Nanolumens®

55 inch NanoPanel



ALL-IN-ONE DISPLAY

Contents

1 CAUTION

✦ Do not place the device upside down or subject it to impact during transportation or storage.

✦ Avoid tilting or scratching the device during installation.

✦ Keep the device away from water and moisture.

✦ Do not direct the air outlet of an air conditioner toward the display.

✦ Do not place or operate the display in environments containing volatile, corrosive, or combustible chemicals.

✦ Do not use the device in areas with humidity above 80% or outdoors during rain.

✦ Do not clean the display with chemical solutions.

✦ Always use electrical accessories certified by the device manufacturer.

✦ Ensure the display and all auxiliary equipment are properly and securely grounded before use.

✦ Disconnect the power supply and contact a qualified technician if you notice any abnormality, such as unusual odor, smoke, power leakage, or abnormal temperature.

✦ Input voltage must remain within 100–240 VAC.

✦ Wear anti-static gloves and wrist straps when installing or servicing the product.

✦ Ensure unobstructed airflow at the back of the display.

✦ Power on the display at least twice per week for a minimum of two hours each time under normal conditions.

✦ Avoid prolonged display of static images or text to prevent significant brightness degradation.

✦ Installation near coastal areas, saline environments, sulfur gases, or locations with large indoor-outdoor temperature differences may cause operational issues and reduce service life.

✦ If installation in such environments is unavoidable, consult Nanolumens technical professionals.

2 PACKAGING LIST
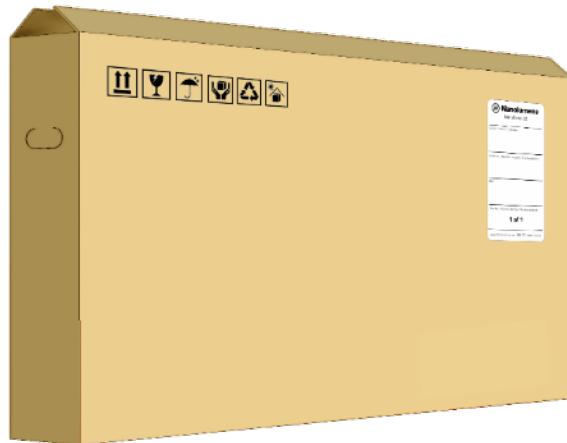
Corrugated Box
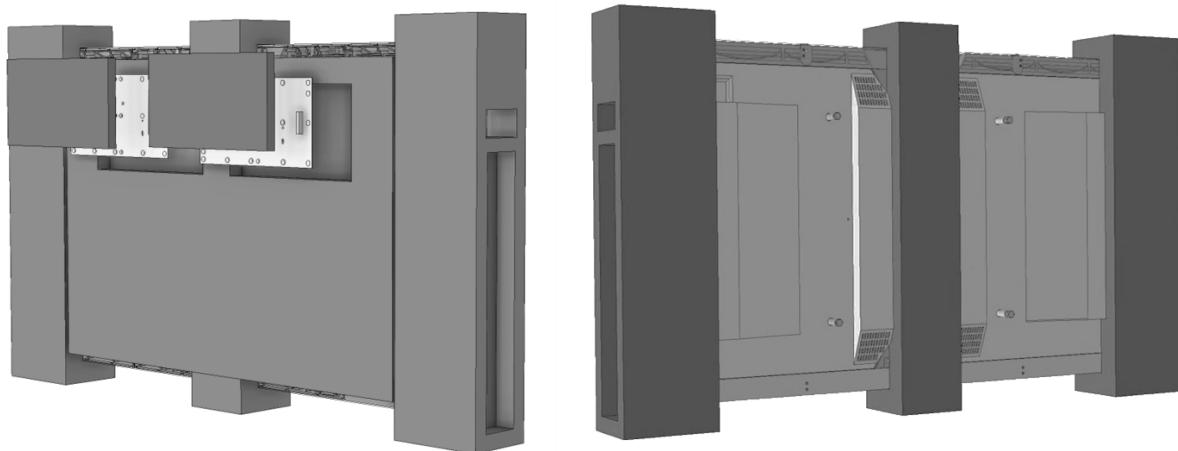
Inside the Carton

Inventory list：

1	55-inch LED display screen	1 set
2	Spare Parts Module	1 or 2 pcs
3	Remote control	1 pcs
4	Power cable (3 meters)	1 pcs
5	HDMI cable (3 meters)	1 pcs

3 SPECIFICATION

MODEL		0.6-NPan55-001	1.25 - NPan55 - 001
PANEL	Pixel type	1R1G1B-COB	1R1G1B-COB
	Pixel Pitch	0.625mm（Virtual)	1.25 mm
	Native Resolution	1920 x 1080	960 x 540
	Brightness	800 nits	800 nits
	Contrast Ratio	10000:1	10000:1
	Viewing Angle (H/V)	160°/160°	160°/160°
	Lifetime (Typ.)	100,000 hrs	100,000 hrs
	Panel Surface	3H	3H
POWER	Power Supply	Internal	Internal
	Rated Voltage	100-240V ~ 50/60Hz	100-240V ~ 50/60Hz
	Power On Mode/Max.	240W	240W
MECHANICAL SPECS	Bezel Width (T/B/L/R)	3/3/3/3 mm	3/3/3/3mm
	Cabinet Color	Black	Black
	Active Dimension (LxH)	1200x675 mm	1200x675 mm
	Monitor Dimension (LxHxD)	1206x681x68 mm	1206x681x68 mm
	Package Dimension (LxHxD)	1315x785x152.5 mm	1315x785x152.5 mm
	Display Weight	20 kg	20 kg
	Package	26 kg	26 kg
	Orientation	Portrait / Landscape	Portrait / Landscape
	VESA Mounting (LxH)	400 x 400 mm	400 x 400 mm
	Installation Method	Wall mounted / Hang / Floor stand	
USER INTERFACE	Language	English, French, Spanish, Chinese, Russian	
	Brightness Control	Yes	
	Volume Control	Yes	
	Power On/Off	Yes	
	OSD Menu	Yes	
IO PORTS	HDMI In	x1 (1.3 Supports 2K, frame rates of 30/50/60Hz)	
	HDMI Out	x1 (Support outputting standard 1080P video source)	
	USB	X3 (USB 2.0 input interface, supporting common USB devices)	
	RJ-45	x1 (LAN)	
	SPDIF	x1(Fiber optic digital audio output)	
	AUDIO	x1(3.5mm standard interface)	
INTERNAL PLAYER	Operating System	Android 11	
	CPU/GPU	Main frequency 1.8G 64-bit quad-core processor/ Mali G52	
	RAM /ROM	2GB LPDDR4 /32GB	
	Wireless	Bluetooth/Wi-Fi / 4G (optional)	
ENVIRONMENT	Operating Temperature	-20℃ ~60℃	
	Storage Temperature	-30℃ ~80℃	
	Humidity	10% ~ 80% RH Non-condensing	
CERTIFICATION	CE, FCC, ETL		

4   HARDWARE DESCRIPTION

4.1 Product Appearance

Front

Rear

Antenna

VESA mounting hole

Buttons

IO Ports

USB 2.0

Power Input
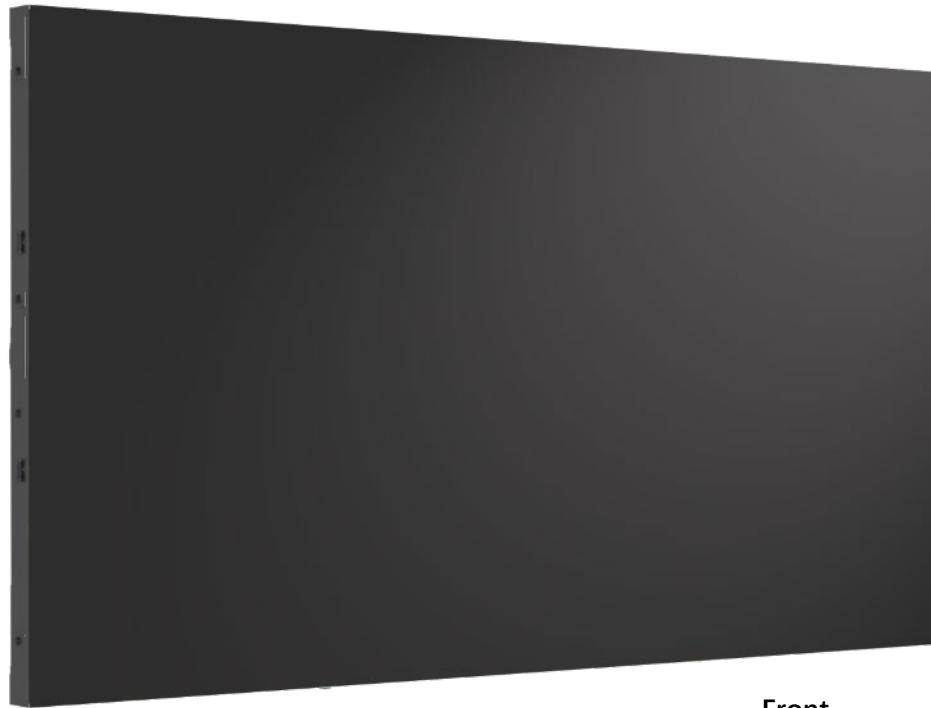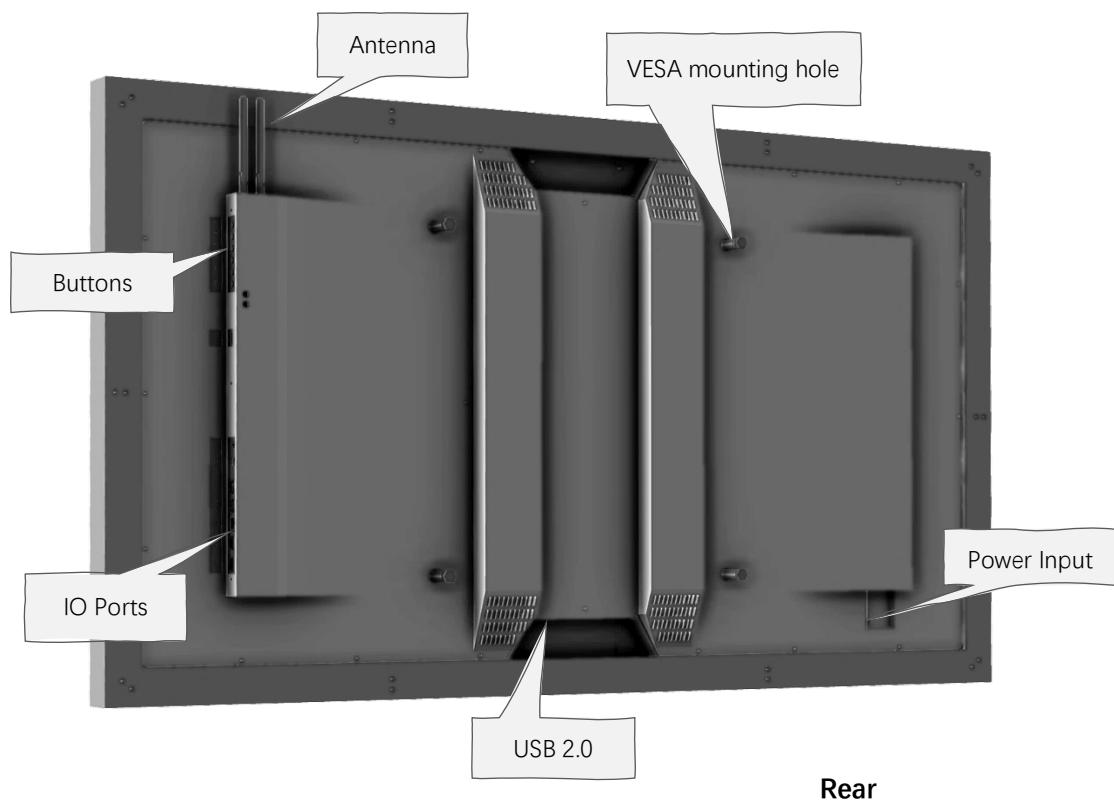
4.2 Buttons and IO Ports
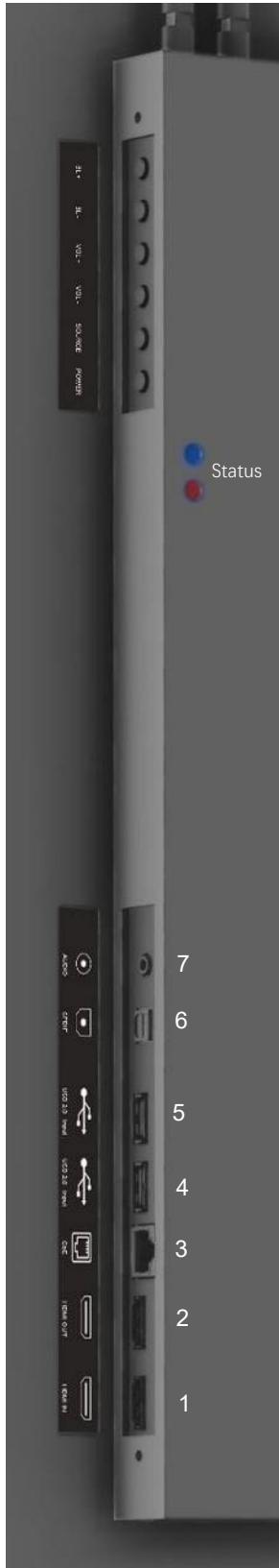
| BL + | BL - | VOL + | VOL - | SOURCE | POWER |

Name	Description
BL+	Brightness up
BL-	Brightness down
VOL+	Volume up
VOL-	Volume down
SOURCE	Input source switching
POWER	Low power standby
Status LED	Always on in blue after power on
	Always on in red in standby mode

Status

| AUDIO | SPDIF | USB 2.0 Input | USB 2.0 Input | GbE | HDMI OUT | HDMI IN |

| No	Interface	Description
1	HDMI IN 1.3 (Type A)	• Maximum resolution 2048x1152@60Hz . • Minimum resolution 800x600@60Hz . • Support custom resolution. Width range: 800~3840 (strongly recommended) Height range: 600~3840 (strongly recommended) • Supports frame rates of 30/50/60Hz. • Cannot support interlaced signal input. • Supports HDCP1.4 and is backward compatible.
2	HDMI OUT	Support outputting standard 1080P video source
3	Gigabit Ethernet port	Connect to external networks or connect to NovaLCT upper computer software.
4/5	USB 2.0	USB 2.0 input interface, supporting common USB devices such as keyboards, USB drives, etc. • Supported file types for images: *. jpg, *.bmp, *.png; • Video supported file types: *avi, *.mpg, *.vob, *.mov, *.mkv, *.rmvb, *.mp4, *ts, *.flv; • The file system supports FAT32 and NTFS, but does not support Ex FAT and FAT16
6	SPDIF	Fiber optic digital audio output
7	AUDIO	3.5mm external/internal audio interface. Only supports connecting three-stage headphone stands, used for connecting audio equipment.
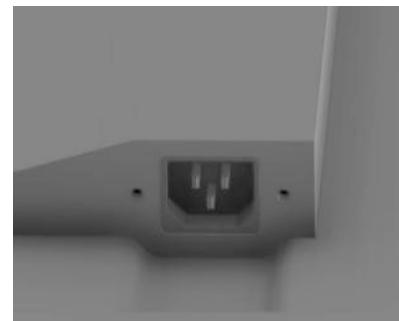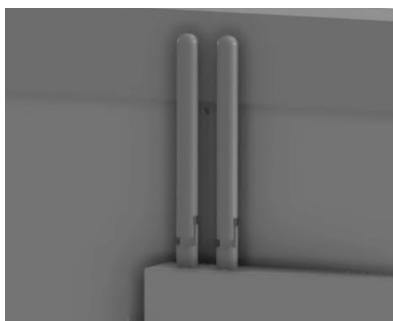
Antenna:
- WiFi-STA (1T1R)
- WiFi-AP 2T2R
- Bluetooth (Built-in)

USB2.0: Support serial command control, connect to input computer.

**Power Input:** AC100-240V

4.3 Remote Control

Short press: Return to home.
Long press: Switch between apps.

Short press: Open the shortcut menu.
Long press: View screen sharing info.

Long press: Voice input

Bluetooth Pairing Method

Hold down the menu and Home buttons on the remote simultaneously until the **Connecting to the remote** window appears at the bottom of the screen.

If Bluetooth pairing does not succeed after an extended period, verify that the Bluetooth antenna is properly connected.

5 INSTALLATION ILLUSTRATION

5.1 VESA mounting

VESA mounting hole

400mm

400mm
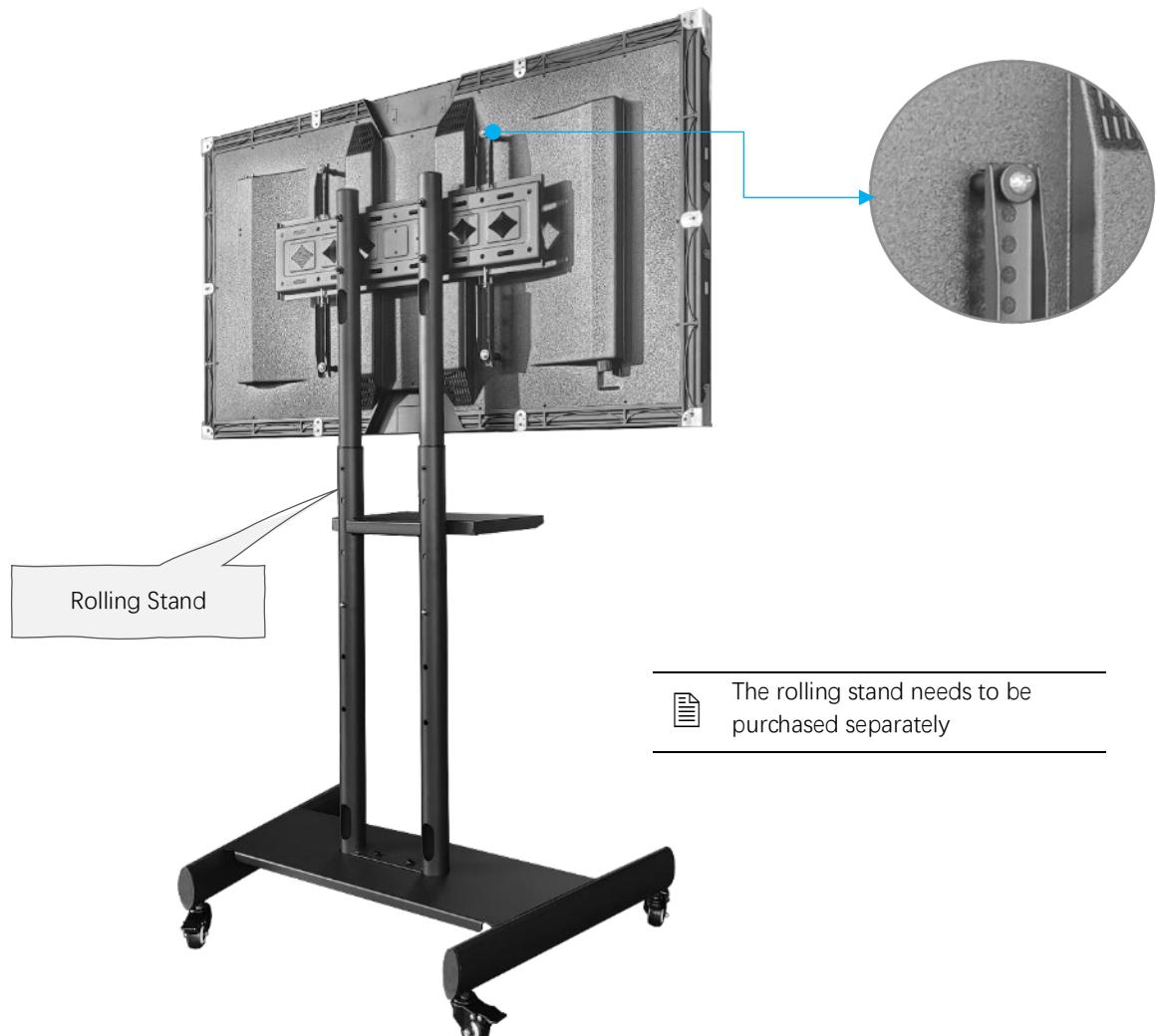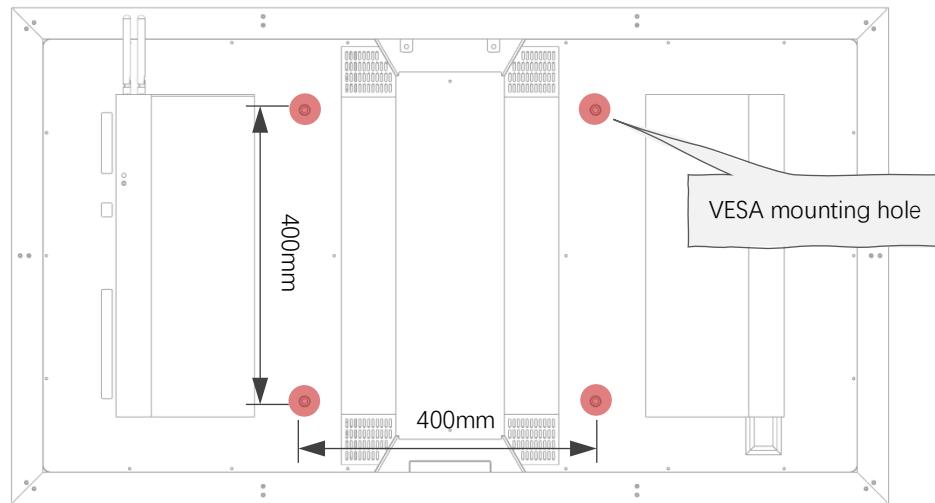
Rolling Stand

📄 The rolling stand needs to be purchased separately

5.2 Cable Connection

HDMI in 1.3: Maximum resolution
2048x1152@60Hz

USB2.0: Support serial command control, connect to input computer

Power Input: AC100-240V
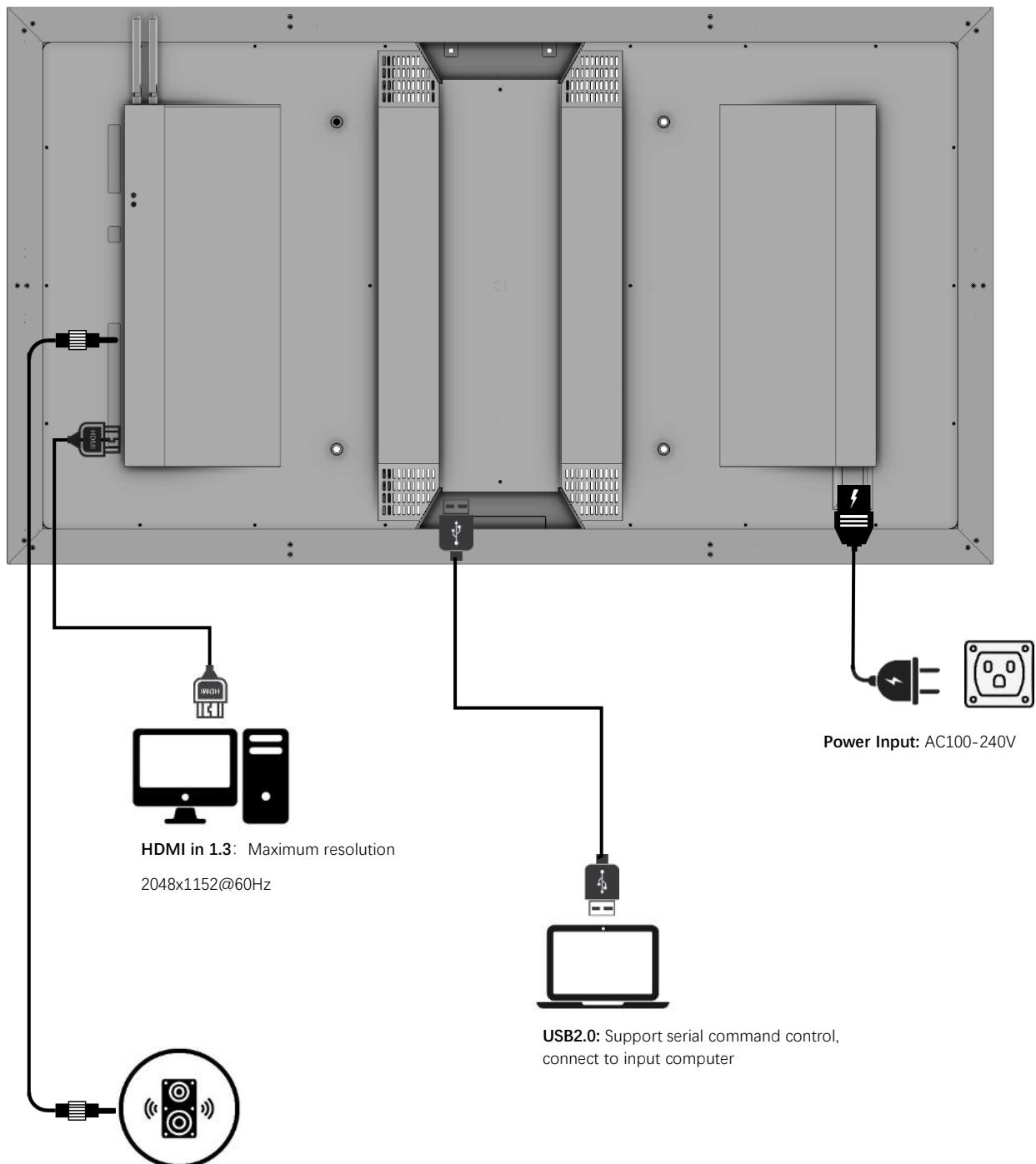
6 INITIALI SETUP

To complete the initial setup, follow the steps below for first-time use.

6.1 System Language
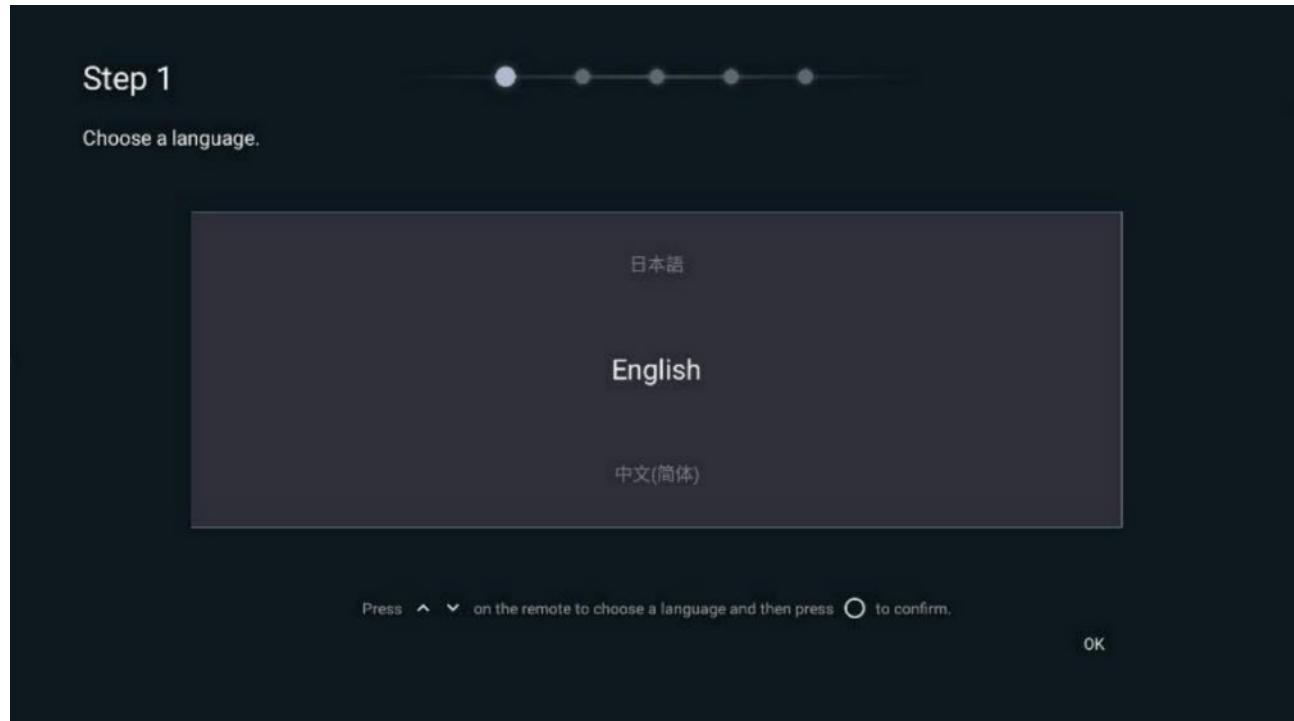
6.2 Remote Pairing

Press and hold the Menu and Home buttons on the remote simultaneously until the "Connecting to the remote" window appears at the bottom of the screen.
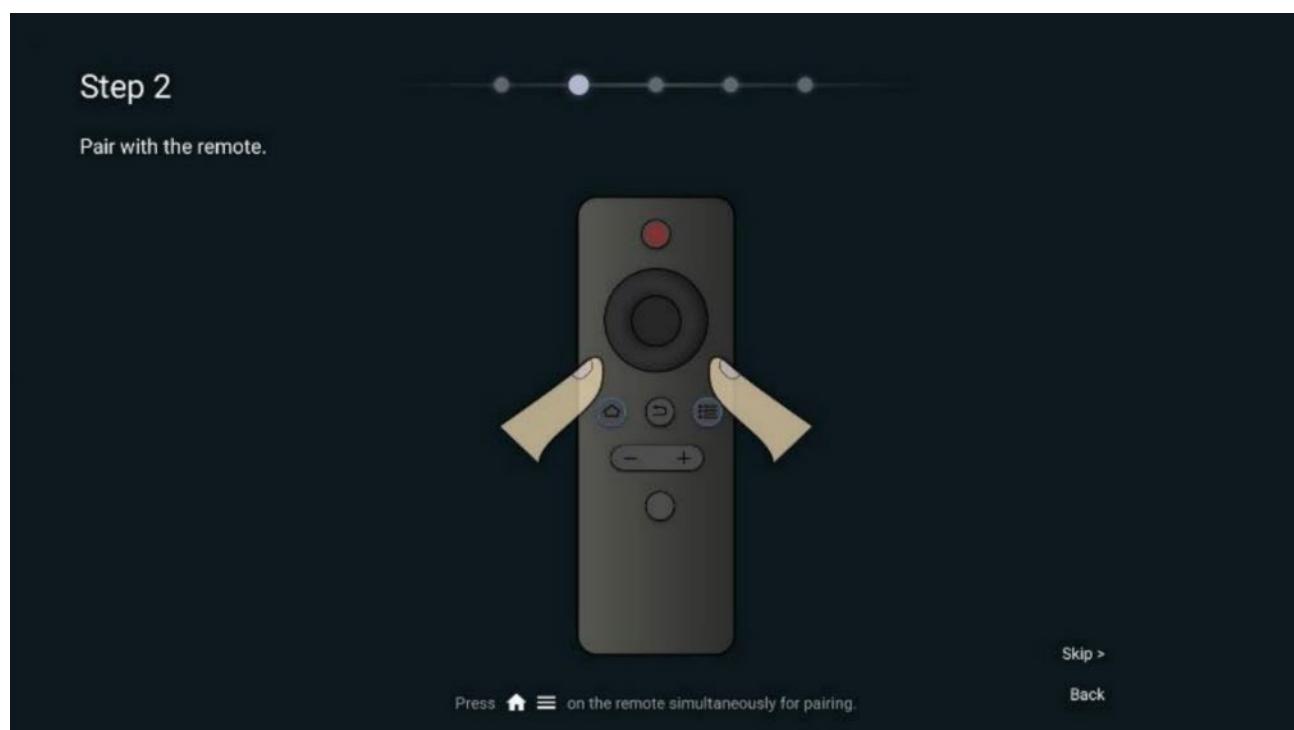
6.3 Wi-Fi Connection

Select the desired Wi-Fi network and enter the corresponding password to connect the system.

6.4 Customize Device Name

Customize the device name to make it easier to identify and locate from other devices.

6.5 Pairing With the Dongle (Optional)

| 📄 | If you are not using the mirroring dongle of NovaStar, please skip this step |

To pair the system with the mirroring dongle, insert the dongle into the USB port on the LED screen. The pairing process will be completed automatically.
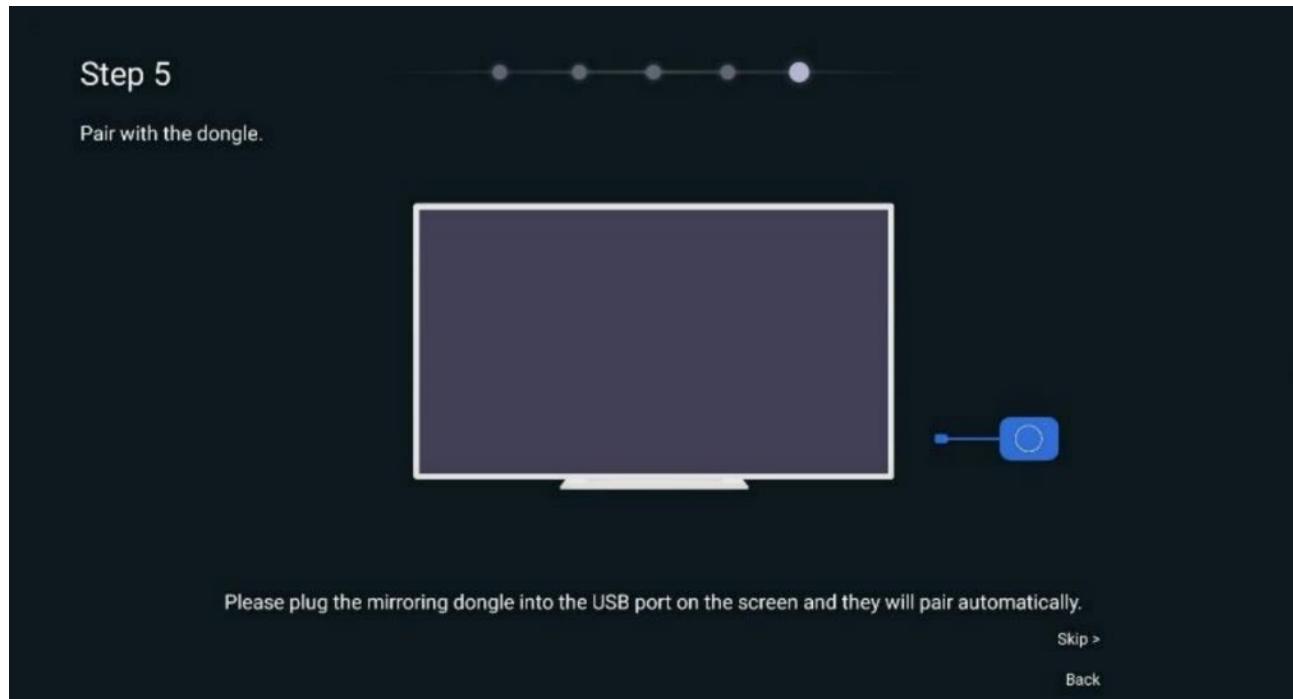
6.6 Beginner's Guide

The initialization settings are done. You can see the Beginner's Guide or start using the system directly. Select Settings to enter the menu screen. In the menu, select System > Beginner's Guide and view the guide.

6.7 RS232 Setup (Optional)

The rear USB 2.0 port supports RS-232 communication. For detailed serial command information, please refer to the TU Series Control Protocol Manual provided by Novastar.

USB 2.0
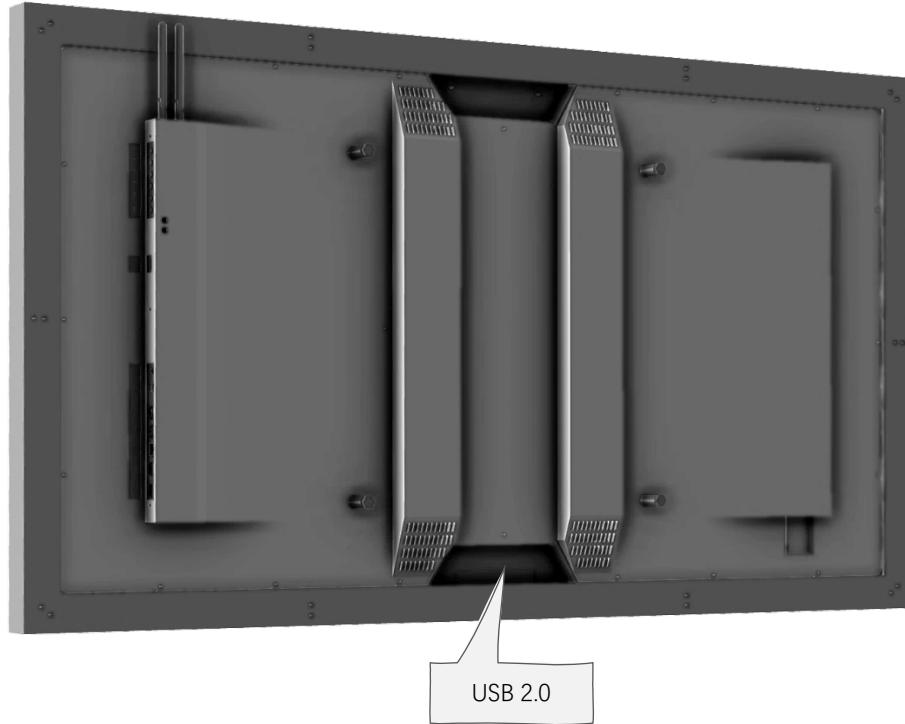
7 PART REPLACEMENT

7.1 Assembly Layout

MODULE	MODULE	MODULE	MODULE
MODULE	MODULE	MODULE	MODULE
MODULE	MODULE	MODULE	MODULE
MODULE	MODULE	MODULE	MODULE

HUB Card
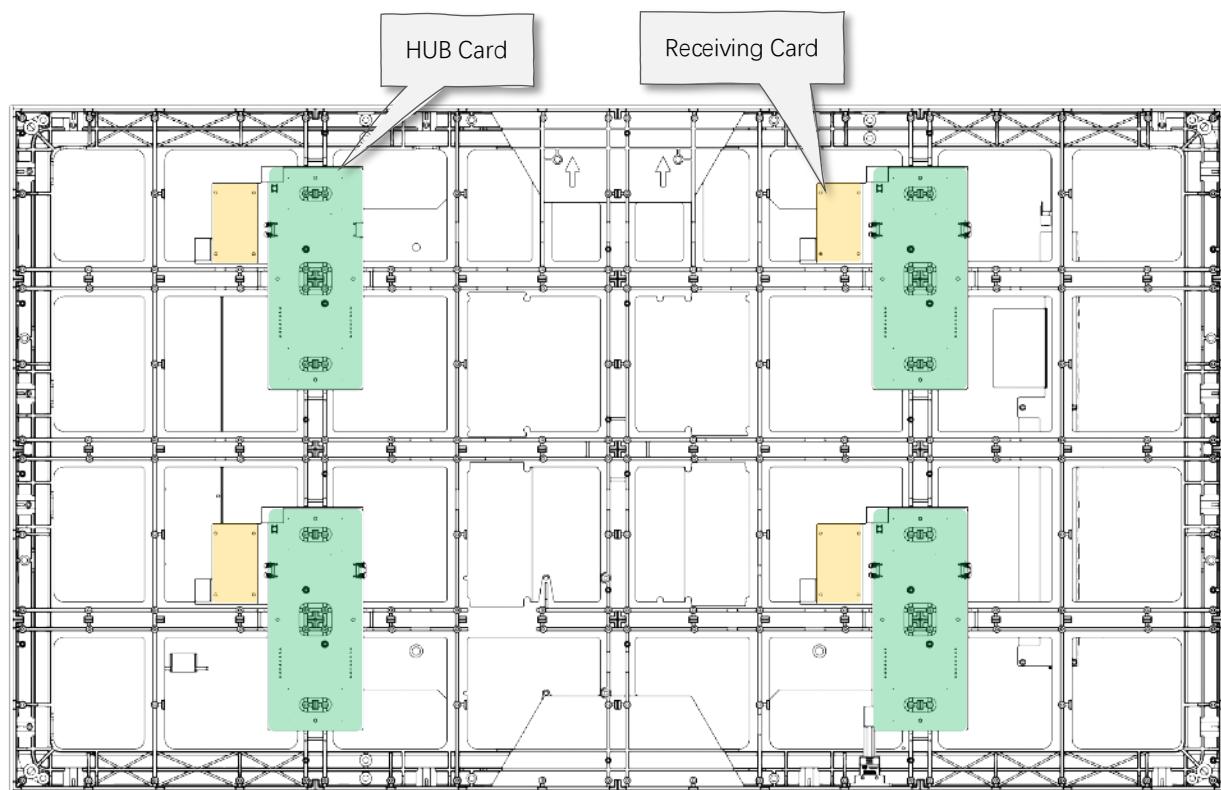
Receiving Card

Interior (Front View)

Interior (Rare View)
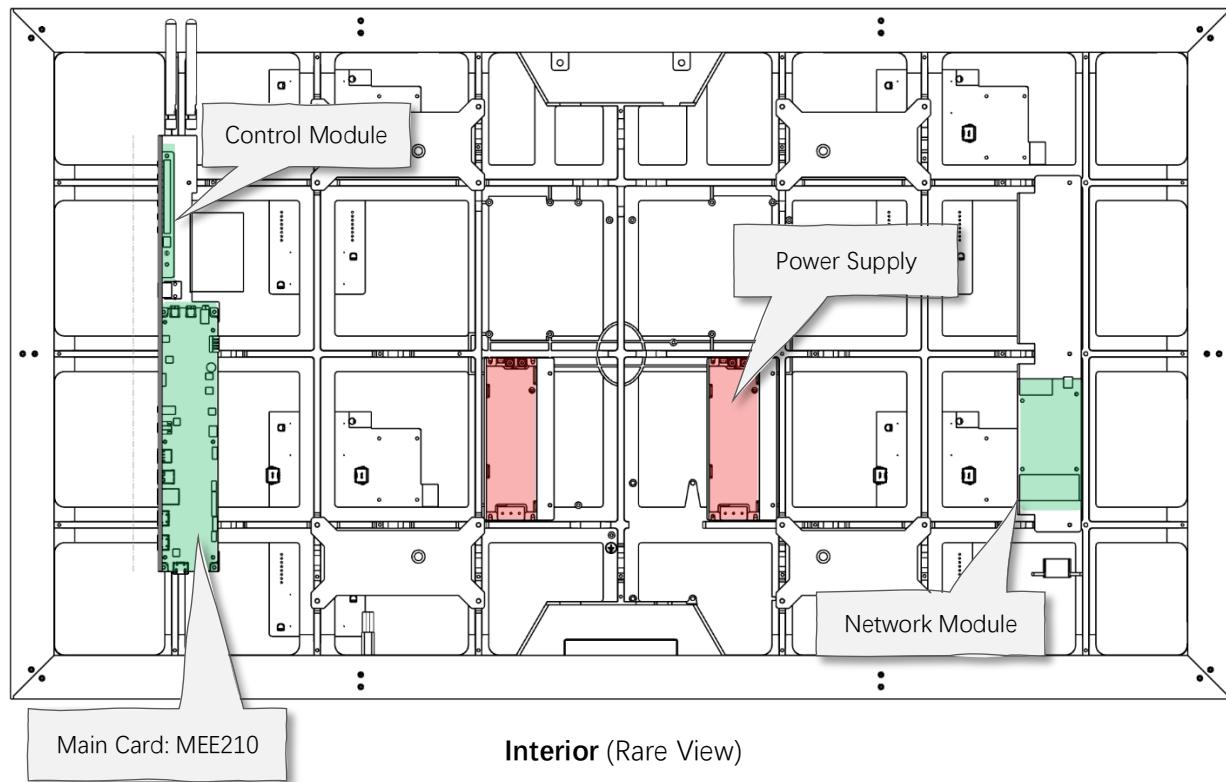
7.2 LED Module Replacement

Use a suction cup to hold the LED module that needs to be removed.

Grip the suction cup tightly and pull it outwards to remove the module.

7.3 Hub & Receiving Card Replacement
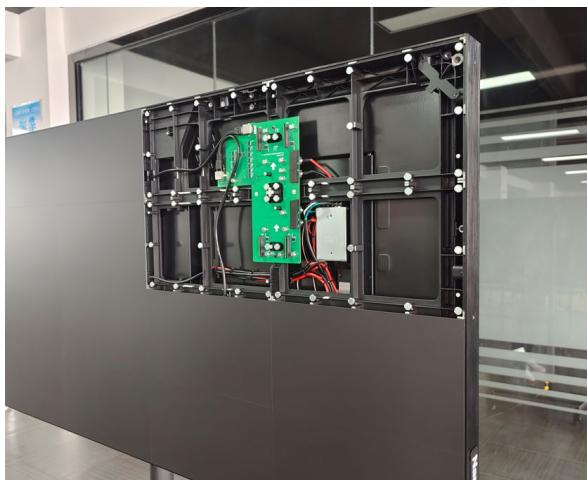
Remove all the modules on the hub card according to the 7.2 method
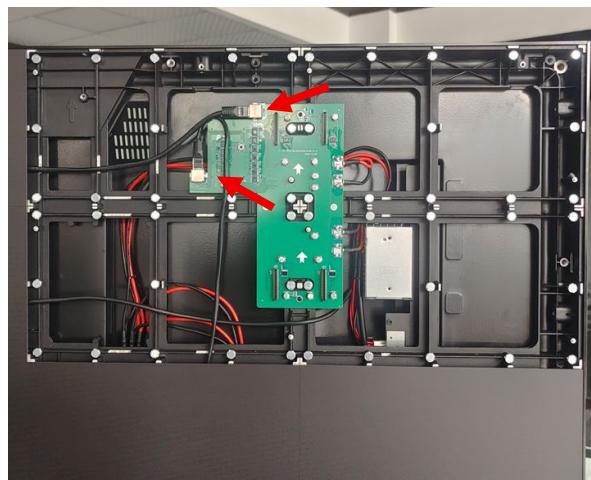
Remove the two network cables from the HUB board

Remove the 2 screws that secure the HUB card
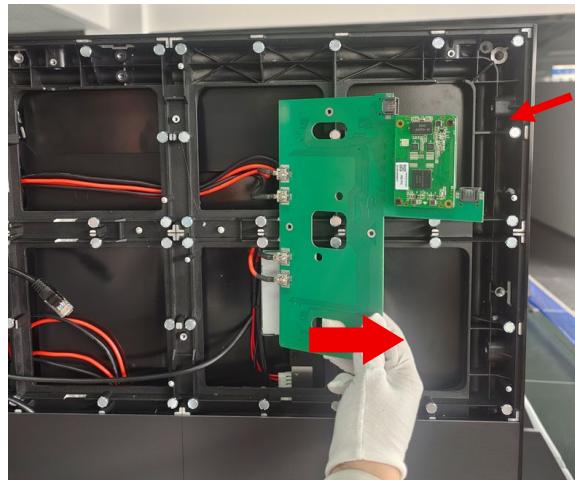
Flip the HUB card to access the receiving card

Remove the screws that secure the cable, and the HUB card can be removed

7.4 Power Supply & Sending Card Replacement
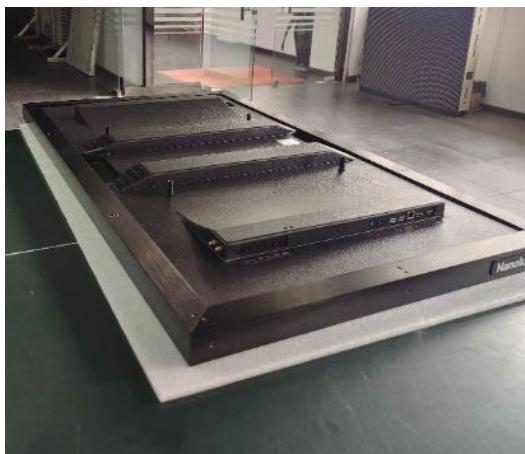
- Place the device on the workbench with the back facing upward. Use a soft cushioning material underneath to protect the display module.
- Remove all screws from the back cover. Pay special attention to the screws located in the areas indicated below.
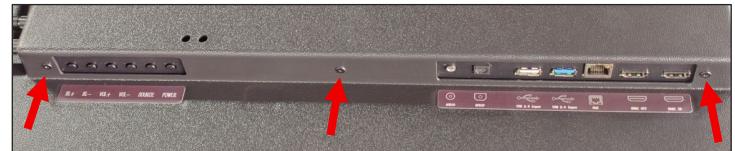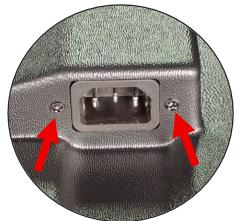
Remove the antenna

Remove the décor (rear view)

Pull the top side of the cover plate away from the display


★ When removing the cover, please be careful with the USB port
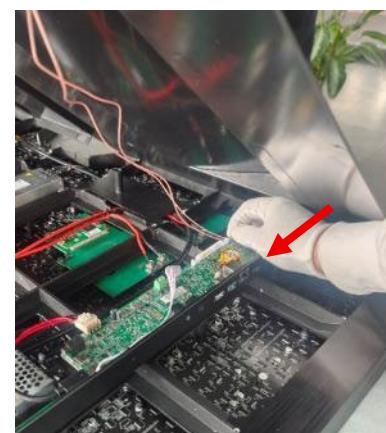
★ While removing the cover, please carefully pull out the antenna connector
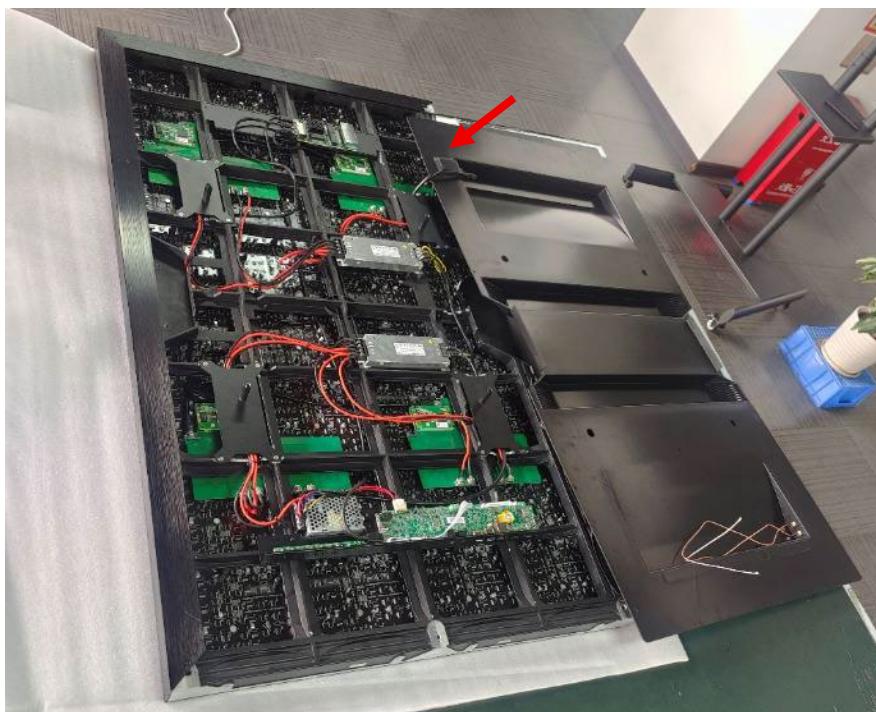
After completing the previous steps, flip the cover plate backward and place it flat on the workbench.

★ Please be careful with AC cable at the arrow position
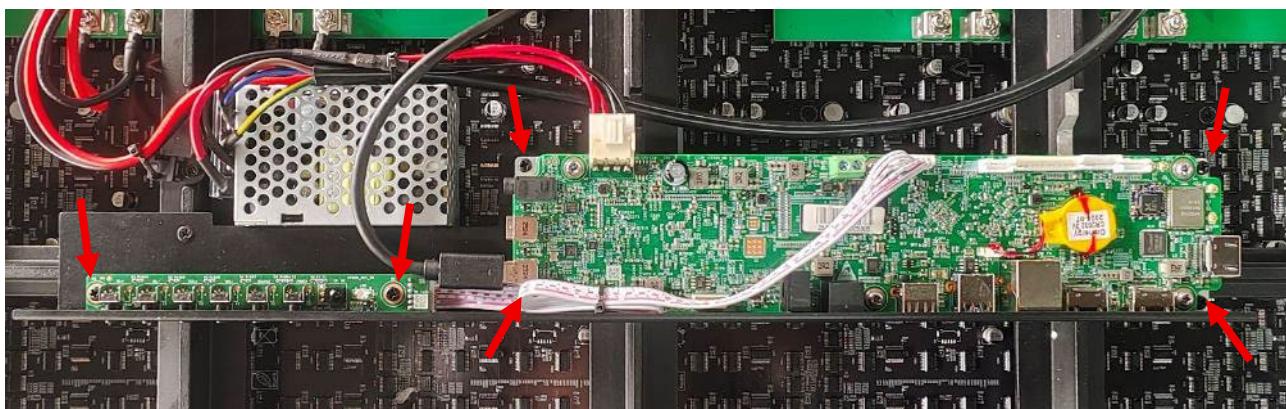
Control Module   MEE210 4G Sending card
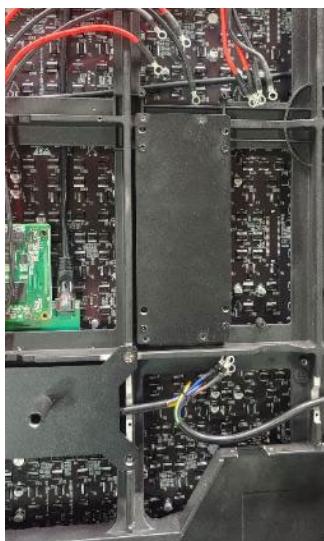

SMPS Power Supply   Network Module

8 UPPER COMPUTER SOFTWARE

8.1 Software Installation

The latest NovaLCT software can be downloaded from **https://www.novastar.tech**. Navigate to **DOWNLOADS > Software**, then locate the **NovaLCT** section and download the V5.8.1 software installation package.
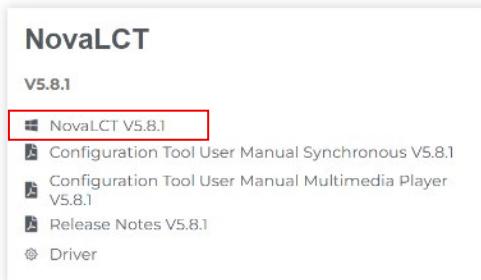

Unzip the installation package, run the .exe file, and follow the setup wizard to complete the installation. If a firewall prompt appears, choose Allow to proceed.

If the PC does not have the required serial port driver installed, or if the installed version is outdated, the NovaLCT installation program will automatically install or update the driver.

After successful installation, a shortcut will appear on the desktop, and icons will appear on the taskbar.

8.2 Device Connection

Connect computer with NovaLCT installed to the display using RJ45 Ethernet cable
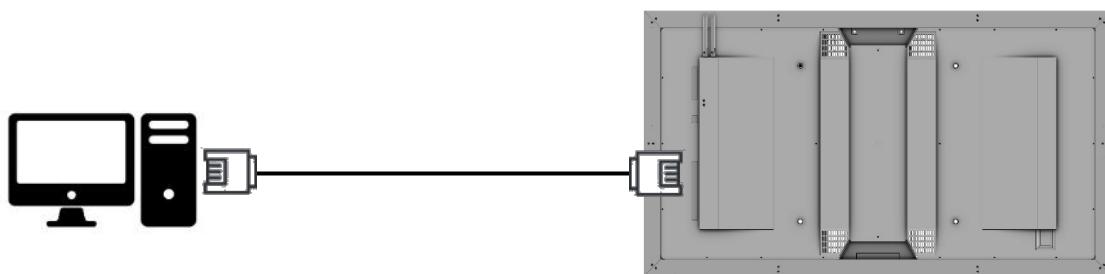
Adjust the IPV4 address of the PC to 192.168.0.88

(Note: Make sure the computer and the display are on the same network segment)

8.3 NovaLCT Login

NovaLCT Version: v5.8.1

Operations: Choose **User > Media Player Login(T)**.
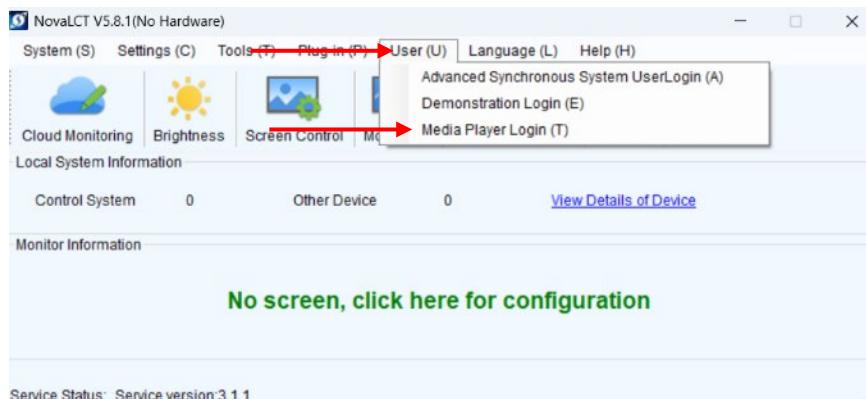
Other Operations:

- To log out, choose **User** > **Logout**.

- To change the login password, choose **User** > **Change Password**.

Select the display.

If the display does not appear, click **Refresh**. If it still does not appear, check the network cable connection and verify the PC's network segment settings.
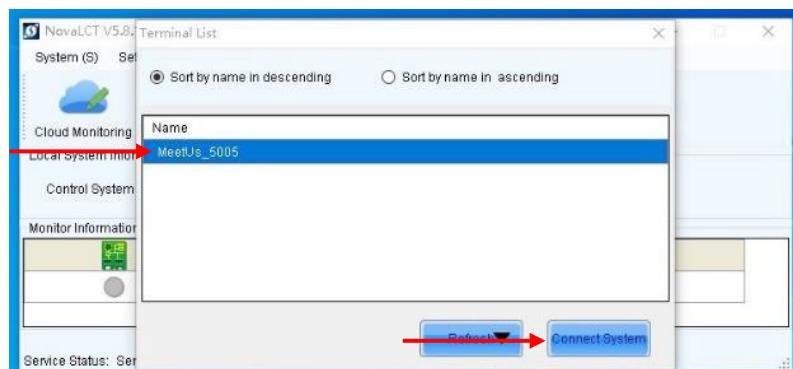
Connect System.

Enter the user name: '**admin**' and the password: '**SN2008@+**'.

8.4 Screen Configuration

Click

or choose **Settings > Screen Configuration** from the task bar

Click on **'Next'** to enter the configuration page.
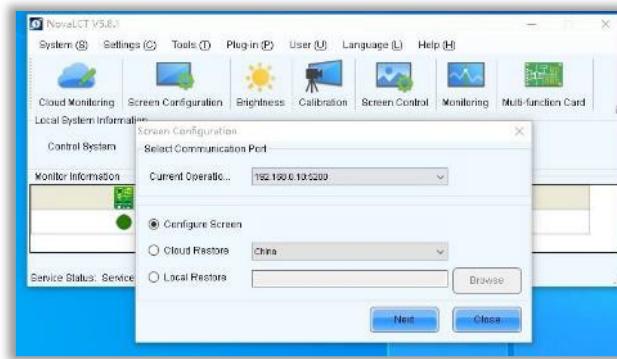
Select the **'Receiving Card'** tab.
Then click **'NCP Manage...'**
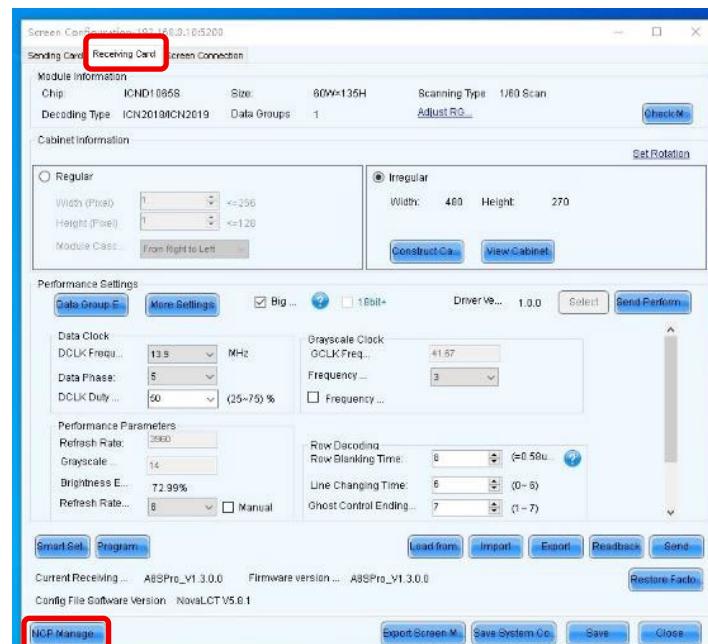
Select **'Load NCP',** Load the NCP file.
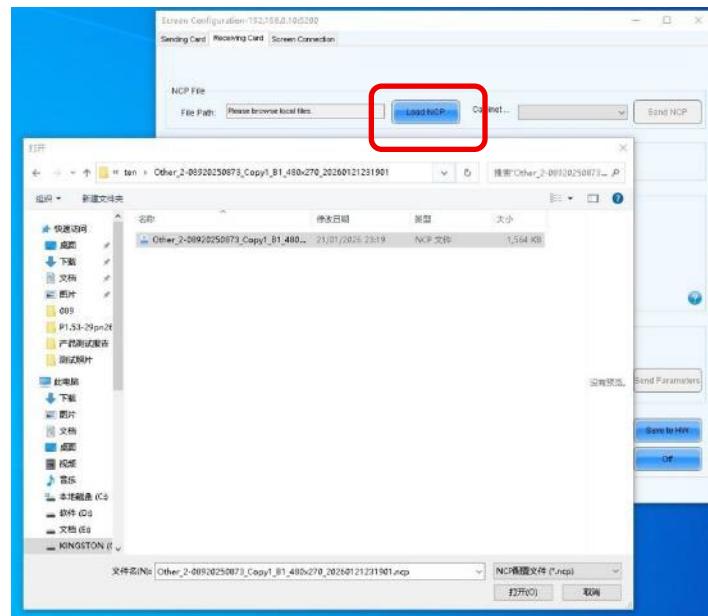
Click **'Send NCP' >** Select **'All Rv Cards' >** Click **'Send'**.
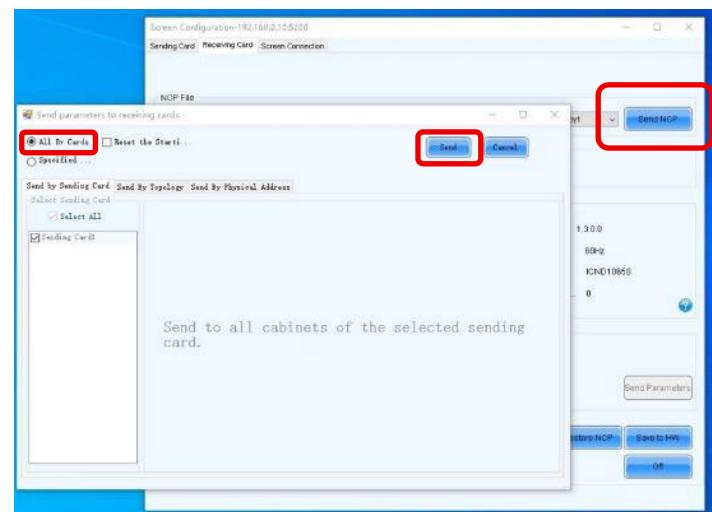
Click **'Save to HW'**

NOTE: This step is extremely important. Otherwise, after the screen power cycle, the configuration file will become invalid!
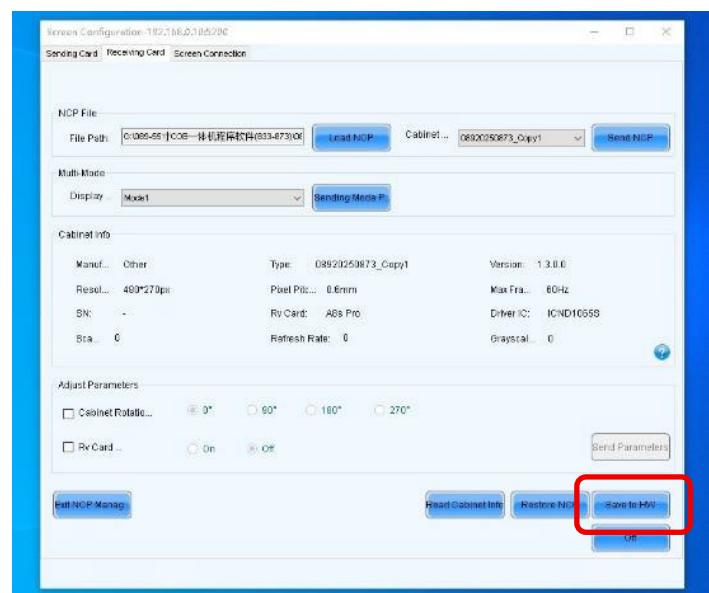
9 SPECIAL STATEMENTS

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