

Video Processor User Manual

VSP 618



RGBlink Science & Technology Co., Ltd.

The pictures and data in the user manual are consult only, if there is fluctuation, according to the real object please!

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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.
G	Do not Remove Covers and Panels 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.
Ð	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

AVDSP series video processors are designed by the latest high performance image processing technology. AVDSP can handle following video without limit, include CVBS (Composite) 、S-Video (YC)、YCbCr、YPbPr、RGBHV (VGA) 、 DVI-D、HDMI、SDI (SD-SDI、HD-SDI) and VOIP (Copper RJ45). Compare table of AVDSP as following.

		RGBlin	k AVDSP se	eries video	processor c	ompared ta	able		
	Parameters	VSP516	VSP516E	VSP618	VSP618B	VSP618C	VSP618D	VSP618E	VSP709
	COMPOSITE	3×	3×	3×	3×	3×	3×	3×	6×
	SVIDEO	1×	1×	1×	1×	1×	1×	1×	_
	SD component YCbCr	1×	1×	1×	1×	1×	1×	1×	2×
	SDI (SD)	_	_	_	2.4	_	_	_	2×
	SDI (HSD compatible)				2*				
input	DVI	1×	1×	1×	1×	1×	1×	1×	2×
	HDMI	1×	1×	—	—	2×	—	—	—
	VGA	1×	1×	1×	1×	1×	1×	1×	2×
	HD Component YPbPr	1×	1×	1×	1×	1×	1×	1×	2×
	VOIP	—	1×	_	—	_	—	1×	_
	Analog Audio	8×	8×	_	_	_	_	_	_
	COMPOSITE	_	_	_	_	_	_	_	_
	SVIDEO	_	-	—	—	_	_	_	—
	SD component YCbCr	_	—	—	—	_	—	—	—
output	HSD component YPbPr	—	_	_	—	_	_	_	_
output	SDI(HSD compatible)	—	_	_	—	_	_	_	1×
	VGA	1×	1×	1×	1×	1×	1×	1×	1×
	DVI	1×	1×	1×	1×	1×	1×	1×	1×
	HDMI	_	_	_	_	_	1×	_	1×
	Analog Audio	1×	1×	_	_	_	_	_	-
	Fade	-	-	1	√	√	√	1	1
	image processing	10bit	10bit	10bit	10bit	10bit	10bit	10bit	10bit
	Motion Compensation	good	good	good	good	good	good	good	good
	Brightness	1	√	1	1	~	~	~	1
	Gamma	√	√	~	√	√	~	~	1
	Remote control	√	1	√	√	√	√	~	1
	Timing Play	√	~	√	~	√	√	~	√
	Dual Screen	√	√	~	~	√	√	1	1
	Quad Display	-	-	_	_	_	-		1
	Stepless zoom	~	~	~	~	√	√	~	~
	Output Resolution	1280×1024	1280×1024	2048×1152	2048×1152	2048×1152	2048×1152	2048×1152	2048×1152
function	Image refresh	50Hz, 60Hz,	50Hz,60Hz,	50Hz,60Hz,	50Hz,60Hz,	50Hz,60Hz,	50Hz,60Hz,	50Hz,60Hz,	50Hz, 60Hz,
&	frequency	70Hz,75Hz,85Hz	70Hz,75Hz,85Hz	70Hz,75Hz,85Hz	70Hz, 75Hz, 85Hz	70Hz,75Hz,85Hz	70Hz,75Hz,85Hz	70Hz, 75Hz, 85Hz	70Hz,75Hz,85Hz
service	image exchange	1	1	1	1	1	√	1	1
	image copy	1	1	1	1	1	√	1	1
	Interface Operation	32key	32key	32key	32key	32key	32key	32key	32key
	Overall appearance	gorgeous	gorgeous	gorgeous	gorgeous	gorgeous	gorgeous	gorgeous	gorgeous
	digital clock	1	1	1	1	1	√	1	1
	control interface	Port+TCP/IP	Port+TCP/IP	Port+TCP/IP	Port+TCP/IP	Port+TCP/IP	Port+TCP/IP	Port+TCP/IP	Port+TCP/IP
	control software VP	1	1	1	~	1	√	1	1
	Standard 1U rack-mour	n √	1	√	√	1	1	1	1
	2U BOX	-	-	-	_	-	-	_	-
	Net weight	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg	2Kg
	CE certification	1	√	_√	1	√	√	1	1
	FCC certification	1	1	1	1	1	√	1	1
	RoHS certification	\checkmark	1	1	1	1	1	1	1



2.1 Parameters

Composite BNC Input	
Number of Inputs	3
Supported Standards	PAL/NTSC
Signal Level	$1Vpp\pm 3db$ (0.7V Video+0.3v Sync) 75ohm
Multiplex	YCbCr
S-video DIN4 Input	
Number of Inputs	1
Supported Standards	PAL/NTSC
Signal Level	Y:1Vpp \pm 3dB (0.7V Video+0.3v Sync) 75ohm
	U/V:0.7Vpp±3dB 75ohm
YPbPr BNC Input	
Number of Inpus	BNC*3
Supported Standards	analog HD input
Signal Level	Y:1Vpp \pm 3dB (0.7V Video+0.3v Sync) 75ohm
	Pb/Pr:0.7Vpp±3dB 75ohm
VGA DB15 Input	
Number of Inputs	1
connetor	Standard DB15 socket
Supported Standards	VGA-UXGA
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp \pm 3dB (0.7V
	Video+0.3v Sync) 75 ohm
	black level: 300mV Sync-tip: 0V
DVI Input	
Number of Inputs	1
Connector	Standard DVI-I socket
Supported Standards	SMPTE: 625/25 PAL, 525/29.97 NTSC, 625/50p
	PAL, 525/59.94p NTSC, 1080i50,
	1080i59.94/60, 720p50 和 720p59.94/60
	VESA: $800 \times 600 \times 60$ Hz, $1024 \times 768 \times 60$ Hz,
	1280 \times 768 \times 60Hz, 1280 \times 1024 \times 60Hz, 1600 \times
	1200×60 Hz, $1920 \times 1080 \times 60$ Hz, 1920×1080
	×50Hz
Signal Level	TMDS pwl, single pixel input, 165MHz bandwidth
Standard	DVI 1.1
SDI Input	
Number of Inputs	2
Connetor	BNC
Data Rate Range	19.4Mbps~1.5Gbps



Supported Standards	ITU-R BT.656,ITU-R BT.601,SMPTE 259M,
Equalization	Boldon 1694A 200M HD1 485C 350m SD
	270Mbps
SDI Loop-out	
Number of Loop-Throughs	1
Signal Level	800mV±10%
DC Offset	0V±0.5V
Rise/Fall Time	HD1.485Gbps<270 ps; SD 270 Mbps 0.4 ns~1.5ns
Overshoot	<10%
Timing Jitter	SD<0.2UI; HD<1.0UI
Alignment Jitter	<0.2UI
HDMI Input	
Number of Inputs	2
Connector	HDMI (standard type A interface)
Supported Standards	SMPTE: 625/25 PAL, 525/29.97 NTSC, 625/50p
	PAL, 525/59.94p NTSC, 1080i50,
	1080i59.94/60, 720p50 和 720p59.94/60
	VESA: $800 \times 600 \times 60$ Hz, $1024 \times 768 \times 60$ Hz,
	1280×768×60Hz, 1280×1024×60Hz, 1600×
	1200×60Hz, 1920×1080×60Hz, 1920×1080
	×50Hz
Signal Level	TMDS pwl, single pixel input, 165MHz bandwidth
Standard	HDMI 1.3
SDI Loop-out	
Number of Loop-Throughs	1
Signal Level	800mV±10%
DC Offset	0V±0.5V
Rise/Fall Time	HD1.485Gbps<270 ps ; SD270 Mbps 0.4
	ns~1.5ns
Overshoot	<10%
Timing Jitter	SD<0.2UI; HD<1.0UI
Alignment Jitter	<0.2UI
DVI Output	
Number of Inputs	1
connetor	Standard DVI-I interface
Supported Resolution	800×600×60Hz, 1024×768×60Hz, 1024×768
	$\times75\text{Hz}$, 1280 $\times768\times60\text{Hz},$ 1280 $\times1024\times$
	60Hz, 1440×900×60Hz, 1400×1200×60Hz,
	1600×1200×60Hz, 1920×1080×60Hz, 1920



	×1200×60Hz, 2048×1152×60Hz
Signal Level	TMDS pwl, 165MHz bandwidth
VGA Output	
Number of Inputs	1
connetor	Standard DB15 socket
Supported Resolution	800×600×60Hz, 1024×768×60Hz, 1024×768 ×75Hz , 1280×768×60Hz, 1280×1024× 60Hz, 1440×900×60Hz, 1400×1200×60Hz, 1600×1200×60Hz, 1920×1080×60Hz, 1920 ×1200×60Hz, 2048×1152×60Hz, 2048×1536 ×60Hz
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 欧姆端结 black level: 300mV Sync-tip: 0V
HDMI Output	
Number of Outputs	1
Connetor	HDMI (standard type A interface)
Supported Standards	800×600×60Hz, 1024×768×60Hz, 1024×768
	$\times75\text{Hz}$, 1280 $\times768\times60\text{Hz}$, 1280 $\times1024\times$
	60Hz, 1440×900×60Hz, 1400×1200×60Hz,
	1600×1200×60Hz, 1920×1080×60Hz, 1920
	×1200×60Hz, 2048×1152×60Hz
Signal Level	TMDS pwl,165MHz bandwidth
Function	
Source Switch	Support every signal with alpha key operation
PIP	PIP for SD with HD and HD with HD
Alpha Key	support
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

3.0 Connection



3.1 VSP 618 Back Panel



VOIP (copper RJ45),Used to connect the computer by 568B-568B twist-pair;
 10/100M interface (copper RJ45). Used to connect the computer by 568B-568A twist-pair

3、RS232 interface (RJ11) for VSP processor. Used to connect the computer

4、RS232 interface (RJ11) for cascade connection. Used to connect the next VSP 618。

5-6、HDMI input interface。 Input the signal from HD player, DVD, computer, and so on.



7-8、SDI Input BNC, used to support SD/HD SDI input. Input the video signal from the HD player, HD projector. It can connect to the 7 or 8 interface on the next VSP618, using the 750hm BNC.



9、SDI loop out BNC, used to loop input SDI signal to next SDI player.

10-11. Gigabit copper port, connect to LED screen.





- $12\,{\scriptscriptstyle \smallsetminus}$ Gigabit Transmitter card power interface, not use inside case;
- 13、Gigabit Transmitter card RS232 control interface;
- 14、Gigabit Transmitter card DVI input, connect to DVI output of VSP 618; (This Connection does not support hot-plugging)





15-17、Composite input interface, Composite BNC. Used to input composite signal (PAL, NTSC, SECAM compatible);



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



 $19\,{}_{\smallsetminus}$ DVI input interface. Input the video signal from computer, DVI signal generator. Connect to the same DVI interface on VSP;

(This Connection does not support hot-plugging)



20-22、R/Pr G/Y B/Pb BNC, used to support SD/HD progressive input, up to 1080p60;



 $23\$ VGA input interface, DB-15, used to support Analog RGB input; connect to

the VGA interface on VSP;



24、HDMI output, use to connect with HDMI monitor or HDMI player;



25, DVI output, connect to the monitor or LED display with DVI interface.



(This Connection does not support hot-plugging)



 26_{N} VGA output interface, connect to the monitor, projector and so on;



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

3.2 How to install

VSP 618 frame size





4.0 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, CV1 input is default source. With front panel keyboard, user can operate VSP with menu display on LCD module.

4.1 VSP 618 Operator Guideline

VSP 618 front panel as following:



- 3、LCD Module;
- 4、Keyboard:

ESC: push to exit from current choice item; SEL: push to confirm the current choice item; UP: push to select up items; DOWN: push to select down items; LEFT: push to select left items; RIGHT: push to select right items; CV1: switch to composite 1 input; CV2: switch to composite 2 input; CV3: switch to composite 3 input; SVID: switch to s-video input; YCbCr: switch to standard definition input; VGA: switch to analog RGB input; YPbPr: switch to high definition component; DVI: Switch to DVI input; SDI1: switch to SDI1 input; SDI2: switch to SDI 2 input;



HDMI1: switch to HDMI 1 input;

HDMI2: switch to HDMI 2 input;

SAVE1: switch to use the user-defined mode 1;

SAVE2: switch to use the user-defined mode 2;

PBP: switch to show two pictures beside on beside;

PIP: switch to show picture in picture on the screen. CV1 is the default small picture on the top left corner, DVI is the default picture full screen;

POP: switch to show picture out picture on the screen;

FS: switch to selet full screen or zoom view, just for single picture mode;

MENU: push to go to main menu;

FRE: push to freeze the video image or live again

 $(Freeze \rightarrow Live \rightarrow Freeze)$

AB: push to switch between front picture and back picture if works in dual channel mode with alpha key, front picture will alpha key in step by step and back picture key out step by step;

SCALE: push to go to between scale \rightarrow zoom \rightarrow crop \rightarrow scale mode;

BRT: push to adjust the brightness and the contrast ratio, push to enter to the relevant Menu, and then push the UP and DOWN to adjust the brightness and the contrast ratio;

OUT: push to select the output format by using the UP and DOWN;

I/II: push to set single or dual channe;

SAVE: push to save current config;

4.2 Video Processor Menu

System menu as follows;



Fig	1

The first line shows VSP618.

Push the right and left direction key 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 the Select key to enter it.

The \uparrow on the right means you can select the menu items by pushing the up and down direction key.

User can check the information of the equipment in "Dev Info" menu

(including the manufacturer, serial-number);

User can get more service and support according to the serial-number.

RGB Link Co ltd. >SN: 3204

User can check current input and output sources in Dev Info menu also.

Input:CV1 1024x768x60 Output: CV2 1024x768x60

Touch UP/DOWN to check customer service E-mail and web site address;

User can visit company web site for more product information.

rgblinkcs@gmail.com www.rgblink.com

Touch UP/DOWN to check System time

System time:2009-08-1715:12:35

User can do a Factory Settings in Recall menu, after successful reset you will

see the menu as follows:

Factory reset was completed !

Push the MENU to enter the main menu, then push up and down direction



key, the menu as follows:



Push the LEFT/RIGHT to select the relevant submenu.

LANGUAGE submenu as follows:



Push UP/DWON to enter Alpha setup, user can set value from 0 to 100,

0 means video or graphic would be disappear and 100 means normal;

Port A and Port B stand for two channel picture;



Push OUT to enter the Output menu, push the UP or DOWN to select different output resolution, push OK to confirm the output resolution. Advance submenu as follows: :

>VSP 618 *Advance	ţ

Screen parameter:	
Hsize:	1024

Step: user can set the step of scale;

HSize: set the horizontal size of the image;

VSize: set the vertical size of the image;

HPos: set the horizontal position of the image;

VPos: set the vertical position of the image;

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.





Push the I / II to enter Single or Dual channel menu , push the UP / DOWN to select the single or dual channel, push SEL to confirm the single channel or dual channel work state;

|--|

OR:

Select the input channel, push the UP/DOWN, and SEL to confirm the different iuput channel. User can also push the channel name on the keyboard to go into the input channel.

Source Select >CV1

AB in VSP618 is for two image Alpha in and out.

Setup A on B

OR:

Setup A on B

Push SCALE to set the size and position of the image, push UP/DOWN and

SEL to confirm the relevant items;

Step: user can set the step of scale;

HSize: set the horizontal size of the image;

VSize: set the vertical size of the image;

HPos: set the horizontal position of the image;

VPos: set the vertical position of the image;



Scale > Step 10
I

Push the FRE to freeze the live image or live the freeze image.

Freeze Frame Once gain for live

OR:

Live Frame Once gain for live

Push BRT to set the brightness and the contrast ratio:

LED-3 Brightness	50 ↓	

OR:



Push SAVE and then push SAVE1 or SAVE2 to save the operation to SAVE1 or

SAVE2; Push SAVE1 or SAVE2 to execute relative operation after user save

the operation sucessfully.

Slelect Save Mode ! Push Esc To Exit



5.0 Communication Software Guideline

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

5.1 Install Software

Dual click AVDSP.exe to install, select Chinese or English version for use.

Select Language		×
Please select the language use during the installatio	that you would] n.	like to
Chinese (GB2312)		
Intl. English		
OK	Cancel	

After click "select " to next dialog.



If user agree to install this software, please click next to go on, else click esc to exit this install.



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

遏 AVDSP	
许可协议	I
AVDSP 服务条款 服务条款的确认和接纳	·
AVUSP的所有权和运作权归厦门视诚科技有 其发布的公司章程,服务条款和操作规则 并点击一下"我同意"的按钮,这表示用户 有条款。本服务条款的最终解释权视诚科	限公司所有。所提供的服务必须按照 等严格执行。用户通过运行本安装程序 与视诚科技有限公司达成并接受以下所 技有限公司所有。
用户需认真阅读并知晓AVDSP的产品介绍, 规则下可使用本软件,用户无权实施包括(在遵守法律及本服务条款和相关操作 且不限于下列行为:
您完全同意上述协议的所有条款吗?如果没 示反对,请点击"拒绝"按钮并退出安装租	≹有异议,请点击"同意"按钮;如果您表 評。
Wise 安装向导	
<	(上一步 (B) 同意 (A) 拒绝 (B)

😼 AVDSP		X
许可协议		ø
AVDSP 服务条 服务条款的确 AVDSP的所有核 其点击而一下"我 有条款。本服 用户需认真阅 规则下可使用: 您完全同意上这 示反对,请点击	安装 安装还没有完成。如果您现在关闭安装程 序,程序将不会安装到你的计算机中。 您也可以稍后运行安装程序来完成安装。 要继续安装,请单击"继续"按钮;要退 出安装程序,请单击"继续"按钮;要退 出安装程序,请单击"退出安装"按钮。 	必须按照 安装程序 受以下所 相关操作 ↓ 扭;如果您表
Wise 安装向导	< 上一步 (B) 同意 (A)	拒绝创

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



🛃 AVDSP	×
请选择目标目录	
本安装程序将安装"AVDSP" 到	们下边的目录中。
若想安装到不同的目录,诸单	击 "浏览" 按钮,并选择另外的目录。
您可以选择"取消"按钮退出	安装程序从而不安装 "AVDSP"。
□目标目录	
C:\Program Files	浏览 (<u>B</u>)
Wise 安装向导	< 上一步 (B) 下一步 (B) 入 取消

Click "next" to go on.

😼 AVDSP	x
选择程序管理器组	Ø
请输入要添加"AVDSP" 图标的程序管理器组名称:	
AVDSP	
Microsoft Office SolidWorks 2007 SPO.0 Early Visibility UGS NX 4.0 UGS NX 许可 Windows Live Windows忧化大师 WinRAR Wise Solutions 暴风影音 番茄花园StyleXP主题	•
Wise 安装向导< 上一步 @) 下一步 @) >	取消

Click "next" to go on.





Click "finish" and ready to run ADVSP console.





5.2 Run AVDSP Console

Run AVDSP.exe and the console will auto detect device in serial or networks by detected Comm port and pro-define IP address.



After detect, open the device console, for example, if the device is VSP 618, then VSP 618 console will be load, as following. Default loading is VSP 516 if can not detect any device.

RGBlink AVDSP Series Video Processor User Manual

视诚



Setup Communication

AVDSP Console support COM port or Ethernet (UDP) to access AVDSP.For the

first running ,user must click the to close COM Port. Click to change the COM Port and the Baudrate.

Serial: user can make choice between existent com ports and baud rates; default Baudrate is 115200.

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.

¥ Comm Settings →			
Serial			
CommPort	×		
BaudRate	115200		
⊖ Ethernet			
Local Port	1000		
Remote Host	192.168.0.100		
Remote Port	1000		
	OK Cancel		

The COM Port is decided by user's COM. Right click my computer icon on



desktop, select Hardware \rightarrow Device Manager in the system attributes dialog. The COM in red in the picture is the COM user can make choice.

🖳 设备管理器			
文件(27) 操作	(A) 查看(V) 帮助(H)		
$\leftarrow \rightarrow \blacksquare $	f 4 1 🕄 🔊		
 ■ HXP ● ● HXP ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	0-BOM 驱动器 TA/ATAPI 控制器 } 3 3动器 f (<u>COM 和 1PT</u>) P 打FD和端口 (LPTI) E Serial Fort (COME) 计端口 (COM1) %设备 1 影 2 新器 2 3 3 3 4 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		
6	I	2012. 0 1	

Then click to open COM. Comb. Opened. will display after success to connect the COM.

If AVDSP console success to detect device in chain, the software version, device core version, firmware version and serial number will display on the bottom right corner of the screen.

[SV-C3.30] [CV-01.25] [FV-B2.00] [SN-08.88]

5 How to use

Operator can check parameters by software.

B: Save script. Save current user config parameters as script.



¥ save option	A CONTRACT OF A CONTRACT	х
basic		*
AB	OperatingMode Layout	
Image1		*
Source1	☑ Alpha1	
Scale1		
Zoom1		
Crop1		
Image2		*
Source2	Alpha2	
Scale2		
Zoom2		
Crop2		
ScriptPath :		
C:\Program Files\AV	DSP\VSP 3.vxp	
Ok	Cancle	

: Open script. User can open saved script.

打开					? 🔀
查找范围(<u>t</u>):	AVDSP		•	+ 🗈 💣 📰-	
我最近的文档	Led-d VProcessor				}
 國是	VSP 1. vxp				
夏日					
	文件名 (M):			•	打开(0)
	文件类型(I):	VXP Script File		-	

: Import template. There are six templates for user.



<u>T</u> emplate1	(Ctrl+1)
T <u>e</u> mplate2	(Ctr1+2)
Te <u>m</u> plate3	(Ctrl+3)
Tem <u>p</u> late4	(Ctrl+4)
Temp <u>l</u> ate5	(Ctrl+5)
Templ <u>a</u> te6	(Ctrl+6)



: Export template. Export current config as template.

EXAMPLE: 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	×
Open device when start Execute schedule when start	
Use Last Run Use Script File D:\ARM\TemplateScript1.vxp	
OK Cancel	

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





Language. The software supports Chinese and English version. The picture following is the Chinese dialogue.



Exit.

Communication



Copen COM.				
• Close COM.				
👼 : Set COM.				
Device				
: Synchronizatio	n.			
: Save to flash.				
	¥ Save To I	Flash	-	×
	FlashMode	UserMode1	•	
	Ok	UserMode2 UserMode3	Cancel	
E Load form Flas	sh.			
	¥ Load For	m Flash		×
	FlashMode	UserMode1	•	
		UserMode2 UserMode3		
	Ok		Cancel	

Load user config from flash, if 618, there are only 2 user mode; For 709, there are only one user mode.



: Factory setup

: Advance, for adm. inistrator control.



: Execute schedule or stop schedule.

Help



: Help. Display helps dialogue.





Output resolution: user can choose different output resolution by selecting from pull down list.

	Output Resolution		
	1024x768@60	•	
	1024x768@60	~	L
	1280x768@60	-	
	1280x960@60		
	1280x1024@60		
I	1360x768@60	≣	F
	1366x768@60		
	1365x768@60		5
	1600x1200@60	*	ľ

Operating mode: choose to work in single channel or dual channel.



Layout: 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.

Layout	
•	

Input: the white area display the name of input interface when the mouse is over the interface picture on the left. The orange 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 orange pane means selected interface for channel 1. The blue pane means selected interface for channel 2.





Screen parameter:

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.



Images: image 2 can't choose in single channel mode.

Images
Image1
Scale
X 0 🖨 Y 0 🖨 Width 640 🖨 Height 480 🖨 Set 🚺
Zoom
X 0 🖨 Y 0 🖨 Width 100 🖨 Height 100 🖨 Set
Сгор
X 0 🖨 Y 0 🖨 Width 100 🖨 Height 100 🖨 Set
Display
Mode Sound Gamma

User can scale, zoom, crop the images, and can modify the display density and the gamma. The display mode can also choose between live video and freeze frame.



Output: user can customize the brightness and the contrast.

Output			*
Brightness	0	Contrast	0
			U
	U	• 4	U
В	0 8	. Umministration	0
Sync		Sync	Default

Display: 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.



Log: user can save or delete the operate log file.

Log		
2009-08-03 11:12:03:T0VC02000006e0101000070 ReadCrop_VSize 2009-08-03 11:12:03:FRVC0601016400 2009-08-03 11:12:03:T0VC020000006e0102000071 ReadCrop_HPos 2009-08-03 11:12:03:FRVC0601023200 2009-08-03 11:12:03:T0VC02000006e0103000072 ReadCrop_VPos 2009-08-03 11:12:03:FRVC0601033200	<	



Added functions



• Alpha delay time

Alpha can set AB button Fade effect.



• IP set

Users can set equipment IP, Usually used under the condition of one computer control or remote control several computers.



Clock

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





• Equipment Schedule function

Users can set device to work with schedule, and then device can automatically switch between single or dual channel, resize image, switch video and with fade effect in need.

Equipment currently supports max 10 regular content; users can set in the "timing" option.

Specifically how to implement devising schedule function, please refer to Appendix III, page51.

■ Timing Parameters -
Timer Index 1 Get Set ON
2009-12- 1
Time Hour 15 🕞 Minute 10 🗣 Second 57 🖨
Operating Mode Single channel AB
Image1
X 0 🜩 Y 0 🜩 Width 640 🜩 Height 480 🚓
Input Source

Image Toolbar:

User can change the data or click the drop-down arrow, or drag the edge of the image to zoom, enlarge, cut and fade as well as Gamma parameters; User can also change image display modes, including motion video, freeze current image frame; These functions are only available when image layout is working in user mode.

Remark: Add" follow source".

When users select" follow source" then switch signal source, each channel can still be the original "zoom" "crop" value.



VSP Processor
Screen Param
X 0 🔿 Y 0 🔿 Width 1024 🖨 Height 768 🖨 🛛 Set
Images
Image1
Scale
X 0 🜩 Y 0 🜩 Width 640 🜩 Height 480 🜩 🗾 Set
Zoom
Follow Source
X 0 🜩 Y 0 🜩 Width 100 🜩 Height 100 🖨 💽 Set
Crop
Follow Source
X 0 🖨 Y 0 🖨 Width 100 🖨 Height 100 🖨 Set

Display Toolbar:

Display		
[Mode]	Alpha	Gamma
Live Video 🔻	U	linear 🔻



Display toolbar Users can set Alpha value of "dynamic Video" and "static current frame" through display toolbar.

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.



6.0 FAQ

6.1 No output in target display

1) Check the output config of the input video.

2) Check the input channel config is ok. Ex.The composite 1 interface is connected to the composite interface of video source.

3) Check the connection of output is ok.

- 4) Check the target monitor or display is not destroied or power down.
- 5) Check the output resolution of AVDSP is not out of the maximal resolution of target display.
- 6) Check ALPHA value is not 0.

7) Any requirement, please feel free to contact our customer service engineer.

6.2 VGA input could not work with AVDSP Console

- 1) Check VGA source output is ok.
- 2) Check VGA input resolution is not out of AVDSP Console support list, as

following. The biggest input resolution is $1024 \ensuremath{^{+}768}\ensuremath{^{+}60}\ensuremath{\text{Hz}}$

- 3) Check AVDSP Console works in VGA input mode.
- 4) Any requirement, please feel free to contact our customer service engineer.

6.3 DVI input could not work with AVDSP

- 1) Check DVI source is ok.
- 2) Check DVI source output is not out of AVDSP support list.
- 3) Check AVDSP works in DVI input mode.

4) Check the connection between AVDSP and DVI source is correct. Restart DVI source and check output.

5) Any requirement, please feel free to contact our customer service engineer.

6.4 Component input could not work with AVDSP

1) Check the connection between AVDSP and Component source is correct.



Especially Y signal. Refer to cabling example in page 5. High Definition component YPbPr is only support in YPbPr input. Standard definition YCbCr support 480i and 576i only; High Definition YPbPr support 480i、576i、480P、

 $576P,\ 720P50,\ 720P60,\ 1080i50$ and 1080i60;

2) Check component source works, normally DVD component output should be open from its menu.

3) No recommend to output component and SVideo input from the same source.

4) Any requirement, please feel free to contact our customer service engineer.

6.5 User settings can not save

VSP 618 supports multi config mode. For multi config mode, the equipment starts to work automatically with the SAVE1 mode. According to different equipments, you can solve the problems that modes can't be saved by the following steps.

VSP618

Confirm to press the "SAVE" button, then press "SAVE1", or "SAVE2", that will save the current operation mode to the "user mode 1", or "user mode 2", after that, gently push button "SAVE1", ""SAVE2, it will call out the corresponding setting of user-mode. If that, the saving is successful.

Ater saving process, user should not do factory reset or any saving operation to user mode 1, otherwise, "SAVE1" will be over write.

6.6 Can't update main board software

Connect the computer and AVDSP Series, select *.mot. Download file to device.

After the equipment power up, right-click the ".mot" file at the left side of menu,

when the screen shows "waiting for update", you can update the main board

program. Next, choose the "download file to device", start to loading.



7.0 Quick Guide

7.1 Single-screen control

Set screen parameters

Users can easily change the screen size and location by setting the parameters

with keyboard and LCD menu.

Press MENU to access main menu, Menu shows as below picture:



Press UP / DOWN button to turn the menu shown as below pictures:

>VSP 618 *Advance		t
Screen parameter: Hsize:	1024	

Step: Set the unit of zoom and move every time;

HSize: Set Horizontal size; VSize: Set vertical size;

Hpos: Set horizontal coordinates(horizontal phase);

VPos: Set vertical size(vertical phase);

Scale pictures

Step: Set the unit of scale and move every time; (Three steps available:1,

10,100)

HSize: Set horizontal size; VSize: Set vertical size;

HPos: Set horizontal coordinates(horizontal phase);

VPos: Set vertical size(vertical phase);

Scale > Step 10



Set alpha

Enter Alpha sub-menu can set the alpha of video, Press UP /DOWN to set the value of alpha; Port A and Port B represent two video channels;

*Alpha Port A Value:	100	

Set brightness contrast

BRT brightness and contrast button can set brightness and contrast of active

window video shown as below pictures:

VSP 618 Brightness	50 ↓
VSP 618 Contrast	50 t

BRT brightness and contrast button can set brightness and contrast of active window video shown as below pictures:

VSP 618 Brightness	50 ↓
VSP 618 Contrast	50 t

Freeze Frame

Press FRE static frame button can freeze, press the button can freeze current active window image; You can make the screen switch between static and active with this button; Pictures show as below:

> Freeze Frame Once gain for live

or



Live Frame Once gain for live

7.2 Set dual screen fade

1. Press I / II button to switch between single channel or dual channel. Menu is as follows:

Setup Dual	
Setup Single	

2.Choose two input source from CV1、CV2、 CV3 、SVID、 DVI、YPbPr、VGA、 SDI1、SDI2、HDMI and HDMI2.

3. Press AB button to realize dual screen fade.

CV1、CV2、 CV3 、SVID、SDI1 and SDI2 is small screen defaully, DVI、YpbPr、 VGA、HDMI1 and HDMI2 is big screen defaully while realizing dual screen, If you want the two faded screens the same size, you can set the screen size by SCALE button. For LED users, who are familiar with studio operation can also set the display window on PC with studio software by the third party. And PC output by VGA or DVI, Use SCALE to make the CV1、CV2、 CV3 、SVID、SDI1 and SDI2 the same size as studio display window. AB button can quickly realize dual screen fade;

Step: Set the unit of zoom and move every time;

(Device default three step:1, 10,100)

HSize: set horizontal size; VSize: set vertical size;

HPos: Set horizontal coordinates(horizontal phase);

VPos: Set vertical size(vertical phase);

Scale > Step 10



Press LEFT/RIGHT keys or touch UP/DOWN, select menu; * in front of the menu means this menu is selected. Press SEL key, you can enter corresponding menu to set and view.

8.0 Appendix



8.1 Appendix I Download the main board software

• Installation

Double-click fdt2_2 setup.exe.



Click the next button.



Click the yes button.





Click the next button.



Click the next button.



Unselected the H8S/2000, H8S/2000, H8. Click the next button.



Hitachi Flash I	Add i t ist Add i t ist Kernes Select Kernels (SH) Devices: 7018 7046, 47 7052, 53 7054 7055 7056 7068 17144, 45	llation onal In 133 k 142 k 137 k 134 k 135 k 150 k 143 k	or BC	Con P) res res res res
	< <u>B</u> a	ack <u>N</u> ex	d >	Cancel

Select 7144.45, Click the OK button.

Hitachi Flash Developm	ent Toolkit Installation	×		
	Select Destinat Directory	ion		
Sar	Please select the directory where the Hitac Development Toolkit files are to be installed	Please select the directory where the Hitachi Flash Development Toolkit files are to be installed.		
	'Free Disk Space After Install' is based on y selection of files to install. A negative numb there is not enough disk space to install the specified drive.	our current per indicates that application to the		
	C:\Program Files\Hitachi\FDT2.2	Browse		
	Current Free Disk Space:	14822092 k		
	Free Disk Space After Install:	14804720 k		
	< <u>B</u> ack <u>N</u> ext >	Cancel		

Select the location by browse. Click the next button.



Click the next button.



Hitachi Flash Developme	ent Toolkit Installation
	Select Start Menu Group
STATE A	Enter the name of the Start menu group to add the Hitachi Flash Development Toolkit icons to:
	Hitachi\Flash Development Toolkit 2.2
2 Arr	AMD Microsoft Office WinRAR WinRAR 增茄花园 StyleXP主题 附件 附件 管理工具 金山词霸 2005 金山毒霸 2007 杀毒套裝 启动
	< <u>B</u> ack <u>Next></u> Cancel

Click the next button.

	Installing	X
	Copying FDT A C:\\Hitachi\F	pplication files: DT2.2\FLASHWorkspaceManager.dll
		16%
		[Cancel]
Hitachi Fl	ash Developmen	t Toolkit Installation
		Installation Completed! The installation of the Hitachi Flash Development Toolkit has been successfully completed. Extra information is available on our website: http://www.hmse.com To uninstall this update, use the Add/Remove Programs icon in Control Panel, and select "Hitachi Flash Development Toolkit" from the list. Press the Finish button to exit this installation.
		< <u>B</u> ack Finish Cancel

Click the finish button. It's ok.

• Download

Open the Flash Development Toolkit 2.2.





Click the OK button.

FLASH Development Toolki	2.2	
Eile Edit View Project Device	Image Iools Window Help	
16 16 16 16 16 16 16 16 16 16 16 16 16 16	-] 	🗛 🖗 🖉 📗
No Workspace	New Workspace Workspace Nume: [EBD-Director] Create workspace direct Location [C:Vrogram Files/Mitachi/EDT2.2/Workspaces/LED-Director Workspace C:Vrogram Files/Mitachi/EDT2.2/Workspaces/LED-Director OK Cancel	

Fill the name. Click the OK button.

FLASH Development Toolkit 2.2	x
Elle Edit View Project Device Image Iools Window Help	
No Workspace	
FLASH Workspace Manager	
The directory 'C:\Program Files\Hitach\\FDT2.2W\orkspaces\' does not exist. Would you like to create it?	
For Help, press F1	//.

Click the (Y) button.



FLASH Development Toolkit 2.2	
]] Eile Edit View Project Device Image Tools Window Help	
∐\$ \$ \$ \$ \$ \$ \$ \$ \$ \$. 🗠 🏢 🏢 abe 🏢 🗛 🐴 😰 🕎
IS Workspace 'LED-Director'	
FLASH Workspace Manager	
You have created a new Workspace. Would you like to	run the Project Wizard to add a Project to the Workspace? 否(1)
For Help, press F1	Workspace saved.

Click the (Y) button.

FLASH Development Toolkit	2.2	- 0 X
Ele Edit View Project Device	Image Iools Window Help	1.5
🛛 🚳 🐨 🐨 🕅	🎽 🖬 🕼 👗 🖻 🛱 🗔 🖸 오오 📗 🖩 🖬 🗰 🏢	M M & M 1
No Workspace	New Workspace	

Fill the name. Click the OK button.

FLASH Development Toolkit 2.2		1 23
III Eile Edit View Project Device Image Tools Window Help		
	[
Workspace LED-DD Workspace LED-DD Workspace LED-DD Workspace Trades		
For Help, press F1		



Select the sh/7145f. Click the next button.

🚰 FLASH Developm	ient Toolkit 2.2	
Eile Edit View Pro	ject <u>D</u> evice <u>I</u> mage <u>T</u> ools <u>W</u> indow <u>H</u> elp	
<u>]</u> 187 NG 187 287		
Workspace LED-Di	Image: Strate Strat	
For Help, press F1		

Select the COM port. Click the next button.



Click the next button.



FLASH Development Toolkit 2.2		X)
Eile Edit View Project Device Image Tools Windo	w <u>H</u> elp	
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		
Workspace 'LED-DU Workspace 'LED-DU Workspace 'Industria Organization Device Image Device Image	The FLASH Bevelopment Toolkit can connect to your device in a number of different ways. All the options on this page may be changed after the Connection: Contrology C USER Program Mode For BOT Program mode the Target device arease its PLASH prior to connection The Toolkit domloads programming hermals to the device as required. Select Direct Connection The The Target device and a required programming The Target device and a required of the boot sequence automatically. (上一步 @) 下一步 @) 取消	
For Help, press F1		/

Click the next button.



Click the finish button.

🗚 FLASH Development Toolkit	2.2		
Eile Edit View Project Device	Image Tools <u>W</u> indow	Help	
8 6 7 1	⊯ 🖬 🖨 % 🗉	à 🛍 🔤 ♀ ♀ 📰 📰 abc 📗	🛤 🖗 🔊 📑 🗍 led-director
Workspace 'LED-Director': 1 Pro			
×			
Dependencies A led-dira	ctor /		
For Help, press F1		Not Connected	



Select project/properties/communications. select the COM port in user setting.

Do not check User default baud rate and select Target Baud as 9600.



Click the target files by the right mouse. Select add files to project, and select userr *.mot.



Connect the computer and AVDSP Series, select *.mot. Download file to device. After the equipment power up, right-click the ".mot" file at the left side of menu, when the screen shows "waiting for update", you can update the main board program. Next, choose the "download file to device", start to loading.

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视诚

After update, the device will auto run into operation mode without reset process.





8.2 Appendix II Download the IP software

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:

First, users can choose the right serial port, set the baud rate to 115200, choose LPC2368, and to load the aim document (hex.document) of IP board upgrading. Secondly, confirm the two option box by tick.





Finally, click the "Start" button.



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



Remark: Flash Magic download website: <u>http://rgblink.com/_d269872174.htm</u>



8.3 Appendix III 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.)



After Clock setting, users can check whether successfully set through button. Press MENU button to enter system main menu, then press Dev Info (device information), then press SEL button can show device information. Touch /DOWN, check in the System time. Shown as below picture:

System time: 2009-08-17	15:12:35

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

Y Timing Parameters -	×
Timer Index 1 😝 Get Set ON	
Date Settings	
2009-12- 1 🔽	
Operating Mode Single channel 🔻 🔳 AB	
Image1	
Scale	
X 0 🖨 Y 0 🖨 Width 640 🖨 Height 480 🖨	
Input Source	

1. Users need to start "time-enabled" before using" timing device". If you forget to start, time set may fail.



Click "start" button , when the button changes to , it means time can start.

Press MENU button can enter system main menu, touch UP/DOWN to enter advanced menu, shown as the picture:

>VSP 618 *Advance	ţ

Press SEL button to enter advanced menu

Time: Time Able

2. When the timer count is set to 1, it indicates that the setting contents will be stored in the "timing 1". If you need to set more, you can set up one by one and

saved in different "Timer index".

Remark: Equipment currently supports 10 task scheduler.

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

Date Settings		
Time Hour 15	Minute 33 🚔	Second 8

4. Select the signal source to play works in dual channel or single channel mode, and check whether to use fade during dual channel mode.

Operating Mode Single channel 🔻 📃 AB

5. Users can control the image position and size by change the data or click the drop-down arrow.

Image1
Scale
X 0 🖨 Y 0 🖨 Width <mark>640 🖨</mark> Height <mark>480 🖨</mark>

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;

When device works under the dual channel mode, need to switch image 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

RGBlink 视诚

source toolbar after setting. Shown as the picture:



