

### 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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## 1.0 Safety

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

	Power Source         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.         High Voltage         There are many high voltage components inside.
	<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 userrselves, any requirement, please feel free to
	contact our service engineer. Keep heavy device from power cord.
₽	Grounding the Product and Use the Proper Fuse 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.
	Keep away from Magnet, Motor, TV and Transformer.
	Guard Against Damp Keep using inside clean and dryness environment, once the device get wet, must remove power cord right now.
	Keep away Exploder Do not operate the device inside dangerous and easy explosive gas, which it may make fire, blast or something without expectation.
	Keep away Pour Liquid and Fragment 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.



## 2.0 Specification

VSP 729 2U is a 5 layers seamless switcher that accepts a wide variety of signals, including RGB computer video, HDTV, and standard definition video. video It combines truly seamless, glitch-free switching with advanced scaling technologies to meet the requirements of high quality, high resolution video presentations.With features such as independent Preview and Program outputs, presentation-enhancing 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**

CVBS Input via DVI-I Connector			
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		
Componet YPbPr via D	VI-I Connector		
Number of Inputs	4		
Connector	Standard DVI-I socket		
Supported Standards	Analog HD input		
Circuit de la contra	Y:1Vpp±3dB (0.7V Video+0.3v Sync ) 75 ohm		
Signal Level	Pb/Pr:0.7Vpp±3dB 75 ohm		
Supported resolution	480i,576i,480p,576p,720p50,720p60,1080i50,1080p50		
	1080180, 1080080		
Number of Inputs			
	4 Standard DV/L Lagekat		
	Standard DVI-I socket		
Supported Standards	VGA-UXGA		
	R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3V		
Signal Level	Sync ) 75 ohm		
	black level: 300mV Sync-tip: 0V		
	VGA-UXGA (800*600@60, 1024*768@60,		
Supported resolution	1280^1024@60,		
	1440*900@60,1600*1200@60)		
DVI input via DVI-I Co	nnector		
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	IMDS pwl, single pixel input, 165MHz bandwidth		
Standard	HDMI 1.3		
Background input DVI-	I Connector		
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	
Preview DVI Output		
Number of Inputs	1	
Connector	Standard DVI-I socket	
Signal Level	TMDS pwl, 165MHz bandwidth	
Supported resolution	VESA: 1024×768×60Hz	
Preview VGA Output		
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	
	olack level: 300mV Sync-tip: 0V	
Program DVI Output		
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	
Function		
Input channel	Support each input channel signal programming	
configuration	configuration	
Multi-channel switching Support to do any more pictures		
Transition effects	Multi effects	
Extras		
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;

 $5 \sim 8$ , communication port interface (5 is mini push button for further firmware

upgrade, 6 is TCP/IP for Ian, 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;



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



## 4.2 How to install

VSP 729 2U 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 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;



**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 buttoin 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.

**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;

DHCP Failed

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

IP Address 192.168.1.100

Push [MENU] button to go to main menu,

>VSP 729 \*Dev Info Recall

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 curent 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.

> Program 1: DVI1 1920x1080x60

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;

RGBlink

>VSP 729	
Language	*HDMI

Push [Next] to go into the HDMI OUT sub menu as shown:

HDMI OUT	
>Program	Preview

OUT

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
> 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



calender 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



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Scaling setting only effects for program ouput 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.



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



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 swith 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.







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 VSP 729 2U User Manual Doc. No.: RGB-RD-UM-V729 2UC001 15 image and zoom to the size to meet the application.



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.



		and the second se
License Agreement	t	6
IMPORTANT: PLEASE	READ!	<u>^</u>
Agreement	ous of Warfing troduct Subbort Software Ti-	ceuze 🦲
This RGBlink Produ	ict Support Software License Agreement (th: Factive as of the date the Software is obj	is tained from
RGBlink (the "Effe	ective Date"), and is entered into by and l	between
RGBlink Corporatio	on, S603 Weiye Building Torch Hi-Tech Indu: Siamen, Fujian Province, P.R.C ("RGBlink")	strial . and You.
1 DEFINITIONS	······································	
will download, use	Licensee means the individual or company e and/or distribute the RGBlink Product Sup	wno has or pport
Software and who i	s being licensed to use the Software.	~
Do row encost all a	the terms of the proceeding license entry	nt? If so
click on the Yes pu	ish button. If you select No, Setup will	close.
ise installation		1
	< Back Agree	Disagree
VSP 729		
¥SP 729		
VSP 729 License Agreemen	t.	6
VSP 729 License Agreemen	t	
VSP 729 License Agreemen Inst	t tall	3
VSP 729 License Agreesen Inst	t tall	
VSP 729 License Agreesen IMPORTANT: F Terms and Co Agreement	t tall Setup is not complete. If you quit the setup program now, the program will not be installed.	se
VSP 729 License Agreesen IMPORTANT: F Terms and Co Agreement This RGBLink	t tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a	se e
VSP 729 License Agreemen IMPORTANT: F Terms and C Agreement This RGBlink "Agreement" RGBLink (the	t tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a later time to complete the installation	se A
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IMPORTANT: F Terms and C Agreement This RGBlink "Agreement") RGBlink (the RGBlink Corr Development 1 DEFINITION Yum "Yum" "Yum"	t tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a later time to complete the installation. To continue installing, click Resume. To continue Setup program click	se se inal nd You.
IMPORTANT: F Terms and Co Agreement This RGBlink "Agreement") RGBlink (the RGBlink (the RGBlink (corp Development 1 DEFINITION "You, "Your will downlos	t tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a later time to complete the installation. To continue installing, click Resume. To quit the Setup program, click Exit Setup.	se ned from ween ial nd You. o has or rt
IMPORTANT: F Terms and Co Agreement This RGBlink "Agreement") RGBlink (the RGBlink (the RGBlink (tor Development 1 DEFINITION "You," "Youw will downloe Software and	t tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a later time to complete the installation. To continue installing, click Resume. To quit the Setup program, click Exit Setup.	se ned from ween ial nd You. o has or rt
IMPORTANT: F Terms and C Agreement This RGBlink "Agreement") RGBlink (the RGBlink (the RGBlink (corp Development 1 DEFINITION "You, "Your will downloe Software and Do you accept	t tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a later time to complete the installation. To continue installing, click Resume. To quit the Setup program, click Exit Setup. Resume Exit Setup	se ned from ween ial nd You. o has or rt If so.
IMPORTANT: F Terms and Cc Agreement This RGBlink "Agreement") RGBlink (the RGBlink (the RGBlink (the RGBlink (cor Development 1 DEFINITION "You, "Your will downlos Software and Do you accept click on the	t Tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a later time to complete the installation. To continue installing, click Resume. To quit the Setup program, click Exit Setup.           Exit Setup	se ned from ween ial nd You. o has or rt If so, se.
SYSP 729 License Agreemen IMFORTANT: F Terms and Cc Agreement This RGBlink "Agreement") RGBlink (the RGBlink (the RGBlink (the RGBlink Corr Development 1 DEFINITION "You, "Your will downlos Software and Do you accept click on the	t tall Setup is not complete. If you quit the setup program now, the program will not be installed. You may run the setup program at a later time to complete the installation. To continue installing, click Resume. To quit the Setup program, click Exit Setup. <u>Resume</u> Exit Setup	Se ned from ween ial nd You. o has or rt If so, se.

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"

🛃 VSP 729 🛛 🔀
Select Destination Directory
Setup will install VSP 729 in the following folder.
To install into a different folder, click Browse, and select another folder.
You can choose not to install VSP 729 by clicking Cancel to exit Setup.
Destination Folder
C:\Program Files Browse
Wise Installation < <u>B</u> ack <u>Mext</u> Cancel



Click "next" to go on.

📲 VSP 729	
Select Program ∎anager Group	Ø
Enter the name of the Program Manager group to add VSP 729 icons	to:
VSP 729	
360安全浏览器 3 360安全中心 360余毒 Adobe	
Autodesk Catalyst Control Center	
CorelDRAW Graphics Suite 12 CorelDRAW X4 猪简版 ieboud#62所結灵2011	
Microsoft Office	×
Wise Installation	
< <u>Back</u>	Cancel

Click "next" to go on.

∰ VSP 729	×
Start Installation	Ø
You are now ready to install VSP 729.	
Click the Next button to begin the installation or the Back button to reenter the installation information.	5
Wise Installation	
< Back	ncel





Click "finish" and ready to run AVDSP console.





## 6.2 Run control software

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



VSP 729 2U communicaiton software interface as shown:

Set up communication: Click communication page, enter setup option:

	● Serial	
	CommPort COM1	
	BaudRate 115200	
	◯ Ethernet	
	Local Port 1000	
	Remote Host 192.168.0.100	
	Remote Port 1000	
	0	
Serial is the default	COM, click icon to refres	sh COM number, choose
available COM, default E	Baudrate is 115200。After serial	setting, click icon,
The icon becomes	when sucessfully connected, or	n the left bottom showing
COM6: Opened.		



🔿 Serial	
CommPort	СОМ1
BaudRate	115200
🔵 Ethernet	
Local Port	1000 🞅
Remote Host	192.168.0.100
Remote Port	1000 🛞
1	

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 ito connect with network. If sucessfully connected, the icon becomes , Status on the left bottom showing DP1000 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

Program Screen

top left corner

, such as signal types and its resolution, the

bottom part's button 1,2,3,4 corresponds with programme channel, Pregramme 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 srcolling down list.

Output Format	800x600@60 🔻		
	800x600@60		_
	1024x768@60		_
	1280x768@60		

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.)

Current Config	Mode		
Mode 1	O Mode 2	⊖ Mode 3	⊖ Mode 4

 Switch mode: Press [Switch] After take button is efected, program output image will switch with preview image.

Press [Remain], After take button is efected, program out will follow the image of preview.



• **Call saving modes:** Click the buttons as followings to apply.

[Load Save				
Save 1	Save 2	Save 3	Save 4	Save 5
Save 6	Save 7	Save 8	Save 9	Save 10

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Cut

• 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:

Switch Mode Effect	
	·I. #
	•

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.

Fade in Fade out Time

• 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,

Transparent Bar Width 🗍	0
-------------------------	---

• Input setting: Configurate Input inforamtion , can configurate for Input 1,

Input 2, Input 3, Input 4 separately.

Input source choice:

sources.

Input resolution toolbar: <a href="http://format/720x480@60p">http://format/720x480@60p</a> shows the resolution of current input souce.

٢١	Display Mode—	
	Live Video	•
	Live Video	
	Freeze Frame	

• **Display toolbar:** Freeze Frame offers 2 different display modes, when selected [live video], video will be played normally. Whe selected [Freez], the display only shows the last frame.



• Ratio: Normal choose 4:3 or 19:9 from scrolling down lis.



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.

Group1 Group2	Group3 Group4	Background TP	
Preview			r Program
Normal			Normal
• тр			• ТР

• 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 configurated by the same channel or by the 4 totally different chanels. 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



Save
<u>S</u> ave 1
S <u>a</u> ve 2
 Sa <u>v</u> e 3
Sav <u>e</u> 4
Save <u>5</u>
Save <u>6</u>
Save <u>7</u>
Save <u>8</u>
Save <u>9</u>
Save <u>1</u> 0

Update Reset

- 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.

Update			MARK.	20	×
Update Style MCU	•				
File Path				Start	
		0%			]

• DE delay:

De Adjust	×
HDMI 1 HDMI2	
Do Adjust Suitab	Output Mode
× U 😴 Set	HSYNC Polarity
CX 0 🖶 Set	ros reg
CY 0 🕞 Set	VSYNC Polarity C Pos C Neg

• **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 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.



IP Se	t –			20		×
IF	P 🚺	€-0	<b>-</b> 0	€-0	•	
		ОК			Cancel	]

- 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.

COM6 Opened VSP 729 [MV-1.4] [FV-3.1] [100M-0.8] [SN-CM1234]

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

Admin Password	~	-	25	N	×
					1
	OK		Cancel		



"Advance" for engineer specially, please contact with our Customer Service engineer to get the code if it is necessary.

- 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 defaut, first time u	iser have to click 🔎 button, a	as following:
	Serial	
	CommPort COM1	
	BaudRate 115200	
	◯ Ethernet	
	Local Port	
	Remote Host 192.168.0.100	
	Remote Port 1000	
	•	

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 promt 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"

Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
\\server\用户配置文件夹\\aixiaorong\桌面\OLED 🚽 Browse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next> Cancel

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:



stem Pro	perties ?
System	Restore Automatic Updates Remote
General	Computer Name Hardware Advanced
~ Device N	lanager
Ż	The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
	Device Manager
- Drivoro-	
	Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
	Driver Signing Windows Update
- Hardwar	a Broßles
	Hardware profiles provide a way for you to set up and store different hardware configurations.
	Hardware Profiles
	, 
	OK Cancel Apply



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
 Boud Rate to be : 115200

🔵 Serial	
CommPort	СОМ1 🗸
BaudRate	115200
⊖ Ethernet	
Local Port	1000 🕞
Remote Host	192.168.0.100
Remote Port	1000 🛞
•	

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.





## 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.

	<ul> <li>输入VSP 729的IP地</li> <li>址默认是:</li> <li>192.168.0.100</li> </ul>	
http://192.168.0.100/	e-cx a	2000
Windows 安全		
位于VSP 729 Device Server 的服务 码。	音 192.108.0.100 安水用户名和密	
警告:此服务器要求以不安全的方式发的基本认证)。	送您的用户名和密码(没有安全连接	榆入田户夕
		admin
admin		
□ 记住我的凭据		
		一 密码: rgblin
	佣正 取消	

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.

VSP729 Device Page	RGBlink <sup>親</sup> 诚
Upgrade FPGA	
You can select files from your local PC and upload them FPGA	to FPGA. Files will upgrade
Select a File to upgrade FPGA	点击选择升级文件, 件名必须为: Preamp_FPGA.bin s Bakamp_FPGA.bin
E:\ARM\VSP729\FPGA\Bakamp_FPGA.bin 浏览	
Send	
Attention:	

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

C http://192.168.0.100/upload.cg	i 😥 🔸 🗟 C 🗙 🏉 File upl	oad	XX
VSP729 D	evice Page	RGBlink 複诚	2
	Upgrade FPGA	L.	
You can select files from yo FPGA	ur local PC and upload then	n to FPGA. Files will upgrade	2
Salect a File to ungrade FDC	24		
	〔 浏览 ]		
	Send	提示升级成功	
Upgrade Bakamp FPGA Succ	ess!		
Attention:			
upgrade preamp FPGA: file	name is "Preamp_FPGA.bin"	(	
upgrade bakamp FPGA: file	name is "Bakamp_FPGA.bin	a	
	RGBlink (Xiamen) Corporation Ltd.		

6. Upgrade Bakamp FPGA Success.



## 7.2 Appendix II Download the IP sofeware

Turn off the power , take the two coding switch to "ON" sate 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.



Verify after programming	
Fill unused Flash	
Gen block checksums	
Execute	

Finally, click the "start" button.



🏀 Flash 🛙 🛯 🗃	ic - NON PRODUCTION USE ONLY			
<u>F</u> ile <u>I</u> SP <u>O</u> pti	ons <u>T</u> ools <u>H</u> elp			
🖻 🗟 🔍 🕲	🍏 🗸 🎩 🔈   💝   國   🕜 😂			
Step 1 - Communi	cations Step 2 - Erase			
Device:	LPC2368			
COM Port:	COM 1 Erase block 1 (0x001000-0x001FFF) Erase block 2 (0x002000-0x002FFF)			
Baud Rate:	115200 Erase block 3 (0x003000-0x003FFF) Erase block 4 (0x004000-0x004FFF)			
Interface:	None (ISP)			
Oscillator (MHz):	12 Erase all Flash+Code Rd Prot Erase blocks used by Hex File			
Step 3 - Hex File				
Hex File: E:\文档\Backup\test_usb\uc150\uc150PBJ-base\2300 Http_de				
Modified:星期四,十月 21, 2010, 14:44:9 more info				
Step 4 - Options	Step 5 - Start			
Verifu after programming Set Code Bead Prot				
Fill unused Flash				
Gen block checksums				
Download free 8051 and XA code examples using I2C, CAN, Flash, etc.				
www.esacademy.com/fag/progs				
	1			

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 download website http://www.flashmagictool.com/download.html&d=FlashMagic.exe

