



## Video Processor User Manual

# VSP 729 2U



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

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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><b>Power Source</b> 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><b>High Voltage</b> There are many high voltage components inside.</p>
	<p><b>Do not Remove Covers and Panels</b> 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><b>Grounding the Product and Use the Proper Fuse</b> 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><b>Keep away from Magnet, Motor, TV and Transformer.</b></p>
	<p><b>Guard Against Damp</b> Keep using inside clean and dryness environment, once the device get wet, must remove power cord right now.</p>
	<p><b>Keep away Exploder</b> Do not operate the device inside dangerous and easy explosive gas, which it may make fire, blast or something without expectation.</p>
	<p><b>Keep away Pour Liquid and Fragment</b> 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

VSP 729 2U is a 5 layers seamless switcher that accepts a wide variety of video signals, including RGB computer video, HDTV, and standard definition video. It combines truly seamless, glitch-free switching with advanced scaling technologies to meet the requirements of high quality, high resolution video presentations. With presentation-enhancing features such as independent Preview and Program outputs, numerous switching transition effects, multi windows operation up to 5 windows, 4 predefinition modes configuration, multiple user modes, internal test patterns, and multiple control methods, the VSP 729 2U is designed to deliver advanced capabilities to high-end presentation environments.

VSP 729 2U is ideal for stage, corporate boardrooms, auditoriums, houses of worship and other live events. Full setup and operation is available from the front panel as well as through RS-232 and Ethernet control. Furthermore, presentations can be managed using the RGBlink CP 1024 Remote Control Panel.

## 3.0 Parameters

<b>CVBS Input via DVI-I Connector</b>	
Number of Inputs	4
Connector	Standard DVI-I socket
Supported Standards	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync ) 75 ohm
Multiplex	480i,576i
<b>Componet YPbPr via DVI-I Connector</b>	
Number of Inputs	4
Connector	Standard DVI-I socket
Supported Standards	Analog HD 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
<b>VGA input via DVI-I Connector</b>	
Number of Inputs	4
Connector	Standard DVI-I socket
Supported Standards	VGA-UXGA
Signal Level	R、G、B、Hsync、Vsync: 0 to 1Vpp±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)
<b>DVI input via DVI-I Connector</b>	
Number of Inputs	4
Connector	Standard DVI-I socket
Supported Standards	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
Standard	HDMI 1.3
<b>Background input DVI-I Connector</b>	
Number of Inputs	1
Connector	Standard DVI-I socket
Supported resolution	VESA : 800×600×60Hz , 1024×768×60Hz , 1280×768×60Hz

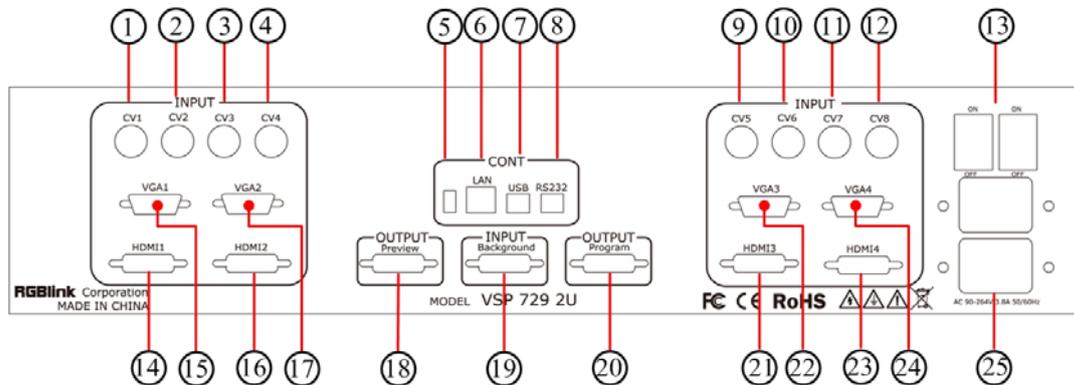
Signal Level	TMDS pwl, single pixel input, 165MHz bandwidth
Standard	HDMI 1.0
<b>Preview DVI Output</b>	
Number of Inputs	1
Connector	Standard DVI-I socket
Signal Level	TMDS pwl, 165MHz bandwidth
Supported resolution	VESA: 1024×768×60Hz
<b>Preview VGA Output</b>	
Number of Inputs	1
Connector	Standard DB15 socket
Supported resolution	VESA: 1024×768×60Hz
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync ) 75 ohm black level: 300mV Sync-tip: 0V
<b>Program DVI Output</b>	
Number of Inputs	1
Connector	Standard DVI-I socket
Signal Level	TMDS pwl, 165MHz bandwidth
Supported resolution	VESA:800×600×60Hz , 1024×768×60Hz , 1280×768×60Hz
<b>Function</b>	
Input channel configuration	Support each input channel signal programming configuration
Multi-channel switching	Support to do any more pictures
Transition effects	Multi effects
<b>Extras</b>	
Communication	RS232 TCP/IP
Power Supply	85-264V 2A IEC-3
Working Environment	0°C~45°C
Stored Environment	10% to 90%
Product Warranty	1year



**Specifications are subject to change without notice.**

## 4.0 Connectors and cables

### 4.1 VSP 729 2U Back Panel



1~4, 9~12、 Composite inputs by BNC connector;

5~8、 communication port interface (5 is mini push button for further firmware upgrade, 6 is TCP/IP for lan, 7 is USB and 8 is RS 232 for remote control);

15, 17, 22, 24 are analog RGBHV input by VGA connectors;

14, 16, 19, 21, 23 are DVI inputs, and 14, 16, 21 and 23 are compatible with HDMI inputs, 20 are for backgroud DVI input directly;

13 is power switch buttons to switch on power or switch off;

25 is power cord input connectors;

	<p>18 is for preview output to a monitor, and 20 is program output for back end DVI system.</p>
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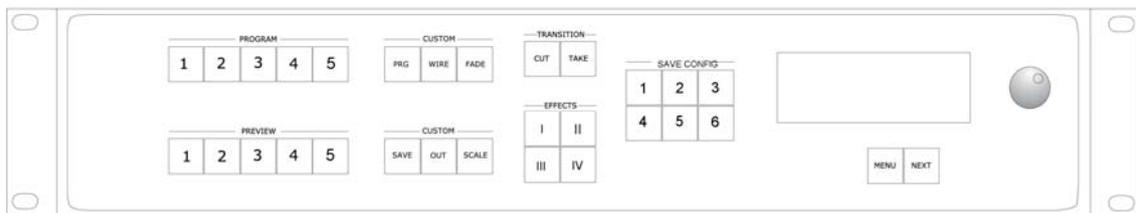


## 5.0 Front Panel Keyboard Operation

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 with menu display on LCD module.

### 5.1 VSP 729 2U Operator Guideline

VSP 729 2U front panel as following:



**1、LCD Module;**

**2、Keyboard:**

**Knob Switch:** rotate to select the menu item;

**Menu:** push to go into main menu;

**Next:** push to confirm to go into the next menu;

**1~6:** these 6 buttons under SAVE CONFIG are used to save current custome settings or use to recall the original custom setting.

**CUT:** push to switch inputs without any delay;

**TAKE:** push to switch the inputs with the effects define by EFFECTS;

**I~IV:** push to select the working modes for VSP 729 2U. I mode means VSP 729 2U works in single windows mode, user can switch each inputs to this windows; II mode means VSP 729 2U will put a picture in picture (PIP) window on one of its layer; III is the mode which has triple windows on one of the layer, and IV mode will have quad display functions. No matter how many windows in one layer, each window can be scale or zoom pixel by pixel.

**PRG:**use to program the input source for 1 to 5 under preview. User can push

1 under preview first, and push PRG, use Knob button to select the input for this layer. Same operation can be done to layer 2 to 5.

**CUT:** push to define the effects during the inputs switch to without delay;

**FADE:** push to define the effects during the inputs switch to fade in and fade out;

**SAVE:** push to ready to save user customize configuration. When push the SAVE button, 1 to 6 under SAVE CONFIG will all light on to remind user to select one of them to save to the memory;

	By default, Save1 will be run automatically when VSP 729 2U is on.
---	--

**OUT:** push to go to output resolution option list, user can use knob button to select the right resolution for application;

seamless switch effects such as fade in fade out, wipe off and cross out;

**BRT:** push to adjust the brightness;

**SCALE:** push to go to scale setting, choose target input layer 1,2, 3,4 under Preview, use knob button and NEXT button can set scale for image horizontal size, vertical size, horizontal position and vertical position.

	Scaling is only valid for the program output, while preview image keeps full screen. Scale is only enable when user select the same layer under Preview and Program.
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**1~5:** Under Program output is the layer output to the program port, push each button will send the layer as define to the output, it is comments to use TAKE or CUT to switch the inputs, but not push these buttons directly;

**1~5:** Under Preview output is the layer output to the preview port; push each button can check and preview the inputs on the preview output port, and then decide which one to send to the program port with the button TAKE or CUT;

## 5.2 VSP 729 2U Video Processor Menu

System menu as follows;



VSP 729 2U can be connected via network cable to the LAN, if the connection can not find the LAN, it will show DHCP Failed;



If connection to the LAN works, it will get a auto config IP address. Shown as following:



Push **【MENU】** button to go to main menu,



Push **【Next】** button to select the left or right menu. Before the menu item, if there is a \* sign, means the menu item has been selected; you can push **【Next】** button to enter.

Push **【Next】** when the \* is before Dev Info, and go into the sub menu to check current working info. Firstly will show current program output layer, for example, now is the DVI1 input on the layer 1 go to the program output.



Use Knob button to go to the next sub menu and which is the current preview output information. For example, now the preview output is VGA2 on the layer 2.

Preview 2: VGA2  
1024x768x60

Use Knob button to go to check the current output format:

Output Format:  
1024x768x60

Use Knob button to go to check the current software version:

Software Version  
0.8

Use Knob button to go to check the serial number of the VSP 729 2U.

RGBLINK  
SN: 1234

Push **【Menu】** to go back the main menu and use Knob button to move \* before Recall. User can push **【Next】** to go to reset the VSP 729 2U and go back factory default settings.

>VSP 729  
Dev Info \*Reset

After reset you will see the menu as follows:

Reset Finished

Push **【Menu】** to go back the main menu, Use knob button to find LANGUAGE Menu:

>VSP 729  
\*Language HDMI OUT

Push **【Next】** to go into the language setting sub menu. as follows

\* Language select  
> English 中文

Push knob button to select the language will display on the the LCD menu..

Push **【Menu】** to go back the main menu, Use knob button to go to HDMI OUT setting menu;

>VSP 729 Language	*HDMI OUT
----------------------	-----------

Push **【Next】** to go into the HDMI OUT sub menu as shown:

HDMI OUT >Program	Preview
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User can set HDMI output protocol for VSP 729 2U program and preview output by its DVI connectors.

PROGRAM >DE setup	HDMI/DVI
----------------------	----------

Normally we comments user do not set this sub menu items if do not be familiar well with the protocol.

PROGRAM >ON	DE ON/OFF
----------------	-----------

> PROGRAM *35	DE H Start
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> PROGRAM > 35	DE H Start
-------------------	------------

> PROGRAM > 35	DE V Start
-------------------	------------

> PROGRAM > 35	DE Width
-------------------	----------

> PROGRAM > 35	DE Height
-------------------	-----------

PROGRAM DE setup	>HDMI/DVI
---------------------	-----------

PROGRAM >HDMI	HDMI/DVI
------------------	----------

Same operation can also be applied for Preview output.

Push **【Menu】** to go back the main menu, Use knob button to go to timer and

calendar settings.

>VSP 729  
\*Time  
Calendar

Time  
> 00:00:20

Time  
\*00:00:20

Calendar  
>2010/01/01  
Sun

Calendar  
\*2010/01/01  
Sun

Push **【Menu】** to go back the main menu, Use knob button to go to scale setting menu.

>VSP 729  
\* Scale  
Advance

Push **【Next】** to go into scale setting sub menu, user can set selected image width, height, start X position and Y position with knob button quickly.

Scale Width: to set selected image width.

Scale Width Layer 2:  
>1024

Scale Height: to set selected image height.

Scale Height Layer2:  
>768

Scale Pos X: to set selected image X position.

Scale Pos X Layer2:  
>0

Scale Pos Y: to set selected image Y position.

Scale Pos Y Layer2:  
>0



Scaling setting only effects for program output channel, while preview is always shown in fullscreen. The menu for example, means the scaling setting effects for layer 2 only.

Push **【Menu】** to go back the main menu, Use knob button to go to the advance menu.

>VSP 729  
Scale \* Advance

>VSP 729  
\*Picture BG

User can set advance functions such as brightness, contrast, saturation, color, ratio and so on for each inputs.

>VSP 729  
Picture \* BG

And user can also define the background inputs for layer 5. Black means set background to black, and VINO means the background is from live input such as PC display card output by DVI connector.

Background  
\*Black VINO



The resolution of the background input should be always the same to the output resolution.

Push **【Menu】** to go back the main menu, Use knob button to go to the seamless switch effect setting or Crop setting menu

>VSP 729  
\*Seamless Switch Crop

Push **【Next】** to go into Seamless Switch effects setting sub menu: full screen cut, full screen transparent switch, wipe, transparent wipe.

Wipe and transparent wipe both offer six seamless switch mode, and transparent wipe is with soft effects.

Use the Knob button and **【Next】** to select the effects: CUT Switch, 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

 Push Button **【WIRE】** can go to Seamless Switch setting menu directly.

Use the Knob button and **【Next】** to set the fade switch delay ranges "0.5 s-30.0 s".

Dissolve Duration:  
>3.0 s

 Push Button **【FADE】** to go to the sub menu for duration of fade effect settings.

Use the Knob button and **【Next】** can set other effects as following.

Setup AB Mode  
> WIPE HARD Switch

Setup AB Mode  
> WIPE SOFT Switch

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

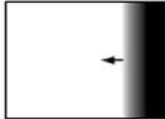
WIPE RIGHT SOFT



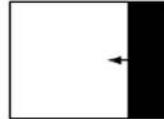
WIPE RIGHT HARD



WIPE LEFT SOFT



WIPE LEFT HARD



WIPE UP SOFT



WIPE UP HARD



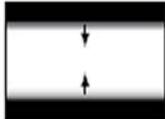
WIPE DOWN SOFT



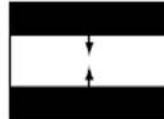
WIPE DOWN HARD



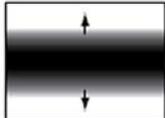
WIPE CENTER IN SOFT



WIPE CENTER IN HARD



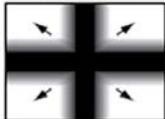
WIPE CENTER OUT SOFT



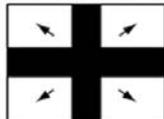
WIPE CENTER OUT HARD



WIPE PLUS OUT SOFT



WIPE PLUS OUT HARD



Push **【Menu】** to go back main menu and use the Knob button and **【Next】** to go into Crop setting sub menu. User can use Crop function to size part of the

image and zoom to the size to meet the application.

>VSP 729  
Seamless Switch \*Crop

Push **【Next】** to enter Crop setting sub menu to set crop width, crop height, crop x position and crop y position.

Crop Width:

Crop Width Layer 2:  
>1024

Crop Height:

Crop Height Layer 2:  
>768

Crop Pos X:

Crop Pos X Layer 2:  
>0

Crop Pos Y:

Crop Pos Y Layer 2:  
>0

Push **【Menu】** to go back main menu and use the Knob button and **【Next】** to go into Matrix setting or TP setting page; User can set matrix function and set VSP 729 2U to output test pattern to check end system here.

VSP 729  
\*Matrix TP

Input Select Layer 1  
> Input 2

Input Select Layer 2  
> Input 3

VSP 729  
Matrix \*TP

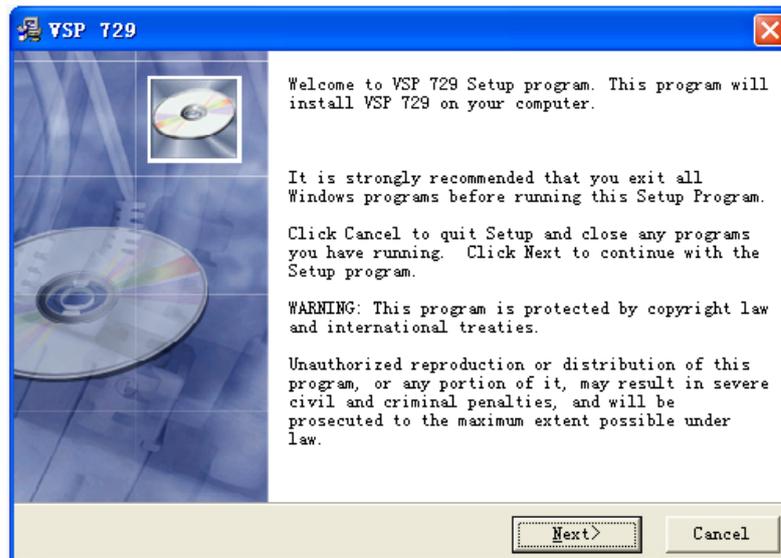
TP Setup *Program	Preview
Program TP *ON	OFF

## 6.0 Communication Software User Guide

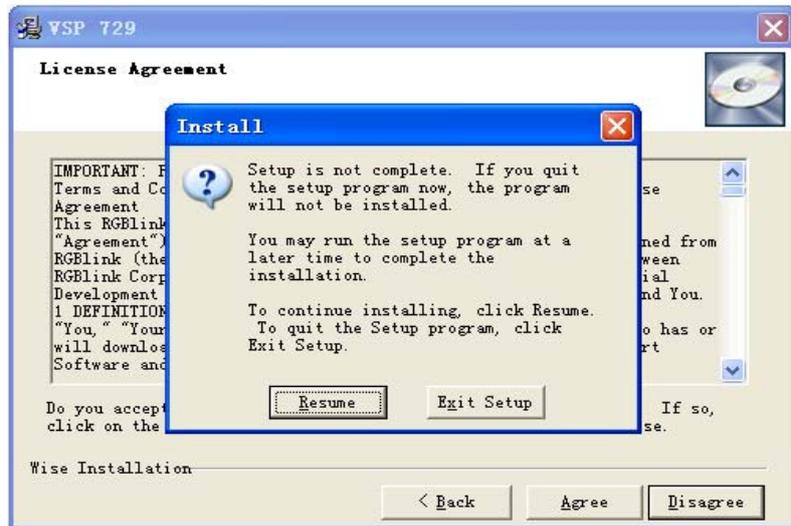
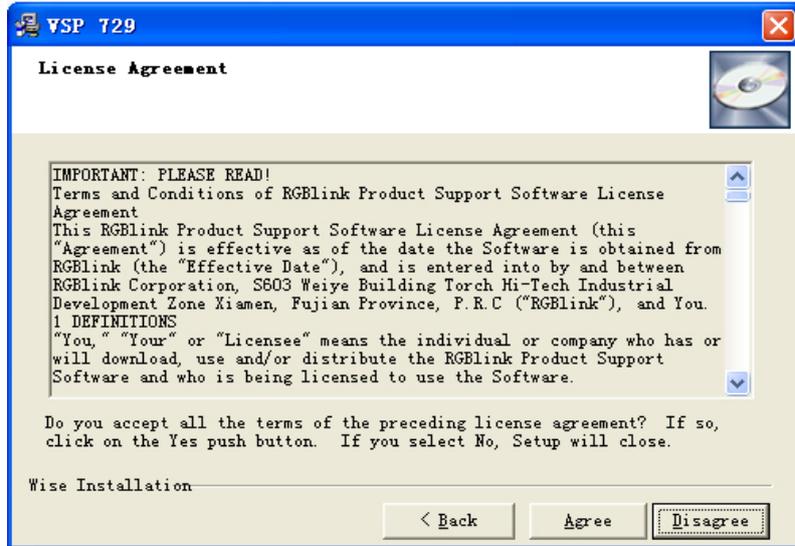
AVDSP video processor is very easy to be configured with user friendly communication software, support drag and drop operation for edit and display. Also can customized with schedule function.

### 6.1 Install Software

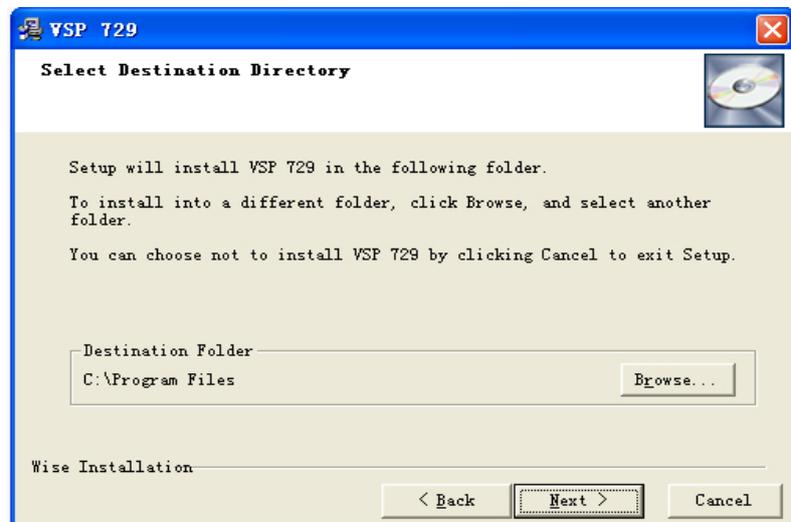
Dual click AVDSP.exe to install, English version default for use, after click "select " to next dialog.



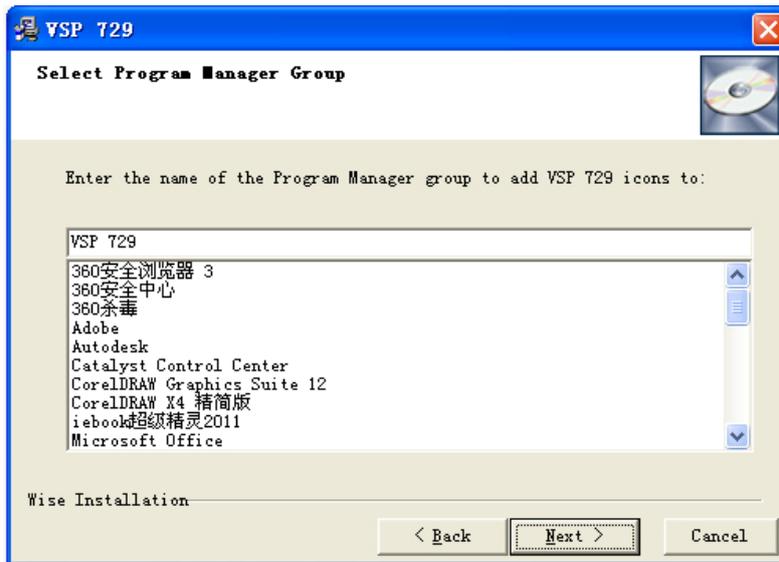
And in next dialog is the user agreement of the software, click Agree to go on and Disagree to exit.



If users agree to the agreement, user can select install directory in next dialog, else, click next to install software to default directory "C:\Program Files"

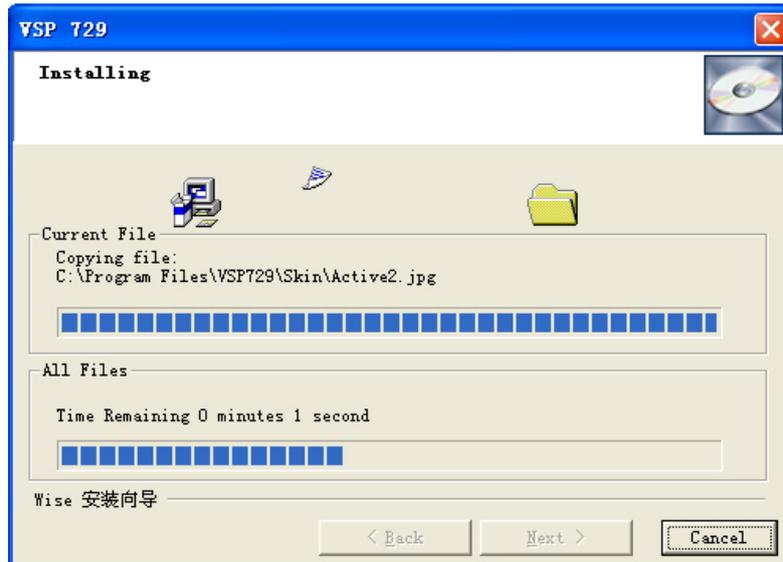


Click "next" to go on.

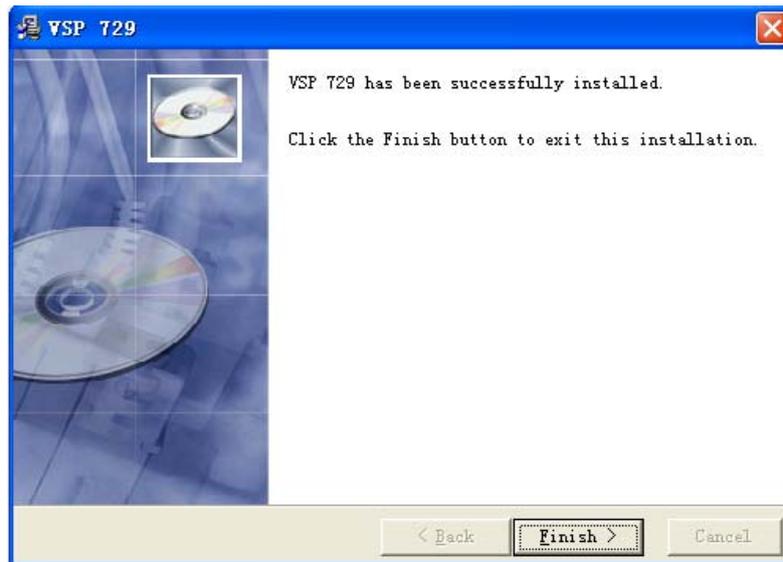


Click "next" to go on.





Click "finish" and ready to run AVDSP console.



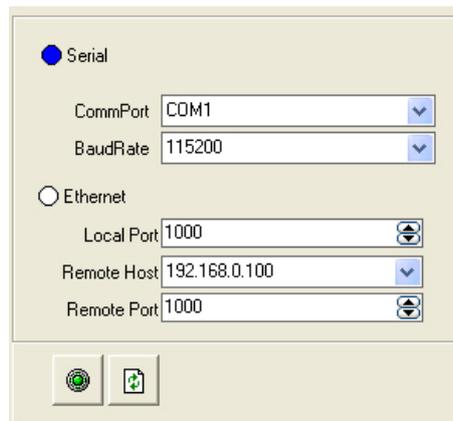
## 6.2 Run control software

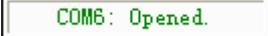
Install communication software which comes with packages of VSP729 2U device. Double click AVDSP.EXE icon from home screen to run the software. .

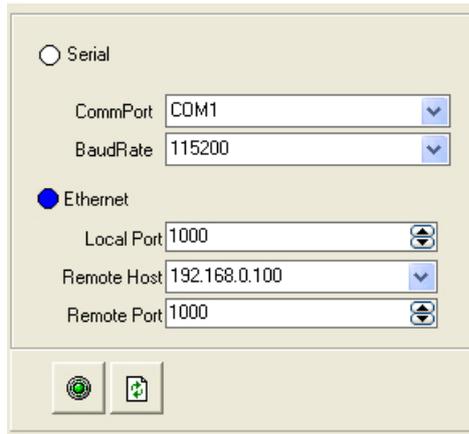
VSP 729 2U communication software interface as shown:



- **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 bottom showing .



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 network. If successfully connected, 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 bottom part's

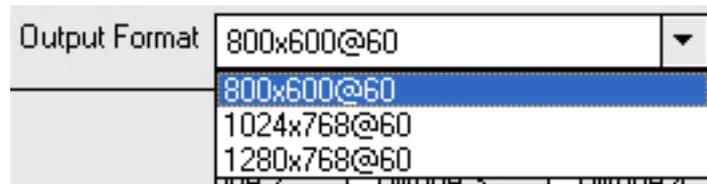
button 1,2,3,4  corresponds with preview channel, color green tells button is selected. Preview image can be switched by buttons 1,2,3,4, in order to preview the four channels.

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

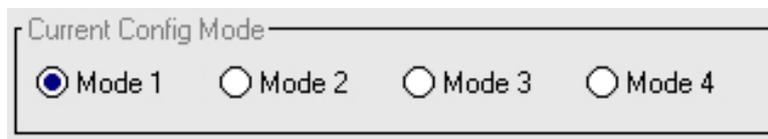
top left corner , such as signal types and its resolution, the bottom part's button 1,2,3,4  corresponds with programme channel, Programme output image can be switched by buttons 1,2,3,4, also can drag and drop the image to adjust the size and position of the programme output signal.

**Output resolution toolbar:**

User can choose three output resolutions by selecting from scrolling down list.



- **Current config mode:** Mode1 refers to single picture, Mode 2 refers to h dual pictures, mode 3 refers to three pictures., mode 4 refers to four pictures. (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 VSP 729 2U 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 toolbar.



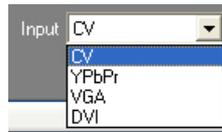
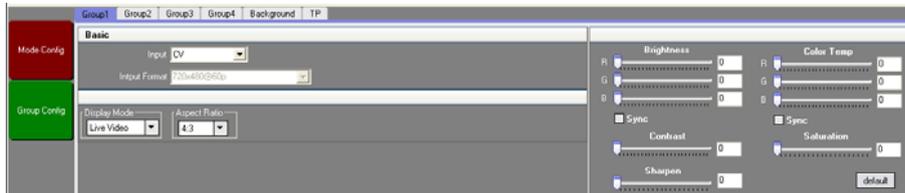
- **Switch effect speed:** set the grades( 1-16 grades) for switch speed.



- **Width of transparent toolbar:** set the pixels ( 0- 255 pixels) for transparent toolbar, Seamless Switch will work with soften transparent effect,when **【transparent switch】** is on,

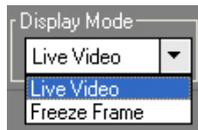


- **Input setting:** Configure Input information , can configure for Input 1, Input 2, Input 3, Input 4 separately.

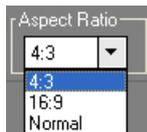


- **Input source choice:** supports CV, YPbPr, VGA, DVI input sources.

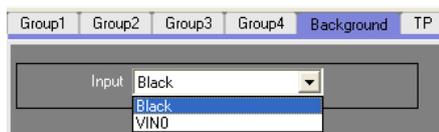
- **Input resolution toolbar:** shows the resolution of current input source.



- **Display toolbar:** offers 2 different display modes , when selected **【live video】** , video will be played normally. When selected **【Freez】** , the display only shows the last frame.

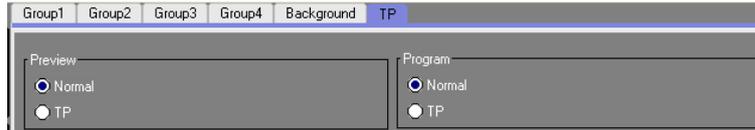


- **Ratio:** choose 4:3 or 19:9 from scrolling down list.



- **Background:** Background can be set as black color black-field or VINO video signal input. (When setting VINO as video input; make sure that the resolution of background is the same as output resolution.)

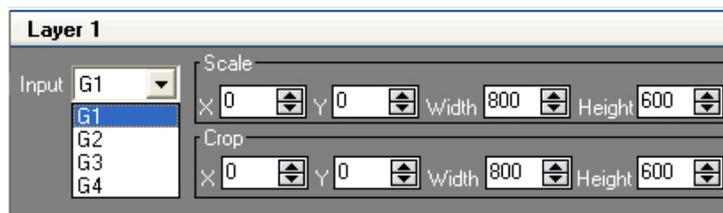
- **Test Pattern:** Test pattern image is color toolbar , with resolution 1024x768x60, both preview and program can be set.



- **Mode configuration:**

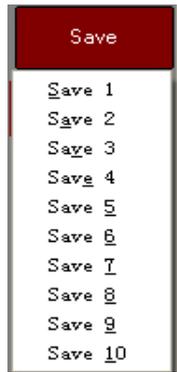


- **Image input toolbar:** VSP 729 2U is a multi-layer processor, the data of each layer can be set from this toolbar. Datas can be input at any combination, i.e., the four different layers can be configured by the same channel or by the 4 totally different chanel. That is what call " Matrix Function". 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.

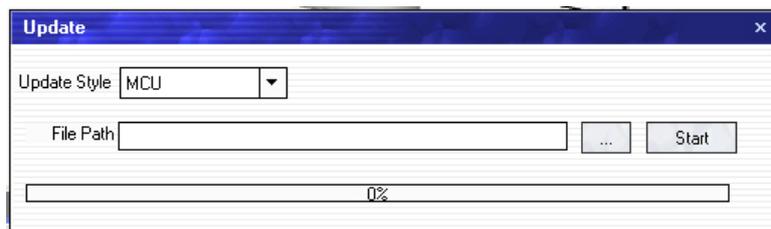
- **Save :**  Click **【SAVE】** to save all the revised parameters. The scrolling list indicated the location to be saved to. If sucessfully, user can call it anytime in the future.



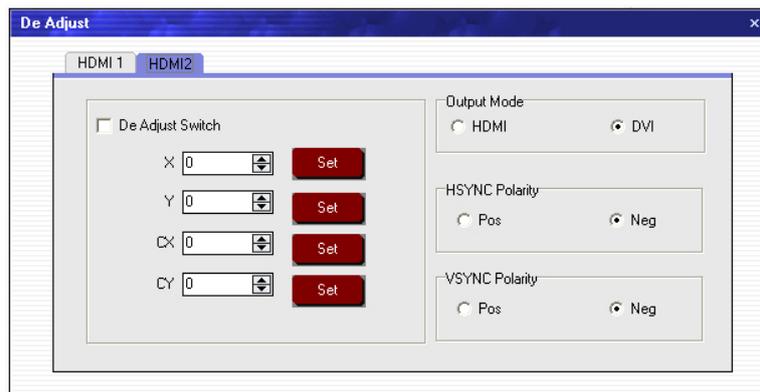
- **Update reset:** Click this button to recall the factory setting.

- **Control:**

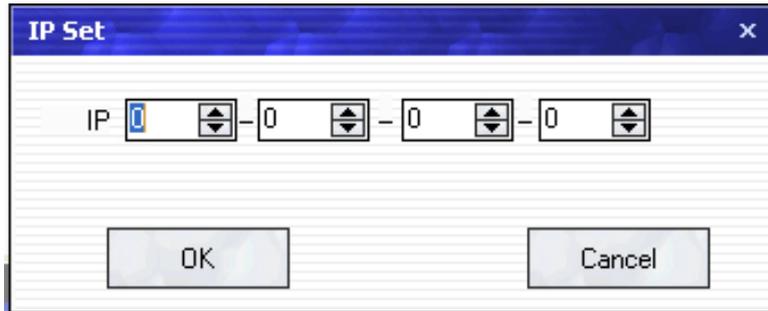
**Equipment upgrade:** The video processor supports upgrade function. If there is any new MCU available for upgrade, click equipment upgrade from Control menu, then it pops up dialog as following. Click  button to browse the location of MCU,click " start" to activate upgrade.



- **DE delay:**



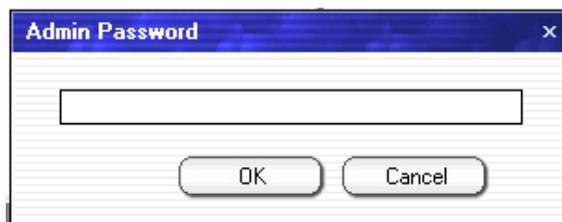
- **IP setting:** With this feature, the user can set the device's IP himselft. The function is generally used when the user wants to use the same computer to do simultaneous manipulation or remote control. If IP is changed through Serial Port, IP changes would take effect immediatly. If IP is changed 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 bottom line of the interface of control software shows the software version, main chip version, hardware version and SN.



- **Option:** Language choices: English and Chinese.
- **Administration:** Advance, for administrator control.



	<p><i>"Advance" for engineer specially, please contact with our Customer Service engineer to get the code if it is necessary.</i></p>
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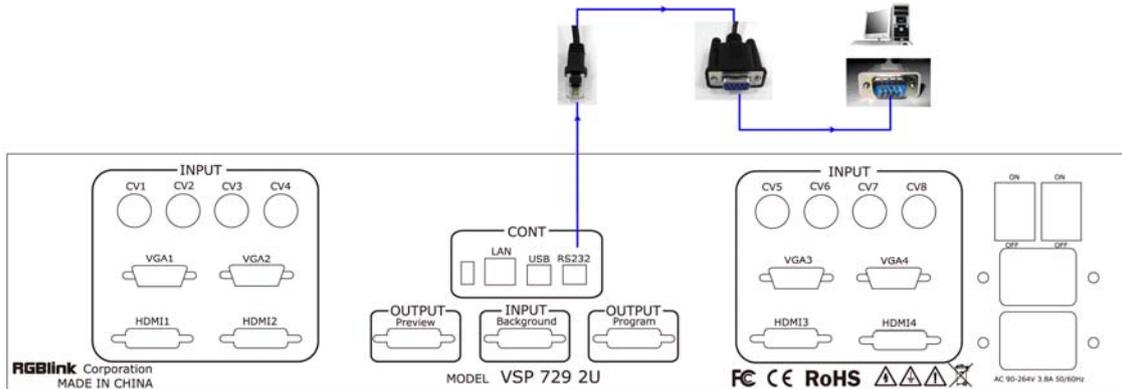
- **Help:** Display helps dialogue.
- **Version notice:** Display the software version and what is new;
- **About:** Display the software version and company information;

## 6.3 How to control processor through RS 232?

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, 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 729 2U.

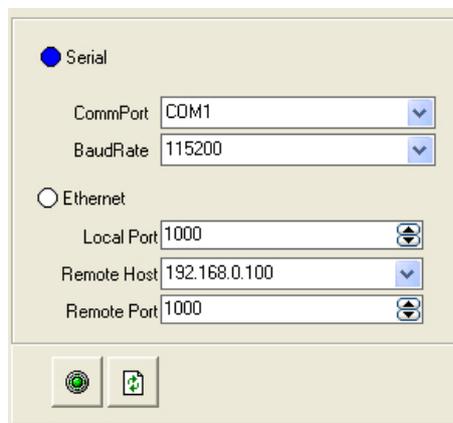
Right click the **【My Computer】** on the home screen of control PC.

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 729 2U 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 COM1: Opened. showing on the software, it means the communication is ok ,and you can use the software to control the device now ;

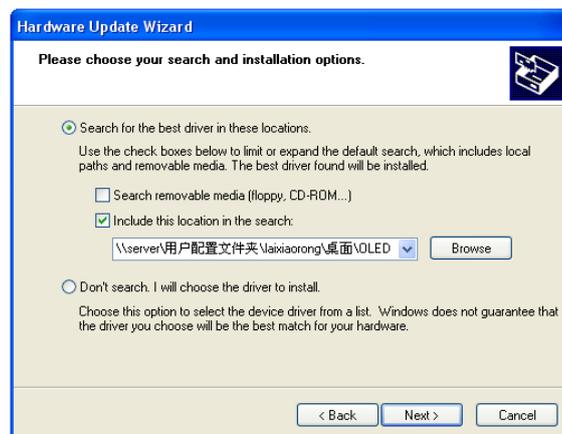
## 6.4 How to control processor with console software by USB ?

### 1. Install the driver

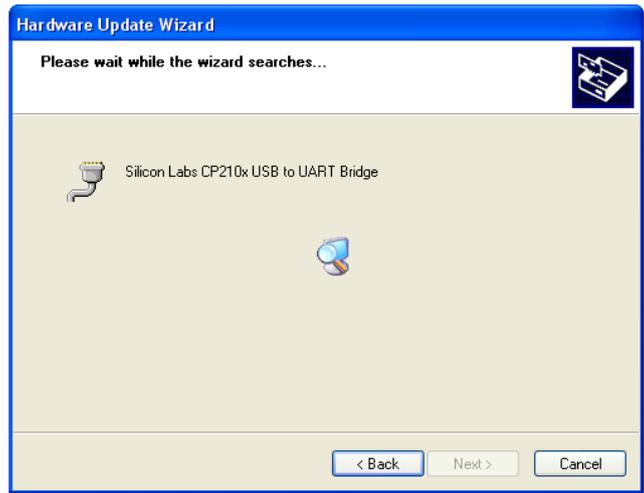
Connect the USB cable to the PC and the video processor .turn on the VSP VSP 729 2U,for the first time to use USB , the PC will remind finding the new hardware and ask to install the driver for this new driver



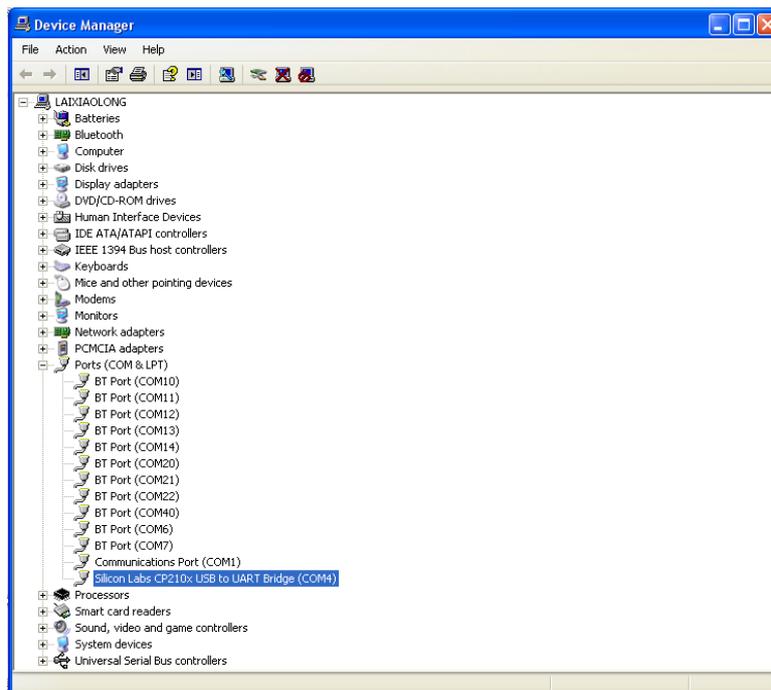
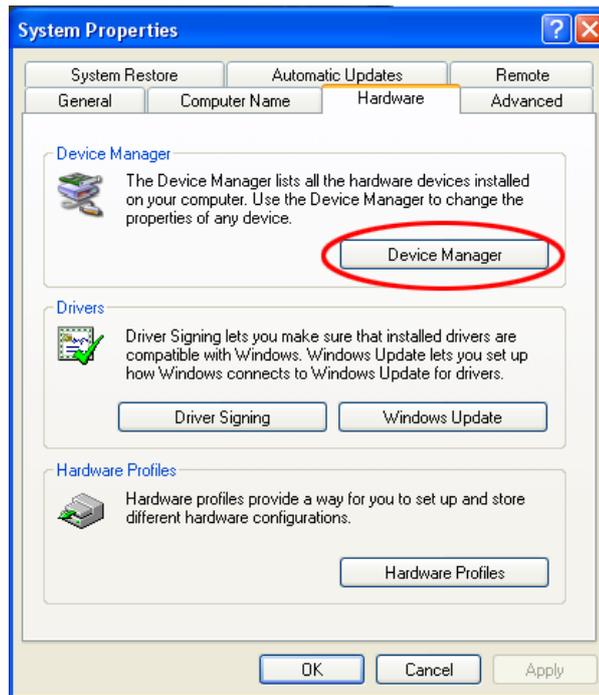
Install from the list or specified location ,press "NEXT"



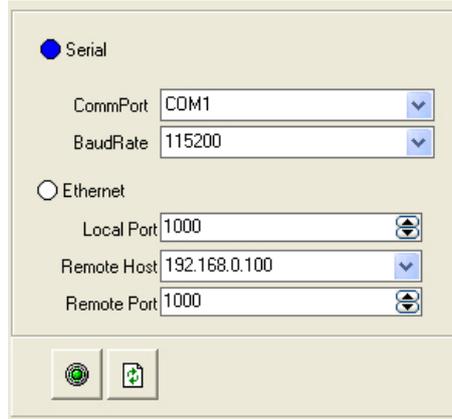
Press "browser" to find the driver, and press "NEXT"



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



2. 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 729 2U Boud Rate to be : 115200



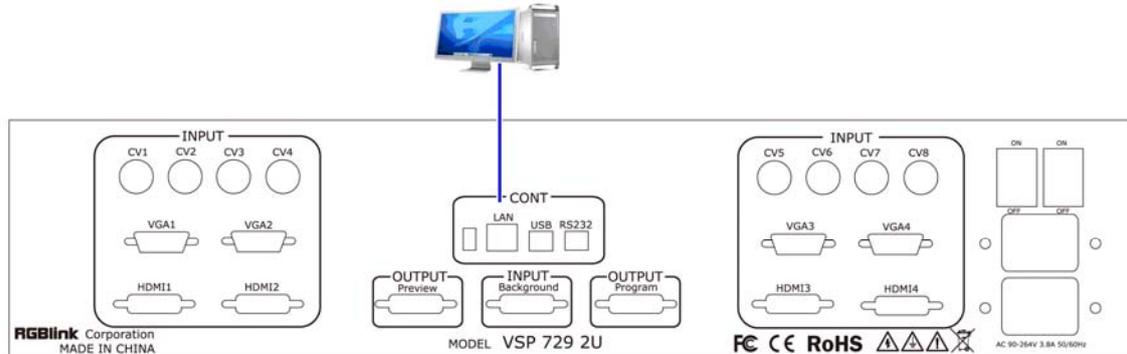
Press  to start communication, when there is green point in the right down corner showing on the software, it means the communication is ok, and you can use the software to control the device now; the software operation is the same as VSP 729 2U.

	<p>If power off during communication, should close the port  by first, and plug in out of the USB and do communication  again</p>
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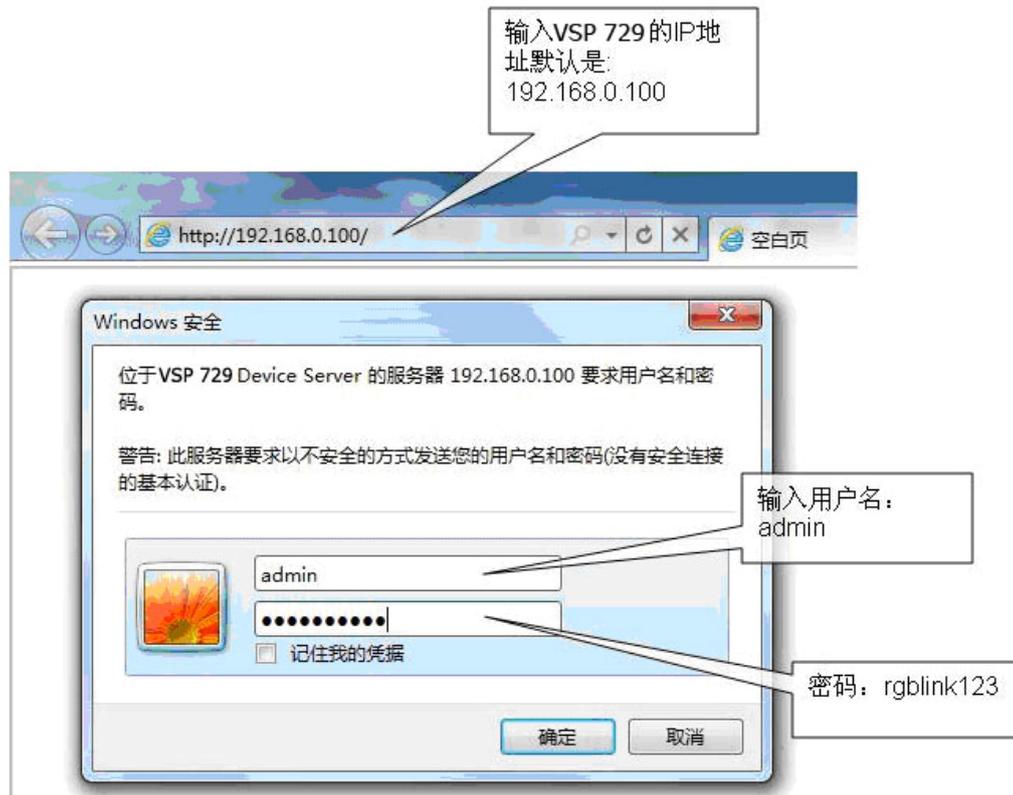
## 7.0 Appendix

### 7.1 Appendix I How to upgrade VSP 729 2U firmware.

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



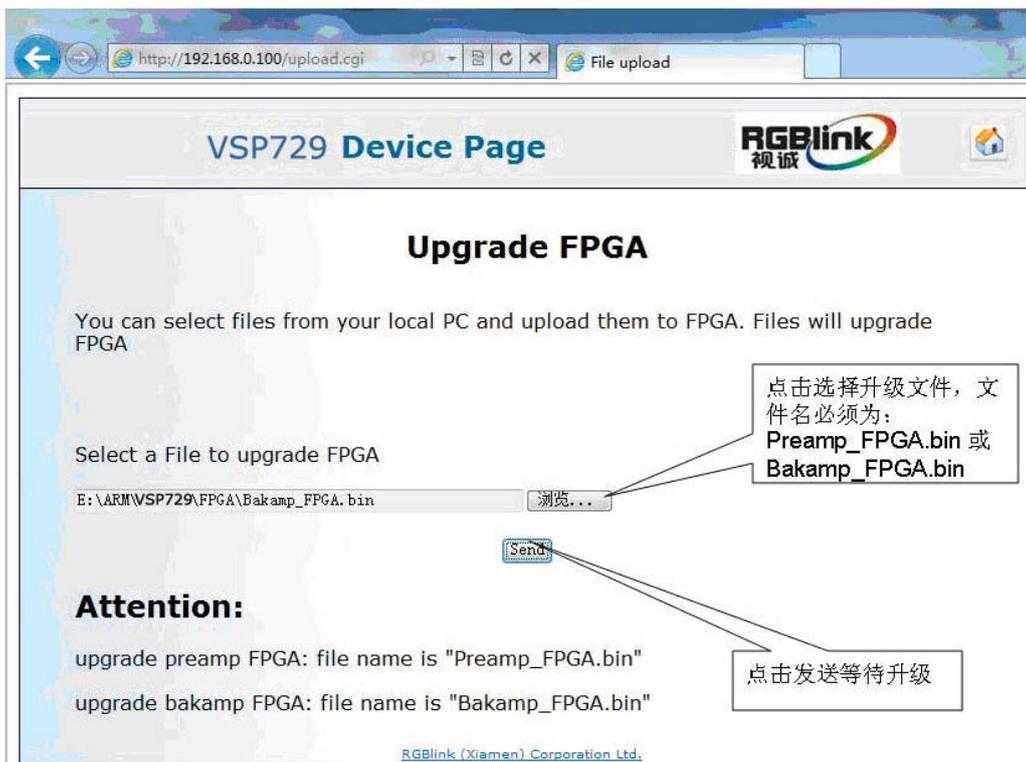
2. Input VSP 729 2U network address in address toolbar: 192.168.0.100, enter the user name admin and password rgblink123 in the dialog box.



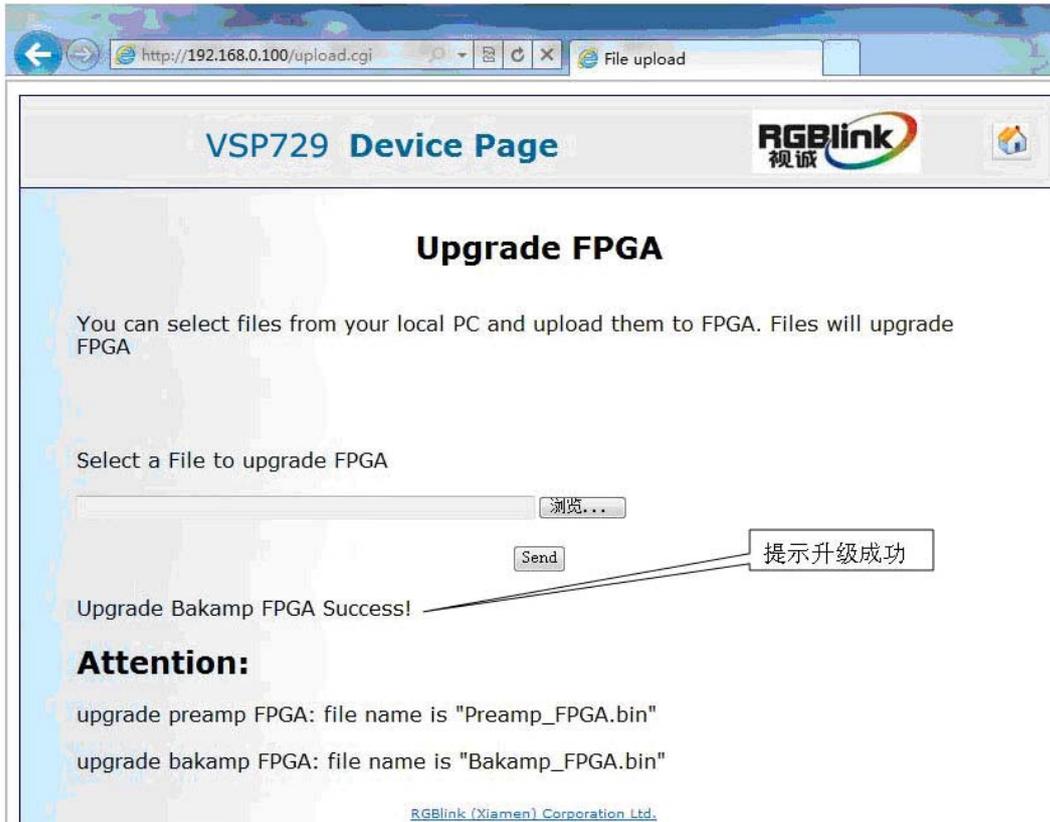
3. Thirdly, click on FPGA Upgrade:



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



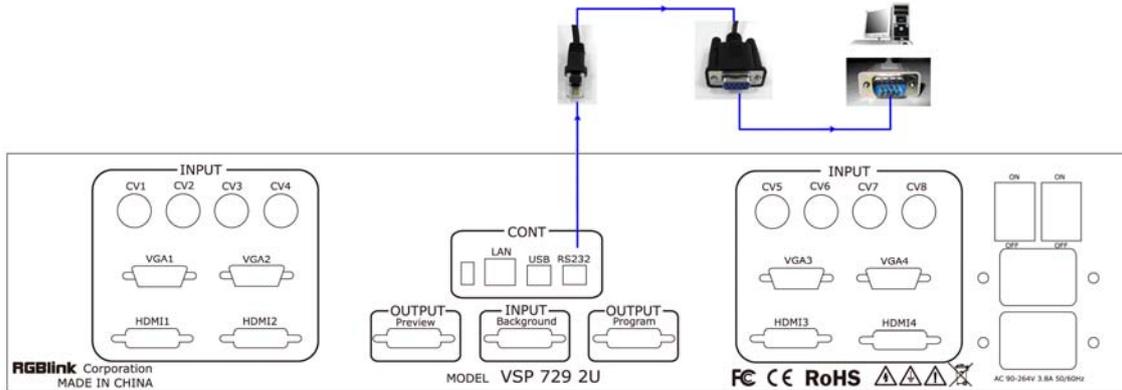
## 6. Upgrade Bakamp FPGA Success.

## 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.



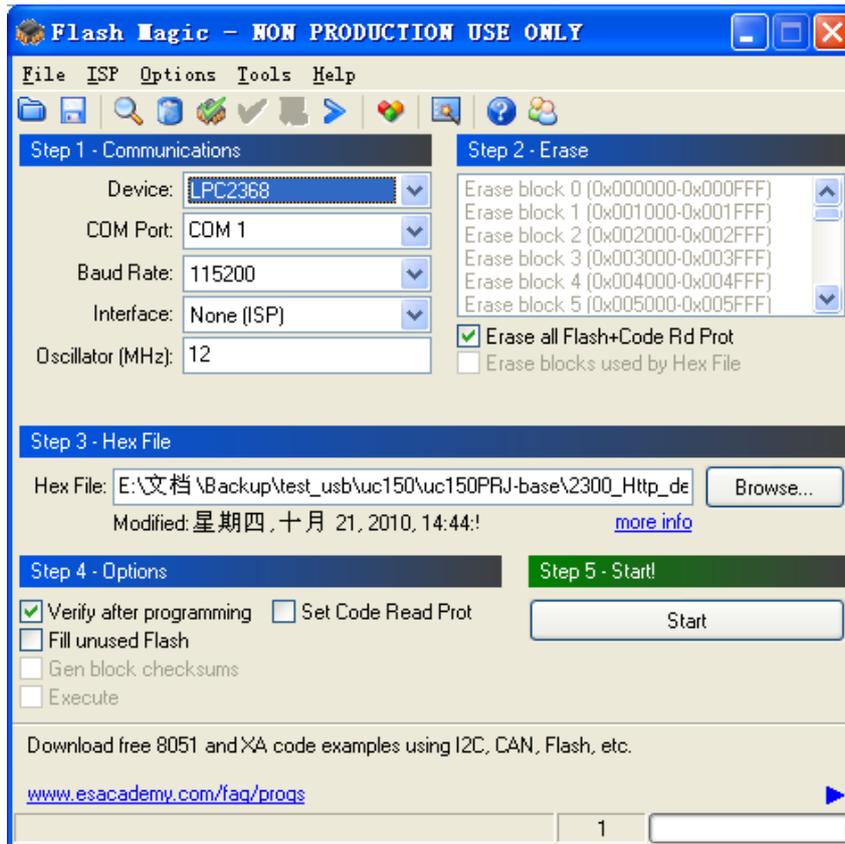
Double click **Flash Magic** to run flash magic , setting as below :

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 .



	<p>Flash Magic download website</p> <p><a href="http://www.flashmagictool.com/download.html&amp;d=FlashMagic.exe">http://www.flashmagictool.com/download.html&amp;d=FlashMagic.exe</a></p>
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