The Manual of VSP-F2L4 Controller

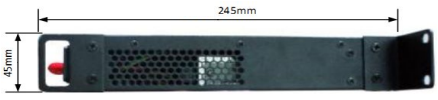
Contents

Chapter 1 Brief Introduction of VSP-F2L4 Controller

VSP-F2L4 control system is researched and developed by Glux independently, it is the third generation and suitable for the new generation LED display products of Glux. It is a set of network transmission, optical fiber transmission, and with image scaling, image mirror functions, and supported 1080 p resolution.

1.1 Parameters of VSP-F2L4 controller.

System Name	VSP-F2L4 Giga control system
Input Resolution	Max input resolution: 2048×1152; Support the video source which frequency is less than 60 Hz
Output Resolution	Max output resolution: 1920×1080
Power Input	AC 110~220V, 20W
Signal Input	CAT6 cable, 1G network bandwidth, optical fiber signal input, 2.5G optical fiber bandwidth
Transmission Distance	CAT6 cable：≤ 120 meters; optical fiber cable: 10 km.
Video Signal Input Interface	DVI Input, DVI output, HD 3G-SDI input, 3G-SDI output
Video Processing Gray scale	16-bit gray scale, class 100 adjustable Brightness
Communications Control Port	USB communications, Network communications and it support update online.
DMX512	DMX512 is supported
Size	480mm×245mm×45mm



1.2 Signal Connections to the LED screen

There are three connecting methods between VSP-F2L4 controller and LED

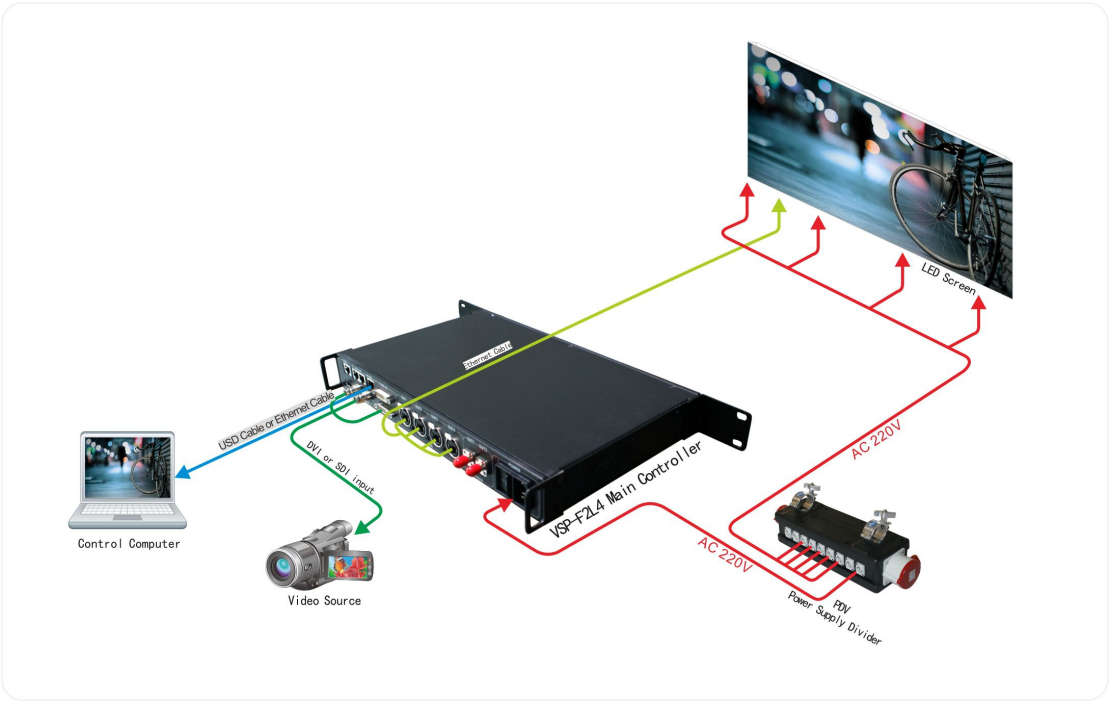
screen. Please choose a proper way according to your usage.

Method 1: For use without the Glux signal divider: Link the LED screen with VSP-F2L4 controller by signal cable. It means that signal is transmitted to the LED screen directly from the controller's output port (OUT1~OUT4).

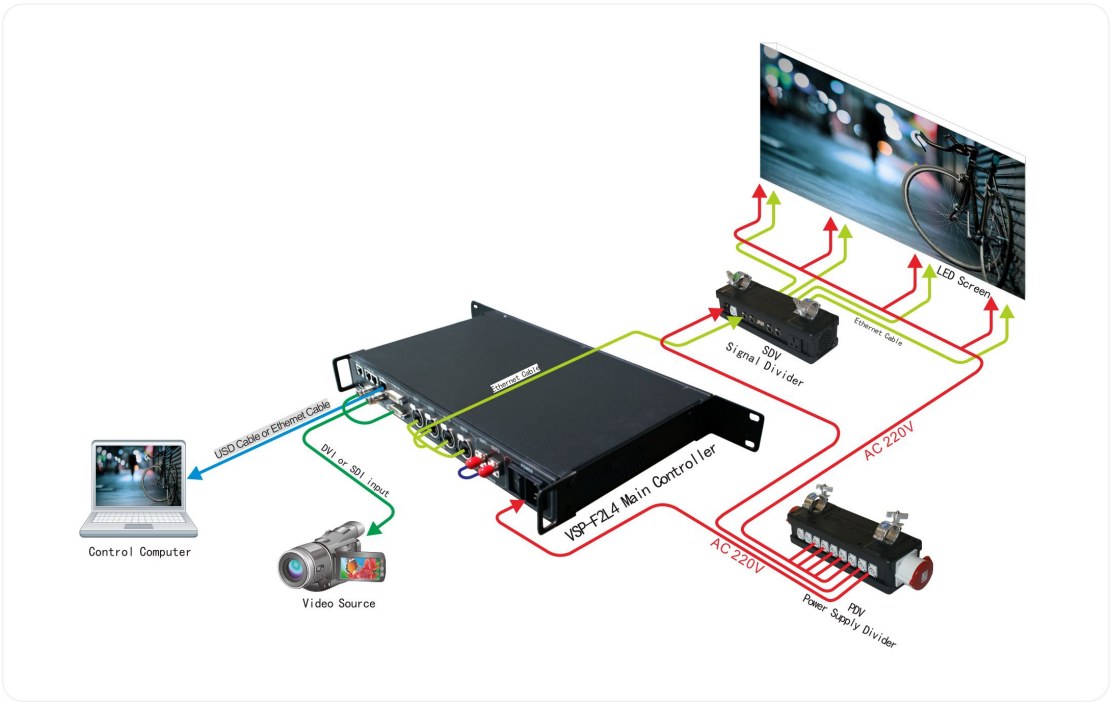
Method 2: With signal divider. Transmit signal from VSP-F2L4 controller's output port "OUT1~OUT4"to SDV signal divider's input port "SIG IN" by CAT6 Ethernet cable. The signal will be transmitted from SDV signal divider's interface A1~A4, B1~B4 to LED screen by signal cable.

Method 3: With signal divider. Transmit signal from VSP-F2L4 controller's optical port OUT1~OUT2 to SDV signal divider's optical input port " IN" by optical fiber cable. And then signal will be transmitted from SDV signal divider's interfaces A1~A4, B1~B4 to LED screen by signal cable.

Three kinds of connection modes are showed as below:

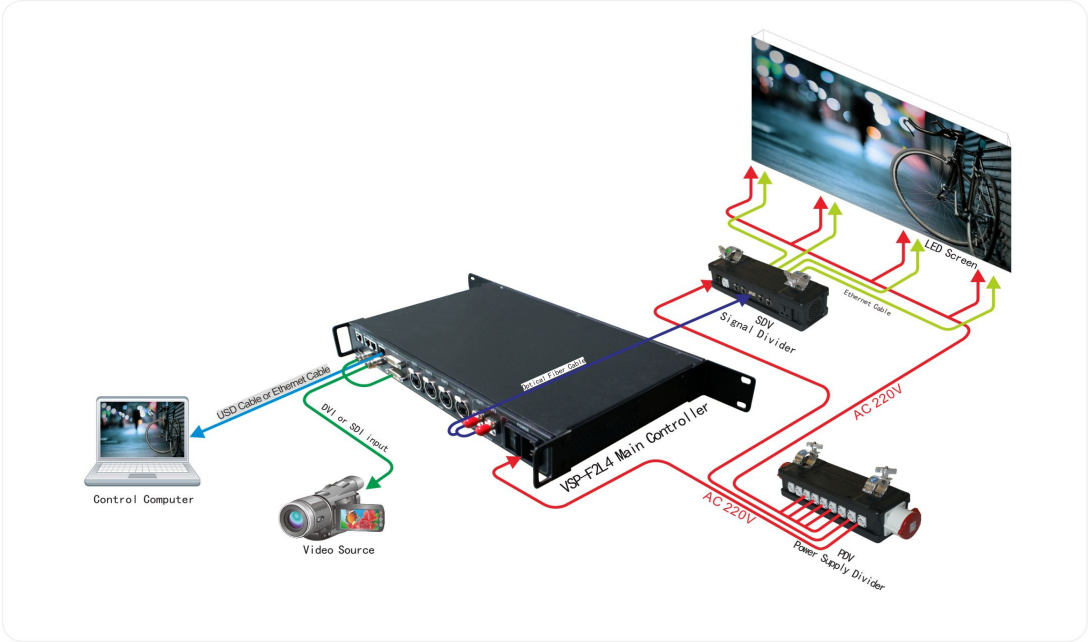


System signal connection method 1 (Transmission distance≤120m)
Signal be transmitted from controller to LED screen directly



System signal connection method 2 (Transmission distance≤150m)

Signal→by CAT6 Ethernet cable→to Signal divider→by signal cable→to screen



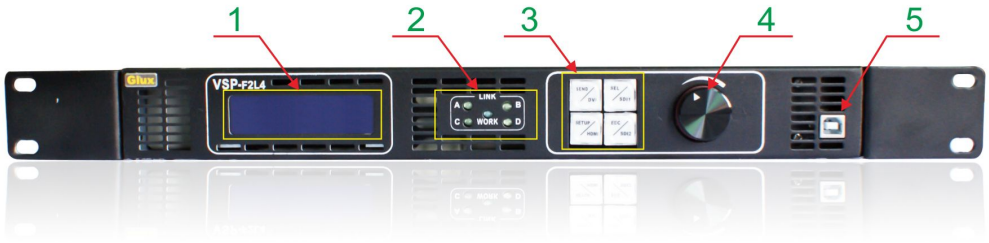
System signal connection method 3 (Transmission distance≤10Km)

Signal→by optical fiber cable→to Signal divider→by signal cable→to LED screen

The optical fiber cable type should be single mode.

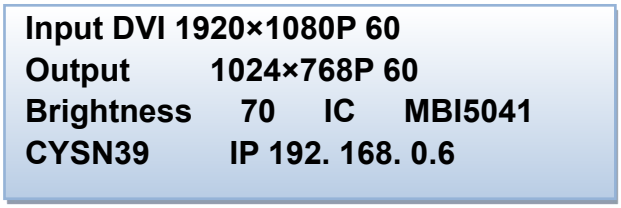
Which method you choose will depend on the control distance and the size of LED screen. Method 2 and the method 3 are recommended especially in the case of larger LED screens or long distance transmission.

1.3 Function Introduction for VSP-F2L4 Controller's Buttons and Interfaces



1.3.1 Front Side Introduction of the VSP-F2L4 Controller

(1) LCD display interface: Mainly showing the setting and product information, shown as below.



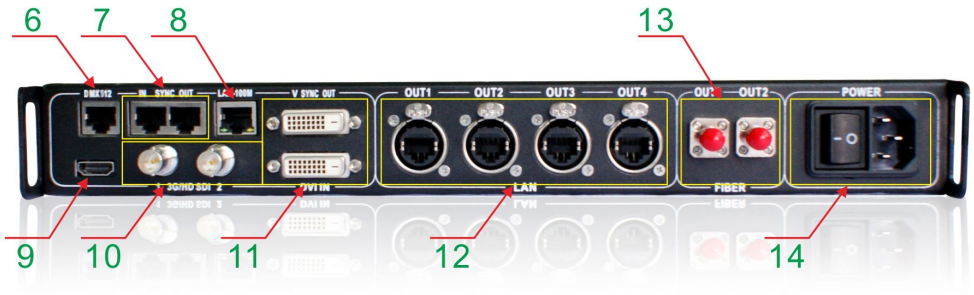
We can learn the follow information from the interface:
DVI video signal input; Input resolution is 1920×1080P 60Hz;
Output resolution: 1024×768P 60Hz;
The current brightness of the LED panel is class 70 levels; the code of the product is CYSN39; The IP address of the controller is 192.168.0.6

(2) Working indicating light: When the controller works well it will flash.
A, B, C, D indicates the status of the OUT1 ~ OUT4 four groups' signal.

(3) Function buttons of VSP-F2l4 controller
The four buttons are SEND/DVI, SEL/SDI1, SETUP/HDMI, and ESC/SDI2.
SEND/DVI button: Click the key to send your setting or select DVI input signal.
SEL/SDI1 button: Click it to enter the next level menu or select SDI1 input signal.
SETUP/HDMI button: Click it to enter setting parameters states or select HDMI input signal.
ESC/SDI2 button: Press it to return to the previous menu or select SDI2 input signal.

(4) Parameter Control Knob: Turn the knob can browse the submenu items. The parameter will be higher if the knob is rotating clockwise. If you want to lower the parameter, please turn the knob counterclockwise.

(5) USB Communication Port: The USB port that is used to communicate with the control software on computer to set the LED panel parameters.



1.3.2 Introduction for Back Side of the VSP-F2L4 Controller

(6) DMX512 signal input port.
(7) Adjust video synchronous In/Out port
(8) Lan-100M is the network communication port that is used to communicate with the control software on computer to set the LED panel parameters.
(9) HDMI video signal input port.
(10) SDI1 /SDI2 is the SDI video signal input port which is support to the input of HD SDI signal and 3G SDI signal.
(11) DVI IN is the DVI video signal input port and DVI OUT is the DVI video signal output port.
(12) OUT1~OUT4 port is four serial network signal output ports of the controller
(13) OUT1~OUT2 port is two serial optical fiber signal output ports of the controller;
(14) Power port is the power input port and the power switch port. AC110~220V

Chapter 2 Key-press operation of VSP-F2L4 controller

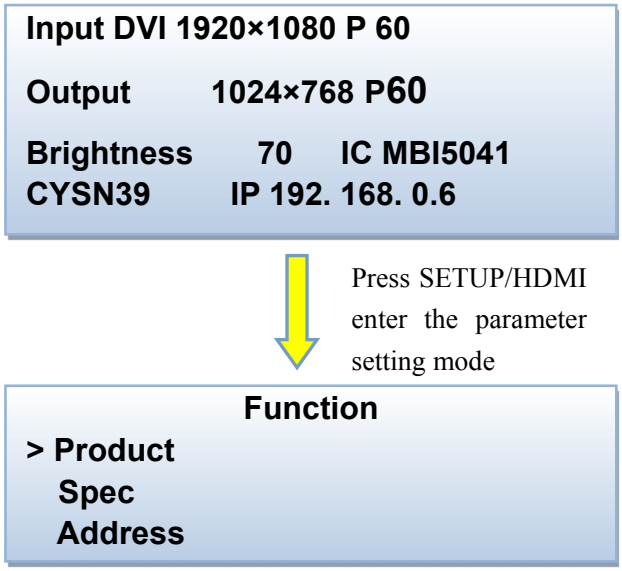
2.1. Which buttons to switch input signal types

Please simultaneously press the three keys SEND/DVI, SEL/SDI1, ESC/SDI2 to enter the mode of switch signal input. Now press the SEND/DVI key for DVI input signal. Press SEL/SDI1 selects SDI1 input signal, pressing ESC/SDI2 selects SDI2 input signal, pressing the SETUP/HDMI chooses HDMI input signal.

You can also see the input signal types that you choose on the LCD Display Interface at the same time. Please turn the Parameter Control Knob if you want to exit the signal-switching mode.

2.2 Adjust the Parameters by Key-press

The LCD Display Interface will show as the below picture after startup, press the SETUP/HDMI key to enter the parameter setting mode.



Setup Direction:

Symbol description.**">"** Means first-level menu, turn the Parameter Control Knob will scan its sub options. Press the SEL/SDI1 key can entry to second-level menu (Symbol>>) and press SEL/SDI1 again the symbol ">>"will turn to "#". In this state, you can adjust the parameters by turn the Parameter Control Knob.

Please press SEND/DVI to take effect when you finish the adjustment.

Please return to the first-level menu and select "Data Save" option to save the parameters data when you complete all the parameters setting. Otherwise, the parameters data will be lost once you reboot the controller.

There are seven sub options of the function option: Product; Spec; Address;

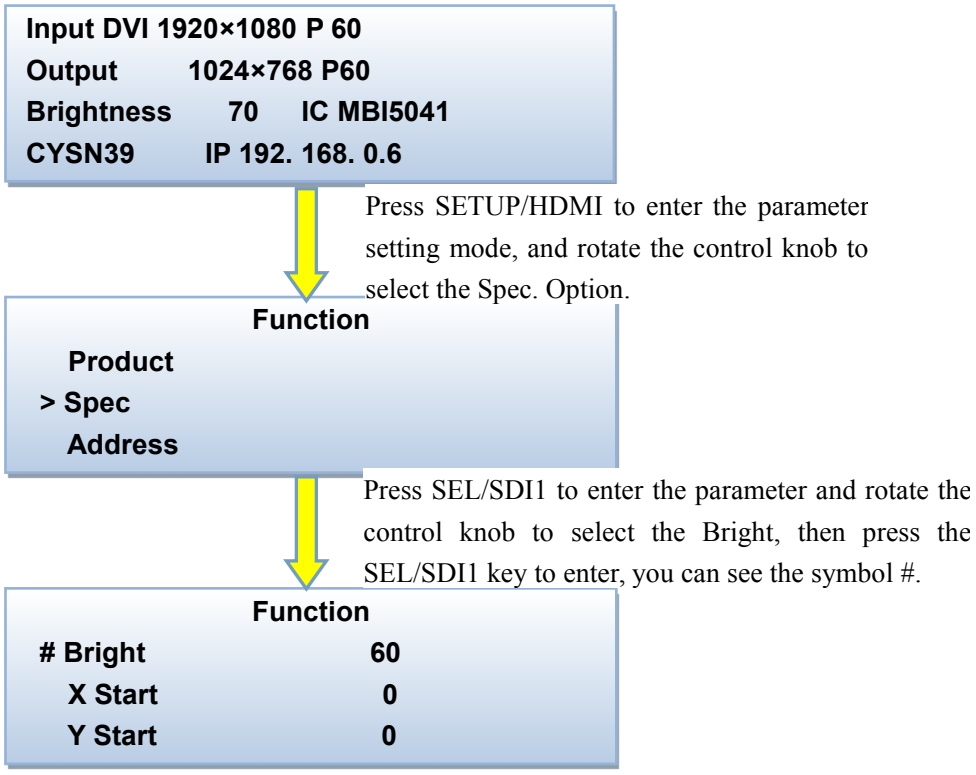
Color T; IP Address; Language; Date Save

2.2.1 Product

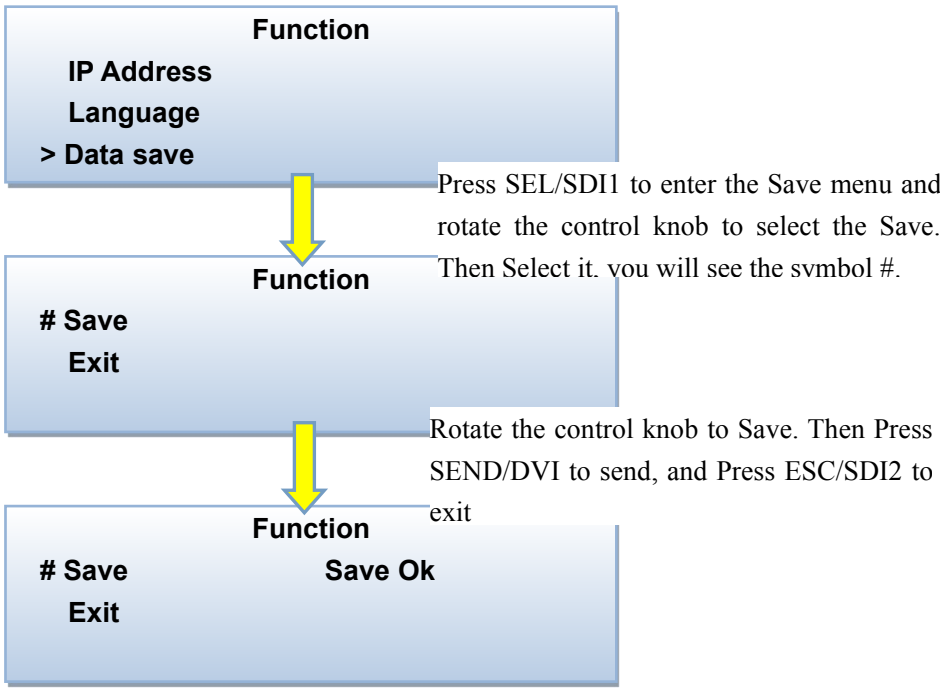
Please select correct relative parameters of the product under the Product Option
Port: Select a connecting controller port.
Series: Select a style of the product.
Cut Signal: Cut or link the transmission signal of the VSP-F2L4 controller.
Test Mode: Test and check the color of the LED screen.
DMX512 on/off: Please select OFF if there is no DMX512 signal input to the controller.
Mirror: Set mirror image display effect for LED screen.
Drive IC: Choose correct LED drive IC in your LED panel.
LED PIN1~LED PIN3: Define the pins color of LED lamp to avoid the display color exchanged.
IN MODE: The mode of display card. Limit range means HDMI 0-235 level gray mode, Full range means DVI 0-255 gray mode, the default mode is full range.

2.2.2 Spec (Adjust and set the parameters of LED screen)

Bright（Brightness）: Adjust the brightness of LED screen, such as the steps of adjust brightness:



Then rotate the control knob to adjust the brightness level, and click the SEND/DVI to send, at last save your setting in the save menu.



X start For setting the initial horizontal display position of LED screen. The default value is 0.
Y start: For setting the initial vertical display position of LED screen. The default value is 0.
X Width: The pixel width per controller port.
Y Height: The pixel height per controller port.
ZOOM H(Horizontal zoom)： The actual output pixel width of horizontal scaling from the input resolution's horizontal pixel width.
ZOOM V(Vertical zoom)：The actual output pixel height of vertical scaling from the input resolution's vertical pixel height.
Screen on/off（Screen switch: Play or turn off the LED screen.
Freeze（Lock）： Suspend or display the LED screen.
Correct on/off（Calibration switch）: Turn on the switch for calibrated LED screen, turn off the switch for uncalibrated LED screen, default value should be ON if your screen have calibrated.
Rotate ： Make the display image rotate 90 degrees, only valid for our BAtn/MOtn/MOsn series products current now.
Reset：Reset brightness, position and some other parameters of screen.

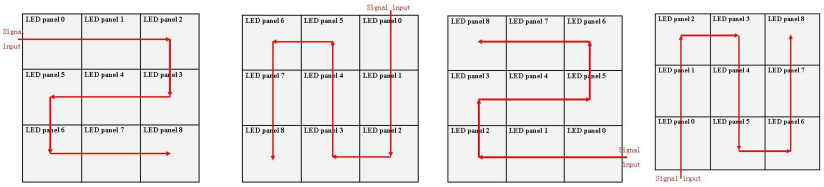
2.2.3 Address

Setting the signal connect way and display address of the LED screen.
(Usually do not use this function in the keyboard to adjust Address)

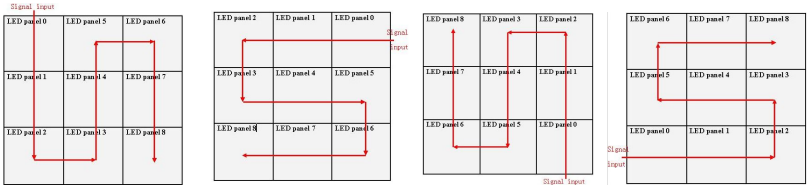
Link NO.（MAC）： Represents which panel would be setup, starting from 0.You do not need set this value when you want to set a whole screen LED panels address.
COL（Column position: Display on which column, column number starting from 0.
ROW（Row position: Display on which row, row number starting from 0.
Adjust address method for LED screen with the keyboard of the controller:

You need adjust the rows and columns counts before you select the type(type1-type8) of signal cascade,then click the send button on the keyboard of the controller.

There are eight kinds of signal transmission types of LED screen, as shown below pictures (Type1~Type8)



（1）Type 1　(2)Type2　(3)Type3　（4）Type 4



(5)Type5　(6)Type6　（7）Type 7　(8)Type8

2.2.4 Color Test

Class 0~255, you can adjust the red, green and blue color values. Color temperature grade: 4000,5500,6500,8000 usually choose 6500.

2.2.5 IP Address

IP address setting for VSP-F2L4 controller. Please make sure the IP address of the controller and your computer is in the same LAN network, but different IP values. It means the 1st-3rd segment addresses should same, but the last segment is different. Such as: computer IP 192. 168. 0.6 and controller IP 192.168.0.11

When you complete the IP address setting, please return to the first-level menu to select “Data Save” option and then reboot the controller for the new IP address to take effect.

2.2.6 Language (Language Select)

2.2.7 Data Save

Please select “Data Save” option to save the parameters data when you complete all the parameters setting. Otherwise, the parameters data will be lost once you reboot the controller.

Chapter3. Control software of VSP-F2L4 controller

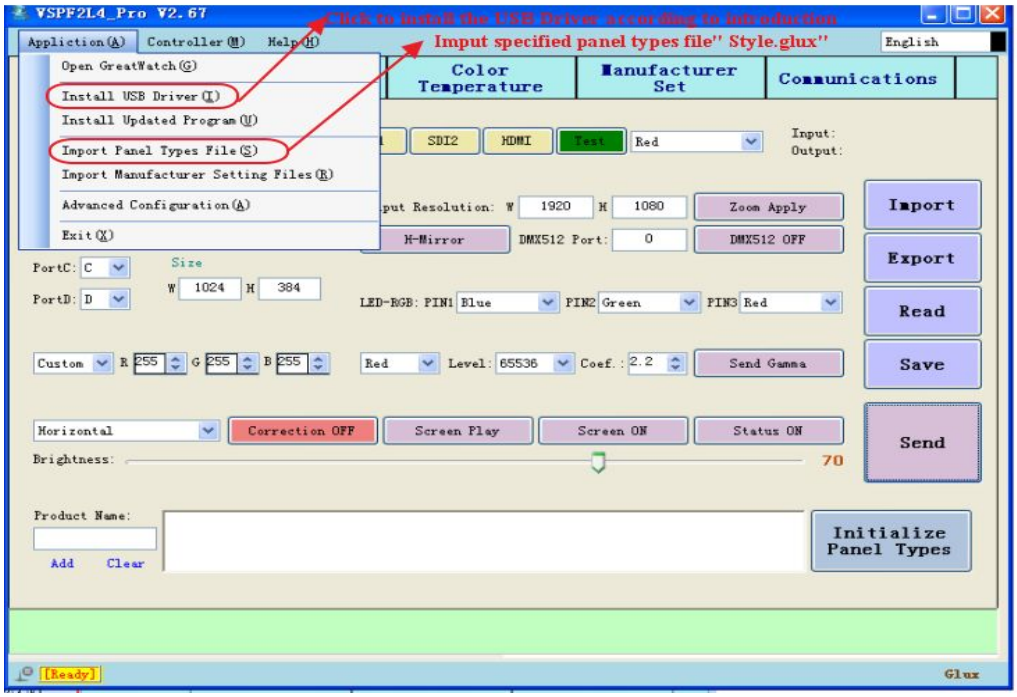
3.1 Installation and Running Environment for Control Software of VSP-F2L4 Controller

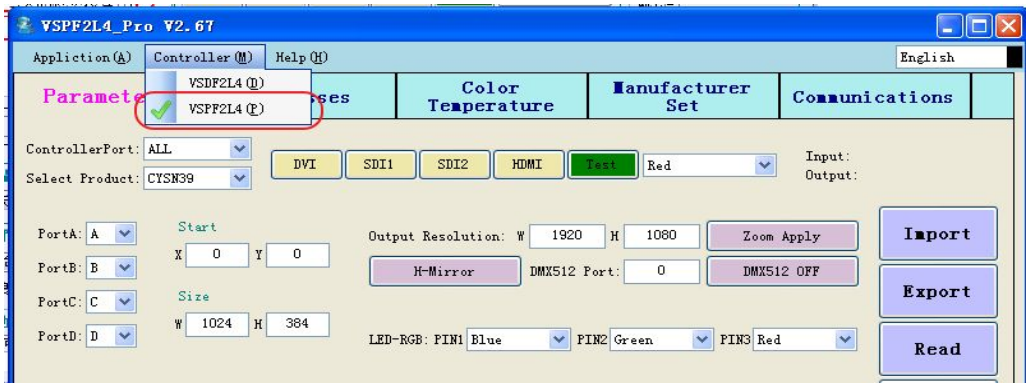
Users can install the VSP-F2L4 control software in the computer to set the parameters of the LED screen. At present, the control software only supports Windows XP, Windows 7 and Windows 8 operating system. Apple, Android, Linux operating system are not supported.

After you complete the installation of the VSP-F2L4 control software V2.66, you need to do the following two things if it is your first time using this control software.

(1) Install the USB drive; import panel types file ”Style.glux” in the ″application″ menu according to introduction.

(2) Select “VSPF2L4”under the “Controller” menu.



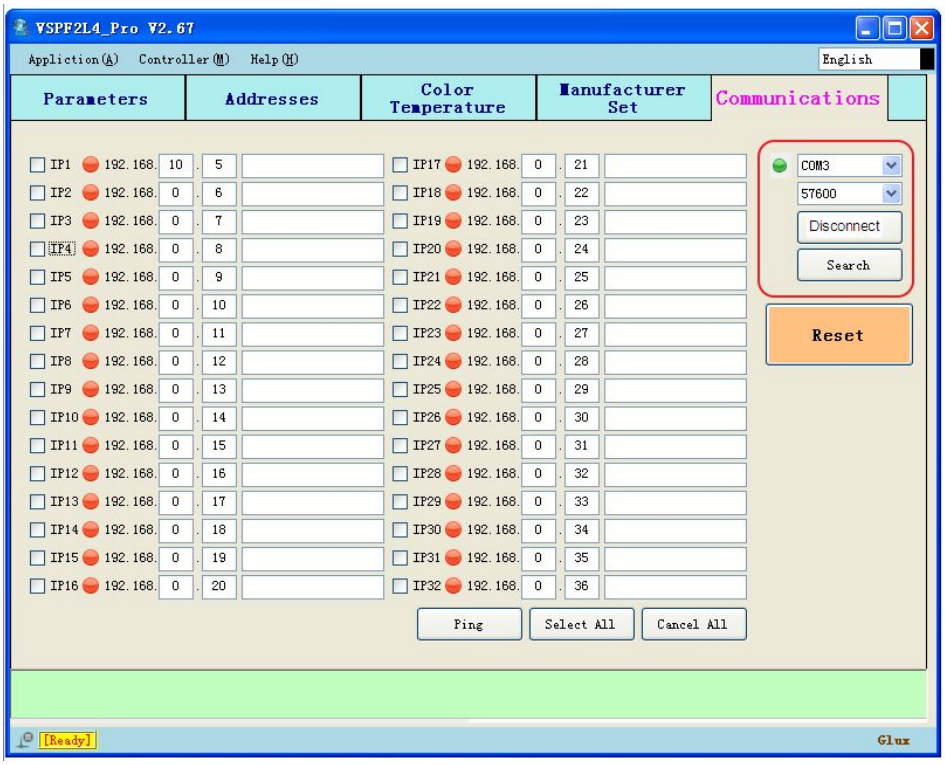


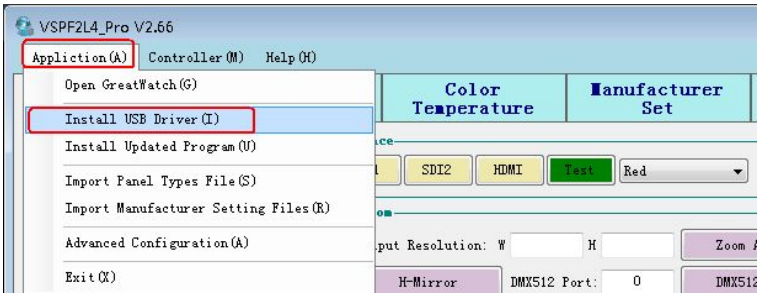
3.2 Communication Setting

There are two ways to communicate each other between control computer and VSP-F2L4 controller, through USB cable or Ethernet cable. It means that you only need one USB or RJ45 cable connect the computer with controller to set the LED screen's parameter.

3.2.1 Serial Port (COM Port) Setting through USB Cable

The computer communicates with the controller via the serial port (COM port), they connect together with a USB cable. Click "Search" button in the communication interface of the control software to search for available serial port. If the indicator turns from red to green it means the connection is successful, otherwise, connection fails. Please check whether the USB driver had been installed, USB cable or USB interface had been damaged if connection fails.

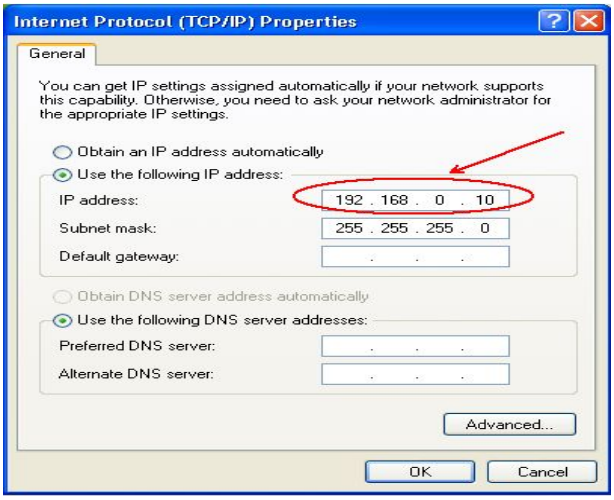




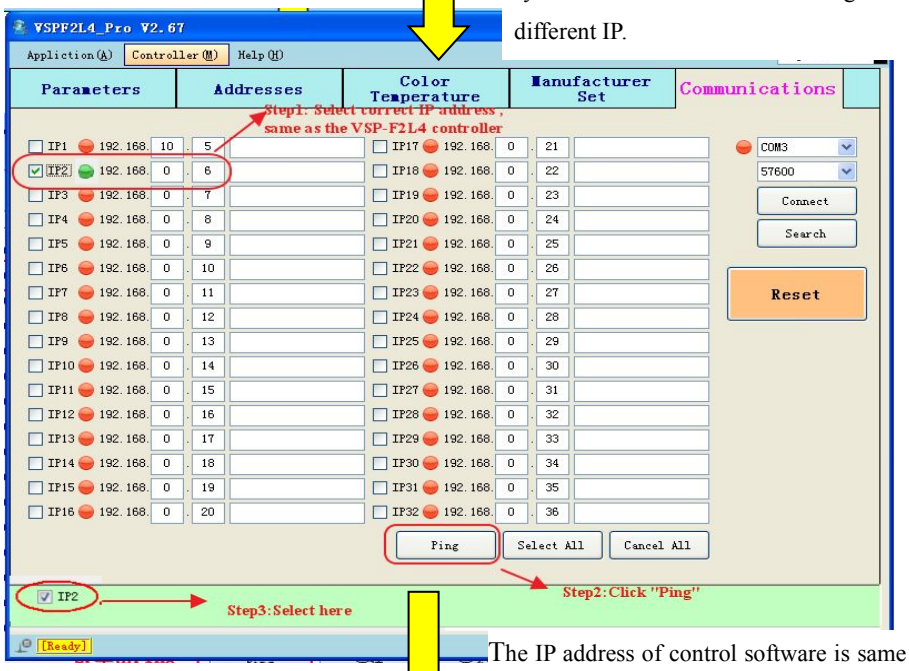
3.2.2 Network Port Setting

If the controller and the computer are connected via the Network port, set the IP address correctly before setting the parameters. And then click the option "Ping" in the Network port communication.

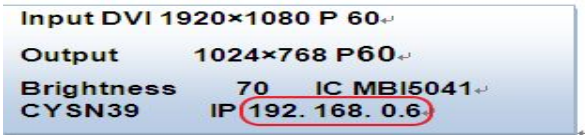
Please make sure the IP address of the controller and the control computer on the same LAN network segment, it means the 1st-3rd segment addresses should same, but the last segment is different. Such as: computer IP 192. 168. 0.10 and controller IP 192.168.0.6



The IP address in the computer and the control system have to be on the same segment， but different IP.



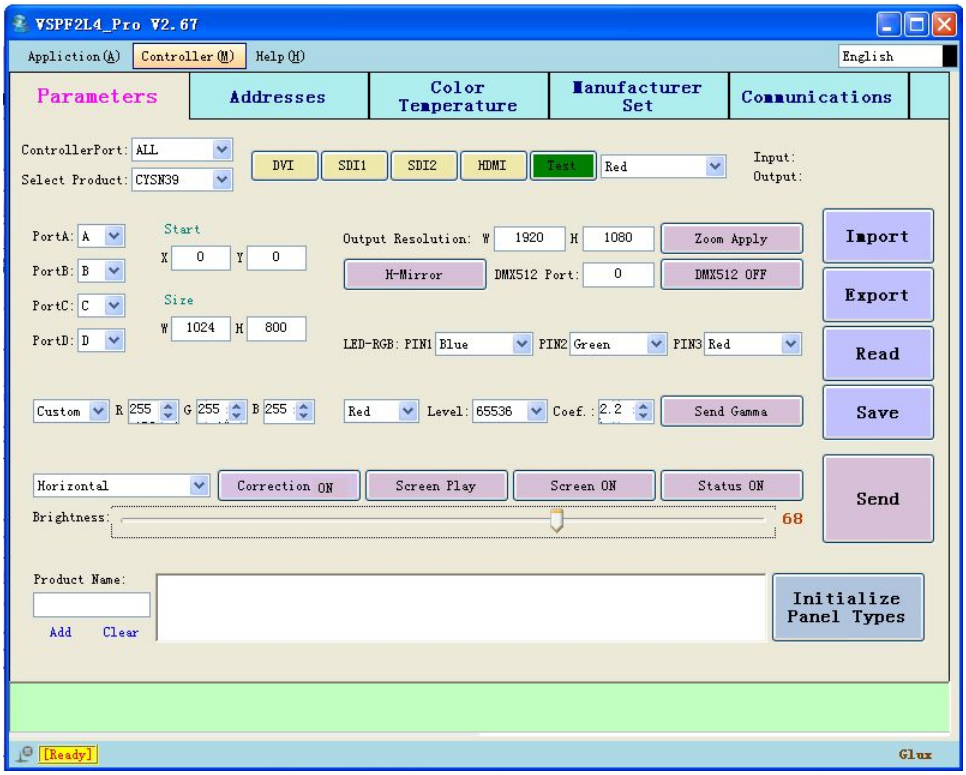
The IP address of control software is same as the IP address showed on the LCD interface.



The indicator will turn from red to green if the network port communicates successfully; otherwise you should check whether the Network port connect correctly or check whether the IP address of the controller and the control software are in same LAN network.

If one computer controls more than one controllers, it is recommended to use a router to connect all the controllers in the same LAN network, then define different IP address for different controller.

3.3 Parameters Introduction of Control Software



Controller Port: Select a port of VSP-F2L4 controller that connected the LED screen. All means all ports. Port A, B, C, D respectively represent signal output ports OUT1, OUT2, OUT3, OUT4 of the VSP-F2L4 controller.

Signal Interface: Select the way of the signal input source, DVI, SDI or HDMI. Click "Text" can check and text the color of LED screen.

Resolution: Display the input signal resolution and output signal resolution.

Switch port: The display content of port A, B, C, D can switch to each other by setting. To take effect the switch function, you must operate it under the condition of the "controller port "is All or A in the control software.

X/Y Start: The start display position in the horizontal/ vertical direction is off from the initial point where is defined the upper-left (coordinates (0, 0).

Change the values of X and Y will change the display position of LED screen.

Size (Very important): The horizontal/ vertical output pixels resolution for each port of the VSP-F2L4 controller. W/H represents the width/height of output resolution for each port of controller, not always a whole screen.

Output Resolution (Output resolution scaling): You can make the input video totally output to the LED screen which have specified pixels by setting the output resolution. For example, the video input resolution is 1920 × 1080, the LED screen pixel only have 1024 × 768,if you want to display all of the video on this LED screen ,please set the Output Resolution: W:1024, H: 768.

H-Mirror: LED screen display to a mirrored display in Horizontal direction, usually be used in a symmetrical display effect.

DMX512 on/off: Used for setting the DMX512 port number. Please select OFF if there is no DMX512 signal input to the controller.

Port: Select correct controller port.

Series: The style of the product.

LED-RGB： PIN1~PIN3 represents the order of red, green and blue for LED lamps' pin .You can adjust this item if the colors is wrong.

Color Temperature: You can select the custom color temperature values and also can adjust the RGB (red-green-blue) color values according to the actual application. The color temperature range is 0~255.

Gamma It is mainly used to adjust the gray scale of the LED screen. You can adjust the contrast of LED screen by setting the gamma value. If the gray scale of the LED screen is inconsistent, you can try to improve the effect by sending the gamma. Setting method: select Red/Green/Blue, gray scale level is 65536, gamma coefficient is 2.2 and then click "Send Gamma". Different IC chip there is different Gamma level, such as, MBI 5041's level is 65536,MBI 5020's level is 4096.

Export: You can export a file to save the current parameter data. Once you lost the parameters you can import the file and recovery the parameter data.

Import: Import a file to recovery the parameter data.

Read: Read the parameters from the current VSP-F2L4 controller (Usually not need to use).

Send: Click the "Send" button to check the change of LED screen after you complete the setting of the parameters.

Correct on/off（Calibration switch）: Turn on the switch for calibrated LED screen the display effect will be better. Turn off the switch for uncalibrated LED screen otherwise only can get a white image picture.

Screen play（Lock）： Suspend or display the LED screen.

Screen on/off（Screen switch）: Play or turn off the LED screen.

Status ON/OFF: You can turn on or turn off the LCD display function of LED panels. Click the status open/closed, and then click the Save in the control software to take effect.

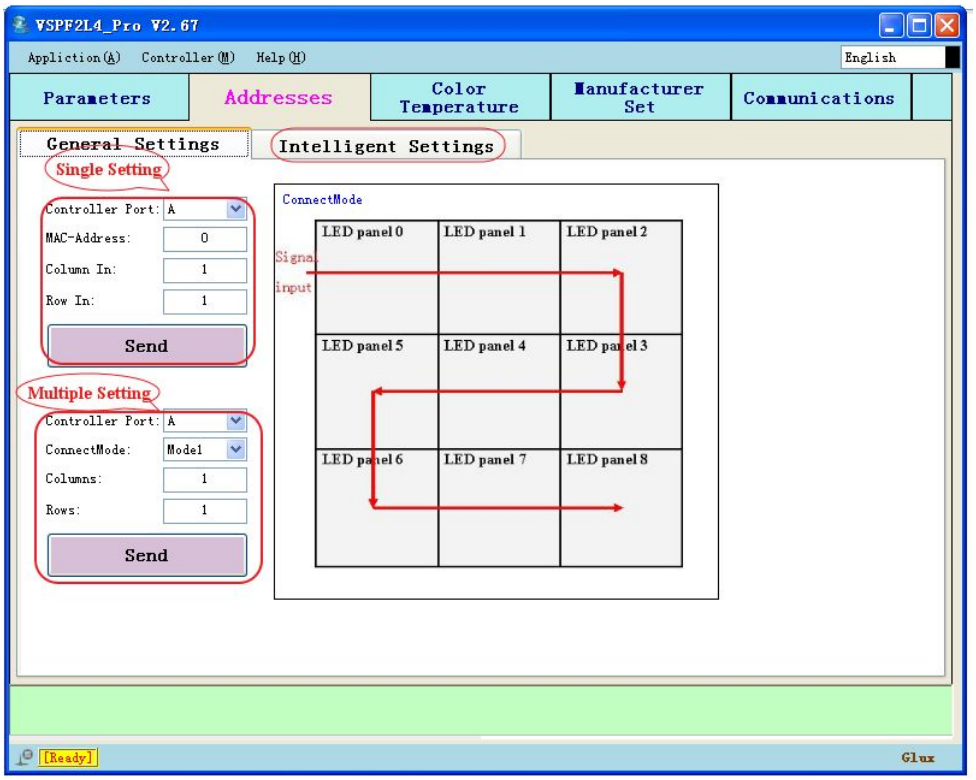
Operation： Make the display image rotate 90 degrees, only valid for our BAtn series products current.

Brightness: You can drag the cursor to adjust the brightness of the LED screen.

Initialize Panel Types: Initialize Panel Types be only used when leaving factory, and not need description here.

3.4 Address Setting

There are 3 methods for set the screen display address by this control software: single setting, multiple setting (whole screen setting) and intelligent setting. Usually we only use the multiple setting or intelligent setting to set the screen's display address, as shown below:



3.4.1. Address setting method 1: (Not normally used)

Function: Set one LED panel to be displayed in which column and row.
Step1.Controller Port: Select correct control port which connecting this LED panel.
Step2.MAC-Address： Represents the ordinal number for the LED panel which connects the controller selected port (Port A, B, C, D).
From the signal input of the first piece of LED screen, MAC-Address starting at 0 and increase by 1.MAC Address=0,1,2,3,4…(Take the above picture for example, LED panel 0's MAC Address=0, LED panel 1's MAC Address=1,LED panel 2's MAC Address=2, LED panel 3's MAC Address=3,LED panel 4…)

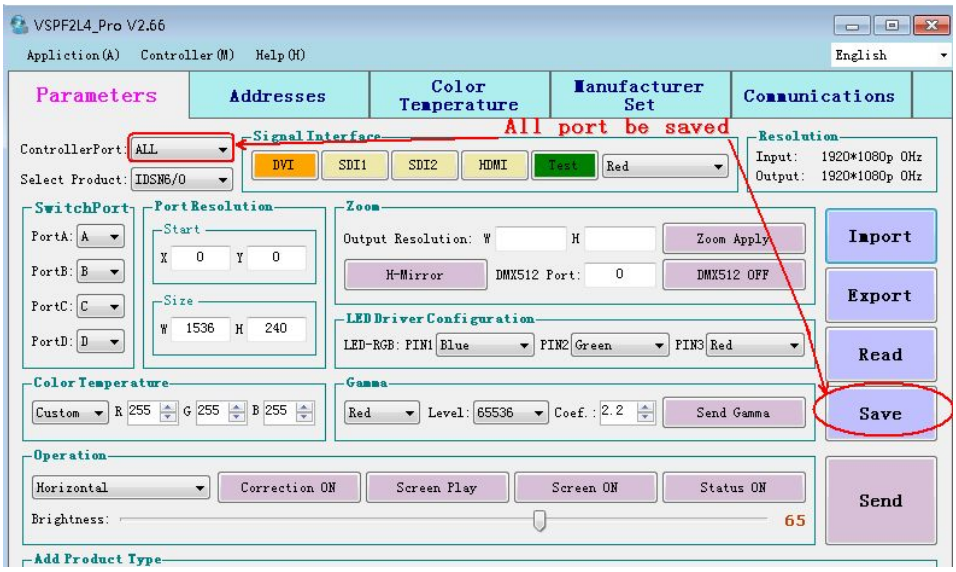
Step 3，Column In：Represents the column for LED panel displayed in, start from 0.

Step 4，Row In：Represent the row for LED panel displayed in, start from 0.

Step 5，Send： Click the "Send" button when you finish setting one LED panel address.

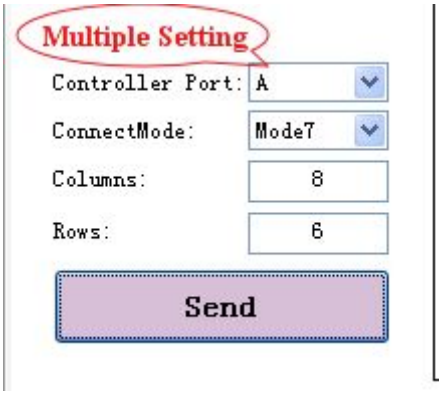
Use this method, you can set the LED panels' display address one by one. Please

remember to save your settings in the “Parameters” interface when you finish setting all LED screens addresses. Otherwise, once you reboot the controller, the data for the address setting will be lost.



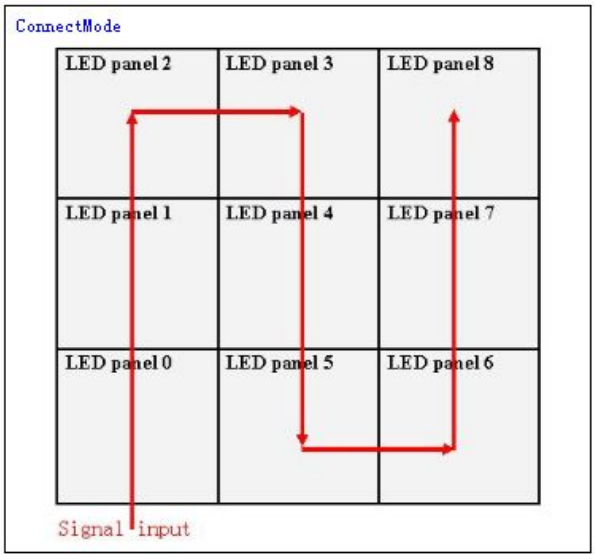
Attention Please： Single setting will usually only be used for some special requirements of display. Generally, Multiple Settings (whole screen settings) and Intelligent Settings would be recommended as they are bring greater ease of use for users to set the LED screen address. Shown below are the applications of these two methods.

3.4.2 The Method 2 for Address Setting: Multiple Setting (whole screen setting）



Function: Under the circumstance that there is no signal divider in the control system and the signal port of the controller is connected with the LED screen directly, users can set all LED screen address at one-time.

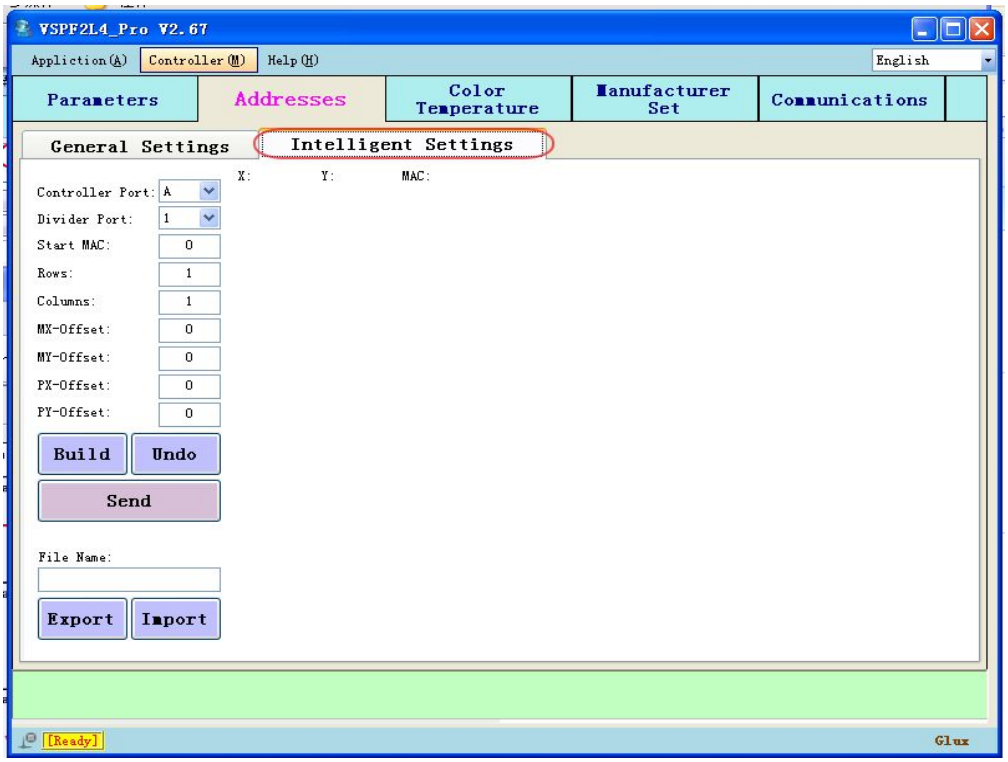
Controller port：Select correct control port（A、B、C or D port）;
Connect mode：There are 8 kinds of signal connect modes (Mode1~Mode8) for the user to choose. You can also preview the signal connect mode on the right figure by click the Mode1~Mode8：
Columns：Represents how many columns of the LED screen charged by the controller selected port.
Rows：Represents how many rows of the LED screen charged by the controller selected port.



At last, click the “Send” button, and then save it in the parameters interface. Otherwise, once you reboot the controller, the data for address setting will be lost.

3.4.3 Method 3 for Address setting: Intelligent Settings

Intelligent settings is the most common and flexible setting method. Except for the common setting functions， intelligent settings is more suitable to be applied to some anomalous shape LED screen. User would use this method to set LED panels addresses when SDV signal divider is used in a project.



Controller Port: Select correct controller port（Port A、B、C、D represent port OUT1、OUT2、OUT3、OUT4）.

Divider Port: Select a correct SDV signal divider port. For further detail instruction to each port of signal divider please see the SDV08 manual.

Start MAC-Address: The default value is 0， please refer to the previous single setting section for further details.

Columns： Represents how many columns of the LED screen charged by the controller selected port or divider port

Rows： Represents how many rows of the LED screen charged by the controller selected port or divider port.

MX-Offset: The column amount which the LED screen horizontal displacement. Image displayed from which column. We usually use the default value is 0.

MY-Offset： The row amount which the LED screen vertical displacement. Image displayed from which row. We usually use the default value is 0

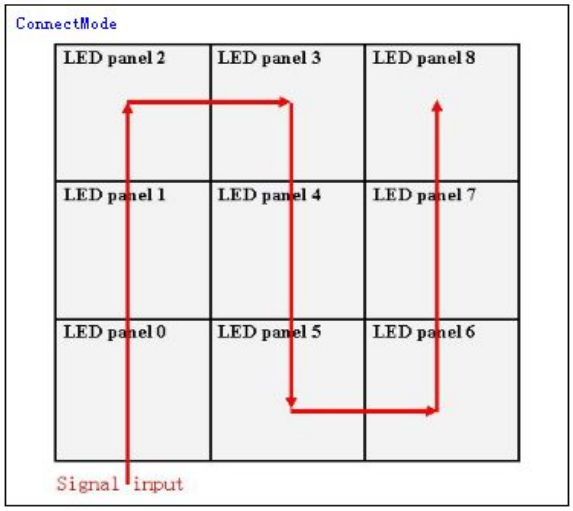
PX-Offset: (This feature is temporarily out of use)

PY-Offset： (This feature is temporarily out of use)

Build: Generate a simulated image of the LED screen according to the number of rows and columns. Users can set the address for each LED screen on the simulated image. The intelligent setting method is as follows:

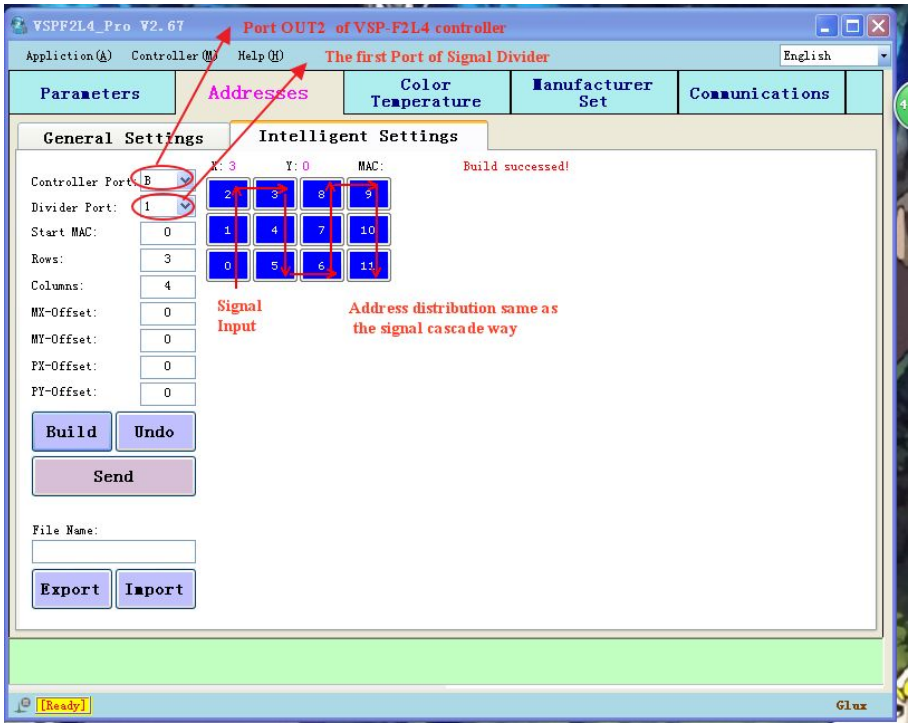
Click each LED screen from the first one of the signal input along the actual connection mode of the signal cable to the last one.

For example, one LED screen , size: 4pcs x 3pcs(W x H)；use VSP - F2L4 controller's OUT2 output port； signal divider's port 1 ；Signal connect mode: mode 7. See the following red arrow connection mode:



Address setting showed as follows（Click one by one along the address module）

1) Select the B port in the controller port, select port 1 in the signal divider port, then build and number the LED panels as the following:



Undo： When you accidentally set a wrong address, you can use this revocation to back to the previous one.

Export： Please input a file name in the input box to save the address setting data, and then click the "Export" button, the file you saved will be stored in the installation directory: C:\Programfiles\GluxGigabitControlSystem v2.67\xmls.

Import： If you want to input one address setting data which has been already saved, click "Import", and then select the import path and the address file you want, at last

click the “Send” button.

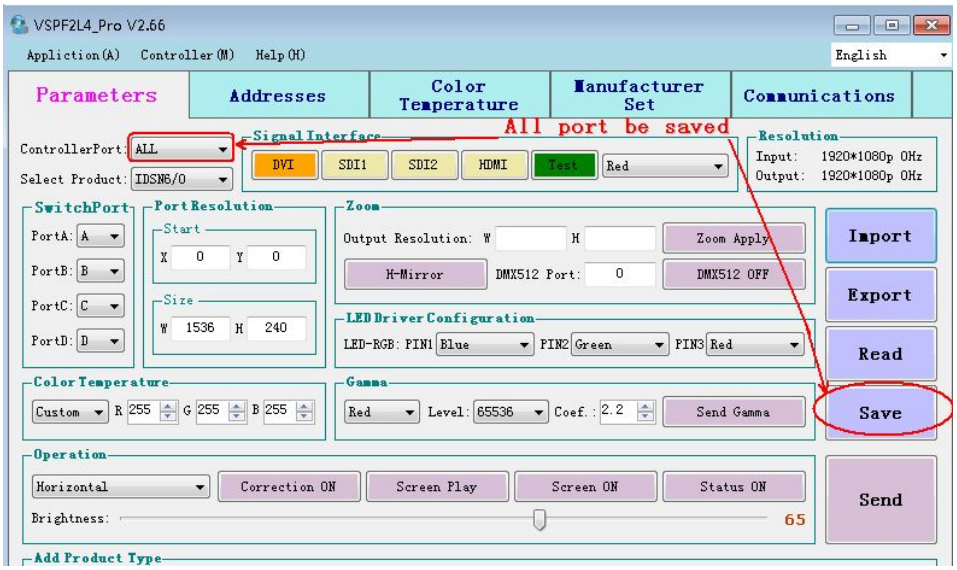
Attention please: When you finished to set the address, please remember to click the “Save” button in the parameters interface no matter which setting method you choice. Otherwise, the address setting data will be lost once you reboot the controller.

The summary steps for address setting

Step 1： Select a method to set the address, there are three methods to choose: single setting, multiple setting (whole screen setting) and intelligent setting. Normally select multiple setting (whole screen setting) or intelligent setting.

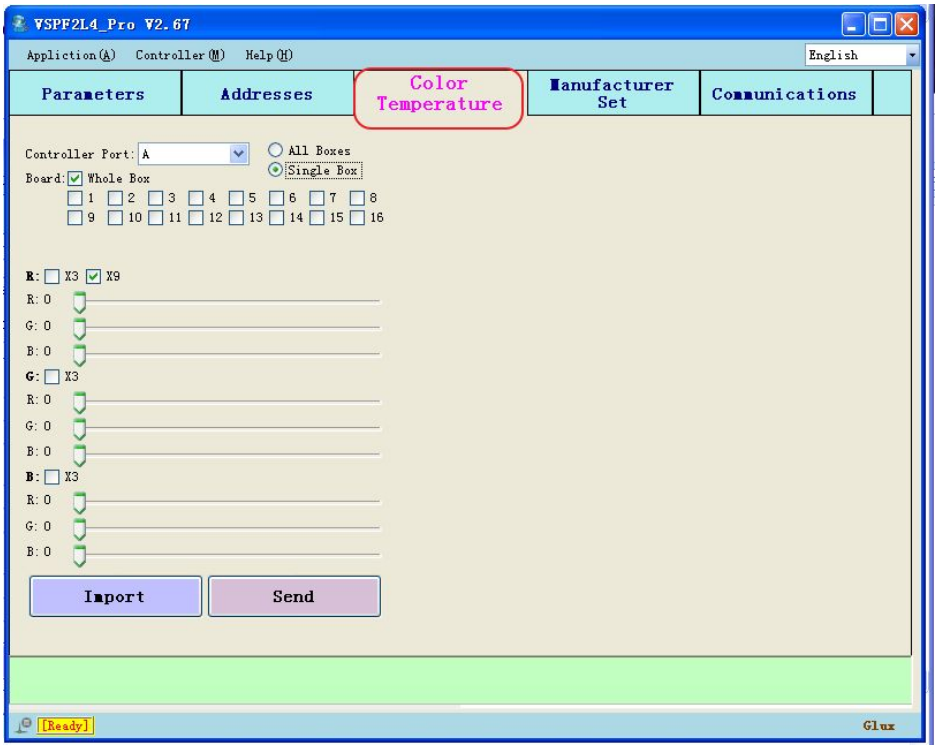
Step 2：Set addresses for all LED screens and check whether the display image is correct.

Step 3： Click the “Save” button in the parameters interface when you complete the setting.



3.5 Color temperature adjustment

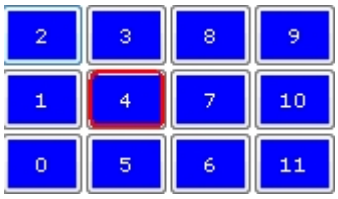
Users can adjust the color and brightness of one-piece LED panel (box) or one-piece LED board (module) alone. Usually, one LED panel is composed of 1~16 pieces LED boards. The color temperature interface is shown below.



There are two function areas in the color temperature adjustment interface, one is the option which is used to choose the adjustment object, and the other is color temperature which is used to adjust the color values for red, green, and blue.

3.5.1 Single panel (Box) color temperature adjustment

For example: LED Screen, size: 4pcs×3pcs（W×H, signal transmission from port A of the VSP-F2L4 controller. The color brightness of the fourth panel is higher than the others. Take adjusting the fourth LED panel as an illustration.



Color temperature adjusting steps:

Step 1: Export the address setting data. Click and enter the Intelligent Settings interface, select controller port A, build a simulated image that has 4 columns and 3 rows. Then number all LED panels and input a file name such as “color” and then click “Export” button to export it.

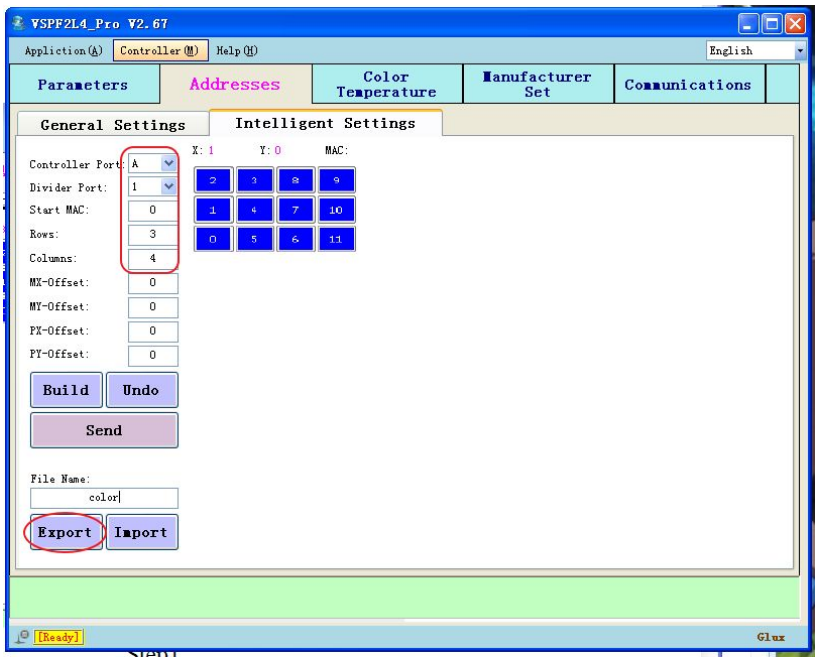
Step2: Click to enter the Color Temperature Setting interface. Import the address setting data file that named color**.** Xmlm.

Step3: Select the object for which you want to set color temperature. Click the fourth one at the simulated image. Select correct controller port: Port A. Select “Single Box” and “Whole Box” in Board.

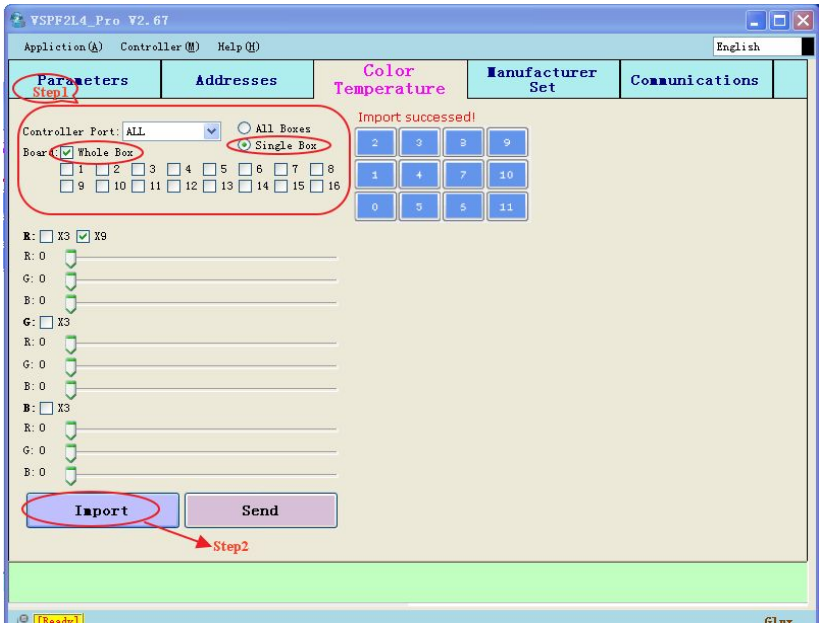
Step4: Drug the cursor and adjust the color temperature value. Selecting “X9” will change the color temperature value of RED, GREEN and BLUE at the same time. Select “X3”will adjust its R/G/B values separately.

Step5: Click “Send” button to check the color of the fourth panel and compare with other panels.

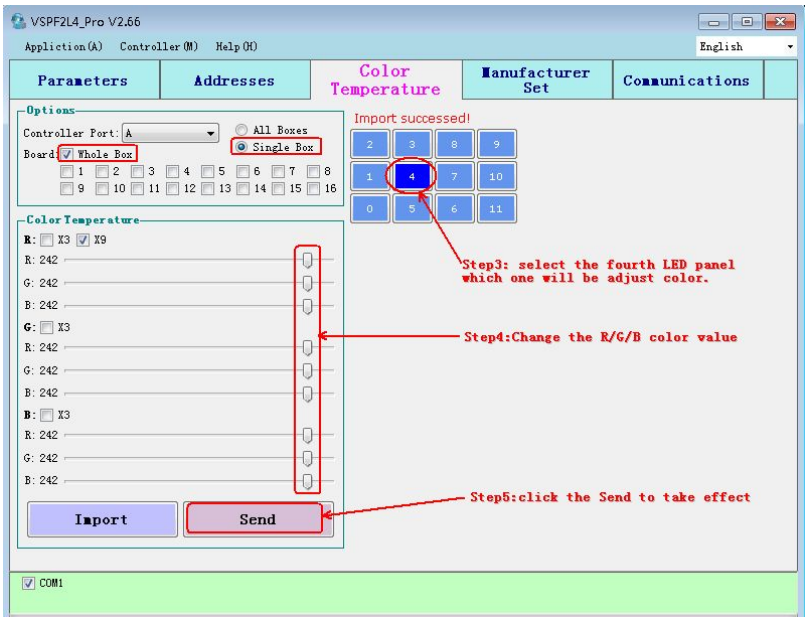
Please recycle step 4 and step 5 until you reach your target.



Step1



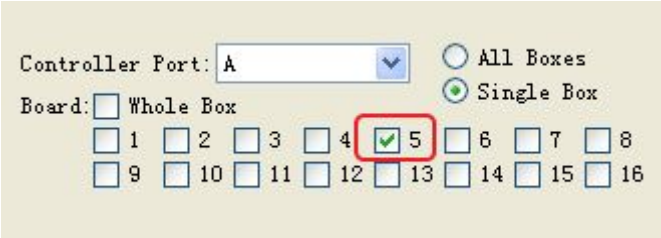
Step2



Step3, Step4, Step5

3.5.2 LED board (module) color temperature adjustment

The methods and steps are similar as the single panel color temperature adjustment. The difference is on the 2nd step. Please select the correct LED module of the LED panel that you will adjust instead of the “Whole Box” button as shown below.



Summary:

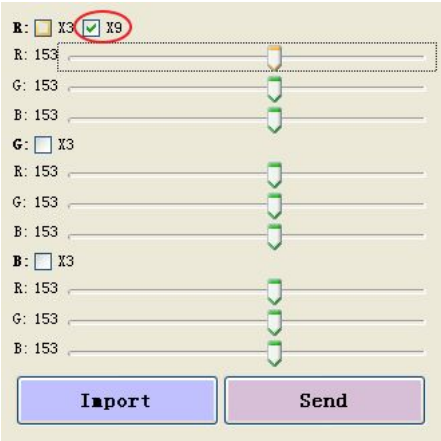
The range of one color temperature adjusting is 0~320. We recommend controlling it between 0~256.

The color temperature adjusting for single panel (Box) or module mainly consists of the follow three aspects.

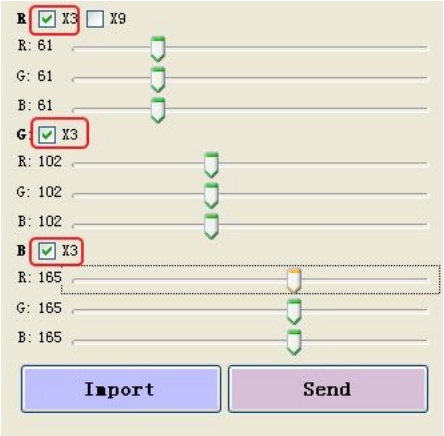
(1) Adjust the value of R (red), G (green) and B (blue) for the three colors at the same time and proportion.

(2) Adjust the value of R, G and B for one color at the same time and proportion.

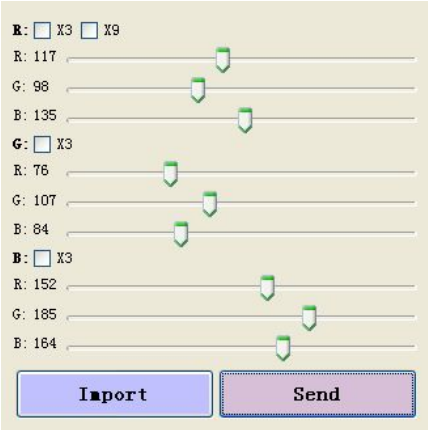
(3) Adjust the compensation value of R, G and B separately for one color R or G or B.



(1) Adjust the value of R, G and B for the three Colors at the same time and proportion



(2) Adjust the value of R, G and B for one color at the same time and proportion.



(3) Adjust the compensation value of R, G and B separately for one color.

Suggestion: It is better to have the LED screen display red; green, blue and white color and then adjust the corresponding color. For instance, check whether the white color is closed after completing the setting of the red color, green color and blue color. Generally speaking, the white color will be closed once you set the red color, green color and blue color closed. If the blue color has a little difference, the visual effect of the LED screen will be obviously different.

From practical experience, it is difficult to adjust the color temperature completely same as others by this Color Temperature Setting interface. But it can adjust the color nearly same as other LED panels or modules and reduce the visual effect difference.

3.6 Manufacturer Set

Manufacturer Set is mainly used for send the specific data by our engineers according to the LED module style. Users do not need to use this function.

Appendix 1 Signal output cutting method of VSD-F2L4 controller (Important)

There are four serial network signal (OUT1~OUT4，represented by A, B, C, D) and two serial optical fiber signal (OUT1~OUT2) for VSP-F2L4 controller. A, B, C, D

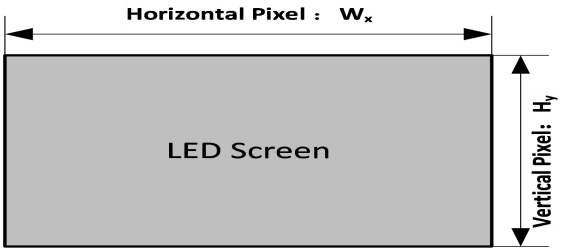
The first optical fiber output signal equates the sum of network OUT1 and OUT2 output signal, that is, signal A and signal B. The second optical fiber output signal equates the sum of network OUT3 and OUT4 output signal, that is, signal C and signal D.

The maximum output resolution is 1920x1080 of the controller. The input video signal can be horizontal segmentation or vertical segmentation according your setting. For specific principles, please see the following introduction. Please select proper way according to the screen size and some other conditions.

Signal Horizontal Segmentation of VSP-F2L4 controller (Applicable to all products)

Horizontal Segmentation means that the signal is divided into four parts from top to bottom, through the controller's signal output port (OUT1~OUT4) as shown above. The size of the display area is the same for each output port.

Assuming that the LED screen pixel resolution is Wx×Hy, Wx is horizontal pixel size, Hy is vertical pixel size, as shown below:



The output resolution for each controller's port is W×H ,W represents the width of horizontal resolution of this controller port, H represents the height of vertical resolution of this controller port. The values of W and H must meet the following conditions.

(1) W≥Wx ， H<768

(2) W×H≤2048×300

(3) W≤256×integer【(2048*300)/H/256】，integer means integral part。

The relationship between H and H_y as follows (n represents the quantity of controller ports which be used, n=1,2,3,4)

(4) N=1, it means just use on controller port. H_y≤H<768

(5) n≠1, H_y/ n≤H<H_y/(n-1),(n=2,3,4) ；

Attention please: The value of H is a whole-number multiple of the pixel quantity of one LED panel. Otherwise, the display image of the LED screen will discontinuous.

a. W≤768, H max=800

b. W≤1024, H max=600

c. W≤1280, H max=480

d. W≤1536, H max=400

e. W≤1792, H max=342

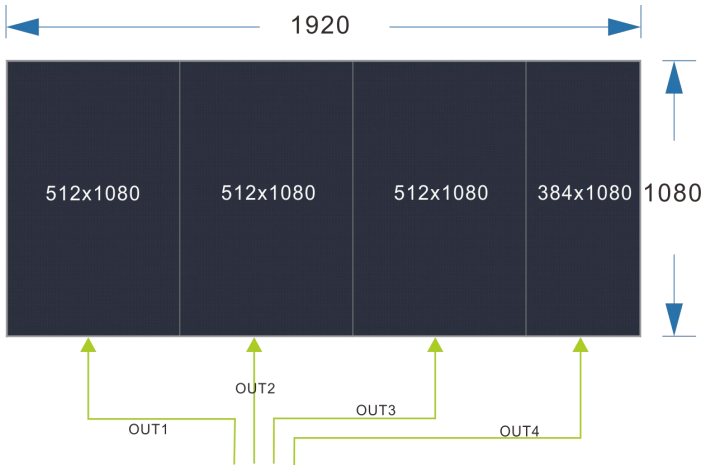
f. W≤2048, H max=300

Signal Vertical Segmentation of VSP-F2L4 Controller

The first way: Output resolution for each controller port is 512×1080（W×H）

The fixed output resolution for each controller port is 512×1080（W×H）when the port resolution set to W=1920，768≤H<1280 as shown below picture.

Usually is used for P3.9, P8, P15, P31 and some other products.



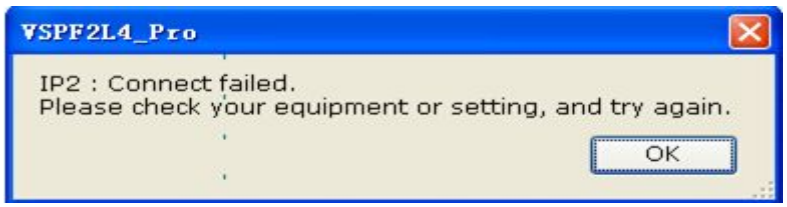
The second way: Output resolution for each controller port is 480×1080（W×H）

The fixed output resolution for each controller port is 480×1080（W×H）when the port resolution set to W=1920，H≥1280.

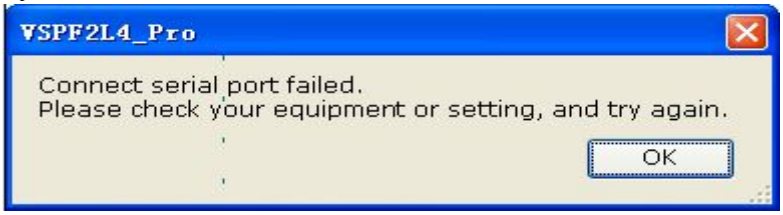
Usually be used for P6，P10，P12 and some other products.

Appendix Ⅱ Failure Analysis and Troubleshooting

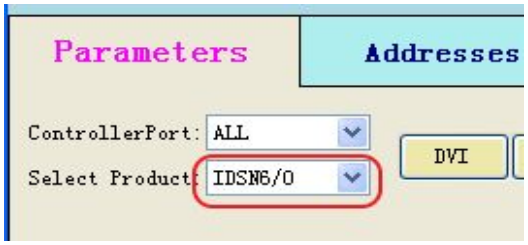
1.If you are prompted that IP connection failed, please check whether the IP of network port set correctly and network cable is workable and the controller IP and the computer IP are in the same LAN network.



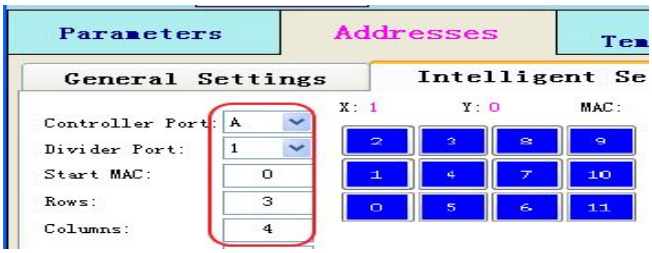
2. If you are prompted that serial port send / read failed, please check whether the COM port of the control software you selected is the same as the control computer's COM port, check whether baud rate is 57600 and whether you have installed the USB driver correctly.



3. When you are sending parameters, the screen is controlled but it shows a strange lines or splash of colour, please check whether DVI has been connected correctly, whether the resolution of the display card has been set into a common resolution which is above 1280*1024. Furthermore, make sure product type is selected correctly. Select the right product type before sending parameters as the following picture.



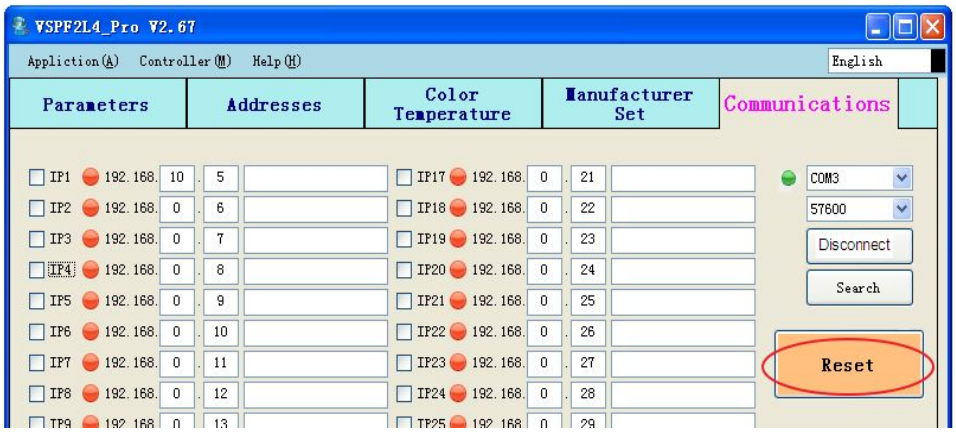
4. If the LED screen image has no response when you are adjusting the address, check whether the COM port is connected and been set correctly, and check whether the ports of the controller and signal divider be selected correctly. Generally speaking, you will see images of LED screen will change follow the change of address setting in real time. You will see the images of LED screen vary with the changes of address setting in real time



5. If USB communication port cannot be found in the Device Manager of the

computer, please check whether you have installed the USB driver correctly. After installing the USB driver, some computers need to restart and re-plug the USB cable in order to identify the communication port, or need to update the USB driver in the Device Manager, or re-open the control software again.

6. Sometimes LED screen may be missing colors (namely no calibration data) during displaying, please try to repower the screen or click “reset” in “communications” of the control software for several times, as the following picture:



7.When some individual LED Screen is missing colors, such as the below image, it may be because the control software cannot read color calibration data, please try to repower the screen or click “reset” in “communications” of the control software for several times.

8. If the image of the LED screen is discontinuous, flash or wrong after control system has been connected, please check whether the address, the parameters and the port set correctly in the control software, if the LED pixel resolution is out of your input source resolution.