



E2X Series Screen Configuration And AIPS Platform

Instructions

Version: V.1.1

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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Update record

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|-----|---------|----------------|------------|
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Overview

With the growth of LED vehicle signs, more and more end users require wireless transmission, remote cluster management and joint with third party applications via WiFi or 4G internet, also require to operate by smart phone.

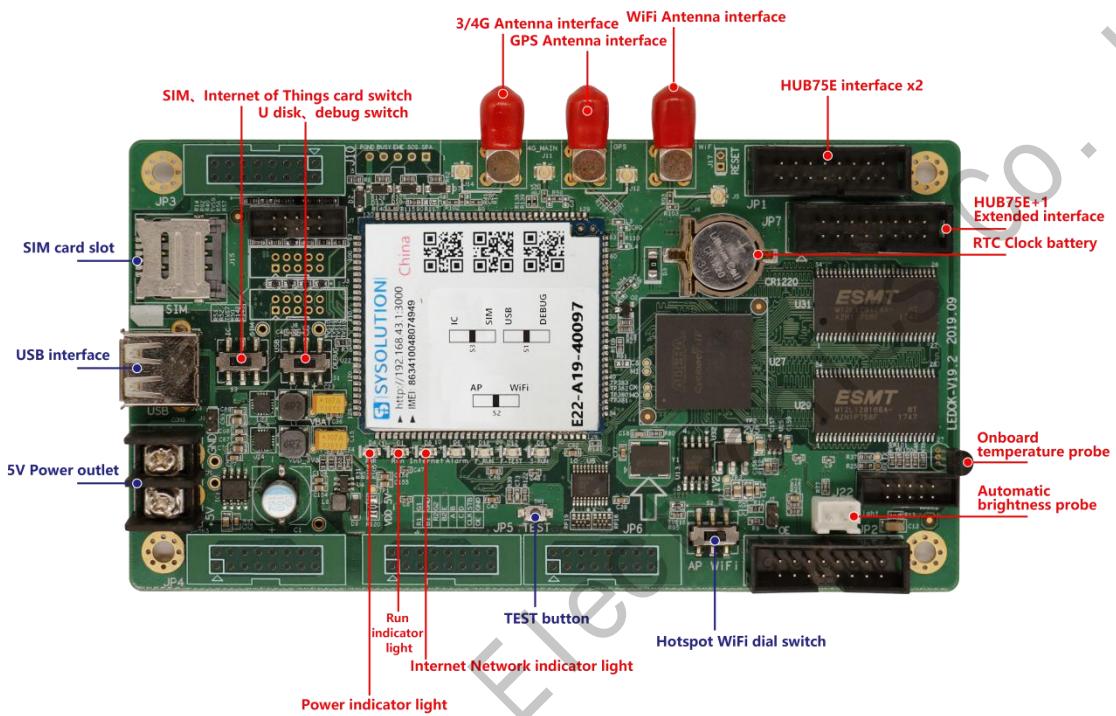
Shanghai Xixun SYSOLUTION designed E2X for all those requirements, which will lead the development of led vehicle signs market and make users to accessing in a simple way.

E2X series including E22, E24 and E26 modes, all adopt Qualcomm MSM8909 platform solution, MSM9809 CPU is made by 28nmLP CMOS technology, with four core main frequency 1.1GHz, storage 1GB+8GB(compatible with 2GB+16GB) LPDDR3. It is a highly integration product, which can support GSM, WCDMA, TD - SCDMA,EVDO,TDD - LTE,FDD - LTE etc.

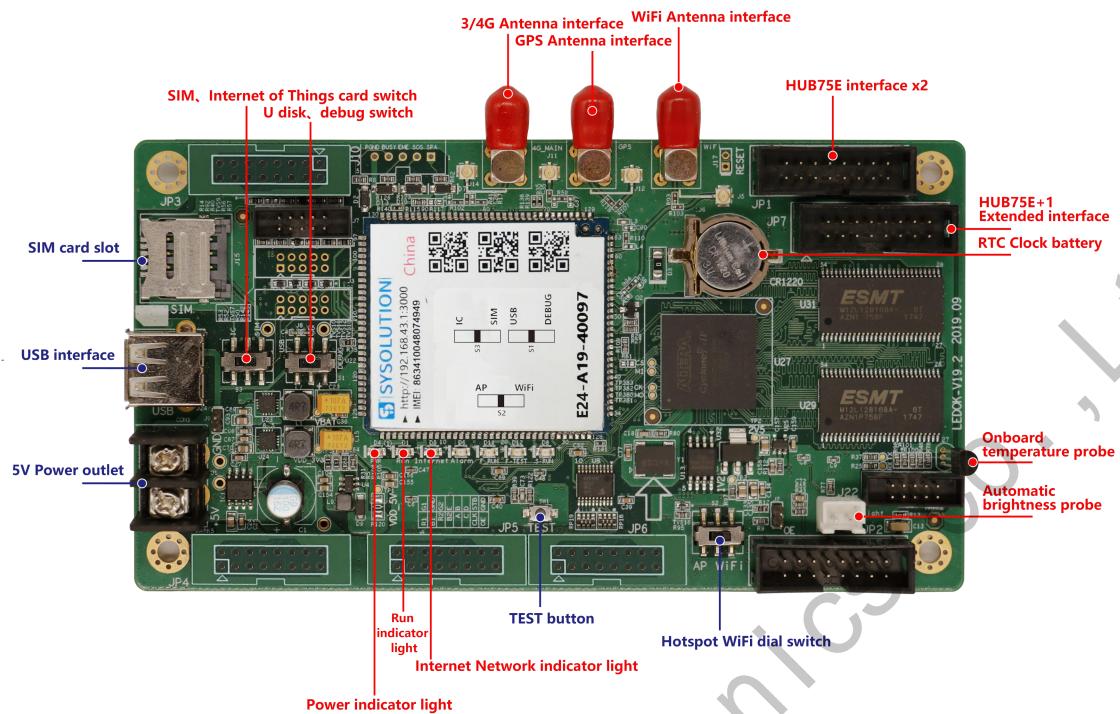
Functions And Features

1. E22 integrates 2+1 HUB75E port; E24 has 4+1 HUB75E port; E26 has 6+1 HUB75E port;
2. Designed for led vehicle text sign, with "Guest" and "NO Guest" independent interfaces;
3. Onboard WiFi modem, support AP and Station mode;
4. Support customized development and cloud web platform control;
5. Build in Web server, support editing local web page, also allow to editing and sending programs from laptop, iPhone, android phone, with offline LEDOK express software to send programs within local network;
6. Support RGB module with 1-32 scanning and static types;
7. Industrial on board Flash: 8GB;

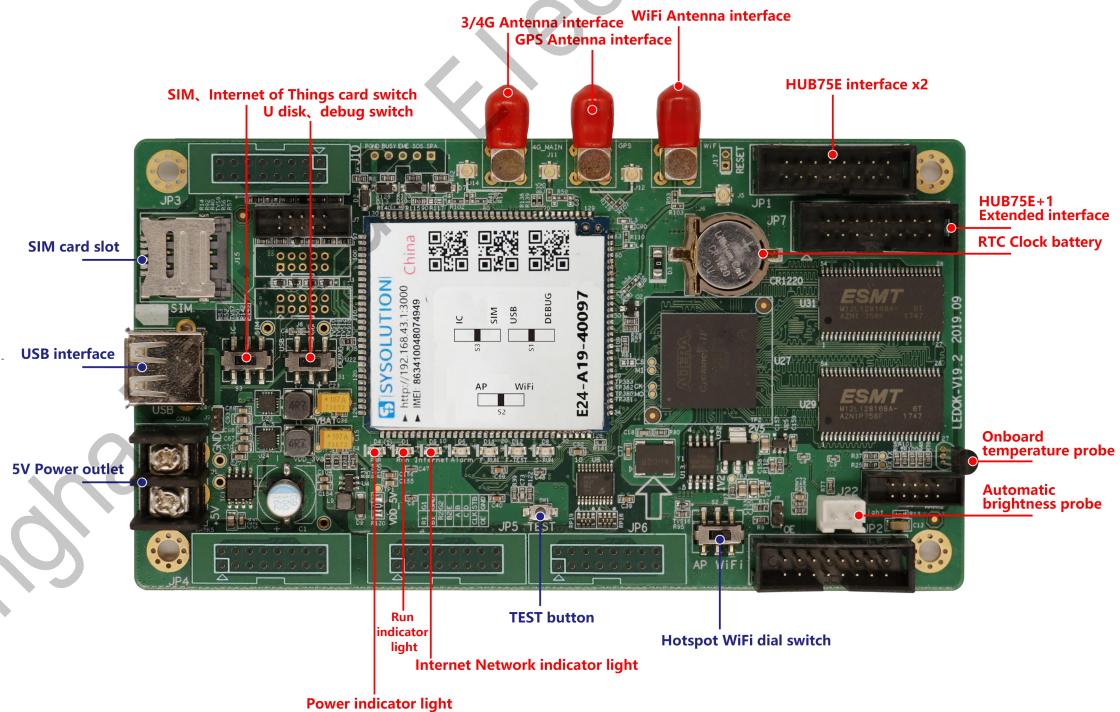
Interfaces Description



E22 interfaces & description



E24interfaces & description



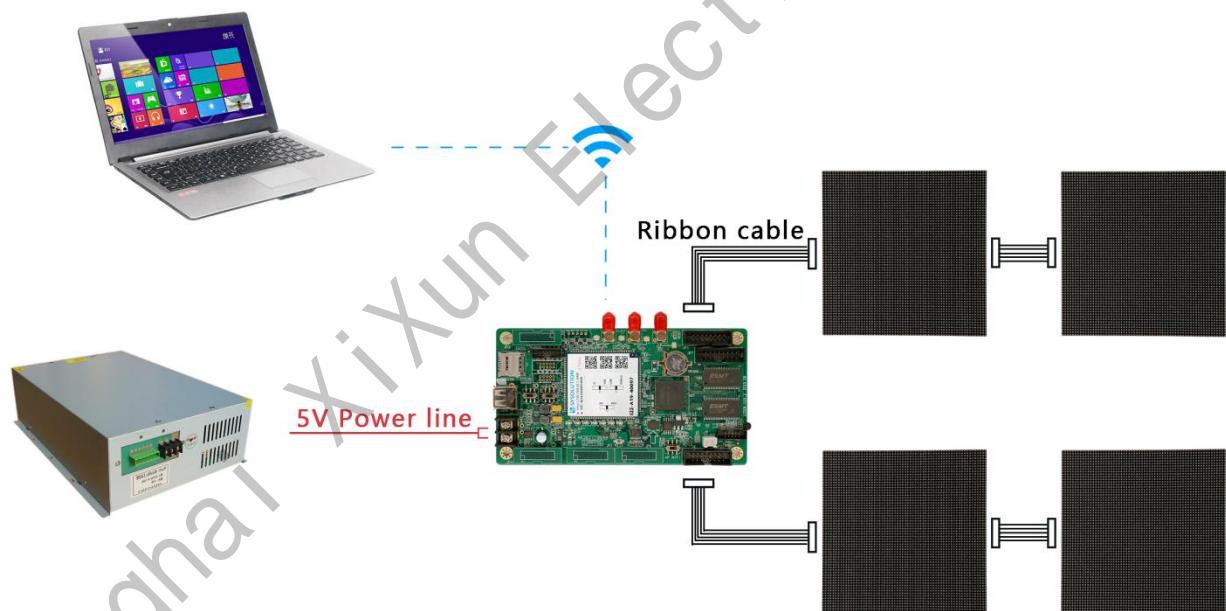
E26interfaces & description

Technical Parameters

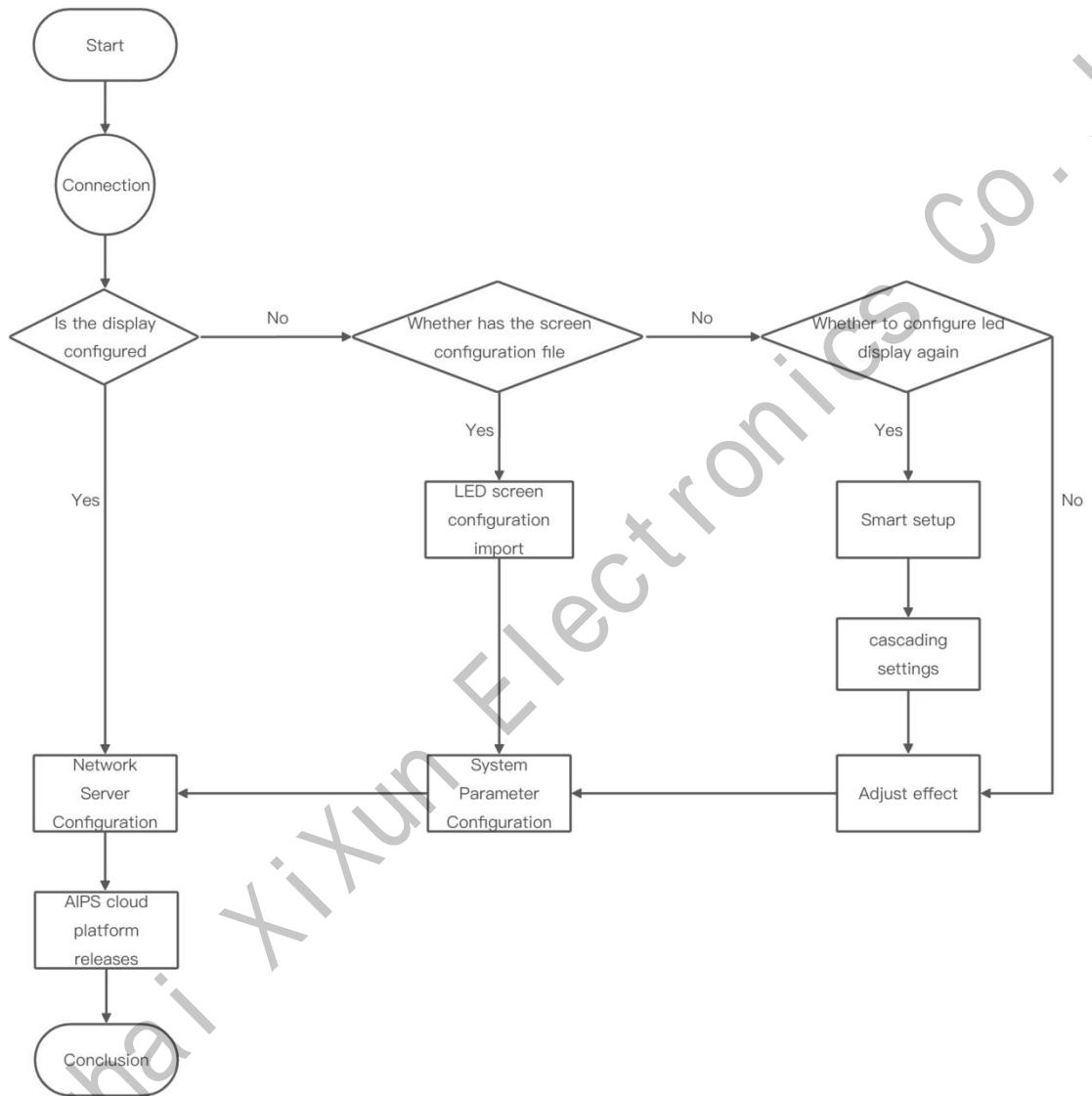
| Features | Description | | |
|------------------------------|--|--|---|
| Type | E22 | E24 | E26 |
| Resolution | 256*32 (has 2 HUB75 port) No need receiving card | 256*64 (has 4 HUB75 port) No need receiving card | 256*192 (has 6 HUB75 port) No need receiving card |
| Communication type | 4G full Netcom、 WiFi、 USB | | |
| CPU | Quad-core A7 (32bit) four cores 1.1GHz | | |
| GPU | A307 409.6MHz | | |
| RAM | 8GB Emmc+1GB LPDDR3 | | |
| Operation system | Android 5.1 | | |
| WiFi | IEEE 802.11b/g/n 2.4G | | |
| GPS | GNSS GPS/Beidou/Glonass | | |
| Bluetooth | Bluetooth BT4.1 | | |
| 3G/4Gfrequency (OPTIONAL) | -China FDD-LTE: B1/3 TDD-LTE: B38/39/40/41 TDSCDMA: B34/39 WCDMA: B1/8 CDMA 1X/EVDO: BC0 GSM: B3/5/8 | | |
| Audio | support | | |
| Camera | support | | |
| Weather forecast | support | | |

| | |
|--------------------------|-----------|
| Readback display content | support |
| Software | Easyboard |

Hardware Connection Diagram



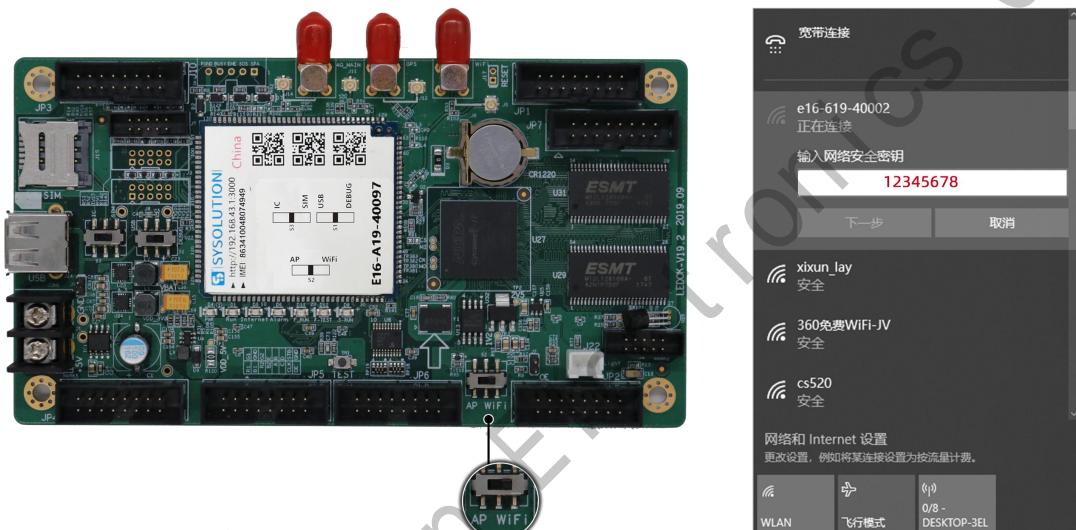
Software Operation Procedures



LED Display Smart Setup

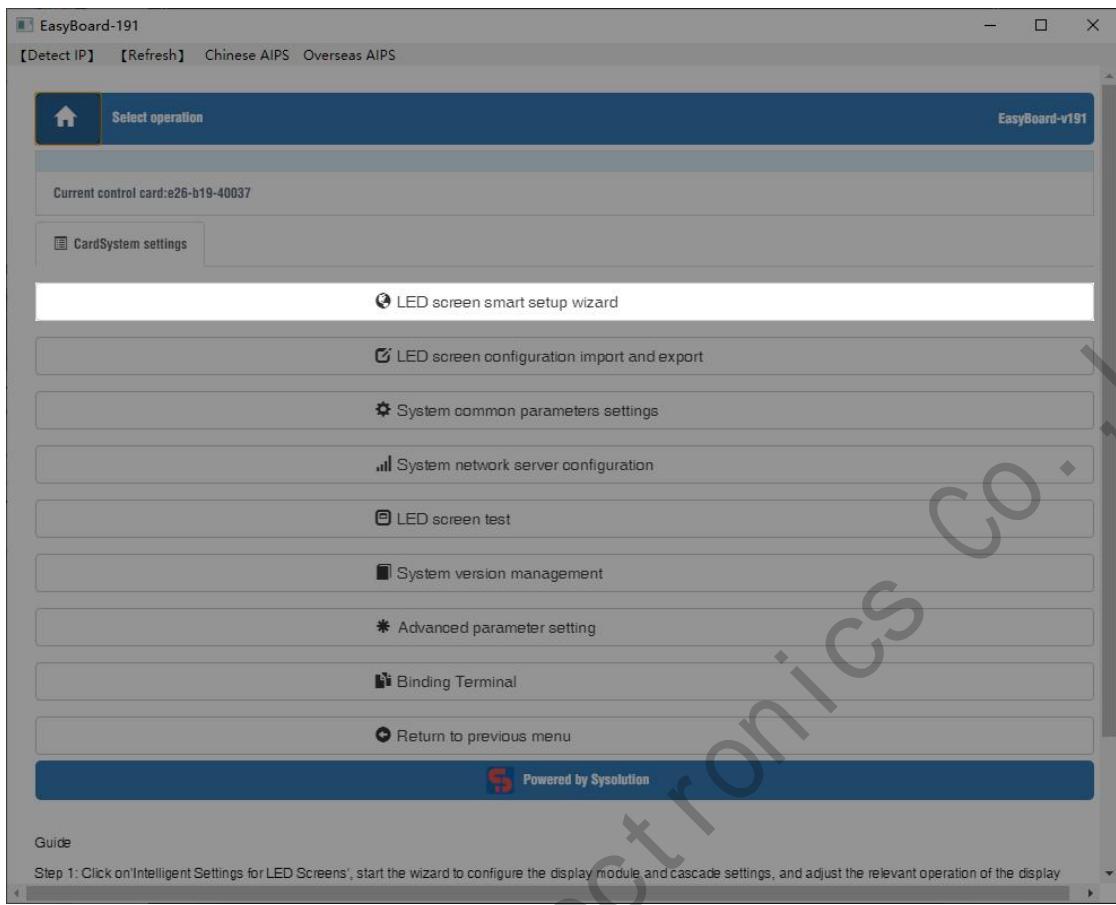
Software Connection

1. Dial the control card dial code to AP, the computer will search the AP hotspot (EXX-Xx-XXXX) released by the control card, click "Connect" and enter the password (the default password is 12345678).

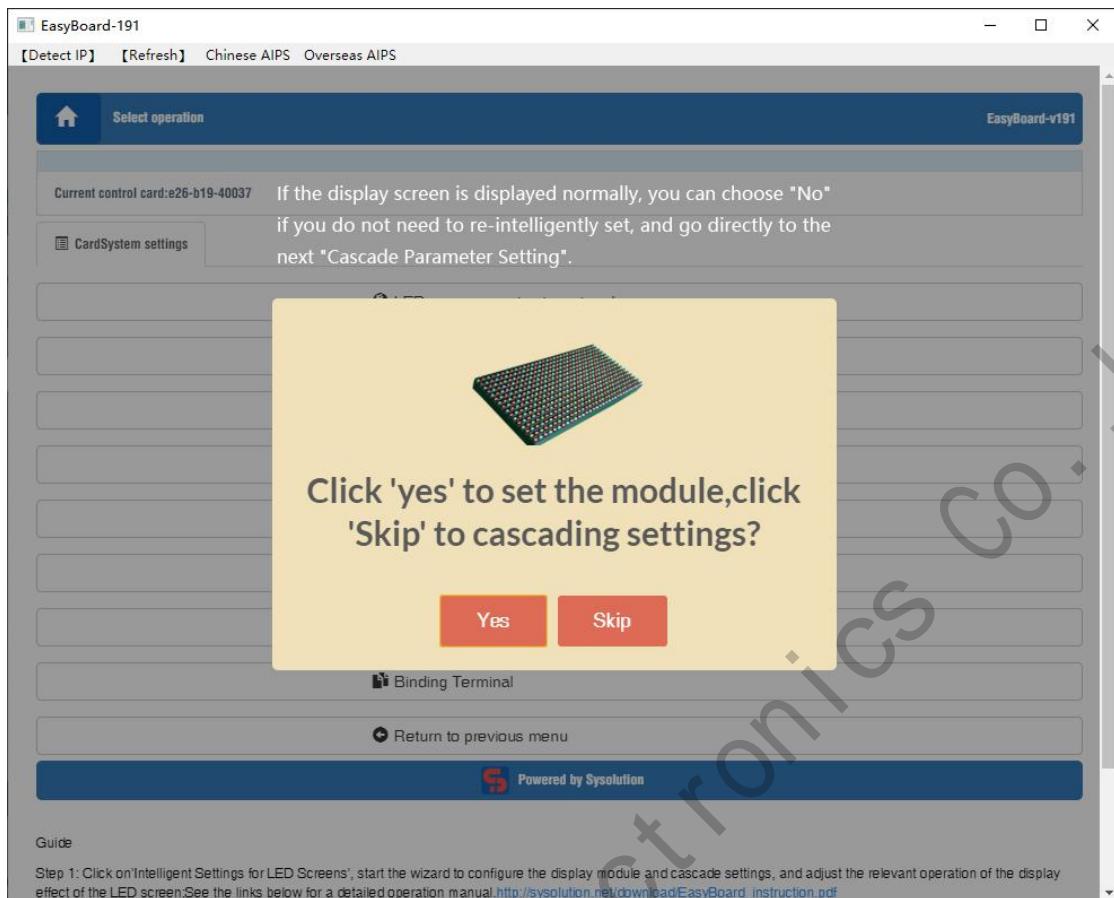


Step 1

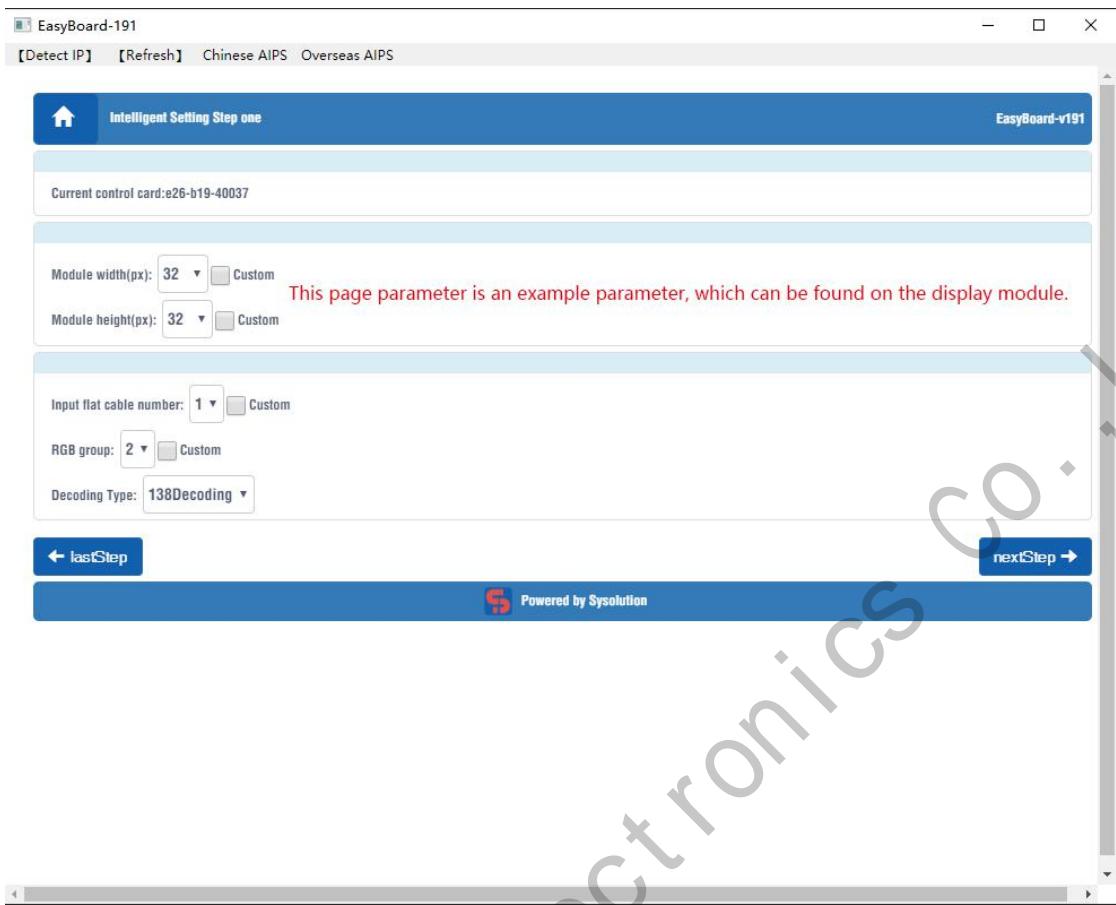
1. Select "Smart setup" option and enter.



2. Choose Yes to set the module for tip message.



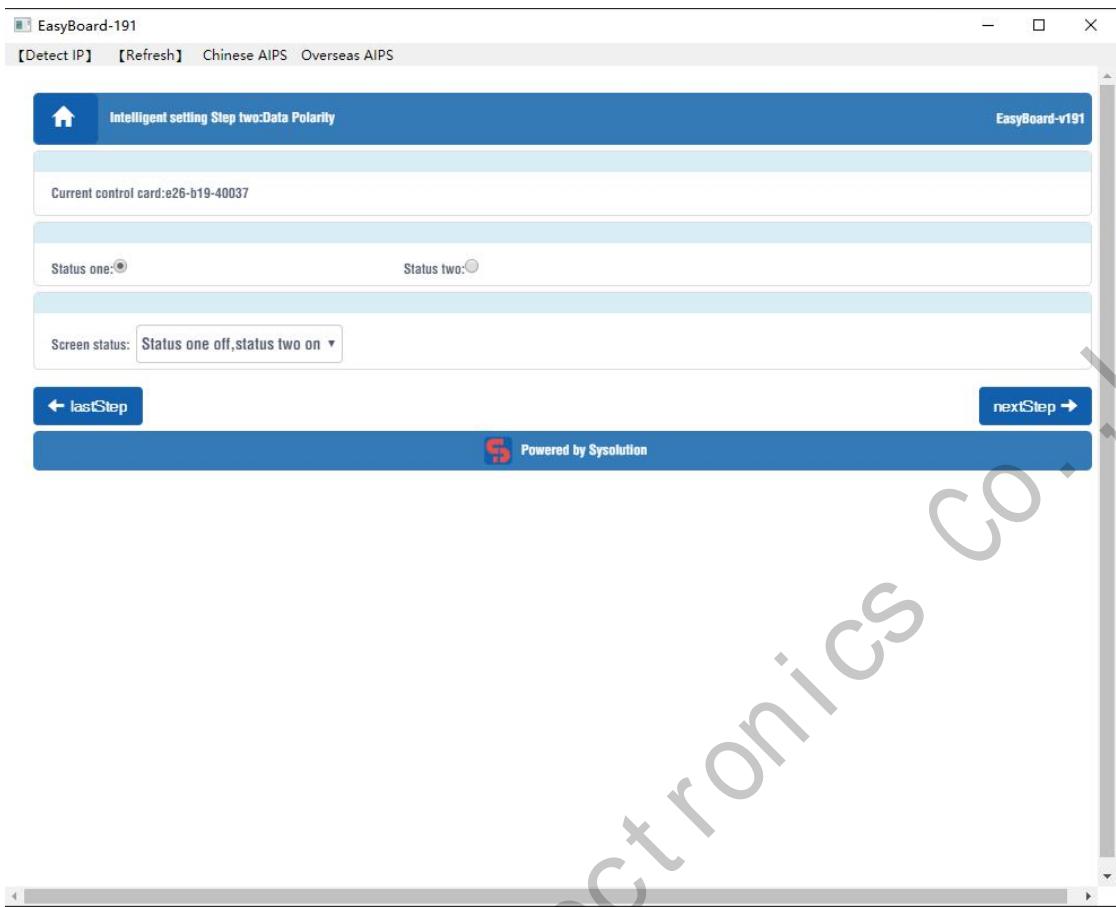
3. Enter one module width and height pixels, F/C: 1, RGB group: 2, decode: 138 decoding and Next.



Step 2 To 4

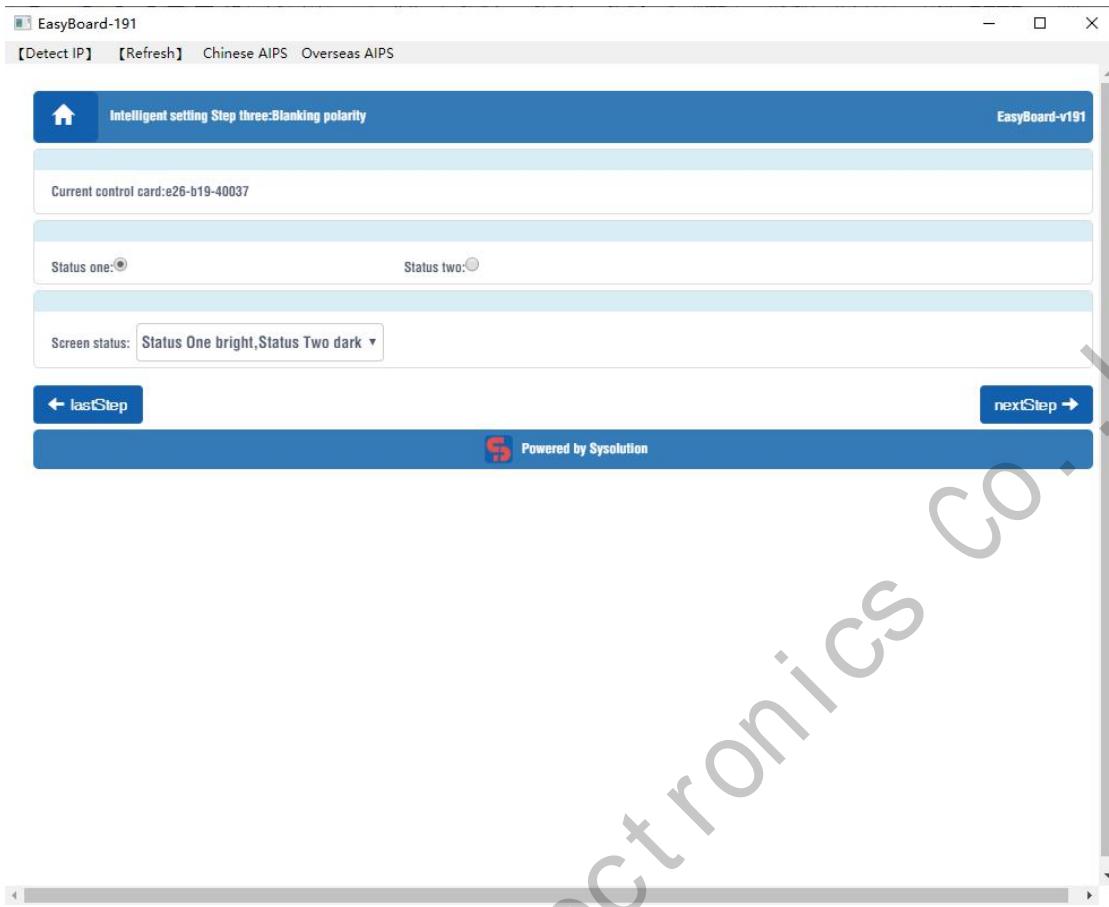
Data Polarity

4. Choose correct answer according to screen changes



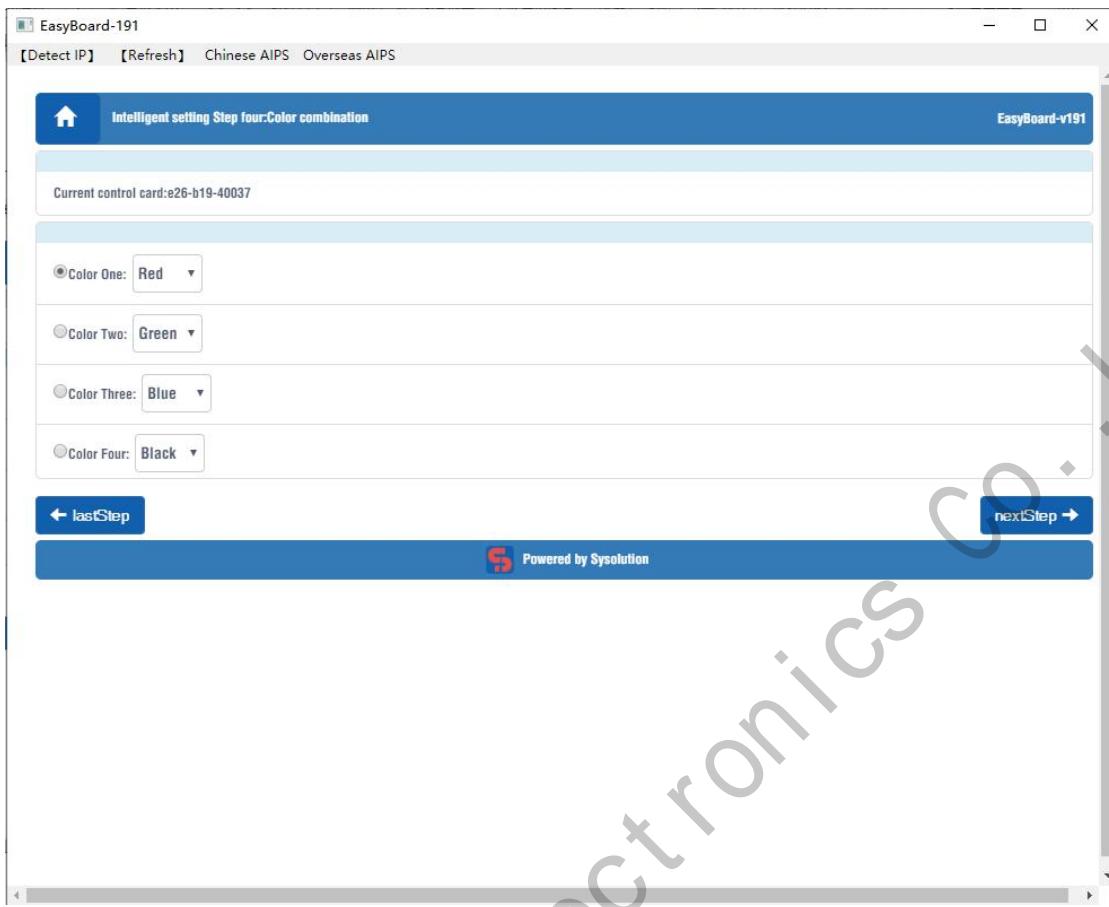
Blanking Polarity

5. Please choose correct answer according to screen changes.



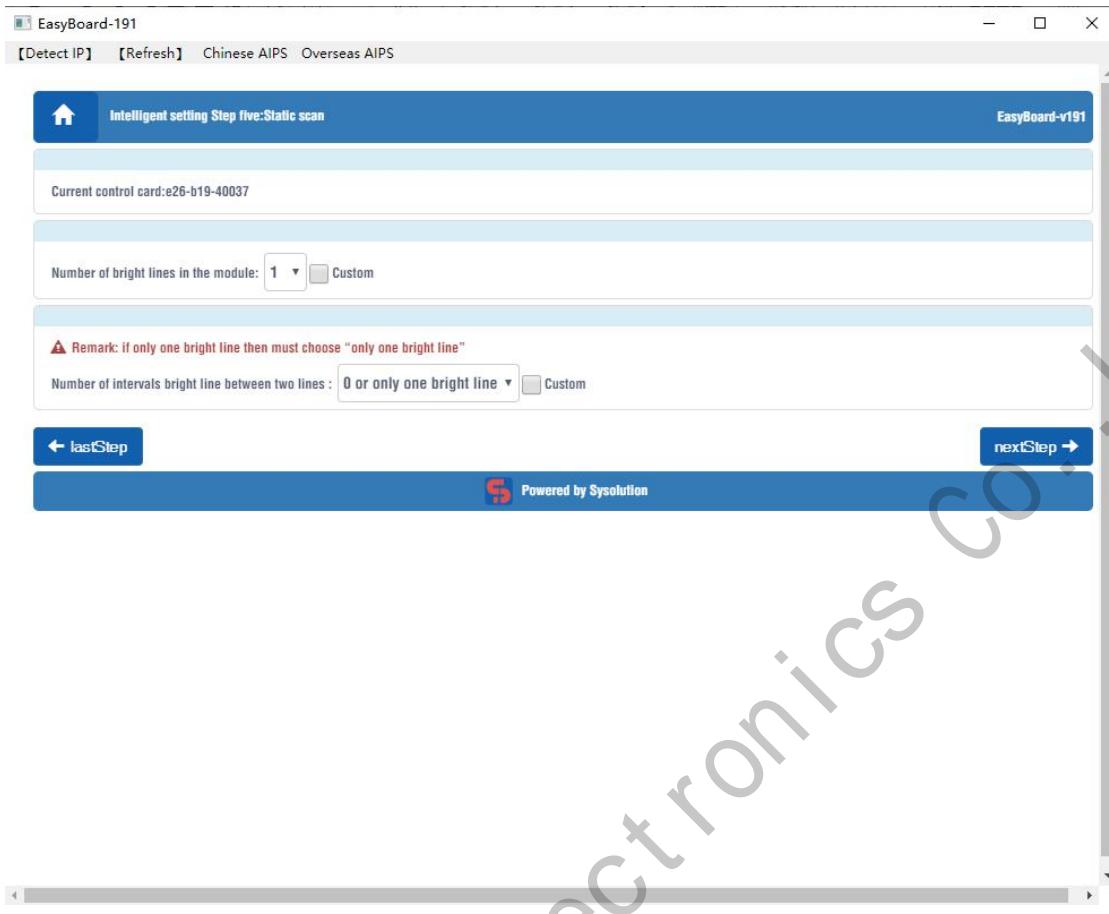
Colors

6. Please choose correct color according to screen changes.



Static Scan

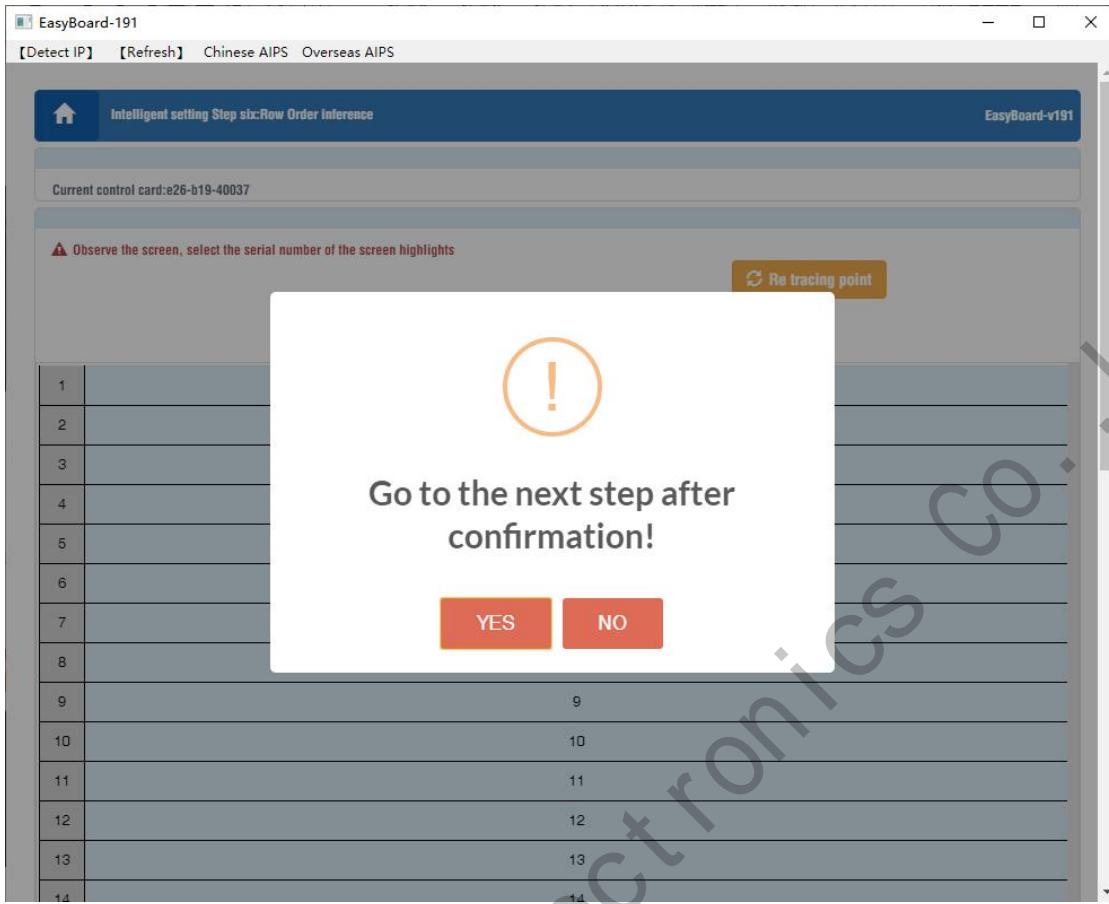
7. Please select how many bright lines and how many interval lines according to screen.



Step 6 And 7

Row order inference

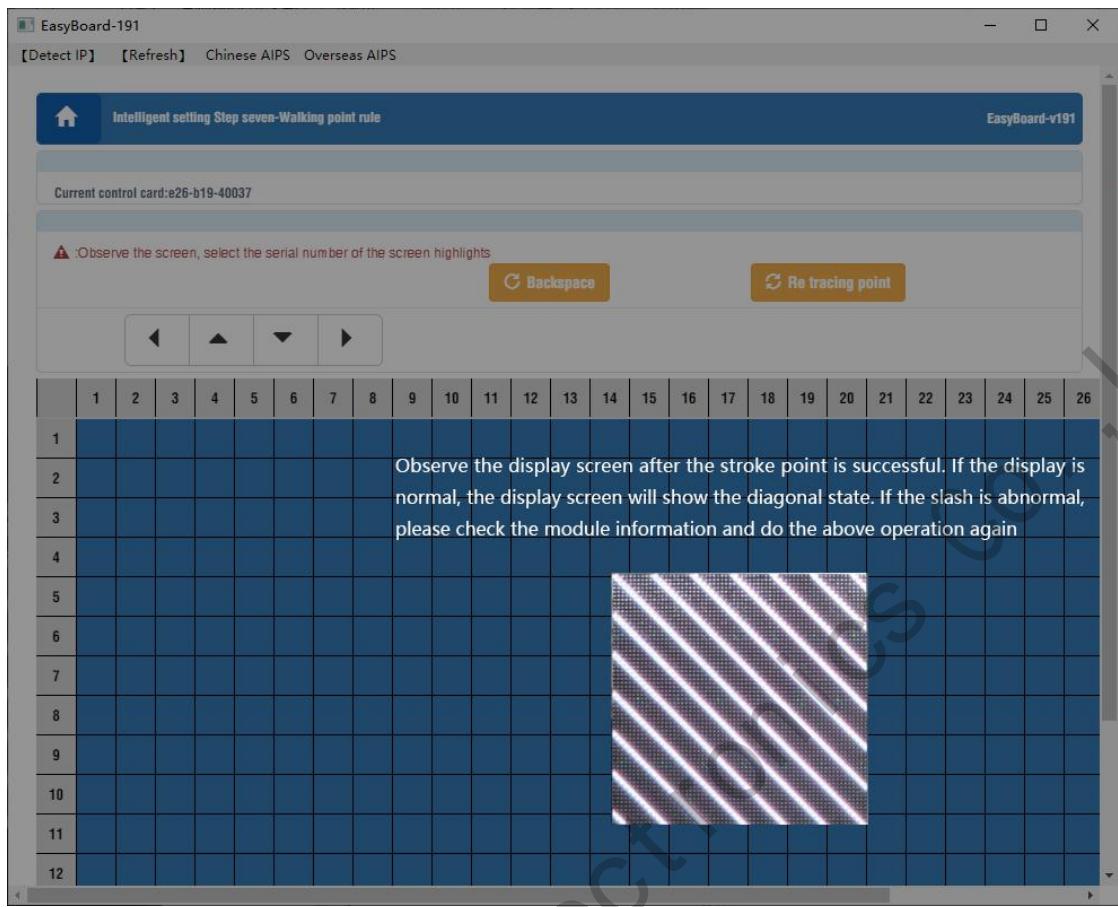
8. Normally will see two bright pixels, find out which row it is. Click the correct position in the software, After done, remind message will pop up and ask you go to next step,



Walking Point Rule

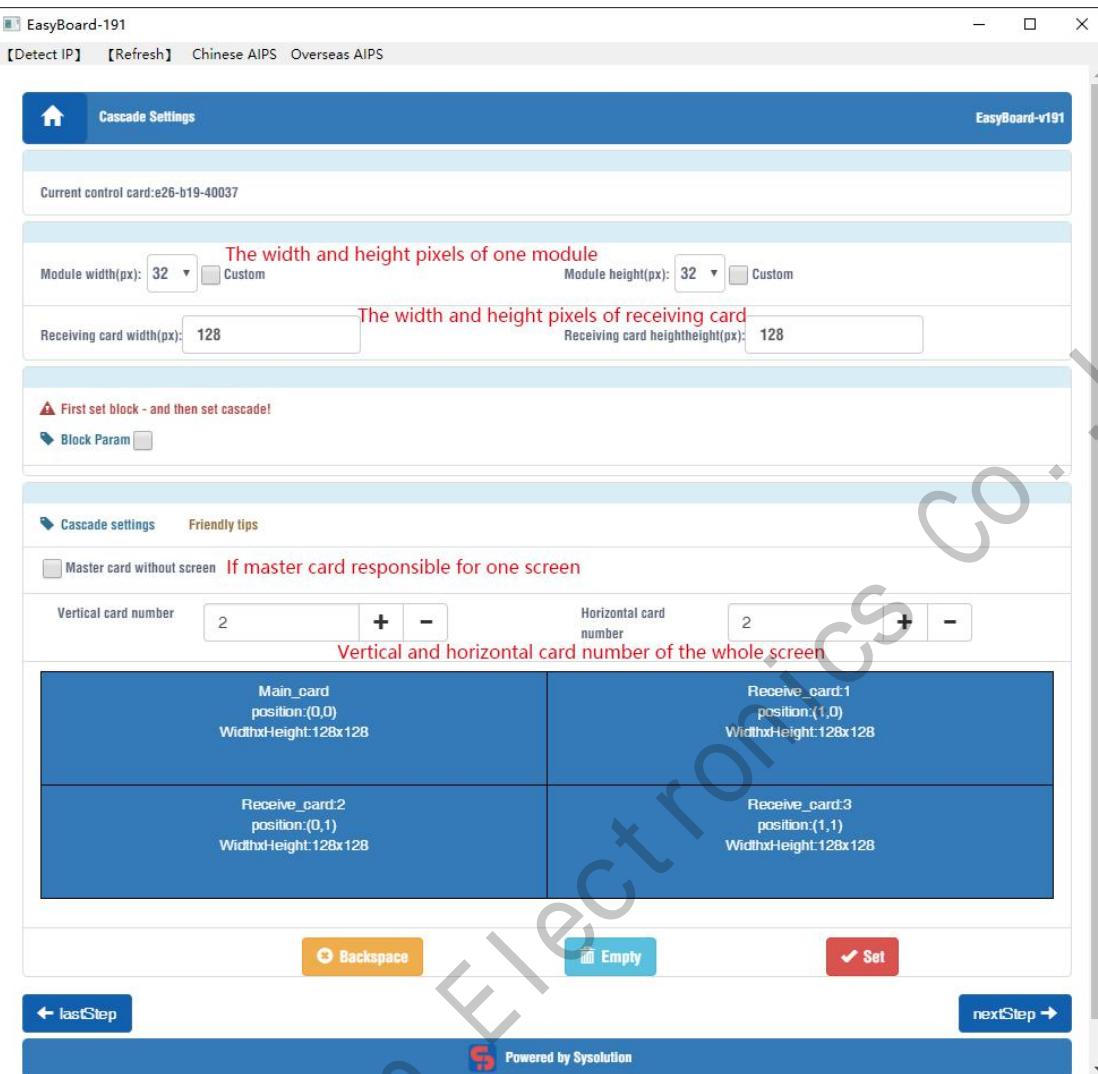
Normally will see one flashing pixels in the module, also need to find its position, in which row and which column and then click in the software correctly, When click the first pixels correctly in the software, the second pixels will show up immediately, need to click in the software for the second pixels either, then third,.....

9. Just need to watch the pixels movements in the module and click in the software correctly. After done, the module will show bright lines. Meanwhile, the tip message will pop up to ask you go to next step after confirmation

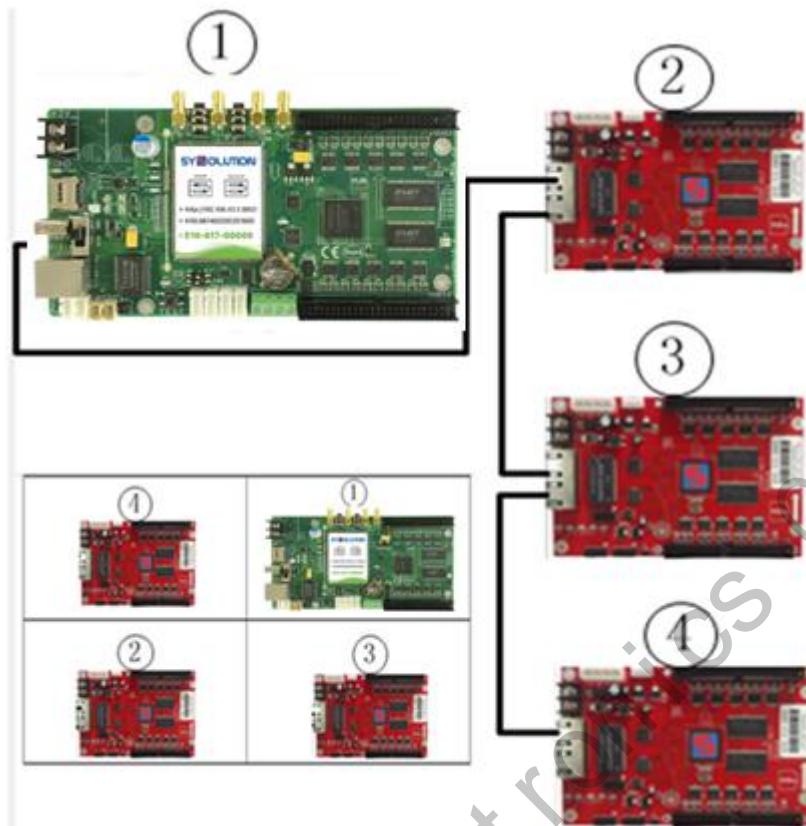


Cascading Settings

10. Write down the cascading setting parameters according to the module information and receiving cards numbers.



11. first click should be master card, the second click is the first receiving card, and so on. (If click wrong, please click "Backspace" button and redo it.)
12. The click sequence of cascading setting according to the connection sequence of receiving cards,



13. Press “Set” button after confirmation, then watch the screen image correct or not, if correct, click “Save” button, then cascading setting parameters will be stored in controller automatically.

| | | | | |
|------|------|------|------|------|
| 1-1 | 1-2 | 1-3 | 1-4 | 1-5 |
| 2-1 | 2-2 | 2-3 | 2-4 | 2-5 |
| 3-1 | 3-2 | 3-3 | 3-4 | 3-5 |
| 4-1 | 4-2 | 4-3 | 4-4 | 4-5 |
| 5-1 | 5-2 | 5-3 | 5-4 | 5-5 |
| 6-1 | 6-2 | 6-3 | 6-4 | 6-5 |
| 7-1 | 7-2 | 7-3 | 7-4 | 7-5 |
| 8-1 | 8-2 | 8-3 | 8-4 | 8-5 |
| 9-1 | 9-2 | 9-3 | 9-4 | 9-5 |
| 10-1 | 10-2 | 10-3 | 10-4 | 10-5 |
| 11-1 | 11-2 | 11-3 | 11-4 | 11-5 |
| 12-1 | 12-2 | 12-3 | 12-4 | 12-5 |

Effect of Micro Adjustment

There is an optional function, if LED screen display all good without any problem, then can omit this step. But if LED screen display with some lines or irregular pixels, please try these micro adjustment.

- **Scan clock**: range 25MHz-2.0MHz, default is 12.5MHz, higher scan clock higher refresh rate;
- **Effect adjust**: range 0-41. When there some shadow pixels or irregular /flashing lines in the screen, please adjust the effect number, higher numbers means lower refresh rate;
- **Refresh rate and brightness selection**: can leave with default one ; there are three choices including high light lower refresh, middle light middle refresh, low light high

refresh;

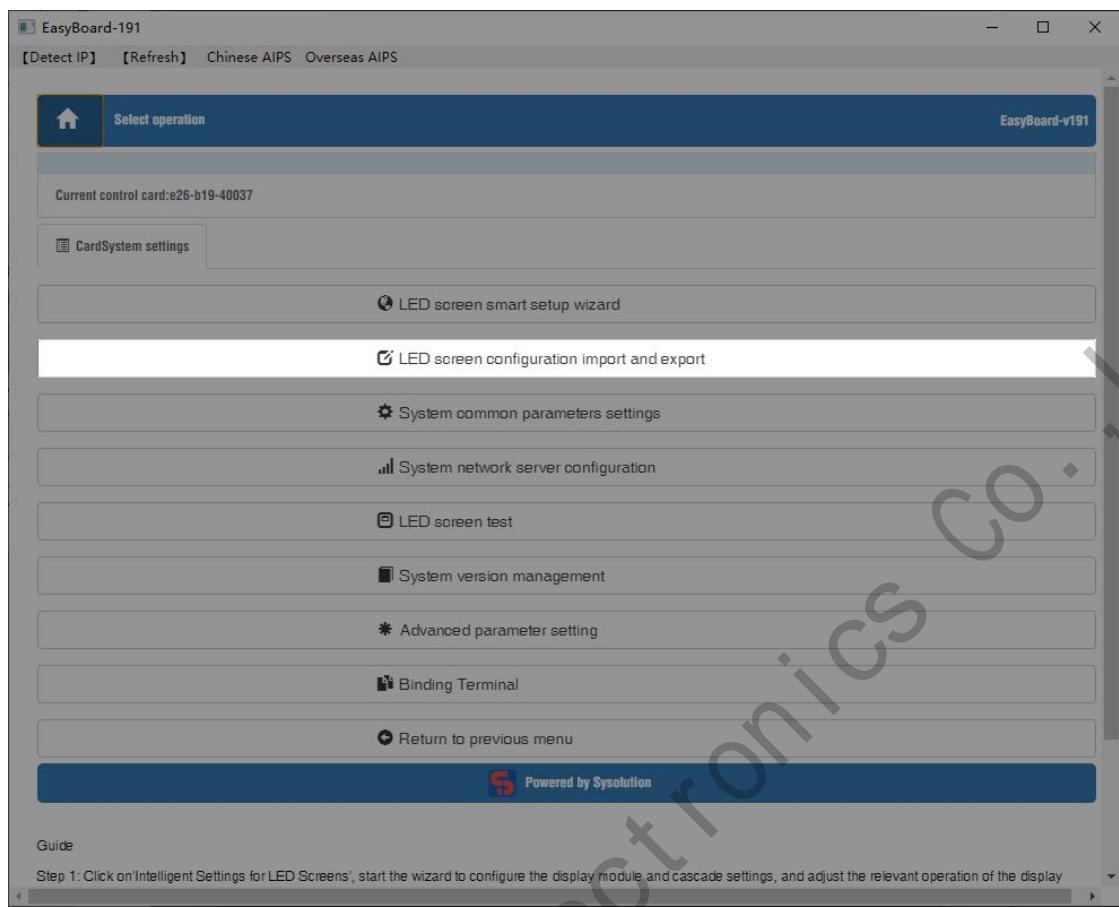
- **Gray level:** 65536 is default one;
- **16/20 :** select different types according to the HUB type ; need some professional knowledge of hub;
- **Lock phase:** there are 5 levels for different types of LED module.
- When LED screen display irregular pixels or broken image, could try this function;
- **Blanking:** 400 is default;
- **Phase:** 2 is default.
- **Note:** no need to change or adjust for default parameters.



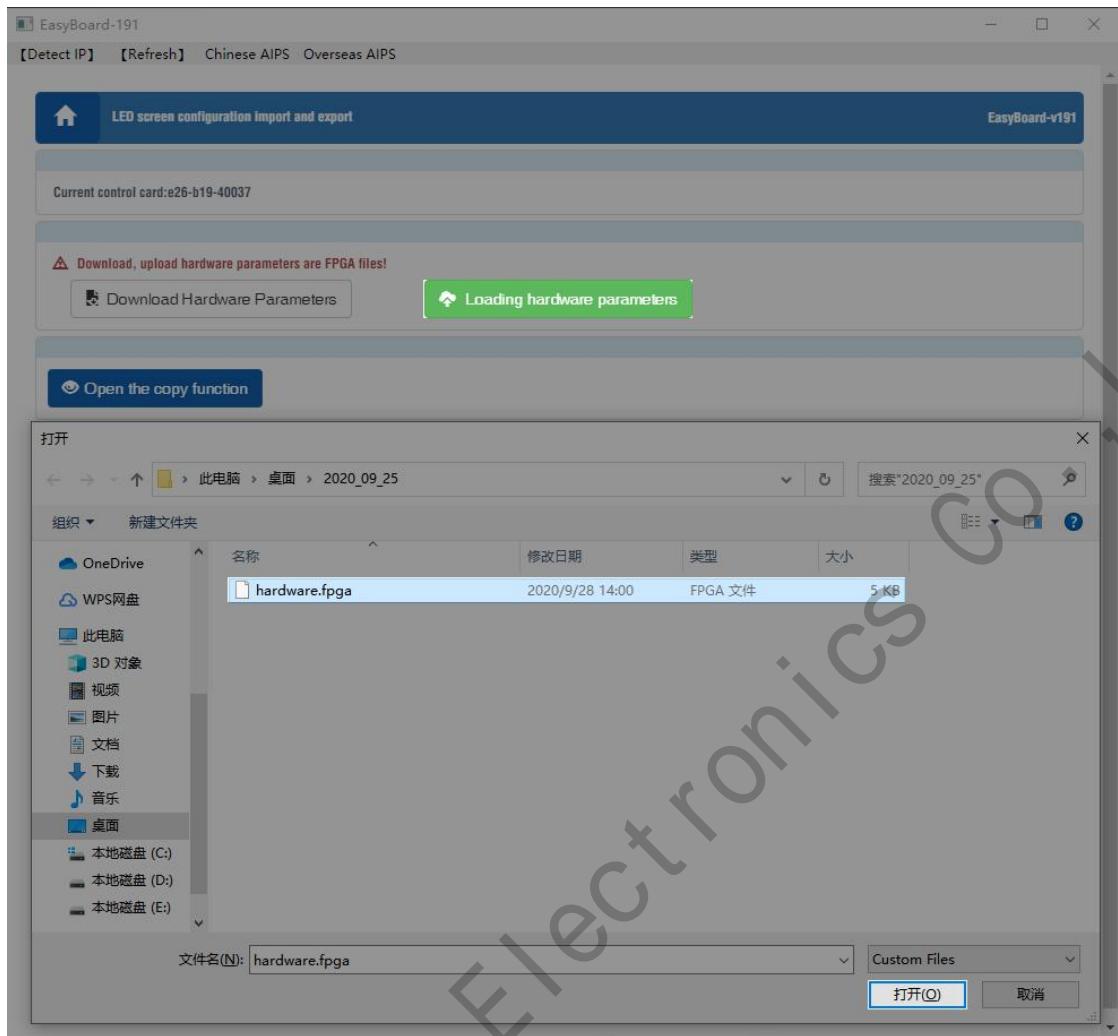
Import & Export Configuration

Import Configuration File

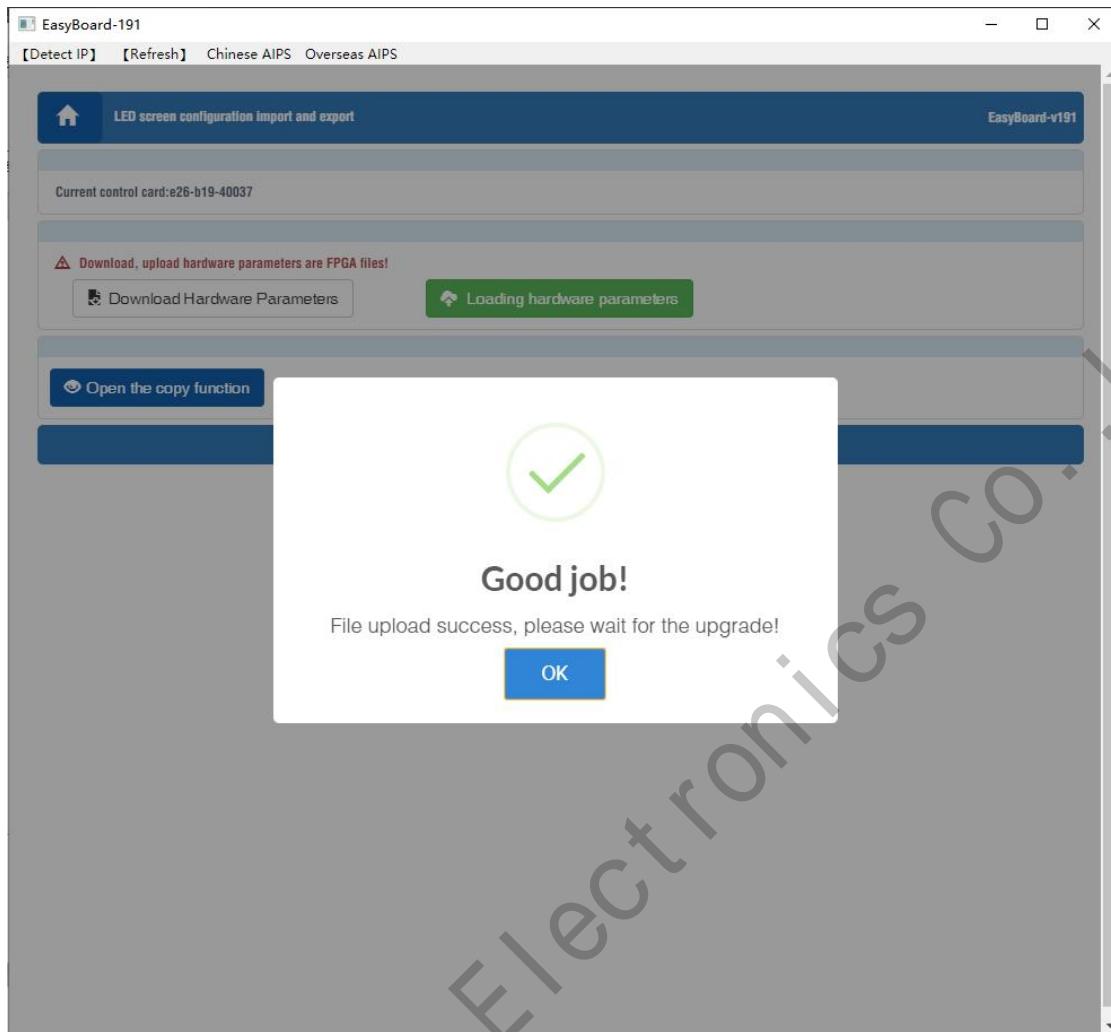
With correct FPGA parameters, select “LED Screen Configuration Import and Export” option.



1. Upload hardware fpga file.

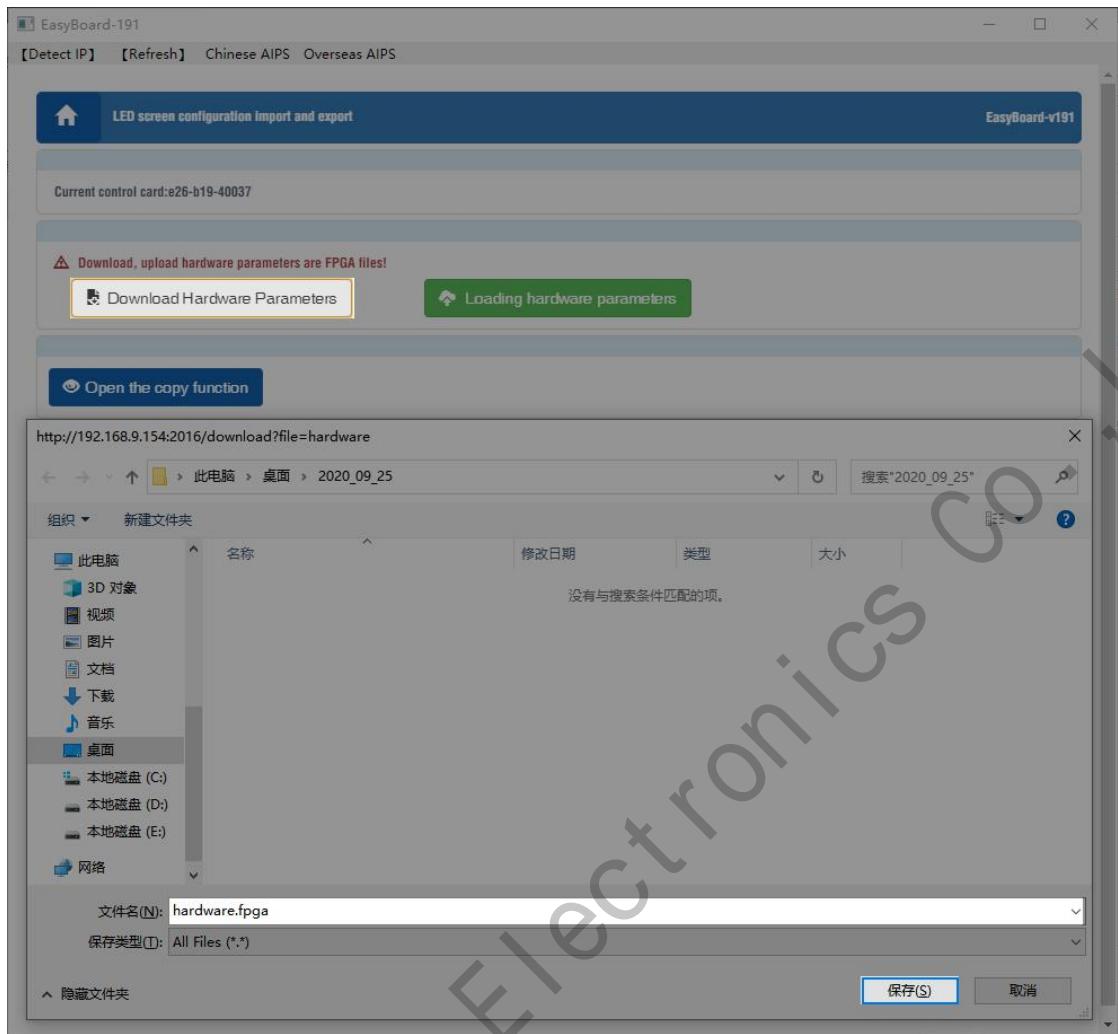


2. There will be a tip message pop up to showing the result, “Good Job” means the parameters have successfully imported to other cards.



Readback Configuration File

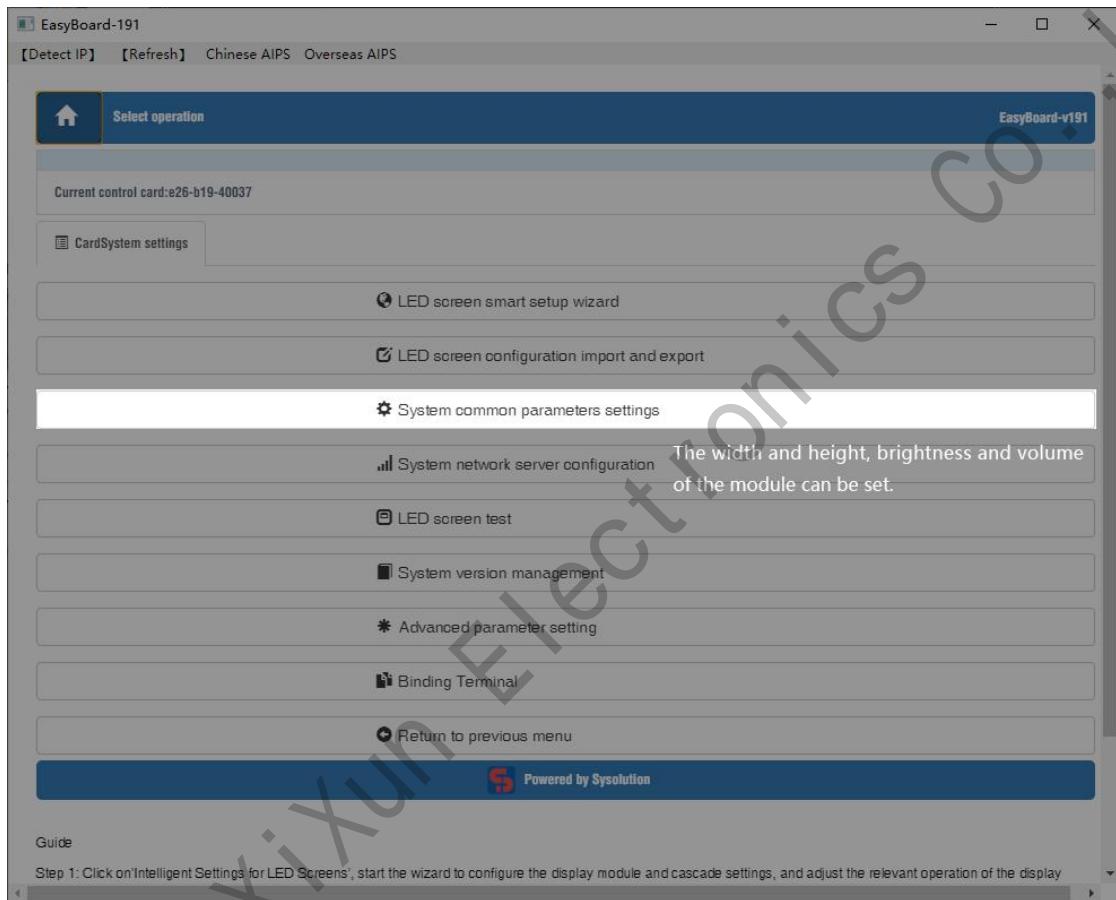
Download The Hardware Parameters" and then could readback the correct parameters from the LED control card.



NOTE : FPGA file including the intelligent setup file, cascading settings file and effect parameters.

System Common Parameter

Please select "System Common Parameters Settings" in the main menu and enter the following interface.



Set alias: set a name for controller;

Control card language: Chinese or English;

Control card time zone: choose your local time zone;

Set the width and height of the whole screen: Width and height pixels for the whole LED sign; press save;

Volume settings: range 0-15. Input the volume number you need or use the add/reduce

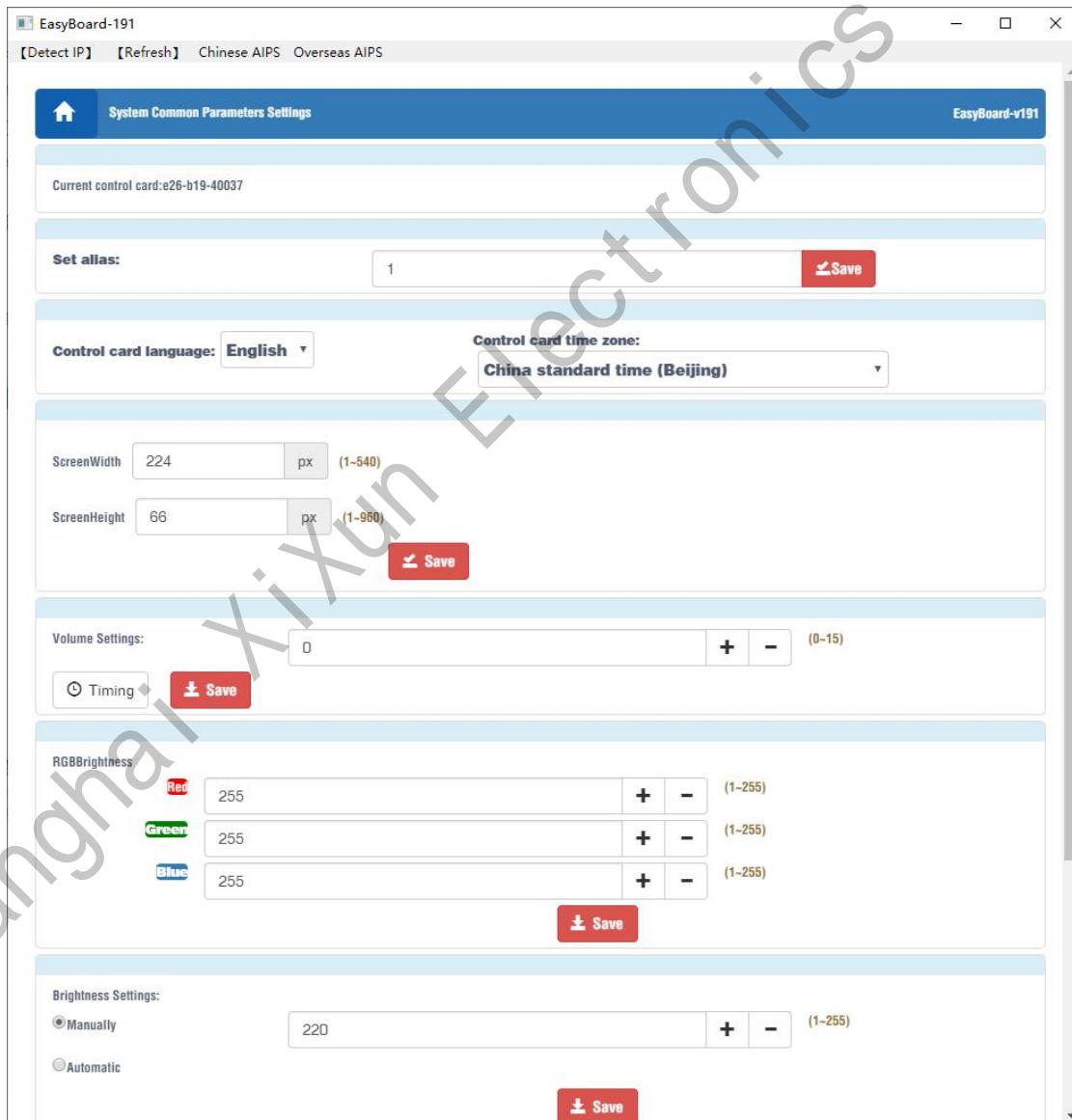
button (add 4, reduce 1) ;

Brightness settings: It is divided into manual and automatic. Click save after setting.

Manual brightness: Can input the number directly or use the add/reduce button (add 4, reduce1);

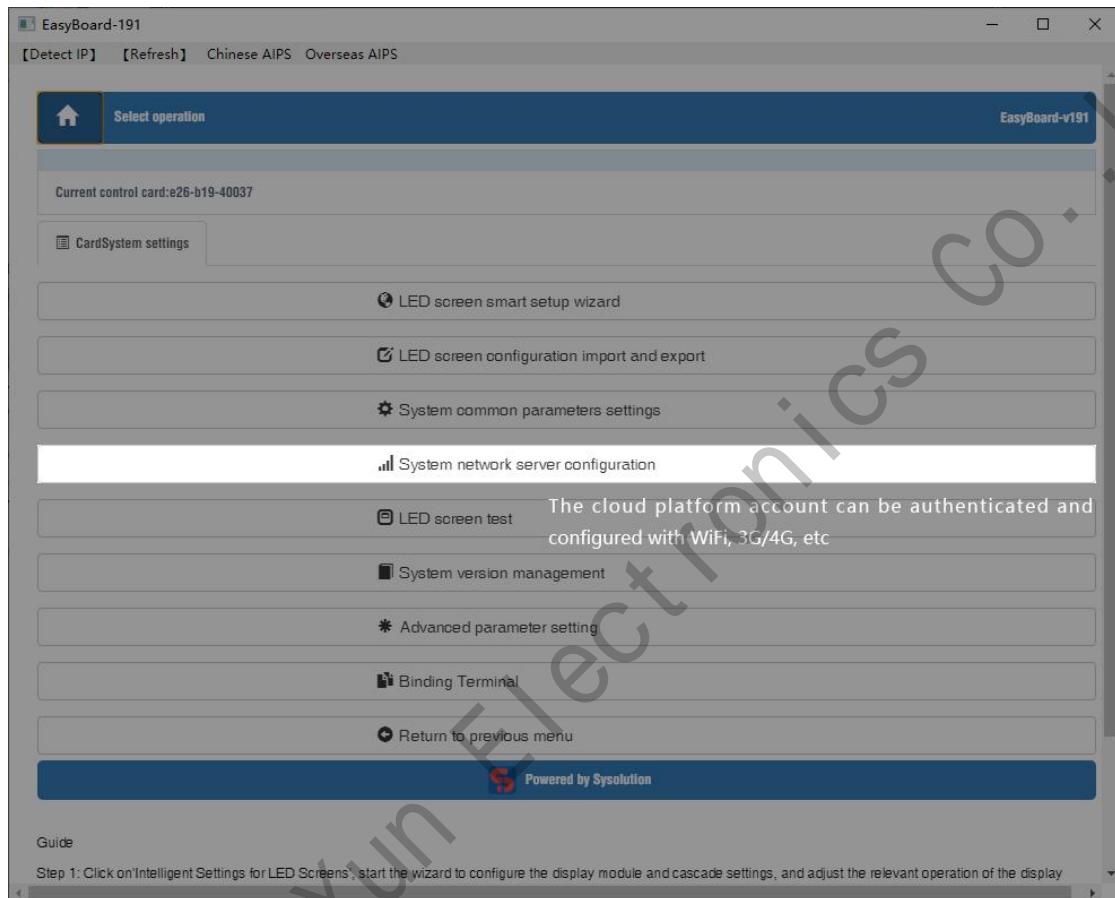
Automatic brightness: higher sensor sensitivity then higher degree of accuracy (add 5 reduce 5).

NOTE: all numbers could not exceed the range, or will invalid.



System Network Server Configure

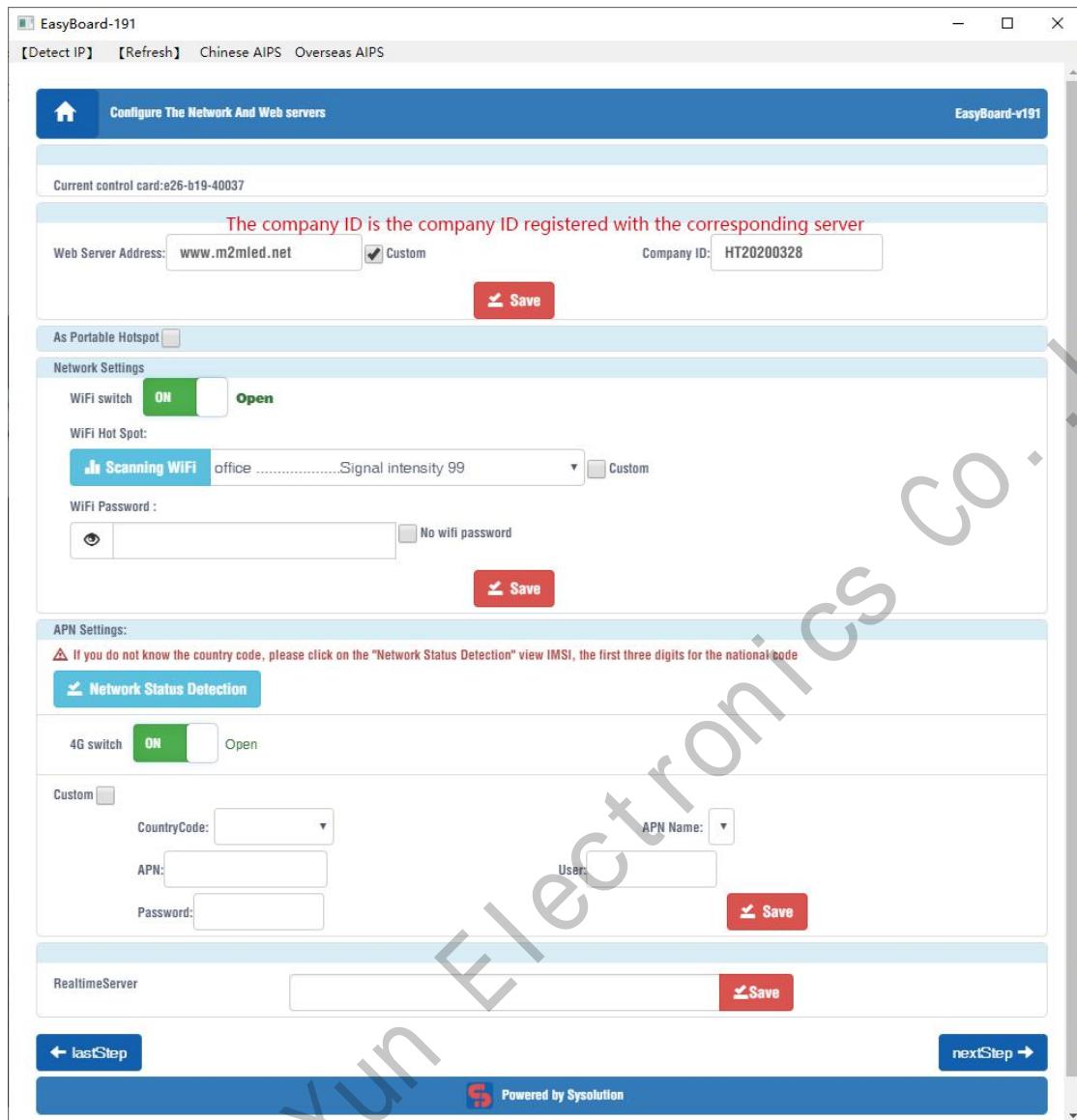
Select "System Network Server Configuration" and enter the following interface:



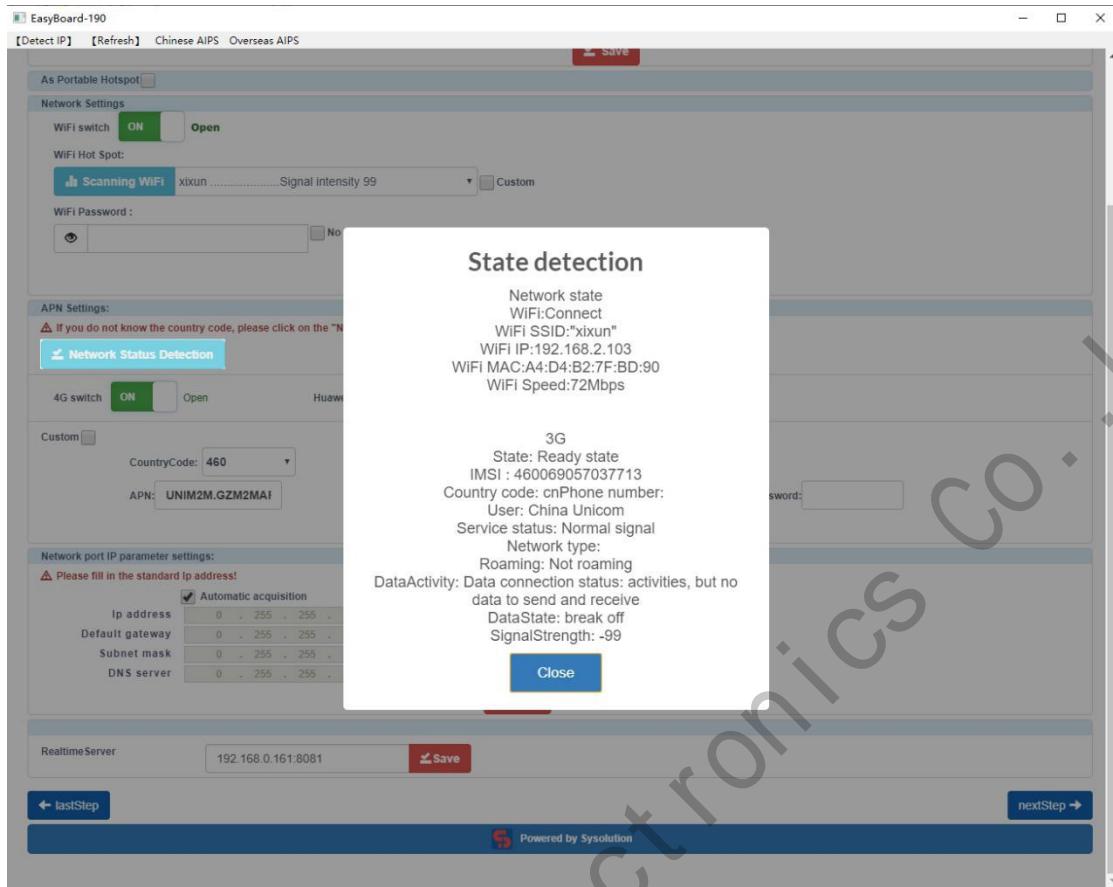
Bind web platform address and company ID

Input web server address and Company ID, click save.

Web server address: www.ledaips.com

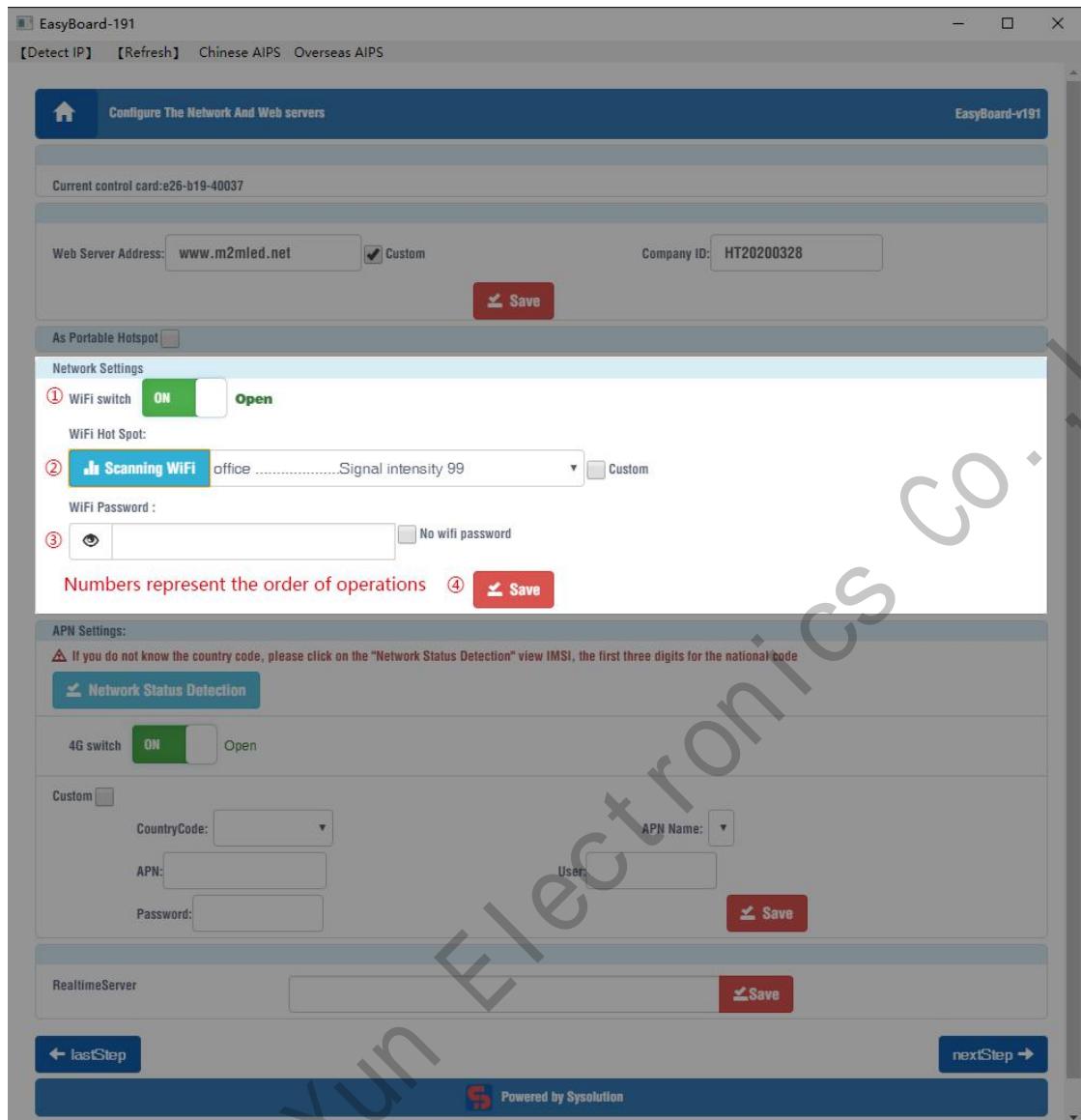


“ Network status detection ” , press this button and detect the current network connection status and signal strength.



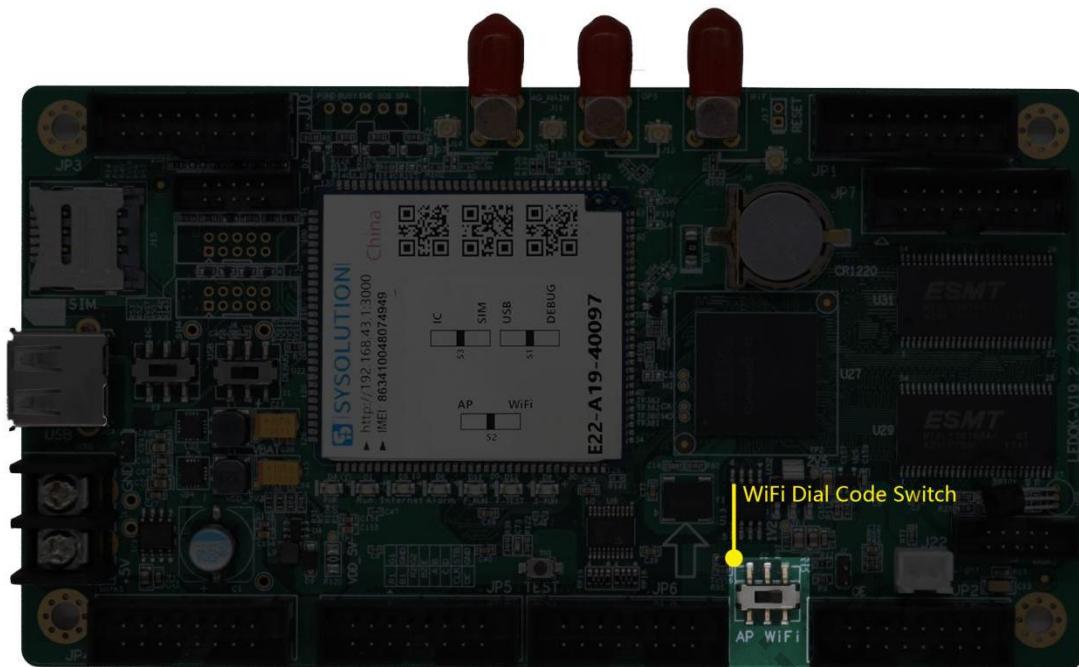
WiFi Configure

enable "WiFi switch" , waiting for 3 seconds, and click "Scanning WiFi", select the WiFi name and write down the WiFi password. Click "Save" .



After set the WiFi parameters, adjust the switch to WIFI mode, For Y/M series controller, just remove LAN cable will be ok.

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.



NOTES:

If could not scanning the WiFi, please try to turn on/turn off Software or WiFi Switch.

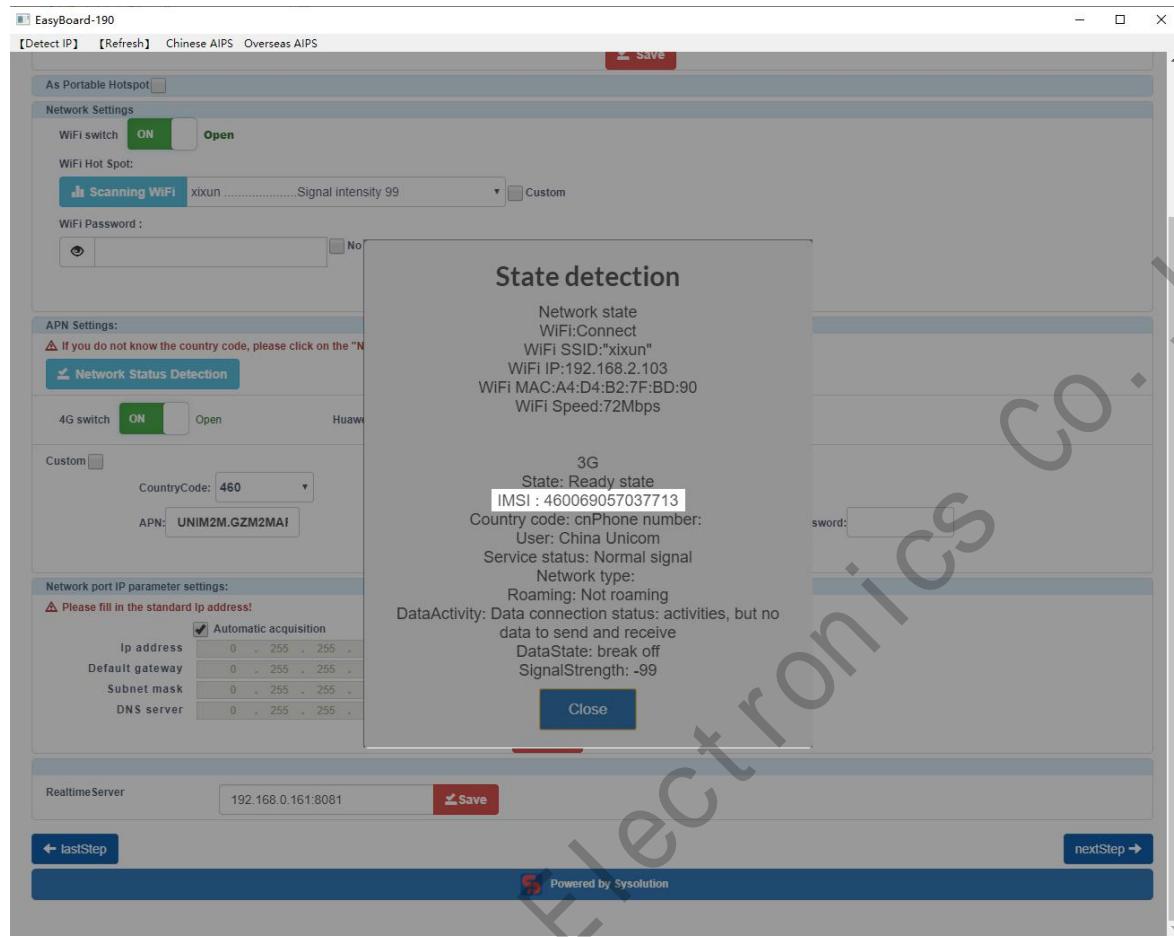
If controller can't get access to internet through WiFi, please double check the steps below:

- WiFi antenna plug correctly.
 - WiFi password is correct or not.
 - If the Wireless router being accessed too many terminals?
 - E series controller switch on WIFI mode?
 - Try another WIFI hot spot.
 - Y/M series controller, please make sure the LAN cable removed.

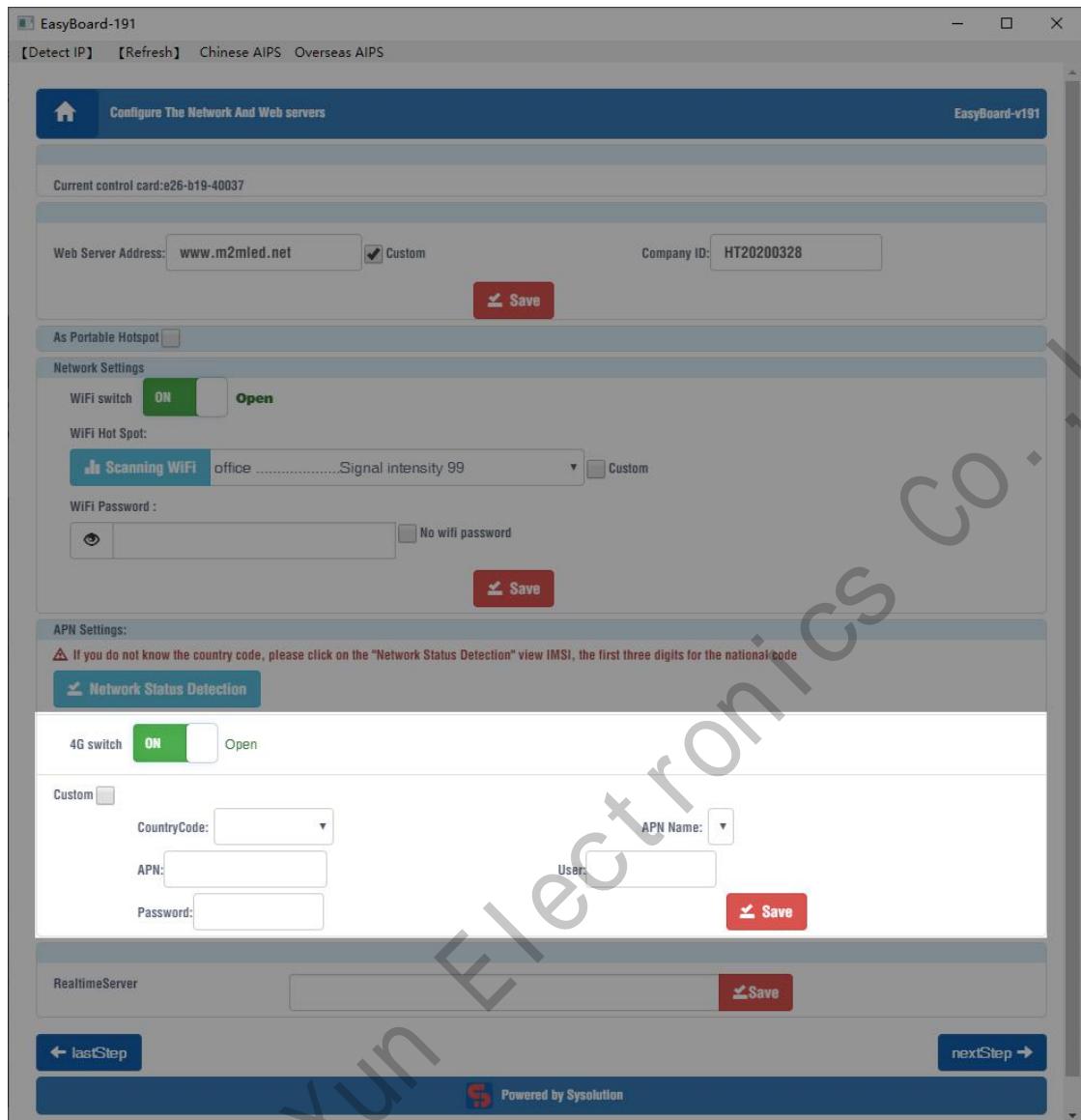
3G/4G Configuration

Enable 3G/4G option, Choose correct country code, 460 is Chinese code for example (If do not know your country code, please click Network status detection button and check IMSI number,

the first 3 numbers are the country code).



Select the Operator name and input or auto-recognize the APN, then click SAVE.



After save 3G parameters, waiting for about 5 minutes, please check if card online in AIPS platform. “Internet” light will flashing fast for dialing up then flashing regularly means get online success.

NOTES:

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

- 3G antenna has plugged correctly?
- Y/M series controller, make sure the LAN cable removed.

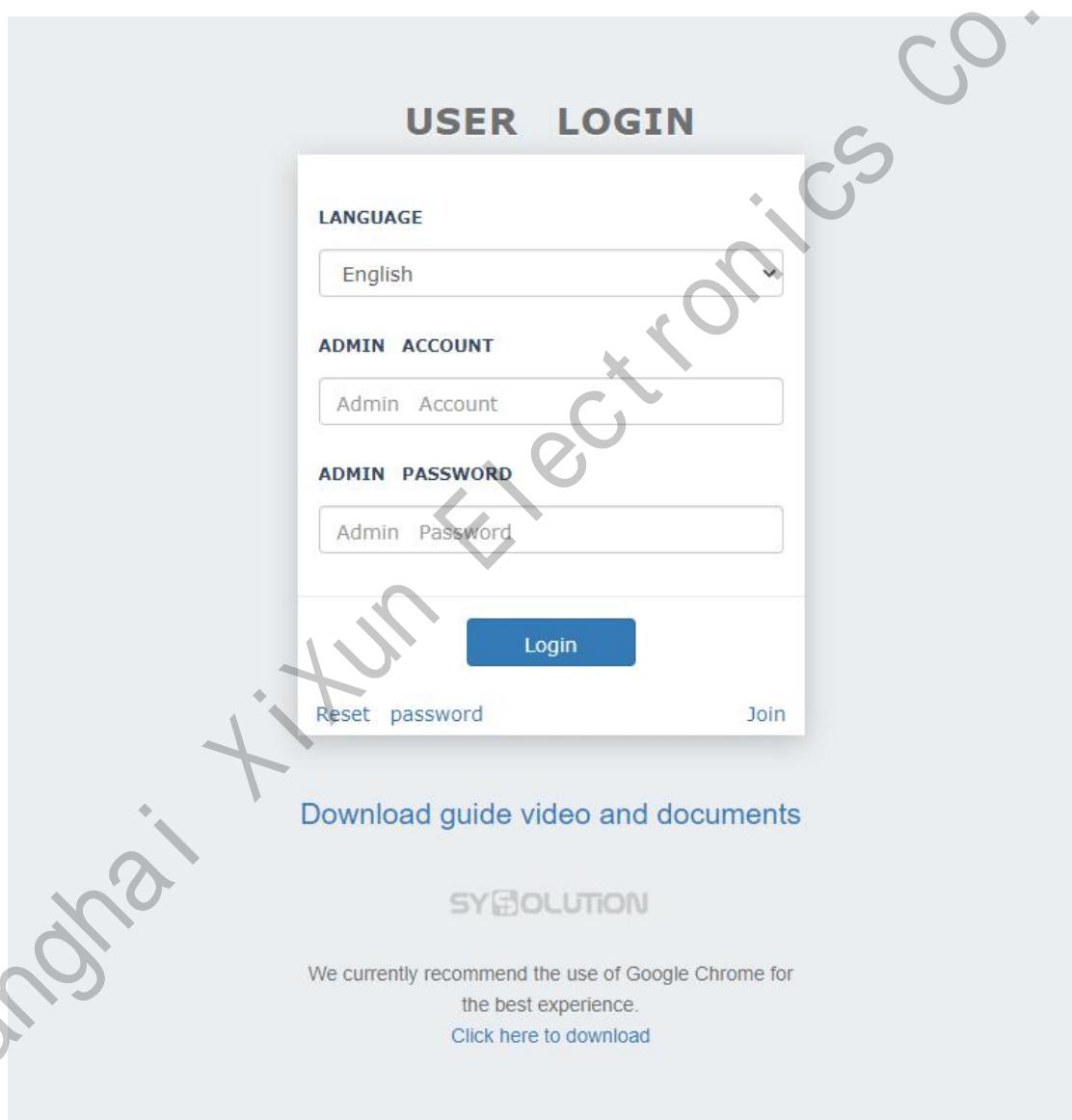
- APN is correct or not?
- SIM card has activate? SIM card has enough money and 3G data service?
- Check 3G signal at least 13 and above? Click Network status detection to check 3G signal.

Shanghai Xixun Electronics Co., Ltd

AIPS Cloud Platform Register

Register For AIPS Platform

Visit www.ledaips.com and choose Register to starting input related information, click done and verified the link sent by email, finish the register.



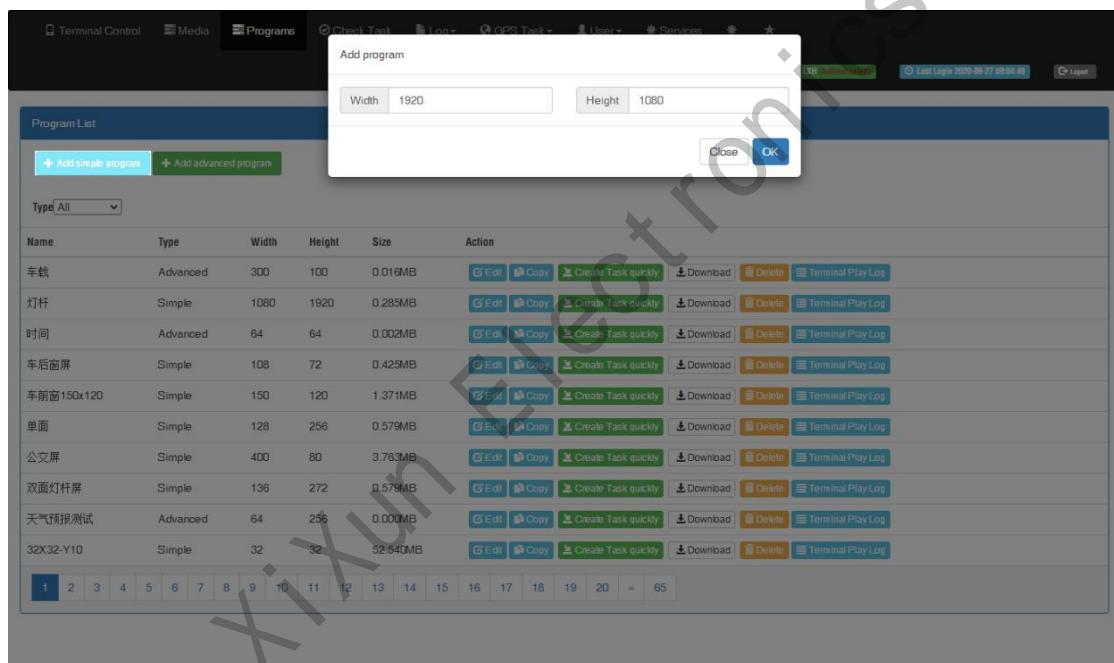
Oversea address: www.ledaips.com

AIPS Cloud Programming

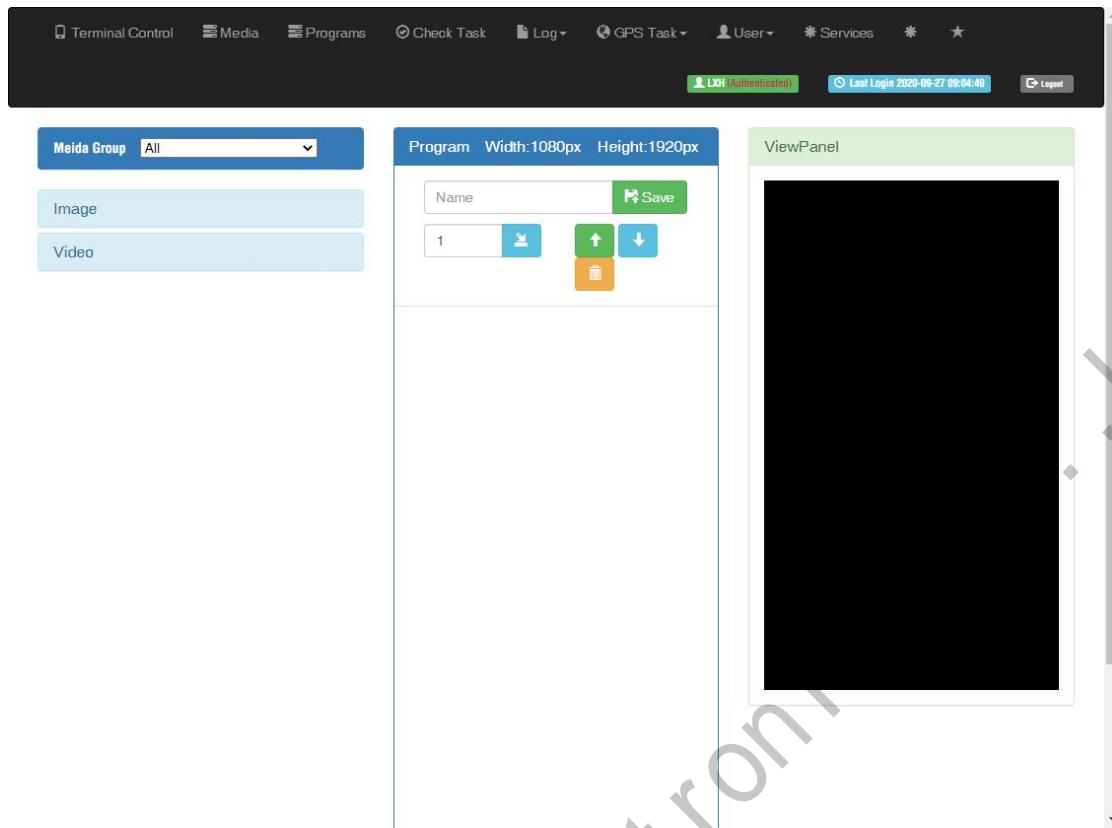
Simple Program

Make simple program ----only support image or video files

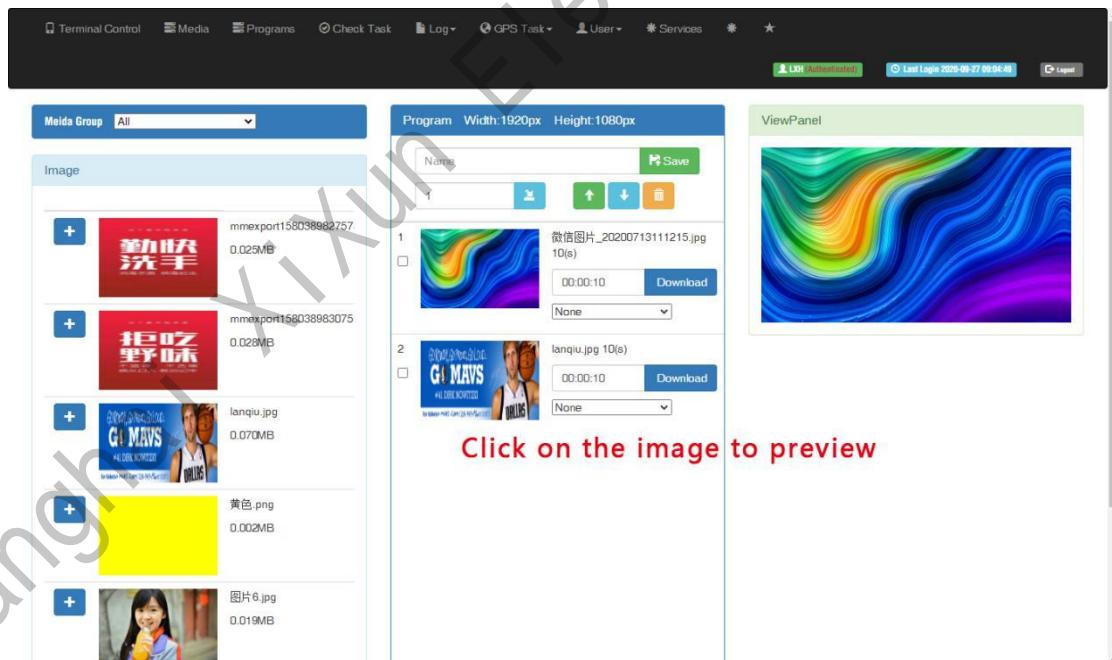
1. Click “add simple program” button and set correct screen width and height pixels and click OK.



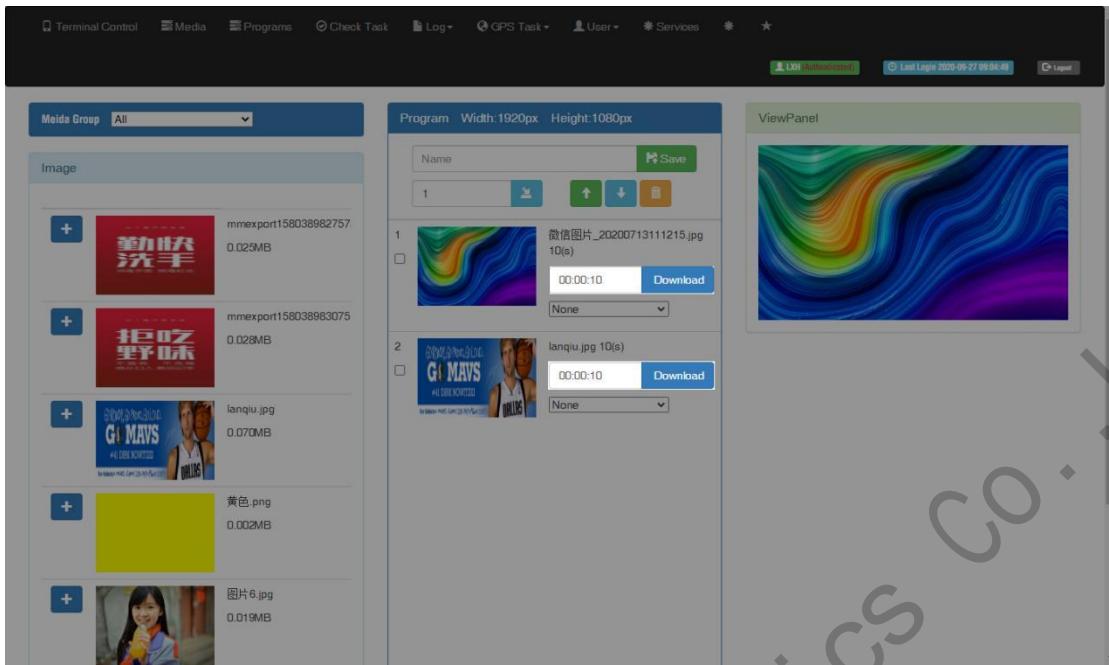
2. Input program name and select the material from left side , here are 3 zones including material in the left side , program editing in the middle and preview window in the right side.



3. Choose materials and set program name, can check preview in the right window.



4. Can set the display duration time here, see screenshot in below:



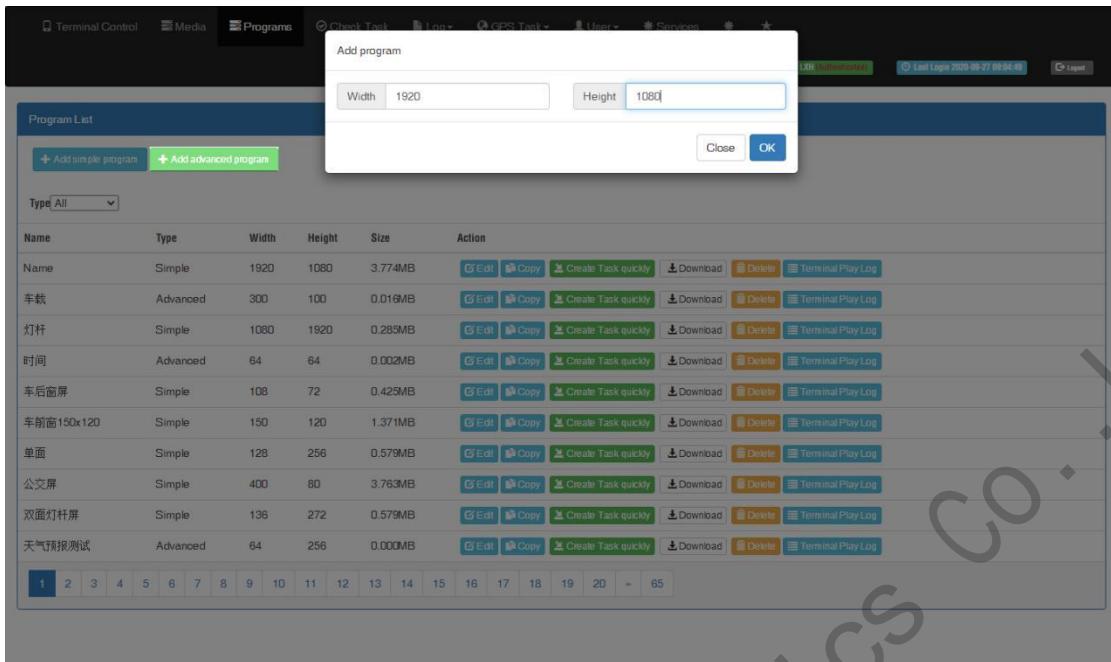
5. Will see program in the list after save.

| Name | Type | Width | Height | Size | Action |
|------------|----------|-------|--------|---------|--------|
| 车载 | Advanced | 300 | 100 | 0.016MB | |
| 灯杆 | Simple | 1080 | 1920 | 0.28MB | |
| 时间 | Advanced | 64 | 64 | 0.002MB | |
| 车后窗屏 | Simple | 108 | 72 | 0.425MB | |
| 车前窗150x120 | Simple | 150 | 120 | 1.371MB | |
| 单面 | Simple | 128 | 256 | 0.579MB | |
| 公交屏 | Simple | 400 | 80 | 3.763MB | |
| 双面灯杆屏 | Simple | 138 | 272 | 0.579MB | |
| 天气预报测试 | Advanced | 64 | 256 | 0.000MB | |

Advanced Program

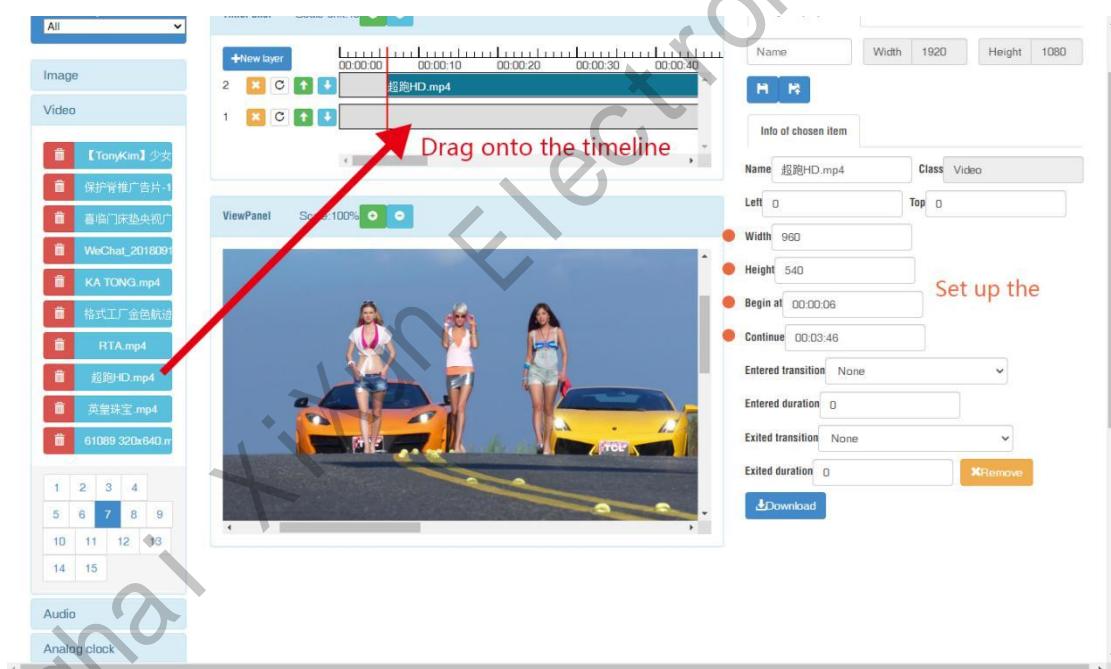
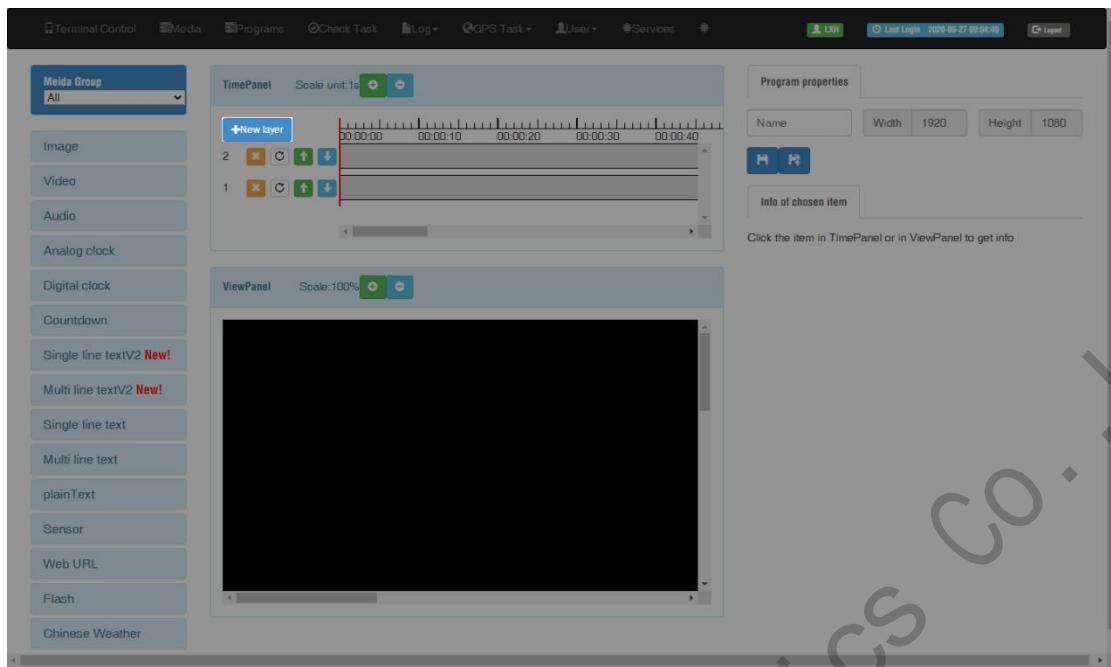
Advanced program including image, video, clock, text, audio and support more layers.

1. Click "add advanced program" button and set correct screen width and height pixels, click ok.

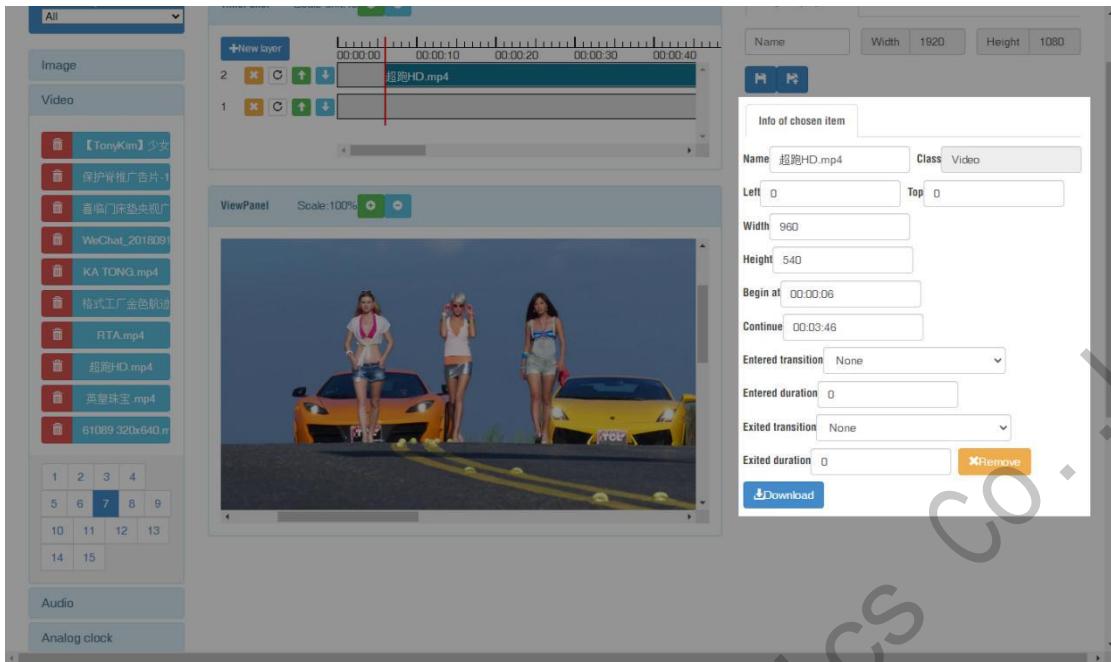


Here are 4 zones including media group, time panel, preview and program property.

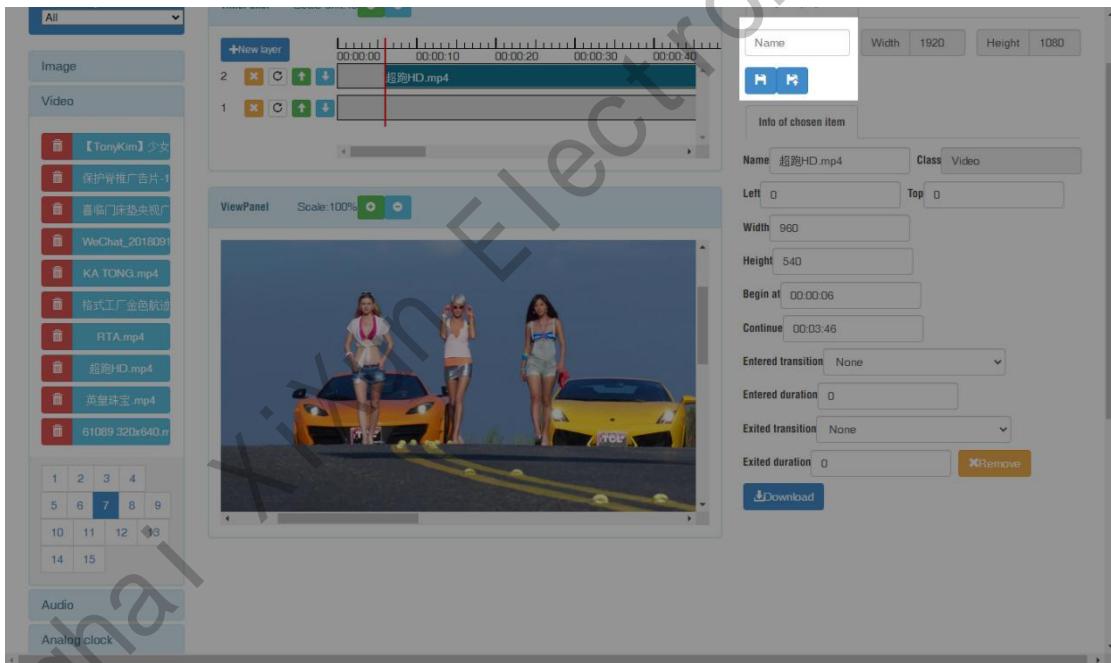
2. Click “New layer” button and select media file then add to the time panel, for example:
select video file and add to time panel.



3. Can set the program parameters, start and end time,



- Save and quit after setup all parameters and program name.



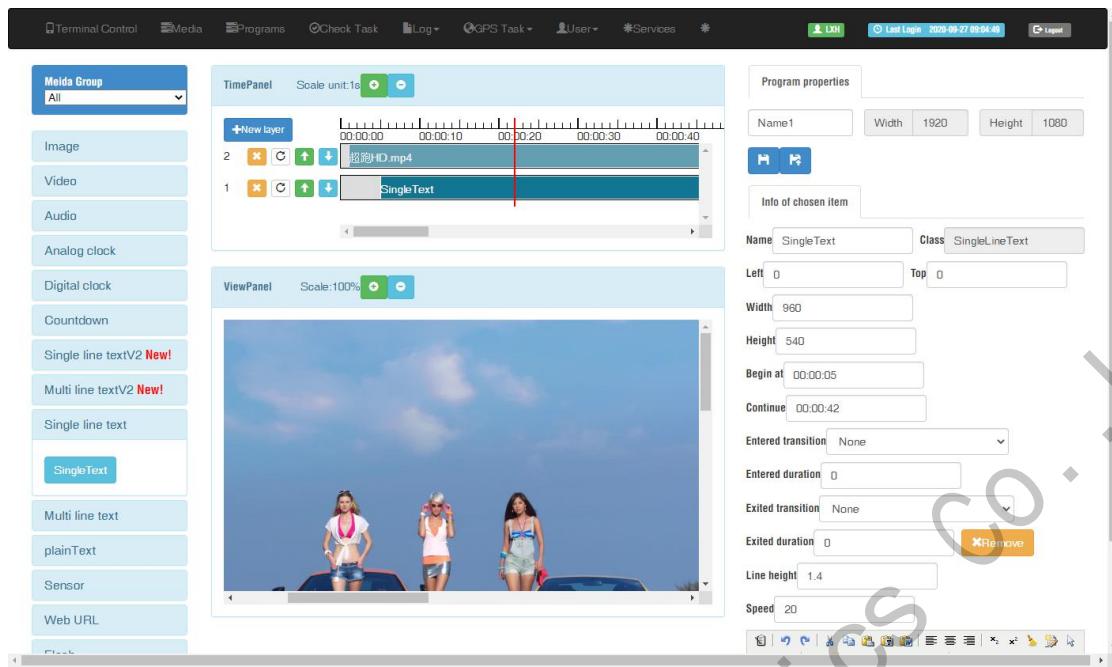
- Then jump to program list interface, you can click green button of create task quickly and then select controller and send.

| Name | Type | Width | Height | Size | Action |
|------------|----------|-------|--------|---------|--------|
| Name1 | Advanced | 1920 | 1080 | 0.000MB | |
| Name | Simple | 1920 | 1080 | 3.774MB | |
| 车载 | Advanced | 300 | 100 | 0.016MB | |
| 灯杆 | Simple | 1080 | 1920 | 0.285MB | |
| 时间 | Advanced | 64 | 64 | 0.000MB | |
| 车后窗屏 | Simple | 108 | 72 | 0.425MB | |
| 车前窗150x120 | Simple | 150 | 120 | 1.371MB | |
| 单面 | Simple | 128 | 256 | 0.579MB | |
| 公交屏 | Simple | 400 | 80 | 3.763MB | |
| 双面灯杆屏 | Simple | 136 | 272 | 0.579MB | |

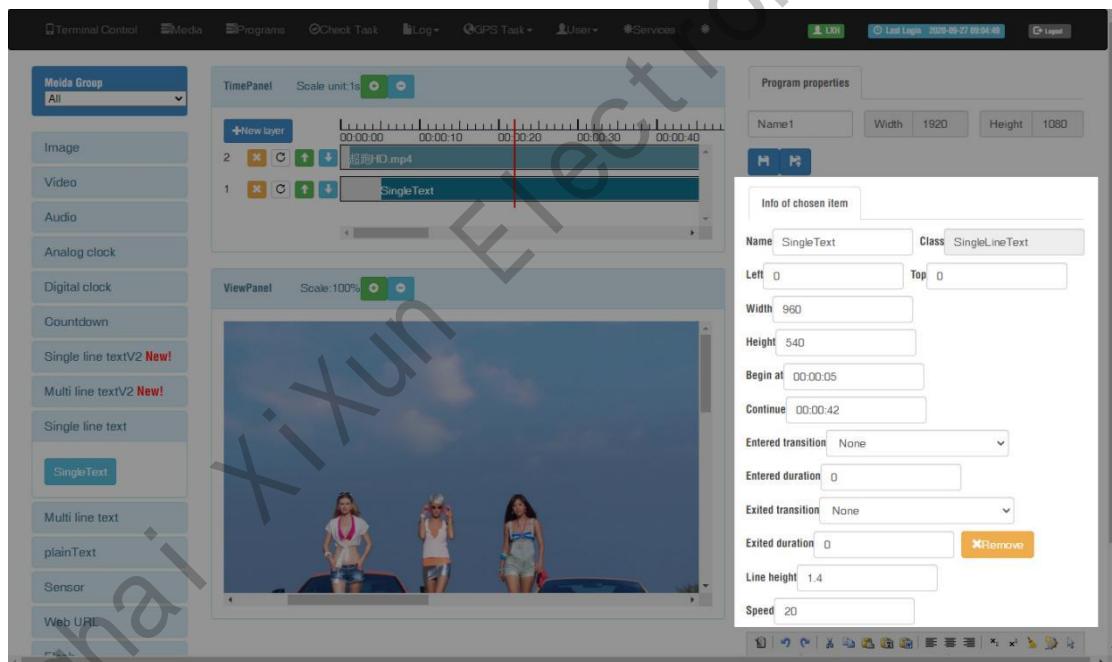
Use the “Edit” button to modify the existing program.

| Name | Type | Width | Height | Size | Action |
|------------|----------|-------|--------|---------|--------|
| Name1 | Advanced | 1920 | 1080 | 0.000MB | |
| Name | Simple | 1920 | 1080 | 3.774MB | |
| 车载 | Advanced | 300 | 100 | 0.016MB | |
| 灯杆 | Simple | 1080 | 1920 | 0.285MB | |
| 时间 | Advanced | 64 | 64 | 0.000MB | |
| 车后窗屏 | Simple | 108 | 72 | 0.425MB | |
| 车前窗150x120 | Simple | 150 | 120 | 1.371MB | |
| 单面 | Simple | 128 | 256 | 0.579MB | |
| 公交屏 | Simple | 400 | 80 | 3.763MB | |
| 双面灯杆屏 | Simple | 136 | 272 | 0.579MB | |

Add multi-line text, click the text (single or muti-text)and add to the time panel



Setup parameters for text, including the start and end time.



Setup the text color, font size and add more pages, please pay attention to our TIPS message in below, save and quit after finish.



Hint Press Enter to separate next page, Press Shift + Enter to new a line. Define the following string instead of the value of sensors in terminal: %c is celcius, %f is fahrenhite, %h is humidity, (%c1 %f1) or (%c2 %f2) round to 1 or 2 digit(s) after the decimal point

Send Program

1. Click “create task quickly” button in the program list interface and will jump to the terminal interface directly.

| Name | Type | Width | Height | Size | Action |
|------------|----------|-------|--------|---------|--------|
| Name1 | Advanced | 1920 | 1080 | 0.000MB | |
| Name | Simple | 1920 | 1080 | 3.774MB | |
| 车载 | Advanced | 300 | 100 | 0.016MB | |
| 灯杆 | Simple | 1080 | 1920 | 0.285MB | |
| 时间 | Advanced | 64 | 64 | 0.000MB | |
| 车后窗屏 | Simple | 108 | 72 | 0.425MB | |
| 车前窗150x120 | Simple | 150 | 120 | 1.371MB | |
| 单面 | Simple | 128 | 256 | 0.579MB | |
| 公交车屏 | Simple | 400 | 80 | 3.763MB | |
| 双面灯杆屏 | Simple | 136 | 272 | 0.579MB | |

2. Select the controller and send program

The screenshot shows a terminal control interface with a table of terminal data. The columns include Online, Id, Alias, Group, Net type, Last offline, Width, Height, Brightness, Volume, Screen status, Sensor, Current playing program, Lock, and Connection version. A toolbar at the top provides navigation and management functions like Media, Programs, Check Task, Log, GPS Task, User, Services, and Logout.

| Online | Id | Alias | Group | Net type | Last offline | Width | Height | Brightness | Volume | Screen status | Sensor | Current playing program | Lock | Connection version |
|-------------------------------------|---------------|--------|-------|----------|---------------------|-------|--------|------------|--------|---------------|--------------------|-------------------------|------|--------------------|
| <input checked="" type="checkbox"/> | y60-620-40306 | noname | 董工 | Ethernet | 2020-09-25 18:41:33 | 1280 | 720 | 255 | 12 | on | 35°C 95.0°F -% .. | 时间 | | 10.3.0 |
| <input type="checkbox"/> | y61-320-40007 | noname | | LTE | 2020-04-15 10:59:01 | 64 | 32 | 255 | 12 | on | 50°C 122.0°F -% .. | Y61_实验 | | 10.2.3T |
| <input type="checkbox"/> | y10-716-00108 | noname | 已入库 | WIFI | 2020-05-28 09:03:20 | 1280 | 512 | 15 | 12 | on | | | | 10.0.7T |
| <input type="checkbox"/> | y10-716-00473 | noname | 董工 | WIFI | 2018-12-21 09:38:56 | 1280 | 512 | 64 | 12 | on | -°C -% | unknown | | 9.8.8test |
| <input type="checkbox"/> | m60-518-00044 | noname | | ETHERNET | 2019-09-16 18:35:38 | 64 | 64 | 200 | 9 | on | | | | 10.0.7T |
| <input type="checkbox"/> | e11-a18-40426 | 426 | | WIFI | 2020-06-18 15:45:44 | -1 | -1 | -- | 15 | unknown | | | | 10.1.9T |
| <input type="checkbox"/> | y30-a18-80233 | noname | | WIFI | 2019-09-22 17:42:59 | 96 | 192 | 22 | 9 | on | | | | 10.0.7T |
| <input type="checkbox"/> | m60-818-00254 | noname | 已入库 | WIFI | 2019-07-27 18:16:02 | 256 | 256 | 255 | 0 | on | | | | 9.8.6test |
| <input type="checkbox"/> | y30-219-84125 | noname | | WIFI | 2019-08-26 08:37:55 | 1280 | 720 | 255 | 12 | on | | 1280x1024 | | 10.1.4T |
| <input type="checkbox"/> | e10-b18-40911 | noname | 已入库 | WIFI | 2019-09-21 16:03:54 | 384 | 128 | 64 | 12 | on | -°C -% | | | 9.9.1Test |

- In the bottom part of terminal interface, will see program task then choose the program task and click send.

The screenshot shows a program task interface with a table of tasks. The columns include Name, Date created, and Create by. A toolbar at the top provides various management functions like Screenshot, Realtime Message, Delete Program, GPS Task, Live Video, Screen Switch, Custom Switch, Screen Brightness, Volume Control, Change group, Config Setting, Hardware Status, Warning Switch, Update Online, Reboot, Terminal transfer, and Upload Player Logs.

| Name | Date created | Create by |
|-----------------|---------------------|-----------|
| Name1_Task | 2020-09-14 10:31:21 | LXH |
| 32X32-Y10_Task | 2020-09-22 10:17:42 | sztest |
| 灯杆_Task | 2020-09-14 14:02:54 | LXH |
| 时间_Task | 2020-09-09 10:01:08 | sztest |
| 车后窗屏_Task | 2020-08-31 10:37:45 | sztest |
| 车前窗150x120_Task | 2020-08-30 20:47:47 | sztest |
| 单面_Task | 2020-08-30 19:06:10 | sztest |
| 公交屏_Task | 2020-08-30 18:35:05 | sztest |
| 双面灯杆屏_Task | 2020-08-30 16:34:07 | sztest |
| 天气预报测试_Task | 2020-08-18 14:09:20 | Ledshow |