



VSP 628PRO-F Quick Start



- Any signal input any signal output
- LOGO capture and standard test pattern built in
- 3D signals input and output processing
- Support EDID management
- Seamless switching between any signals
- Support dual 2K output
- Preview and program outputs separately
- Independently one input to two separately output conversion
- User-defined output resolution
- Genlock and reference input
- Module based and expendable



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Product Introduction

VSP 628PRO is an advanced high performance all-in-one video scaler, scan converter, switcher and transcoder converting any input signal format to any output signal format.

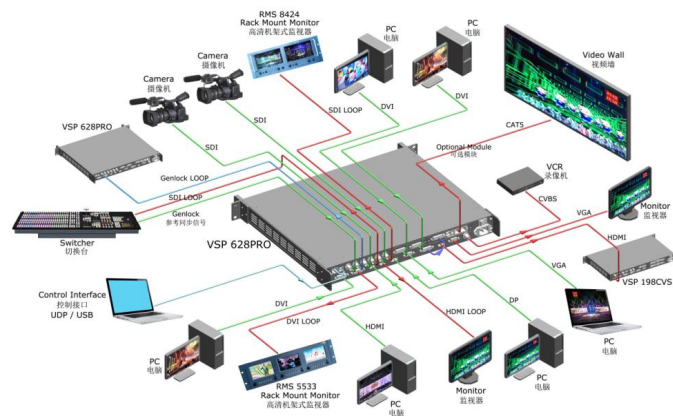
VSP 628PRO supports composite, component, VGA, DVI signal and dual link, HDMI, DisplayPort, USB, CVBS and SD/HD/3G-SDI signal formats. Loop-through outputs are provided for the DVI and SDI input and Genlock signals. With features like LOGO capture and standard test pattern built in, 3D processing,

EDID management, Web page control interface, seamless switching between the inputs, VSP 628PRO is one of the most advanced and flexible signal processor in the industry.

VSP 628PRO is based on module based structure, its standard version comes with all the features you need and expect to find in old versions. In addition to the standard features, with different modules, you can reach more possibility and application range.

System Connection

RGBlink offers solutions to demanding technical problems. Any application questions, or required further information, please contact with our customer Support Engineers.

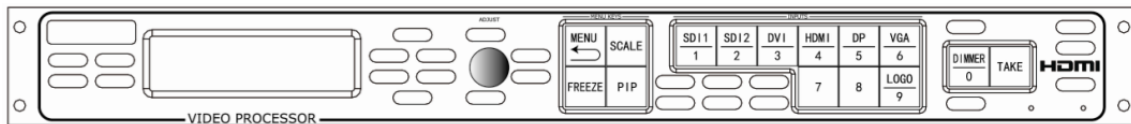


VSP 628PRO System Connection Diagram



Hardware Orientation

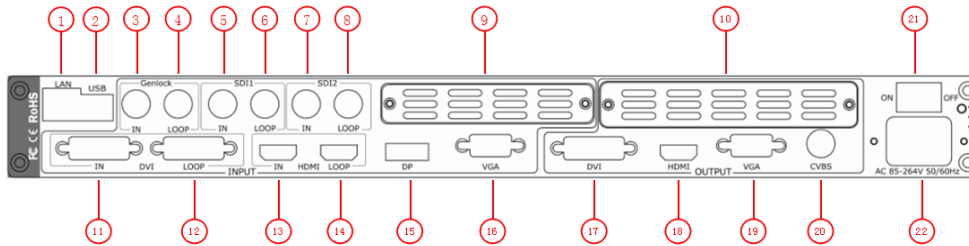
Front Panel



Button Instruction			
MENU	Menu button, push the button for 3 seconds to lock panel	7	SDI3/VGA2/DVI2/HDMI2/USB1/CVBS1/DP1.2 signal source button
SCALE	Scale button, push MENU and SCALE button for 3 seconds to switch language	8	SDI4/VGA3/DVI3/HDMI3/USB2/CVBS2/HDMI1.4 signal source button
FREEZE	Freeze button	LOGO	LOGO and test pattern setting button
PIP	Single and double images switch button	DIMMER	Dimmer and effects setting button
SDI1, SDI2	SDI signal source button	TAKE	Seamless effect switch button, and LOAD reuse button (except in switcher mode)
DVI	DVI signal source button	0~9	Number button, for parameters setting
HDMI	HDMI signal source button	Knob	Confirm and adjust OLED menus
DP	Displayport signal source button	OLED Panel	Show operation menu items
VGA	VGA or YPbPr signal source button		



Back Panel



Input Interface	
3	Genlock Input BNC port
5. 7	3G-SDI input BNC port
11	DVI Input DVI-D port
13	HDMI Input HDMI-A port
15	Displayport Input port
16	VGA Input DB15 port

Output Interface	
4	Genlock Loop Out BNC port
6. 8	3G-SDI Loop Out BNC port
12	DVI Loop Out DVI-D port
14	HDMI Loop Out HDMI-A port
17	DVI Output DVI-D port
18	HDMI Output HDMI-A
19	VGA Output DB15 port
20	CVBS Output BNC port (OC optional module)

Other Interface	
1	10/100M Interface RJ45
2	USB Interface
9	S. V. D. H. U. C. HDMI_DP_4K2K_IN Optional Module
10	F. S Optional Module/Sending card interface
21	Switch
22	Power IEC-3 port



Operating Instruction

Content

- How to Realize the System Mode Setting
- How to Do Customized Output Resolution
- How to Realize the Test Pattern Setting
- How to Realize LAN Remote Control Setting
- How to Realize WEB SERVER Cross-platform Setting
- How to Save the Parameter
- How to Load the Saved Parameter



How to Realize the System Mode Setting

VSP 628PRO supports 5 kinds of system modes: Standard, Dual 2K, Switcher, Split and MinDelay. Push the [MENU] button to enter to the menu items, choose <System>, push the knob to confirm. Turn the knob, choose <System Mode>, user can choose the mode according to actual need.

1. Standard

In this mode, all the outputs are the same image, the same resolution, and support fade in fade out switch. Each input signal supports scale, effects setting independently.

Single Image Switching

VSP 628PRO can realize seamless effects switching between two channels. Push the signal button, and the signal will be switched to the output.

For example, the [SDI1] button light is on, it means the signal of output is SDI1, if user need to switch to VGA signal, push the [VGA] button, and the signal will be seamless cut or fade in fade out to the output. User can adjust the switch speed in <Trans Time> option in <Transition>by pushing the [MENU] button.

PIP Setting

Enable the PIP function:

VSP 628PRO supports seamless switch in single image and double images. Push the [PIP] button, the button light is on, and enable the PIP function.

Choose the signal in PIP:

VSP 628PRO can output two same or different signals to the output, the settings are as follows:

1. Push the [PIP] button, and enable the PIP function.
2. Push the [SCALE] or [DIMMER] button, choose <Layer Select>, and push the knob to confirm. (User can also choose <Layer Select> in <Input> or <Output> option by pushing the [MENU] button.)
3. Turn the knob, and choose main or sub image.
4. Choose the signal, and the selected image will be switched to this signal.



Scale Setting

Push the [SCALE] button, and enter to the scale function menus, user can adjust the H size, V size, H/V size, H pos, V pos and scaling mode by knob or number buttons. If image quality distorts by improper operation, it can be recover by reset.

Note: In PIP mode, user need to choose the image that to set in <Layer Select> option before setting.

Image Size Adjust

Push the [MENU] button, and enter to the menu items. Turn the knob, and choose <Input>, push the knob to confirm. Turn the knob, choose <Sizing Adjust>, push the knob to confirm. User can adjust the H size, V size, H pos V pos, and mask top, bottom, left and right of the image by knob or number buttons. If image quality distorts by improper operation, it can be recover by reset.

Note: In PIP mode, user need to choose the image that to set in <Layer Select> option before setting.

Dimmer and Effects Setting

Push the [DIMMER] button, and enter to the menu items, user can set the dimmer and effects. The adjustment value range of dimmer is 0~100.

The setting for effects include brightness, contrast, chroma, hue, color temperature, color correction, gamma, brightness, H sharpness, V sharpness, noise reduction, Invert, Flip V, Flip H and Flip 90 degree.

Note: User can also choose <Effects> in <Output> option by pushing the [MENU] button for setting.

2. Dual 2K

In this mode, the two channels output independently, CHA outputs to DVI and VGA, CHB outputs to HDMI, CHA and CHB can input any signal and set different resolutions, but can not support fade in fade out switch. Each input signal supports scale, effects setting independently.



Same operation with standard mode, in this mode, user can switch the signal, set the size and position, mask the image and adjust the dimmer and effects. User need to choose the channel in <Channel Select> before setting.

For example, choose the signal of CHB, first, push the [MENU] button to enter to menu items, choose <Output>, push the knob to confirm, turn the knob, choose <Channel select>, turn the knob to choose CHB. Then choose the signal, CHB will switch to the selected signal.

3. Switcher

In this mode, the HDMI output is preview image, and the DVI and VGA output is program image, preview signal can not support fade in fade out switch, and program signal supports.

Same operation with stand mode, in this mode, user can switch the signal, set the size and position, and mask the image. All the settings above are for preview, push [TAKE] button after setting, and the preview image will be cut or fade in fade out to the program.

4. Split

In this mode, user can set split simply, and can set the split parameters of single or multiple devices quickly. The split operations are as follows:

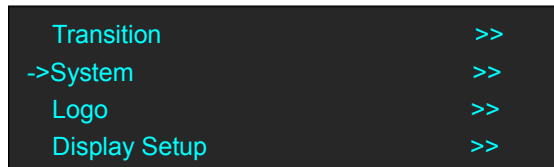
Project: There is one LED display, the size is 3684x1152, divide into right and left halves, the left width is 1824 and the right width is 1860, we will cascade the two LED displays with one VSP 628PRO, and display a complete picture in the whole screen.

(1) Connect the interface

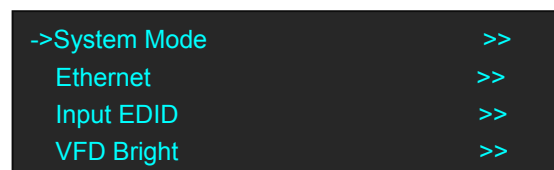
Connect the DVI signal to the DVI input interface, connect the DVI output to the left LED sending card, and connect the HDMI output to the right LED sending card.

(2) Choose the system mode

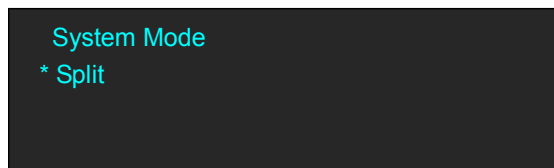
Push the [MENU] button to enter to the menu items, turn the knob to choose <System>:



Push the knob to confirm, turn the knob to choose <System Mode>:

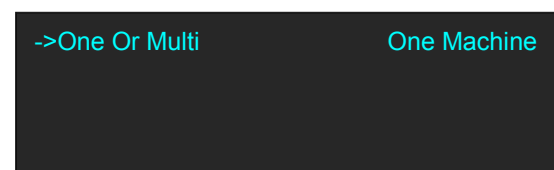


Push the knob to confirm, turn the knob to choose <Split>:

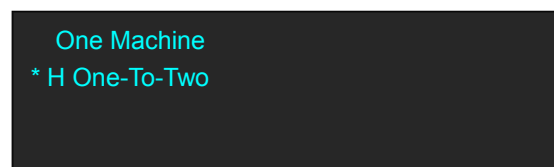


(3) Choose the split mode

Turn the knob in split menus, and choose the split mode as <One Machine> or <Multi Machine>.



Choose <One Machine>, push the knob to confirm, turn the knob, choose the split mode, for example, choose <H One-To-Two>:



(4) Set the output format

Push the [MENU] button to enter to the menu items, turn the knob and choose <Output>.



Input	>>
->Output	>>
Custom Formats	>>
Views	>>

Push the knob to confirm. Turn the knob to choose <Output Format>, and set the output formats as 2048x1152@60hz.

Channel Select	CHA
->Output Format	>>
CVBS Format	>>
Out Auto Config (N/A)	>>

The resolutions of the two outputs will change at the same time.

(5) Set the split parameters

After choose the split mode, the OLED screen will show the split parameters, set the H total as 3864, set the V total as 1152, set the first width as 1824, then turn the knob, and choose <Set Parameter>, push the knob to confirm.

->H Total	3864
V Total	1152
First Width	1824
Set Parameter	>>

(6) Save

Push the [MENU] button to enter to the menu items, turn the knob and choose <Views>.

Input	>>
Output	>>
Custom Formats	>>
->Views	>>

Push the knob to confirm. Turn the knob again and choose <Save>.

Recall	>>
->Save	>>
Delete	>>
Delay Recall	>>



Push the knob to confirm. Turn the knob to choose the save mode, for example, choose File 4, push the knob to confirm.



File 1 will be auto recalled after device powering on.

5. MinDelay

In this mode, user can achieve the same input and output resolutions, and achieve the least processor delay time. Except effects function, it can not support scale, De interlacing, etc.

How to Do Customized Output Resolution

Push [MENU] button to enter to the menu items, turn the knob and choose <Custom Formats>, push the knob and confirm.

1. Enter digits of desired resolution by pressing the red number buttons.
2. After the digital, push the knob will add ×, means before × is the horizontal size. Same operation for vertical size.
3. After the digital, push the knob will add ×, means before the × is the vertical size, and after the × is the refresh rate. Only digital 50 or digital 60 supports for the refresh rate. Use the digital buttons to finish the settings.
4. After input all the values, push the knob to enable VSP 628PRO to output this resolution.
VSP 628PRO will take 5~10 seconds to enable this output resolution.



How to Realize the Test Pattern Setting

Push the [LOGO] button, user can set the test pattern, the settings are as follows:

Type: Choose the test pattern type, including LOGO, H RAMP, V RAMP, 100% COL BAR, 75% COL BAR, 16*16 GRID, 32*32 GRID, BURST, 50% GRAY, GRAY STEP1, GRAY STEP2, WHITE、BLACK and SMPTE COL BAR.

Raster Box: User can choose enable or disable the raster box function.

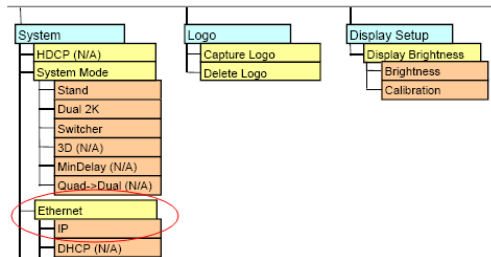
Diag Motion: User can choose enable or disable the diag motion function.

AOI Raster Box: User can choose enable or disable the AOI raster box function. If choose "ON", user can choose the types including Box X, Box Y, Box Width and Box Height. If image quality distorts by improper operation, it can be recover by reset.

How to Realize LAN Remote Control Setting

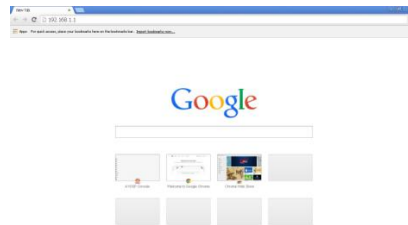
Firstly, To realize LAN remote control need to build up a LAN platform including: ①One computer (Laptop or computer, used to do remote control which installed windows control software in the computer).②One router (Better to have wireless function which may realize WEB control cross different platform; without wireless function is available but only realize cable remote control. No limitation for router's model and brand, such as VPN router model: Netcore 255 or 266. Volans VE 760W or 982W). ③One VSP 628PRO processor (as long as the router's network ports can connect to, user can place multi pieces of VSP 628PRO).

Step one: LAN physical connection. Connect VSP 628PRO and router with network cable, then connect computer and router with network cable also, use the LAN port of router, WAN port is used for connecting to outer net. Sketch map as below:

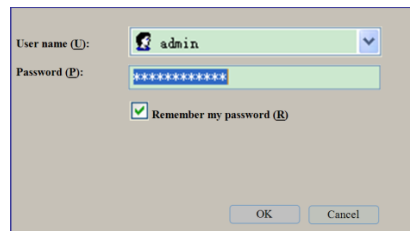


Method two: Change router's gateway.

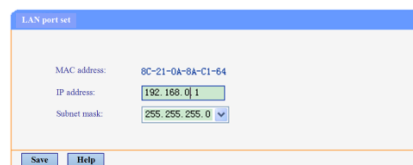
Type in 192.168.1.1 on the browser and go into router setting.



Type in default account and code (please refer to the router user manual for the information).



Go to router setting part and find out "LAN port setting", change the default value "192.168.1.1" to be "192.168.0.1".



Save the setting and restart the router, then user can directly control on VSP 628PRO via windows control software.



How to Realize WEB SERVER Cross-platform Setting

First, the formation of LAN Remote Control Platform: one Ipad or one Iphone, one router (with wireless functions, for example with a wireless-enabled VPN router models: Netcore 255 and 266. Volans VE760W, 982W.), one VSP 628PRO processor (can be more processors, as long as the network interface can be connected to the router)

The first step: LAN Physical Connection: connect VSP 628PRO and routers by CAT5, and connect routers by CAT5, please use the LAN Ethernet port, WAN port is only used to connect to external networks, it's not allowed to use in this step.

Connection diagram is as below:




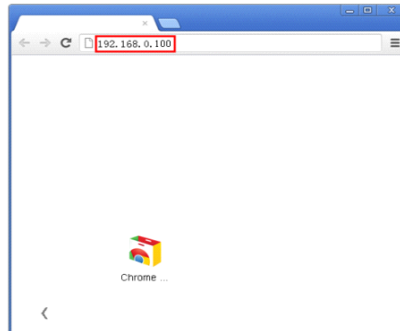
The second step: IP address setup. Please refer to IP Setup steps which in the “How to Realize LAN Remote Control Setting” section. (Make sure that processors IP address and router IP address are in the same band.)

When users use Ipad or Iphone, you can directly use the Safari browser, enter the URL 192.168.0.100 (default) and run. If user using other types of devices will need to install the kernel **webkit browser** such as: **Apple Safari, Google Chrome or Maxthon browser**. The Installing package will provide Google Chrome browser (windows version).

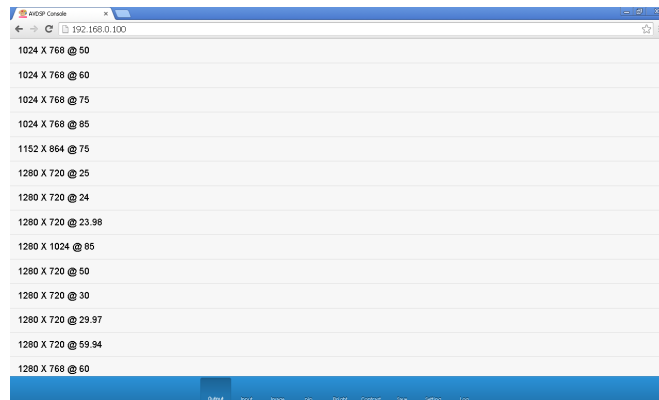
Note: The Internet Explorer, Edge and Firefox are not supported.

The third step: Make connections.

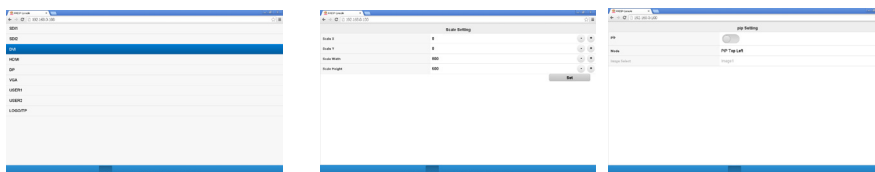
Click  ico, run Google Chrome browser, open the page enter 192.168.0.100 (default) and run.



After connection successfully, Web page appears as VSP 628PRO system control interface.



Click on the toolbar below the control interface, then accesses setup menu, now WEB control on VSP 628PRO is available.



How to Save the Parameter

VSP 628PRO provides 22 kinds of save modes, the settings are as follows:

1. Push the [MENU] button to enter to the menu items, turn the knob, choose <View>, push the knob to confirm.
2. Turn the knob, and choose <Save>, push the knob to confirm.
3. Turn the knob, and choose the location that need to save, push the knob to confirm.



How to Load the Saved Parameter

VSP 628PRO provides 22 kinds of save modes, the settings are as follows:

1. Push the [MENU] button to enter to the menu items, turn the knob, choose <View>, push the knob to confirm.
2. Turn the knob, and choose <Recall>, push the knob to confirm.
3. The button on is ready for recall, and button flashes means just recall. Push the button on or turn the knob to choose the location that need to recall, push the knob to confirm.

Note: User can only recall File 1 to File 10 by pushing the button. Beyond File 10, user need to choose the file by the knob.




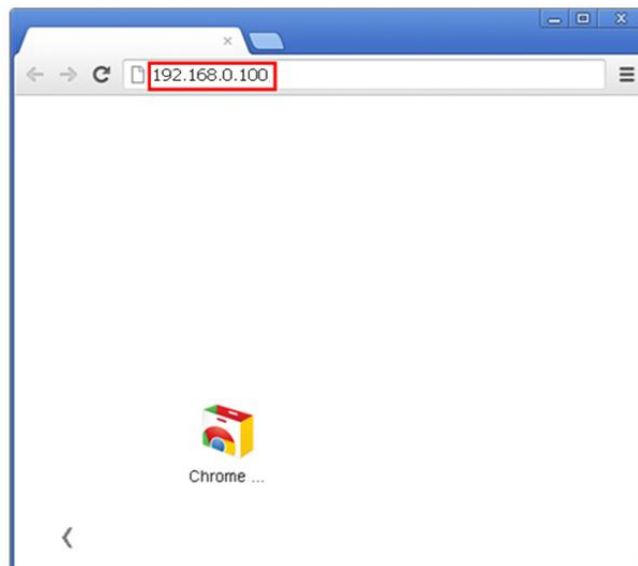
WEB SERVER Cross-platform Control Operation Interface

If users use Ipad or Iphone, they can input the website 192.168.0.100 (default) or 192.168.0.231 in Safari browsers to operate. If users need to modify VSP 628PRO IP address, they can input corresponding modified IP address.

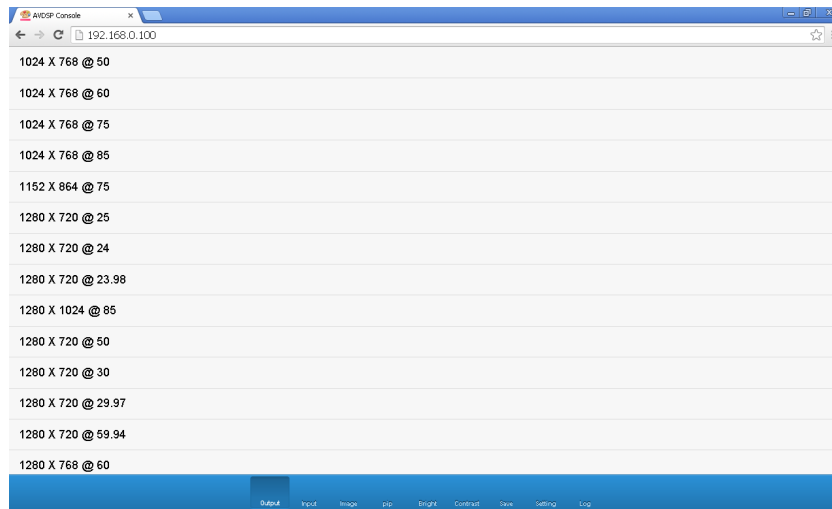
If users use other device, they **need to install webkit kernel browser**, such as: **apple Safari, Google Chrome or Maxthon**. Installation package provides Google Chrome browser (Windows version). Now take Google Chrome browser for example, specific steps are as follows:



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



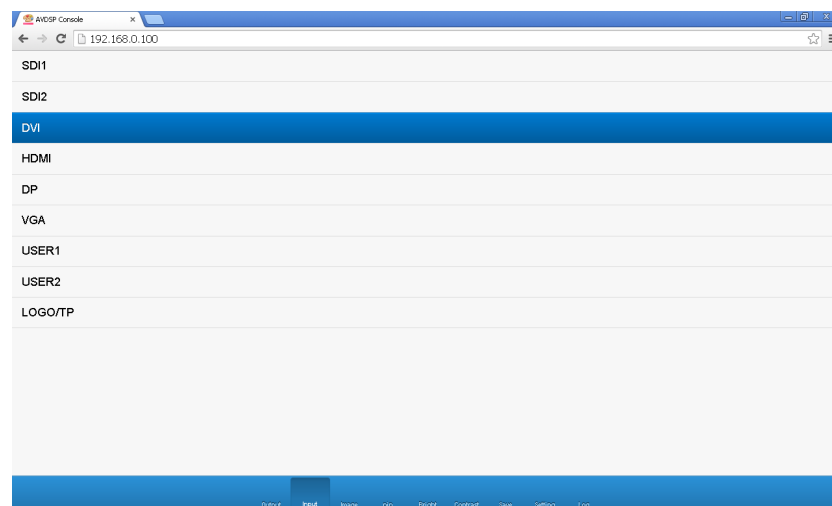
Step 2: Enter the default home page, the system provides 13 kinds of output resolutions for choose, blue stripe means current selected output resolution. Selected, then VSP 628PRO will automatically update the output resolution.



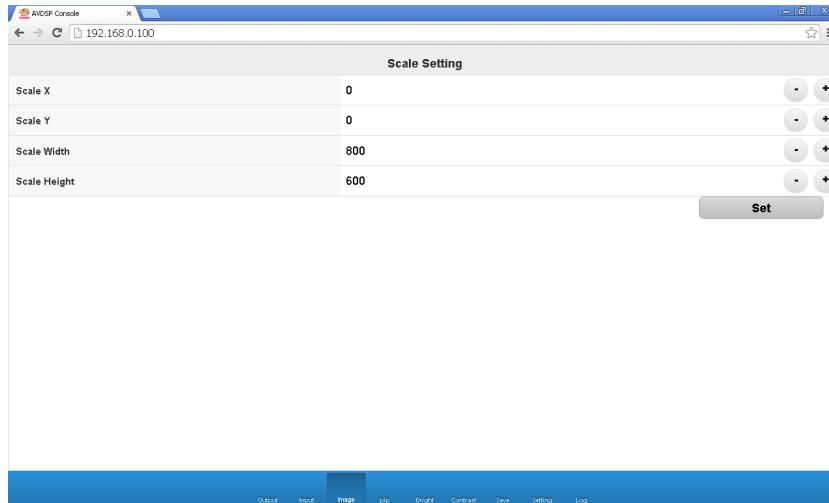
Note

Users can freely switch the icons in title bar to set relevant functions, following will introduce the relevant settings.

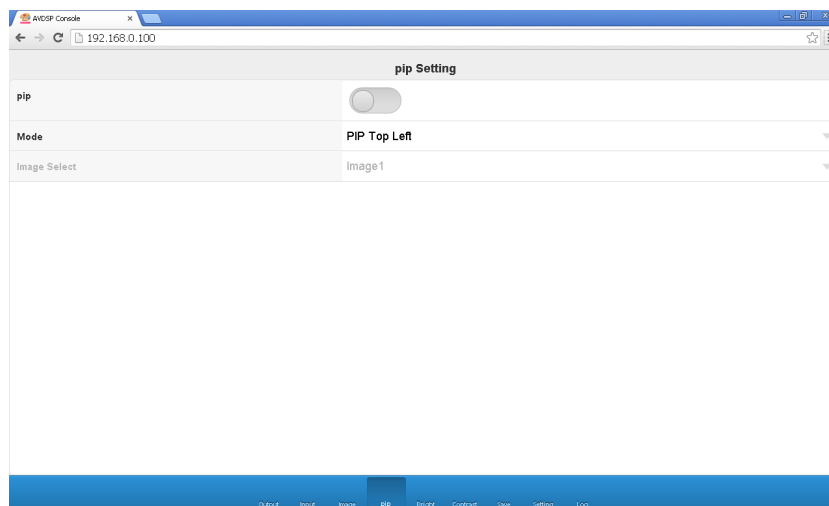
Step 3: Select "Input" icon in title bar, user can click the signal source that need, VSP 628PRO will automatically update input signal source.



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 628PRO image will display the latest Settings.



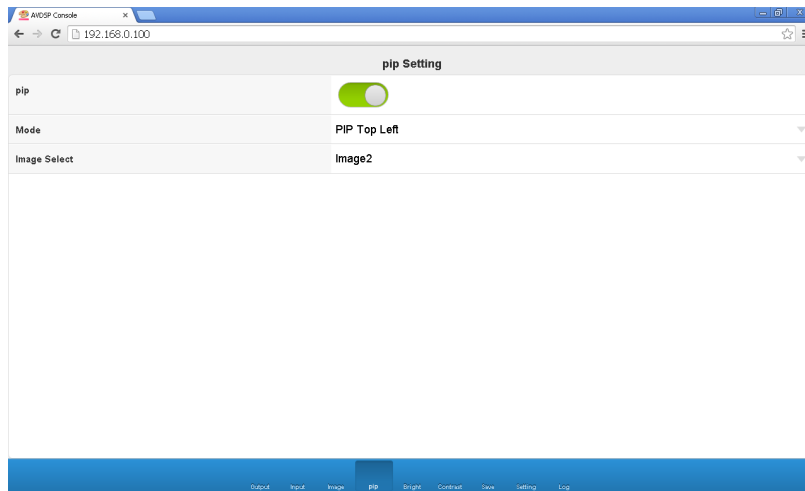
Step 5: Select "PIP" icon in title bar. When the PIP sliding block icon is grey, then it is single channel picture mode, and if image selection is gray, then image 1 is default for single image output image, and can't be chosen.



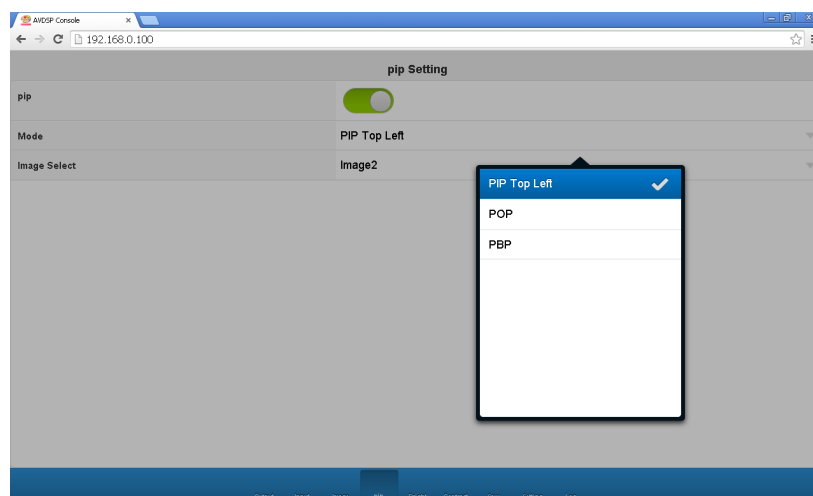
Note

User 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.

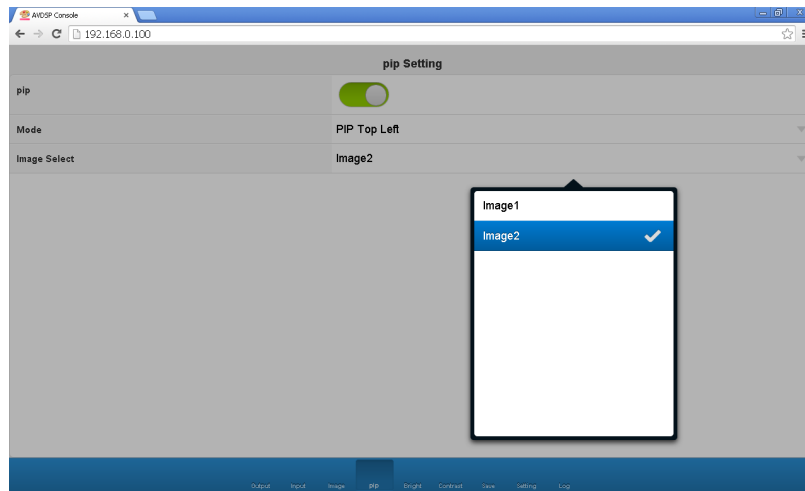
Drag the slider rolling ball, when the slide block is green, PIP starts.



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.



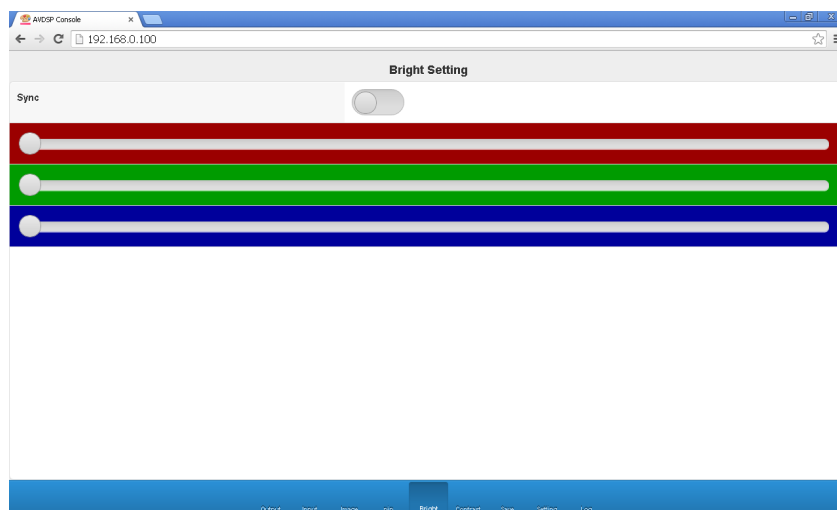
In PIP mode, the default image1 is the main image, image 2 for PIP sprite, click the corresponding image when need to edit image 1 or image 2, the selected image with blue stripes, tick, as shown below: image 2 is selected, all settings will for image 2. For example, you can switch "Input" icon in title bar to choose image 2 input source.



Note

If image 1 and image 2 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.



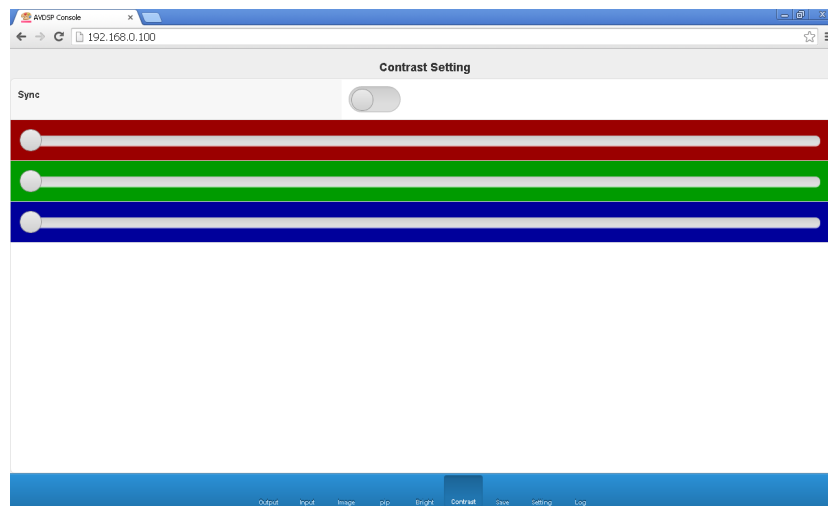
Note

User can adjust setting according to actual condition, the function mainly suitable for the personage that is very professional 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.

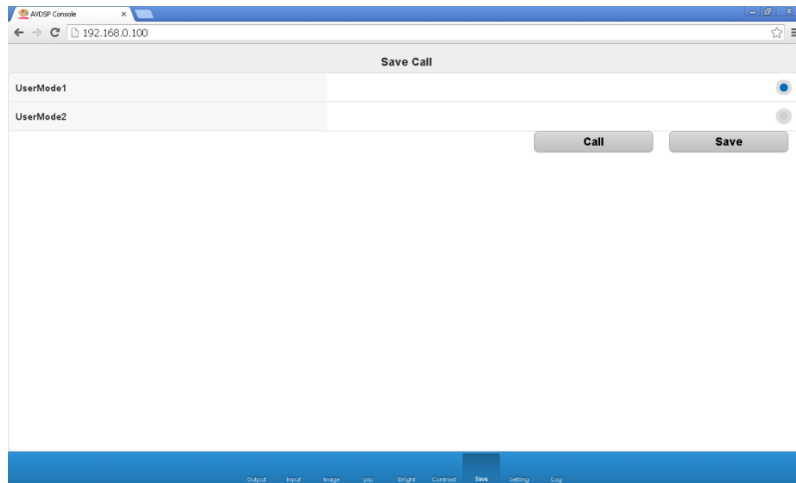
Step 7: Image contrast setting, it is mainly for output image contrast. If "Sync" is grey, you can adjust one color alone, when "Sync" is green, it means it starts, drag one color, and the other two color values will change accordingly to the same value.



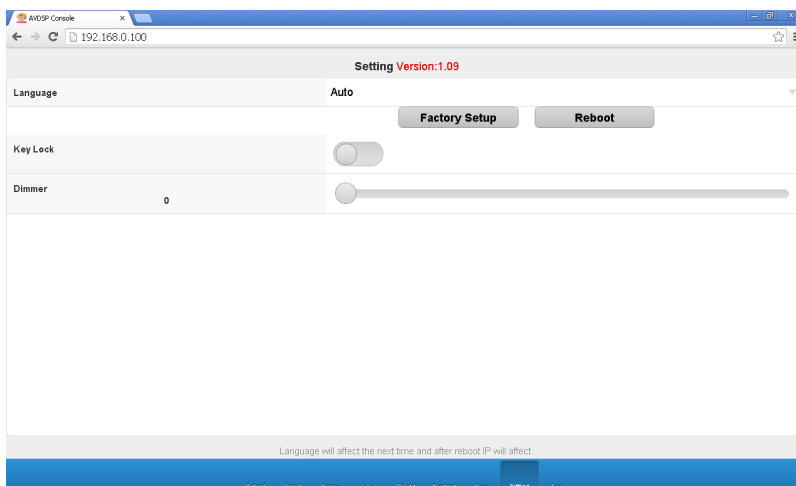
Note

User can adjust setting according to actual condition, the function mainly suitable for the personage that is very professional 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.

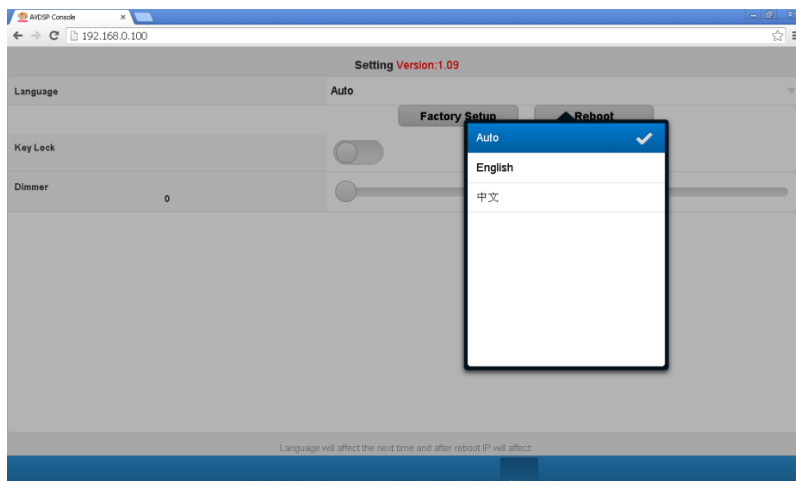
Step 8: Save and Call function. User can save the parameters to UserMode1 and UserMode2, and can also load UserMode1 and UserMode2 that saved before.



Step 9: Page setting.

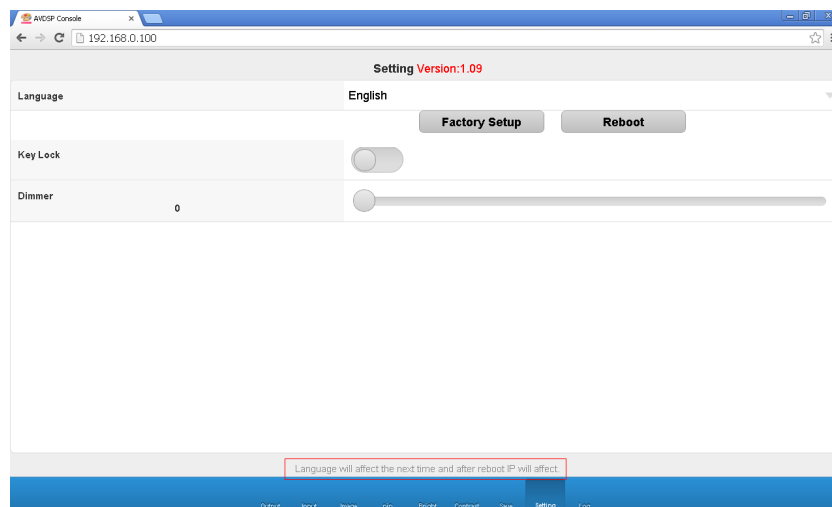


First, choose the language according to user's need. And the default is automatic identification.

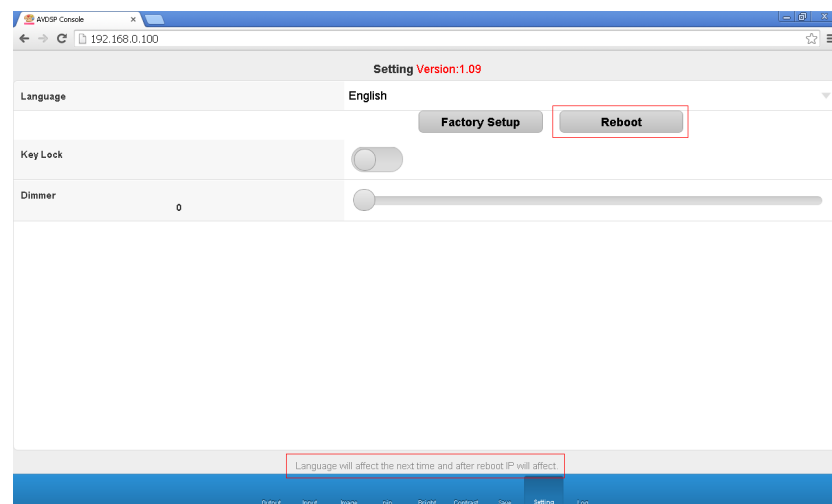




Click "Set" after select the language (such as select Chinese), pay attention to system prompt "Language will effect after the next time and after reboot IP will affect" (at green box); Now you need to refresh the page to complete the setting.



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



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

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

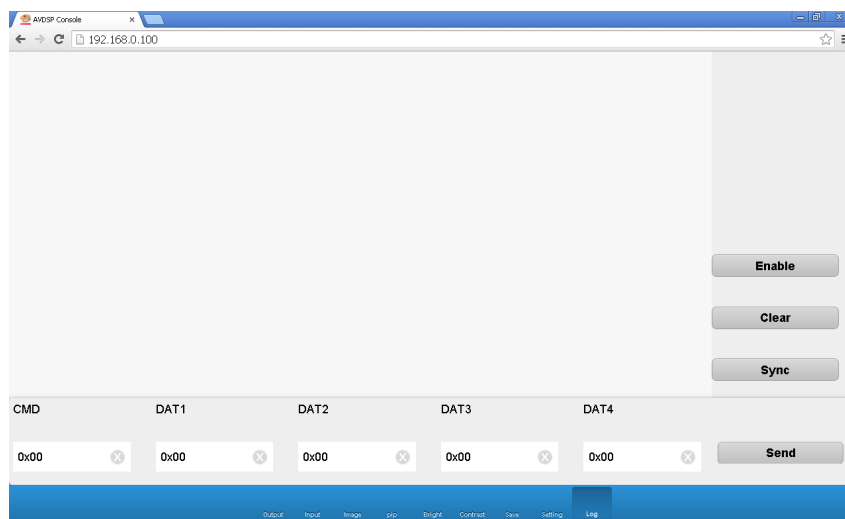
Dimmer: ALPHA transparency regulation. Drag ball to change the transparency value, transparency value is between 0 ~ 100 levels.



Note

Operation is invalid in PIP mode.

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





VSP 628PRO Connect APP Control Operation

1. Download the APP

User can log in the Apple or Android system to search and download the video processor client APP, click the link <https://itunes.apple.com/au/app/vsp-628pro-software-control/id990925513?mt=8>, and then

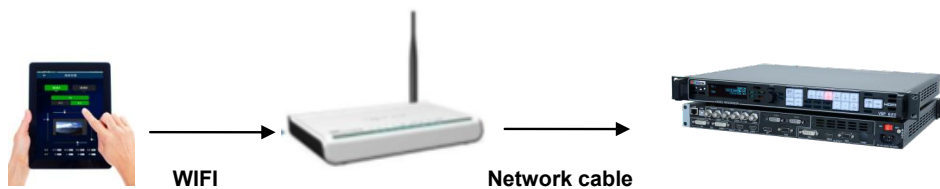


install the VSP 628PRO client APP on Iphone or IPAD, shown as . After the installation is



completed, the Iphone or IPAD will show the icon VSP 628PR.

2. APP Control Interface Introduction



1. Prepare a router that with wireless internet and DHCP function, connect and set the router by computer before connect to VSP 628PRO, and enable the IP and DHCP function. (For more details about setting, please refer to router's instruction).
 2. Connect the LAN port of router to the LAN port of VSP 628PRO with the network cable.
 3. Connect to the router by IOS or Android device, system default IP automatic access, use the web browser to access "192.168.0.100", the default IP address of VSP 628PRO, if the IP address is changed, please enter the changed IP address. (Set path: MENU->System->Ethernet->IP), user can wirelessly control VSP 628PRO after loading.
- (1) Make sure the device is connected to the router, power on, after the device is stable, turn on the mobile phone or IPAD APP to search and connect the device, as follows:



- (2) There are 2 device options after connect the device, DEMO is the presentation template that comes with software, choose any one of them, as follows:



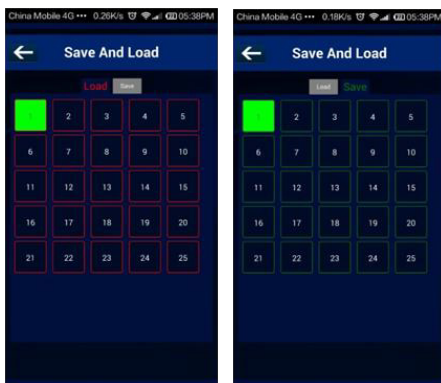
- (3) After connection, it enters to the processor manager interface, as follows:



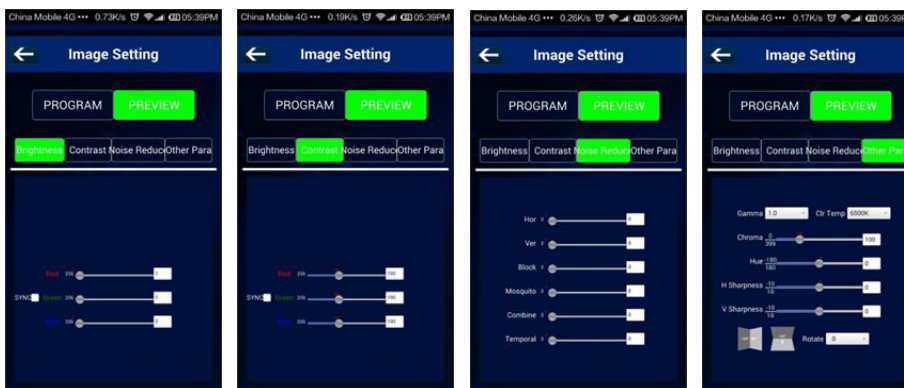
- (4) Click <Signal Select>, it supports 4 different modes, as follows:



(5) Click <Save And Load>, it supports 22 kinds of save modes, as follows:



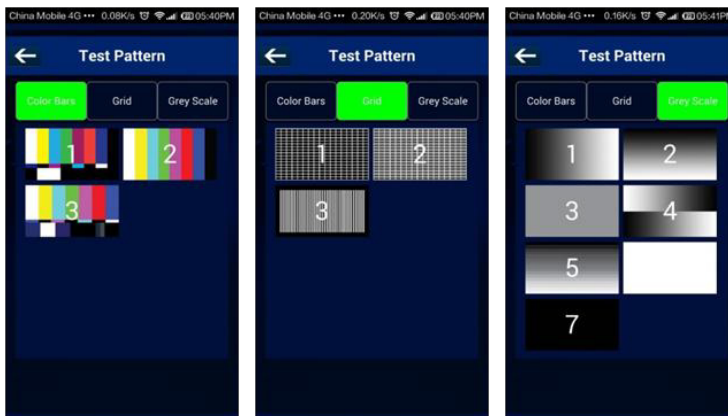
(6) Click <Image Setting>, user can adjust the parameters in preview mode, as follows:



(7) Click <Mask And Scale>, user can mask and scale the image, as follows:



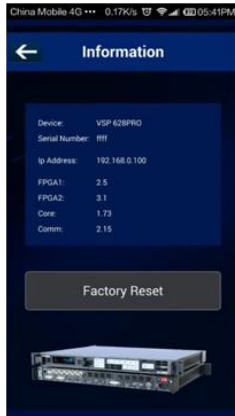
(8) Click <Test Pattern>, there are 13 kinds of test patterns, as follows:



(9) Click <Parameter Setting>, user can adjust the output resolution, as follows:



(10) Click <Information>, user can view the device mode, serial number, IP address and module versions. User can also click "Factory Reset" to reset to its factory settings.





Contact Information

Warranty:

All video products are designed and tested to the highest quality standard and backed by full 3 years 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.

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