CBF&CB SERIES

User Manual

Legal Information

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (https://www.hikvision.com/).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

Trademarks

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Other trademarks and logos mentioned are the properties of their respective owners.

Disclaimer

Regulatory Information

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Applicable Models

This manual is applicable to the models listed in the following table.

Model			
DS-D4419RI-CBF	DS-D4419FI-CBF	DS-D4219RI-CBF	DS-D4219FI-CBF
DS-D4426RI-CBF	DS-D4426FI-CBF	DS-D4226RI-CBF	DS-D4226FI-CBF
DS-D4429RI-CBF	DS-D4429FI-CBF	DS-D4229RI-CBF	DS-D4229FI-CBF
DS-D4439RI-CBF	DS-D4439FI-CBF	DS-D4239RI-CBF	DS-D4239FI-CBF
DS-D4429RO-CB	DS-D4429FO-CB	DS-D4229RO-CB	DS-D4229FO-CB
DS-D4439RO-CB	DS-D4439FO-CB	DS-D4239RO-CB	DS-D4239FO-CB
DS-D4448RO-CB	DS-D4448FO-CB	DS-D4248RO-CB	DS-D4248FO-CB

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Note	Provides additional information to emphasize or supplement important points of the main text.
Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

● Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

● In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.

● Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100 to 240 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.

- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.

- Please make sure that the plug is firmly connected to the power socket.

- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
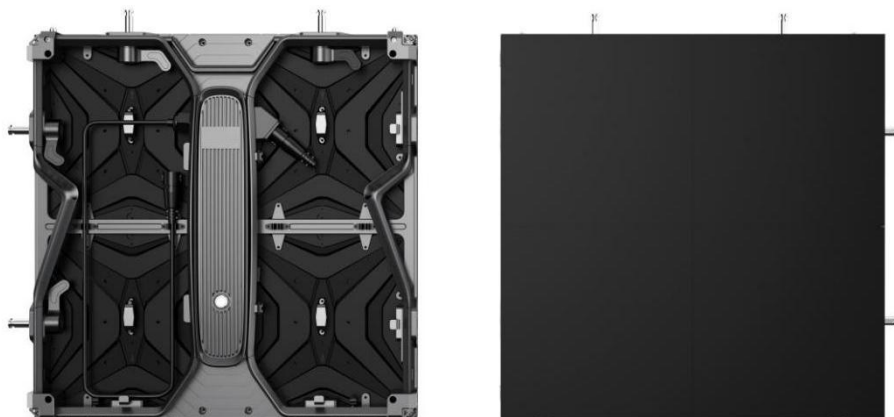
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V1.0.1

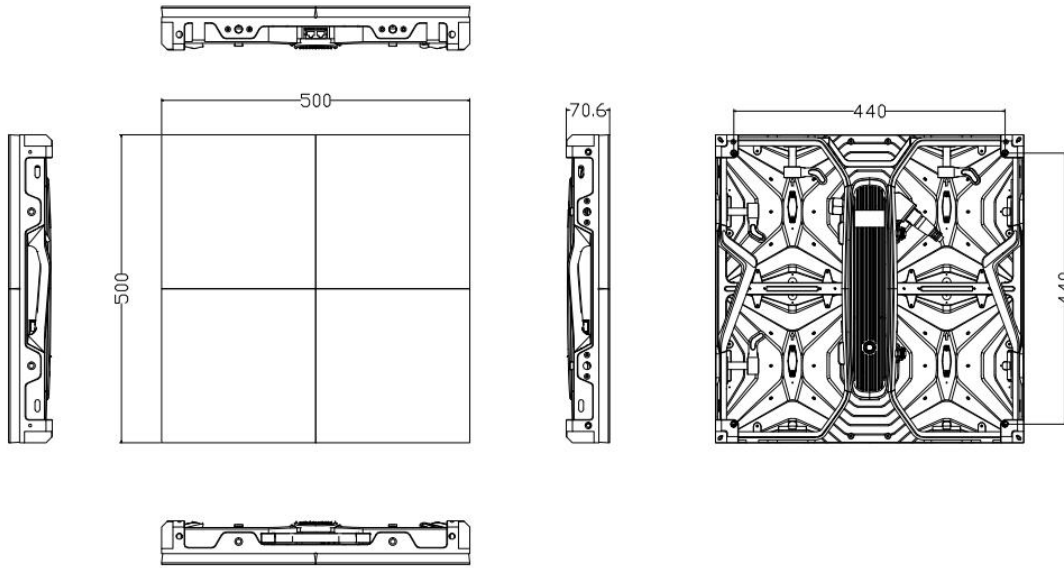# User Manual

Chapter 1: Product Introduction

Rear and Front Appearance

1.1 Product Features

- Cabinet is die-casting aluminum integrated.
- Modularized design: LED cabinet consists of frame, power box and modules. For different pixel pitches, they can share same power box and frame.
- Seamless connection: There are four locks totally on each cabinet. They can lock cabinets well for seamless splicing.
- One end of the power cables between two cabinets is fixed. Such design can help to realize fast installation and disassembly.
- Labor saving: One single person can manage installation easily, which can save labor cost.
- Screen can be both inward and outward curve.(needs customization)
- 90° connection is available(needs customization)
- Anti-collision design: there are protectors at the four corners of the cabinets, which can help to protect lamps effectively during transportation.(needs customization)
- Multi-application scenarios: It is widely used in concerts, events, opera houses, theaters, hotels, auditorium, multi-function hall, lecture hall, high-end entertainment venues, and so forth.

1.2 Cabinet Demonstration


1.3 Technical Specifications

App Parameter	Indoor				Outdoor		
Pixel pitch	1.95	2.6	2.97	3.91	2.97	3.91	4.81
LED Type	SMD						
Pixels Density(Pixel/m²)	262144	147456	112896	65536	112896	65536	43264
Module Resolution	128*128	96*96	84*84	64*64	84*84	64*64	52*52
Cabinet Resolution	256*256	192*192	168*168	128*128	168*168	128*128	104*104
Module Size (mm)	250*250						
Cabinet Size (mm)	500*500						
Cabinet Weight (kg)	6.8				7.3		
Brightness (cd/m²)	≥800cd/m²				≥4500cd/m²		
Viewing Angle (H/V)	160°/ 140°						
Refresh Rate (Hz)	3840						
Max. Power Consumption (W/m²)	600w/m²				700w/m²		
Avg. Power Consumption (W/m²)	200w/m²				240w/m²		

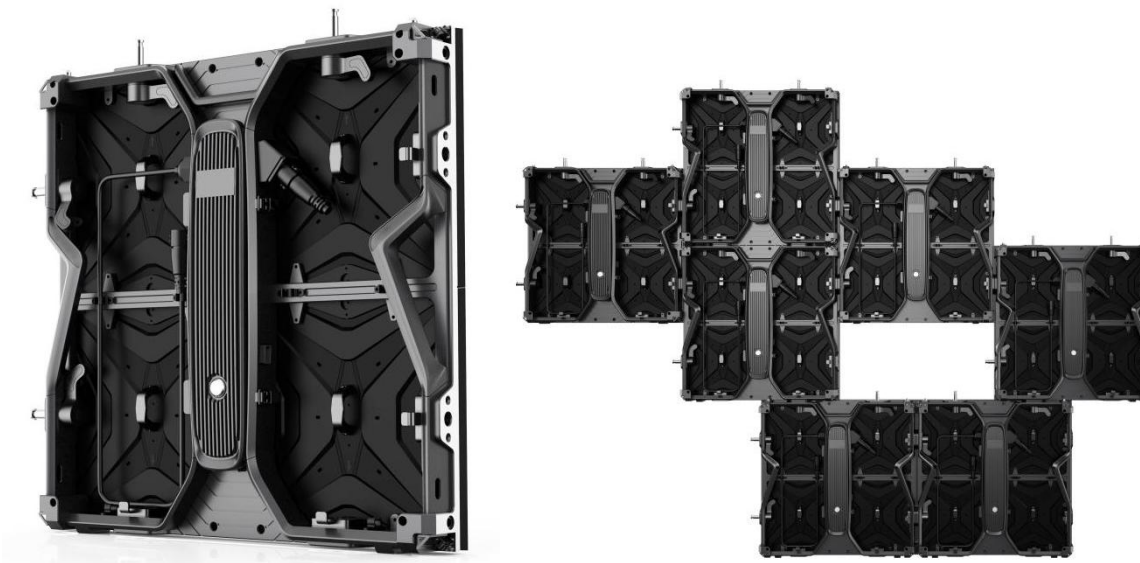**1. 500x500mm(W*H)**
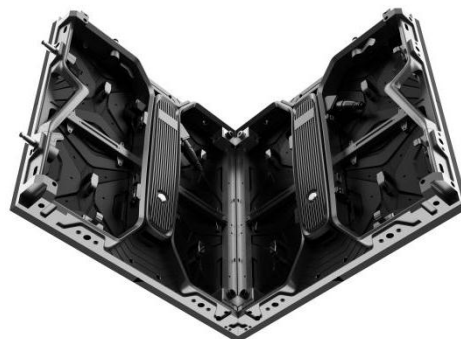
2. 90°Corner connection

1.4 LED Display Control System Solution

The display system mainly consists of LED screen, control system, control computer, splicing controller, power distribution, other front-end video source and so on.

The system topology is as follows:
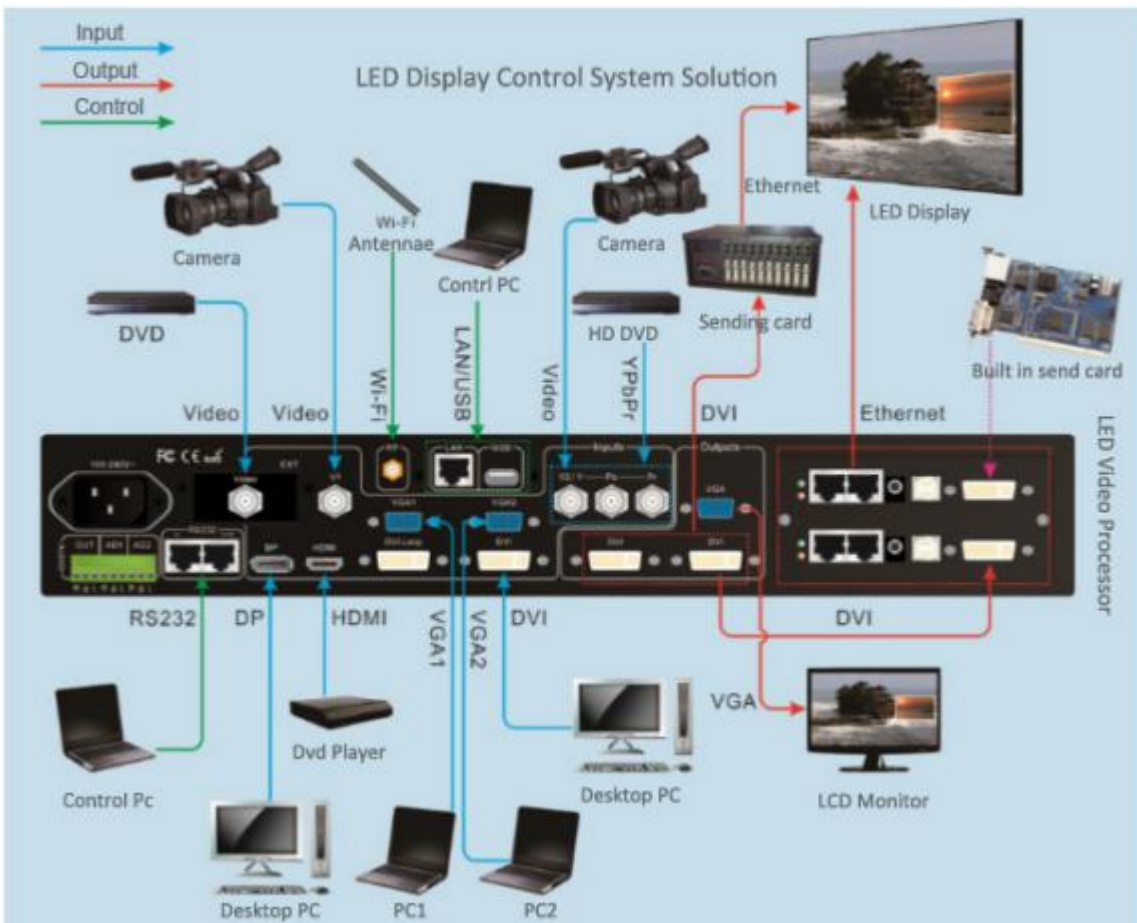
HikVision CBF&CB SERIES LED Video Walls:

1.5 Application Scenarios

LED displays are widely used in meeting rooms, staging events, conference hall, multi-functional studios, airports, stations, urban railways and other public places, as well as hotel lobbies, company exhibition halls, shopping malls, brand stores, promotional sites and home theaters and other fields.
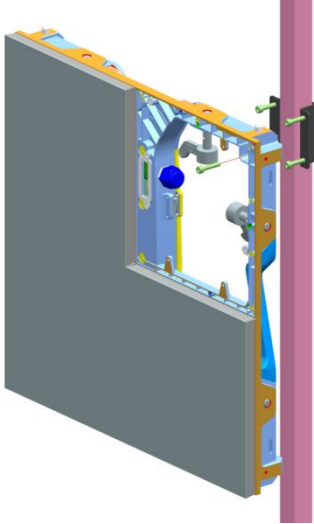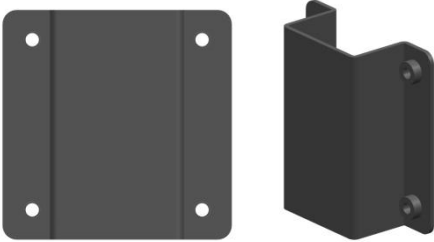
1.5.1 Conference Hall – Staging Events
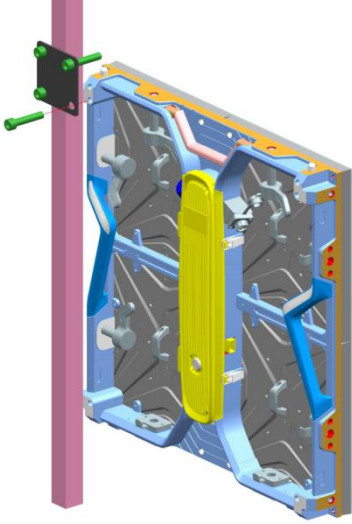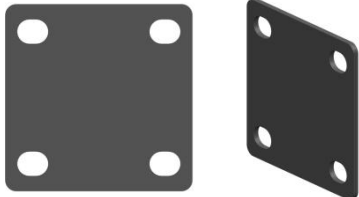

1.5.2 Studio Room – live broadcast

Chapter 2 Installation and Wiring Demonstration

2.1 For Front Installation Method:

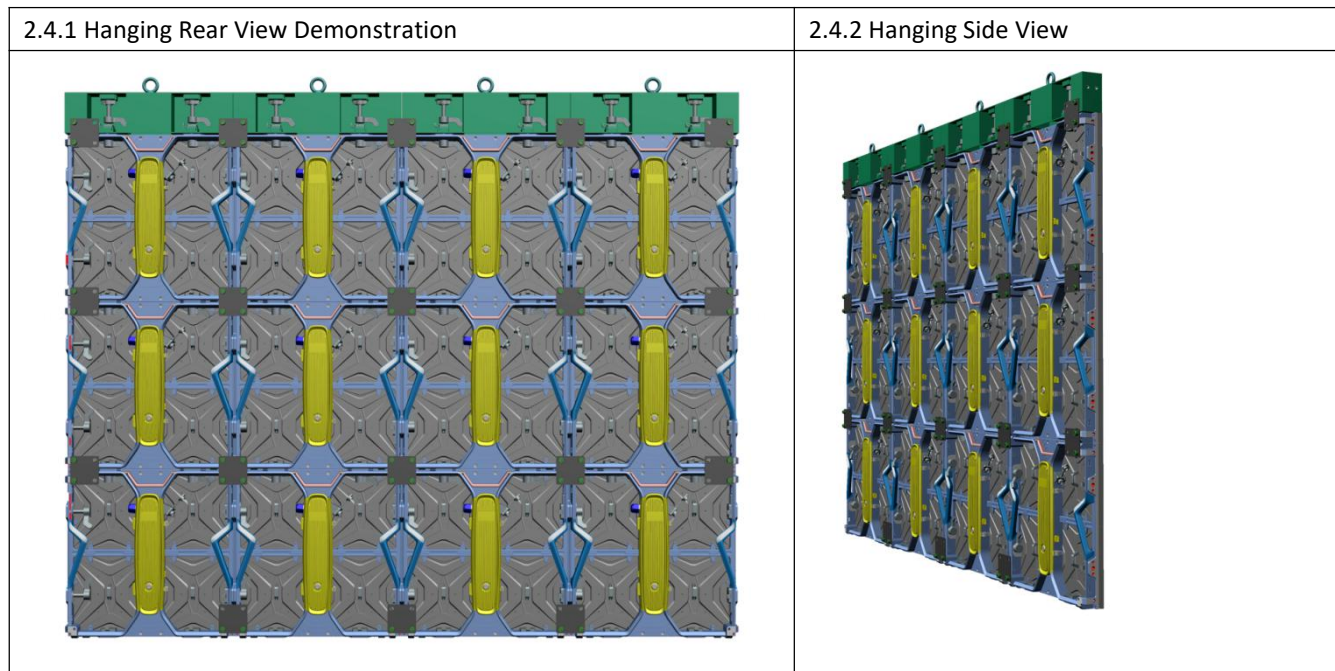| 2.1.1 Front Installation Demonstration	2.1.2 Connection Alignment Plates (4-M6 Nuts)
	2.1.3 Front Mounting Screws (M6*30)

2.2 For Rear Installation Method:

2.2.1 Rear Installation Demonstration	2.2.2 Connection Alignment Plates
	2.2.3 Rear Mounting Screws（M10*50）

2.3 Stacking Installation Method

2.3.1 Stacking Rear View Demonstration	2.3.2 Stacking Side View
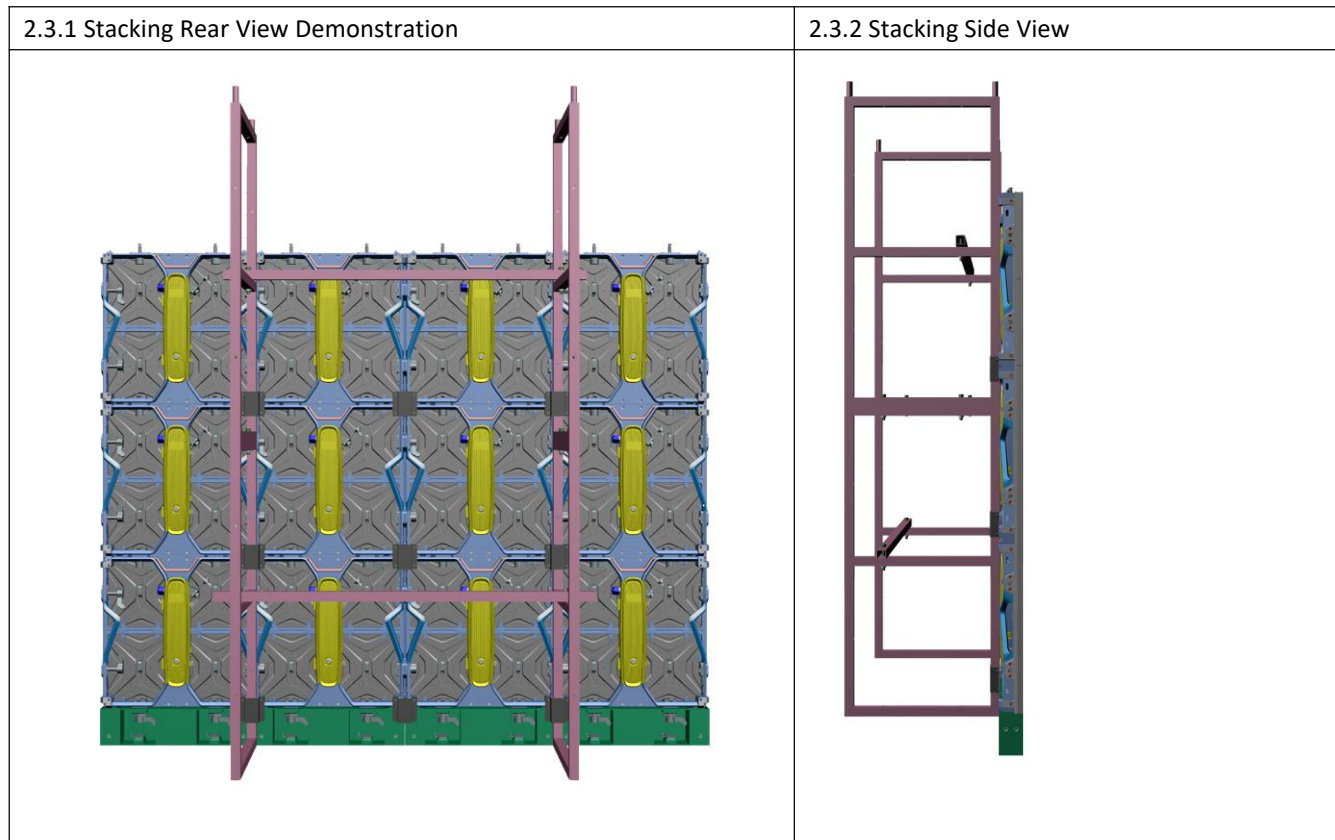
2.4 Hanging Installation Method

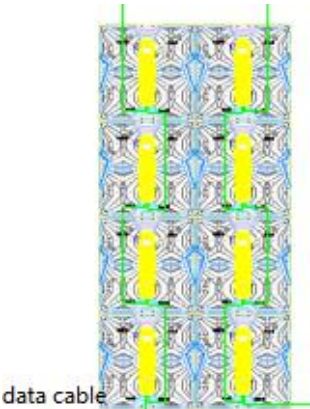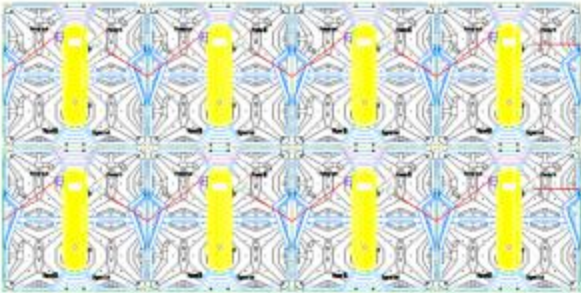| 2.4.1 Hanging Rear View Demonstration	2.4.2 Hanging Side View

2.5 Data and Power Connection

LED display power cable is the cable connecting power distributor and LED screen. GB/CE/UK/UL standard 3*2.5 or 3*4 Sqmm cable is usually used. GB/CE/UK/UL 3*2.5 Sqmm cable loading capacity is not more than 4.5KW. GB 3*4 sqmm cable loading capacity is not more than 6KW. Please note to make wiring in accordance with the standard. Conventional method is horizontal cabling but there are some special situations who can choose only vertical wiring.
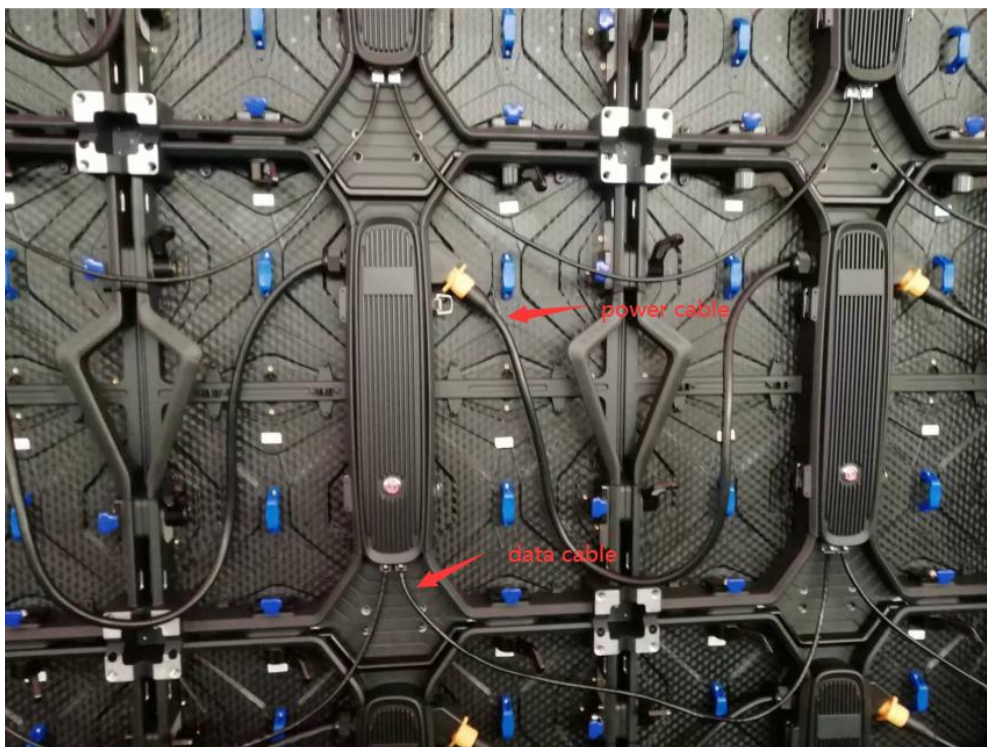
In three-phase and five-wire power supply mode, the load of each phase must be evenly distributed to achieve three-phase balance.

LED display data cables include HDMI, DVI and CVBS cables from signal source to processor, HDMI and DVI cables from processor to sending card, USB cable from computer to sending card, and network cable between sending card and receiving card.

Here we mainly talk about the network cable wiring between the sending card and the receiving card. The loading of a network cable cannot exceed 655360 Pixels, and it is a rectangular loading and snake connection wiring. In addition, the load of the sending card or video controller also has the limitation of width, height and total load, which must be considered comprehensively to avoid wiring errors.

Below are the sample about the power wiring and data wiring connection demonstration:

| 2.5.1 data Cable Routing	2.5.2 Power Cable Routing
data cabling Ethernet Cable	Main Power Cable Connection

Chapter 3: LED Display Configuring and Debugging

3.1 Configuring Preparation

3.1.1 Ensure that power cables and data cables are correctly routed before powering up the screen and equipment.

3.1.2 Start the control computer, start the Windows system, and set the computer graphics card to duplicate mode after the graphics card driver is finished.   Short cut key is "Windows key" + "P" to select "Duplicate mode".
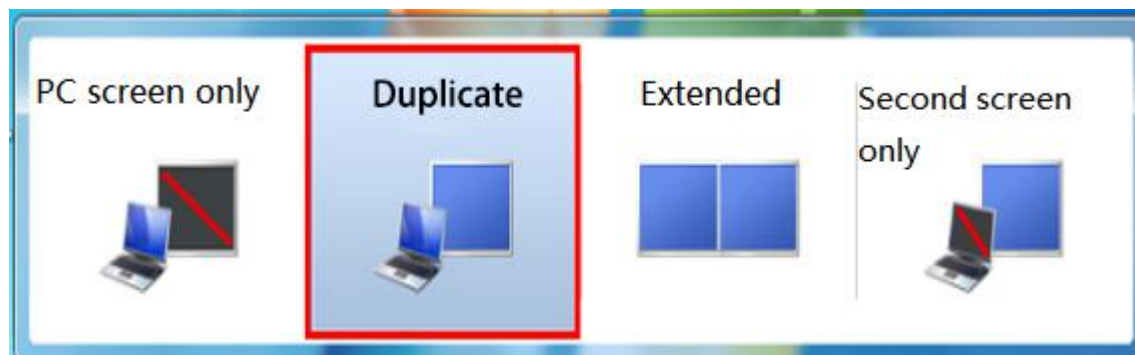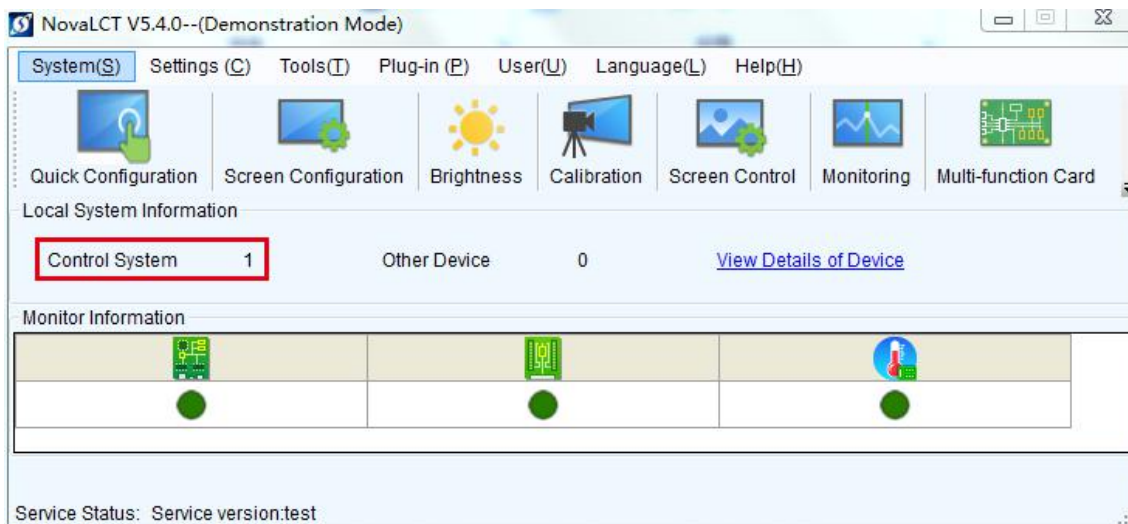

3.1.3 Software Installation

Software Download Link：https://www.novastar-led.cn/index/downloadcenter/index.html?type=software

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Download display debugging software(**Nova LCT**) and PC player software(**ViPlex Express**).
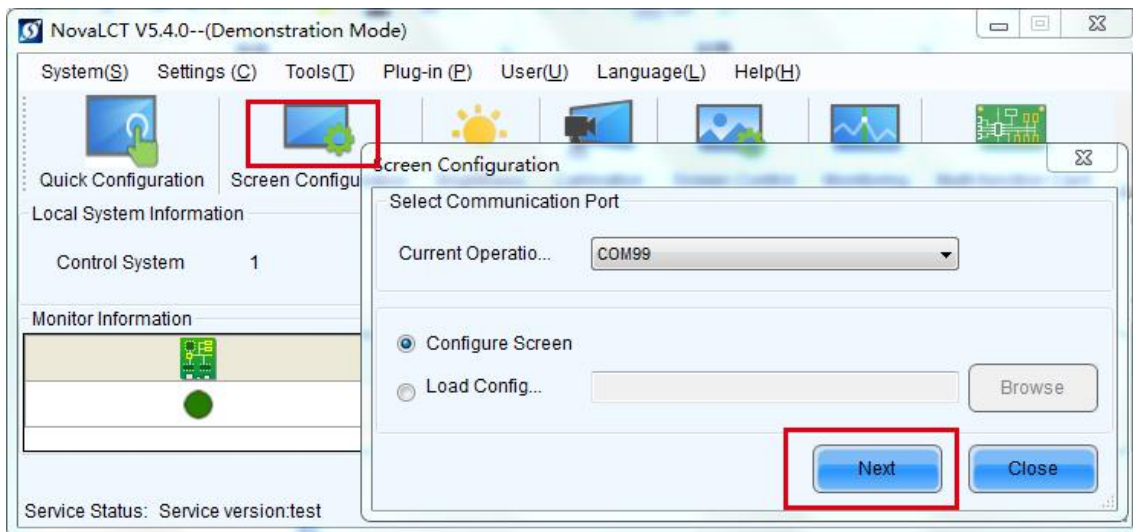
3.2 LED Display Configuring

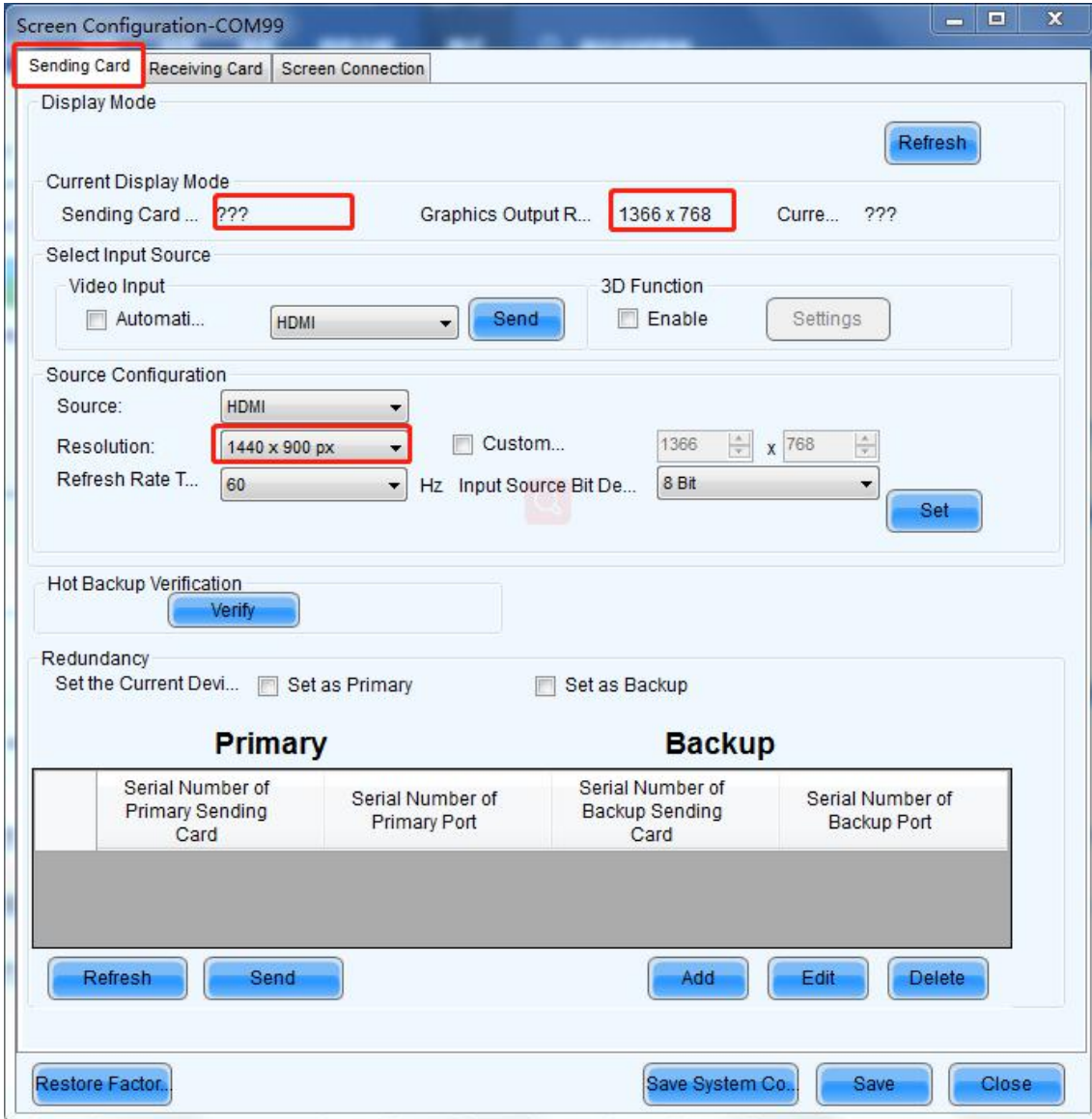Double-click to open , The following window is displayed:

The control system displays 1, indicating that the USB cable is connected normally.

Password: **666** or **admin**

3.2.1 Sending Card Settings

Sending card interface: For LED display with 1920*1080 resolution or lower, ensure that the sending card resolution is consistent with the display card output resolution and the sending card resolution is greater than or equal to the LED display resolution;   If the resolution exceeds 1920*1080, you can customize the resolution.

3.2.2 Receiving card Settings
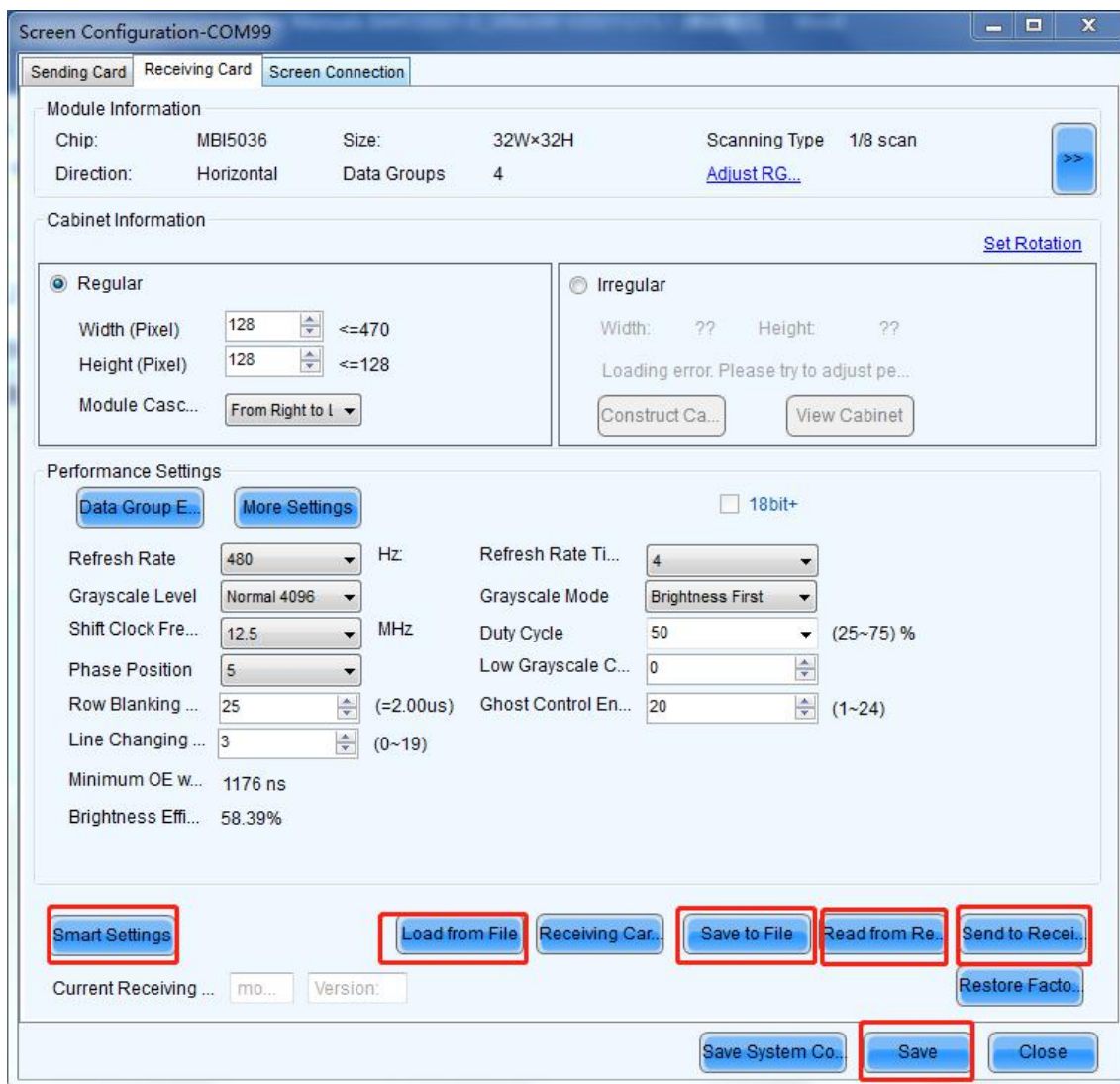
1. For the cabinet containing the receiving card, after the connection is normal, the LED screen will display a normal picture, but not a complete picture. In this case, **it is recommended to read from the receiving card and save it to a file for backup, so as to avoid the incorrect operation of later staff to find the correct configuration file (.RCFGX)**.

2. For the LED screen without receiving card, the basic can be set intelligently according to the module information; Non-professional, you can find the manufacturer to get the correct RCFGX file, load it from the file, then send it to the receiving card, and finally solidify.

3.3 Screen Connection
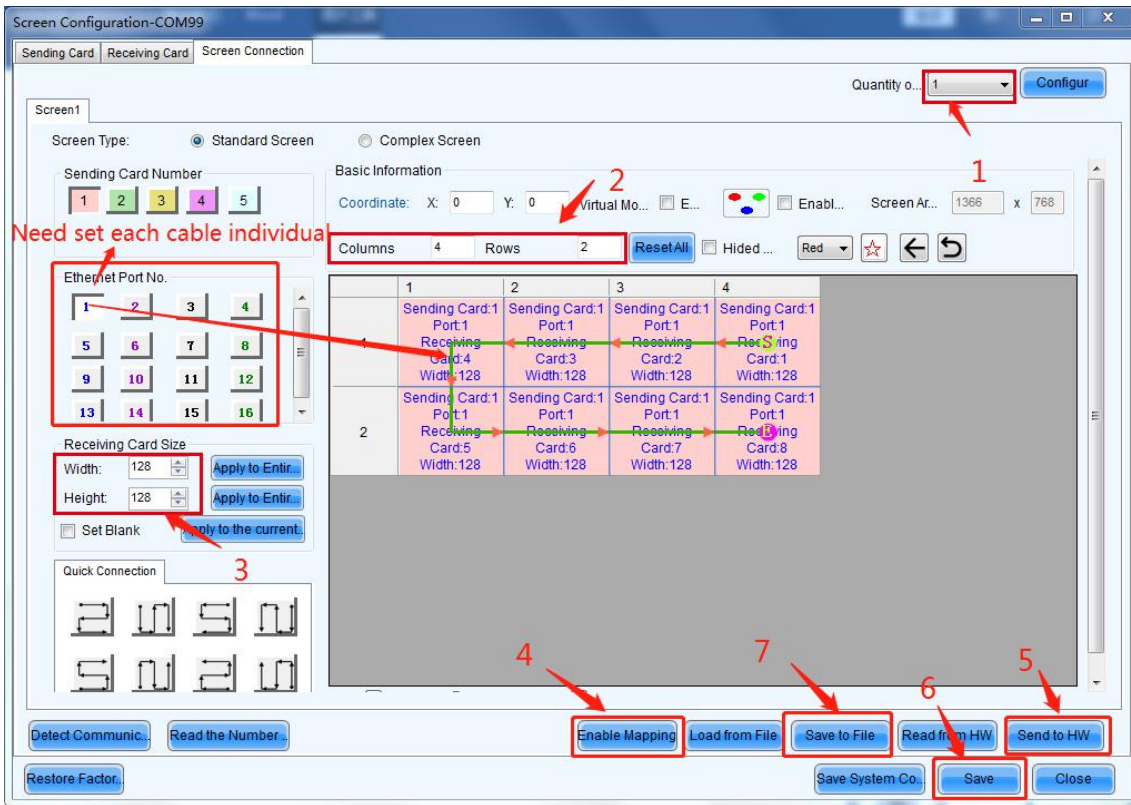
According to the previous network cable wiring, configure the display screen, change the number of receiving card columns, rows, and load width and height of receiving card. For MRV412, MRV416 and AXS series (A5s, A8s, etc.) receiving cards, you can open the Mapping function, see the cable routing mode, and then click the corresponding grid (grid is the front view), and then send to the hardware (Send to HW), solidification (Save). Finally, it can be saved to a file to avoid the loss of screen connection files by mis-operation.

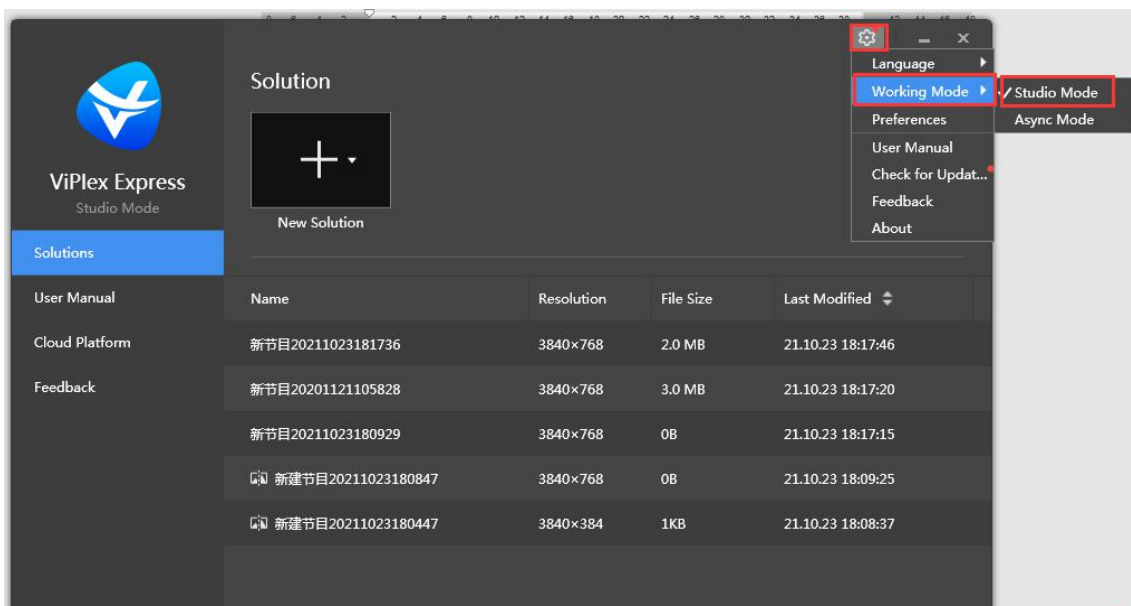After the connection, the screen displays into a complete picture. **Well done!!**

For more instructions, see the main menu interface help - User Files.
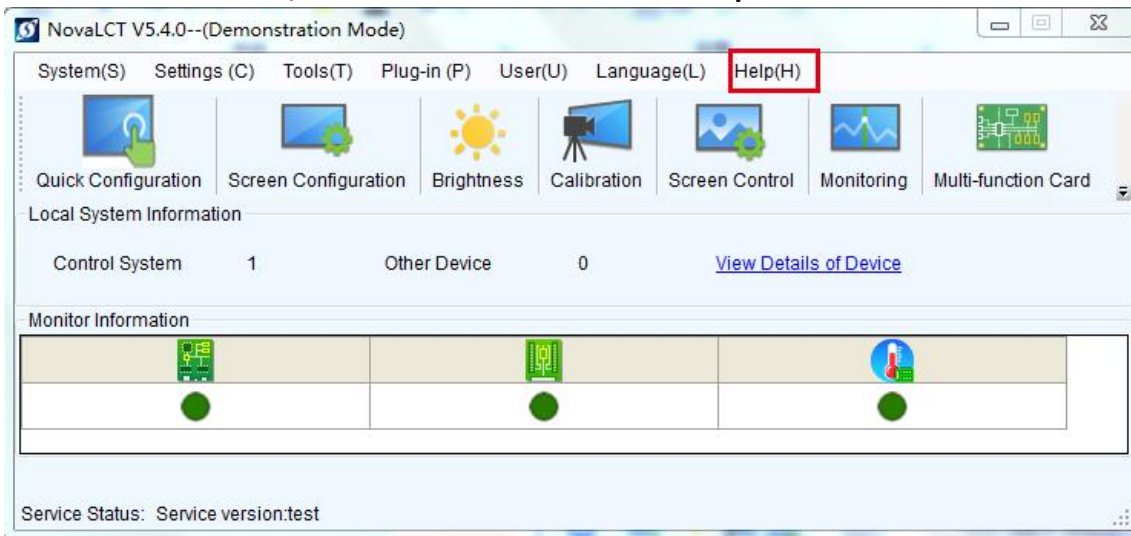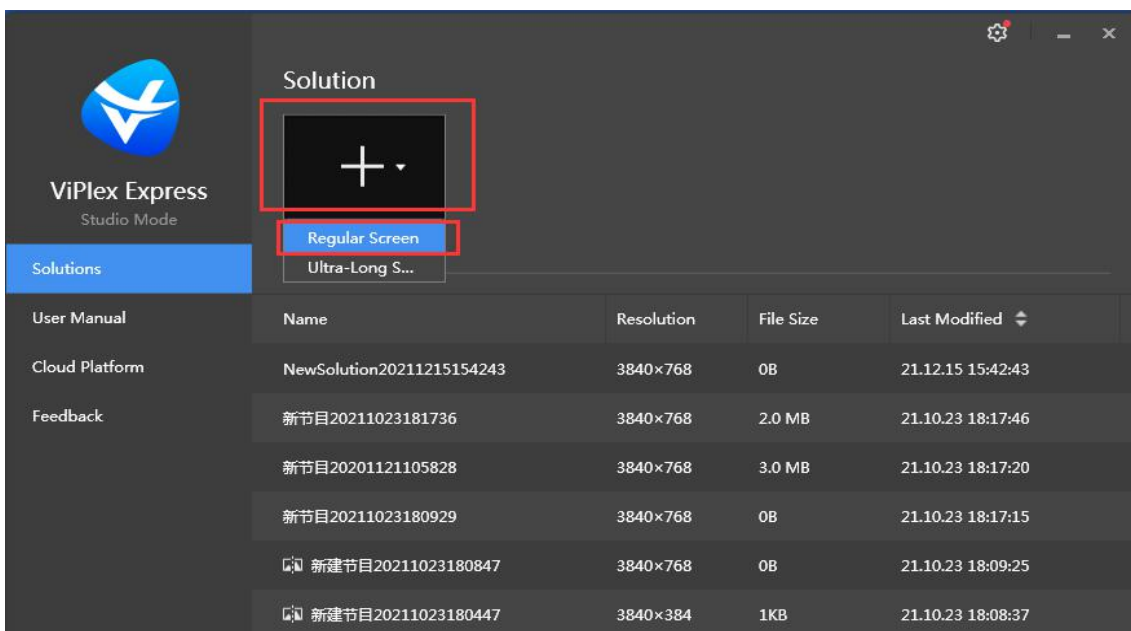
3.4 Broadcasting a video or program!

Double-click to open The following window is displayed:

Click Setting-Working mode, and choose local play (synchronous mode, connected to the computer for play) or asynchronous play (offline play).
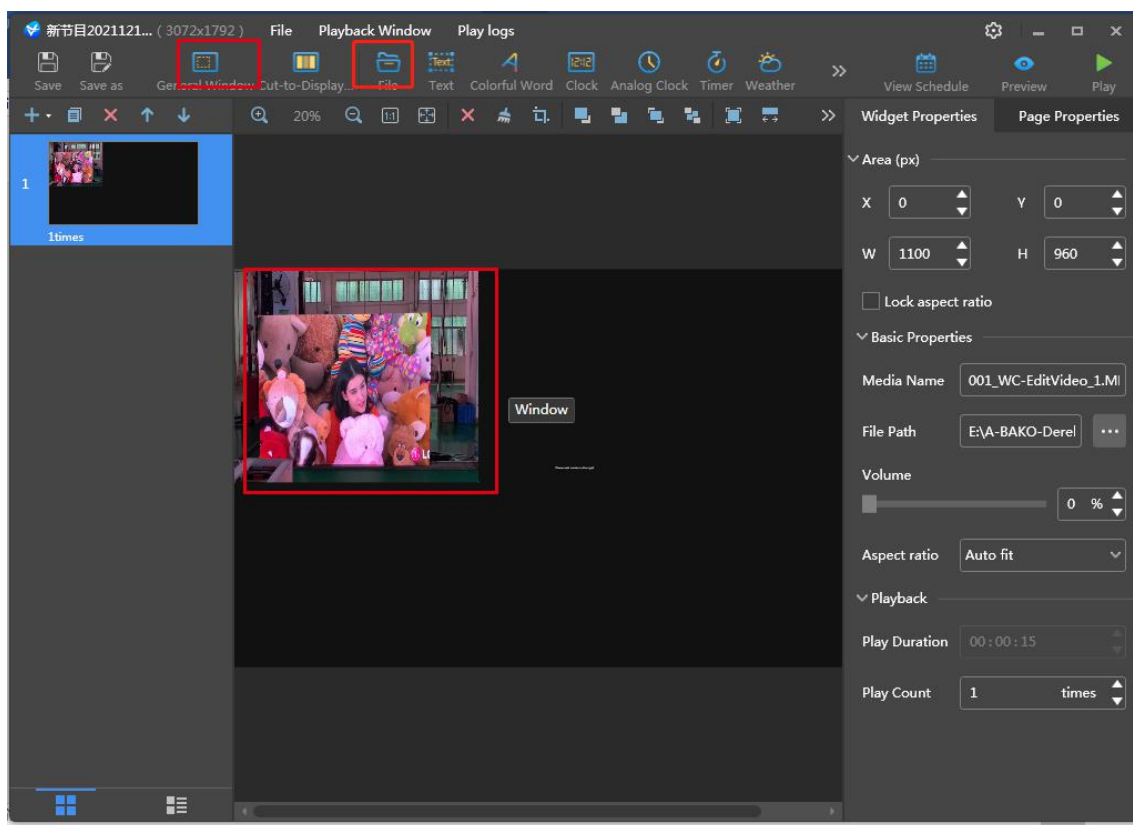
Here we will briefly explain local play.

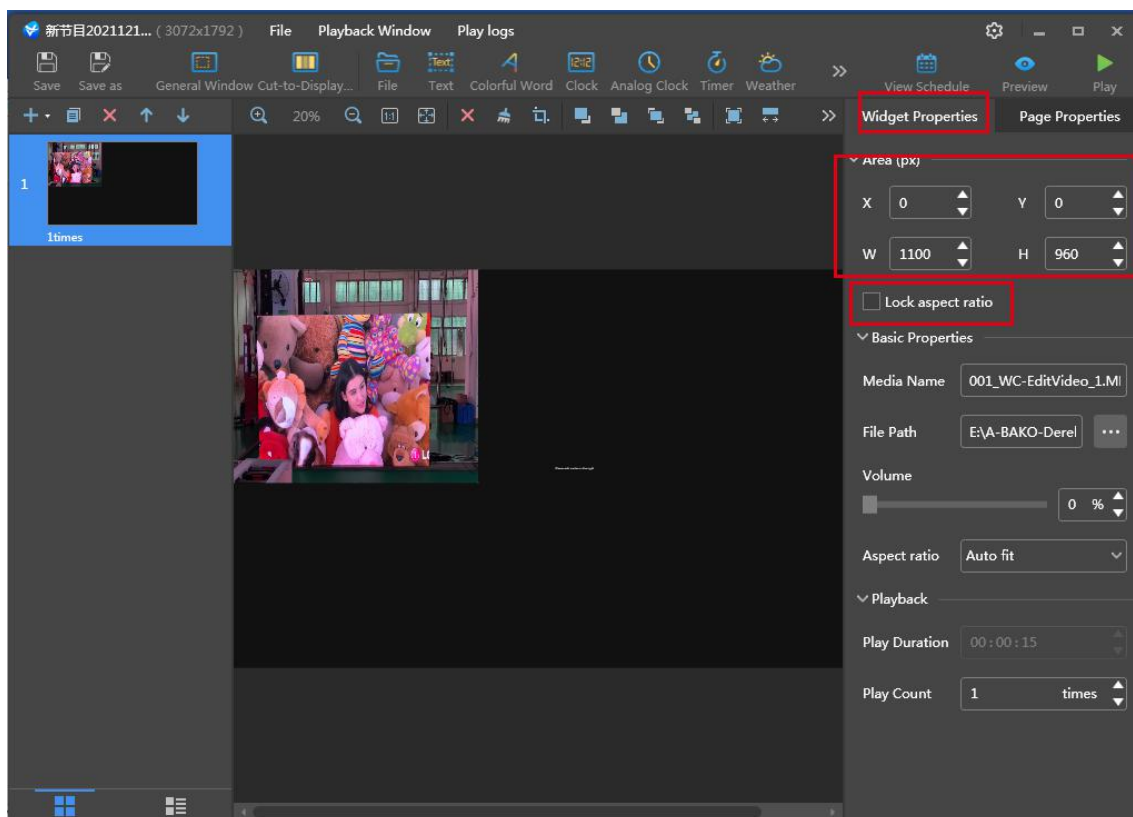Click " + " to new solution, select regular screen.

Set the size and starting position of the playback window according to the size of the LED display.
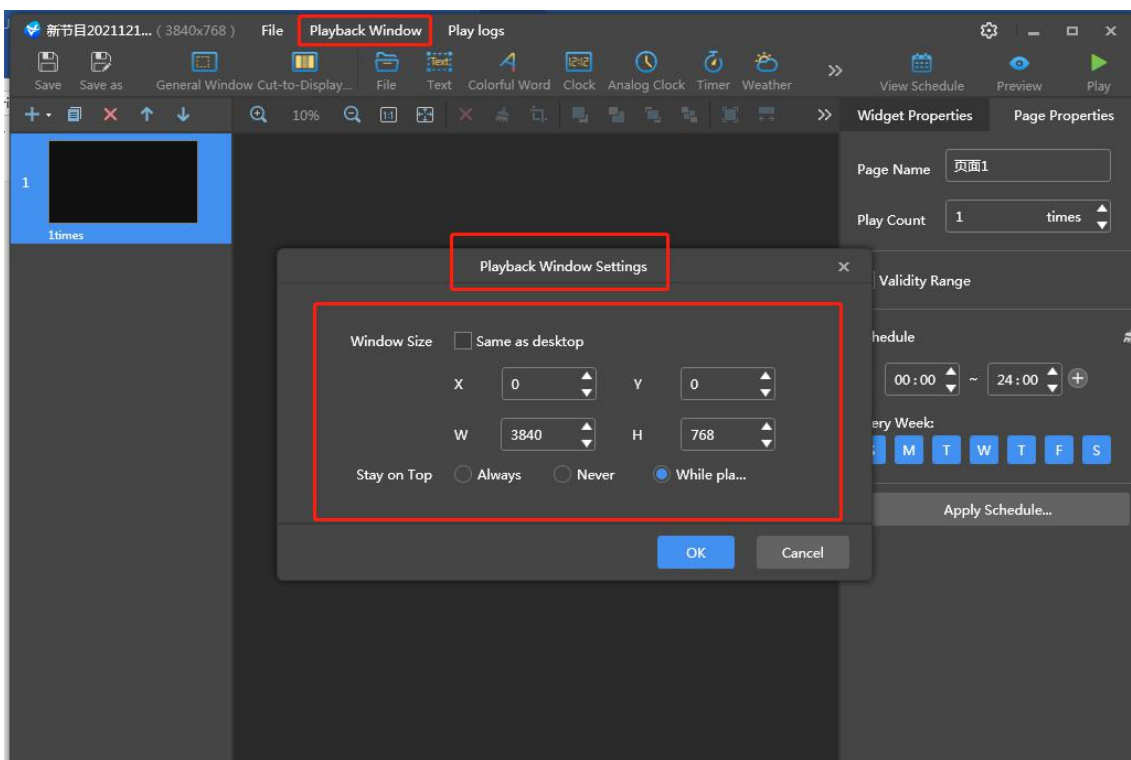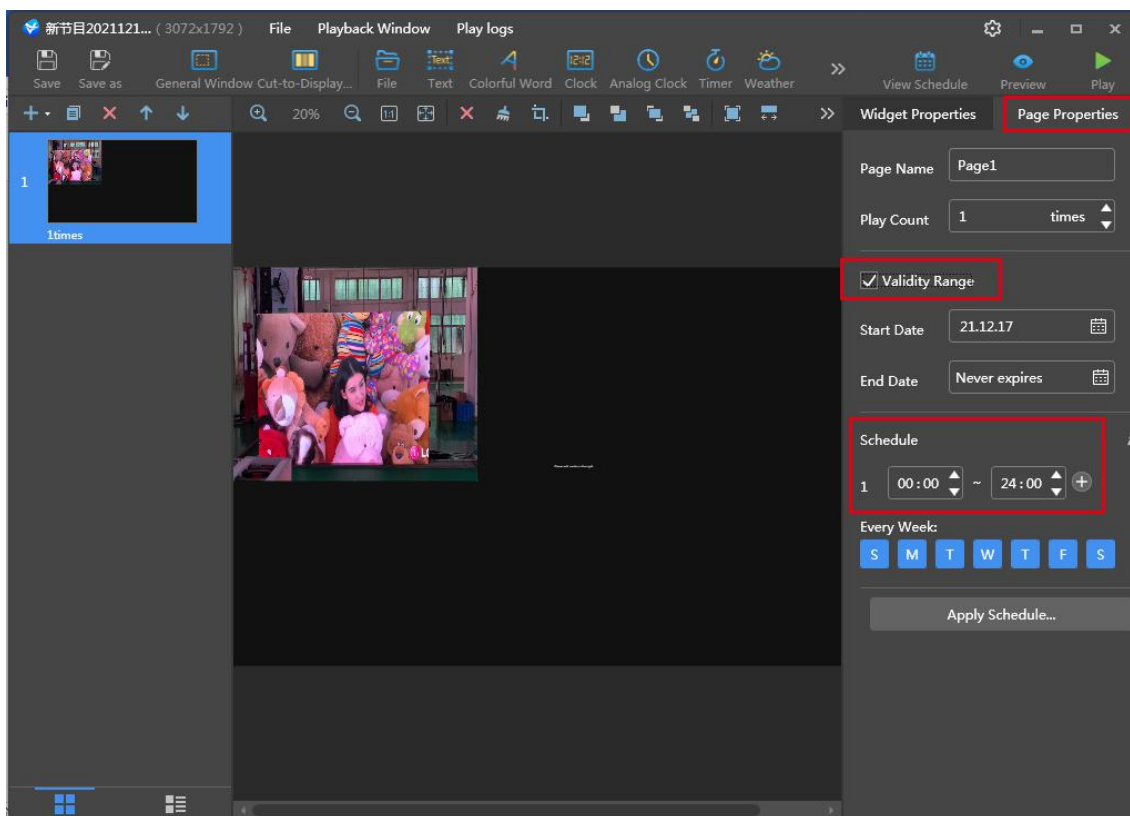

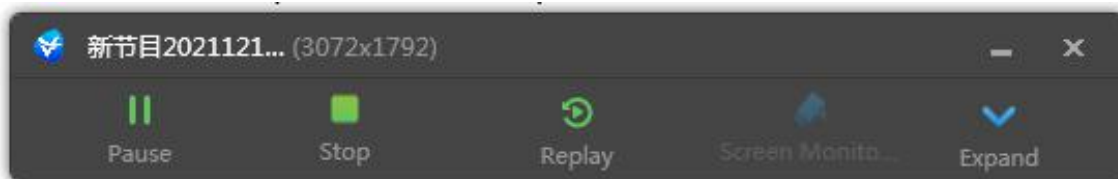Select general window, file, add file, display as follows:

Click component properties on the right to unlock aspect ratio, change starting position and width.

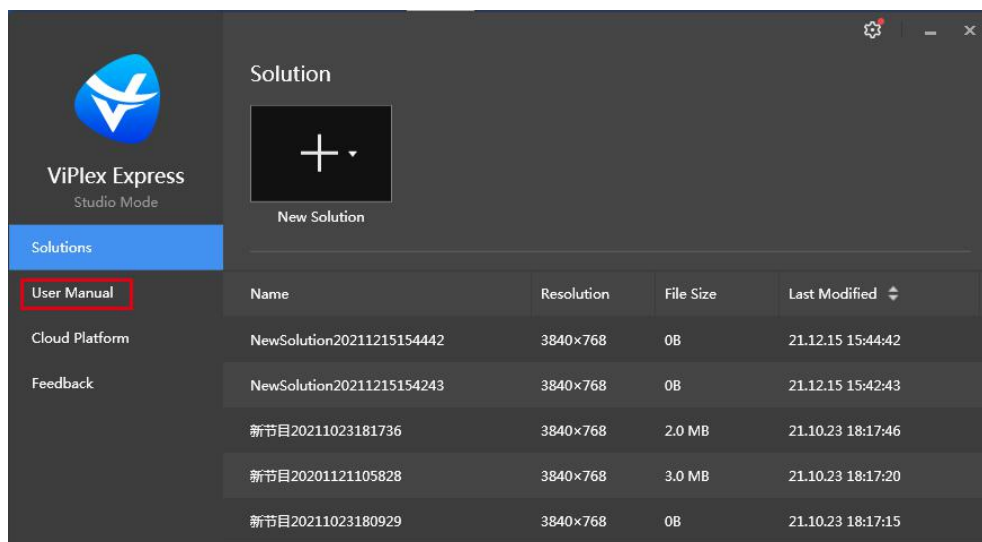Click page properties to set the schedule as required.

Click Play then it is done:

Click expand to edit again.

More operation instructions can be viewed by clicking the software user manual:
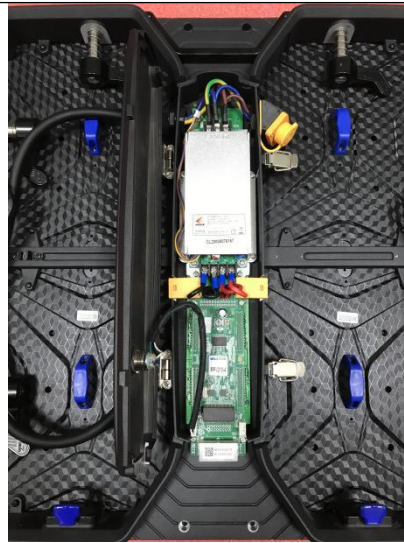
Chapter 4. Cabinet Maintenance and Operating Service

4.1 Remove the power supply
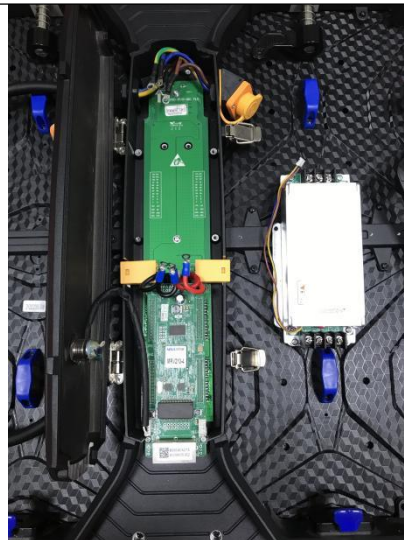
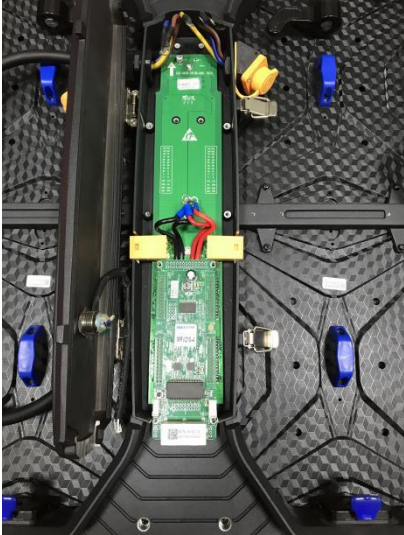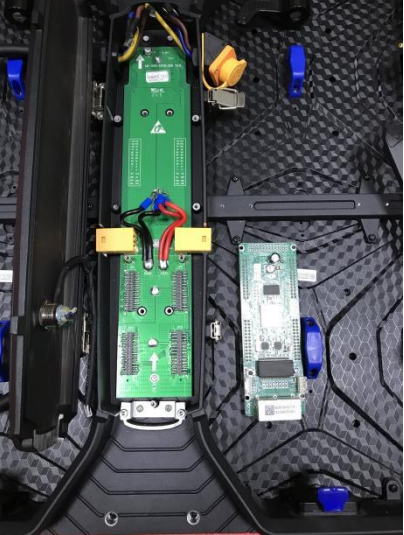| 4.1.1Power off!! Loosen two buckles on the right ⚠️**Danger**	4.1.2 Open the power box cover

4.1.3 Remove the screws from the power terminal and disconnect the power cable	4.1.4 Remove the four retaining screws on the power board and remove the power supply
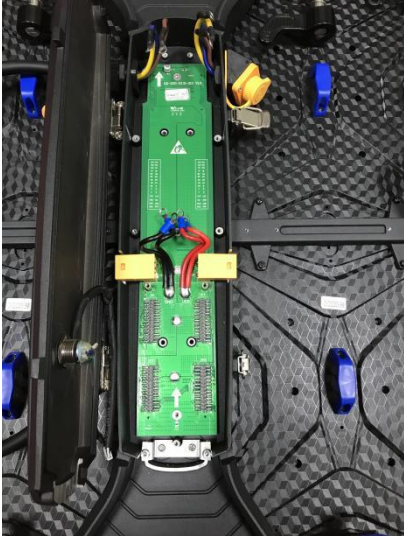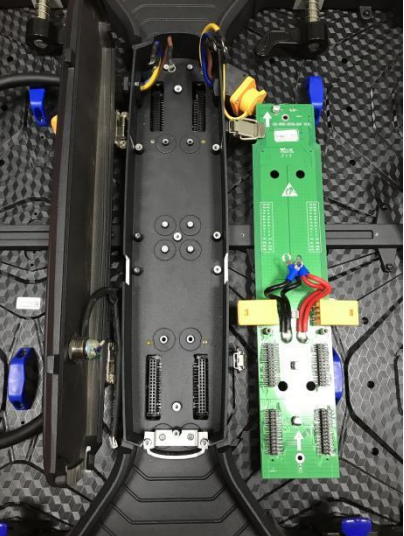
4.2 Remove receiving card

4.2.1 Pull out the button terminal and remove the receiving card fixing screw	4.2.2 Take out receiving card

4.3 Remove adapter plate (Also called HUB).

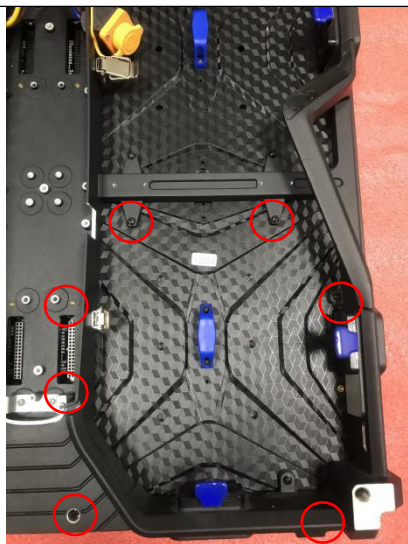| 4.3.1 Remove the three adapters plate retaining screws	4.3.2 Remove adapter plate (HUB)

4.4 Remove the modules

Indoor: use module remover to take it out

Outdoor:	
4.4.1 Remove the 7pcs module retaining screws	4.4.2 Take out the module

4.5 Other Important Tips for Moisture Protection

a) The daily running time of the LED Screen should be more than 1 hour (video can be played if there is no need for use);

b) Avoid air conditioner blowing directly on the screen, ensure that the ambient humidity of the screen is controlled at 70%.

c) Do not allow the LED Display beads to come into contact with water or wet rag.

d) Avoid touching the display beads directly with your hands or with items that can generate strong static electricity. (e.g., nylon, wool sweaters, etc.)

(e) It's prohibited to use 84 disinfectant containing (Fluorine, Bromine) or highly effective disinfectant water to spray directly on the environment where the display is used. If disinfection is required, it's recommended that 75% medical alcohol be used and the power to the display must be turned off during disinfection. Prohibit flames, prevent static electricity, maintain ventilation and pay attention to safety.

(f) If the display has not be used for a long time (two use time not more than 5 days), be sure to dehumidify before use, using a gradual increase in brightness, slow warming to remove the accumulated moisture in the unused period of the product, specific operation methods are as follows:

| No.	Time (H)	Dehumidification Steps
1	At 0-2 hours	leave the screen in a black state to warm up
2	At 2-4 hours	Level 30 grayscale aging
3	At 4-6 hours	Level 60 grayscale aging
4	At 6-9 hours	Level 90 grayscale aging
5	At 9-12 hours	Level 150 grayscale aging

PS: Reduce or extend the aging time according to the actual usage environment, climate and shutdown time.

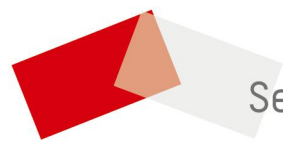# Chapter 5. Packages Details

5.1 Flight Cases Packing
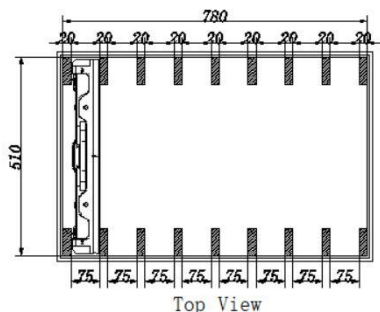
500x500mm（Standard type）- Standard flight case
Cabinet size: 500x500x71mm
Inner size of flight case: 780x510x540mm (8in1)
Cabinet body color: Black(Aluminum alloy frame: natural color).
Thickness of fireproof sheet: 9mm
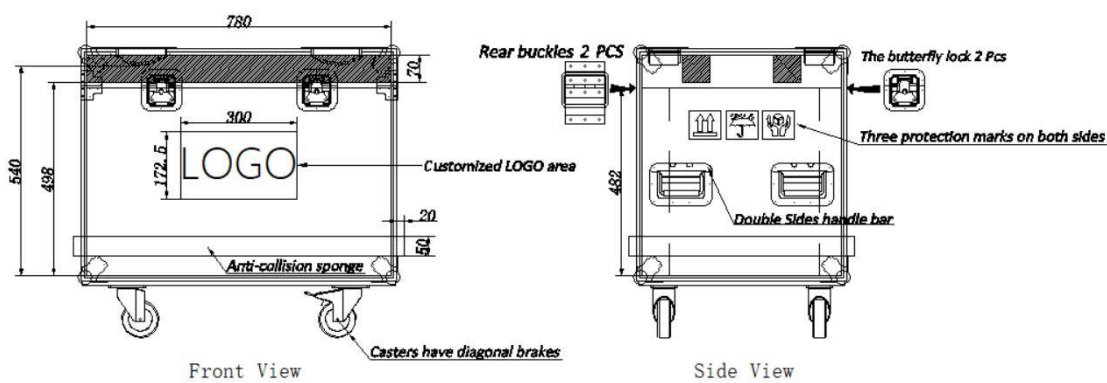
5.2 wooden box Packing

See Far, Go Further