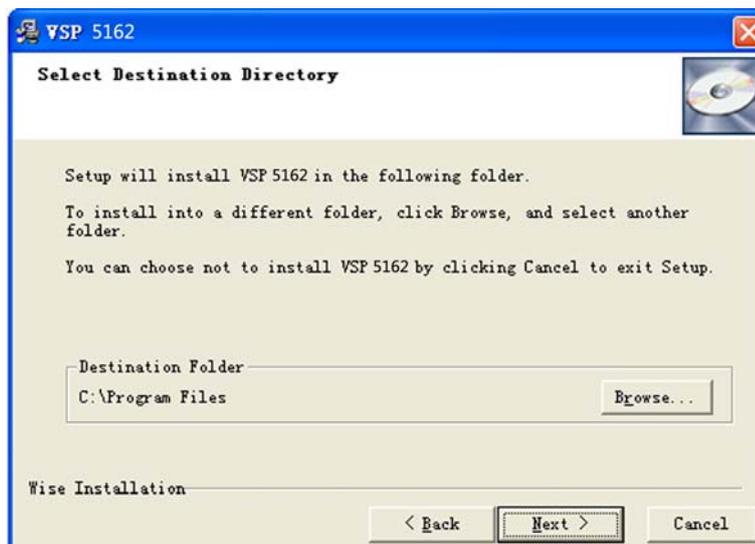
Dual click AVDSP.exe to install, English version default for use,after click "select " to next dialog.



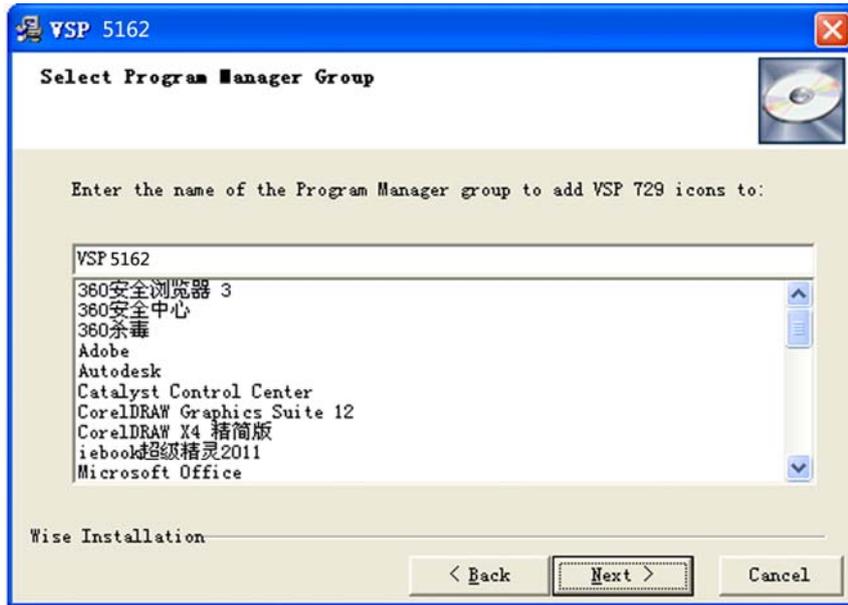
And in next dialog is the user agreement of the software, click Agree to go on and Disagree to exit.



User can select "Destination Directory" to choose the VSP 5162 install software

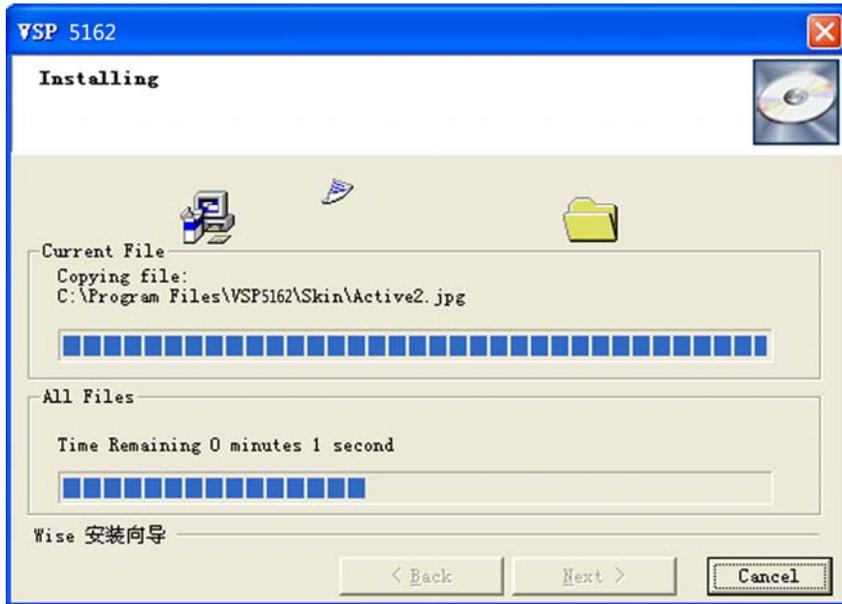


Click "Next" to go on:

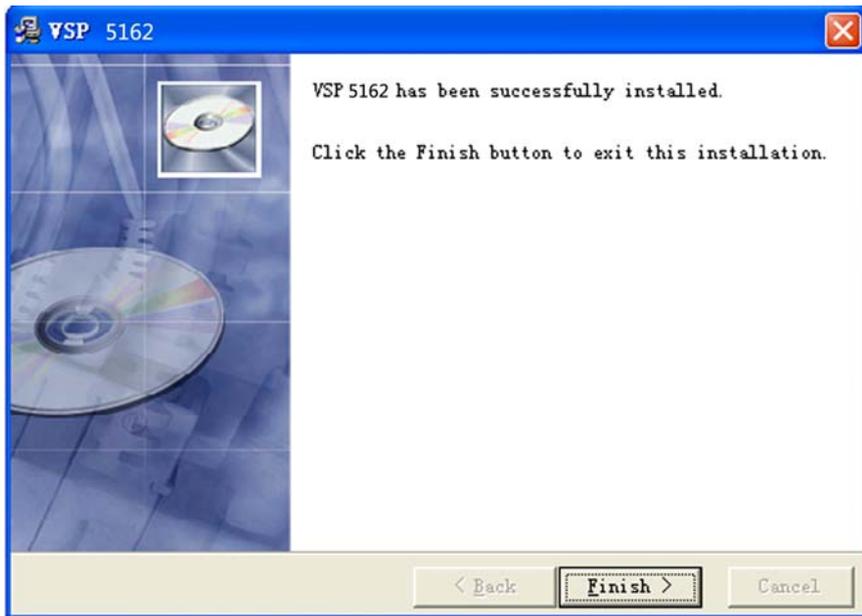


Click "next" to go on:



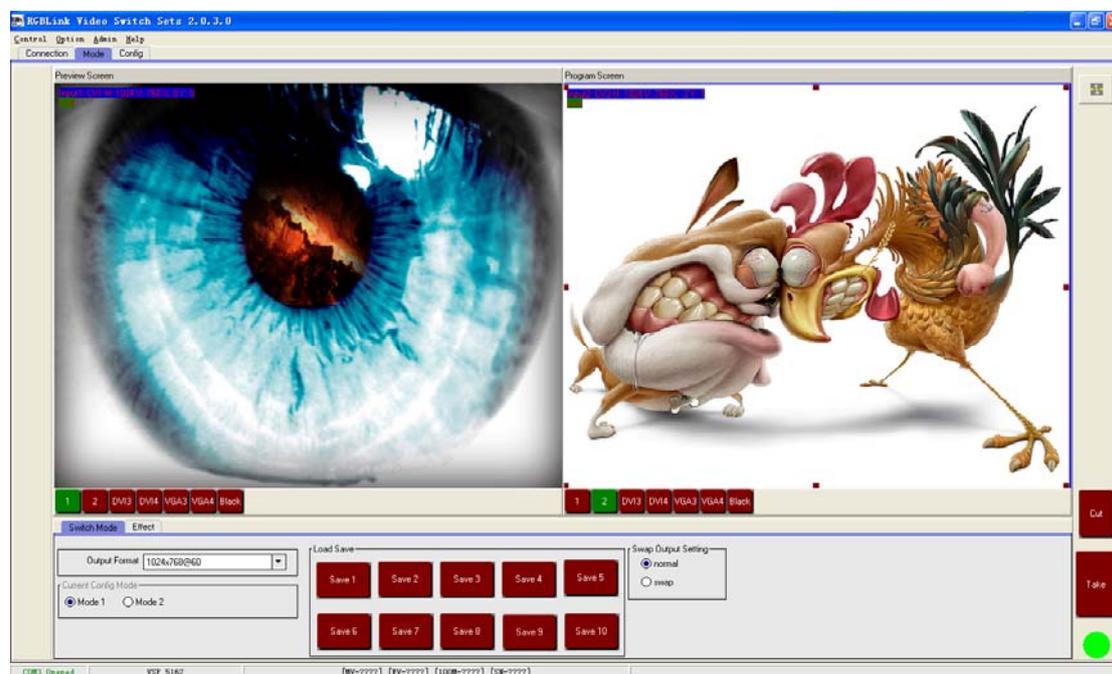


Click "Finish" and ready to run AVDSP console

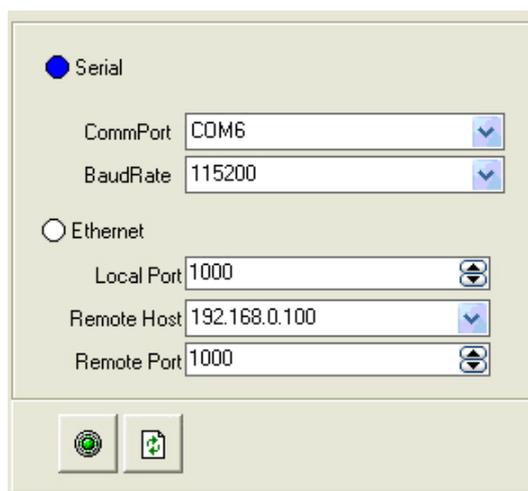


6.2 Run control software

Install communication which comes with the package of VSP 5162 device. Double click AVDSP.EXE icon from home screen to run the software. VSP 5162 communication software interface as shown:



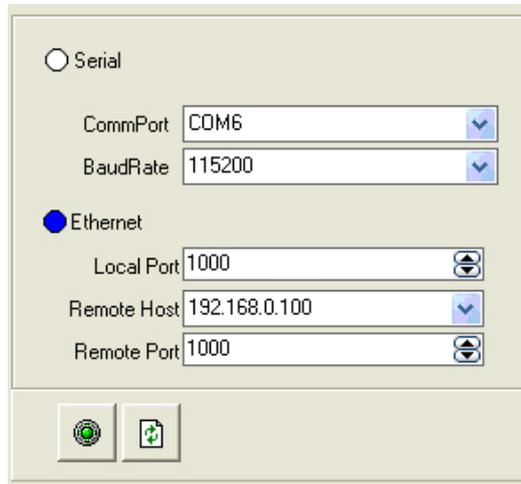
- **Set up communication:** click **【communication】** page, enter setup option:



Serial is the default COM, click icon  to refresh COM number, choose available COM, default Baudrate is 115200. After serial setting, click  icon,

the icon becomes  when successfully connected, on the left button showing

`COM6: Opened.`



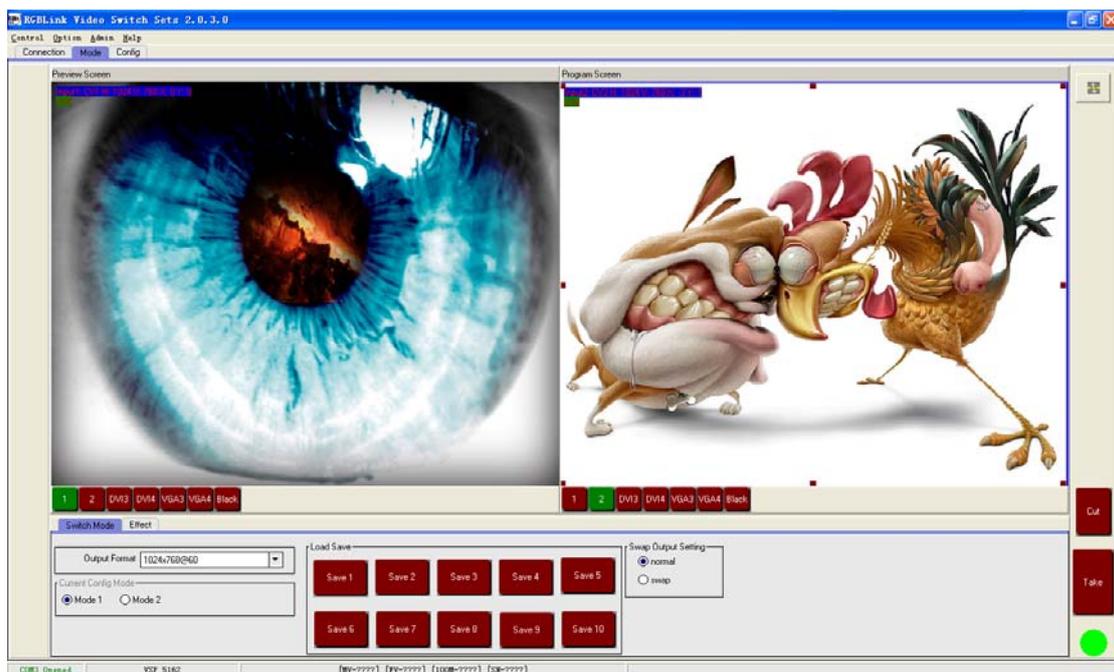
Ethernet , user can fill any number less than 1023 in local port, the remote port must be 192.168.0.100 and the remote port must be 1000. After setting

above, click the icon  to connect with the network. If successful connect, the

icon becomes , status on the left bottom showing `JDP1000 Openec`.

● **Mode control :**

Interface as following :



Left part is preview window ,input signal information will be shown on the top

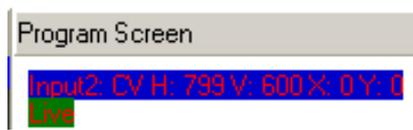


left corner ,such as signal types and its



resolution,the botton part's button corresponds with preview channel,color green tell button is selected.preview image can be swithed by button,in order to preview the six channels.

Right part is programme window ,input signal information will be shown on the



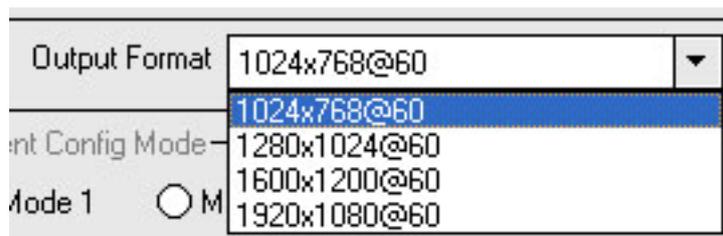
top left corner ,such as signal types and its resolution,the button part button



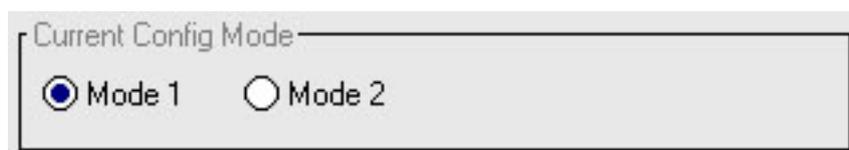
corresponds with programme channel , programme output image can be swithed by button ,aslo can drag and drop the image to adjust the size and position of the programme output signal.

● **Output resolution toolbar:**

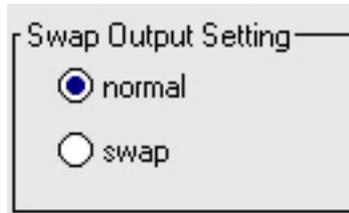
User can choose three output resolution by selecting from srcolling down list;



- **Current config mode:** mode 1 refers to single picture, Mode 2 refers to dual picture . (picture mode only works for program output, while preview output always keeps as single output)



- **Switch mode:** press switch, after take button is effected ,program output image will switch with preview image
- Press remain , after take button is effected, program out will follow the image of preview



- **Call saving modes:** click the buttons as followings to apply

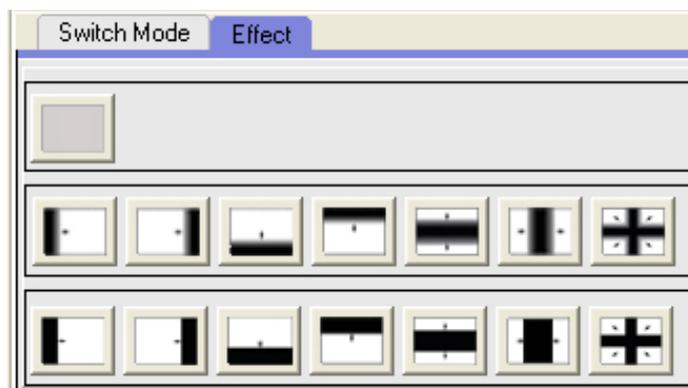


- **CUT:** seamless cut button, will switch preview image to program output;



- **Take:** seamless transition effects button, will switch preview image to program output with special effects;

- **Effects Toolbar:**



The device not only provides the most common fade effects(in default),but also other fourteen seamless transition effects:wipe right ,wipe left ,wipe up,wipe down,wipe center out, wipe curtain out ,wipe square out etc.

- **Fade duration:** set the value for duration(1-30s)from progress toolbor



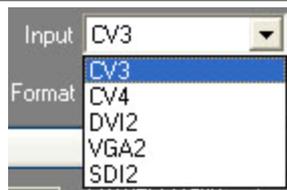
- **Switch effect speed :** set the grades(1-16 grades)for switch speed



- **Width of transparent toolbar: :** set the pixels(0-255 pixels) for transparent;

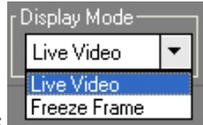


- **Input setting :** configurate inout information,can configurate for input1,input2 separately:

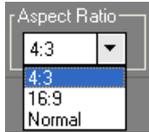


- **Input source choice:** support CV,YPbPr,VGA,DVI , SDI input sources.

- **Input resolution toolbar:**  shows the resolution of current input source.



- **Display :** offers 2 different display modes,when selected “live video “,video will be played normally,when selected “freez”the display only shows the last frame.



- **Ratio:** choose 4:3 or16:9 from scrolling down list
- **Mode configuration:**



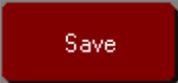
- **Image input toolbar:** VSP 5162 is a multi-layer processor,the data of each layer can be set from this toolbar,datas can be input at any combination,ie., the four different channels.that is what call “matrix function”.

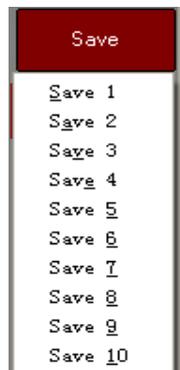
scale,zoom,crop can be realized by entering the value or rolling down the list,or drag and drop the picture.





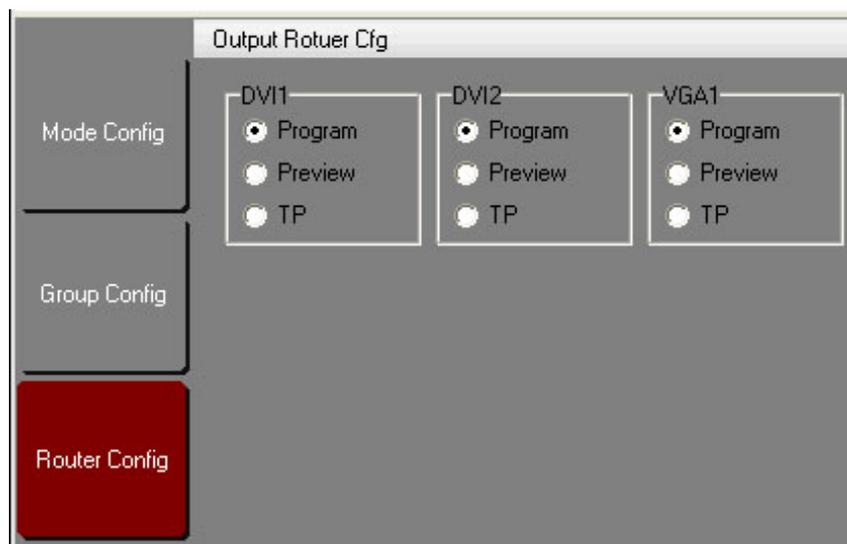
- **set:**  click **【set】** button each time to confirm the setting.

- **Save :**  click **【save】** to save all the revised parameters, the scrolling list indicated the location to be saved to, if successfully user can call it anytime in the future.

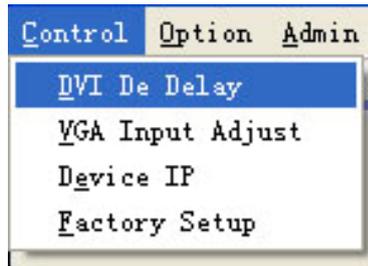


- **Update reset :**  click this button to recall the factory setting.

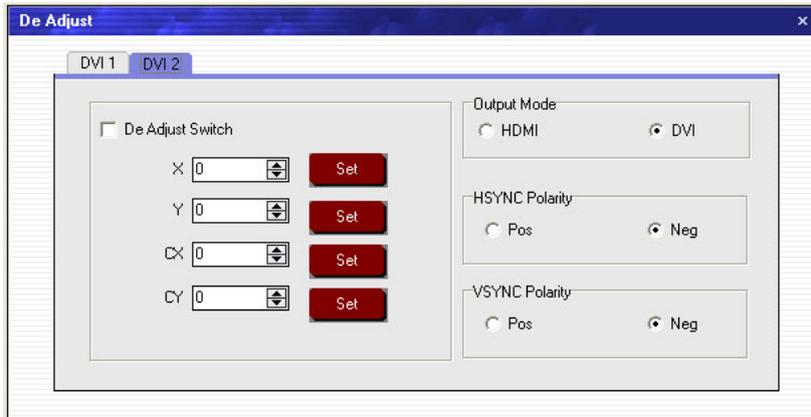
- **Output matrix**



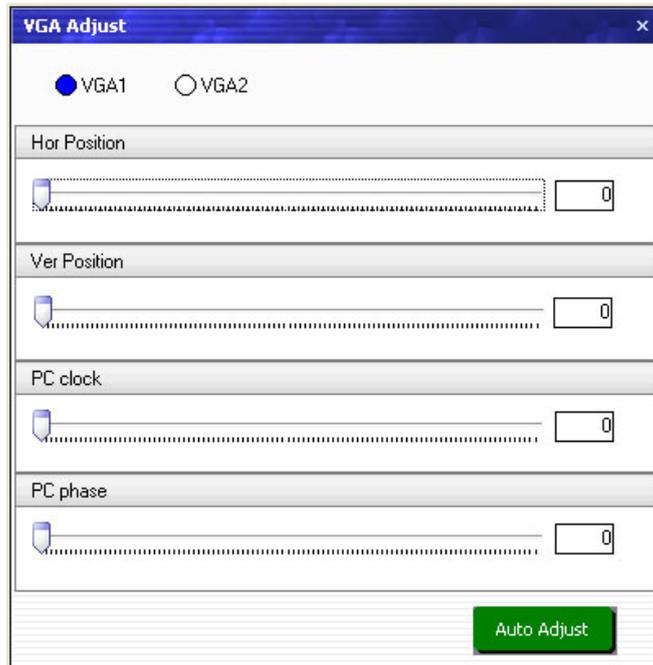
- **control:**



- **DVI DE delay :**

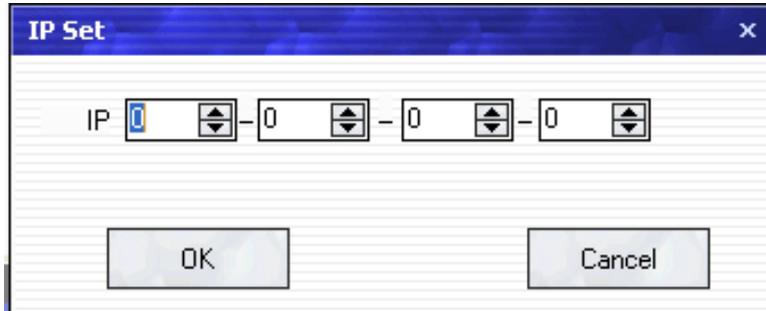


- **VGA input adjust :**

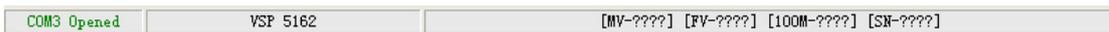


- **IP setting:** with the feature, the user can set the device 's IP himself, the function is generally used when the user wants to use the same computer to

do simultaneous manipulation or remote control ,if IP is changed through serial port,IP changes would take effect immediately ,if IP is changed through ethernet port ,user should close the control software and reopen it use the new IP to do the communication.



- **Factory reset** : click "factory setup",previously saved user-mode will be cleared.
- **Information toolbar**: the button line of the interface of control software shows the software version ,main chip version,hardware version and SN.



- **Option** : language choices: English and Chinese.
- **Administation**: advance ,for administrator control.



| | |
|---|--|
|  | <p>"Advance "for engineer specially,pls contact with our customer service engineer to get the code if it is necessary;</p> |
|---|--|

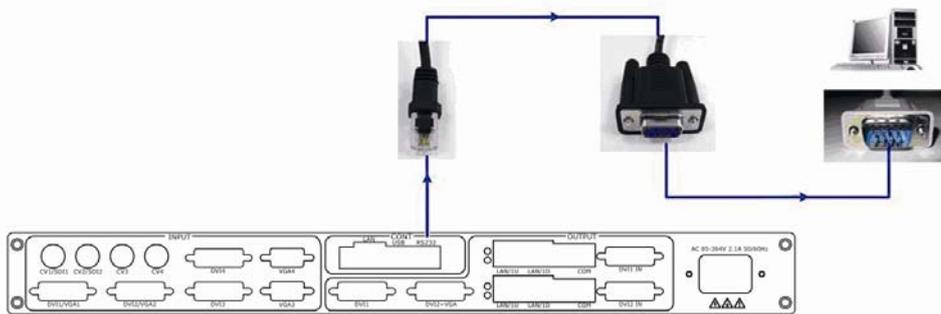
- **Help**:
- **Version notice** : display the software version and what is new ;
- **About** : display the software version and company information;

6.3 How to control processor through RS232?

1. Firstly, install the control software in your PC ;
2. Take out the RS 232 cable as following (RS-232, with 9-pin on one end,

RJ 11 on the other side.)

Connect one side of the RJ11 download line to the RS232 on the video Processor VSP5162, and the other side to be connected to the serial port on the PC.



If there is no any Serial port on your PC, you will need another Serial to USB adapter. Connect one end of the RJ11 download line to the RS232 on the video processor. Connect the end of USB-side to the PC, Ensure the cable connection is good. Turn on the Video Processor VSP 5162.

Right click the 【My Computer】 on the home screen of control PC.

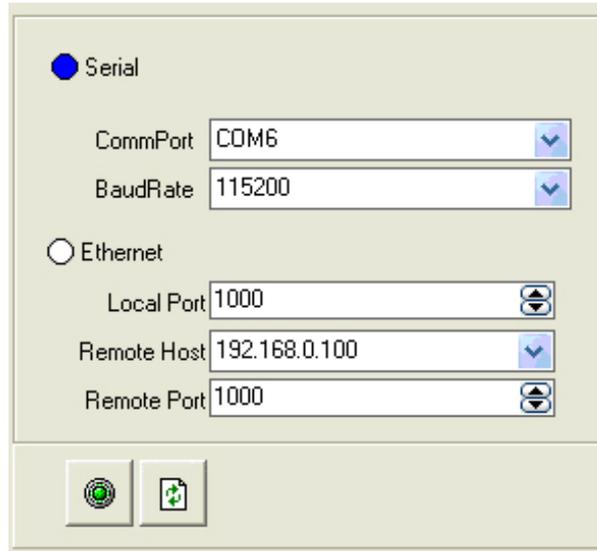
Enter【Attribute】, Find【Hardware】Option, as following, Click【Device Manager】

“+” on the left, check the COM number, as following, **COM1 is offered.**

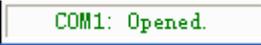


Remember the COM you are using and then run the control software, find **【Communication】** option, Click Com button, buttons will turn green. As following:

In default, first time user have to click  button, as following:



Check and tap **【Serial】**, **【Serial Port** , for example, is **COM1** which is checked from device manager. Set VSP 5162 Boud Rate to be :115200, Click **【Confirm】** after setting.

Click  **【 open serial】**, check if **【COM】** icon on the bottom right corner, when there is the prompt green  showing on the software, it means the communication is ok ,and you can use the software to control the device now ;

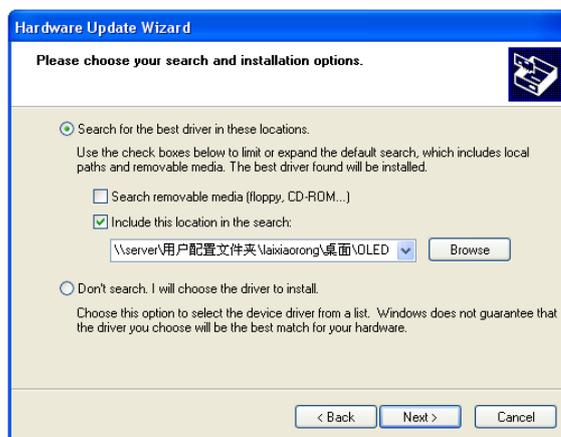
6.4 How to control processor with console software by USB ?

1. Install the driver

Connect the USB cable to the PC and the video processor .turn on the VSP VSP 5162,for the first time to use USB , the PC will remind finding the new hardware and ask to install the driver for this new driver



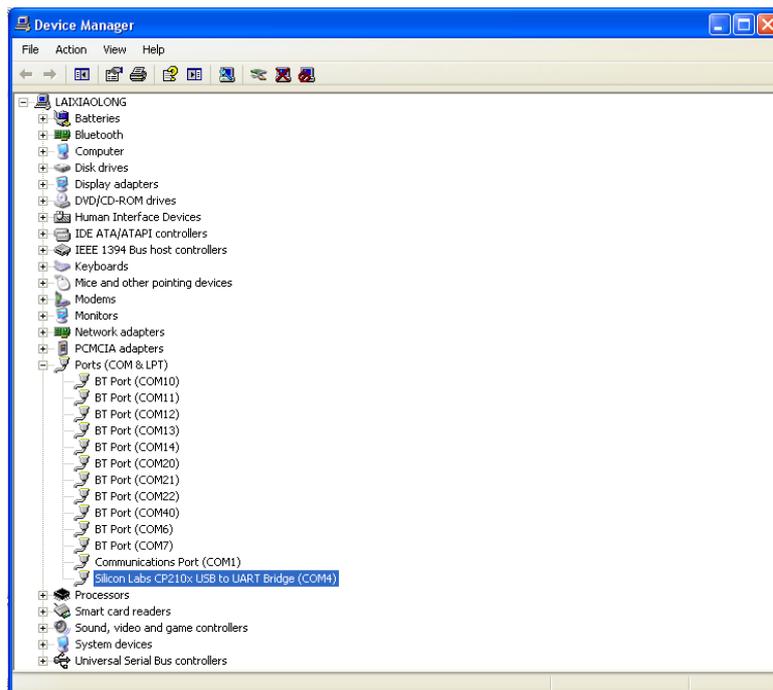
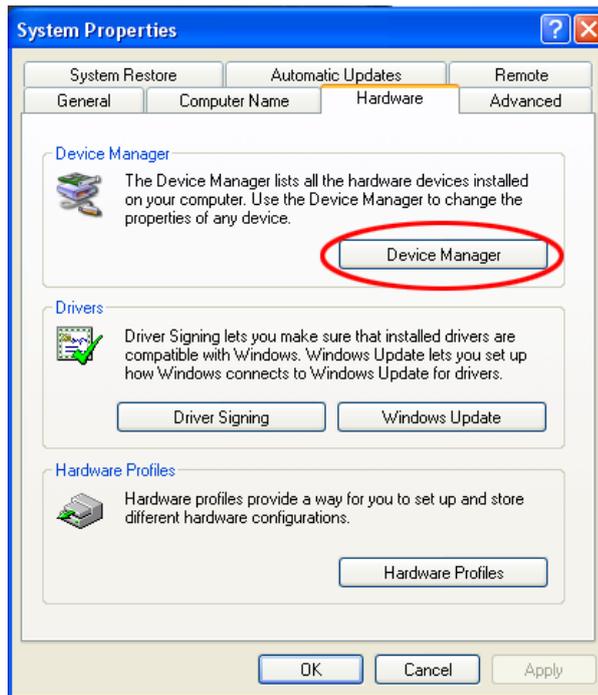
Install from the list or specified location ,press "NEXT"



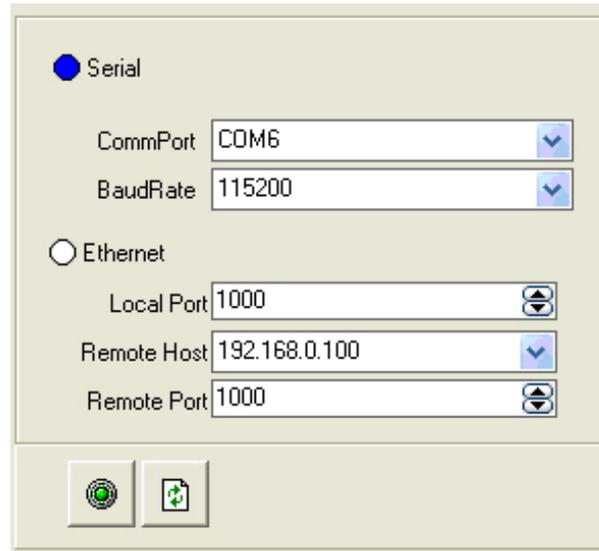
Press "browser" to find the driver, and press "NEXT"



When the installation finish,can go to check the installed COM port inside the device mangement ,as following picture shows:



1. Install the console software, and run after install, shows the interface of the console as following: Select the COM as installed just now, and set the VSP 5162 Boud Rate to be : 115200



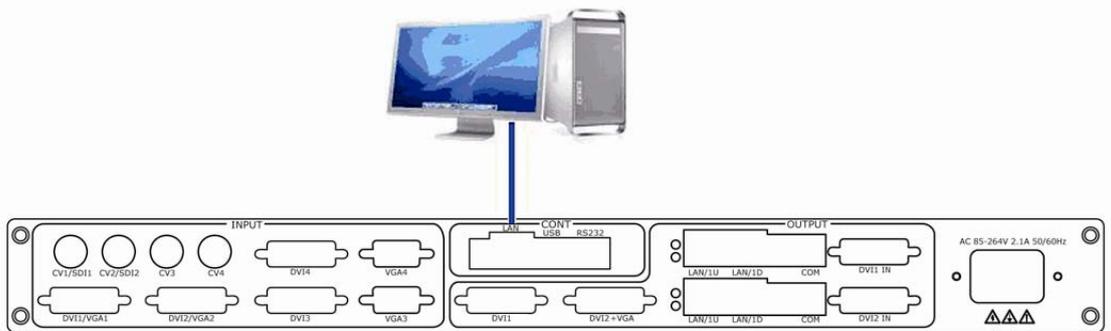
Press  to start communication, when there is green point in the right down corner showing on the software, it means the communication is ok, and you can use the software to control the device now; the software operation is the same as VSP 5162;

| | |
|---|---|
|  | <p>If power off during communication, should close the port  by first, and plug in out of the USB and do communication</p> |
|---|---|

7.0 Appendix

7.1 Appendix I How to upgrade VSP 5162 firmware.

1. First, connect the device with PC by network cable



1. Input VSP 5162 network address in address toolbar: 192.168.0.100, enter the user name admin and password rgblink123 in the dialog box.



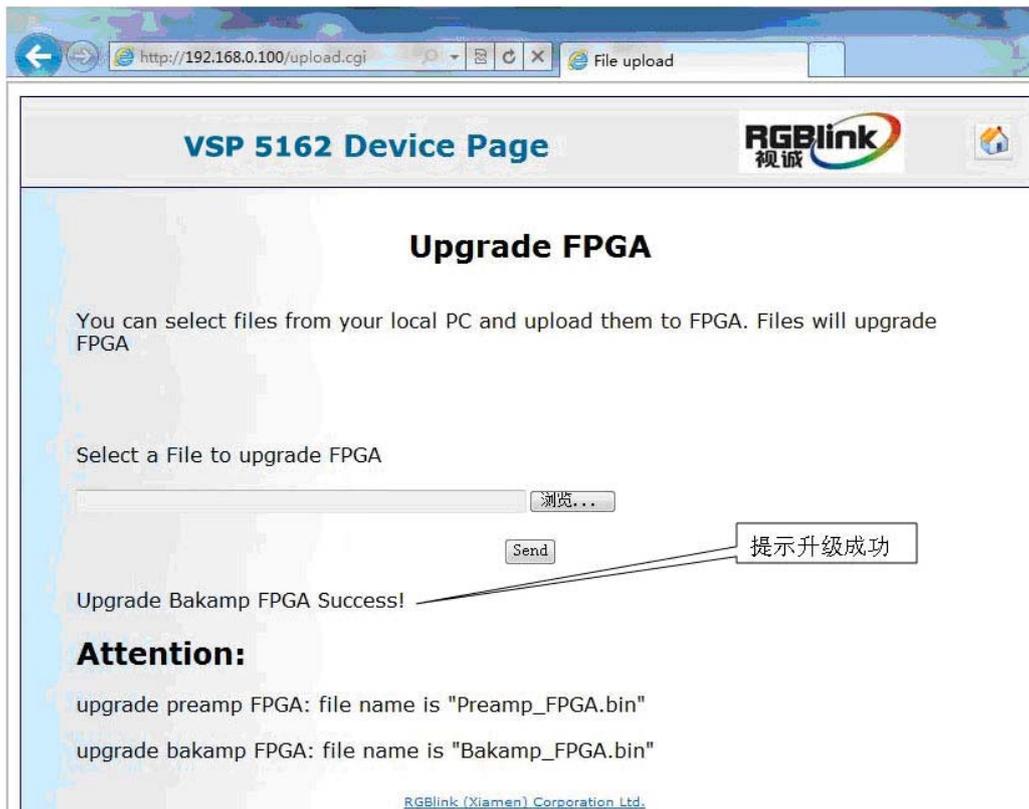
2. Thirdly, click on FPGA Upgrade



4. Fourthly, click on **【browse】** to select upgrade, file name must be Preamp_FPGA.bin or Bakamp_FPGA.bin.



5. Click **【Send】** to send and wait for upgrade



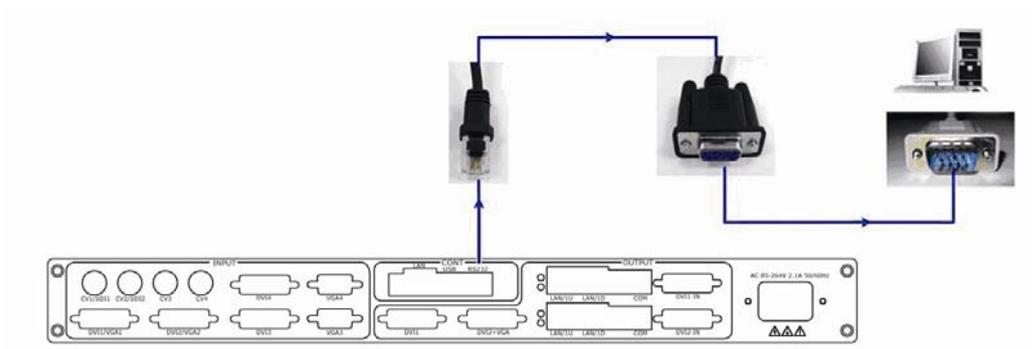
6. Upgrade Bakamp FPGA Success.

7.2 Appendix II Download the IP software

Turn off the power , take the two coding switch to "ON" state as below :



Connect one side of the RJ11 download line to the RS232 on the video processor, and the other side to be connected to the serial port on the PC.



Flash Magic

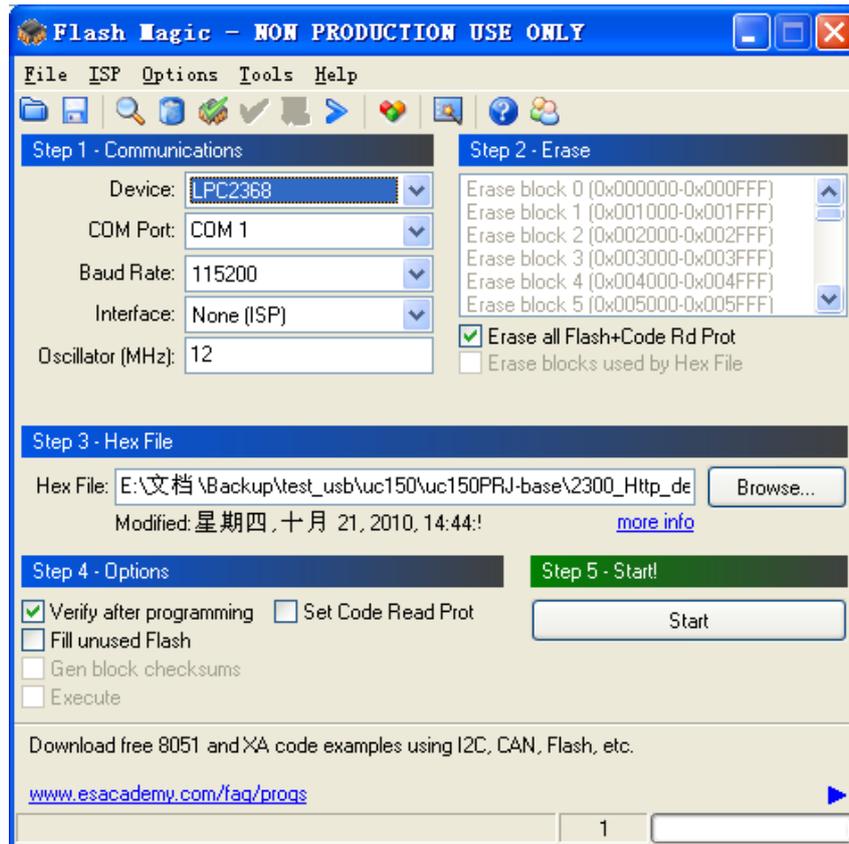
Double click **Flash Magic** to run flash magic , setting as below :

Firstly, users can choose the right serial port ,set the baud rate to 9600, choose LPC2368, and to load the aim document (hex file) for IP board upgrading;

Secondly , confirm the two option box by check.



Finally, click the "start" button.



After download , exit the program ,turn off the power ,tack the two coding switch back ,as below restart the equipment power ,check if the equipment work normally .

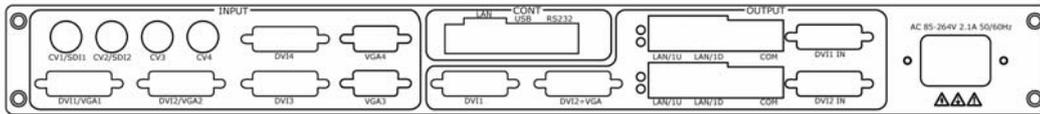


| | |
|---|---|
|  | Flash Magic Magic download website: |
| | http://www.flashmagictool.com/download.html&d=FlashMagic.exe |

8.0 quick start

8.1 equipment connect

User can connect the signals to the corresponding inputs of VSP 5162, support the ACE power from 90-264V 50/60Hz, powering up after the connect finish.



8.2 button programme operation

Button resetting : button 1-DVI, button 2-DVI, preview reset the button define, click the buton 1 or button 2 of the preview toolbar, then click Program (PROG)



button, LCD display as following:

```
PROGRAM INPUT
PUSH TO SELECT INPUT
```

After the operation, LCD display SELECT INPUT SOURCE:

```
SELECT INPUT SOURCE
>CV1
```

Click the INPUT SOURCE, i.e choose VGA, click SELECT button to check , put button 1 program the VGA, the button seting finish,

```
SELECT INPUT SOURCE
*VGA
```

Click ESC button, set out the program.

8.3 scale

Image scale , click the SCALE button as following:

```
Scale Width:
*1920
```

Click the SEL button, click the UP/DOWN to scale the width, after setting, click the ESC button, click the LEFT/RIGHT button, set the Height of the sub directory

Scale Height:
*1080

Click the SEL button , click the UP/DOWN to scale the Height , after do it , click the ESC button , click the LEFT/RIGHT button , can scale the X, Y position .

Scale Pos X:
*0

Scale Pos Y:
*0

8.4 Save

Finish all the scale ,click the SAVE button to as the image:

SAVE
>MODE1 MODE2

VSP 5162 can support 10 user saving mode , user can via the UP/DOWN button to choose the position of saving, click the SEL button to set .

SAVE
*MODE1 MODE2

The LCD will display the Saving state;

SAVE
NOW SAVE ...

SAVE
MODE1 SAVE OK



The user can will custom button after programming preservation, also can image parameters for save, save by parameters can be after calling

8.5 parameters setting

Click the LOAD button to choose the RECALL Mode:

Choose the RECALL, click the UP/DOWN button , click the SEL button the choose the mode your want;

```
RECALL
>MODE1      MODE2
```

```
RECALL
*MODE1      MODE2
```

LCD will display the parameters content;

```
RECALL
NOW  LOADING ...
```

```
RECALL
CALL USER MODE1 OK
```