



LedOK Express

Instructions

Version: V2.0

Statement

Dear user friend, thanks for choosing Shanghai Xixun Electronic Technology Co., Ltd. (hereinafter referred to as Xixun Technology) as your LED advertising equipment control system. The main purpose of this document is to help you quickly understand and use the product. We strive to be precise and reliable when writing the document, and the content may be modified or changed at any time without notice.

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Connection of Controller

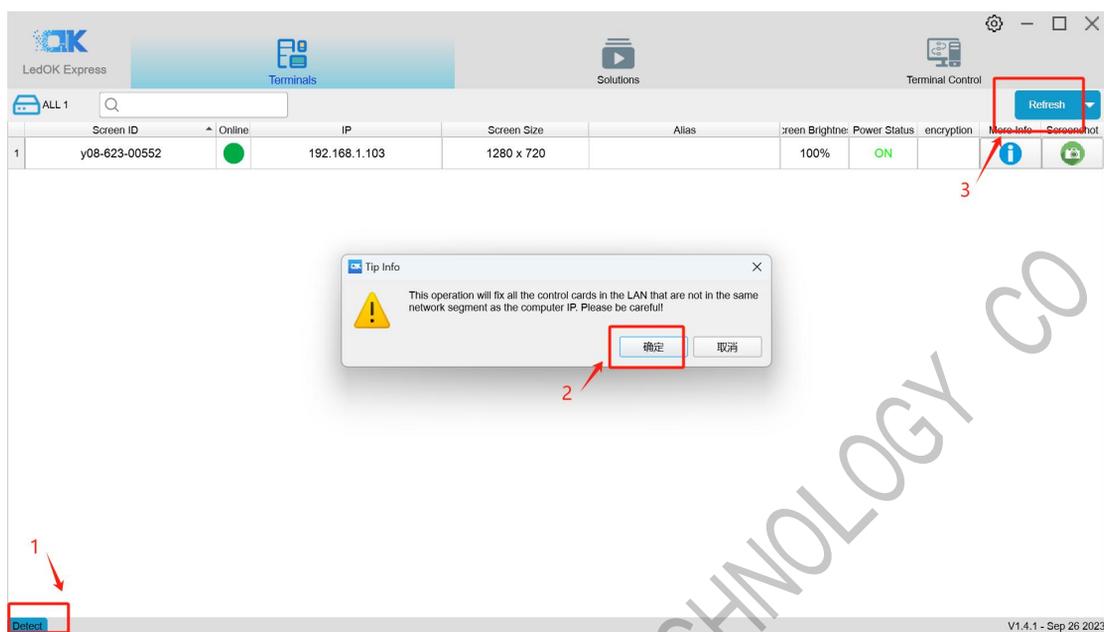
There are two ways to connect the device to the computer. The first way is to connect to a hotspot emanating from the controller itself, and the other is to connect directly via a network cable.

1. Connect the controller hotspot: controller hotspot name is the control card number, hotspot password default: 12345678. For example: the card number of the controller is: y08-623-00552, then open the computer WIFI column can be searched for a y08-623-00552 WIFI, click to connect and enter the password: 12345678. Then you can connect to the controller.



2. Use a network cable to connect directly: Using a network cable, plug one end of the cable into the computer's network port and one end into the network port labeled Computer on the controller. Turn off the firewall and antivirus software of the computer first. Then open the LedOK software, click on the 'Terminal' in the lower left corner of the 'detect',

and then click to confirm, and then click on the upper right corner of the refresh, you can find the controller, as shown in the figure.



Note:

After the network cable is directly connected to the computer and controller, click 'detect' did not find the controller, please check whether the following conditions are realized:

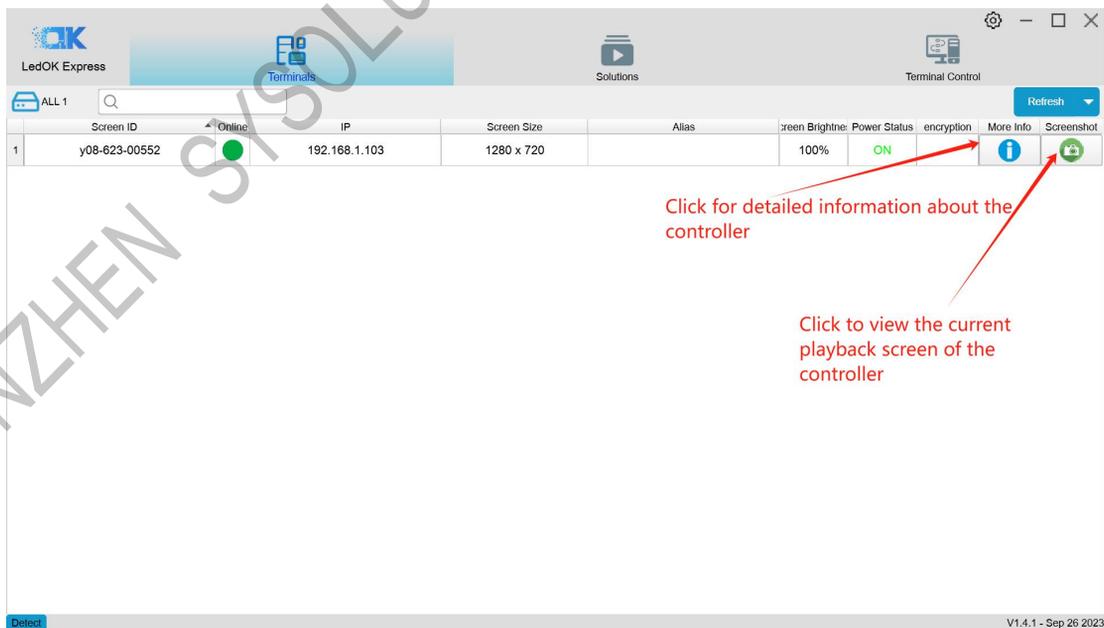
- (1) Check whether the computer has an unknown Ethernet access, if not, please check whether the controller and network cable connection is incorrect, can be judged by whether the controller network port light is normal flashing
- (2) Whether the firewall of the computer is closed and whether the antivirus software is stopped.
- (3) The IP address of the computer must be set to the automatic acquisition status.

LEDOK Main Function Introduction

1. After connecting the hardware device, open the LedOK Express software and you can see the three main functions above the interface.



2. View the basic information of the controller in 'Terminals' interface, as shown in the figure.



3. The solution management interface allows you to add and manage programs.

	Name	Resolution	File Size	Last Modified	USB Update	Publish
1	11	128 x 128	164 KB	2023-12-29 12:53:42		
2	20230815104436814	64 x 64	377 KB	2024-01-09 12:55:13		
3	20230815140251916	64 x 64	125 MB	2023-08-15 14:05:53		
4	20230831093923012	64 x 64	203 B	2023-08-31 09:45:49		
5	20231025150713036	512 x 256	385 B	2023-10-25 15:07:46		
6	20231213140338124	512 x 256	205 B	2023-12-13 14:07:04		
7	20231213151033331	512 x 256	205 B	2023-12-13 15:13:14		
8	20231213151317521	512 x 256	205 B	2023-12-13 15:14:20		
9	20231213151422795	512 x 256	205 B	2023-12-13 15:14:50		
10	20231213154332743	512 x 256	205 B	2023-12-13 15:45:33		
11	20231213154536289	512 x 256	691 B	2023-12-13 15:45:56		
12	20231213154940657	64 x 64	685 B	2023-12-13 15:50:02		
13	20231213171452596	64 x 64	747 B	2023-12-13 17:15:27		
14	20231227142447610	512 x 256	205 B	2023-12-27 14:27:08		
15	20231227165114370	512 x 256	205 B	2023-12-27 16:52:09		

4. The terminal control interface allows you to set the following functions of the controller.

Terminal Control interface showing the 'Brightness Config' settings for a terminal. The interface includes a top navigation bar with 'Terminal Control' and 'Refresh' buttons. Below the navigation bar is a list of terminal configurations with columns for 'Screen ID', 'Online' status, and 'IP'. The 'Brightness Config' section is currently active, showing options for 'Auto', 'Manual', and 'Schedule' brightness control. It also includes sliders for 'Sensitivity' and 'Minimum Brightness', both set to 1%. A note states: 'If the maximum brightness is 64, the minimum brightness can be configured as 1% or appropriate value; if the maximum brightness is 255, the minimum brightness must be configured as 36% or above, otherwise the brightness will be low.' There are 'Set' and 'Readback' buttons for both sliders. At the bottom, there are radio buttons for 'R68/RL3' and 'RL2' sensor types, with 'Upload file' and 'Readback' buttons. A 'Cur Brightness:' field with a 'Refresh' button is also present.

Terminal Control Introduction

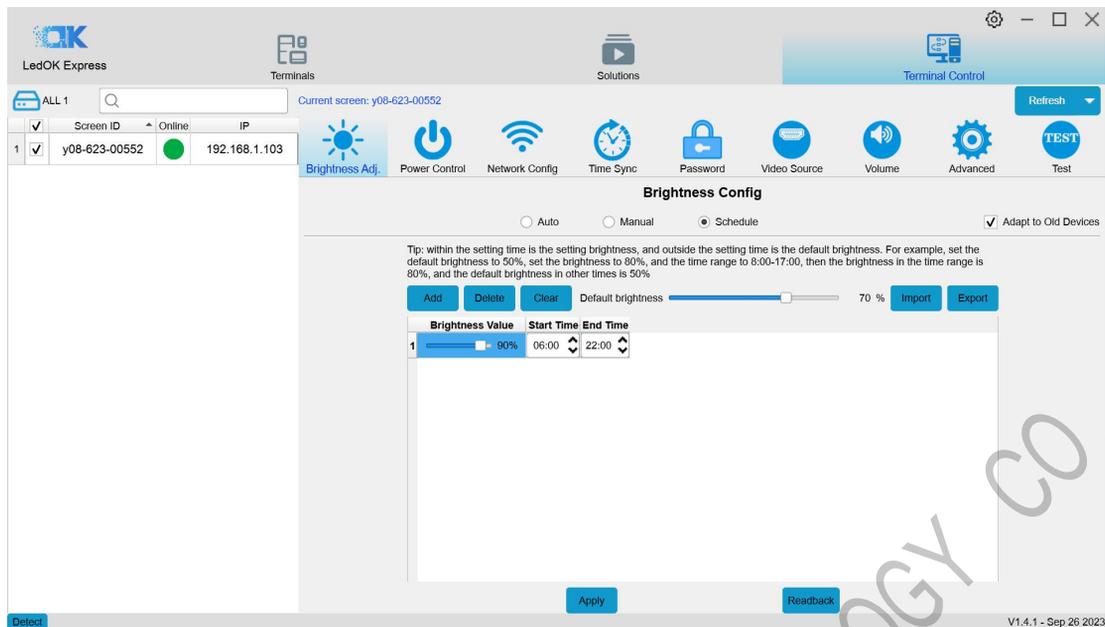
Brightness Adjust

There are three ways to set the brightness of controller:

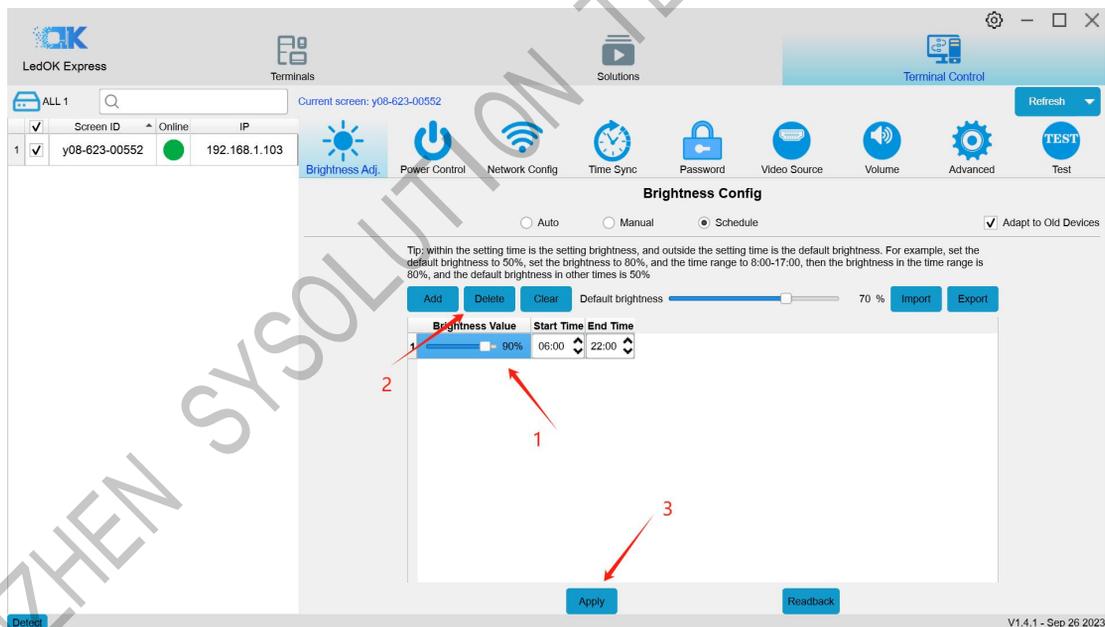
1. Manual: the range is from 0 to 100%. Check the controller you want to set the brightness on the left side, then check the right side of the adapted old devices, drag the progress bar to set the brightness rate you want, and then click "Set", click the 'Readback' button, you can get the current brightness.



2. Schedule: Click "Schedule" to enter the schedule interface, click "Add" to add the schedule brightness task, check 'adapt to the old device', set the brightness and time range as well as the default brightness. The default brightness will only take effect after the timed brightness time is over. For example, if the default brightness is 70%, the set brightness is 90%, and the time range is 6:00-22:00, then the brightness in the range of 6:00-22:00 will be 90%, and the default brightness will be 70% in other times. Then click "Apply", click "Readback" to view the current timed brightness tasks of the controller.



3. Delete schedule task, select the task and click 'Delete', then click 'Apply'. You can also adjust the controller brightness in the 'manual', which will also clear the schedule task of the controller.



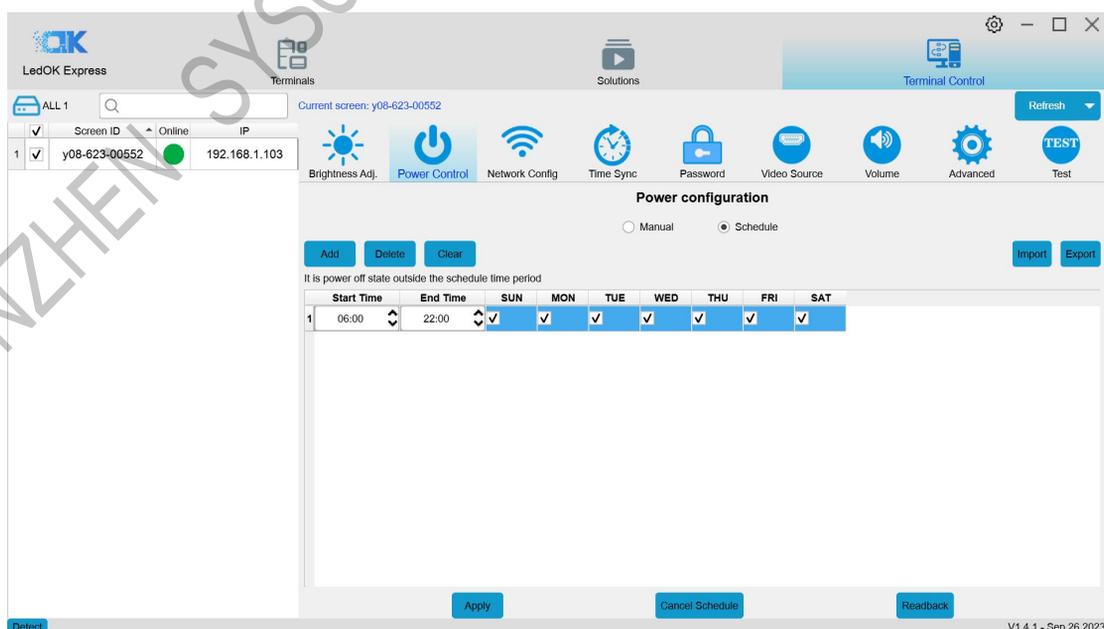
Power Control

There are two ways to set the power switch of the controller: (1) Manual: check the left side of the controller that you want to set the power switch, click on the "Switch" button to set the screen switch, click on the "Readback" button to get the current status of the controller's

on/off screen.



1. Schedule: Click the 'Schedule' button to enter the schedule interface. click 'Add' to set the range of time and week for the controller to switch on and off, and then click to check the controller on the left side of the screen and click "Apply", then you can set up the timer to switch on and off the screen. Click 'Clear' to clear the power on/off schedule set by the controller, and click 'Readback' to check whether the power on/off schedule is set on the controller.

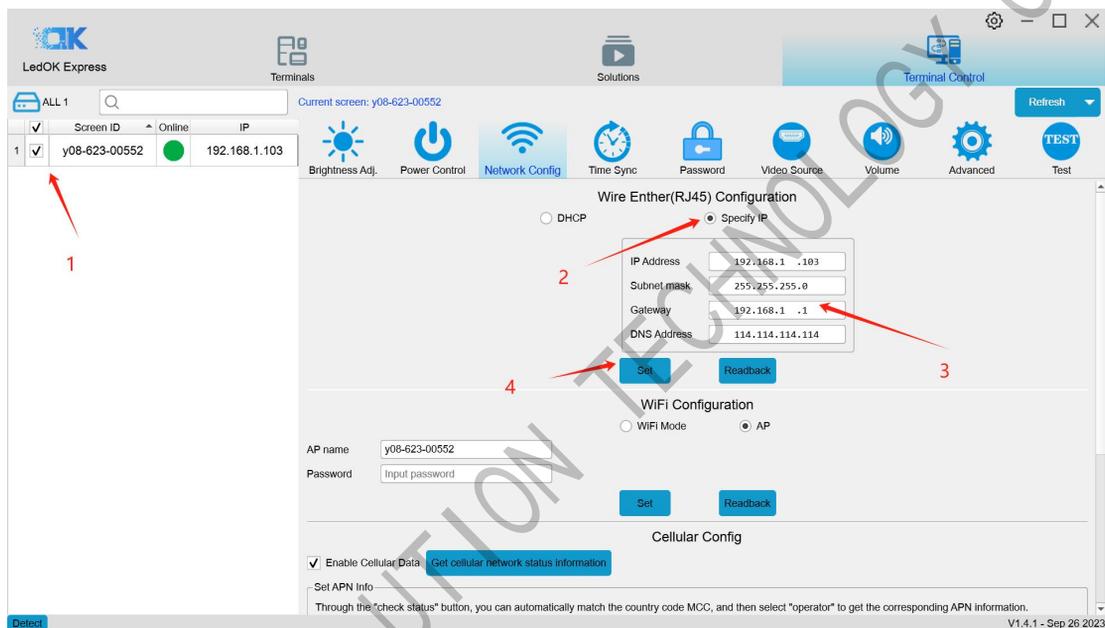


Network Configuration

There are three ways for the controller to access the network, which are Wired Ethernet, WiFi and 4G. Different models of controller according to the application to choose the way to access the network (one of the three options).

Wired Ethernet Configuration

Network configuration, first is Wire, can setup the controller IP address.



NOTES:

1. Controller will get access to internet by wire as first priority.
2. Must remove the LAN cable from controller if choose WIFI or 3G internet and choose automatically acquisition IP.

WiFi Configuration

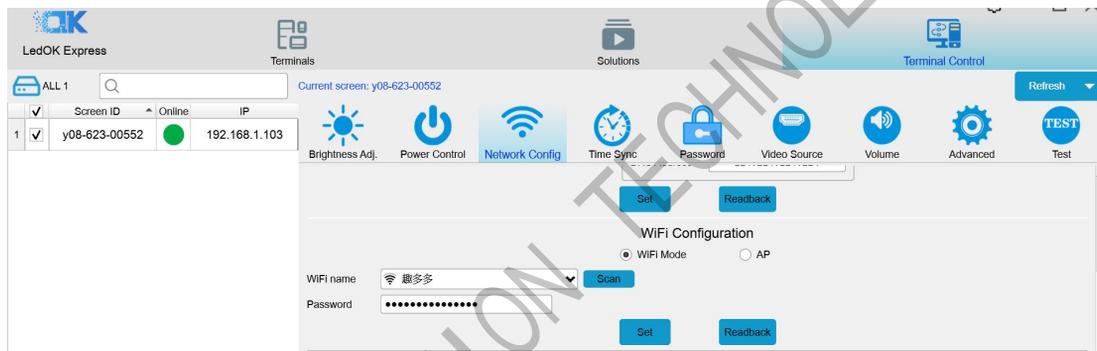
Turn on WIFI and scanning WIFI hotspot, then enter wifi password and click save.

Wait for about 3 minutes, controller will come online. Please watch the "Internet" light, if it flashing regularly means online success, go to AIPS platform and check it.

Check 'WiFi' and wait for about 3 seconds, then click "Scan" to scan for available WiFi. Select WiFi and enter the password, then click 'Save' to save the WiFi configuration to the controller.

NOTES:

If there is a network cable inserted into the controller at this time, you need to unplug the cable. If there is a WiFi dip switch on the controller, you need to dial the dip switch to the WIFI position, and the controller will automatically connect to the configured WIFI hotspot.



Wait for about 3 minutes, controller will come online. Please watch the "Internet" light, if it flashing regularly means online success, go to AIPS platform (www.ledaips.com) and check it.

NOTES:

1. If could not scanning the WiFi, please try to turn on/turn off Software or WiFi Switch.
2. If controller can't get access to internet through WiFi, please double check the steps below:

below:

- A. WiFi antenna plug correctly.
- B. WiFi password is correct or not.
- C. If the Wireless router being accessed too many terminals?

- D. E series controller switch on WIFI mode?
- E. Try another WIFI hot spot.
- F. Y/M series controller , please make sure the LAN cable removed.

4G Setup

Check 'Enable Cellular Data' and select the country code MMC through the drop-down frame. Select 'carrier name' to get the APN information, and the specific identification of the carrier is shown in Figure 2; if you can't find the carrier, you can manually input the carrier information and APN information.

Click 'Set' , after success, wait for about 3 minutes for the controller to automatically unplug the 4G network into the network; observe the 'internet' light of the controller flashing evenly and slowly, that is to say, it has been accessed to the cloud platform.

If the 'internet' light does not flash, check whether the APN is set correctly.If there is no error, you can reboot the controller and wait for it to go online.

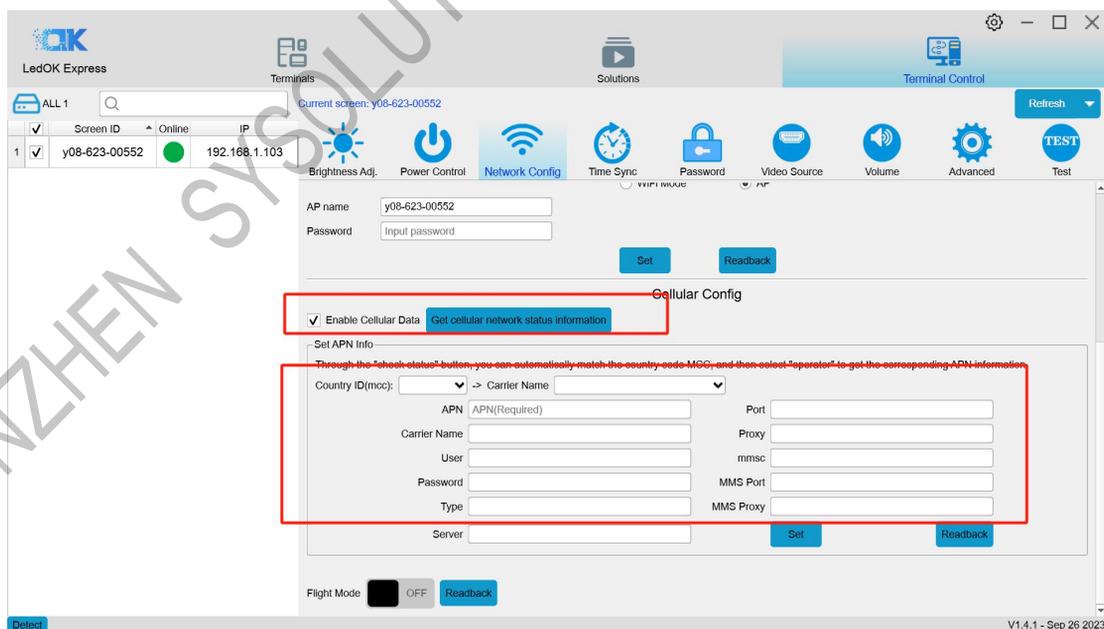


Figure 1

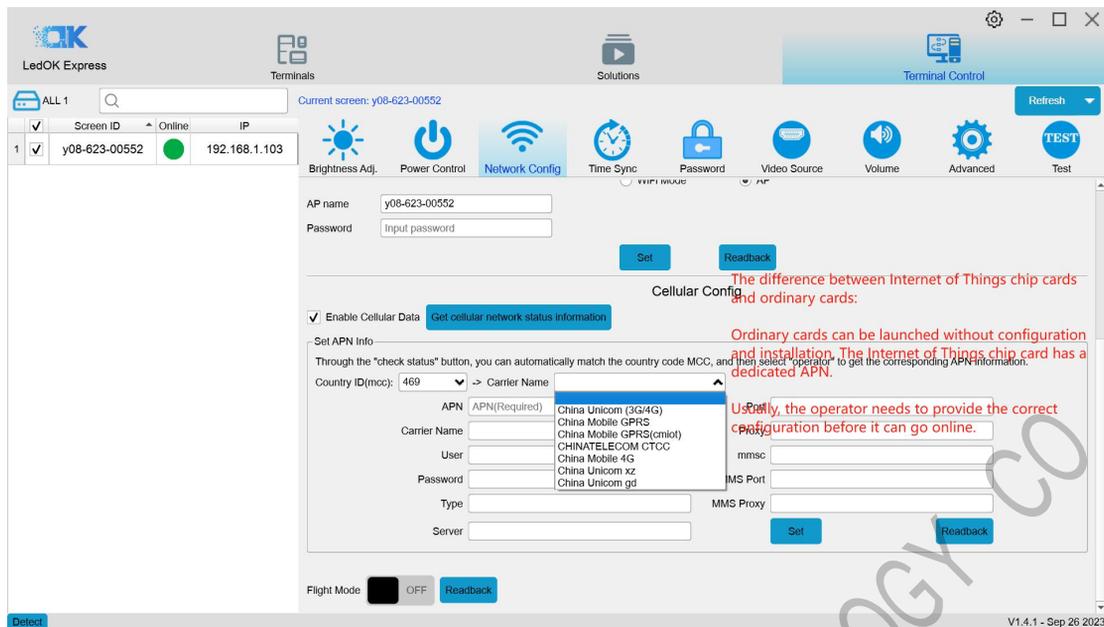


Figure 2

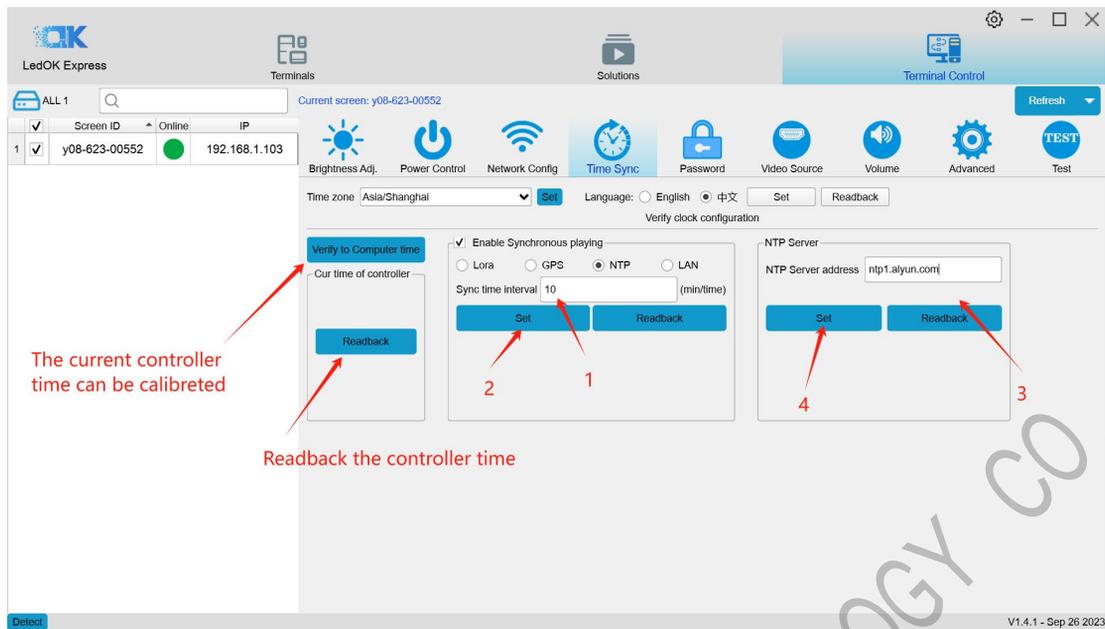
NOTES:

If controller can't get online success, please checking following things:

- A. 4G antenna has plugged correctly?
- B. Y/M series controller, make sure the LAN cable removed.
- C. APN is correct or not? (Consult with the carrier" available)
- D. SIM card has activate? SIM card has enough money and 4Gdata service?

Time Sync

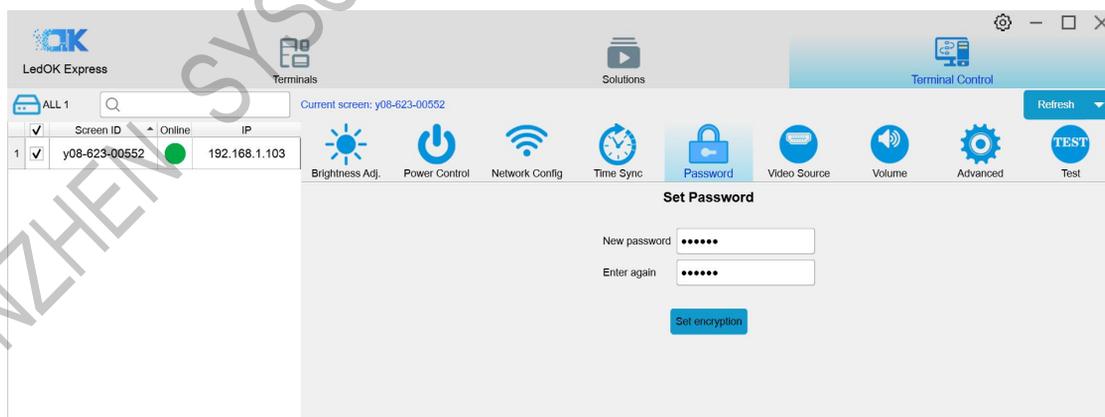
It is used for synchronized playback of the controller, after setting, the controller will automatically calibrate the time to synchronize the playback of the program screen. Click NTP, set the synchronization interval, click 'Set', then set the NTP server, the default server of the controller is: ntp1.aliyun.com, click 'Set'.

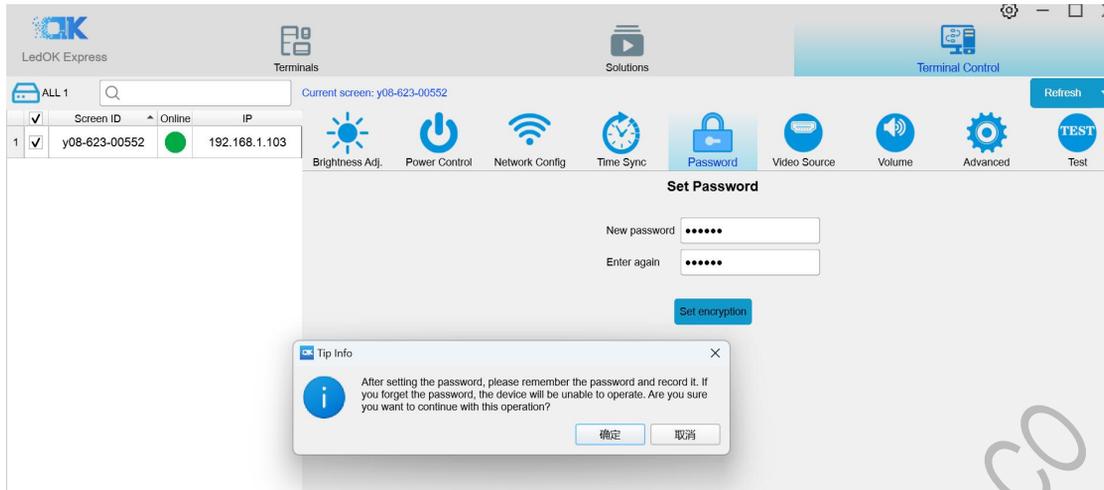


Set Password

(1) Demonstration of the encryption configuration function

Enter a new password for encrypted configuration (free setting, must be memorized!!!) , below enter the password to keep the same with the new password. After entering the encryption password, check the screen you need to control in the left navigation bar, click Encryption, a pop-up message prompt will appear, click OK, encryption is successful, a pop-up message prompts the successful execution of the encryption operation.





After finishing the above operations, click Solution Management to enter the interface for program publishing: select a program and click Publish.

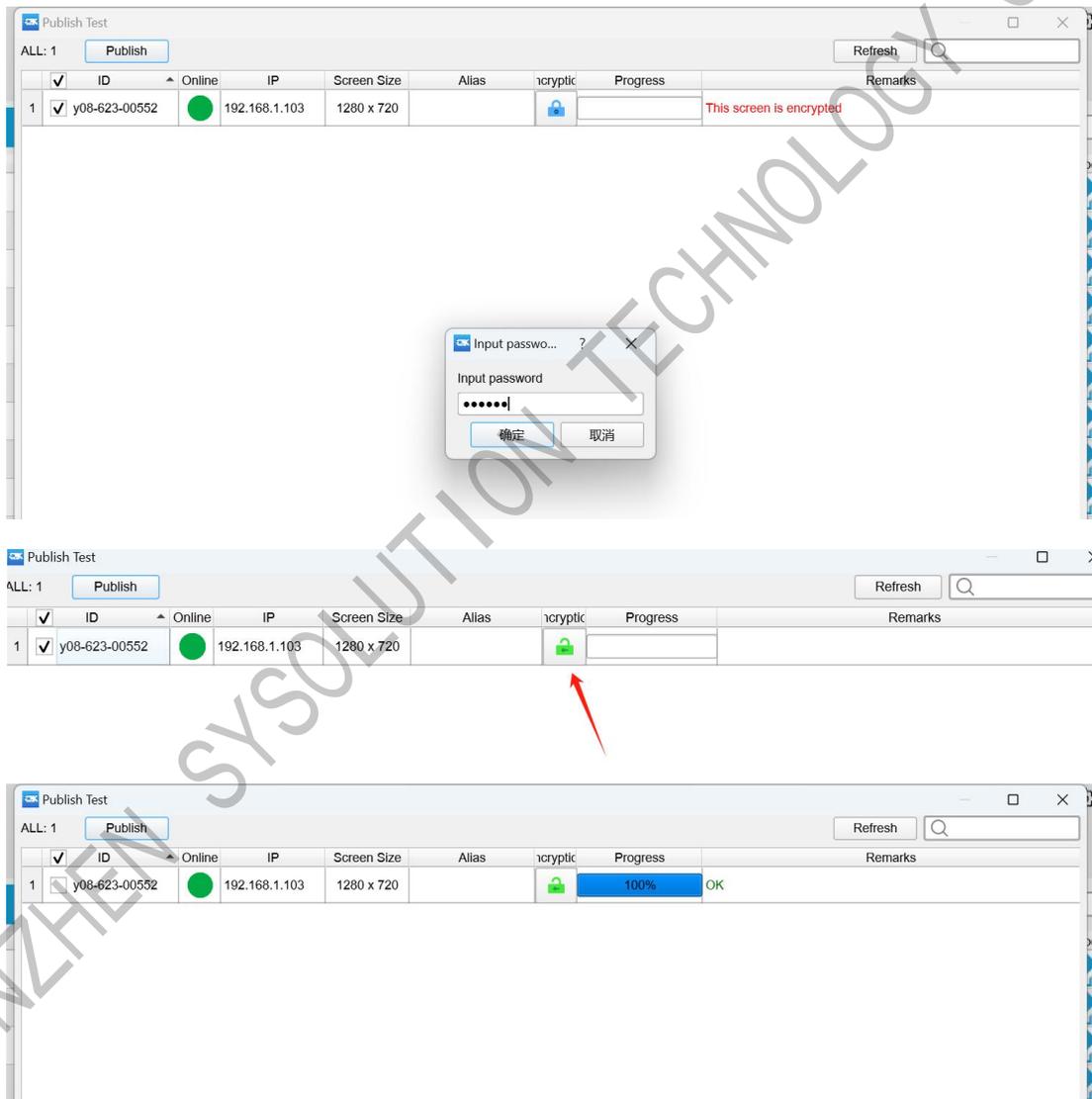
	Name	Resolution	File Size	Last Modified	USB Update	Publish
13	20231213171452596	64 x 64	747 B	2023-12-13 17:15:27	[USB]	[Publish]
14	20231227142447610	512 x 256	205 B	2023-12-27 14:27:08	[USB]	[Publish]
15	20231227165114370	512 x 256	207 B	2024-01-20 09:26:34	[USB]	[Publish]
16	20231227165213163	512 x 256	205 B	2023-12-27 16:52:34	[USB]	[Publish]
17	20231228154654879	512 x 256	656 B	2023-12-28 15:48:00	[USB]	[Publish]
18	20231228154826278	512 x 256	656 B	2023-12-28 15:48:51	[USB]	[Publish]
19	20231228154951664	512 x 256	656 B	2023-12-28 15:50:23	[USB]	[Publish]
20	20240102174831590	64 x 64	134 KB	2024-01-02 17:49:18	[USB]	[Publish]
21	20240102174920344	64 x 64	135 KB	2024-01-02 17:49:47	[USB]	[Publish]
22	22222	288 x 96	22.9 MB	2023-12-15 12:18:48	[USB]	[Publish]
23	green	64 x 64	16 KB	2024-01-02 18:06:48	[USB]	[Publish]
24	red	64 x 64	4.58 KB	2024-01-02 18:07:24	[USB]	[Publish]
25	Test	512 x 256	194 KB	2024-01-20 09:25:32	[USB]	[Publish]
26	Test 2	288 x 96	22.9 MB	2024-01-02 17:48:03	[USB]	[Publish]

You can see that the interface has a more encrypted logo, then continue to check the screen and then click on the lower right corner of the release button, in the progress column will appear screen has been encrypted this tip, at this time the program can not be published.

ID	Online	IP	Screen Size	Alias	cryptic	Progress	Remarks
1	✓	y08-623-00552	192.168.1.103	1280 x 720	[lock icon]		This screen is encrypted

(2) Encrypted method of publishing programs on screen

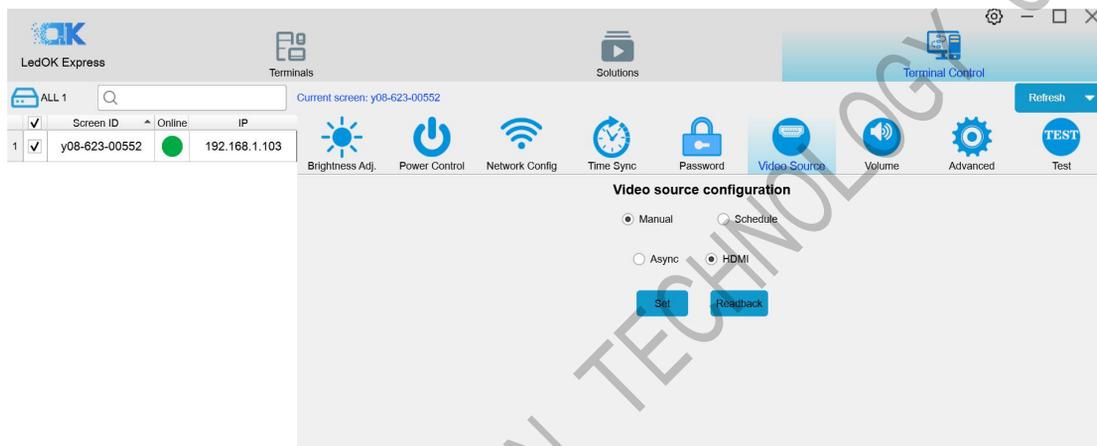
Method 1: Take the above operation, click on the encryption logo (lock icon), a pop-up window prompts for a password, which is the password configured in the previous encryption configuration. Enter the password and click OK, the lock of the encryption logo will be unlocked. At this time, then check the screen and click the lower right corner of the release can be published successfully.



Method 2: Re-enter the terminal control interface to select the encryption configuration function, enter the password of the previous encryption configuration, cancel the encryption, and then you can publish the program normally.

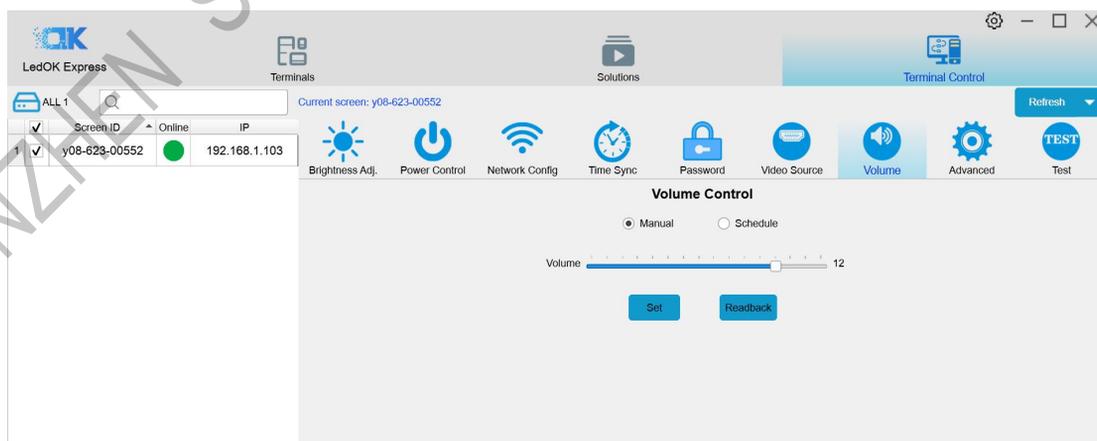
Sync&Async Setup

The channel can be manually switched between the sources of the picture played by the controller. Asynchronous playback is the program played by the controller, synchronous playback is the screen input from HDMI signal source. You can click "Readback" to read the current synchronous and asynchronous status of the controller. (Only applicable to controllers with synchronous/asynchronous switching function)



Volume Adjustment

There are two ways to adjust the volume: (1) manually: the range is from 0 to 15. drag to set the desired value, and then click on "Settings", click on the "Readback" button, you can get the current volume value.

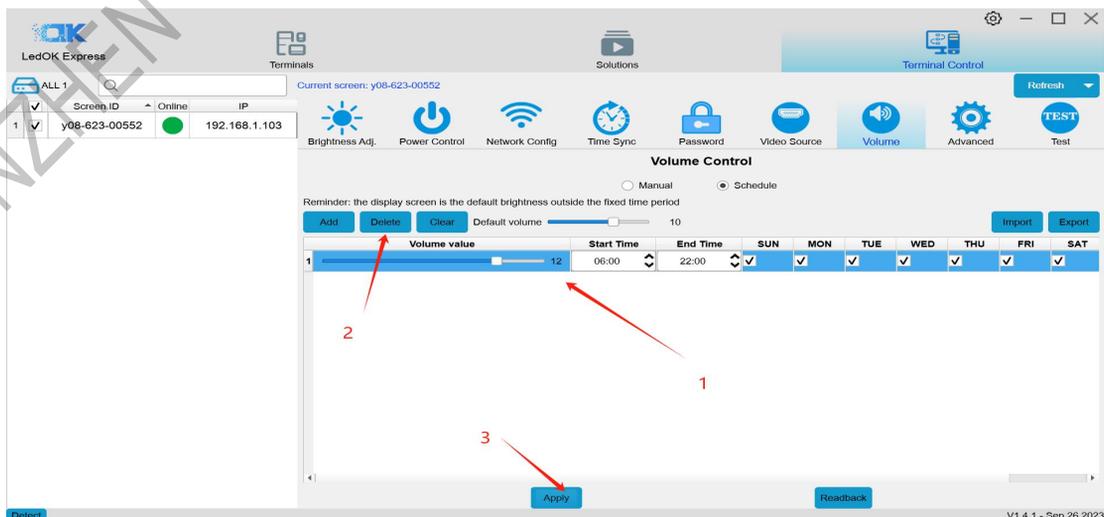


Schedule: Click 'Schedule' to enter the Schedule interface. Click 'Add' to add a timed

volume task. Set the volume, time range and default volume. The default volume will only take effect after the timed volume time is over. For example, if the default volume is 10, set the volume to 12, and the time range is 6:00-22:00, then the volume will be 12 in the range of 6:00-22:00, and the default volume will be 10 in the other time, and then click "Apply", and then click 'Readback' . Click 'Apply' , and then click 'Readback' to view the current timed brightness task of the controller.

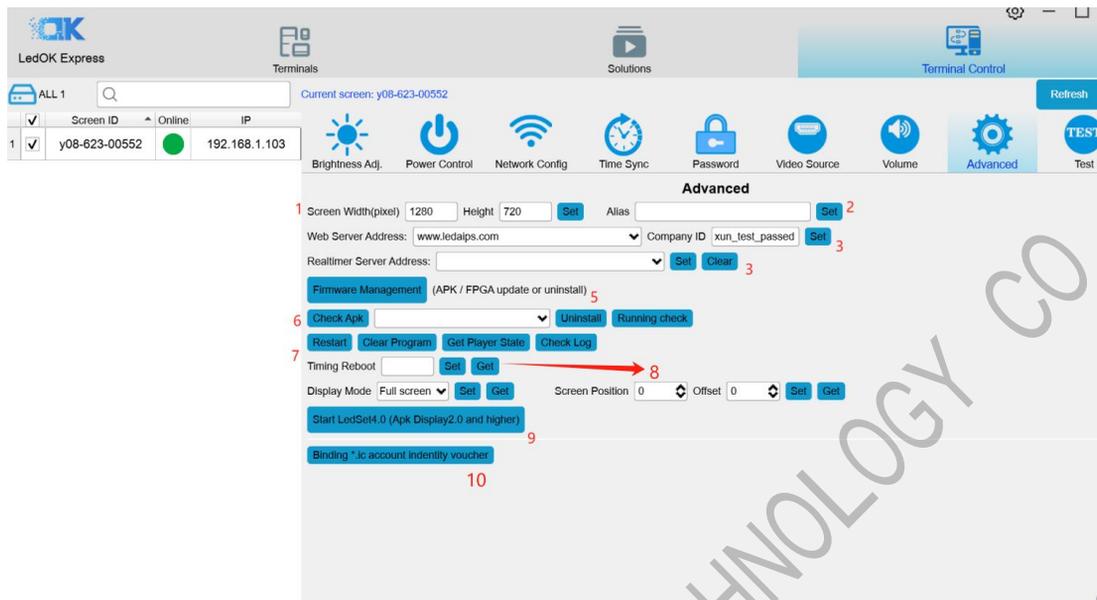


To delete a timed volume task, select the task and click 'Delete' , then click 'Apply' to delete the timed task. You can also adjust the controller volume in the manual interface, which will also clear the timed volume task for the controller.



Advanced

Advanced password: 888



(1) Setup Led Screen Width And Height : Input the LED screen width and height parameters and then click on the setup prompt success can be.

(2) Setting the controller alias.

(3) Set AIPS2.0 cloud platform: drop down to select the AIPS cloud platform address, www.ledaips.com.

Enter the company ID registered in the platform, click on the setup prompts success can be.

(4) Setting the address of AIPS 4.0 Intelligent IOT platform or the address of the customer's own platform

(5) Can uninstall and upgrade the controller software, please consult our technology to get the corresponding installation package and operating documents, please do not change privately.

(6) Query the software version installed on the controller.

(7) Restart the controller system

(8) clear the program being played

(9) LEDSET4.0 software, used to onfiguring the LED screen display parameters, please contact our technical cooperation debugging.

(10) binding Vehicle HUB platform

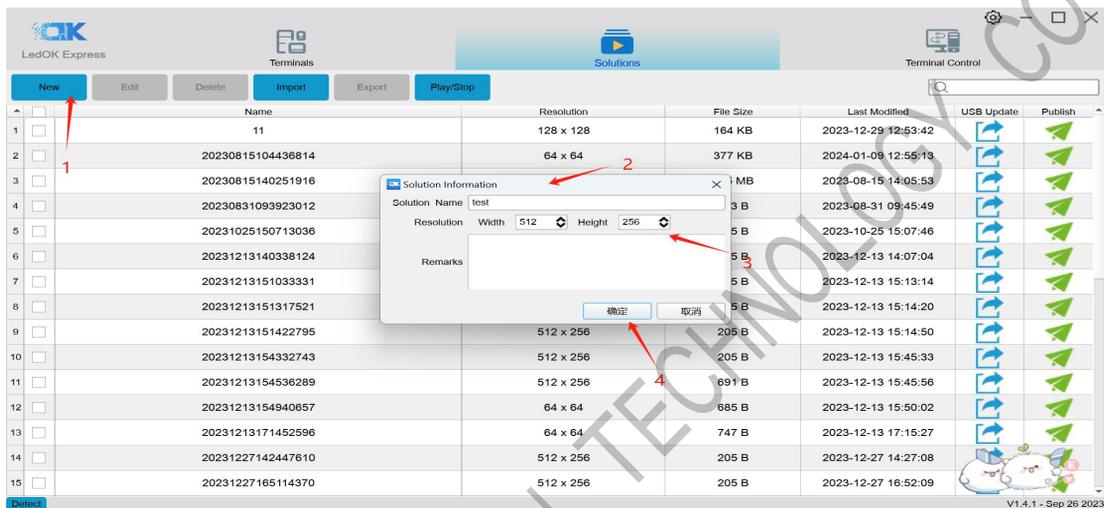
Note:

The above specific binding of each cloud platform, please refer to the following link:

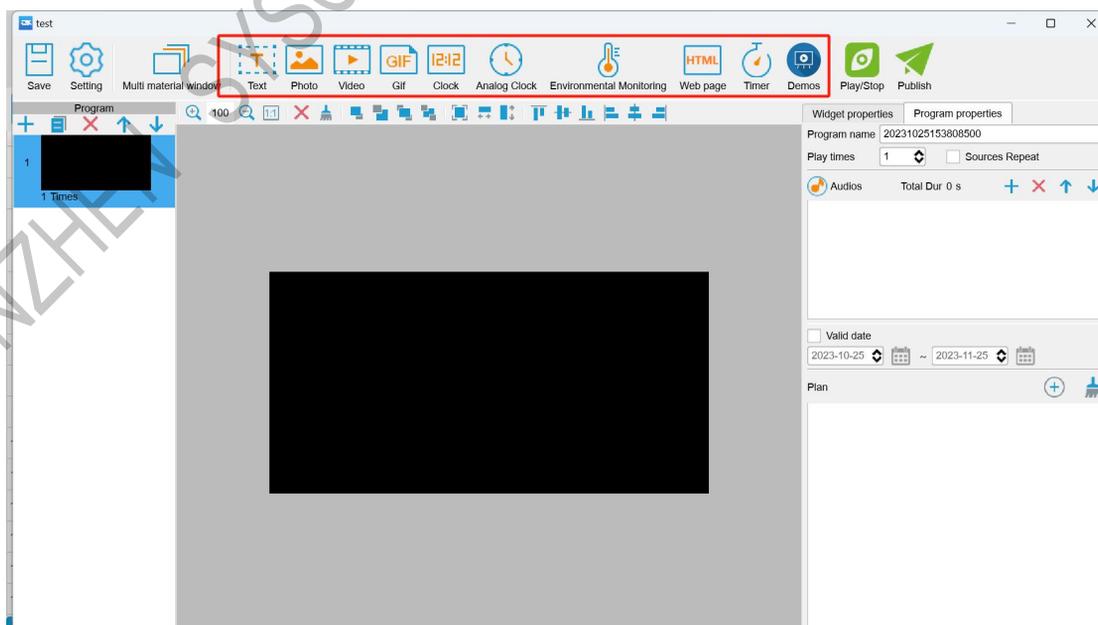
https://drive.google.com/file/d/1I4OaSztj7QkGoBTx0d9eJ_ZsGkFslAeS/view

LEDOK Upload /Publish Program

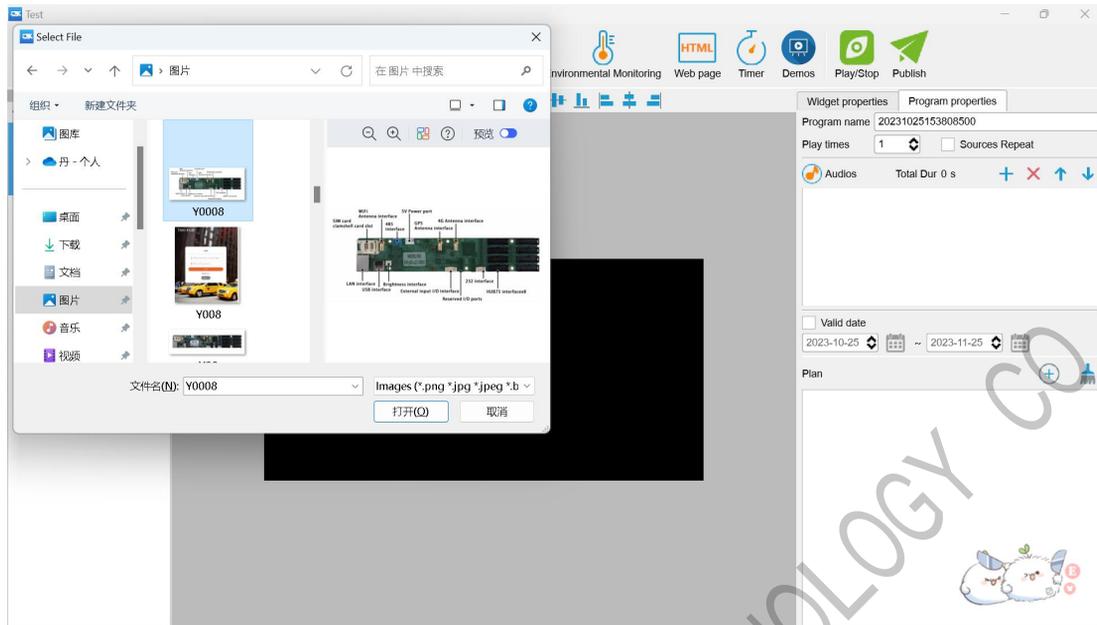
1. Open the program management interface, its name is Solution in software, then click 'New', input the program name and size information in the dialogue box and enter the editing interface.



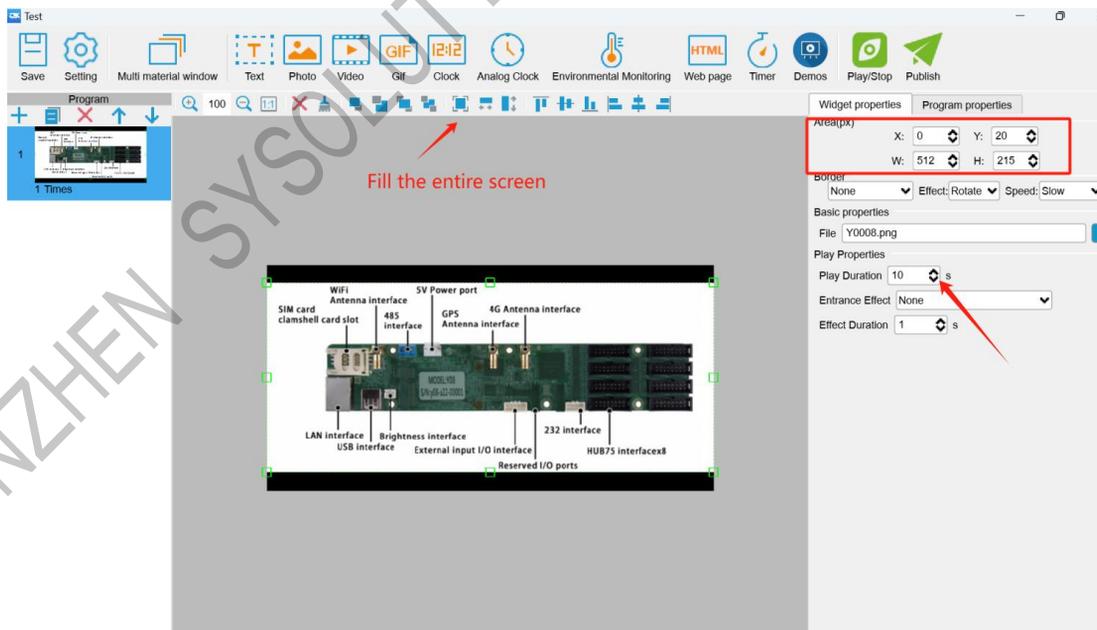
2. As shown in the figure, the top is the type of material that can be added, you can add video, pictures, text, digital clocks, analog clocks, etc., according to the need to choose, this article to pictures and videos as an example.



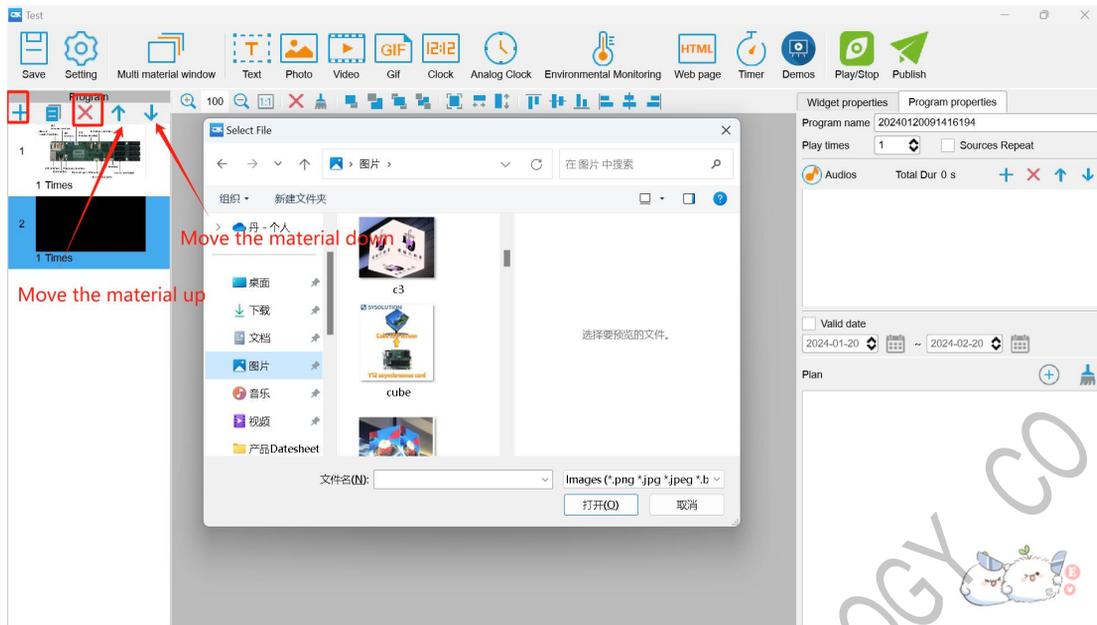
3. Click on the picture and select the picture you want to play.



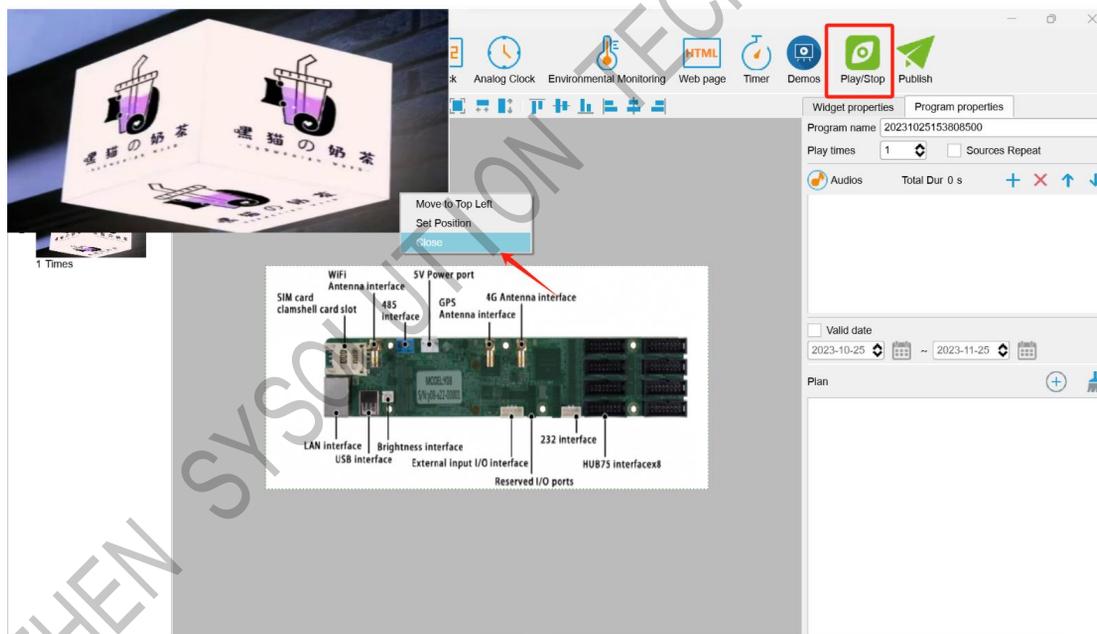
4. After the photo is added, you can click 'full screen' to make the photo spread all over the screen, or you can set the size of the material to make it full screen in the component properties on the right side. The default playback time of the added photo material is 10s, if you need to change the playback time, you can change it in the widget properties.



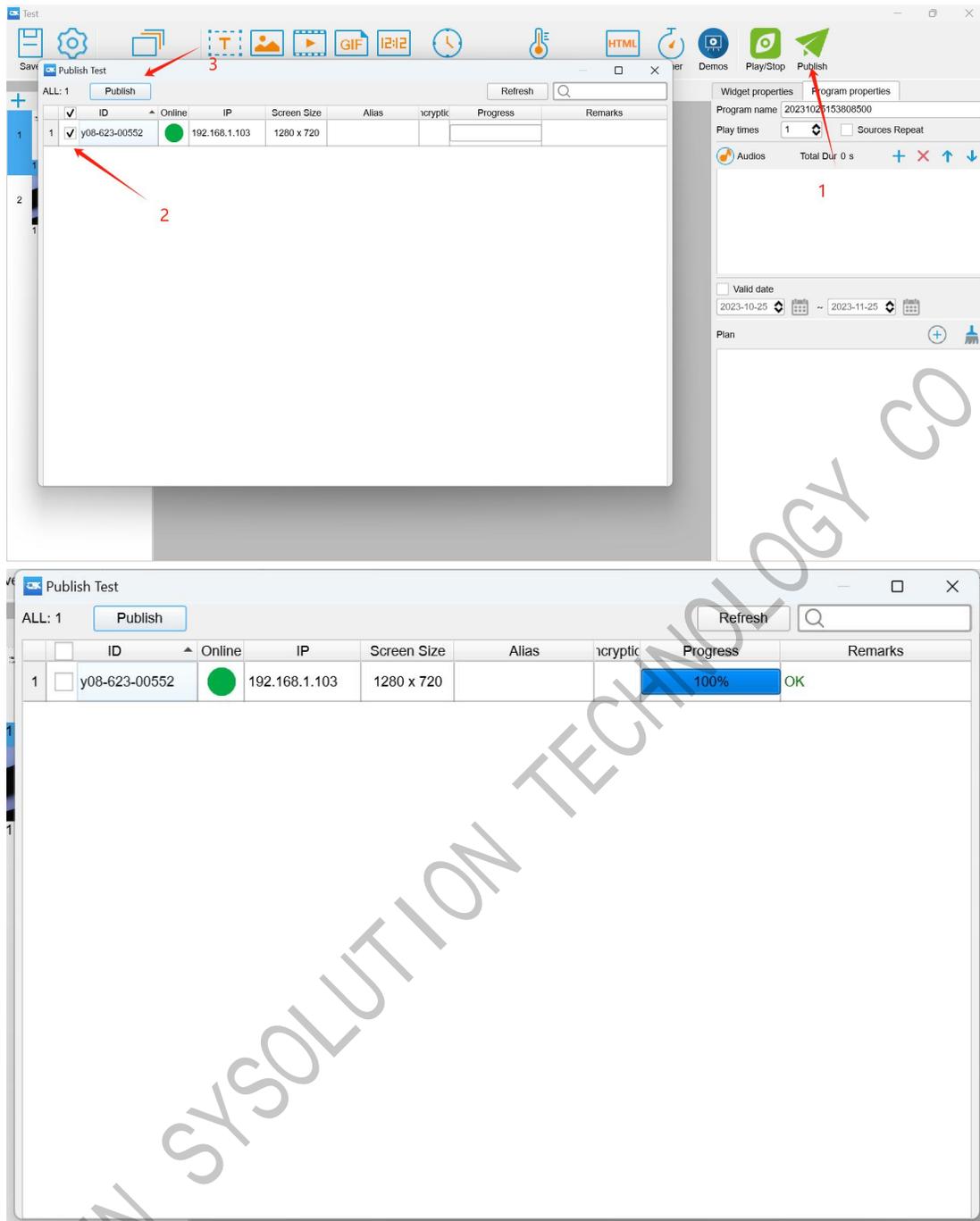
5. Click the '+' at the top left to add a second material and the 'X' to delete the material page.



- When the program is finished, you can click 'Play/Stop' on the top to preview the program. You can close the preview by clicking the right mouse button.



- Click publish button after done all setup, and select the controller id and click send, 100% means send success.



8. The finished program will present in the solution management. At this time, you can check the program and click "Edit" to enter the program page again to modify the program, and then follow the above steps to send the program.

LedOK Express

Terminals Solutions Terminal Control

New Edit Delete Import Export Play/Stop

	Name	Resolution	File Size	Last Modified	USB Update	Publish
13	20231213171452596	64 x 64	747 B	2023-12-13 17:15:27		
14	20231227142447610	512 x 256	205 B	2023-12-27 14:27:08		
15	20231227165114370	512 x 256	207 B	2024-01-20 09:26:34		
16	20231227165213163	512 x 256	205 B	2023-12-27 16:52:34		
17	20231228154654879	512 x 256	656 B	2023-12-28 15:48:00		
18	20231228154826278	512 x 256	656 B	2023-12-28 15:48:51		
19	20231228154951664	512 x 256	656 B	2023-12-28 15:50:23		
20	20240102174831590	64 x 64	134 KB	2024-01-02 17:49:18		
21	20240102174920344	64 x 64	135 KB	2024-01-02 17:49:47		
22	22222	288 x 96	22.9 MB	2023-12-15 12:18:48		
23	green	64 x 64	16 KB	2024-01-02 18:06:48		
24	red	64 x 64	4.58 KB	2024-01-02 18:07:24		
25	Test	512 x 256	194 KB	2024-01-20 09:25:32		
26	Test 2	288 x 96	22.9 MB	2024-01-02 17:48:03		
27	Test3	64 x 64	55.7 KB	2024-01-09 14:25:33		

Detect V1.4.1 - Sep 26 2023

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LedSet 4.0

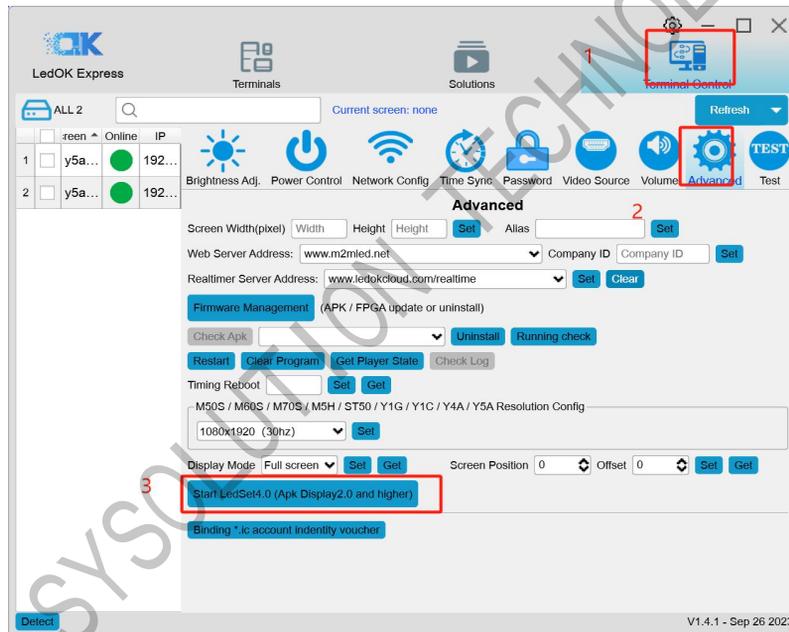
Please open Ledok Express software,

Click 'Terminal Control',

Click 'Advanced' ,

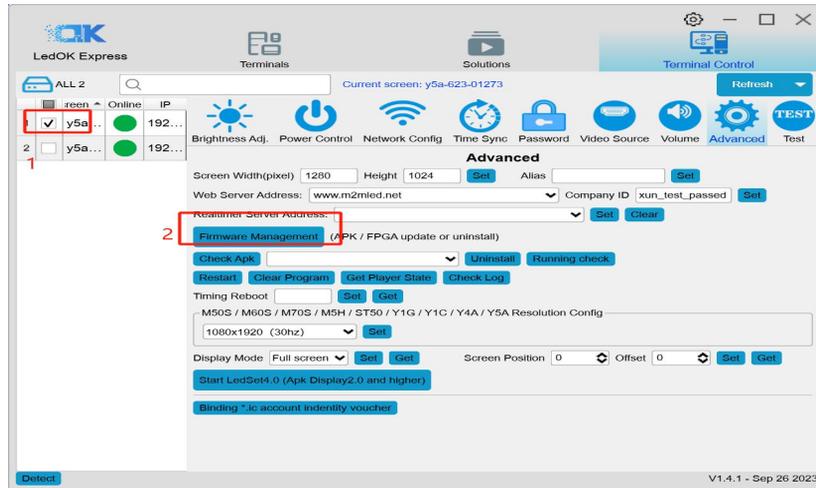
Enter password 888

Click 'start Ledset4.0' .

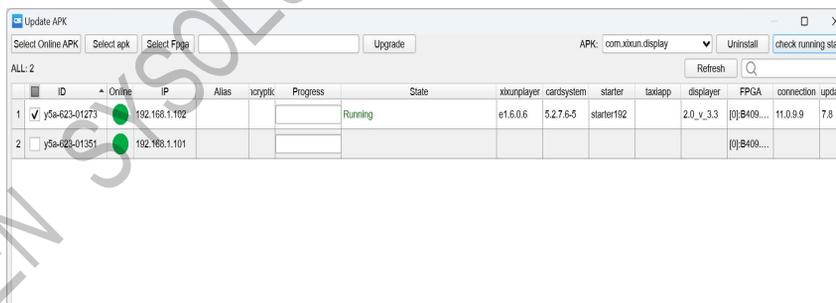
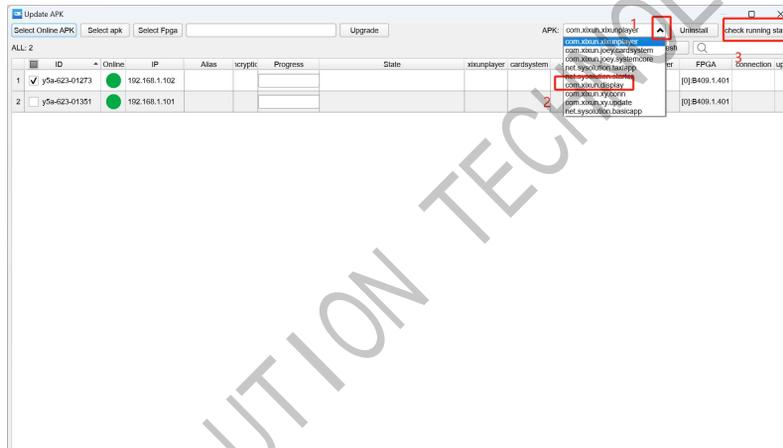


Note: Please make sure to install the display apk when using ledset 4.0.

Step 1: Tick the card, click 'Firmware management' .

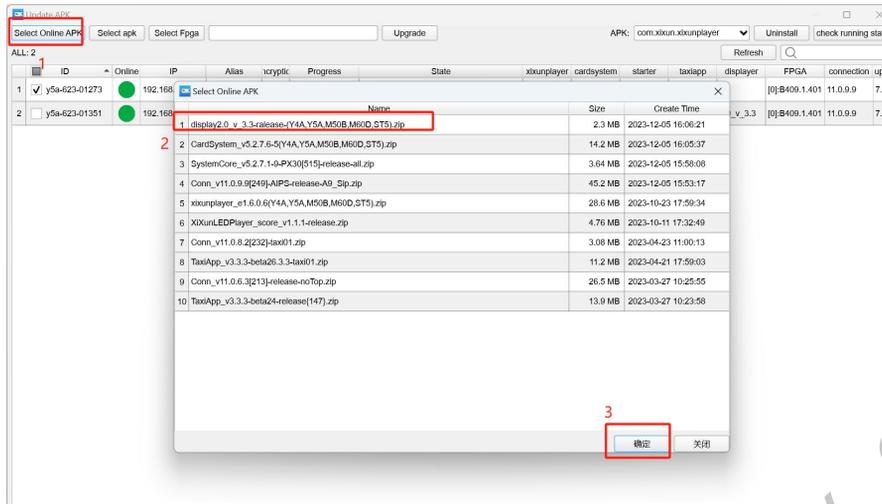


Step 2: Check whether display is running, click com.xixun.display, click 'check running state'. If the state is running, you can use Ledset4. 0 normally.

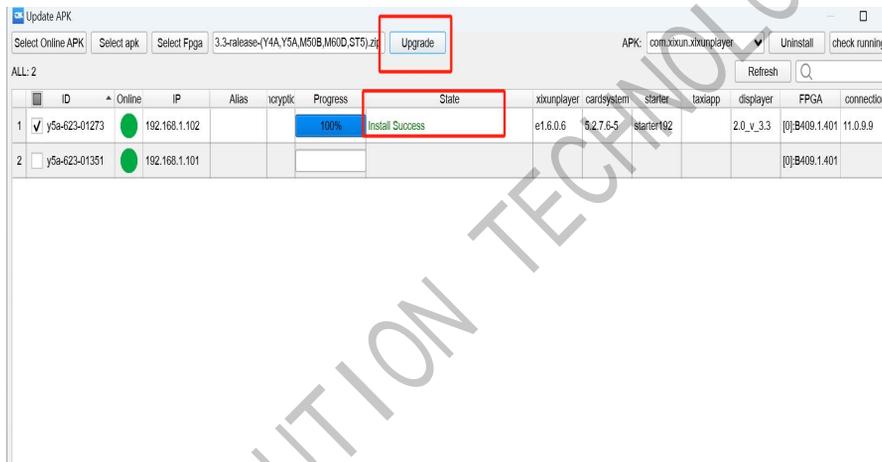


If the state is not running, follow the steps below to install display:

1. Click 'Select Online APK', Choose 'display', click 'ok'



2. Click 'Upgrade' .When the status is 'Install success' , the display has been installed.



Operating Environment

Hardware Environment

CPU: Pentium 2.6GHz or above.

RAM: 512 M or more.

Software Environment

Operating System: WindowsNT/XP/Vista/Win7/Win8/Win10/WIN11.

Hardware Connections

Step 1: Hardware Preparations:

Led controller Y5a, LED power supply, led module, 16pin flat cables, receiver card D60-series, Ethernet cable x2 as shown in Figure 3-1.

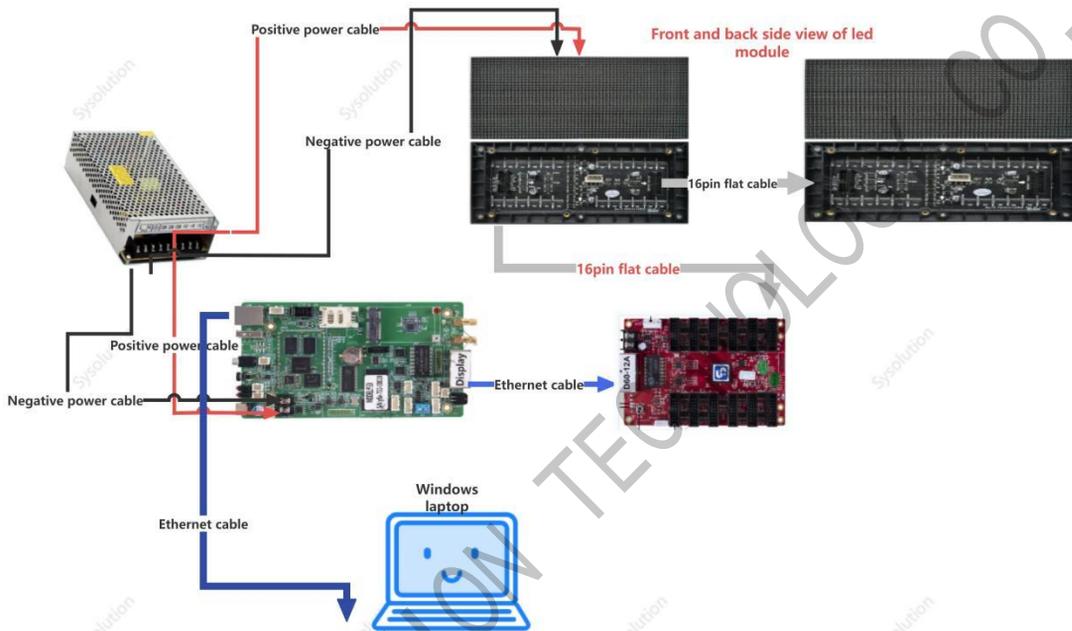


Figure 3-1 Hardware connection diagram Y5a control card

Step 2:

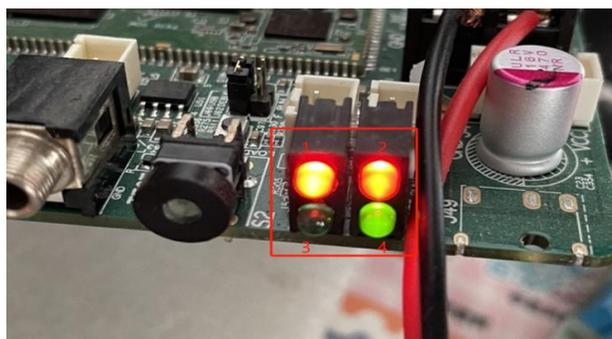
Turn on power after checking all hardware connection and make sure the Negative and Positive connect is correct. When the indicator lights of both the Sender and receiver cards are blinking, it means that the hardware is in normal.

Power light 1: solid on

Run light 2: flashing regular

FPGA light 3: flashing regular

Network port light 4: flashing



Step 3:

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Open the configuration software LedSet4.0 and confirm whether communication is established with the sender and receiver cards, as shown in Figure 3-2.

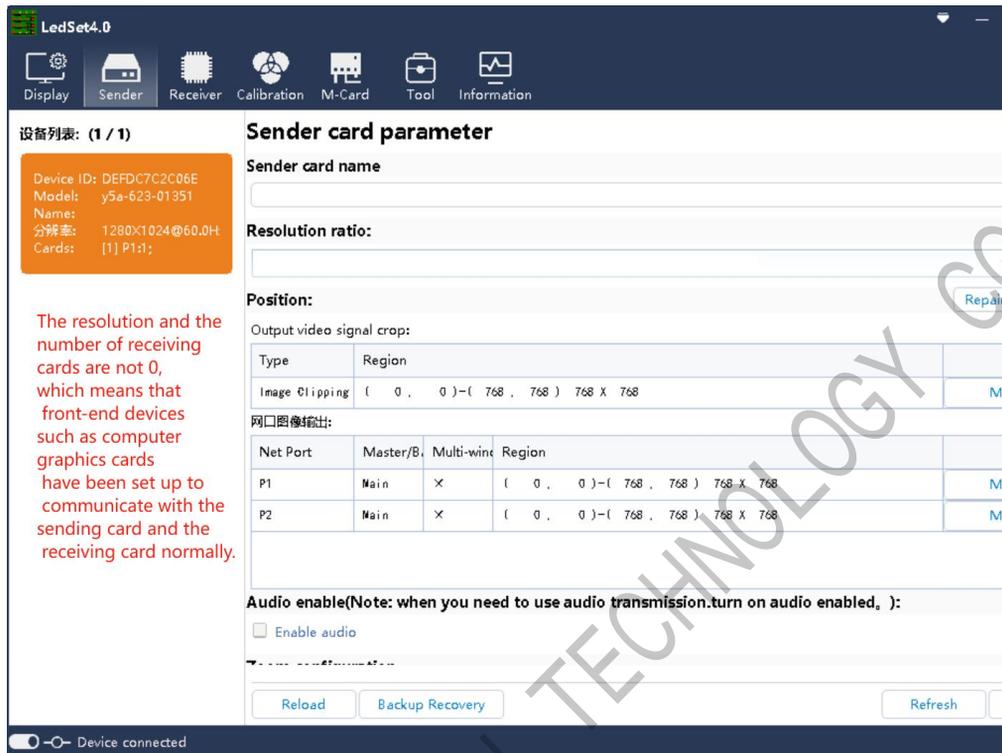


Figure 3-2

Note: Confirm whether the display card is set up through the LedSet4.0 configuration software, as shown in Figure 3-2.

Android asynchronous sender card connection schematic(Take Y5a as an example):

Step 1: Connect the Y5a to the computer according to the diagram below

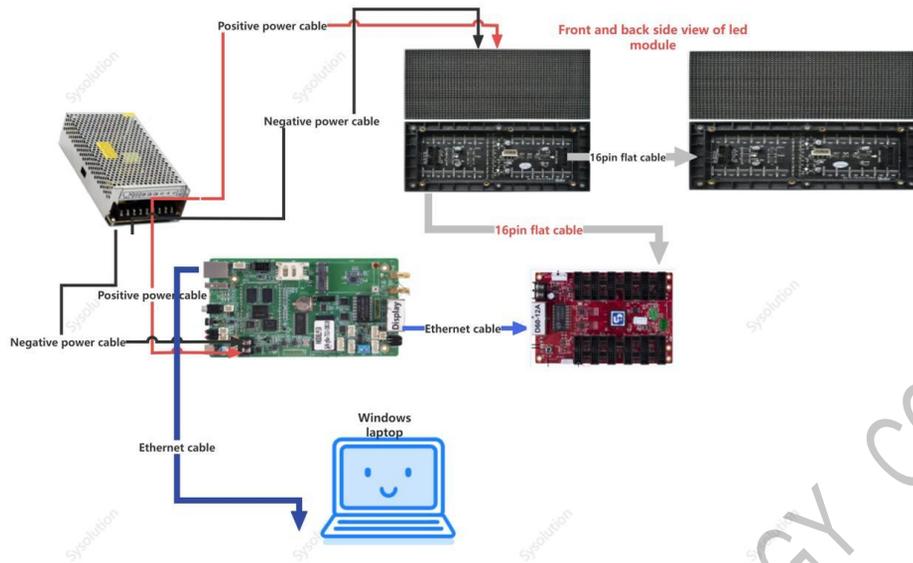


Figure 3-7

Step 2 : Confirm the hardware connection. Open the setup software LEDOK to automatically detect the Sender card, if it is not detected, please click 'detect', as in Figure 3-9:

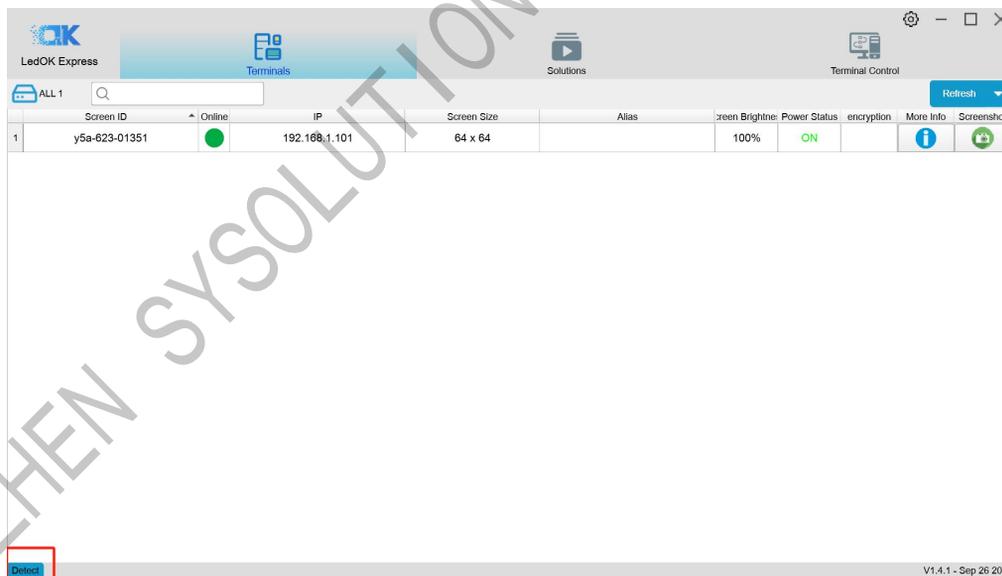


Figure 3-8

After detecting the control card, enter 'Terminal control', 'Advanced', password '888', click 'Start use ledset4.0' to enter the screen parameter setting, as shown in Figure 3-8:

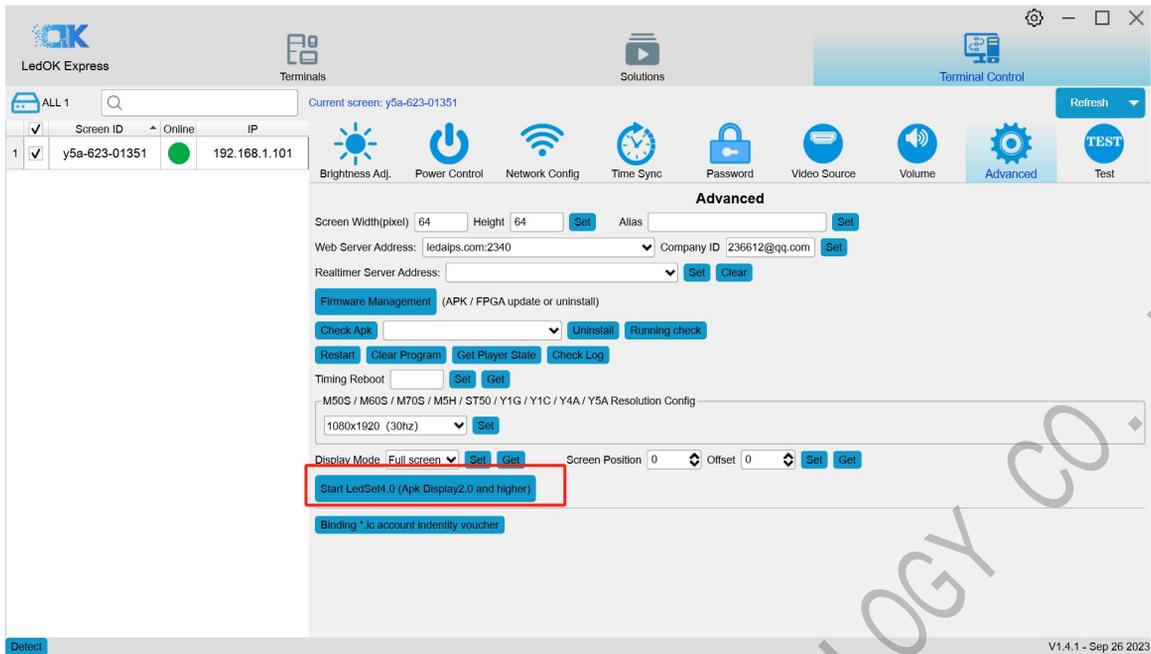


Figure 3-9

Step 3: Enter the LedSet4.0 sending card interface to confirm the communication with the sending card and receiving card, as shown in Figure 3-9.

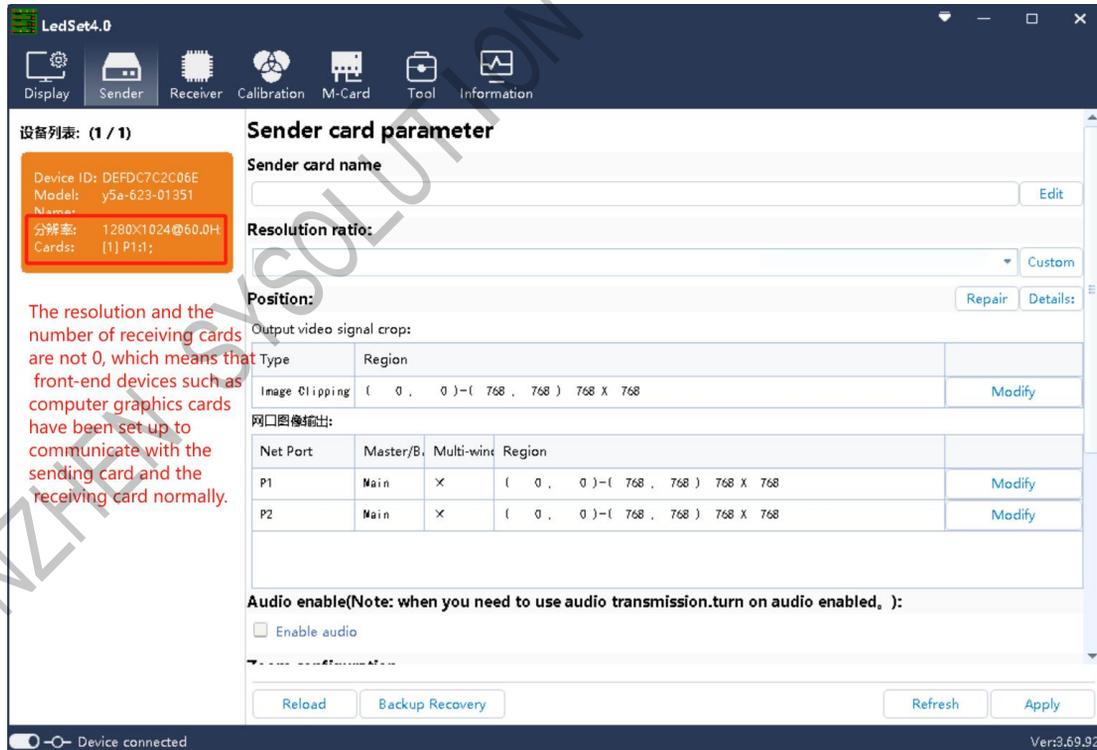


Figure 3-10 Communication status of software and sending card

Note: Verify whether the display card is set through LedSet4.0 debugging software, as www.sysolution.net

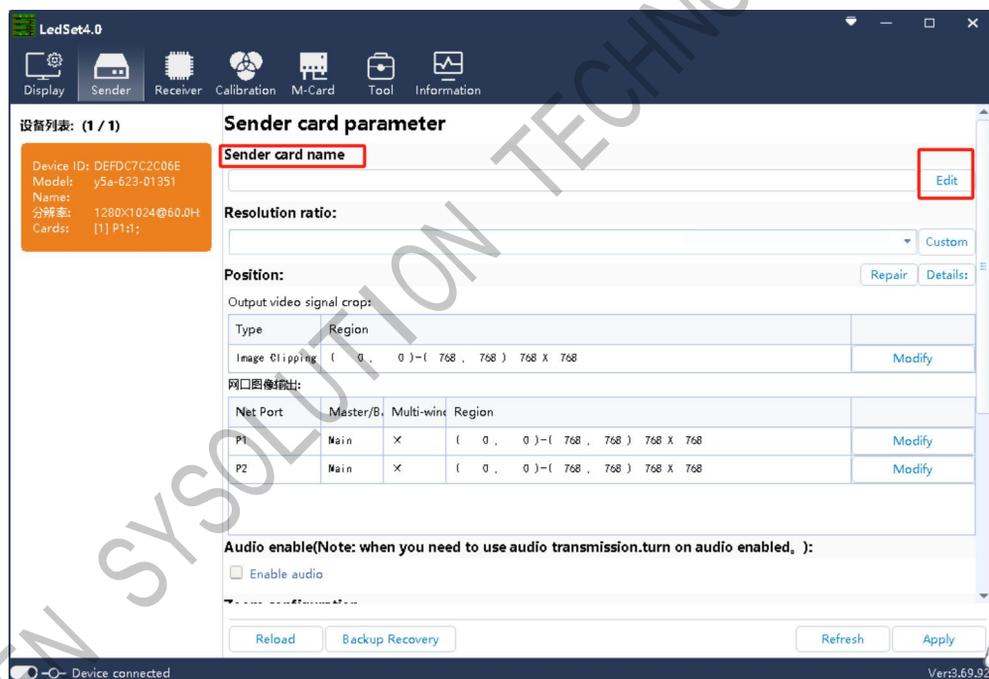
shown in Figure 3-8.

Display Configuration

Sender Settings

Click the 'Sender' button to enter the sender setting:

Modify the name of the sender. You can click the 'Edit' button to modify the name of the sender. The name of the sender is convenient for debugging multiple senders to quickly specify the sender to send data and improve debugging efficiency.---If you have just one card, then jump this.



4.2 Normal Screen Configuration

4.2.1 Smart Setting

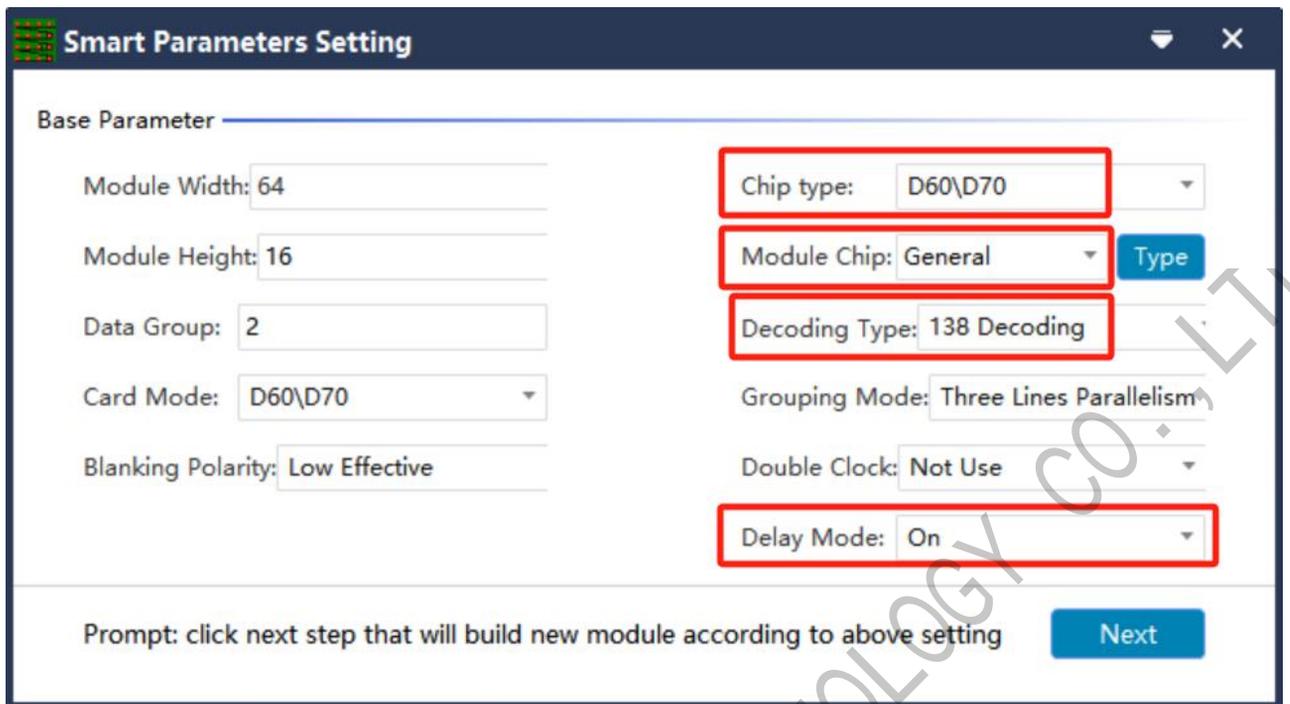


Figure 4-2-1-1 Normal-parameter configuration

- ✓ **Module Width / Height:** Enter the actual pixel width / height of the current module.
- ✓ **Module data group:** View the module data input port interface definition, according to the module's actual number of data lines and grouping method calculation. Generally three lines in parallel, so a RGB for a group of data, such as: the module has two groups of RGB, then the module's data group is 2.
- ✓ **Card Model:** The type of receiver card currently used for debugging, you can directly view the logo on the receiver card.
- ✓ **Blanking Polarity:** Switching state 'low effective' or 'high effective', usually default.
- ✓ **Chip Type:** Select **D60/D70** for debugging according to the type of receiver card currently in use.
- ✓ **Driver Chip:** Select the type of driver chip used in the current module, such as: General chip, MBI5153, ICN2053, etc. **Normally for low refresh rate led module, choose General.**

✓ **Decoding mode:** optional '138 decoding', '5958 decoding', 'high direct output' and so on.

✓ **Grouping mode:** View the current module data input port interface definition, such as R\G\B (red, green and blue) three color signal data, (and the module to control the red, green and blue LED driver chip is connected separately, red, green and blue chips are not connected in series), then the data type select ' three lines parallelism '; if the module only one color signal data or only one R data (except monochrome screen, and control the red, green and blue LED chips are connected in series), then select ' RGB serial '.

✓ **Double Clock:** D, E, F signals can be selected as the second clock when debugging the dual clock module, which is not used by default for debugging the normal module. **Keep default.**

✓ **Delay Mode:** keep it on when use D60/D70

(4) Click 'Next' to enter the Scan Lines window. Number of rows between two bright lines plus 1 row. Select the scanning lines according to the actual display of the current module, if the led module 32scan, then choose 32; if it is 8scan module, then choose 8. as shown in Figure 4-2-1-2 and Figure 4-2-1-3.

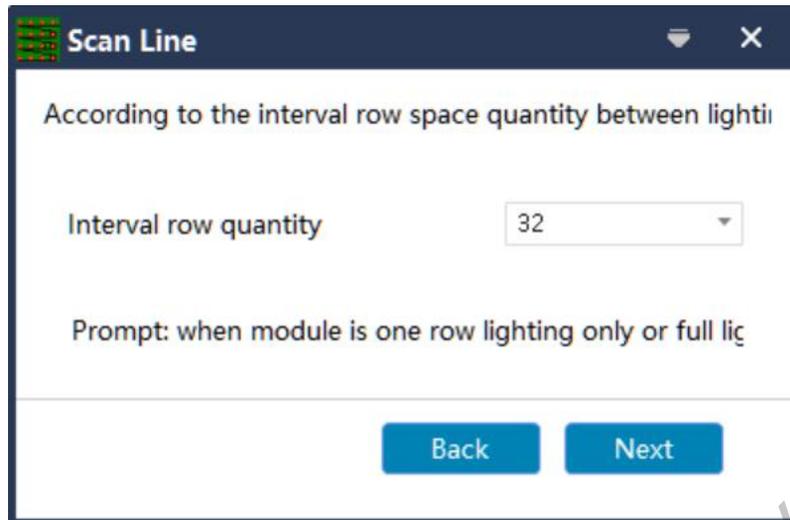


Figure 4-2-1-2

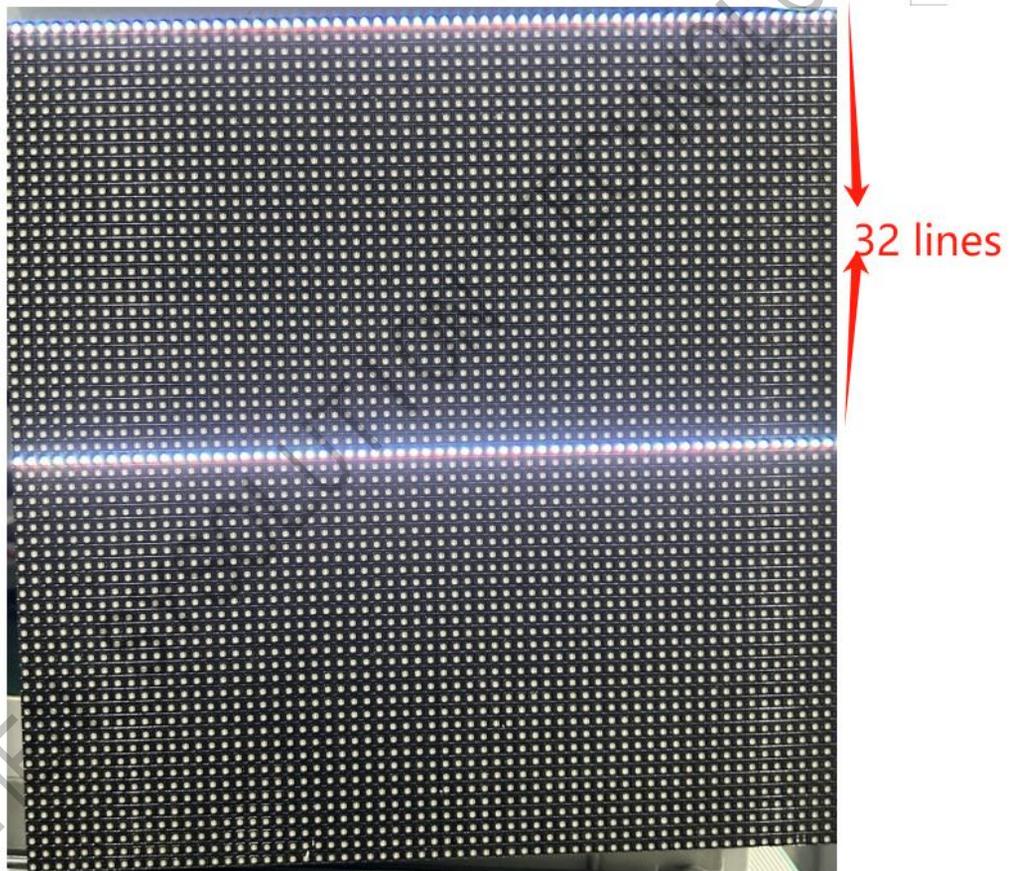


Figure 4-2-1-3

(5) Click 'Next' . Select the corresponding display color according to the status mode, as shown in Figure 4-2-4.

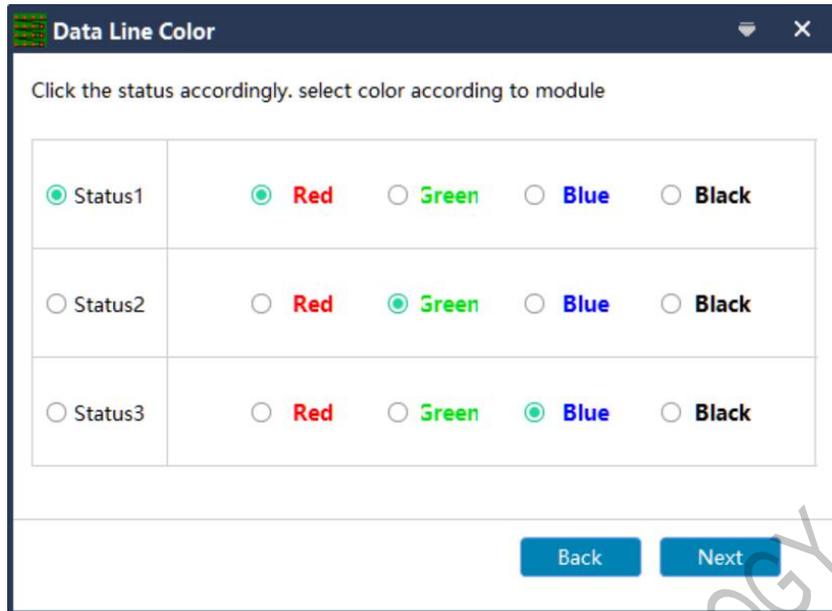


Figure 4-2-1-4 Normal screen configuration-data line color selection

(6) Click 'Next' to enter the smart setting window. According to the actual display of the current module corresponds to the point (if the module does not have pixel point blinking, please connect the LED module to the first data interface of the receiver card or change the data cable to all interfaces, or try to insert the virtual point to try).

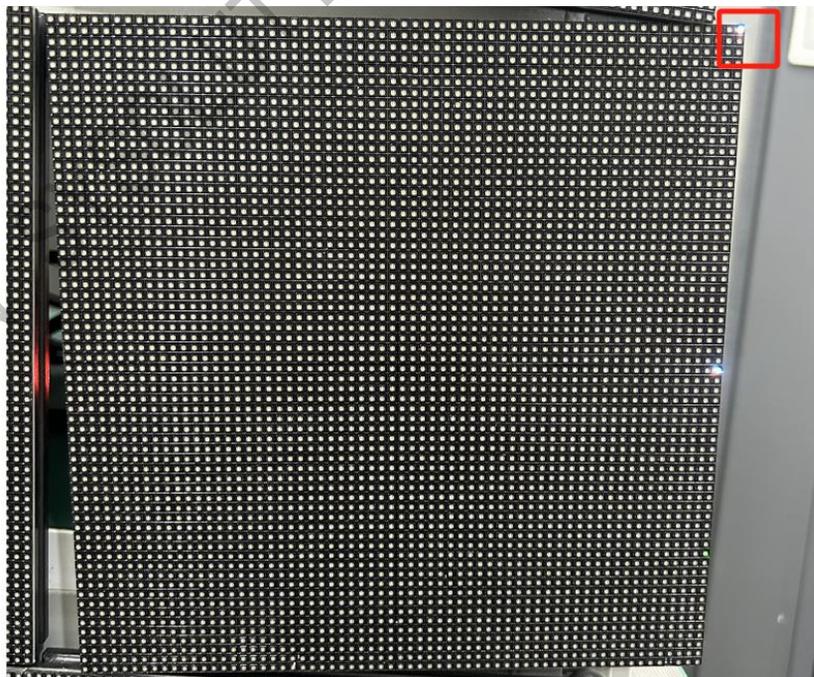


Figure 4-2-1-5

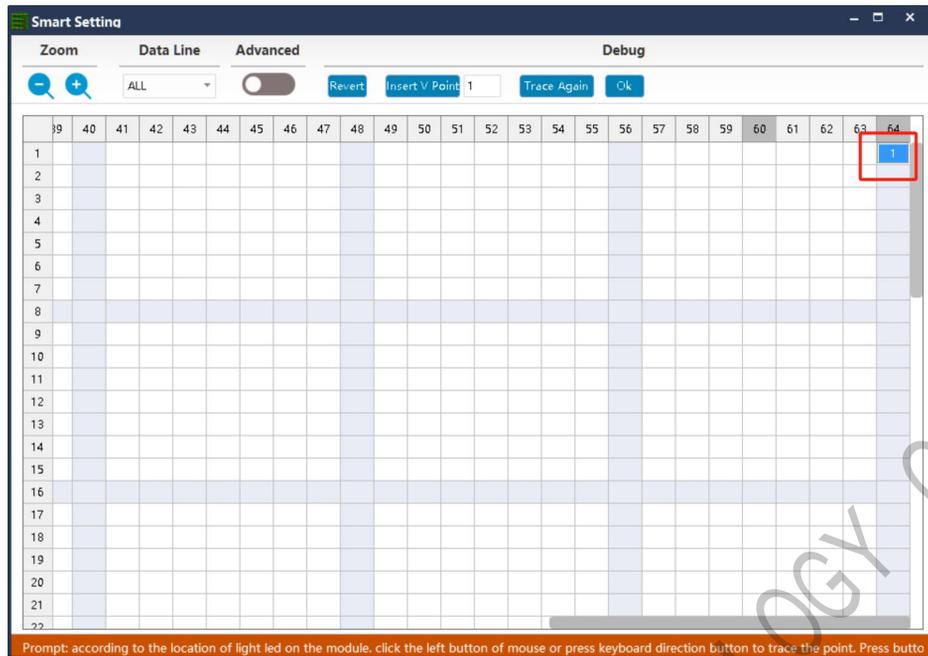


Figure 4-2-1-6

(7) Smart settings will be prompted after the completion of the window, and then click the 'trace complete' button, and then send the data to the screen, as shown in Figure 4-2-1-6.

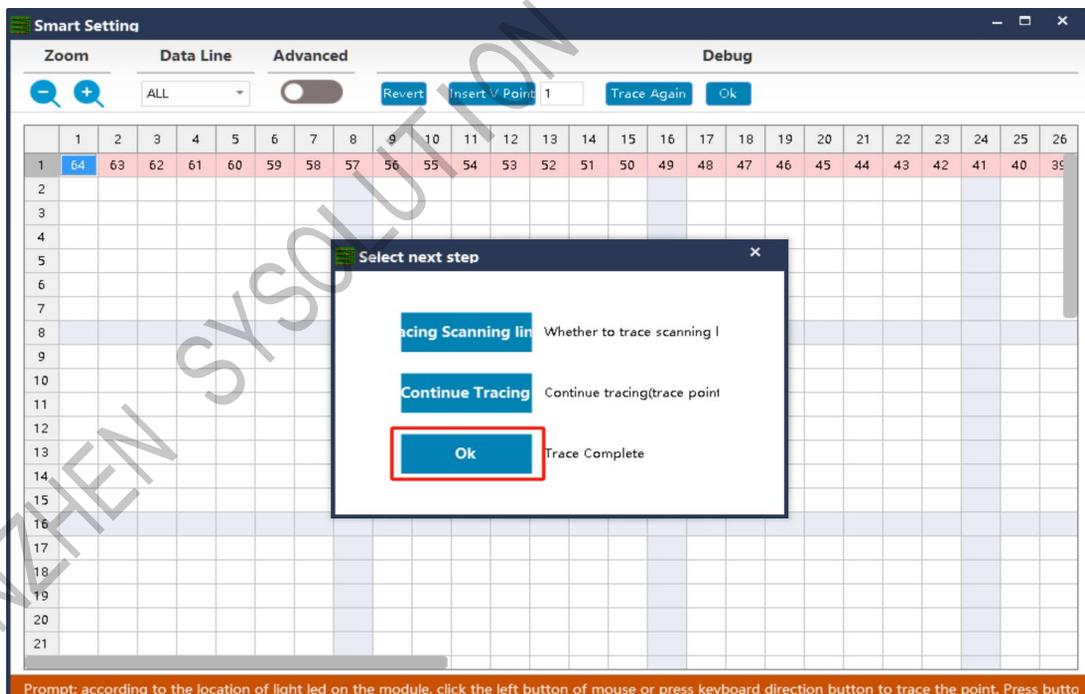
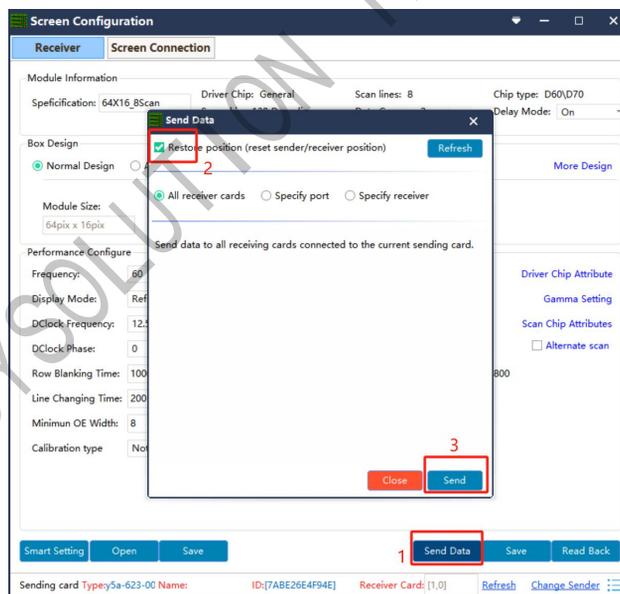
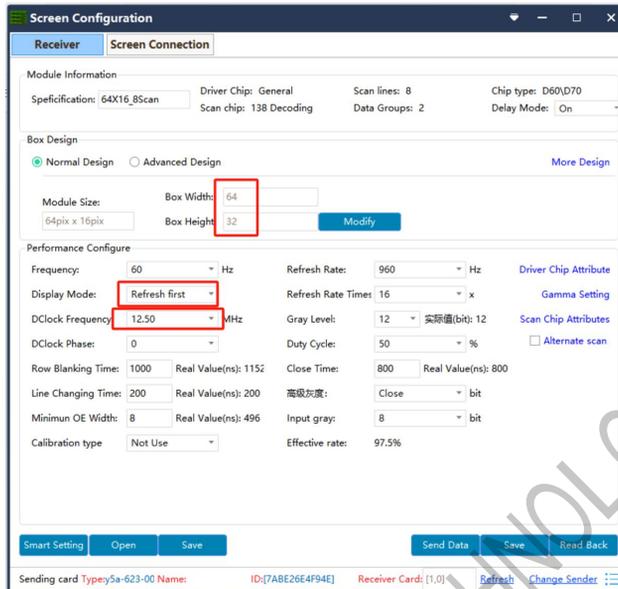


Figure 4-2-1-7

Receiver Configuration

Jump back to Receiver settings and then change the box design first, choose Refresh rate first
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and other parameters keep default, then click the Send button in the bottom, and then click Save button to solidify the parameters ,as shown in Figure 4-2-2-1:



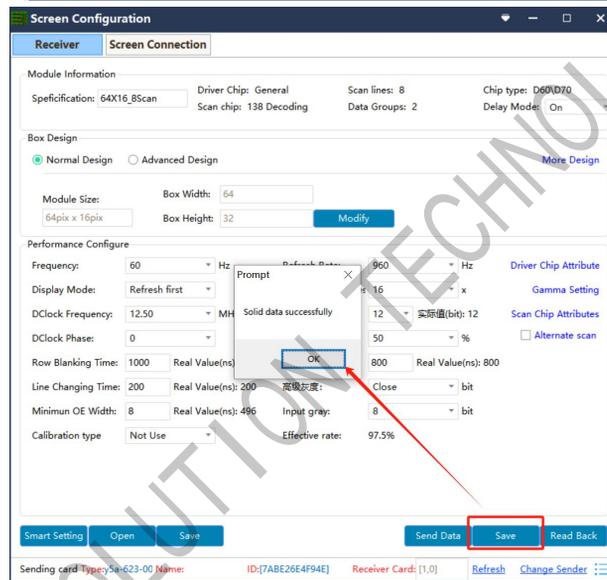
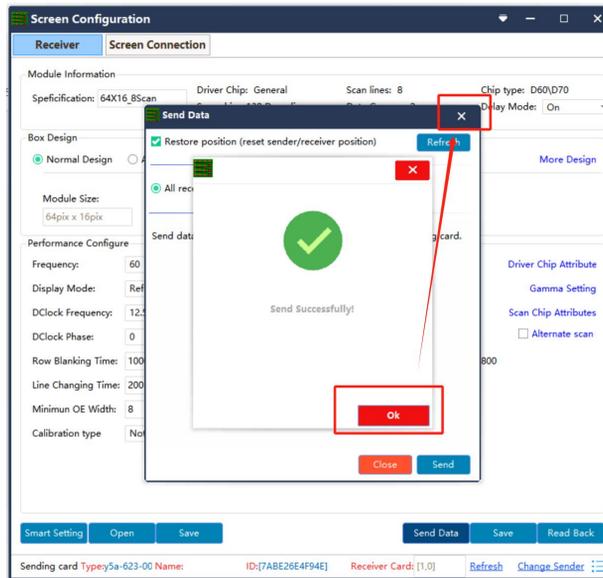


Figure 4-2-2-1

More Explanation for each functions:

- (1) 'Normal Design' in the box design, and set the width and height of the box according to the actual load of the receiving card, as shown in Figure 4-2-2-2.

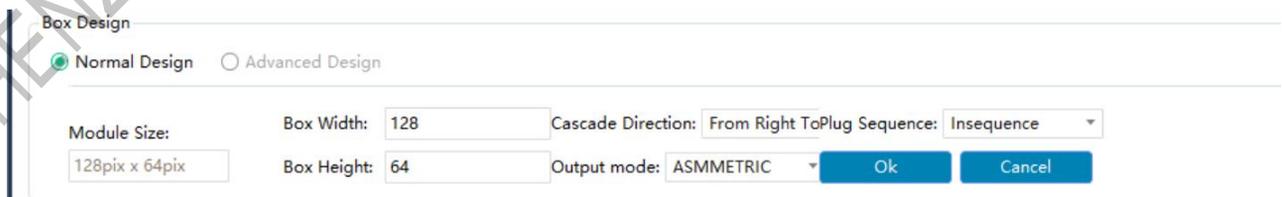


Figure 4-2-2-2 Normal design of the box

Output mode: there are two open to four open output mode, according to the

actual needs, give full play to the performance of the receiver card, so that the display on a higher refresh rate, the following module cascade direction from right to left as an example.

Normal Output: 1 to 24 groups of data are highly loaded from top to bottom.

Two open output: Receiver card (1-12) groups of data with the left half of the light board, (12-24) groups of data with the right half of the light board, loaded with the same width\height.

Triple Output: 1-8, 9-16, 17-24 Each 8 groups of data are horizontally divided into three parts with the same width\height.

Quad outputs: 1-6, 7-12, 13-18, 18-24 Each of the four data sets is horizontally divided into four sections carrying the same width/height.

(2) Complex box construction. Select 'Advanced Design' in the box design center column where you can carry out the construction of complex box, as shown in Figure 4-2-2-3.---Normally no need to set this without technical support.

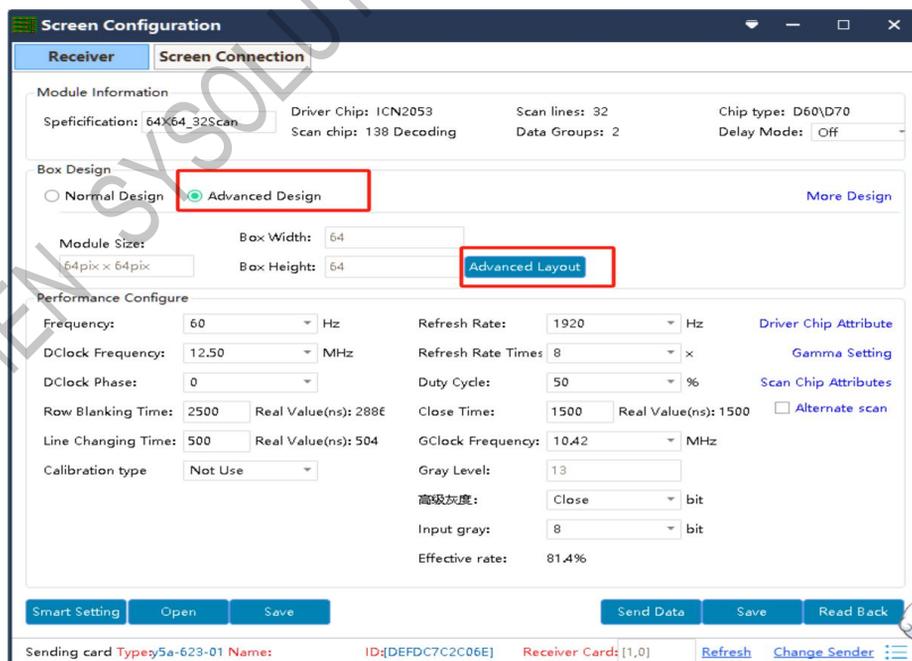
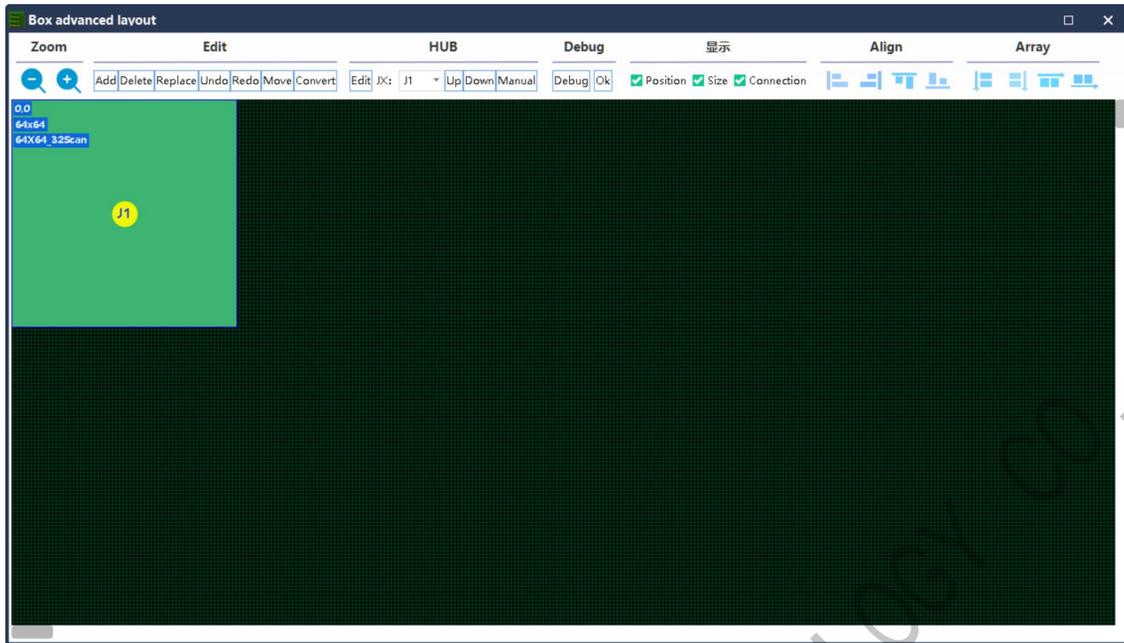


Figure 4-2-2-3



HUB port exchange: Select the corresponding module and change it directly to the actual HUB port under HUB column, or move the module for exchange;

Data line exchange: Click the 'Edit' button under the HUB column to enter the data address editing interface, as shown in Figure 4-2-2-4. In this interface, check the data line output test, find the HUB port corresponding to the module in the 'Jx' column in the HUB entry, and change the data line address in the 'Exchange Address' column in the HUB entry until the color displayed on the box is the same as the color displayed in the 'Exchange Address' column in the HUB entry. Until the color displayed on the box is the same as the color in the 'Address' column of the peer in the HUB entry, and the corresponding module layout (module construction) position on the HUB port, it means that the change is correct, similarly, all the HUB address lines are all well defined, uncheck the 'Data Line Test', and finally click the 'Done' button. Finally, click 'Finish' button to exit the data line exchange editing interface.

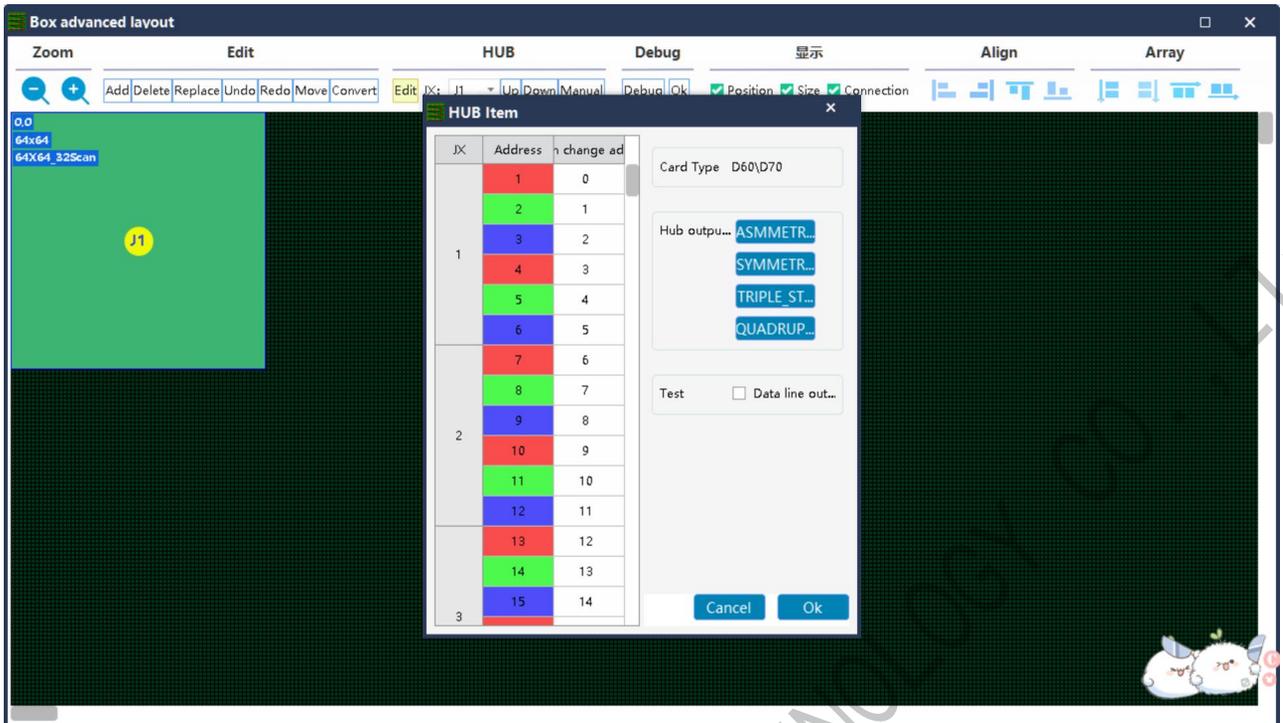


Figure 4-2-2-4 HUB editing

(3) After configuring the receive card bandwidth/height, the system will automatically calculate the performance configuration, or you can manually change the parameters if you are not satisfied with the display, as shown in Figure 4-2-2-5.

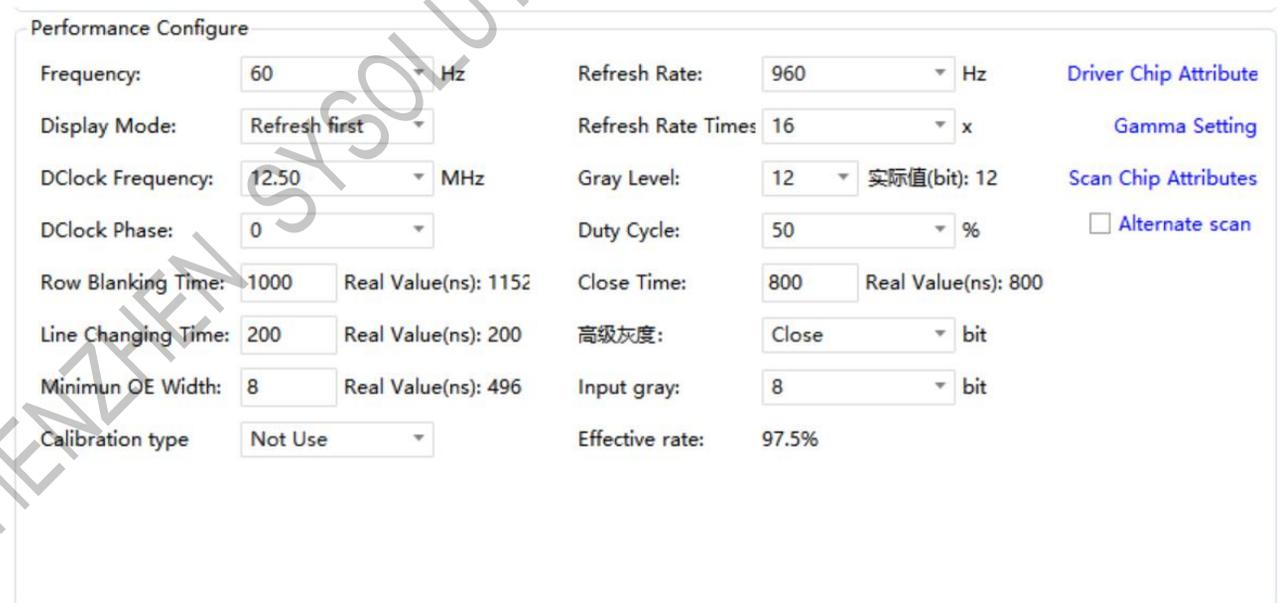


Figure 4-2-2-5 Performance parameter configuration

Refresh Rate: An important indicator of the display effect of the display. Increasing

the refresh frequency can improve the water ripples that appear when using a camera to capture the screen.

Data Clock Frequency: related to the LED module circuit design and the driver chip used. If you use high brush IC with reasonable design, the higher clock the module can achieve, the higher gray level and refresh frequency it can support under the same bandwidth area.

Data Clock Phase: set the clock timing starting point. If the screen has flash point, splash screen and other abnormal phenomena can adjust this item. Generally 12.5~17.86.

Duty Cycle: the duty cycle of the clock phase, change this data, you can make the scanning clock phase can be on a higher clock, generally set to 50%.

Line change time/position/switching position: sweep a line and then sweep the next line of data switching time and position, mainly to adjust the scanning screen afterglow, if the afterglow is serious, you can increase the value of this line change time, generally take the default value.

Gamma Configuration: Gamma represents the metric parameter of the original signal, it refers to the distortion of the output image of the monitor to the input signal, and the Gamma value refers to the specific value of this distortion. Adjust the desired Gamma on the Gamma setting column, the default value is 2.8, you can also use the customized Gamma value for editing or load the external Gamma table, as shown in Figure 4-2-2-6. Click the Send button after debugging to save the adjustment effect to the receiver card.---

For most of led module no need to set this.

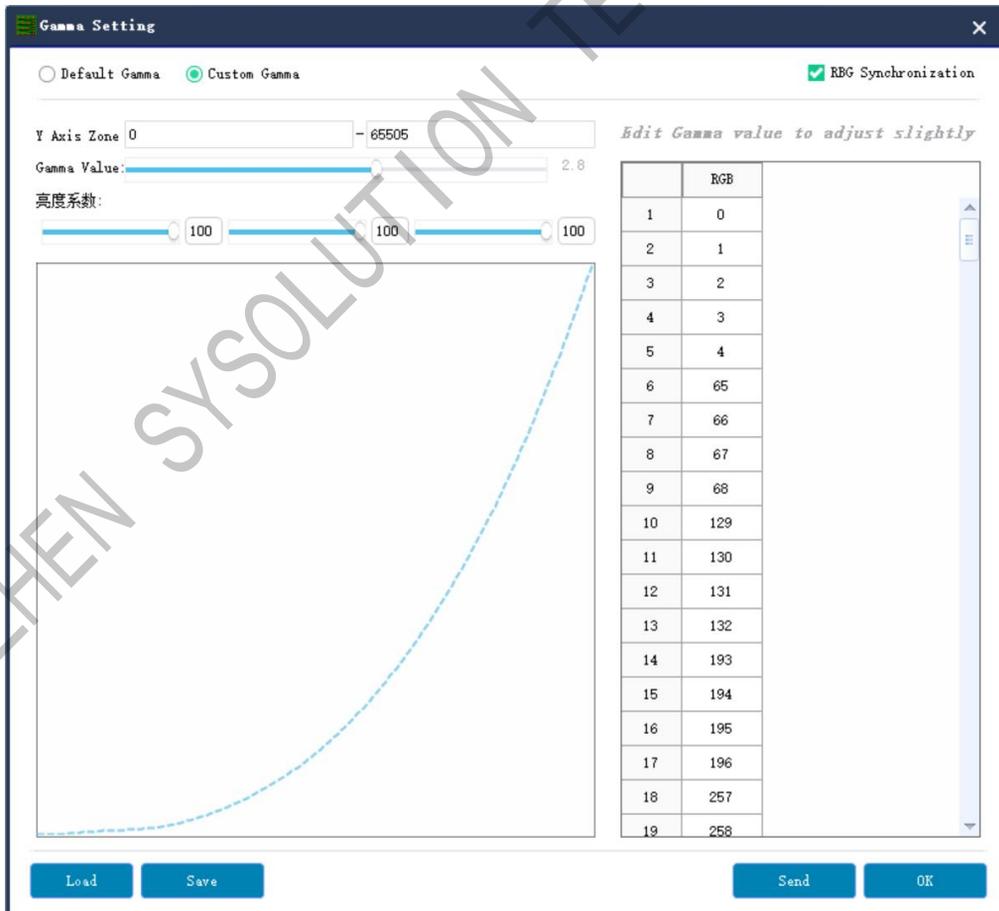
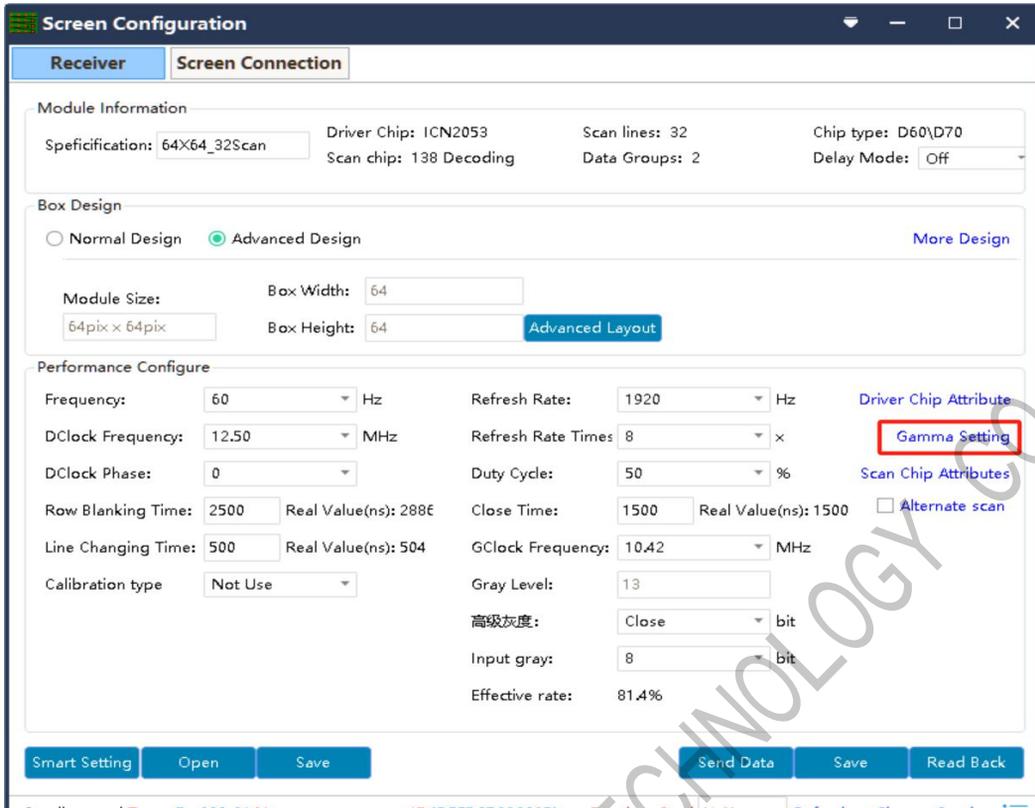
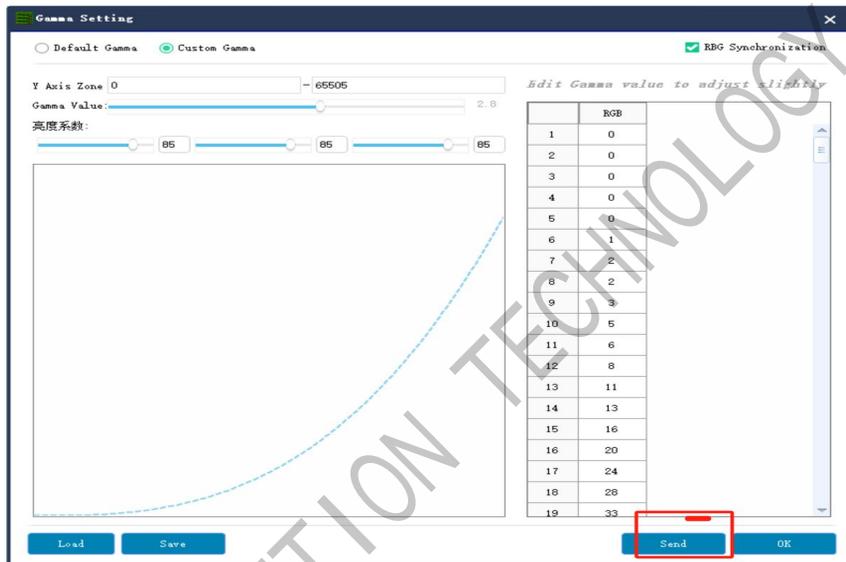


Figure 4-2-2-6

(4) Click the Send button to send the receive card programme to the receive card.

When sending data, you can specify the network port or the specified card to send, or you can reset the receiver card position. Observe whether the box is displayed normally. Click the solid button when you are satisfied to solid the data to the receiver card to prevent data loss after the receiver card is powered off and restarted. Finally click the Save button to save the box configuration file to your computer.



Screen Connection

(1) After configuring the parameters of the receiver card, click the 'Screen connection' to enter the screen connection interface, please set how many receiver card numbers in the column and in row, then set the width and height pixels for each receiving card, then click in the empty box ;

after set success, click Send button and as the main sender.

then click Save to solidify the settings, as shown in Figure 4-2-3-1.

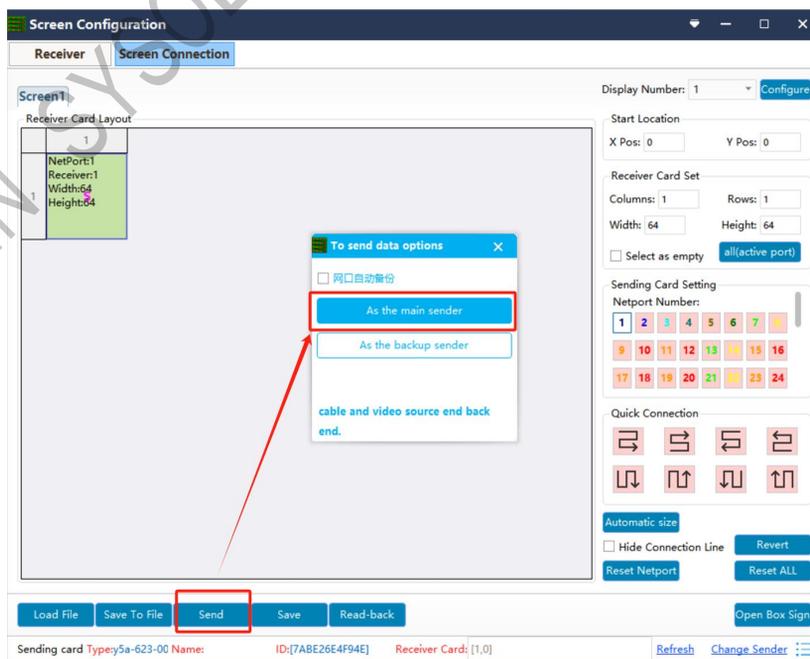
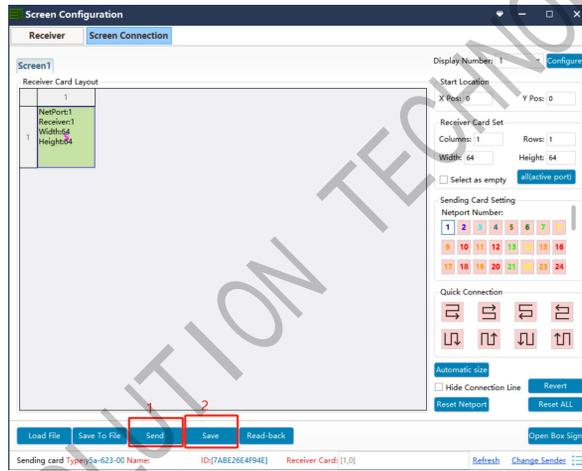
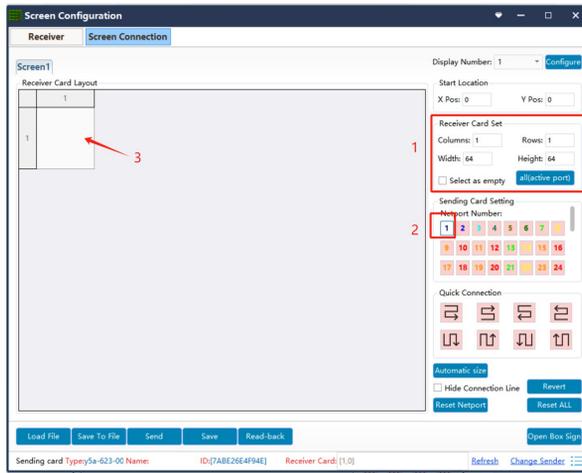
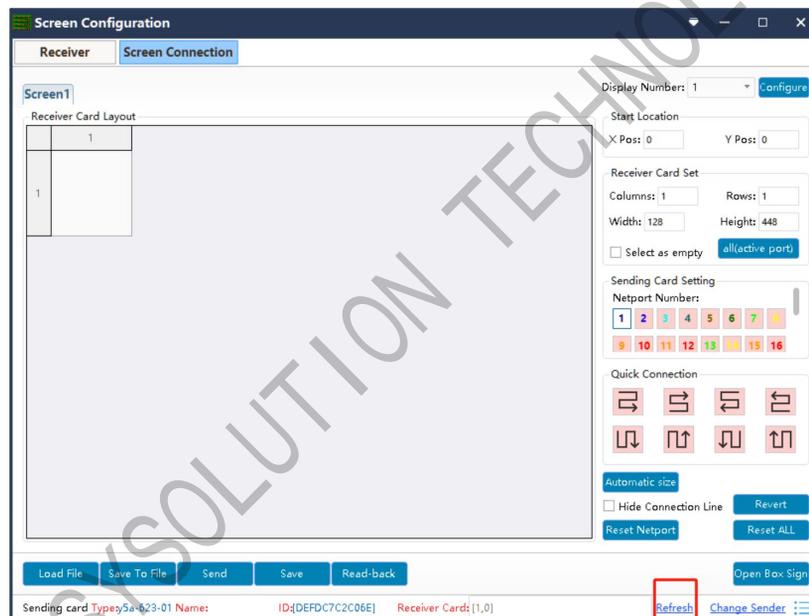


Figure 4-2-3-1 screen connection setting

More explanations for each functions:

When doing screen connection, first click the Refresh button to refresh all the receiver cards carried by the sender, and check whether the number of chips (usually the number of receiver cards) is the same as the number of connected ones. If it is not consistent, please check whether the hardware connection is normal or not, when connecting more than one Sender card, please switch the Sender card and find the corresponding Sender card for debugging.



- ✓ **Load from File:** Loads a saved display configuration file on the control computer.
- ✓ **Save to File:** Saves the display configuration information to the computer as a (. *dcc) format file to the computer.
- ✓ **Send:** sends the screen configuration information to the sending and receiving cards. After sending is completed, confirm saving to the device to solidify the screen configuration information to the receiver card and sender card without losing it in power failure.

- ✓ **Read Back:** after clicking, it will read the display connection saved in the sending card, which is convenient to send the continuous screen quickly.
- ✓ **Open Box Sign:** you can view the box sign, which is convenient for connecting screens.
- ✓ **Current Sending Card Information:** type, name, ID is to distinguish the sending card, 'name' can be edited in the sending card interface.
- ✓ **Number of Receiver Cards:** the number of receiver cards connected to the sender card, the two values represent the receiver cards carried by the two ports of the sender card respectively. For example, **Receiver Card:**[1,0] : it means the sender card carries 1 receiver card in 1 port and 0 receiver card in 2 ports.
- ✓ **Change Sender Card:** When multiple sender cards are accessed at the same time, you can click the Change sender button to switching sender, as shown in Figure 4-2-3-2.

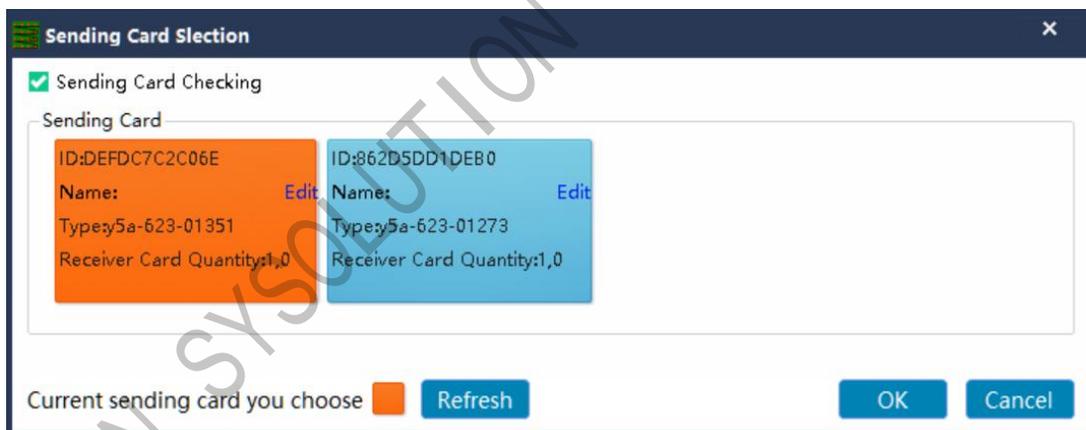


Figure 4-2-3-2 Change sender

Click the Refresh button to refresh the receiver card carried by the sender card, tick sending card checking, the area of the receiver card carried by the selected sender card (the box which has been configured with the data) will be blinking, so it is easy to quickly find the sender card corresponding to the area, after confirming the area, the name of the sender card can also be edited, and it can be directly edited by clicking the Edit button.

(2) In the display connection interface, according to the actual situation of the big screen, set the cascade mode of the receiver card, width and height (each receiver card carries a different width and height), as shown in Figure 4-2-3-3.

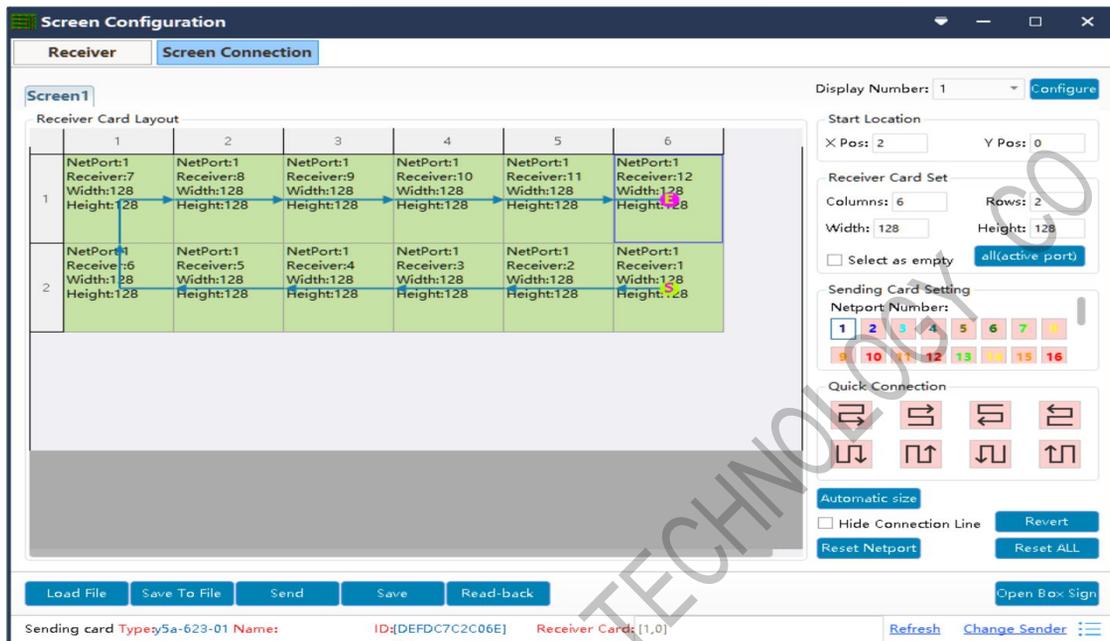


Figure 4-2-3-3

Display Number : According to the actual situation, select the number of displays from 1 to 20, and click 'Configure' to complete the setting. If the display connection page has been configured, you can modify it according to the actual situation or click the button to reset it.

Start Position: The intercept position of the LED display to the input signal source. The default state is (0,0), that is, the LED display shows that the display starts from the (0,0) point of the video source.

Receiver Card Set: According to the actual number of cards used in the display, set the number of columns, rows, and the width of each receiving card in the Receiving Card Setting column on this interface.

Select as Empty: When the box position needs to be left empty, tick 'Select as empty', and then select the box that needs to be left empty, and then click to uncheck the box again to complete the Select as empty operation.

Sending Card Setting: Select the network interface access port of the sending card.

Quick Connection: When the whole screen is loaded with only one network cable and the network cable of the receiving card is regular cascade, you can use Quick Connect.

Hide Connection Line: When the Hide Connection Line is ticked, the display connection knowledge will be hidden.

Revert: Undo the last step of the operation.

Reset Net-port: Reset all the settings related to the current port.

Reset All: Reset all settings related to all network ports.

Professional Screen Configuration

No need to setup without technical support

Professional Configuration is specifically for the development of shaped display a display connection adjustment tool. Using it can quickly and intuitively complete any box configuration (box shape) composed of any cascade of receiver card network cable and the connection of the display.

Step 1:

Box file loading. Load all box configuration files required for the large screen (file format: .box-conf)

(1) Click the 'Professional' button, enter the Professional debugging interface window, in the window menu bar, click the '+' button, pop-up 'file loading guidance interface 'In this

interface, select the display configuration file loading method, as shown in Figure 4-3-1.

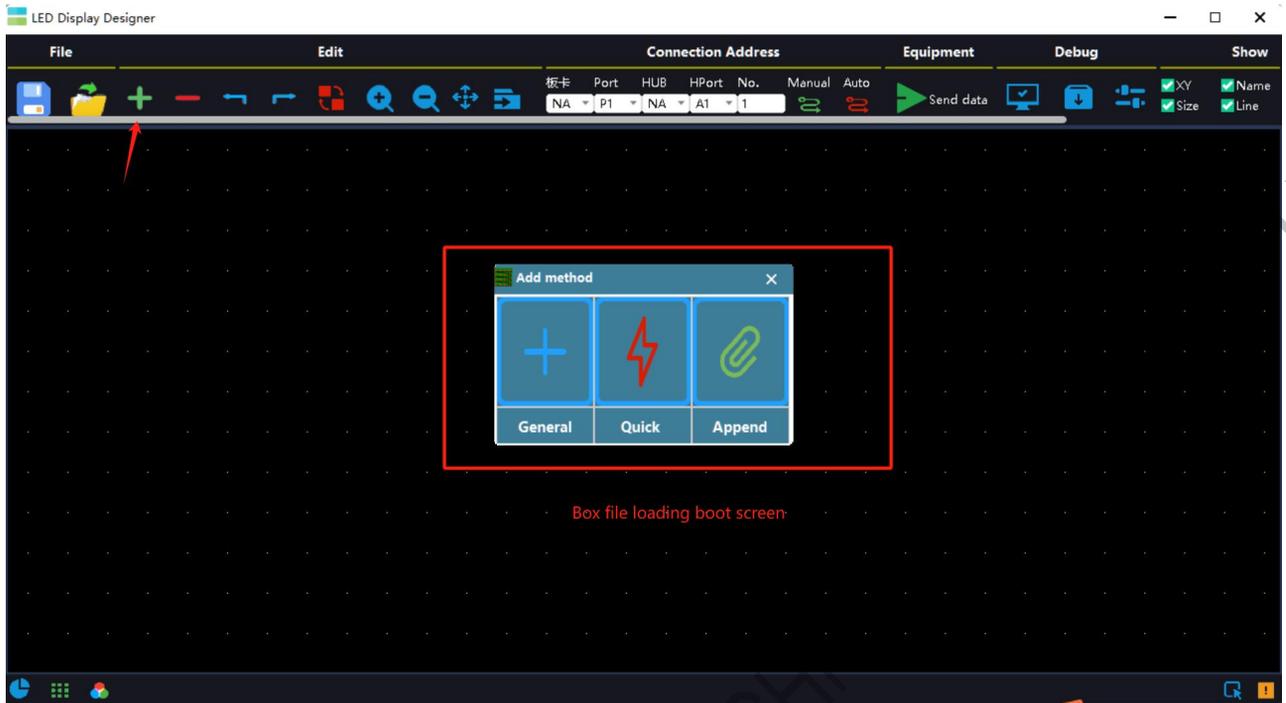


Figure 4-3-1 Display file loading method

(2) Add box file. When the display to be debugged consists of multiple types (box size, chip type, module design, etc.) of boxes, click to select the first ① loading method to enter the add box interface, click Browse on this interface to load the box configuration file, as shown in Figure 4-3-2.

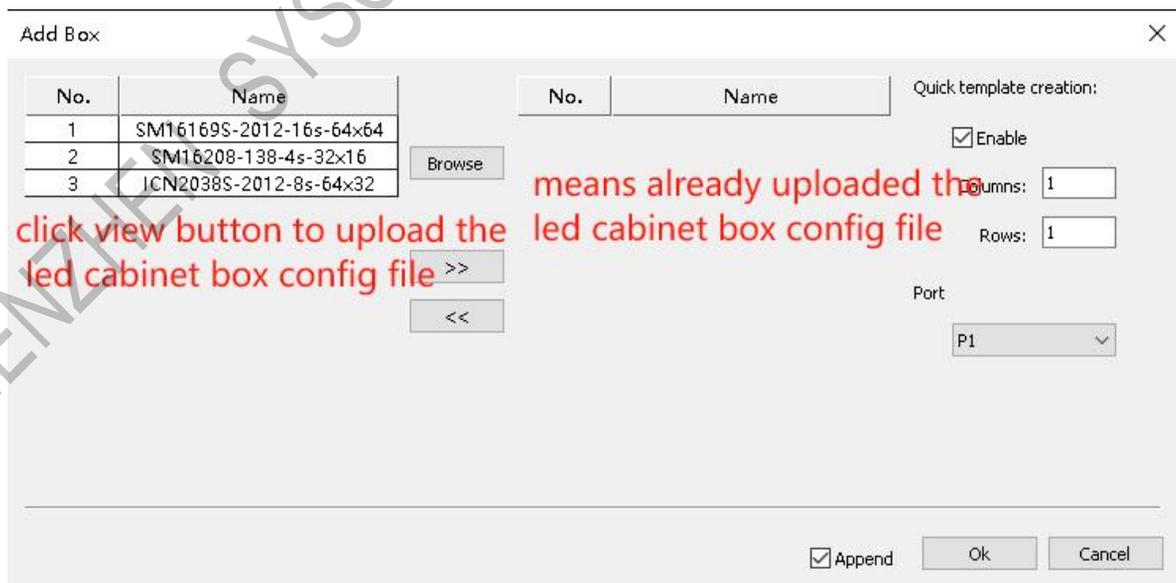


Figure 4-3-2 Load box configuration

After the box loading is completed, select the box configuration, click the left shift button for quick creation of templates, and enter the horizontal and vertical quantities in the quick template column for the array addition of large screen modules. In the Specify Target Mesh Port column, you can classify the mesh port of the module added this time, and select the mesh port according to the actual situation. Click the Confirm button to complete the addition of the box configuration, as shown in Figure 4-3-3.

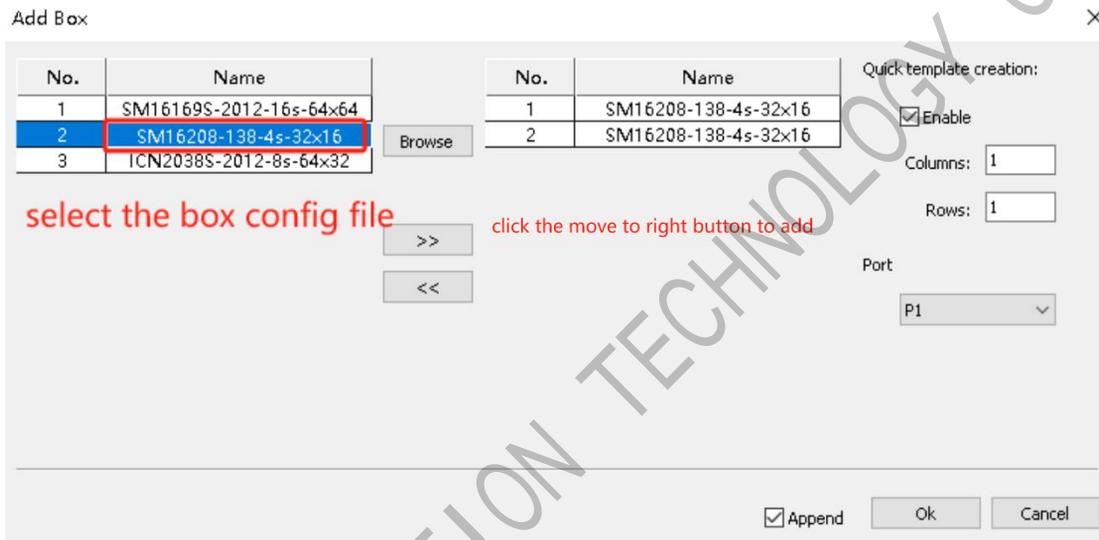


Figure 4-3-3 Quick template templates

When there is only one box configuration for the display to be debugged, click to select the ② loading method to enter the interface of Quick Add Box, click Browse on this interface to load the box configuration file, and enter the horizontal and vertical quantities in the box layout column to add the array of large-screen modules. In the target port column, you can classify the port of the added module and select the port according to the actual situation. Click the Confirm button to complete the addition of the box configuration, as shown in Figure 4-3-4.

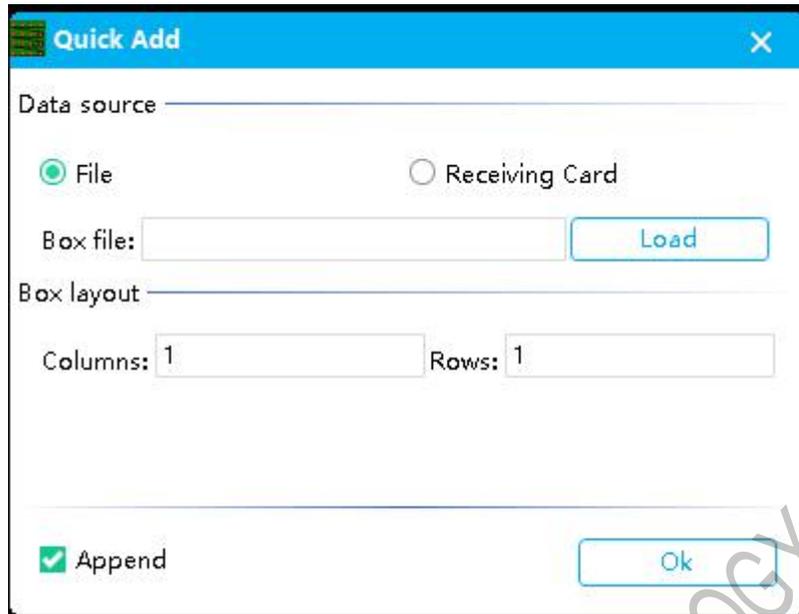


Figure 4-3-4 Rapid addition of the box configuration

When this display connection needs to be fused with another display connection, you need to click to select the ③ loading method, you can directly add the display connection file.

Step 2:

Display box layout construction. Move the corresponding box position according to the actual layout of the display box, as shown in Figure 4-3-5.



Figure 4-3-5 Box layout of the display screen

Step 3:

Set the sender card network port bandwidth and receiver card network cable connection order.

(1) Set the receiver card carried by the network port of the sender card: Select the receiver card connected under each network port of the sender card respectively, and set the network port of the sender card to which the receiver card belongs, as shown in Figure 4-3-6.



Figure 4-3-6 Setting Up the Receiver Card for Sending Card Network Port Banding

(2) Set the order of receiving card cable connection: Click the 'Manual' button, the default starting serial number value is 1, you can set the starting serial number value under the 'Serial Number' column, as shown in Figure 4-3-7.



Figure 4-3-7 Set the connection sequence of receiving card

(3) According to the display of the actual receiver card network cable connection order in order to select the box. At this time, the serial number of the box will be cumulative, when the selection error, you can click the right mouse button back to the correct value to continue to select, until the network port carries the receiver card setup is complete. Then press the keyboard 'Esc' key to exit the network port serial number setting, the same way to set up all the network port receiver card serial number, as shown in Figure 4-3-8.



Figure 4-3-8 The serial number setting of the network port receiving card

(1) Automatic setting. Click the 'Auto' button to enter the interface of network cable automatic connection. When the box arrangement is more regular (rectangular arrangement), you can choose the automatic connection setting, as shown in Figure 4-3-9.

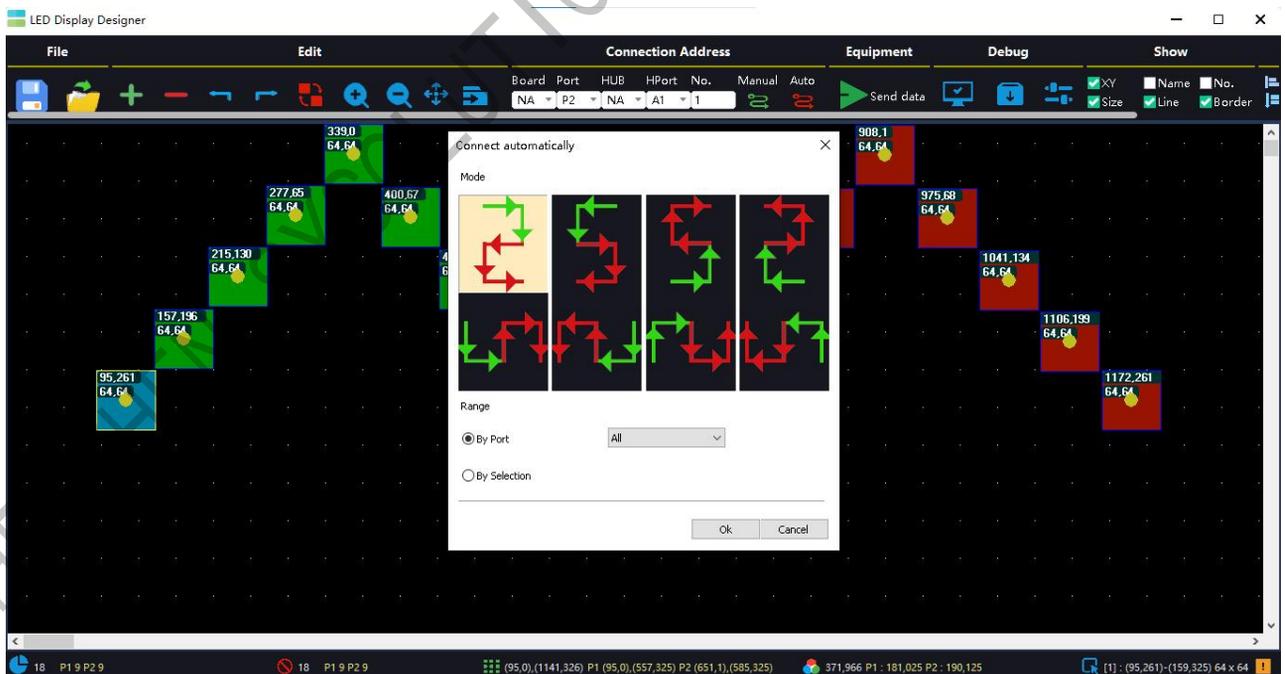


Figure 4-3-9 Automatic connection setting of network cable

(4) Send, solid data: After completing the display connection, click the 'Send' button

to enter the data sending window, the default selection of the receiver card configuration data, location and sending card configuration data, and then click the 'Send' button, display system Click 'Send' button to send the configuration file of the display system, after observing that the display shows normal, click 'solidify' button to solidify the display configuration file to the receiver card and the sender card. You can also send the selected area individually, or send a single box file in a group, as shown in Figure 4-3-10.

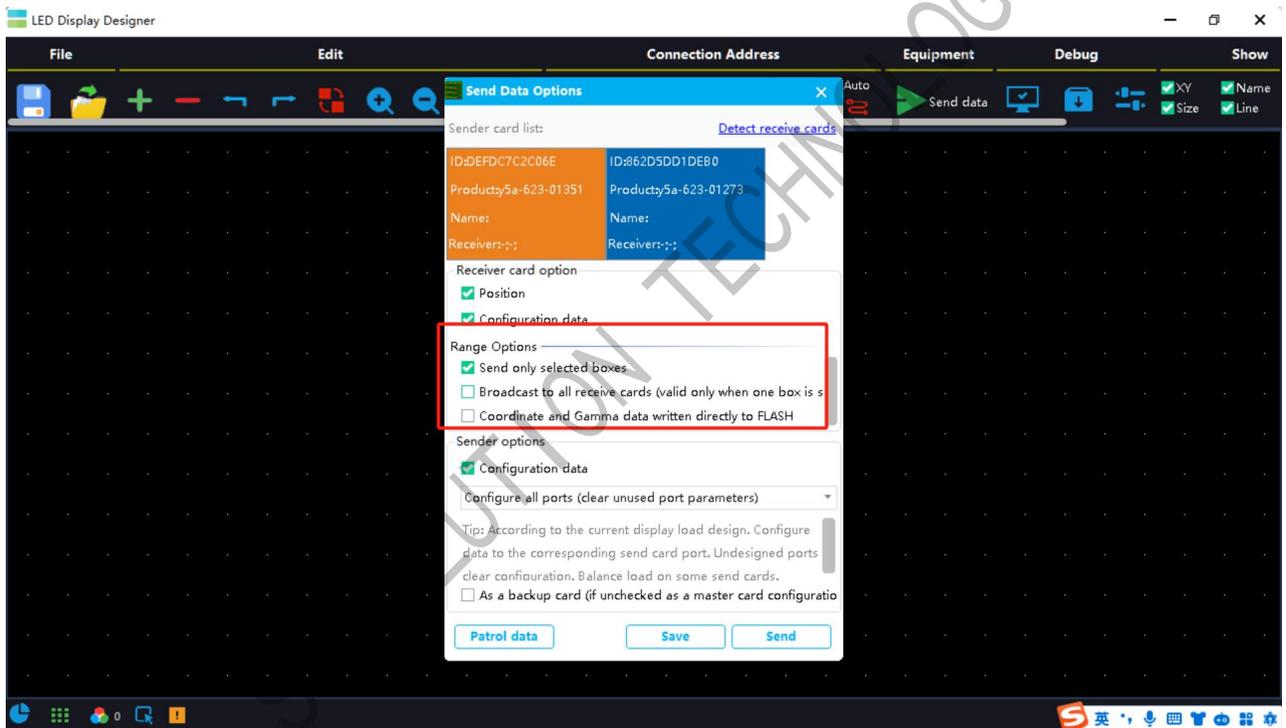


Figure 4-3-10

Configuration: Display configuration. Select the sending card can open the digital mark, red, green, blue, white, horizontal line, vertical line, left diagonal, right diagonal, power-up time, grey scale and other debugging tools (FPGA receiver card only supports digital markers), as shown in Figure 4-3-11.

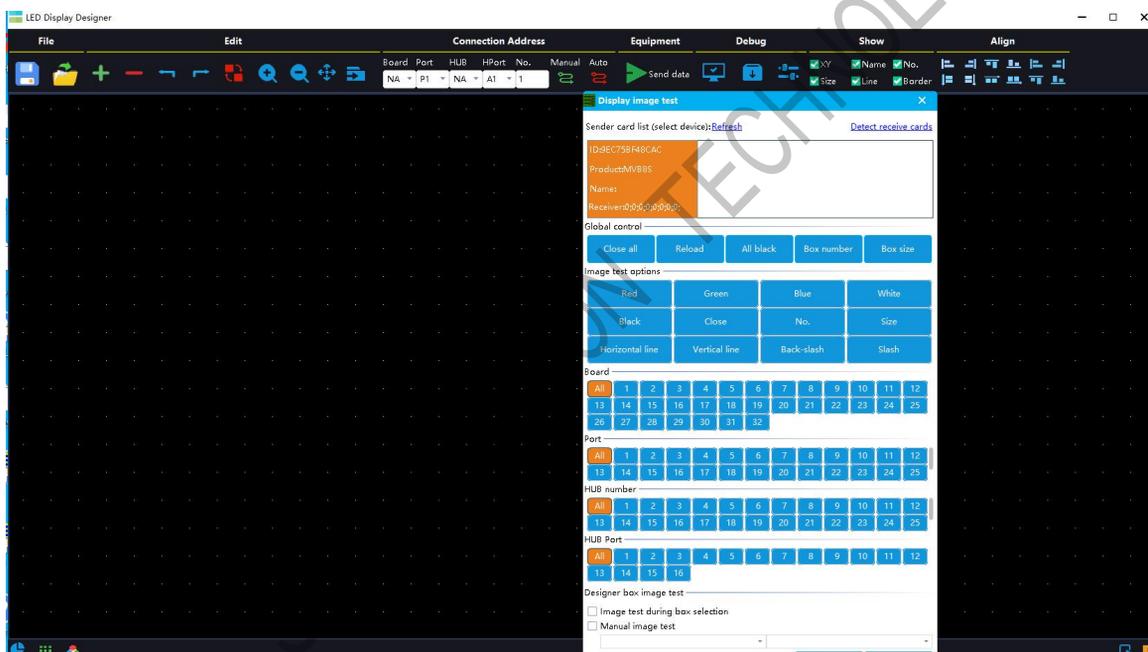


Figure 4-3-11

Read back data. Select the sending card, read back all the parameters and connection position saved by the receiving card, and the big screen can be connected normally after the sending is completed. As shown in Figure 4-3-12.

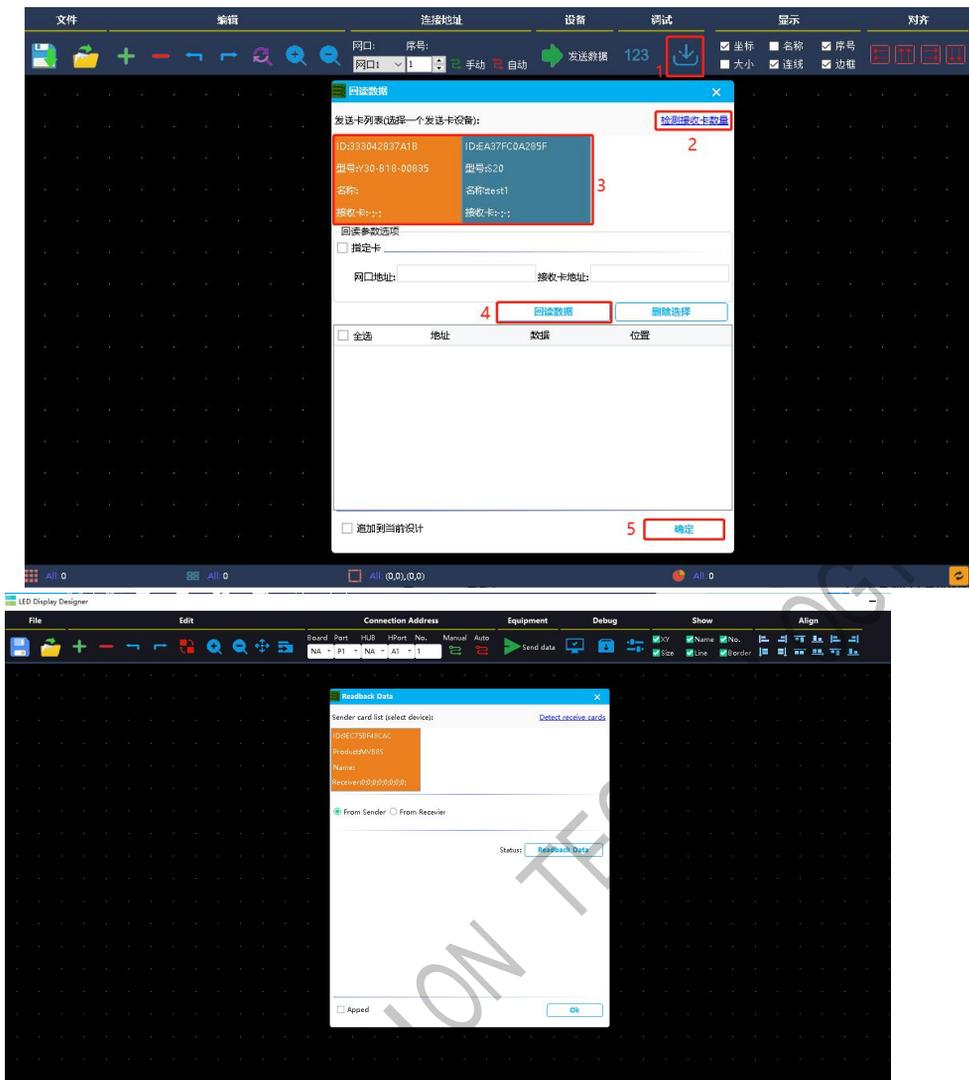
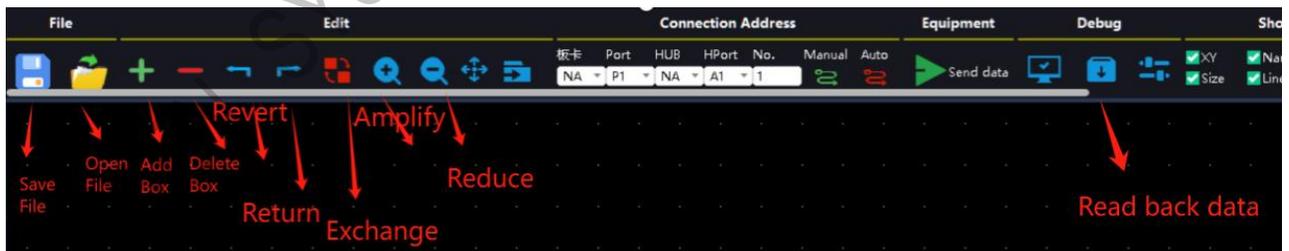


Figure 4-3-12 Read back data

Note: Professional Screen Configuration Toolbar Description



Brightness Control

Click the 'Receiver' option in the main interface to enter the brightness adjustment interface, as shown in Figure 4-4-1.

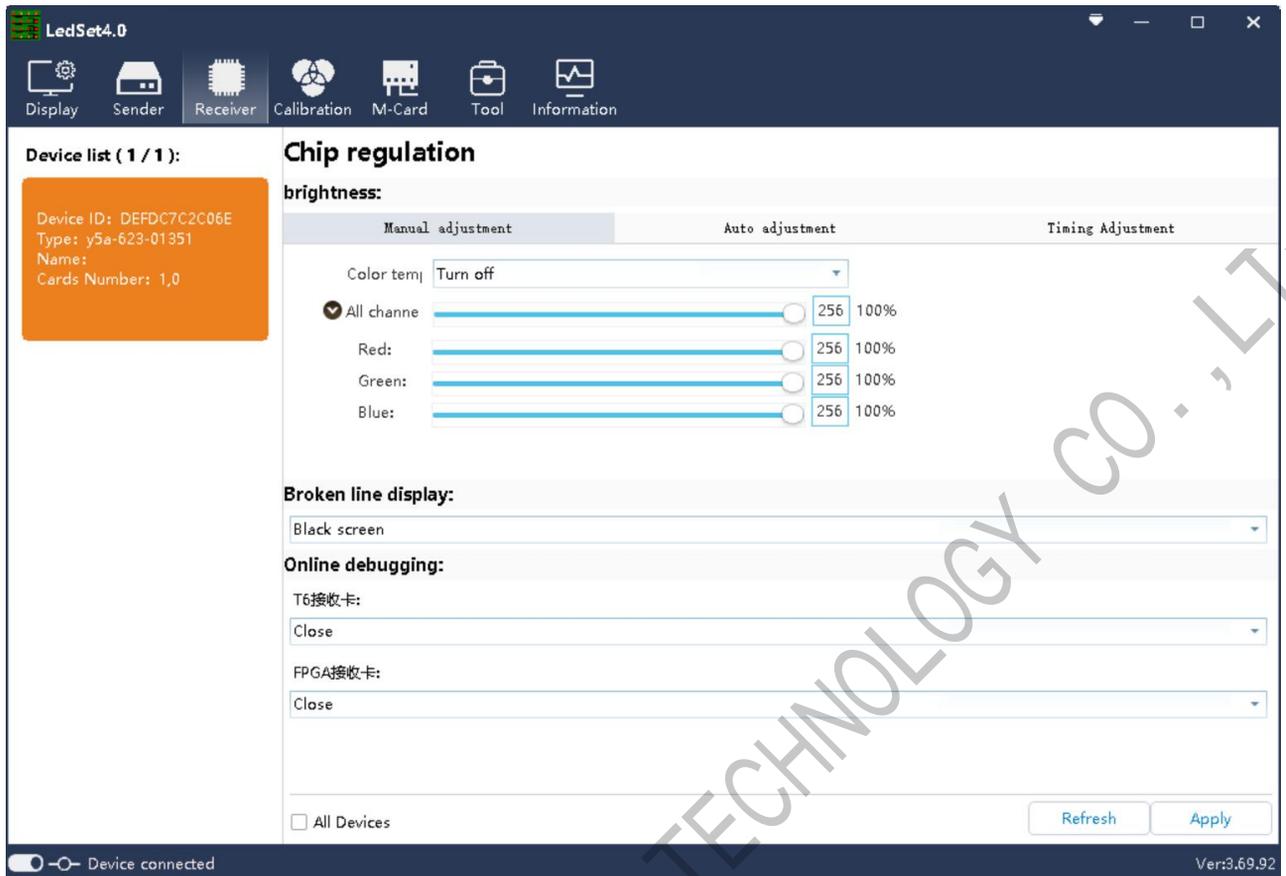


Figure 4-4-1

Brightness Adjustment: Manually adjust the required brightness on the brightness setting column, click the solid button after debugging to save the adjustment effect to the receiver card.

Hardware Information

Click the 'Information' button in the main interface of the software to enter the hardware monitoring interface, as shown in Figure 6. In the device list on the left side of the window, you can click to switch to select the sender card, and on the right side of the window, it shows the firmware version of the receiver card that the current sender card is connected to, as well as the error packets (BER of the network cable). When the communication of the network cable is bad, the corresponding receiver card will have

error packets (the first bit value is greater than 4 and will continue to get bigger), you can check the communication of the first receiver card with error packets on the same network port and the signal output of its previous receiver card.

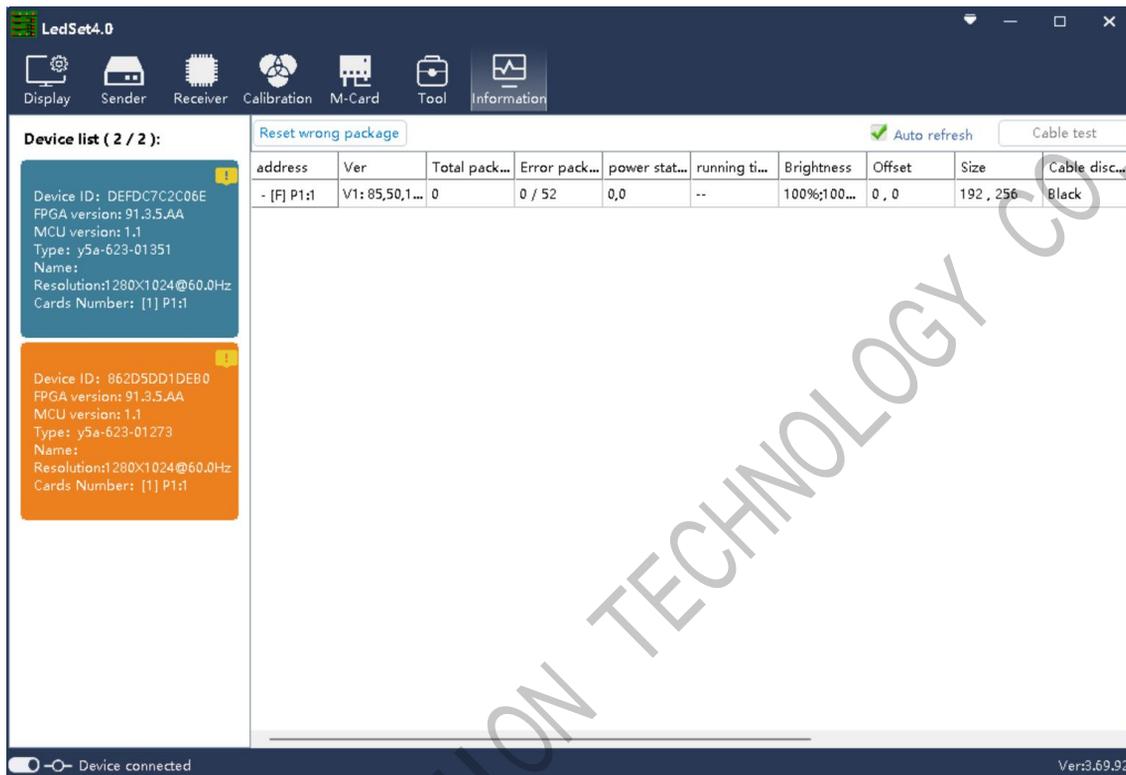


Figure 6 Information

FAQ Troubleshooting

Frequently Issued Solutions to Control Software Problems

Q1: After installing the ledok software, it won't work?

Right-click on the ledok shortcut---'Properties'---'Compatibility'---'Check the box 'Run this programme in compatibility mode! Check the box 'Run this programme in compatibility mode' - 'OK'. Run the ledok software again to open it.

Q2: LedSet 4.0 can't detect the sender card?

Turn off antivirus software and turn off windows firewall.

Using another computer

Q3: Can't detect the number of receiver cards on LedSet 4.0 software?

(1) Make sure the indicator light of the receiver card is normal (red light is always on, green light is blinking), if the red light is not on, please check the power supply of the receiver card; if the green light is not on, please check the communication between the receiver card and the Sender card, i.e. the network cable.

(2) In the LedSet4.0 software, click 'Refresh' or 'Change Sender' in the lower right corner of the interface of the receiver card (multiple Sender card debugging at the same time).

