# **VSP 628S**



# **User Manual**

- Manual #: RGB-RD-UM-V628S E001
- Revision:V1.6
- This User Manual Applies to VSP 628 and VSP 628S!



# VSP 628S-User Manual

Thank you for choosing our products!

In order to allow you to learn how to use the video processor quickly, we bring you the detailed user's guide. You can read the introduction and directions before using the video processor, please read all the information we provide carefully to use our products correctly.

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# **Operators Safety Summary**

The general safety information in this summary is for operating personnel.

## **Do Not Remove Covers or Panels**

There are no user-serviceable parts within the unit. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.

## **Power Source**

This product is intended to operate from a power source that will not apply more than 230 volts rms between the supply conductors or between both supply conductor and ground. A protective ground connection by way of grounding conductor in the power cord is essential for safe operation.

## **Grounding the Product**

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. A protective-ground connection by way of the grounding conductor in the power cord is essential for safe operation.

## **Use the Proper Power Cord**

Use only the power cord and connector specified for your product. Use only a power cord that is in good condition. Refer cord and connector changes to qualified service personnel.

## **Use the Proper Fuse**

To avoid fire hazard, use only the fuse having identical type, voltage rating, and current rating characteristics. Refer fuse replacement to qualified service personnel.

## **Do Not Operate in Explosive Atmospheres**

To avoid explosion, do not operate this product in an explosive atmosphere.

# Terms In This Manual and Equipment Marking



## WARNING

Highlights an operating procedure, practice, condition, statement, etc, which, if not strictly observed, could result in injury or death of personnel.

Note

Highlights an essential operating procedure, condition or statement.



## CAUTION

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# Change History

The table below lists the changes to the Video Processor User Manual.

Format	Time	ECO#	Description	Principal
V1.0	2012-03-20	0000#	Release	BIN
V1.1	2012-05-11	0001#	Version upgrade	BIN
V1.2	2012-07-18	0002#	All-new version of guide style	BIN
V1.3	2012-09-10	0003#	Menu update, adding CS module	BIN
V1.4	2012-12-14	0004#	<ol> <li>Add VSP 628 add SDI output Module part.</li> <li>Add how to replace VSP 628 rear panel block to SDI output block part</li> <li>Add WEB SERVER cross-platform control operation interface part.</li> </ol>	BIN
V1.5	2013-03-23	0005#	<ol> <li>Change the back panel;</li> <li>Change the menu;</li> <li>Change the software.</li> </ol>	
V1.6	2013-08-13	0006#	1. Change the front panel;Vir2. Change the menu;3. Change the software.	



# CONTENT

CONTENT	
1. Introduction 14	
Chapter Structure	.5
How to Use This Manual1	.6
Terms and Definitions1	.7
System Overview 2	23
Application Questions2	24
2. Hardware Orientation 25	
n This Chapter 2	25
VSP 628S Back Panel 2	26
CONT Interface 2	26
1. Dial Switch 2	26
2. 10/100M UDP Interface 2	26
3. USB Interface 2	26
4. RS232 Interface 2	27
INPUT Interface2	27
5~7: CVBS Input	27
8: S-Video DIN 4 2	27
9: VGA Input 2	27
10: DVI Input	27
12: SDI Loop Out2	27

13.14: SDI Input 2	.8
15.16.17: CVBS Loop Out2	8
18: S-Video Loop Out2	8
19: VGA Loop Out 2	8
20: DVI Loop Out2	8
OUTPUT Interface	8
11: Sending Card/SDI output module port2	8
21: DVI Output	8
22: DVI +VGA DVI Output	8
23: CVBS Output	9
Switch and Power2	9
24.25: Power Interface and Switch2	9
VSP 628S Front Panel	0
LCD Panel3	1
Menu Buttons	81
Signal keys3	1
Function	2
3. Hardware Installation 35	
In This Chapter	5
Safety Precautions	6
Unpacking and Inspection	6
Site Preparation	6

4. Menu Orientation	
In This Chapter	
MENU	
MENUINPUT DETAIL	
MENUOUTPUT DETAIL	
MENU SCREEN PARAMETER	
MENU VIEW	
MENU EFFECTS	
MENU TEST PATTERN	
MENU LED CARD	
MENU SYSTEM	
5. Communication Software Guideline	
In This Chaptor	
Install Software	
Install Software Run Software Set Up Communication	45 49
Install Software Run Software	
Install Software Run Software Set Up Communication	
Install Software Run Software Set Up Communication How to use	
Install Software Run Software Set Up Communication How to use File Toolbar	
Install Software Run Software Set Up Communication How to use File Toolbar Communication Toolbar	45 49 49 52 52 54 54

Display mode Toolbar	55
Layout Toolbar	. 55
Aspect Ratio Toolbar	. 56
Input Toolbar	. 56
Screen parameter Toolbar	56
Image Toolbar	. 57
Display Toolbar	57
Output Image Toolbar	58
Display Toolbar	. 58
User Mode Toolbar	59
Log Toolbar	. 59
Information Toolbar	. 59
【VProcessor 】 Options	59
【Help 】 options	65
How to control processor through RS232?	. 66
How to control processor with console software by USB?	. 69
6. System Setup and Operations73	3
In This Chapter	. 73
Interface and Input Single Option	. 74
Single Picture Signal Switch	. 76
Button Save User Mode Operations	76
Single Image Switch	76

LOGO/test pattern/black field switch	76
Scale	77
PIP Setting	78
Each Image Width, Height and Position Setting	78
Console Software Setting Each Image's Width, Height and Position	79
How to add tasks	80
7. Common Questions and Solution8	34
In This Chapter	84
No Output in Large Screen	85
Confirm if there are any input singles	85
Confirm if signal output	85
Large Screen Output Flash Point	85
Confirm if monitor output is normal	85
Large Screen only Display Part of the Image	86
Signal need to scale	86
No Display in the Second Half Part of Large Screen	86
Resolution is inadequate	86
Sending card can't take lower part	86
Left of the Screen Appears Two Black Sides	86
Adjust DE deviation	86
All Key Lights Light Simultaneously	87
Check if dial switches are normal	87

A. Specification	. 88
V1.3 VSP 628S With CS Module	. 92
a. CVBS Output Module	92
b. SDI output module	93
V1.4:	. 94
a.VSP 628S add SDI output Module	94
b. How to replace VSP 628S back panel block to SDI output block?	96
c. WEB SERVER cross-platform control operation interface	99
B. Contact Information	.114
C. Upgrading Software	.115
Download the IP software	115



This chapter is designed to introduce you to the VSP 628S User Manual. Areas to be covered are:

- Chapter Structure
- How to Use This Manual
- Terms and Definitions
- System Overview
- Application Questions

Chapter Structure

# **Chapter Structure**

The following chapters provide instructions for all aspects of VSP 628S operations.

Chapter 1	Introduction		
Chapter 2	Hardware Orientation		
Chapter 3	Hardware Installation		
Chapter 4	Menu Orientation		
Chapter 5	Communication Software Guideline		
Chapter 6	System Setup and Operations		
Chapter 7	Common Questions and Solution		
Appendix A	Specification		
Appendix B	Contact information		
Appendix C	Upgrading Software		

How to Use This Manual

# How to Use This Manual

Following are important tips for streamlining your use of this User Manual in its electronic "PDF" form.

## Navigating

Use Acrobat Reader's "bookmarks" to navigate to the desired location. All chapter files have the same bookmark structure for instant navigation to any section. Please note:



• Extensive hyperlinks are provided within the chapters.

• Use Acrobat's "**Go to Previous View**" and "**Return to next View**" buttons to trace your complete navigational path.



• Use the "**Previous Page**" and "**Next Page**" buttons to go to the previous or next page within a file.

• Use Acrobat's extensive search capabilities, such as the "**Find**" tool and "**Search Index**" tool to perform comprehensive searches as required.

## **Table of Contents and Index**

Use the Table of Contents bookmarks to navigate a desired topic. Click any item to instantly jump to that section of the guide. You c an also use the **Index** to jump to specific topics within a chapter. E ach page number in the **Index** is a hyperlink.

## **General Operations**

To ensure trouble-free operation, please follow all procedures as listed below:

• For detailed installation instructions, refer to chapter 3 "Hardware Installation" on page 35.

• For communication software control guide, refer to Chapter 5, "Communication Software Control Guide" on page 44.

• For system setup and operations, refer to Chapter 6, "System Setup and Operations" on page 73.

Should you have any questions regarding the installation or operation of VSP 628S, please consult with the factory. Refer to Appendix B, "Contact information" on page 114.

Terms and Definitions

# **Terms and Definitions**

The following terms and definitions are used throughout this guide.

- "ASCII": American Standard for Information Interchange. The standard code consisting of 7-bit coded characters (8 bits including parity check) used to exchange information between data processing systems, data communication systems, and associated equipment. The ASCII set contains control characters and graphic characters.
- "Aspect ratio": The relationship of the horizontal dimension to the vertical dimension of an image. In viewing screens, standard TV is 4:3, or 1.33:1; HDTV is 16:9, or 1.78:1. Sometimes the ":1" is implicit, making TV = 1.33 and HDTV = 1.78.
- "AV": Audio visual, or audio video.
- A "Background" is an unscaled source, typically originating from a computer. A background source appears at the system's lowest priority — visually in back of all other sources.
- **"Baudrate":** Named of J.M.E. Baudot, the inventor of the Baudot telegraph code. The number of the electrical oscillations per second, called baud rate. Related to, but not the same as, transfer rate in bits per second (bps).
- "Blackburst": The video waveform without the video elements. It includes the vertical sync, horizontal sync, and the chroma burst information. Blackburst is used to synchronize video equipment to align the video output. One signal is normally used to set up an entire video system or facility. Sometimes it is called House sync.
- **"BNC":** Bayonet Neill-Concelman. A cable connector used extensively in television and named for its inventors. A cylindrical bayonet connector that operates with a twist-locking motion. To make the connection, align the two curved grooves in the collar of the male connector with the two projections on the outside of the female collar, push, and twist. This allows the connector to lock into place without tools.
- **"Brightness":** Usually refers to the amount or intensity of video light produced on a screen without regard to color. Sometimes called "black level.
- "CAT 5": Category 5. Describes the network cabling standard that consists of four unshielded twisted pairs of copper wire terminated by RJ-45 connectors. CAT 5 cabling supports data rates up to 100 Mbps. CAT 5 is based on the EIA/TIA 568 Commercial Building Telecommunications Wiring Standard.
- "Color bars": A standard test pattern of several basic colors (white, yellow, cyan, green, magenta, red, blue, and black) as a reference for system alignment and testing. In NTSC video, the most commonly

Terms and Definitions

used color bars are the SMPTE standard color bars. In PAL video, the most commonly used color bars are eight full field bars. In the computer, the most commonly used color bars are two rows of reversed color bars.

- **"Color burst":** In color TV systems, a burst of subcarrier frequency located on the back porch of the composite video signal. This serves as a color synchronizing signal to establish a frequency and phase reference for the chroma signal. Color burst is 3.58 MHz for NTSC and 4.43 MHz for PAL.
- "Color temperature": The color quality, expressed in degrees Kelvin(K), of a light source. The higher the color temperature, the bluer the light. The lower the temperature, the redder the light. Benchmark color temperature for the A/V industry include 5000°K, 6500°K, and 9000°K.
- "Contrast ratio": The radio of the high light output level divided by the low light output level. In theory, the contrast radio of the television system should be at least 100:1, if not 300:1. In reality, there are several limitations. In the CRT, light from adjacent elements contaminate the area of each element. Room ambient light will contaminate the light emitted from the CRT. Well-controlled viewing conditions should yield a practical contrast ratio of 30:1 to 50:1.
- "DVI": Digital Visual Interface. The digital video connectivity standard that was developed by DDWG (Digital Display Work Group). This connection standard offers two different connectors: one with 24 pins that handles digital video signals only, and one with 29 pins that handles both digital and analog video.
- "EDID": Extended Display Identification Data EDID is a data structure used to communicate video display information, including native resolution and vertical interval refresh rate requirements, to a source device. The source device will then output the optimal video format for the display based on the provided EDID data, ensuring proper video image quality. This communication takes place over the DDC – Display Data Channel.
- "Ethernet": A Local Area Network (LAN) standard officially known as IEEE 802.3. Ethernet and other LAN technologies are used for interconnecting computers, printers, workstations, terminals, servers, etc. within the same building or campus. Ethernet operates over twisted pair and over coaxial cable at speeds starting at 10Mbps. For LAN interconnectivity, Ethernet is physical link and data link protocol reflecting the two lowest layers of the OSI Reference Model.
- **"Frame":** In interlaced video, a frame is one complete picture. A video frame is made up of two fields, or two sets of interlaced lines. In a film, a frame is one still picture of a series that makes up a motion picture.

Terms and Definitions

- **"Gamma":** The light output of a CRT is not linear with respect to the voltage input. The difference between what you should have and what is actually output is known as gamma.
- "HDMI" High Definition Multimedia Interface: An interface used primarily in consumer electronics for the transmission of uncompressed high definition video, up to 8 channels of audio, and control signals, over a single cable. HDMI is the de facto standard for HDTV displays, Blu-ray Disc players, and other HDTV electronics. Introduced in 2003, the HDMI specification has gone through several revisions.
- "HDSDI": The high-definition version of SDI specified in SMPTE-292M. This signal standard transmits audio and video with 10 bit depth and 4:2:2 color quantization over a single coaxial cable with a data rate of 1.485 Gbit/second. Multiple video resolutions exists including progressive 1280x720 and interlaced 1920x1080 resolution. Up to 32 audio signals are carried in the ancillary data.
- "JPEG" (Joint photographic Expects Group): Commonly used method of lossy compression for photographic images using a discreet cosine transfer function. The degree of compression can be adjusted, allowing a selectable tradeoff between storage size and image quality. JPEG typically achieves 10:1 compression with little perceptible loss in image quality. Produces blocking artifacts.
- "MPEG": Motion Picture Expect Group. A standard committee under the auspices of the International Standards Organization working on algorithm standards that allow digital compression, storage and transmission of moving image information such as motion video, CD-quality audio, and control data at CD-ROM bandwidth. The MPEG algorithm provides inter-frame compression of video images and can have an effective compression rate of 100:1 to 200:1.
- "NTSC": The color video standard used in North America and some other parts of the world created by the National Television Standards Committee in the 1950s. A color signal must be compatible with black-and-white TV sets. NTSC utilizes an interlaced video signals, 525 lines of resolution with a refresh rate of 60 fields per second (60 Hz). Each frame is comprised of two fields of 262.5 lines each, running at an effective rate of 30 frames per second.
- "PAL": Phase Alternate Line. A television standard in which the phase of the color carrier is alternated from line to line. It takes four full pictures (8 fields) for the color-to-horizontal phase relationship to return to the reference point. This alternation helps cancel out phase errors. For this reason, the hue control is not needed on a PAL TV set. PAL, in many transmission forms, is widely used in Western Europe, Australia, Africa, the Middle East, and Micronesia. PAL uses 625-line,

Terms and Definitions

50-filed (25 fps) composite color transmission system.

- "Operator": Refers to the person who uses the system.
- "PIP": Picture-in-Picture. A small picture within a larger picture created by scaling down one of the images to make it smaller. Each picture requires a separate video source such as a camera, VCR, or computer. Other forms of PIP displays include Picture-by-Picture (PBP) and Picture-with-Picture (PWP), which are commonly used with 16:9 aspect display devices. PBP and PWP image formats require a separate scaler for each video window.
- **"Polarity":** The positive and negative orientation of a signal. Polarity usually refers to the direction or a level with respect to a reference (e.g. positive sync polarity means that sync occurs when the signal is going in the positive direction).
- **"RJ-45":** Registered Jack-45. A connector similar to a telephone connector that holds up to eight wires, used for connecting Ethernet devices.
- "RS-232": An Electronic Industries Association (EIA) serial digital interface standard specifying the characteristics of the communication path between two devices using either DB-9 or DB-25 connectors. This standard is used for relatively short-range communication and does not specify balanced control lines. RS-232 is a serial control standard with a set number of conductors, data rate, word length, and type of connector to be used. The standard specifies component connection standards with regard to the computer interface. It is also called RS-232-C, which is the third version of the RS-232 standard, and is functionally identical to the CCITT V.24 standard.
- "Saturation": Chroma, chroma gain. The intensity of the color, or the extent to which a given color in any image is free from white. The less white in a color, the truer the color or the greater its saturation. On a display device, the color control adjusts the saturation. Not to be confused with the brightness, saturation is the amount of pigment in a color, and not the intensity. Low saturation is like adding white to the color. For example, a low-saturated red looks pink.
- **"Scaling":** A conversion of a video or computer graphic signal from a starting resolution to a new resolution. Scaling from one resolution to another is typically done to optimize the signal for input to an image processor, transmission path or to improve its quality when presented on a particular display.
- "SDI": Serial Digital Interface. The standard based on a 270 Mbps transfer rate. This is a 10-bit, scrambled, polarity independent interface with common scrambling for both component ITU-R 601 and composite digital video and four channels of (embedded) digital audio.
- "Seamless Switching": A feature found on many Extron video

Terms and Definitions

switchers. This feature causes the switcher to wait until the vertical interval to switch. This avoid a glitch (temporary scrambling) which normally is seen when switching between sources.

- **"SMPTE":** Society of Motion Picture and Television Engineers. A global organization, based in the United States, that sets standards for baseband visual communications. This includes film as well as video and television standards.
- **"S-Video":** A composite video signal separated into the luma ("Y" is for luma, or black and white information; brightness) and the chroma ("C" is an abbreviation for chroma, or color information).
- "Sync": Synchronization. In video, sync is a means of controlling the timing of an event with respect to other events. This is accomplished with timing pulses to insure that each step in a process occurs at the correct time. For example, horizontal sync determines exactly when to begin each horizontal scan line. Vertical sync determines when the image is to be refreshed to start a new field or frame. There are many other types of sync in video system.(Also known as "sync signal" or "sync pulse.")
- **"TCP/IP":** Transmission Control Protocol/Internet Protocol. The communication protocol of the Internet. Computers and devices with direct access to the Internet are provided with a copy of the TCP/IP program to allow them to send and receive information in an understandable form.
- "USB": Universal Serial Bus. USB was developed by seven PC and telecom industry leaders (Compaq, DEC, IBM, Intel, Microsoft, NEC, and Northern Telecom). The goal was easy plug-and-play expansion outside the box, requiring no additional circuit cards. Up to 127 external computer devices may be added through a USB hub, which may be conveniently located in a keyboard or monitor. USB devices can be attached or detached without removing computer power. The number of devices being designed for USB continues to grow, from keyboards, mice, and printers to scanners, digital cameras, and ZIP drives.
- "VESA": Video Electronics Standards Association. A nonprofit number organization dedicated to facilitating and promoting personal computer graphics through improved standards for the benefit of the end-user. www.vesa.org
- "VGA": Video Graphics Array. Introduced by IBM in 1987, VGA is an analog signal with TTL level separate horizontal and vertical sync. The video outputs to a 15-pin HD connector and has a horizontal scan frequency of 31.5 kHz and vertical frequency of 70 Hz (Mode 1, 2) and 60 Hz (Mode 3). The signal is non-interlaced in modes 1, 2, and 3 and interlaced when using the 8514/A card (35.5 kHz, 86 Hz) in mode 4. It

Terms and Definitions

has a pixel by line resolution of 640×480 with a color palette of 16 bits and 256,000 colors.

- **"YCrCb":** Used to describe the color space for interlaced component video.
- **"YPbPr":** Used to describe the color space for progressive-scan (non-interlaced) component video.

System Overview

# System Overview

The VSP 628S is a multiple outputs video processor that accepts a wide variety of video signals, including RGB computer DVI, VGA video, HDTV HDMI video, S-composite video, composite video, 3 G SDI video, and can finish all the video input loop output. It combines truly seamless, fade in fade out, glitch-free switching with advanced scaling technologies to meet the requirements of high quality, high resolution video presentations. It supports user defined image size and coordinate, dual image processing, multiple splicing modes, several user configurations and multiple ways of controlling, lots of advanced functions in high-end show are available. **Features:** 

#### **Multiple inputs**

• VSP 628S provides 3 x composite (CVBS), 1x Svideo input, 1x DVI (compatible with HDMI 1.3), 1xVGA, 2 x3G self-adaptive SDI input (3G SDI module), for the application in different signal input.

#### **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.

• 3 G SDI module output, CVBS module output, CVBS + 3 G SDI module output. VSP628S self bring test pattern, logo conversion, etc.

#### 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.

#### **Multiple Control Methods**

• Front Panel, RS232、USB, Ethernet.

Application Question

# **Application Questions**

RGBlink offers solutions to demanding technical problems. Any application questions, or required further information, please contact with our Customer Support Engineers. Refer to Appendix B for contact details.





# In This Chapter

This chapter provides detailed information about the VSP 628S hardware. The following topics are discussed:

- VSP 628S Back Panel
- VSP 628S Front Panel

VSP 628S Back Panel

# VSP 628S Back Panel

The figure below illustrates the professional interface and control signals of

VSP 628S back panel.



NO	INTERFACE	NO	INTERFACE
1	Dial the code switch	13.14	SDI Input
2	10/100M Interface	15.16.17	CVBS Loop Out
3	USB Interface	18	S-Video Loop Out
4	RS232 Interface	19	VGA Loop Out
5.6.7	CVBS Input	20	DVI Loop Out
8	S-Video DIN 4	21	DVI Output
9	VGA Input	22	DVI+VGA DVI Output
10	DVI Input	23	CVBS Output
11	Sending card/SDI output	24.25	Switch and Power
	module port		
12	SDI Loop Out		

#### **CONT Interface**

#### 1. Dial Switch

#### 2. 10/100M UDP Interface

#### 3. USB Interface

Remote communication device control interface, used to connect the computer.

VSP 628S Back Panel

#### 4. RS232 Interface

Used to connect the computer.

#### **INPUT** Interface

- 1) 3 CVBS inputs by BNC interfaces, 1 S video input;
- 2) 1 VGA input by DB15 interface. 1 DVI-I interface, can be compatible

with HDMI inputs;

3) 2 3G SDI input (SDI module), can complete all video input loop output.

#### 5~7: CVBS Input

CVBS input. Can receive standard video signal from players, cameras etc. Input supported resolution 480i and 576i via BNC. Supported standards include: PAL, NTSC and SECAM.

#### 8: S-Video DIN 4

S-Video DIN 4, used to input S-Video signal(PAL, NTSC, SECAM compatible).

#### 9: VGA Input

VGA Interface, input the video signal from HD player and Computer, etc.

Compatible with YPbPr signal, input signal via the DB15 interface.

Note

DVI-I is compatible with HDMI.

#### 10: DVI Input

DVI input interface Input the video signal from computer, DVI signal generator. Connect to the same DVI interface on VSP 628S;

(This Connection does not support hot-plugging) .

#### 12: SDI Loop Out

SDI loop output, can connect the next level VSP 628S or the device with SDI input.

VSP 628S Back Panel

#### 13.14: SDI Input

Can receive video signal from HD player, and HD camera, connect interface 16 via 75 ohms BNC port. Connect LED screens via network cable.

#### 15.16.17: CVBS Loop Out

Composite CVBS loop out, can connect the next level VSP 628S or the device with CVBS input.

#### 18: S-Video Loop Out

S-Video loop out, can connect the next level VSP 628S or the device with S Terminal loop out.

#### 19: VGA Loop Out

VGA loop out, can connect the next level VSP 628S or the device with VGA

loop out.

#### 20: DVI Loop Out

DVI loop out, can connect the next level VSP 628S or the device with DVI loop out.

#### **OUTPUT** Interface

#### 11: Sending Card/SDI output module port

Sending card or SDI output module port. Can not be installed at the same time. Power has been already supplied by video processor itself, no external power supply needed for sending card.

#### 21: DVI Output

Connect to the monitor or LED screen which has DVI interface (This DVI connector does not support hot-plugging).

#### 22: DVI +VGA DVI Output

DVI +VGA output via DVI connector, connect to the monitor or LED screen which has DVI interface. (This DVI connector does not support

VSP 628S Back Panel

hot-plugging).

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

Note



#### 23: CVBS Output

CVBS can output PAL and NTSC, output signal can access the TV or DVD, etc.

#### **Switch and Power**

#### 24.25: Power Interface and Switch

AC 85-264V 3.8A 50/60Hz IEC-3 Power Interface

VSP 628S Front Panel

# VSP 628S Front Panel

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, CV1 input is default source. With front panel keyboard, user can operate VSP 628S through the menus on LCD panel.

VSP 628S front panel as shown in figure:



VSP 628S Front Panel

VSP 628S front panel as following:



## LCD Panel

Used to show button menu and menus for interactive communication;

#### **Menu Buttons**



Used to adjust LCD menu and information interaction and with the same function with Enter to confirm current options.

## Signal keys



CV1 input selection Button, its LED light turns on, output will be switched to this channel;



CV2 input selection Button, its LED light turns on, output will be switched to this channel;



CV3 input selection Button, its LED light turns on, output will be switched to this channel;



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



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



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

VSP 628S Front Panel



SDI1 input selection Button, its LED light turns on, output will be switched to this channel;



SDI2 input selection Button, its LED light turns on, output will be switched to this channel;



POSITION

LOGO, test pattern, BLK button, its LED light turns on, factory set is default for the test pattern. Test pattern can be set and selected from LCD panel, press the button again, to disable pattern.

## Function

Image position adjustment key, press the key, LED prompts activation:



Default will active to set Position X, and push the key again, will active to set Position Y. Use left-right knob to adjust X and Y coordinates, and push SEL key to confirm.

Choose PAN to adjust X and Y coordinates synchronously, select RESET to reset the changed values.

Image size adjustment key, press the key, LED prompts activation:



VSP 628S Front Panel



Default will active to set Scale Width, and push the key again, will active to set Scale Height. Choose SCALE to set Width and Height synchronously. Rotate the knob to adjust values, and press the knob to confirm.



Advanced menu. Press the **MENU** to enter the main menu. Rotate the knob to select the relevant submenu. For details please refer to MENU in menu orientation.



Press the button to show picture in picture on the screen; press the button again to return single picture window. Its LED light turns on, change to PIP. LED prompts Select PIP Source, press 1/2/3/4/5/6/7/8/LOGO as PIP.

For example, press button 5, its LED light turns on.

Note

In PIP, the sub-image signal can only choose once, all the operations are home screen after select, adjust the menu if need to adjust the size and location of sub-image.

Note

In PIP, all signal can be chosen if select sub-image. The difference is, PIP can be 2 same signal.



Freeze key, its LED light turns on, output screen freezes; press it again, its

LED light is out, freeze is cancelled;

Note

In PIP, both home screen and sub-image are freeze.



ALPHA transparency regulating switch, its LED light turns on, regulating function is open, adjust the transparency, the range is in 0-100, press it

VSP 628S Front Panel

again, LED light is out, regulating function is closed. Long press DIMMER button for 2 seconds, transparency will be quickly transferred to 0, again long press DIMMER button for 2 seconds long, and transparency will quickly adjusted from 0 to 100.

Note

In PIP, operation is invalid.



# 3. Hardware Installation

# In This Chapter

This chapter provides comprehensive installation instruction for VSP 628S

hardware:

Following is the size of VSP 628S for your reference.





# Safety Precautions

For all VSP 628S processor installation procedures, please observe the following important safety and handling rules to avoid damage to yourself and the equipment.

- To protect users from electric shock, ensure that the chassis connects to earth via the ground wire provided in the AC power Cord.
- The AC Socket-outlet should be installed near the equipment and be easily accessible.

# **Unpacking and Inspection**

Before opening VSP 628S processor shipping box, inspect it for damage. If you find any damage, notify the shipping carrier immediately for all claims adjustments. As you open the box, compare its contents against the packing slip. If you find any shortages, contact your sales representative.

Once you have removed all the components from their packaging and checked that all the listed components are present, visually inspect the system to ensure there was no damage during shipping. If there is damage, notify the shipping carrier immediately for all claims adjustments.

# Site Preparation

The environment in which you install your VSP 628S should be clean, properly lit, free from static, and have adequate power, ventilation, and space for all components.
# 4. Menu Orientation In This Chapter



This chapter describes all VSP 628S processor menus, including how they are accessed, the functions that are available, and descriptions of each menu tree (in block diagram format).

The following topics are discussed:

• MENU

- > INPUT DETAIL
- > OUTPUT DETAIL
- SCREEN PARAMETER
- ➢ VIEW
- ➢ EFFECTS
- ➢ TEST PATTERN
- LED CARD
- > SYSTEM
- TECH SUPPORT
- ➢ RESET

## MENU

Press the **MENU** to main menu, main menu as shown: Rotate knob buttons to select menu items. > before the menu means it's in selected state. Press the knob to enter corresponding setting or view the menu.





### MENU---INPUT DETAIL

Select INPUT, press it to confirm, show level 2 menu as follows:

**INPUT RES INFO**: Mainly display the current input video signal (such as CV1) and the corresponding resolution (such as 720 x576x50i); press MENU to exit and return to higher level MENU.

VGA ADJUST: Mainly aimed at BRIGHTNESS of VGA input: can change the image BRIGHTNESS via setting BRIGHTNESS; CONTRAST: can change the image color CONTRAST; HS VS POLARITY, HS POLARITY, VS POLARITY.

Users can set according to their actual situation, this function mainly suitable for these very professional for image quality. Non-professionals are not suggest above operations. If quality image distortion by mistake in improper operation, it can be initialized operation to recover factory setting. Press MENU to exit and return to higher level MENU.

### **MENU---OUTPUT DETAIL**

Select OUTPUT, press it to confirm, show level 2 menu as follows:

**OUTPUT RES INFO**: Mainly display the current output signal and output resolution;

OUTPUT RES: Mainly display the current signal output format;

If select DVI/VGA RES, users can choose different output formats through the knob, this option includes 13 common output resolutions, showed as follows;



And if select OTHER D/V RES, users can choose different output formats through the knob, this option includes 26 less-used output resolutions: 640X350@85, 640X400@85, 640X480@60, 640X480@75, 640X480@85, 720X483@59.94, 720X576@50, 800X600@75, 800X600@85, 1024X768@75, 1024X768@85, 1152X864@75, 1280X720@59.94, 1280X960@60, 1280X960@85, 1280X1024@75, 1280X1024@85, 1360X768@60, 1920X1080@23.98, 1920X1080@24, 1920X1080@25, 1920X1080@29.97\_P, 1920X1080@30, 1920X1080@50 P 295M, 1920X1080@59.94, 2048X1152@60. Select CVBS RES, can choose PAL or NTSC; SDI output module is optional module for users. When users buy it, detailed setting please refer to: SDI Output Module part. If not, SDI RES setting is not needed, press MENU to exit and return to higher level MENU. PIP SETTING: PIP setting, press it, can set IMAGE 1 or IMAGE 2; press MENU to exit and return to higher level MENU EFFECTS: Mainly for image output Settings. BRIGHTNESS: Can change the image BRIGHTNESS. CONTRAST: Can change the image color CONTRAST.

In addition, user can set RED BRIGHTNESS, GRN BRIGHTNESS, BLU BRIGHTNESS, RED CONTRAST, GRN CONTRAST, BLU CONTRAST, DETAIL ENHANCEMENT and NOISE REDUCTION.

**GAMMA:** Gamma setting, press it can adjust the image gamma value; Gamma value include as following: 1, -1.2, -1.4, -1.6, 1, 1.2, 1.4, 1.6, SRGB;

**ASPECT RATIO:** Proportional setting, press it, can realize the conversion between high and wide.

Normal: Original video proportion, 4:3 aspect ratio; 16:9 aspect ratio;

**MIRROR-IMAGE:** Image rotate setting, press it, user can DISABLE or ENABLE the image.

**DVI1 OUT ADJUST:** 

**DVI1 OUT RANG:** DVI1 out range adjustment, can choose RGB or YCBCR;

HDMI/DVI1: Can select HDMI agreement or DVI1 agreement;

DVI1 DE: Can adjust DE for DVI1;

DVI1 H START: Can adjust horizontal start position for DVI1;

DVI1 V START: Can adjust vertical start position for DVI1;

DVI1 WIDTH: Can adjust width for DVI1;

**DVI1 HEIGHT:** Can adjust height for DVI1;

### **MENU--- SCREEN PARAMETER**

Select **SCREEN PARAMETER**, rotate the knob, show level 2 menu as follows:

FULL SIZE: User can set full size.

LED SCREEN SIZE: User can set LED screen size by SCALE and POSITION button.

**SAVE:** Save the screen parameter.

### **MENU--- VIEW**

Spin the knob to SAVE in the Menu and push the knob to confirm. Rotate

the knob to save the operation to User Mode 1 or User Mode 2 in the Save subordinate options, then the LCD screen displays it is in the saving state; Push Menu and exit Save. Rotate the knob to Recall and to load User Mode1 or User Mode 2, then the LCD screen displays it is in the loading state.

### **MENU--- EFFECTS**

Rotate the knob and select EFFECTS in the Menu, then the LCD screen displays the level 2 menu as follows:

**TRANSITION MODE:** Select transition modes. FADE SETTING can setup (FADE IN/OUT) or (FADE TO BLACK).

**TRANSITION TIME:** Setup transition time. Rotate the knob to select time and push the knob to confirm. Transition time ranges from 0 to 50.

### **MENU--- TEST PATTERN**

Rotate the knob and select TEST PATTERN in the Menu, then the LCD screen displays the level 2 menu as follows:

**TEST PATTERN TYPE:** There are 14 kind s of test pattern: H RAMP, V RAMP, 100% COL BAR, 75% COL BAR, 16\*16 GRID, 32\*32 GRID, BURST, 50% GRAY, GRAY STEP 1, GRAY STEP 2, WHITE, BLACK, SMPTE COL BAR, LOGO.

RASTER BOX.

#### DIAG MOTION.

**AOI RASTER BOX:** User can choose ON/OFF this function, the settings including: BOX X, BOX Y, BOX WIDTH and BOX HEIGHT.

### MENU--- LED CARD

**BRIGHTNESS:** Control the brightness of sending card. (Only available for

DBstar sending card);

**CALINRATION:** Calibrate sending card brightness. (Only available for DBstar sending card).

### **MENU--- SYSTEM**

Spin the knob to SYSTEM in the Menu and push the knob to confirm, then the LCD screen displays the secondary menu as:

**SERIAL NUMBER:** It is the Factory serial number of VSP 628S which is used to search the information of VSP 628S.

**FIRMWARE VERSION:** It is the information of VSP 628S software which contains the following two versions:

FPAG VERSION: Information of FPGA version.

COM. VERSION: Information of COM. version.

IP ADDRESS: Information of IP.

TIMMER: Rotate the knob to TIMMER and push the knob to confirm;

Rotate the knob for DISABLE or ENABLE setting.

### **MENU--- TECH SUPPORT**

TECH SUPPORT: Information of technology support as:

EMAIL: Email of technology support.

PHONE: Phone of technology support.

WEB SITE: Company web site of technology support.

FAX: Fax of technology support.

#### **MENU--- RESET**

**RESET:** Enter RESET interface and press the knob to confirm; Rotate the knob to YES and push the knob to confirm; then VSP 628S is resetting to its factory settings. After 5 seconds, it completes factory settings and is ready for more operations.

# 5. Communication Software Guideline In This Chapter

This chapter provides detailed information about the control communication software. The following topics are discussed:

- Install Software
- Run Software
- How to control processor through RS232?
- How to control processor with console software by USB?

Install Software

### **Install Software**

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



Double click Series V. to install, English version default for use, click "select"

to next dialog:

🔮 AVDSP Series - Instal	lAware Tizard
<b>o</b>	Welcome to the InstallAware Wizard for AVDSP Series
	The InstallAware Wizard will install AVDSP Series on your computer.
	WARNING: This program is protected by copyright law and international treaties.
	To continue, click Next.
	< Back ( <u>Next</u> > Cancel

And in next dialog is the user agreement of the software, click Agree to go

on:



Install Software

💕 AVDSP Series - InstallAware Wizard	
<b>Customer Registration</b> Please enter information on yourself.	5
User Name:	
微软用户	
Organization:	
微软中国	
InstallAware	
	K <u>B</u> ack Next > Cancel

User can select "Change" to choose the VSP 628S install software:

🕜 AVDSP Series - InstallAware Wizare	
<b>Destination Folder</b> Select folder where setup will install files.	5
Install AVDSP Series to:	
C:\Program Files\AVDSP Series	⊆hange
Destination Folder	
Required Disk Space:	206,844 KB
Remaining Disk Space:	17,028 MB
InstallAware	
[	< <u>B</u> ack <u>N</u> ext > Cancel

Click "Next" to go on:

🕜 AVDSP Series - InstallAware Tizard	<u> </u>
Select Program Folder Select the location where you would like to create new shortcuts.	5
Setup will add program shortcuts to the Program Folder listed below. You may type a new folder name, or accept the suggested name. Click Next to continue.	•
Program Folder:	
AVDSP Series	
Install this application for:	
InstallAware	Cancel

Click "Next" to go on:

🕜 AVDSP Series - Instal	lAvare Tizard 📃 🔀 📕
<ul><li><b>⊘</b></li></ul>	Completing the InstallAware Wizard for AVDSP Series
	The InstallAware Wizard is now ready to configure AVDSP Series on this computer.
	- Click Next to begin configuration
	- Click Back to change settings
	- Click Cancel to exit
	< <u>B</u> ack <u>Next &gt;</u> Cancel

Install Software

Click "Next" to go on:

付 AVDSP Seri	es - InstallAware Tizard	×
	VDSP Series am features you selected are being configured.	
12	Please wait while the InstallAware Wizard installs AVDSP Series. This may take several minutes.	
	Status:	
InstallAware ——		_
	< Back Next > Cancel	

Click "Finish" and ready to run VSP 628S console:

🕜 AVDSP Series - Instal	lAware Tizard 📃 🗌 🗙
<b>o</b>	Completing the InstallAware Wizard for AVDSP Series
	You have successfully completed the InstallAware Wizard for AVDSP Series.
	☑ Run AVDSP Series now
	To close this wizard, click Finish.
	< Back Finish Cancel

Run Software

### **Run Software**

Install communication which comes with the package of VSP 628S device.

avds

Double click Series V... icon from home screen to run the software.







Double click Series icon from home screen, and choose and click VSP628

to run the software.

VSP 628S communication software interface as shown:



### Set Up Communication

When control video processor through PC software, besides the power cord, the product default equip with a line that is COM (RS-232), 9-pin (DB9F), RJ11 COM crystal head (6 B4C). Below are the details about connection of steps:

First connect 9-pin (DB9F) to the computer on the corresponding port, and connect COM crystal to RS232 port on video processor. Open video processor; Next, operate the computer, back to computer desktop, right click [ My computer ] to [ Properties ], find the [ Hardware ] option card, as follows, left click [ Device manager ] :

#### 5. Communication Software Guideline Run Software

System	n Restore	Automa	tic Updates	Remote
General	Cor	mputer Name	Hardware	Advance
Device N	lanager			
	The Device on your con		the hardware device evice Manager to cl	
			Device M.	anager
Drivers-				
	Driver Signi	ing lets you make	sure that installed d	rivers are
			indows Update lets /indows Update for	you set up
	how Windo			you set up drivers.
Hardwar	how Windo	ws connects to W	/indows Update for	you set up drivers.
Hardwari	how Windo Driv e Profiles Hardware p	ws connects to W er Signing	/indows Update for Windows L vay for you to set up	you set up drivers. Jpdate
Hardwar	how Windo Driv e Profiles Hardware p	ws connects to W er Signing profiles provide a w	/indows Update for Windows L vay for you to set up	you set up drivers. Jpdate
Hardwar	how Windo Driv e Profiles Hardware p	ws connects to W er Signing profiles provide a w	Vindows Update for Windows U vay for you to set up ons.	you set up drivers. Jpdate

Find **(** (COM and LPT) **]** port in **(** device manager **)**, click the plus sign on the left, record serial interface name that computer provides, as following chart, the serial port is COM1.

9	Comp	outer N	۸anag	emer	nt	
9	File	Action	View	Wi	ndow	Help
-	+	1	<b>e</b> (	3 🖸	: 🖄	ļ
	± 2	Proces	CD-RO TA/A1 IA ada sors drives ries	TAPI		lers
			(COM BT Port card re	(CO		

Confirm used COM and open control software, click [communication]

page, enter setup option, Serial is the default COM, click icon to refresh COM number, choose available COM, default Baud rate is115200.

Run Software



video processor through the PC software.



For more detailed information, please refer to: "**How to control processor through RS232**? ". In addition, we also equipped with USB line, you can also connect the computer and video processor with it to control PC software. Please refer to "How to control processor with console software by USB?" for more detailed information.



Ethernet, user can fill any number less than1023 in local port, the remote port must be 192.168.0.100 and the remote port must be 1000. After

Run Software

setting above, click the icon	to c	connect v	with the	net work. If
successful connect, the icon be	ecomes	e, stat	tus on th	e left button
showing JDP1000 Openec				

#### How to use

#### File Toolbar

. Option. User can choose open device when start and using script saved before or execute schedule edited before when start.

If user choose open device when start, user can use last run, use script file or none when user start. User can click to choose which script user want to open.

Options	×
Scan device when start Dpen device when start Execute schedule when start	
Start Script None Use Last Run Use Script File	
OK Cancel	

If user choose execute schedule when start, the next dialogue will display

when software run.

#### 5. Communication Software Guideline Run Software



Language. The software supports Chinese, English and German

version.

Chinese Engli	sh Germany	

The picture following is the German dialogue.



Run Software

Communication Toolbar
© : Open COM.
Close COM.
: Set COM.
Device Toolbar
: Synchronization.
: Save to flash.
Save User Mode
User Mode User Mode 1
Save Script
Ok
E Load form Flash.
Load User Mode ×
User Mode User Mode1
User Mode1
Ok Cancel
Factory setup
Advance, for adm. inistrator control.
Admin Password ×
OK Cancel
Note
Advance is only done by engineer. Please

connect us for password.

Run Software

#### Help Toolbar



: About. Display information of software.

#### **Output resolution Toolbar**

User can choose different output resolution by selecting from pull down list.

VSP 628S has 15 output resolutions for users selection.



### **Display mode Toolbar**

Choose to work in single channel or dual channel.



#### Layout Toolbar

If in single channel mode, the dialog is in grey and it is in limited use.

if in dual channel mode, user can set the device to work in PIP or PBP mode directly with quick preset layout button as following.



Run Software

### Aspect Ratio Toolbar

Users can select 4 : 3 or 16 : 9 in the pull-down options.

4:3	-		
	100		FS
4:3 16:9	1	solu	

Note

It is the same as : MENU → OUTPUT
EFFECTS → Aspect Ratio.

#### **Input Toolbar**

The white area display the name of input interface when the mouse is over the interface picture on the left. The green pane means current selected interface.



If work in dual channel, channel 1 includes VOIP, CV1, CV2, CV3, SVideo, YCbCr, SDI 1 and SDI 2, and channel 2 includes DVI, YPbPr, VGA, HDMI1 and HDMI 2. The cross over interface picture means they can not access. The green pane means selected interface for channel 1. The red pane means selected interface for channel 2.



#### Screen parameter Toolbar

User can set size and position of the screen simply, Mainly applies to LED screens users. After setting screen parameter, the user choice PIP or PBP operation, display picture can directly shows on corresponding screen.

Run Software



#### **Image Toolbar**

User can scale the images. Image 2 can't choose in single channel mode.

Video Processor							
Screen Parameter							
X 0 🖨 Y	0 🌲	Width 640	÷	Height 480	<b>÷</b>	Set	

#### **Display Toolbar**

Display		
Mode Live Video ▼ Live Video	Alpha- D	Gamma
Freeze Frame		

Display toolbar Users can set Alpha value of "Live Video" and "Freeze Frame" through display toolbar. When it is in Live Video, the video plays properly; When it is in Freeze Frame, the video stop playing.

Note

Its display is the same as FREEZE.

Note

The accommodation of transparency is the same as DIMMER.

Setting Gamma is generally not recommended, since LED large screen itself has Gamma function. For further information, users can contact with our customer service team.



Run Software

Note



#### **Output Image Toolbar**

User can customize the Brightness, Contrast, Detail Enhancement and Noise Reduction.

Output						
Brightness		Contras	st			
B	54	_ R ×	56			
G	54	G - G	56			
в	54	в	56			
Sync 🔲		Sync	default			
Detail Enhancement						
Note						
OUTPUT is the same as → MENU→						
	OUTPUT → EFFECTS.					

### **Display Toolbar**

User can customize image or images position and size just by drag and drop image (images) in this area. This process is sync to the parameters in images toolbars.



Run Software

#### User Mode Toolbar

Users can recall the saved user-config mode1 or mode2.

User Mode	1	2
	24 - 40	151

### Log Toolbar

User can save or delete the operate log file.

Log	
2009408403 11:12:03 T0VC020000006e01101000070 ReadCrop_VSize 2009408431 11:2:03 FTVC0501016400 2009408431 11:2:03 FTVC0500006e0102000071 ReadCrop_HPos 2009408431 11:2:03 FTVC0501023200 2009408431 11:2:03 FTVC0601033200 2009408431 11:2:03 FTVC0601033200	

### **Information Toolbar**

It is the VSP 628S software version, core board version, firmware version

and the serial number in bottom of the software interface.

[SV-1.9] [CV-2.0] [FV-2.0] [SN-2BM0471] [PreFPGA-6.1] [BackFPGA-8.0] [100M-2.52-0]

### **[VProcessor ]** Options

cepter Help	inication Device Help	
Flip stput Polarity	mication Device Help	
pha Delay Time vice Schedule		
Addr	Display Mode Layout Aspect Batio	
ock A Adjust	Dne Window     4:3     F5     O	
tput De Delay	Resolution	
put De Delay		
'OutFormat I Ganna	C wat 600 C Hear 600 C Set	
A Gagma		
date		
st Pattern cale		
0 🔿 Y 0	S Wath 800 S Height 600 S Set	
isplay		•
	Abha Gamma	
ive Video 💌		
utput		
Brightne	ss Contrast	
	54 R 56	
	54 G 56	
	54 B 56 56 56 56 56 56 56 56 56 56 56 56 56	

**Horizontal mirror image:** When it is in  $\sqrt{}$ , the video can rotate in Horizontal mirror image way. Like this:

Run Software



Output polarity :

Ports	-	
O HDMI 1	O HDMI 2	
Hor Sync Polarity—		-
	○ NEGATIVE	
Ver Sync Polarity—		1
POSITIVE	○ NEGATIVE	
DCLK Polarity		7
	○ NEGATIVE	
DE Polarity		-
POSITIVE	<b>O NEGATIVE</b>	

Setup the plus-minus polarity of output CLK when some abnormal sending

card can not identify the output.

#### Delay transparency:

Users can setup fade in out time.

Alpha	×
Delay Time 1	<b></b>
ОК	Cancel

#### Schedule:

Users can setup VSP 628S to play the appointed input video automatically

Run Software

in time and operation of single or dual channels, ratio place, fade in out

Users can setup up to 10 timing operation in the schedule

Please consult the "How to add tasks".

Timing Parameters	×
Timer Index 1 😝 🛛 Get 🔹 Set 🔹 🔍 ON	
Date Settings	
2013- 8-14 🔽	
, Time	
Hour 14 🖨 Minute 15 🖨 Second 54 🖨	
Operating Mode Single channel 🔻 🔲 AB	
Image1	
Scale	
X 0 🜩 Y 0 🜩 Width 800 🖨 Height 600 🖨	
Input Source	

#### IP Addr:

Users can set equipment IP, Usually used under the condition of one computer control or remote control several computers. It takes effect immediately after users change IP through serial port; and when users change IP through network, it takes effect after reopen the software.



#### Clock:

Users can set or adjust lower computer time through" clock"

Year	Month	Day	Hour	Min	Sec
2009 🚖	12 🚖	1	15 🚖	11 🜲	18 🖨
F				12	1
	OK			Cancel	

Run Software

#### VGA Adjust:

Brightness	Contrast
0	R 🗍 🛛 🛛
i 🗍 📃 🛛	G 🗍 — — — — — — — — — — — — — — — — — —
0	В 🗍 — О
🗌 Syc	Syc
HSYNC Polarity	VSYNC Polarity
Pos     C Neg	Pos C Neg

Setup the plus-minus polarity of HS and VS when some abnormal sending card can not identify the output.

Note

It is the same as MENU → INTPUT → VGA ADJUST.

#### **Output De Delay:**

Can adjust DE for DVI.

Out De Delay		MEC M ×
DVI1 De Delay		
De ON/OFF		
Out Range	Color	Out Type
● RGB ○ YPbPr	● RGB ○ YPbPr	
XO 🖨 YO	🖨 Width 0 🖨 He	ight 0 🔮 Set
DVI2 De Delay		
De ON/OFF		
Out Range	Color	Out Type
RGB OYPbPr	● RGB ○ YPbPr	
×0 🖨 Y0	🖨 Width 🛛 🌲 He	eight 0 🚔 Set

Note

It is the same as MENU→ OUTPUT→DVI OUT ADJUST→ DVI DE.

Run Software

#### AV OutpFormat:



#### **DVI Gamma:**

Compared to the Gamma in MENU, DVI Gamma has more optionals, user

can set the value between 0-1023. This is only available for DVI signal.



#### VGA Gamma:

Compared to the Gamma in MENU, VGA Gamma has more optionals, user can set the value between 0-1023. This is only available for VGA signal.

### 5. Communication Software Guideline Run Software



#### Update:

VSP 628S supports update operation. Users can click the updating in the

control pull-down options and click to select the saving path of the

new FPGA software, then click start to update.

Update		×
Update Style FPGA 💌	Auto DownLoad	]
Front FPGA C:\Documents and Settings\Administrator\桌面\update.bin	Start	
Back FPGA [C:\Documents and Settings\Administrator\桌面\111.txt	Start	1
0%		_

#### **Test Pattern:**

test Pattern	1		×
TP Mode	50% GRAY	<b>•</b>	
	BURST	~	
Set	50% GRAY GRAY STEP 1 GRAY STEP 2 WHITE BLACK		
Gamma ———	SMPTE COL BAR	~	

Note
------

It is the same as	MENU→	TEST	PATTERN

Run Software

### [Help ] options

Version: The update of software

About: The information of the software version and the RGBlink company.

About	×
RGBlink 视诚	
About AVDSP Console	
AVDSP Console Version:3.1.0.6 Copyright (C) 2009-2012 RGBLink Co.,Ltd. All Rights Reserved. Address:S603-604 Weiye Building Torch Hi-Tech Industrial Development Zone Xiamen, Province, P.R.C EMail:rgblinkcs@gmail.com WebSite:www.rgblink.com	Fujian
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How to control processor through RS232?

### How to control processor through RS232?

Firstly, install the control software in your PC;

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 VSP628S, 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 628S. Right click the [My Computer] on the home screen of control PC. Enter [Attribute], Find [Hardware] Option, as following.

How to control processor through RS232?

System Prop	erties			? 🔀	
System General		Automatic Updates ter Name Hardware		Remote Advanced	
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	compatible with	Windows, W connects to W	sure that installed d indows Update lets /indows Update for Windows I	you set up drivers.	
			vay for you to set up ions. Hardware		
		ОК	. Cancel	Apply	

Click [Device Manager] "+" on the left, check the COM number, as

following, , COM1 is offered.

9	Comp	uter	Mana	igen	nent		
9	File	Action	Vie	ew	Winde	w	Help
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<b>.</b>		PCMC Proce: Disk	(CD-R ATA/, IIA ac ssors drives	ATA Japte	PI cor		ers
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Remember the COM you are using and then run the control software, find

【Communication】 option. In default, first time user have to click button, as following:

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How to control processor through RS232?

CommPort	СОМ6	1
BaudRate	115200	1
) Ethernet Local Port	1000	
	192.168.0.100	~
	1000	

Check and tap [Serial], Serial Port, for example, is COM6 which is

checked from device manager. Set VSP 628S Baud Rate to be :115200,

Click [Confirm] after setting.



when there is the prompt green COM6: Opened. showing on the

software, it means the communication is ok , and you can use the software to control the device now.

Note



How to control processor with console software by USB?

# How to control processor with console software by USB?

Install the driver

Connect the USB cable to the PC and the video processor .turn on the VSP 628S, 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":

How to control processor with console software by USB?

Hardware U	pdate Wizard
Please wa	it while the wizard searches
Ţ	Silicon Labs CP210x USB to UART Bridge
	3
	< Back Next > Cancel



When the installation finish, can go to check the installed COM port inside

the device management, as following picture shows:

How to control processor with console software by USB?

The Device Manager lists all the hardware devices installed   in your computer. Use the Device Manager to change the   in your computer. Use the Device Manager to change the   in your computer. Use the Device Manager to change the   in your computer with Undows. Undows Update lets you set up   in your Signing lets you make sure that installed drivers are   compatible with Windows. Windows Update lets you set up   in your Signing   Windows Update   Inter Signing   Windows Update   Ardware Profiles   Inter Signing   Wardware profiles provide a way for you to set up and store   different hardware configurations.   Undows   Undows   Inter Signing   Windows   Inter National Signing   Inter Signing   Windows   Undows   Undows   Undows   Undows   Inter Signing   Windows   Inter Signing   Windows   Inter Signing   Windows   Inter Signing	Image Computer Name Hardware Advanced   Incered Manager 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 Device Manager Incered 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 connects to Windows Update for drivers. Driver Signing Windows connects to Windows Update for drivers. Driver Signing Windows connects to Windows Update dware profiles Advance profiles provide a way for you to set up and store drifterent hardware configurations. Hardware Profiles United Ware Profiles Mardware profiles United Ware Profiles United Ware Profiles OK Cancel Apply Nature Advance profiles Hardware Profiles Advanced Advance Profiles Advance profiles Hardware Profiles Advance profiles Hardware Profiles Advance Advance<		
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Product de de la construcción de la constru	tem devicer	Disk drives Disk drives Display add Displ	M drives frace Devices API controllers Sus host controllers sus host controllers applers Support Support (CCM10) (CCM10) (CCM11) (CCM11) (CCM11) (CCM11) (CCM11) (CCM12) (CCM11) (CCM11) (CCM12) (CCM11) (CCM12) (CCM11) (CCM12) (CCM22)
Dystem devices	versal Serial Bus controllers	<ul> <li>Disk drives</li> <li>Display adda</li> <li>Displa</li></ul>	M drives frace Devices API controllers Sus host controllers apters apters SLPT) (COM10) (COM20

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 628S Baud Rate to be: 115200.

How to control processor with console software by USB?

CommPort	СОМ6	~
BaudRate	115200	~
Ethernet (	1000	
	192.168.0.100	~
Remote Port	1000	۲

Press it o 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 628S.
This chapter provides comprehensive instructions for system setup and operations. The following topics are discussed:

- Interface and Input Signal Option
- Single Picture Signal Switch
- PIP Setting
- How to add tasks

Interface and Input Single Option



NO	INTERFACE	NO	INTERFACE
1	Dial the code switch	13.14	SDI Input
2	10/100M Interface	15.16.17	CVBS Loop Out
3	USB Interface	18	S-Video Loop Out
4	RS232 Interface	19	VGA Loop Out
5.6.7	CVBS Input	20	DVI Loop Out
8	S-Video DIN 4	21	DVI Output
9	VGA Input	22	DVI+VGA DVI Output
10	DVI Input	23	CVBS Output
11	Sending card/SDI output	24.25	Switch and Power
	sending port		
12	SDI Loop Out		

21. DVI is main screen output which mainly connected with sending card of large screen, the VSP 628S support the follows:
SMPTE:1280x720P60, 1280x720P50, 1920x1080P50, 1920x1080P60,,
VESA:800x600@60, 1024x768@60, 1024x768@75, 1280x768@60,
1280x1024@60, 1400x1050@60, 1440x900@60, 1600x1200@60,
1680x1050@60, 1920x1200@60, 2048x1152@60.

Please choice corresponding output and press button to confirm through **[**OUTPUT RES] of **[**OUTPUT] in **[**MENU], entering into and adjust knob by left and right.

Interface and Input Single Option

**22. DVI+VGA** is preview output interface, mainly through the display to preview the signal which will be output, the output signal is the DVI video signal and VGA video signal, it can connected with the displayer of DVI interface and VGA interface display devices to monitor signal image. Output signal through the DVI-I interface (Preview uses the standard DVI-I interface, compatible VGA output, through the terminal switching VGA output.) The supported resolution When output: VESA: 1024×768×60Hz.

**15-17.** Loop output interface of the signal source, it can output the inputted signal without any treatment and change. This also is the big characteristic of the VSP 628S, i.e. any input signal can be realized without changing its format, the original image output.

**23. CVBS** is the composite signal interface, which can output PAL and NTSC formats, output signal can access the TV or DVD, etc.

In addition to CONT part and the sending cards and the power and the interface above-mentioned, other interface is video signal input interface, this interface can input including DVI, HDMI and VGA, YPbPr, CV, S terminal SDI, TP test signals.

Single Picture Signal Switch

## Single Picture Signal Switch

If it is just simple seamless effects switch between stage pictures, the settings above are basic completed, just save the existing information and master switch skills in practice, as follows:

#### **Button Save User Mode Operations**

Press [MENU] button, choose [VIEW] through the right knob, enter menu option to choose [SAVE] It will save parameters at present to user mode 1 or user mode 2, take mode 1 by default after device restart.

#### Single Image Switch

VSP628S designs can realize seamless special effects switching between two channels. It only need to choose the channel firstly which switches to the big screen, such as pressing button [ CV1 ] now, it lights, it means that the signal screen outputted is No.1. If you need to take the second channel signal to switch to screen, you can press the [CV2] seamless switch directly or fade-in and fade-out to switch out. The switching speed can be adjust through the button [DIMMER] or PC software transparency (ALPHA).

#### LOGO/test pattern/black field switch

VSP628S made a shortcut to enter into LOGO/ test images / black field, press the [LOGO/TP/BLK] button, the system is the [TP] test picture by default, select the [ LOGO ] and [ TP ] or [ BLK ] respectively through the knob, then cut directly or fade-in and fade-out switch slowly, also, the speed of the switch can be adjust through the DIMMER button or

Single Picture Signal Switch

PC software transparency (ALPHA).

#### Scale

It may be different for different channel at the picture size and position output needed, but VSP628S can realized that the size and position of different channel can be adjust arbitrarily.

Choosing corresponding signal through pressing the corresponding signal button, like choosing [ DVI ], and then press the [SCALE ] button to enter scale function menu, there are two parameters in it, Width and Height respectively; Combined with the [POSITION ] key, there also is two parameters in it, Pos X and Pos Y, please through the knob choose corresponding parameters and modify parameter values according to the demand the pictures showed, pressing confirmation after modification, you can achieve the setting of different pictures size and position easily through this operation.

You can also set through PC software:



## **PIP Setting**

The button **[PIP]** of VSP628S can realize to switch dual-screen and single screen to seamless switch.

VSP628S can output the arbitrary size and position signal of two different channel to the screen, it also can shows the same picture exactly of the same two channel, specific operation as follows:

## Each Image Width, Height and Position Setting

The [PIP] Button is multi-screen switching buttons, which IMAGE1 is main screen, IMAGE2 is sub-screen.

Press 1-7 any buttons directly to preview switching IMAGE1 channel.

Also, Press 1-7 any buttons directly to preview switching IMAGE2 channel. Set the size and position of PIP:

Set the size and position of IMAGE2:

The first step, press the 【MENU】 buttons, through the knob, choose

【 PIP SETTING 】 menu options of the 【OUTPUT 】, spin knob lightly , choose IMAGE2, press knob to sure.

The second step, press the 【SCALE】 or 【 PISITION 】 buttons. The third step, according to LCD hint, select the corresponding sub-menu item to set corresponding image size and coordinate; 【 SCALE 】 buttons have two parameters internally, Width and Height respectively,

**【** PISITION **】** button also have two parameters internally, Pos X and Pos Y respectively, please through the knob choose corresponding parameters and modify parameter values according to the demand the pictures showed, remember to press confirmation after modification, press the **【** MENU **】** to quit after the completion of the setting, and enter into the **【**VIEW **】** menu to select SAVE to save.

PIP Setting

Also you can do the setting for main screen, select IMAGE1 in the **CPIP** SETTING **D** options,.

If you want to preview to switch back signal picture, you can press PIP buttons once again. Then the light of the button turns out.

The **[PIP]** Button is multi-screen switching buttons, which IMAGE1 is main screen, IMAGE2 is sub-screen.

Press 1-7 any buttons directly to preview switching main screen channel.

Also, Press 1-7 any buttons directly to preview switching IMAGE2 channel.

#### Console Software Setting Each Image's Width,

#### Height and Position.

Step 1: In work mode, select the dual screen;

Step 2: Set the size and position of Image 1 and Image 2 in the image;

Step 3: After setting, click 【Settings】 image output to complete the dual-screen setup.

How to add tasks

## How to add tasks

Use "Device Schedule" can add tasks, make device automatically run to the Schedule input source in specified time or schedule display modes such as fade in and out.



First of all, set lower computer current time through host computer "clock".

Note

Reset to factory settings after setting the

clock will affect the time before.

Clock					×
Year 2012 🗲	Month 7 🗲	Day 22 뢎	Hour 8 🗲	Min 54 🗲	Sec 56 🗲
	OK			Cancel	

After device clock set, add task plan through" Timing Parameters".

#### How to add tasks

Timing Parameters	x
Timer Index 1 Get Set ON	
Date Settings	
Time Hour 13 🗣 Minute 43 🗣 Second 42 🗣	
Operating Mode Single channel 🔻 🔳 AB	
Scale X 0 🖨 Y 0 🔿 Width 800 🖨 Height 600 🖨	
Input Source	

1. Users need to start "ON" before using" Timer Index". If you forget to start, the setting may fail.



Note



2. When the timer count is set to 1, it indicates that the setting contents will

be stored in the "Timer Index 1". If you need to set more, you can set up

one by one and saved in different "Timer index".

Note

Equipment currently supports 10 task scheduler.

Timer Index

\$

3. Set "task schedule" playing time, can up to second.

Date Settings			
Time Hour 13	Minute 43	Second 42	

4. Select the signal source to play works in dual channel or single channel

How to add tasks

mode, and check whether to use fade during dual channel mode.

Display Mode	
Two Window	-

5. Users can control the image position and size by change the data or click

the drop-down arrow.



6. When device works under the single channel mode, click the interface

Icon. Red box indicates current interface has been selected as the input interface;

Operating Mode Single channel 🔻 🔳 AB
Image1
Scale
X 0 😝 Y 0 😝 Width 800 🖨 Height 600 🖨
Input Source

When device works under the dual channel mode, need to switch image  $\ensuremath{\mathsf{1}}$ 

and image 2 set input signal one by one.

Image1 Image2

Users can see the image 1 and image 2 input source information in the

input source toolbar after setting. Shown as the picture:

Select CV1 as the input source of image 1:

Operating Mode Dual channel 🔻 🗖 AB			
Image1 Image2			
Scale			
X 0 🔄 Y 0 🖨 Width 800 🖨 Height 600 🖨			
Input Source			
	1:CV1	2:DVI	

How to add tasks

Select DVI as the input source of image 2:



## 7. Common Questions and Solution In This Chapter

This chapter provides the common questions and solution for the video processor. The following topics are provided:

- No Output in Large Screen
- Large Screen Output Flash Point
- Large Screen only Display Part of the Image
- No Display in the Second Half Part of Large Screen
- Left of the Screen Appears Two Black Sides
- All Key Lights Light Simultaneously

## No Output in Large Screen

#### Confirm if there are any input singles

Press [ MENU ] Button to find "INPUT" and knob into the "INPUT RES INFO" to see whether the input signal is normal, suggested the "INVALID INPUT" signal does not come in, check the front-end signal lines, and please note to do dual display or extended in computer ; you can enter other format signals to view in the same operating.

#### Confirm if signal output

Find a belt VGA input (best for DVI) display, connect to the corresponding output port of processor, check whether the signal is correct on the monitor. If not display properly, please check whether there is input signal, or if input wire interface is taken tight, output wire interface is picked up tightly. If display normally, check if sending card is normally working or need to replace sending card test.

## Large Screen Output Flash Point

#### Confirm if monitor output is normal

Find a belt VGA input (best for DVI) display, connect to the corresponding output port of processor, check whether the signal is correct on the monitor. If display normally shows and no flash point, please check whether DVI outlets put tight or replace to DVI line of sending card. If display flash point, please judge if input signal, wire, and interface is normal.

#### Large Screen only Display Part of the Image

#### Signal need to scale

Press **[SCALE]** button in the processor and knob to adjust the actual screen size of the screen, combined with button**[POSITION]**, including the "Width", "Height" and "Starting position", remember to touch the knob to confirm.

#### No Display in the Second Half Part of Large Screen

#### **Resolution is inadequate**

Please make sure the points of the screen width and heigh, choose the resolution to be bigger than screen width by button **[MENU]** under OUTPUT RES, and touch knob to confirm.

#### Sending card can't take lower part

TS 802 can control the max horizontal resolution 2048, and vertical resolution 640. Each CAT5 output is 320 pixels.

#### Left of the Screen Appears Two Black Sides

#### **Adjust DE deviation**

This phenomenon needs to adjust the DVI output and DE migration of the processor, through the 【MENU】 to find "OUTPUT" and find the corresponding output name, such as "DVI1 OUT ADJUST", and find "DVI1

DE" again, make an adjustment for corresponding horizontal and vertical DE, please remember to save to the corresponding channel after setting up, save to SAVE1 by default.

## All Key Lights Light Simultaneously

#### Check if dial switches are normal

Shut the power, check if two red dial switches near CV are upward. Reboot if they face down, and reboot. The function of the red dial switched is mainly upgrade.

## A. Specification



CVBS Input	
Number of Inputs	3
Connector	Standard BNC Socket
Supported Standards	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync ) 75 ohm
Multiplex	480i,576i
S-Video Input	
Number of Inputs	1
Connector	DIN4 Socket
Supported Standard	PAL/NTSC
Signal Level	Y:1Vpp±3dB (0.7V Video+0.3v Sync ) 75ohm
U	U/V:0.7Vpp±3dB 75ohm
Multiplex	480i,576i
VGA Input	
Number of Inputs	1
Connector	Standard DB9 Socket
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	1
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	2
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

Belden 1694A 100m self-adaptive 3G,200m self-adaptive			
1.485G,350m self-adaptive 270Mbps       evel     TMDS pwl , 165MHz bandwidth			
TMDS pwl , 165MHz bandwidth			
module)			
1			
Standard BNC Socket			
800mV±10%			
SMPTE: 625/25 PAL, 525/29.97 NTSC,625/50p PAL,525/59.94p NTSC,			
720p50,720p59.94/60,1080i50,1080i59.94/60,1080p50,1080p59. 94/60,			
Belden 1694A 150mself-adaptive 3G, 200m selt-adptive			
1.485G,350m selt-adaptive SD 270Mbps			
3			
Standard BNC Socket			
PAL/NTSC			
1Vpp±3db (0.7V Video+0.3v Sync ) 75 ohm			
480i,576i			
1			
Standard DIN4 Socket			
PAL/NTSC			
Y:1Vpp±3dB (0.7V Video+0.3v Sync ) 75ohm			
U/V:0.7Vpp±3dB 75ohm			
480i,576i			
1			
Standard DB9 Socket			
VGA-UXGA			
R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync ) 75			
ohm			
black level:300mV Sync-tip:0V			
VGA-UXGA (800*600@60, 1024*768@60, 1280*1024@60,			
1440*900@60,1600*1200@60)			
1			

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
Standard	HDMI 1.3
CVBS Output (CVBS o	utput Module)
Number of Outputs	1
Standard	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync ) 75ohm
SDI output (SDI output	Module)
Number of Outputs	1
Connector	Standard BNC Socket
Signal Level	800mV±10%
DC offset	0V±0.5V
Overshot	<10%
Timing Jitter	SD<0.2UI; HD SDI<1.0UI
Jitter Adjustment	<0.2UI
Supported Resolution	SMPTE: 625/25 PAL, 525/29.97 NTSC,625/50p PAL,525/59.94p
	NTSC,
	720p50,720p59.94/60,1080i50,1080i59.94/60,1080p50,1080p59.
	94/60,
Driver	Belden 1694A 150mself-adaptive 3G, 200m selt-adptive
	1.485G,350m selt-adaptive SD 270Mbps
VGA Output	
Number of Outputs	1
Connector	Standard DB15 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,1600×1200×6
	0Hz,1920×1080×60Hz,1920×1200×60Hz,2048×1152×60Hz
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 Outputs	2
Connector	Standard DVI-I Socket
Signal Level	TMDS pw, 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,1600×1200×6

	0Hz,1920×1080×60Hz,1920×1200×60Hz,2048×1152×60Hz	
Function		
Input channel	Support each input channel signal programming configuration	
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 IEC-3	
Working Environment	0°C~45°C	
Stored Environment	10% to 90%	
Product Warranty	3-year parts and labor warranty	

## V1.3 VSP 628S With CS Module



## a. CVBS Output Module

Output resolution: PAL and NTSC. Circuit board picture as following:



Key operation menu as following:



## b. SDI output module

Output resolution: 720P@60 and 1080P@60

Note

Factory acquiesce in 720P@60output, and need to upgrade program on line if want 1080P@60 output.

Circuit board picture as following:



Note

If SDI output abnormally after add module, can use module reset to restart module .

Key operation menu as following:



## V1.4: a.VSP 628S add SDI output Module



VSP 628S can support SDI output when output resolution is as follows:



Note

At present , these three resolutions:

1600x1200x60,1920x1200x60,2048x1152x60

Can not support SDI output.

Users can set the following four SDI output resolutions according to their need:

1280x720x50, 1280x720x60, 1920x1080x50, 1920x1080x60

Key operation menu as following:



## b. How to replace VSP 628S back panel block to SDI output block?



Step 1: Open the machine cover.

Step 2: Unscrew the screw both ends of the sending card block with screwdriver, then you can remove the block.



Step 3: Take out the SDI output block that need replace.



Step 5: Lock the cover, and complete the SDI output block replacement.



## c. WEB SERVER cross-platform control operation interface

If users use ipad or iphone, they can input the website 192.168.0.100 (default) in Safari browsers to operate. If users need to modify VSP 628S IP address, they can input corresponding modified IP address.

If users use other device, they need to install webkit kernel browser, such as: apple Safari, Google Chrome or Maxthon. Installation package provides Google Chrome browser (Windows version). Now take Google Chrome browser for example, specific steps are as follows:



Step 1: click to run Google Chrome browser, open the webpage and input 192.168.0.100 (default) to operate:



Step 2: Enter the default home page, the system provides 15 kinds of output resolutions for choose, blue stripe means current selected output resolution. Selected, then VSP 628S will automatically update the output resolution;

💇 AVISP Console 🛛 🗙 💼	
← → C □ 192.168.0.100	🚖 😑
1024 X 768 @ 60	
1280 X 720 @ 60	
1280 X 768 @ 60	
1280 X 1024 @ 60	
1280 X 720 @ 50	
1400 X 1050 @ 60	
1440 X 900 @ 60	
1600 X 1200 @ 60	
1680 X 1050 @ 60	
1920 X 1080 @ 50	
1920 X 1080 @ 60	
1920 X 1200 @ 60	
800 X 600 @ 60	
Oth_1024 X 768 @ 85	
Oth_1024 X 768 @ 75	
Output         Image         Image <t< td=""><td>a Setting Log</td></t<>	a Setting Log

Note

Users can freely switch the icons in title bar to set relevant functions, following will introduce the relevant settings. Step 3: Select "Input" icon in title bar, user can click the signal source that need, select, VSP 628S will automatically update input signal source;



Step 4: Select "Image" icon in title bar to scale the image, user can modify digital setting parameters and image size and position easily through "-+" icon. Click "Set" after modify the digital, VSP 628S image will display the latest Settings;

🕗 AVDSP Console 🛛 👋			
← → C 🗋 192.168.0.1	00		🚖 🗉
	Scale Setting	J	
Scale X	0		•
Scale Y	0		•
Scale Width	1024		$\cdot$
Scale Height	768		•
			Set
Output Input Image	<b>□</b> -☆ (		<b>3</b> °0

Step 5: Select "PIP" icon in title bar. When the PIP sliding block icon is grey, then it is single channel picture mode, and if image selection is gray, then image 1 is default for single image output image, and can't be chosen.

🙅 AVESP Console 🛛 🛛		- O X
← → C 🗋 192.168.0.	. 100	😒 🗉
	pip Setting	
pip		
Mode	PIP Top Left	$\overline{\nabla}$
Image Select	Image1	$\overline{\mathbf{v}}$
Output Input Image	plp Bright Contrast Save	Setting Log

Note

You can preset the image mode that switch the current single picture mode to double-picture mode and the position of the two images in the mode.





Then user can set PIP location, in addition to system default PIP upper left picture, also can choose picture above picture and picture edge picture.



In PIP mode, the default image1 is the main image, image2 for PIP sprite, click the corresponding image when need to edit image1 or image2, the selected image with blue stripes, tick, as shown below: image2 is selected, all settings will for image 2. For example, you can switch "Input" icon in title bar to choose image 2 input source.



#### Note

If image1 and image2 with the same input source, then it will display the same picture in PIP. Step 6: Image brightness setting, it is mainly for output image setting. If "Sync" is grey, you can adjust one color alone, when "Sync" is green, it means it starts, drag one color, and the other two color values will change accordingly to the same value.



Note

User can adjust setting according to actual condition, the function mainly suitable for the personage that is very processional in image quality. Nonprofessional isn't recommend to the above operations, if distortion of image quality as of improper operation errors, you can reset to the factory initialization.

Step 7: Image contrast setting, it is mainly for output image contrast. If "Sync" is grey, you can adjust one color alone, when "Sync" is green, it means it starts, drag one color, and the other two color values will change accordingly to the same value.



Note

User can adjust setting according to actual condition, the function mainly suitable for the personage that is very processional in image quality. Nonprofessional isn't recommend to the above operations, if distortion of image quality as of improper operation errors, you can reset to the factory initialization.

Step 8: Save and Call function. User can save the parameters to UserMode1 and UserMode2, and can also load UserMode1 and UserMode2 that saved before.

😤 AVDSP Console 🛛 🗙			
← → C 🗋 192.168.0.1	.00		☆ =
	Save Ca	II	
UserMode1			۲
UserMode2			
		Call	Save
Output Input Image	pip Bright	Contrast Save	Setting Log

#### Step 9: Page setting.

👲 AVDSP Cons	iole ×		
← ⇒ C	192.168.0.10	0	☆ =
	Set	tting Version:1.00	
Language		English	v
IP		192.168.0.230	0
		Fact Re	b Set
Key Lock		$\bigcirc$	
Dimmer	100		-0
	Langua	ge will affect the next time	
Output Ing	sut Image pi	p Bright Contrast Sav	e Setting Log

First, choose the language according to user's need. And the default is automatic identification;



Click "Set" after select the language (such as select Chinese), pay attention to system prompt "Language will effect after the next time and after reboot IP will affect" (at green box); Now you need to refresh the page to complete the setting.

🔮 AVDSP Console 🛛 🗙					
← → C 🗋 192.168.0.10	o 😒 🗮				
Se	Setting Version:1.00				
Language	English				
IP	192.168.0.230				
	Fact Reb Set				
Key Lock					
Dimmer 100					
Language will affect the	next time and after reboot IP will affect.				
Output Input Image pi	p Bright Contrast Save Setting Log				

If need to modify IP address, user can press MENU - > SYSTEM - > IP ADDRESS, it will take effect after restart the device.

🙅 AVDSP Console 🛛 🛛 🛛		- • ×
← ⇒ C 🗋 192.168.0.	. 100	☆ =
3	Setting Version:1.00	
Language	English	v
IP	192.168.0.230	0
	Fact Reb	Set
Key Lock	$\bigcirc$	
Dimmer 100		-0
Language will affer	ct the next time and after reboot IP will	affect.
Output Input Image	pip Bright Contract Save	Setting Log

Reset: If appear wrong operation, click "Reset" to factory default.

Key Lock: If slide block is gray, it is unlock, and VSP 628 keys can normally operate; And if slide block is green, the VSP 628 keys lock, and user can't operate any button.

Dimmer: ALPHA transparency regulation. Drag ball to change the transparency value, transparency value is between 0 ~ 100 levels.

Note

Operation is invalid in PIP mode.

Step 10: Log function is mainly for research and development personnel as debugging use.

🕗 avdsp c	onsole	×			
← ⇒ 0	192.168	0.100			☆ =
					Ena
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					Sync
CMD	DAT1	DAT2	DAT3	DAT4	
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Output	input Image	Pip	Bright Contrast	Save Set	ing Log



## Warranty:

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

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

**Headquarter:** S603~604 Weiye Building Torch Hi-Tech Industrial Development Zone Xiamen, Fujian Province, P.R.C

## C. Upgrading Software



## 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 being connected to the serial port on the PC, switch on the power and wait for 2 minutes.



2 M

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, tick the item below to confirm.



Finally, click the "start" button.

	- NON PRODUCTION US	EONLY	
File ISP Opt	ions Tools Help		
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Step 1 - Communi	cations	Step 2 - Erase	
Device:	LPC2368 💌	Erase block 0 (0x000	000-0x000FFF)
COM Port:	СОМ 1 🗸	Erase block 1 (0x001 Erase block 2 (0x002	000-0x002FFF)
Baud Rate:	115200 ▼	Erase block 3 (0x003 Erase block 4 (0x004	
Interface:	None (ISP) 🔻	Erase block 5 (0x005	000-0x005FFF1
Oscillator (MHz):	12	Erase all Flash+Co Erase blocks used	
the second se	Man		
	首\Backup\test_usb\uc150\u ::星期五,九月 21, 2012, 15:	10.0107777	tp_d∈ Browse re info
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Modified Step 4 - Options Verify after prog Fill unused Flas Gen block cheo Execute	生星期五,九月 21,2012,15: gramming 「」Set Code Read h cksums articles about 8051 and XA pr	07:14 mo Step 5 - Sta I Prot	re info

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.



Note

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