



INSTRUCTIONS

S6F

USER MANUAL

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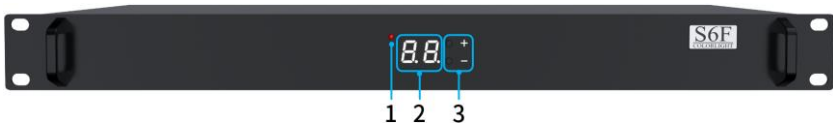
1. Overview

S6F possesses powerful video signal receiving capacity, and supports DVI&HDMI HD signal input and loop output, in which max input resolution is 1920×1200 pixels. Meanwhile, 6 Gigabit Ethernet and 3 optical fiber outputs support big LED display of 4096 pixels in maximum width or 2560 pixels in maximum height.

S6F adopts dual USB2.0 interfaces for high-speed configuration and easy cascading, and the operation is simple and convenient. Also, it equips a series of versatile functions, which have many advantages in applications of manufacture and engineering.

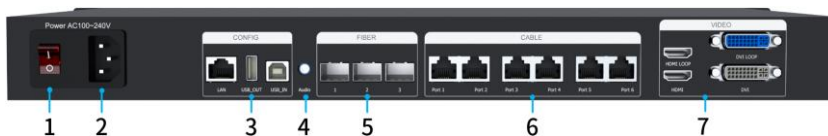
2. Hardware

Front panel



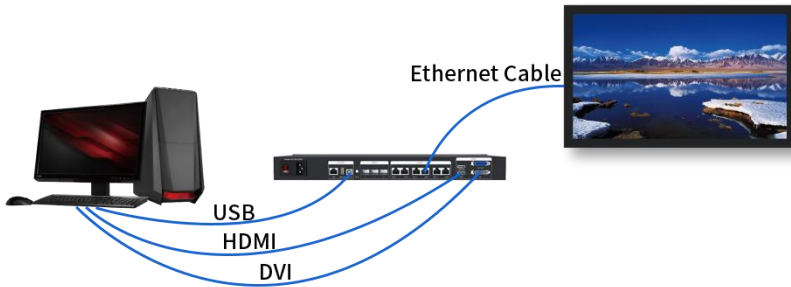
No.	Name	Function
1	Power signal light	Light on indicates device power supply is normal
2	Digital tube	Brightness level display, 0~16 levels - 0 level: brightness minimum, brightness value is 0 - 16 levels: brightness maximum, brightness value of 100
3	+ / -	Brightness level adjustment - Each level of brightness reference value of 6.25, there may be an error within the allowable range

Rear panel



No.	Name	Function
1	Power switch	On/off
2	Power input	AC power input, AC 100~240V
3	LAN	Communication with PC or access network
	USB_OUT	USB output, as cascading output
	USB_IN	USB input, connect with computer for configuration
4	Audio input	Input audio signal and transmit to the multifunction card
5	Optical fiber port	3 single-mode dual-LC fiber outputs - SFP module is optional
6	Output port	6× RJ45, connect to receiving cards and support screen splicing
7	HDM, HDMI LOOP	HDMI signal input and loop output
	DVI, DVI LOOP	DVI signal input and loop output

3. Hardware Connection



1) Power Supply (PCI):

AC 100~240V

2) Video Signal Input (DVI/HDMI):

Connect PC with S6F through proper DVI/HDMI cable.

3) Screen Configuration (USB):

Use a standard USB A/B cable to connect S6F with PC for S6F configuration.

4) Ethernet Cable (RJ45):

Connect S6F sender with the receiving card via Ethernet cable for controlling receiving card and the screen.

* The Ethernet cable must be CAT5E or CAT6.

4. LEDVISION Installation and Pre-Config

4.1 Computer Configuration

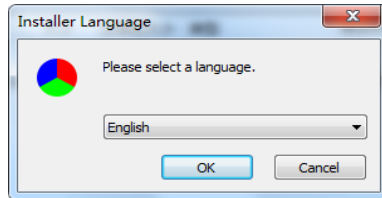
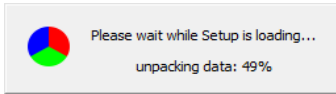
- CPU Frequency $\geq 2.0\text{GHz}$;
- Host Memory $\geq 1\text{GB}$;
- Graphic card with DVI/HDMI interface: Memory $\geq 512\text{MB}$;
- The resolution of PC's graphic card should be equal to or larger than the actual LED display's.

Computer configuration can be adjusted according to the actual situation. Adjustment mainly aims at total pixels of LED display, the complexity of playing contents and whether playing HD video or not.

4.2 LEDVISION Installation

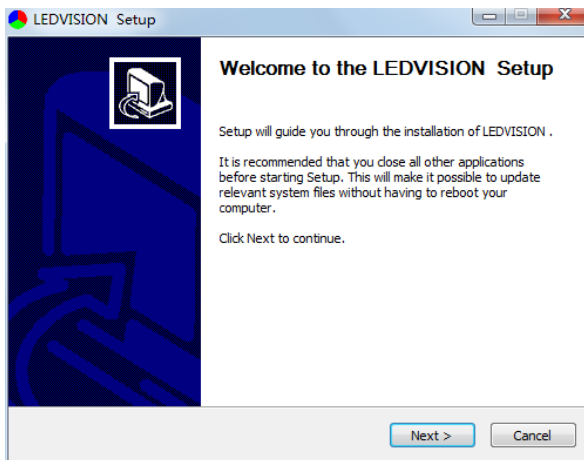
Please download the installation package of the LEDVISION software from Colorlight' s official website www.colorlightinside.com, and complete the installation according to the diagrams shown below.

- ① Run the software package, and select **English** for installer language. Click **OK** to move on.

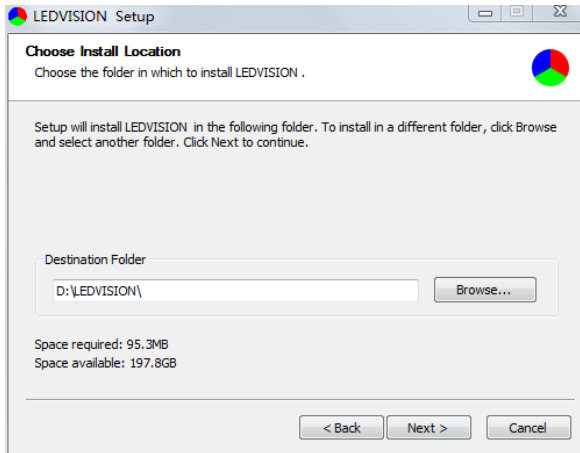


* Run LEDVISION version 5.0 or higher while using S6F.

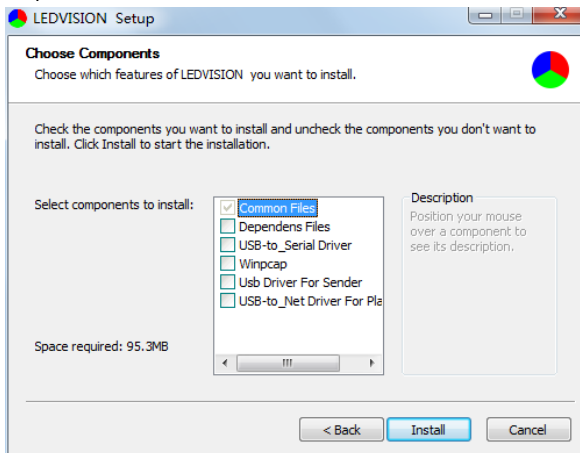
- ② After selecting a language, an installation wizard like below will appear, click **Next**.



Then choose installation location, click **Browse** to change default target location, then click **Next** after completing.



Choose components according to your own computer status, click **Install** to complete.



After the installation is complete you are ready to use LEDVISION.

4.3 Graphic Card Settings

Set up the working mode of the computer graphic card after completing hardware connection and powering S6F on, you can select **Duplicate Mode** and **Extend Mode** according to the different requirements.

- **Duplicate Mode:** That the contents displayed on LED screen are consistent with computer, that is to say, copy the computer contents onto LED screen, as pic below.



PC Screen

LED Screen

- **Extend Mode:** That the contents displayed on LED screen are inconsistent with computer, that is, to extend a display image from the right side of PC screen, which is consistent with LED screen's, we also call it "Background Playing", as pic below.

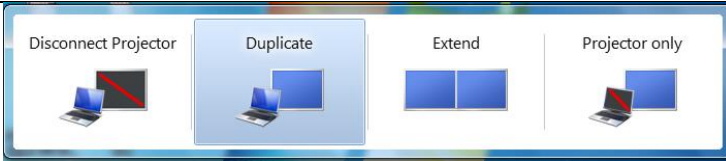


PC Screen

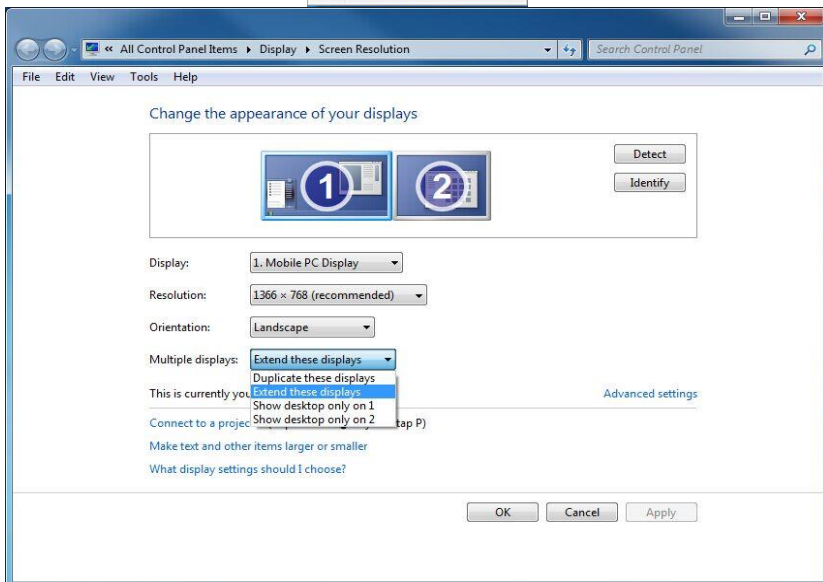
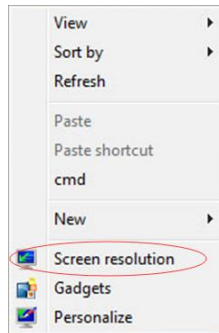
LED Screen

For different computers, there are different ways to change the mode. Take **WIN7/8** system + **NVIDIA** graphics card as an example, please read the following setting ways.

- **Method1:** Hold down the **WIN** and **P** keys at the same time, and select the mode as you want in the pop-up window.



- **Method2:** Right-click and select **Screen resolution** to enter the page of Modify the display appearance.



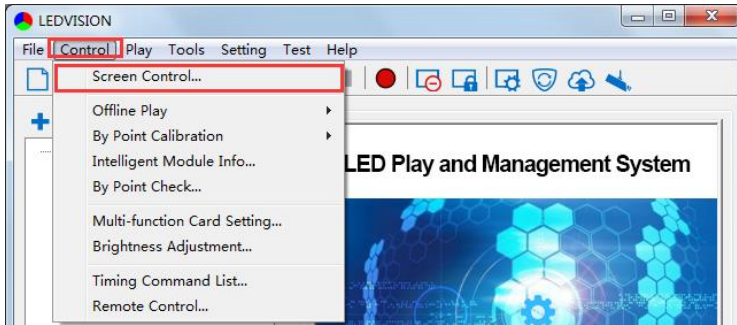
* As for other kinds of graphic cards, if there is no corresponding window, please refer to the user manual of the graphic card.

5. Pre-Config

Please make sure the correctness of the hardware connection before setting, use LEDVISION to detect sender and all receiving cards.

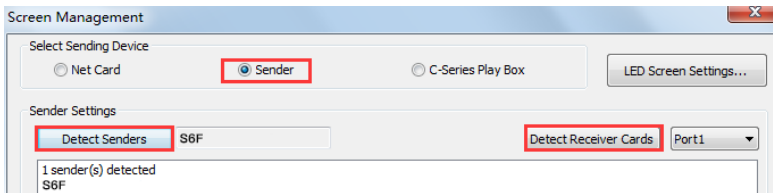
5.1 Detect Sender and Receiving Card

1. Run LEDVISION, click **Control** > **Screen Control** to enter the Screen Control window.



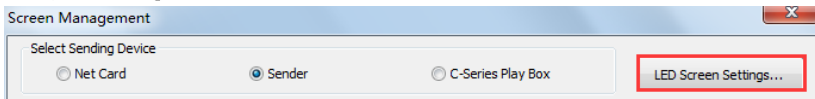
2. Select **Sending Device** for **Sender**, click **Detect Senders** in **Sender Settings**. Please check the hardware connection or the installation of relevant driver if cannot detect senders.

Select network port and click **Detect Receiver Cards** respectively, the software will automatically acquire the receiver card quantity of each network port of the sender. Please check corresponding cable if the numbers of receiver card are inconsistent with actual status.



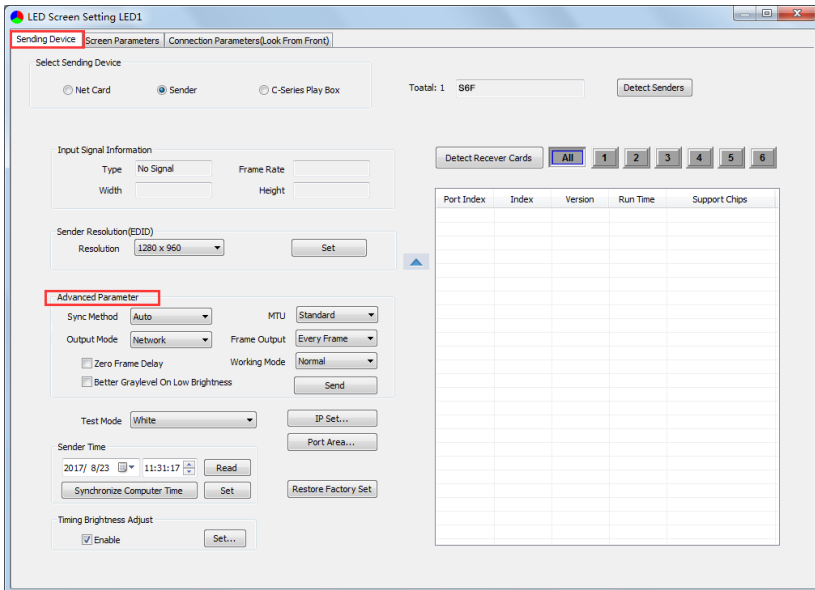
5.2 LED Screen Setting

Click LED Screen Settings to enter the LED Screen Setting interface, and set up Sending Device, Screen Parameters, Connection Parameters.



5.2.1 Sending Device Setting

Configure on the relevant parameters of the sender in Sending Device.



Input Signal Information: Display the sender info that auto acquired via the software, which only provided for reference, and did not support personally set up.

Sender Resolution: Generally, sender resolution must be consistent with the graphic card's.

Advanced Parameter: Prepare for professionals for special applications settings, no operation allowed for non-professionals.

Advanced Parameter includes the parameters listed below:

Sync Method: Default "Auto".

Maximum Transmission Unit (MTU): Default "Standard", and consult with the technician if you need to apply to "Long".

Output Mode: Default “Network” , and consult with the technician if you need to apply to “Optical Fiber” .

Frame Output: Default “Every Frame” , and consult with the technician if you need to apply to “Every Other Frame” .

Zero Frame Delay: Default unchecked, and should be enabled by technician under special status.

Better Graylevel on Low Brightness: Default unchecked, and should be enable by technician under special status.

Working Mode: Default “Normal” , and consult with the technician if you need to apply to “Loop Backup” .

IP Set: Set up IP address, select “Automatically obtain an IP address” , then the sender would auto obtain the IP address; or it would manual set up IP Address, Subnet Mask and Default Gateway.

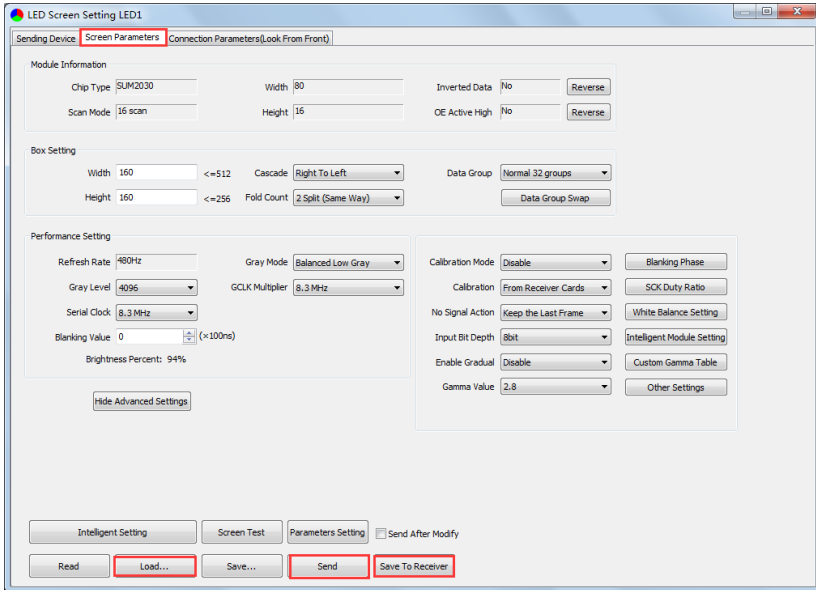
Port Area: Set up the control area of each net port of S6F (X, Y, Width, Height).

Timing Brightness Adjust: Enable Timing Brightness Adjust, set up time periods and corresponding brightness.

5.2.2 Screen Parameters Setting

Observe the display screen with single cabinet as an unit, and if all cabinets themselves could display normally {it is normal circumstance even the picture between cabinets is not continuous}, please ignore this step and directly go to the next step.

Otherwise, configuration must be done as follows:



Click **Load**, choose the correct parameter file.

Click **Send**, to send the loading parameters to the receiving cards. At the moment, each cabinet should display normally (it is normal circumstance even the picture between cabinets is not continuous), then click [**Save to Receiver**] to save the parameters to the receiving cards.

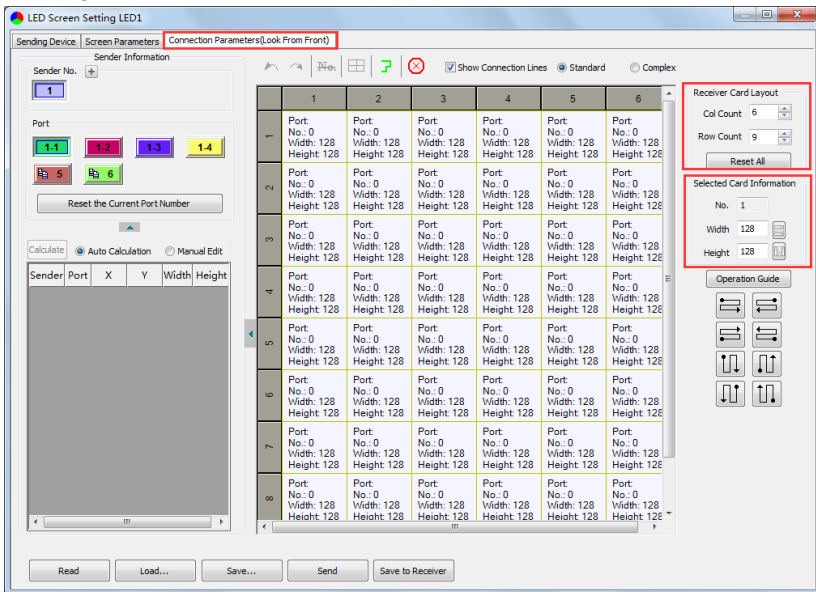
If each cabinet cannot display normally, you can conduct via the **Basic Setting** (**Module Information**, **Box Setting**, **Performance Setting**) or **Intelligent Setting**, and you can also contact with the LED screen engineers.

5.2.3 Connection Parameters Setting

Users don't need to set up the control area of each net port respectively, but to the connection relationship between the receiving cards under the network port loading via each sender, and the software will auto calculate and set up the port control area according to the connection relationship.

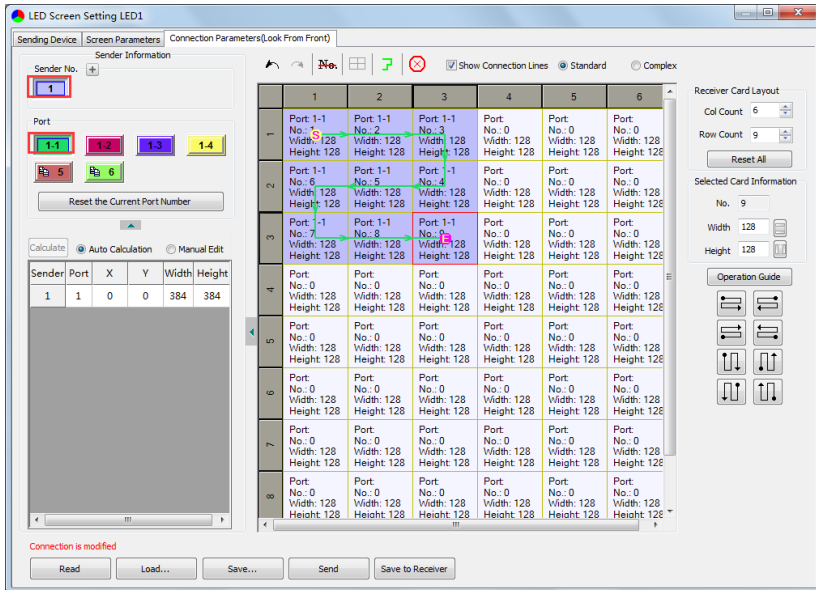
① Set up the quantity of receiving card

Set how many receiver (receiving card) that one port manages in Row Count and Col Count (6*9 as an example) according to the actual loading of LED display, you will see LED display mapping area from the right side (Viewing from the front of LED display).



② Receiving Card Parameters Setting

Select the target **sender** and the **net port** from the left side, then select the corresponding **cabinets** within net port actual control area and set the connection lines in the mapping area.



There are two methods to set up:

Use mouse to select one by one:

In the mapping area, select the first receiving card based on the actual connection of the net port (view from the front), and then set up the actual loading width and height of the target receiving card in the right side (128*128 as an example).

Click the receiver (receiving card) one by one, according to actual connecting line, until the last one for this network port loads.

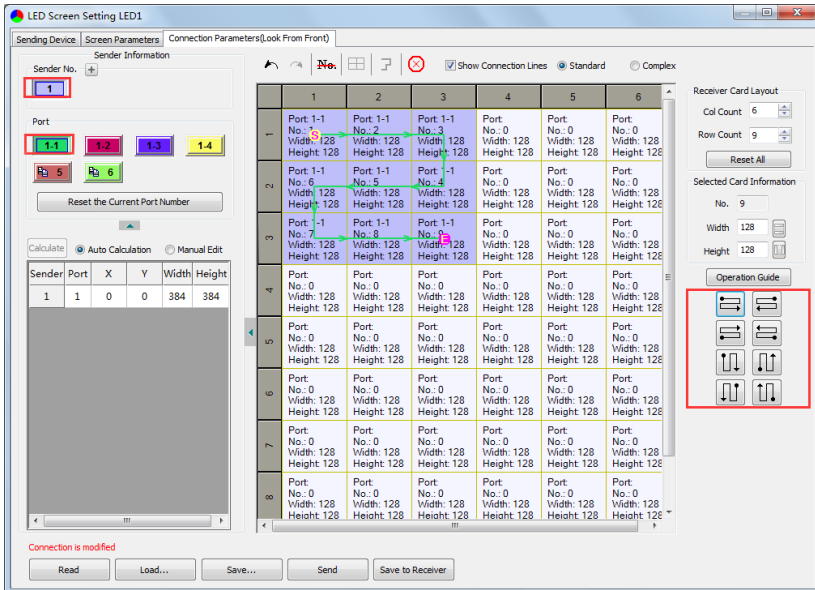
Connection Pattern:

Aiming at the LED screen with standard connection lines, firstly set up the receiving card information according to the actual loading width and height (128*128 as an example).

Select the connection line from the right side, then cover the corresponding area of net port loading in mapping area, finally complete

setting.

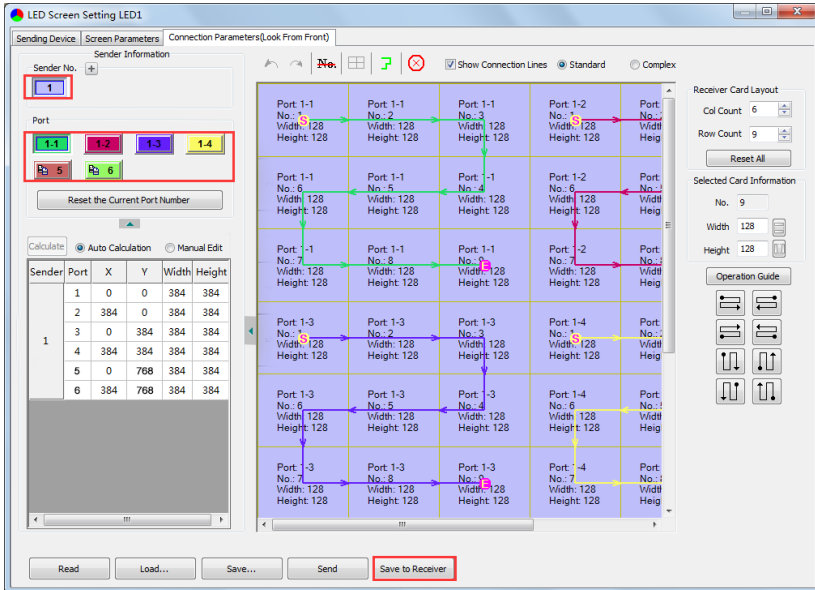
* As the cabinets have multiple and different specification (that is the inconsistent capacity of the receiving card), you can select the different one to adjust separately after completing setting.



③ Send & Save to Receiving Card

After setting up all the receiving card parameters and connection lines respectively, click **[Send]** to send the correct parameter to the receiving card, and the screen should display normally at this time.

Then click **[Save to Receiver]** to save parameters to corresponding receiving card after confirming.





Visual Future

Colorlight Cloud Tech Ltd
www.colorlightinside.com