

PART I Hardware Assembly

LED Sphere Assembly & Cabling Guide Summary

1. The LED sphere is composed of 12 cabinets in total: 6 upper cabinets and 6 lower cabinets.

2. Each cabinet consists of:

- 2 receiving cards
- 4 power supplies
- 32 LED modules

3. Receiving card configuration:

Each receiving card supports up to 16 LED modules.
A ribbon cable with serial numbers 1 to 16 is used for each card.

Connect modules **1 to 8** to the **upper row**, running from **right to left**.

Connect modules **9 to 16** to the **lower row**, also running from **right to left**.

4. Power supply configuration:

Each power supply supports 8 LED modules.

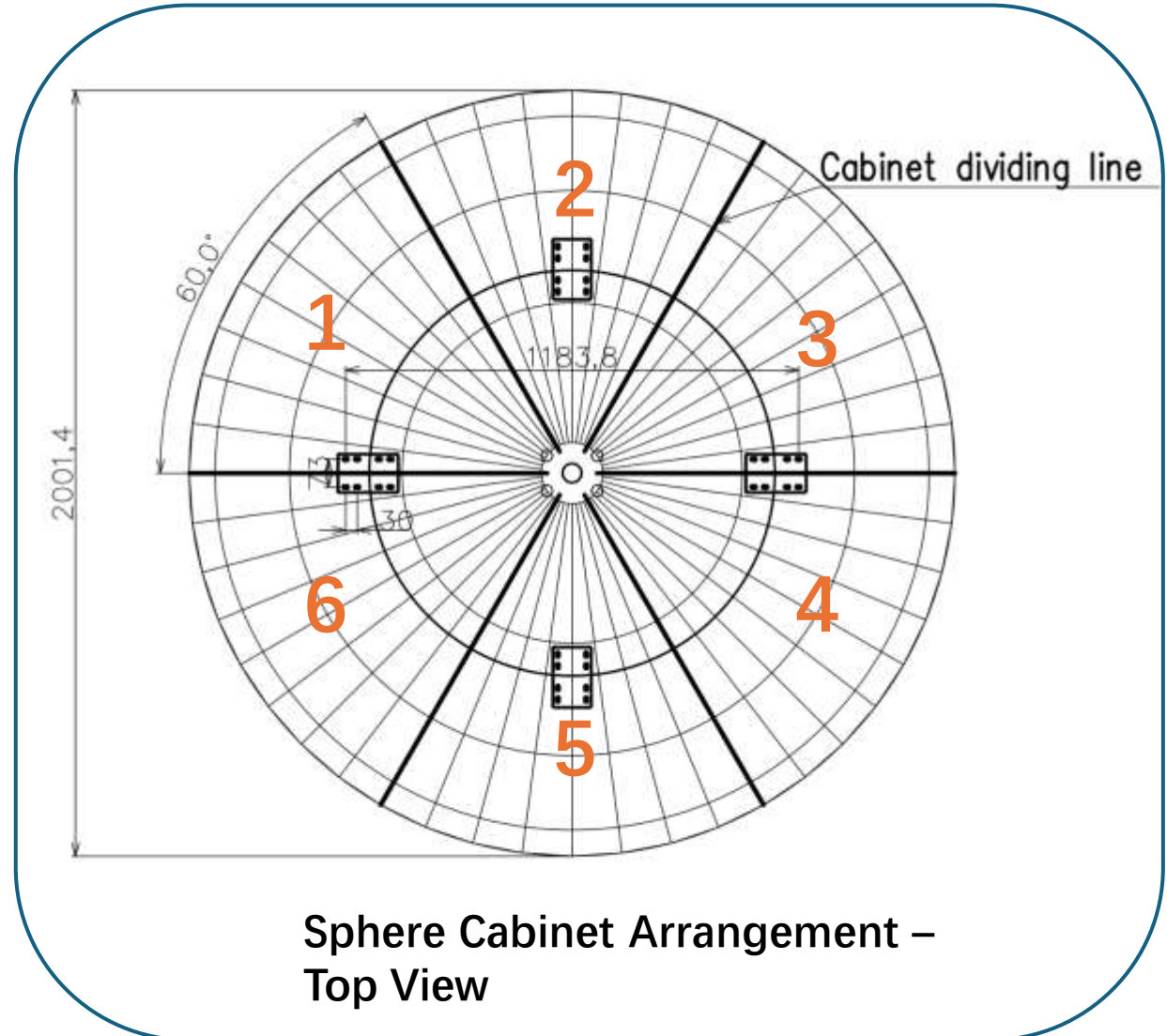
5. Special module:

The top center module is connected by an independent receiving card.

In total, the entire sphere uses **25 receiving cards**.

6. Main cabling summary:

- 8 main LAN cables
- 6 main power cables



Step 1 Unbox the crates and unload the equipment for assembly.



For safe transport, the cabinet frames are secured to the bottom of the crates with self-tapping screws.



Step 2 Install the mobile base and main column frames



Tools and screws provided for assembly



The cabinets are divided into 6 groups: top row (1+1)/(2+2)/(3+3) and bottom row (1+1)/(2+2)/(3+3) . Follow the assembly sequence from 1 to 3, moving from right to left.



The top-row cabinets



The bottom-row cabinets

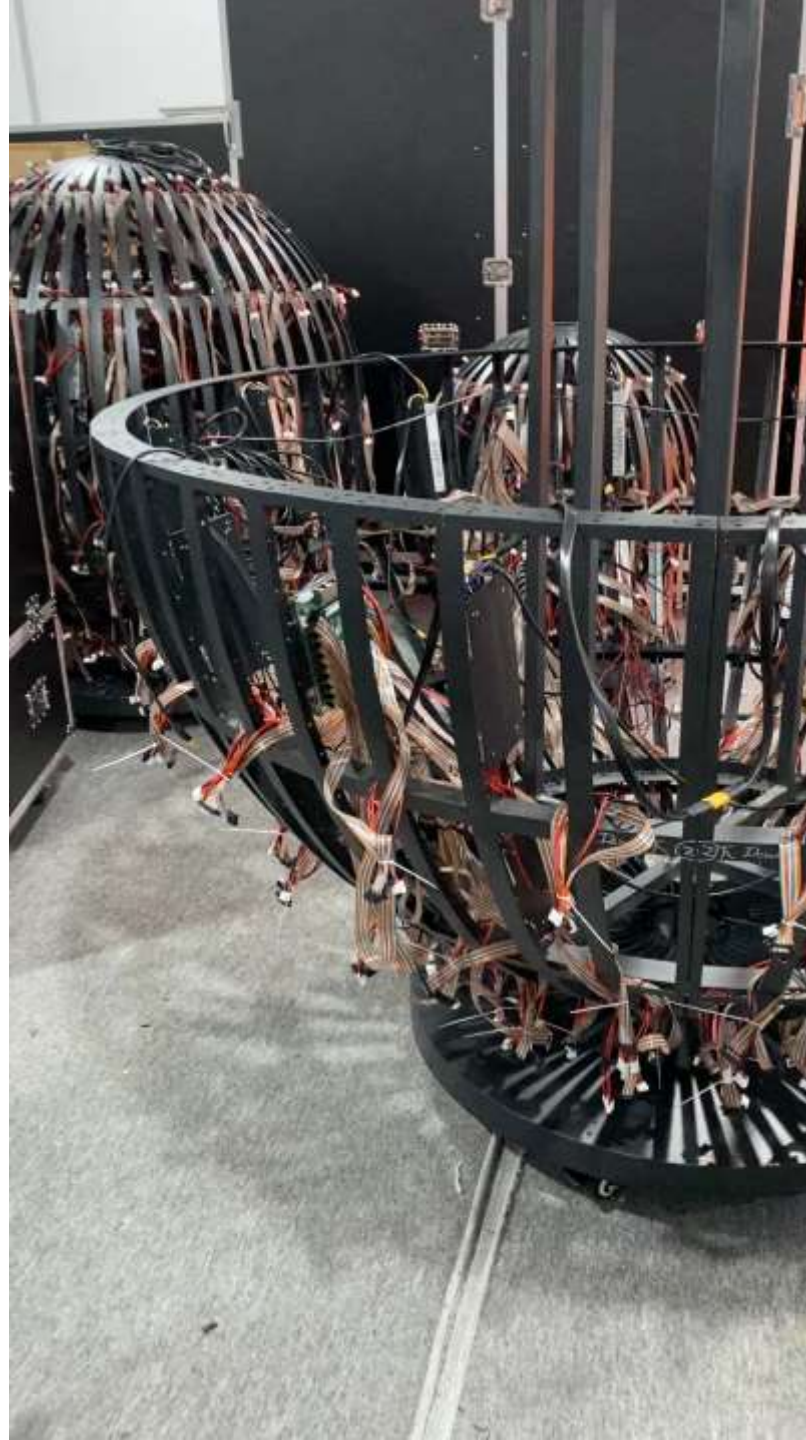
Step 3 Assemble the bottom row first



Bottom row assembly



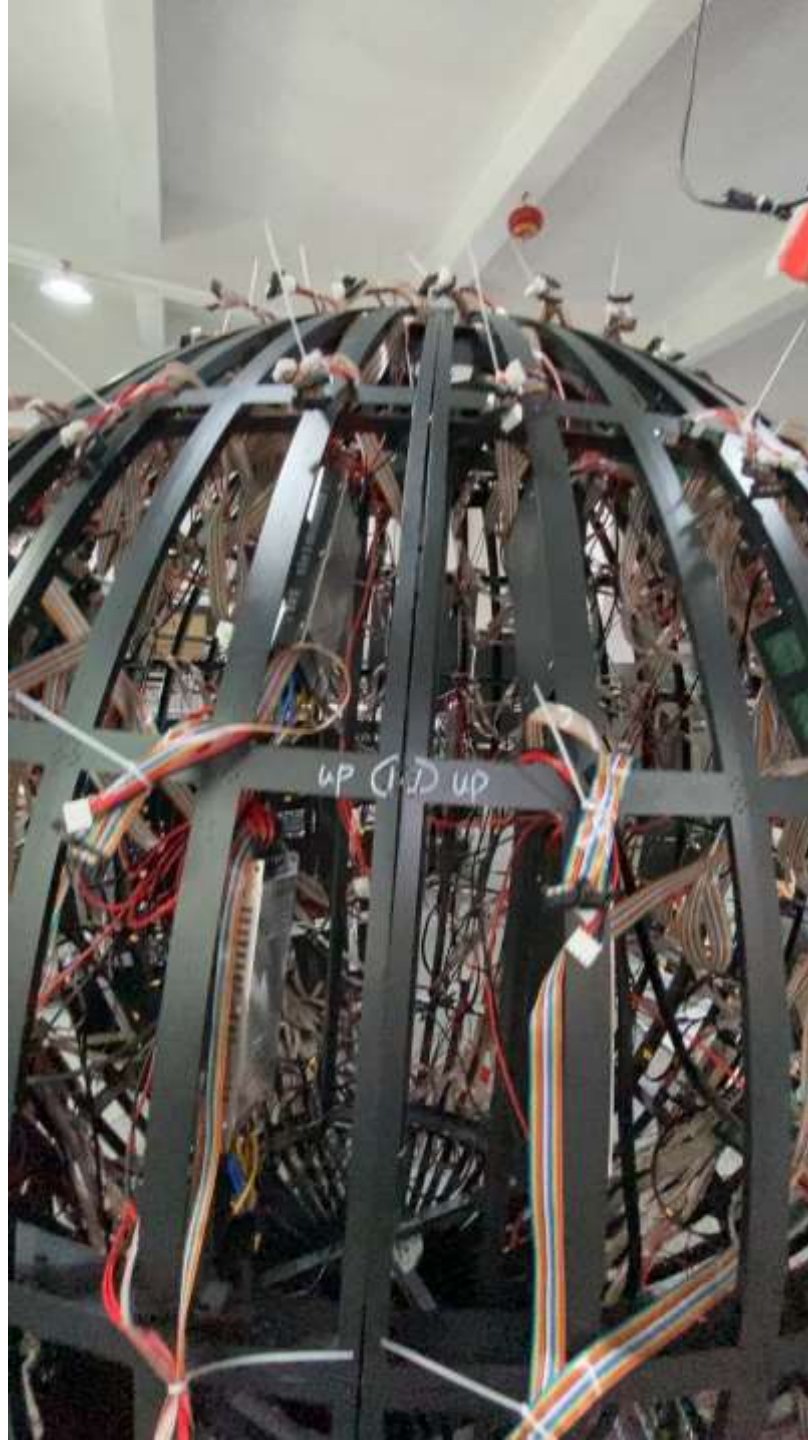
Refer to the **VIDEO** →
for the appearance of
the bottom row
cabinet frames after
assembly is completed.



Step 4 Top row assembly

Follow the same assembly method used for the bottom row when assembling the upper row cabinets.

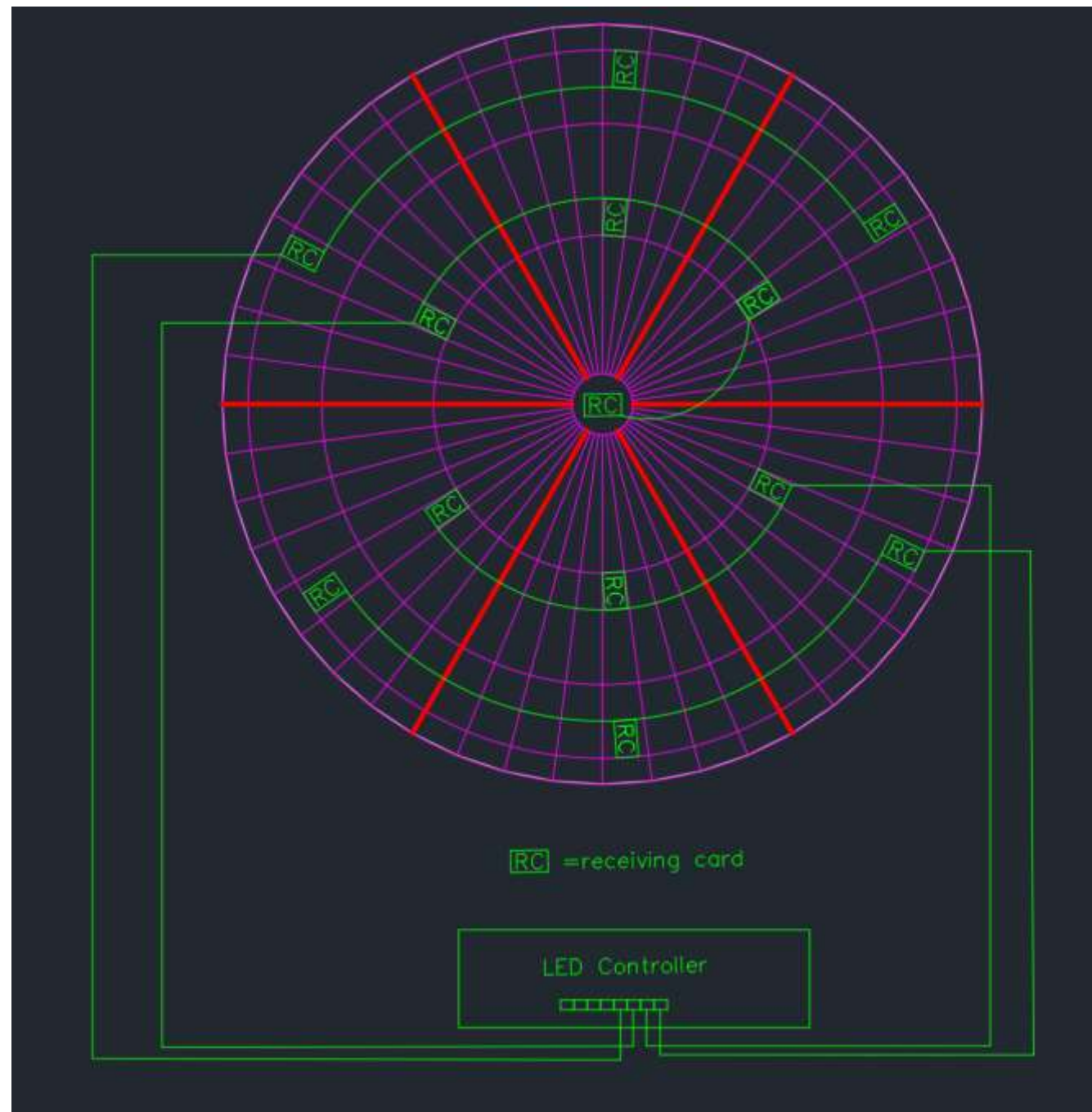
Refer to the **VIDEO** → for the appearance of all cabinet frames after assembly is completed.



Step 5 Connect the network cables between the top row cabinets as shown in the top view diagram.

Connect the network cables between the bottom row cabinets the same way as the top row, except for the bottom center cabinet — no receiving card is needed there since there are no modules for the main cable entrance hole.

*Remark: The network cables can be inserted into either the left or right ports randomly, as the receiving card ports are compatible.



Step 6 Organize the main network cables that have already been inserted into the receiving cards and attached to the corresponding cabinets, then route them through the bottom hole of the sphere.

Remark: Do not alter the wiring of the main network cables.

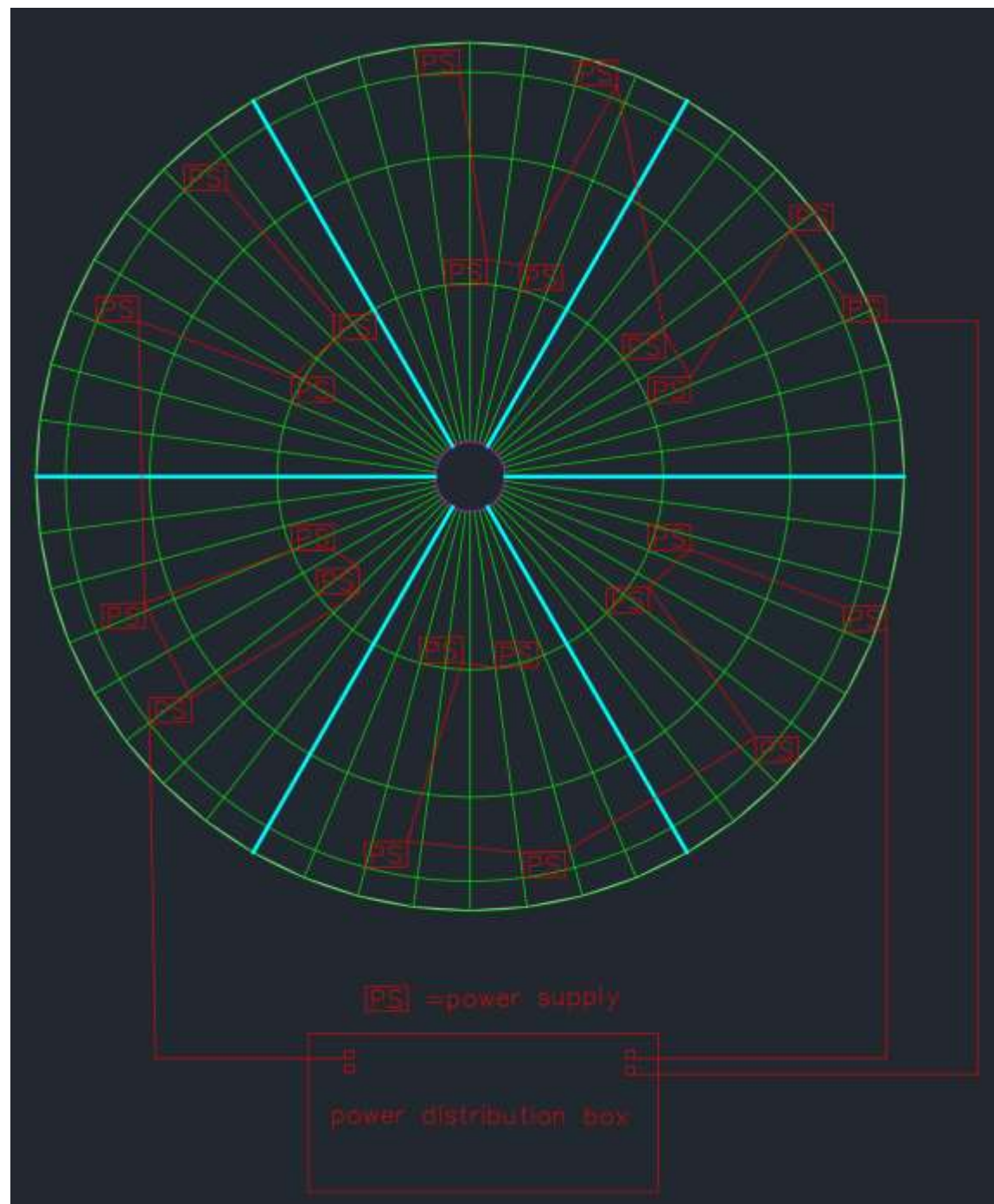


Step 7 Insert the main network cables into the controller. There are serial numbers marked on the cables, which correspond to the controller port numbers.



Step 8 Connect the power cables between the top row cabinets as shown in the top view diagram. Then, connect the power cables between the bottom row cabinets in the same way as the top row.

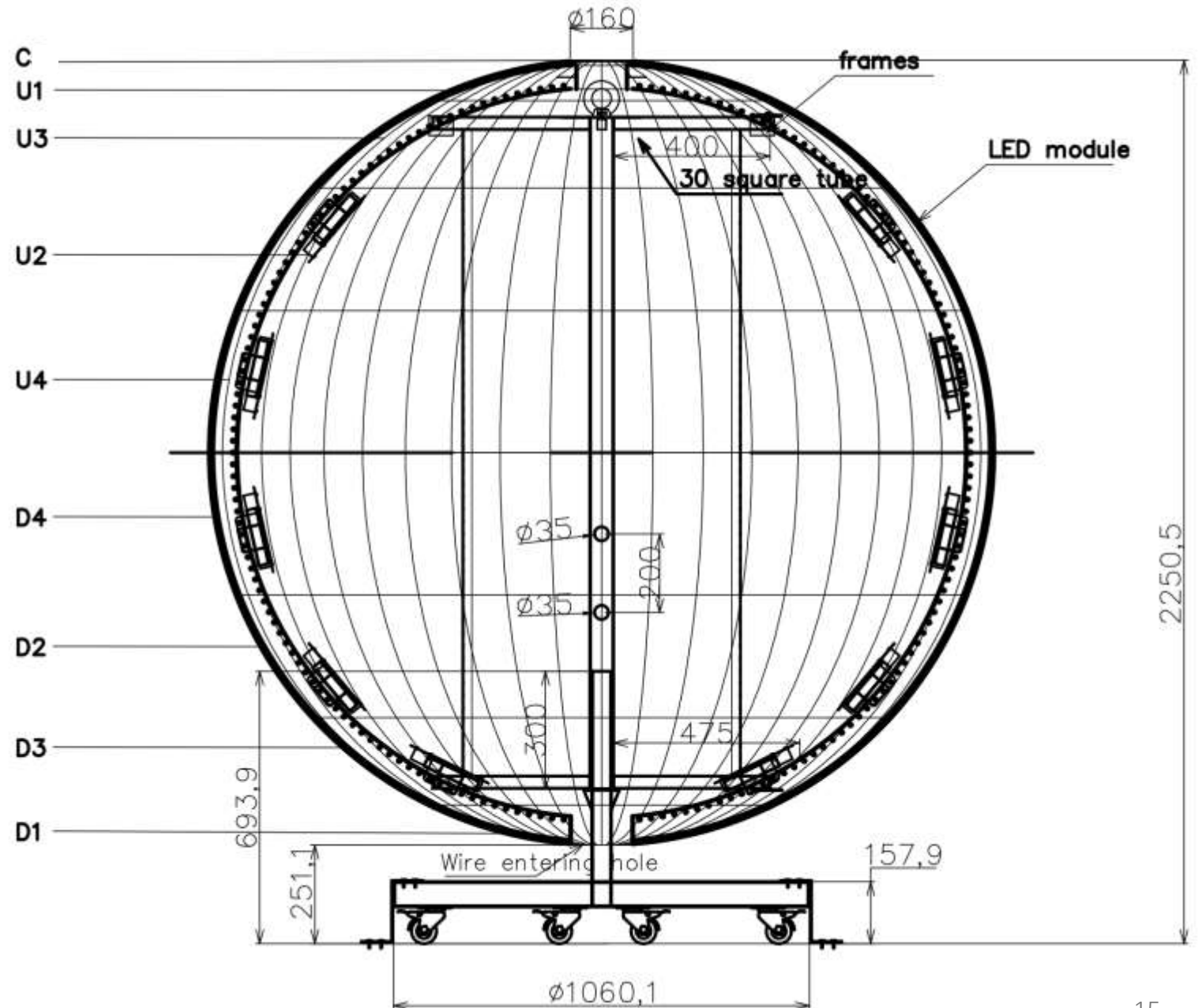
Remark: The power supply supports 110V/240V power sources. If the local power source is 110V, 6 main power cables are required.





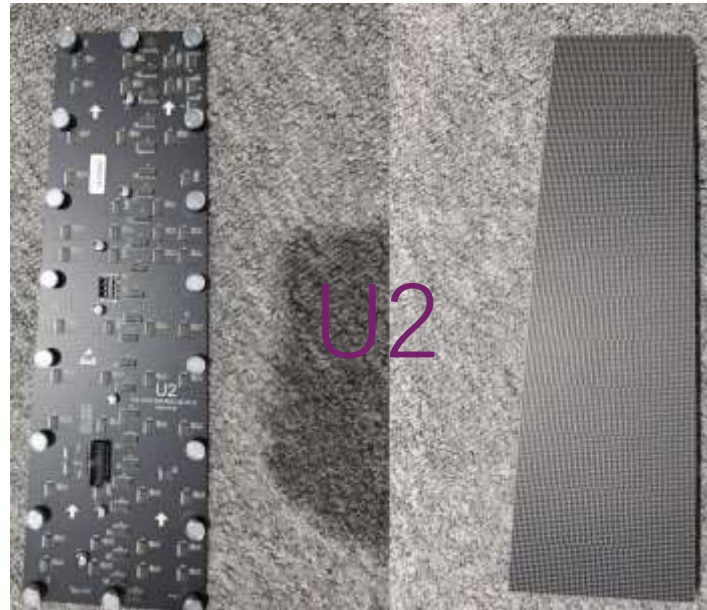
Connect the main power cable from the male side to the female side attached on the cabinets, which are already marked with numbers. Then, organize the main power cables and route them through the bottom hole of the sphere to the power distribution box.

Step 9 Mount the led modules to the sphere frames from the top to the bottom as the sequence show, we can find the module serial number from the backside of PCB





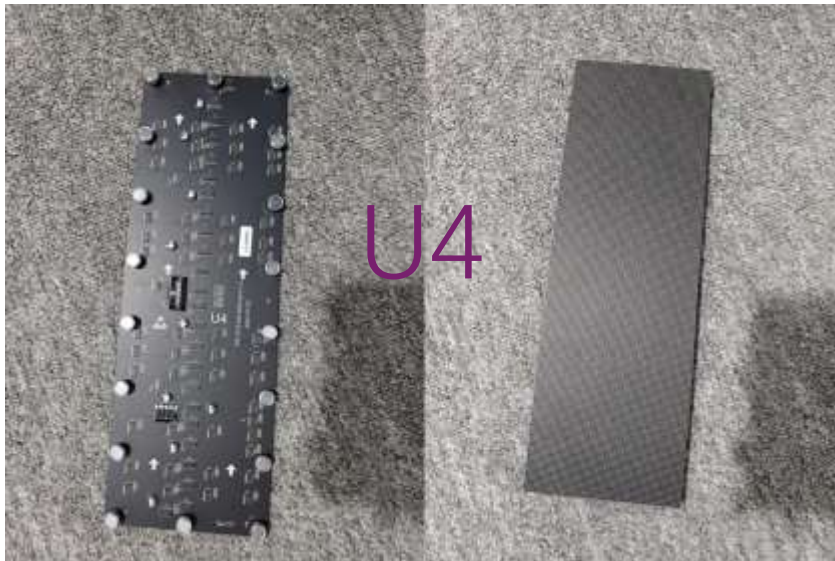
U1



U2



U3

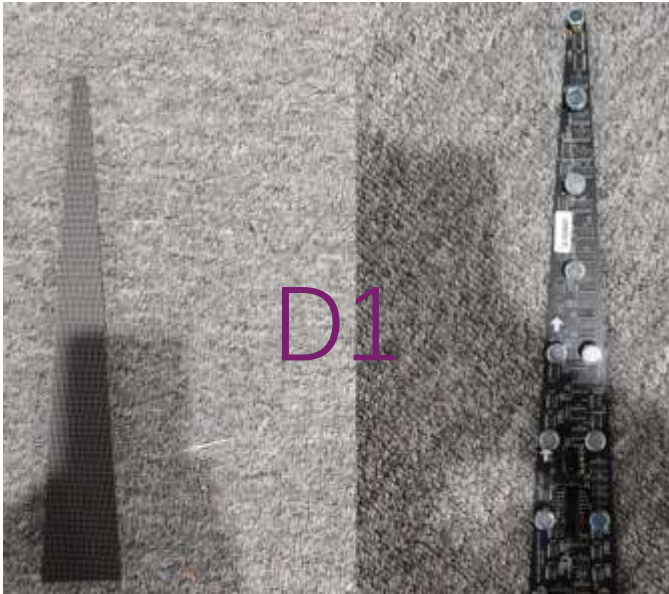


U4



C

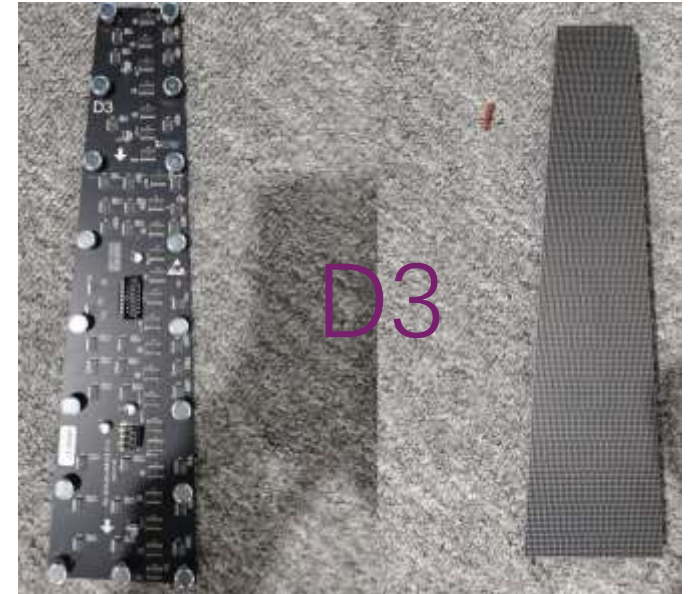
Identify the module
serial number from
the back side



D1



D2



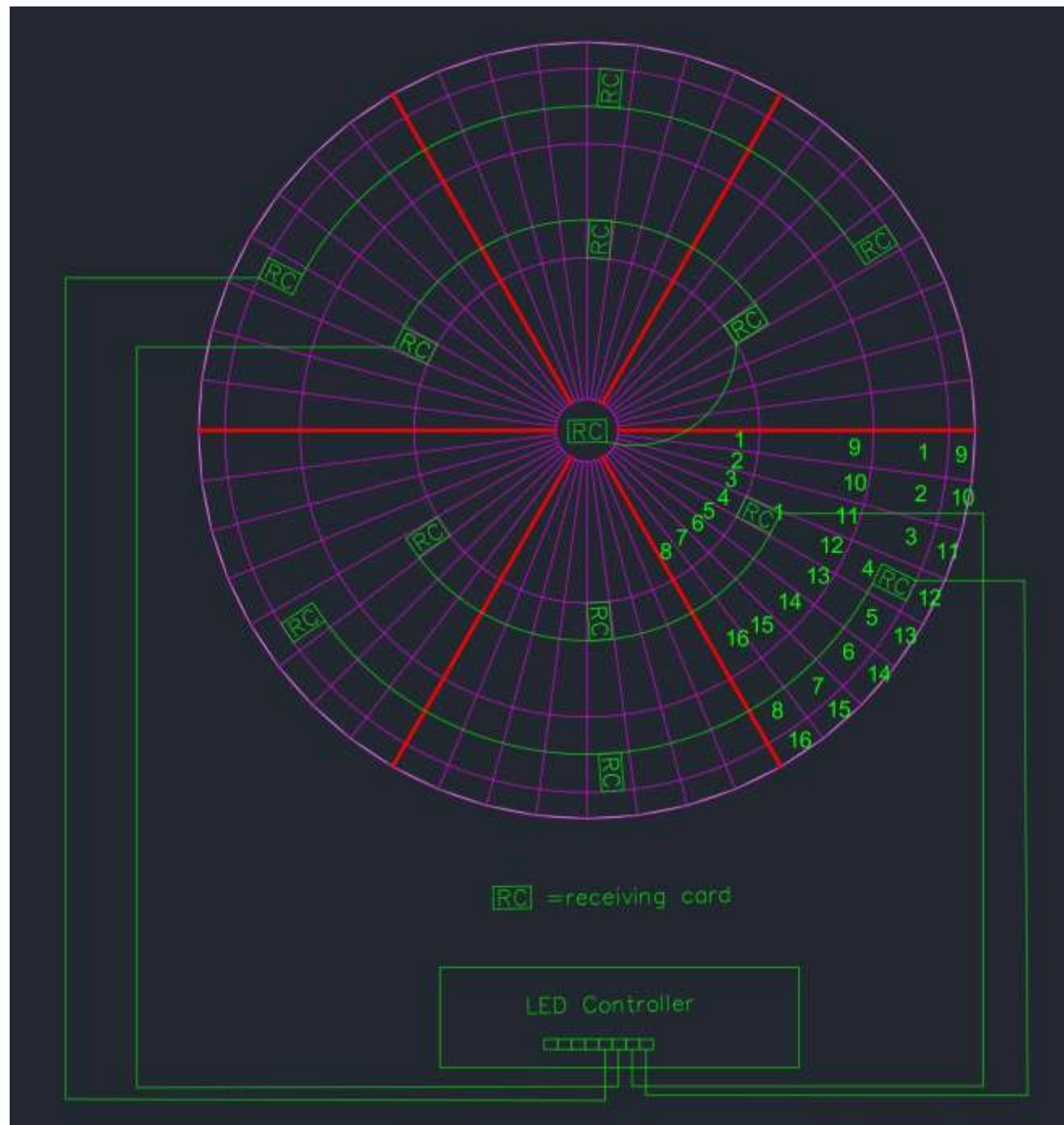
D3

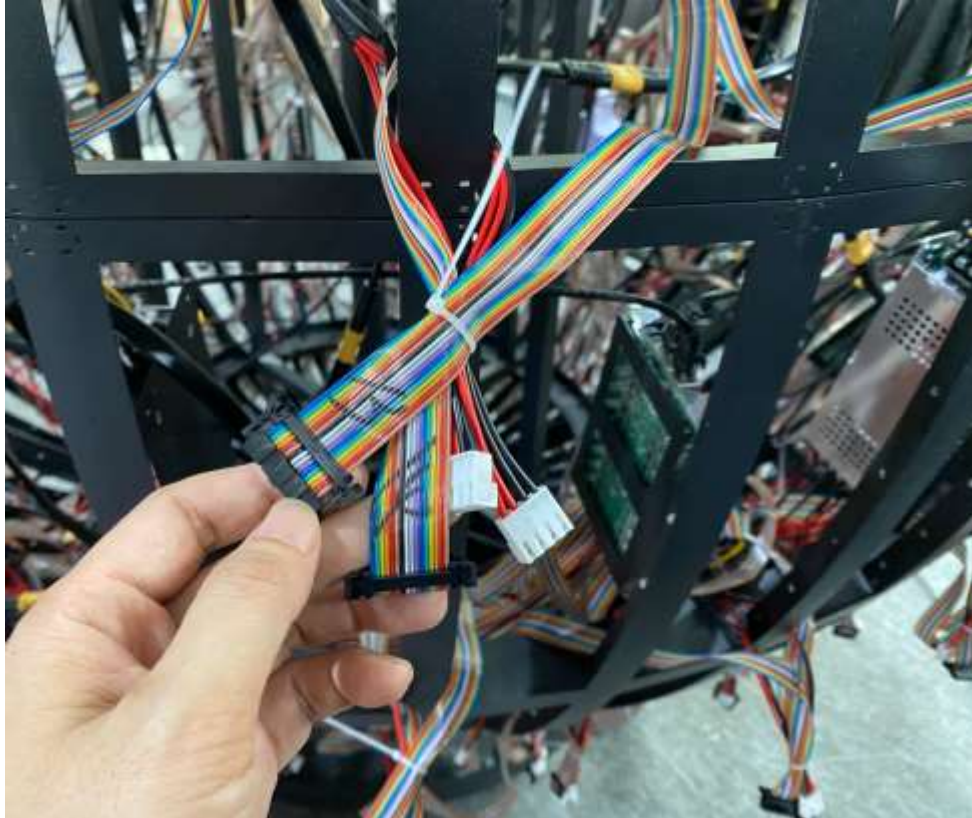


D4

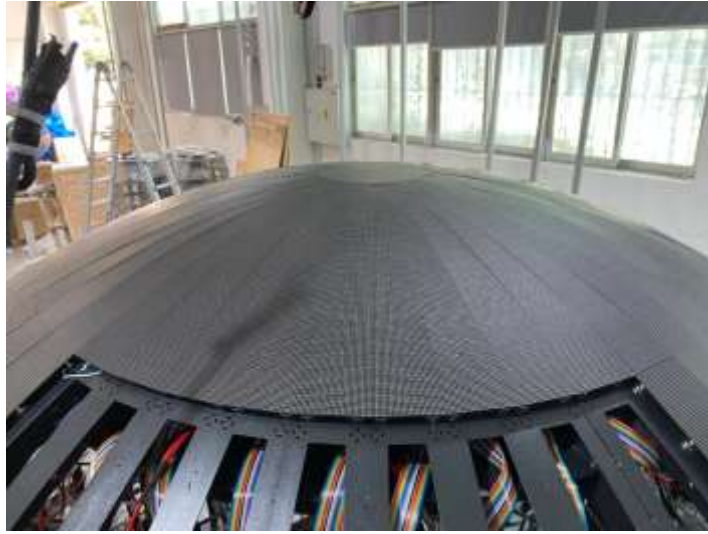
Identify the module
serial number from
the back side

Step 10 There are 2 receiving cards in each cabinet. The ribbon cables are already installed on the receiving cards and have sequence numbers marked. Connect the ribbon cables from the top receiving card to the modules as follows:
Modules 1 to 8 for the top row, running from right to left.
Modules 9 to 16 for the second top row.
Repeat the same process for the lower receiving card. Follow this procedure for each cabinet.





Identify the sequence number marked on each ribbon cable.



Install
the
modules
from the
top to
the
bottom



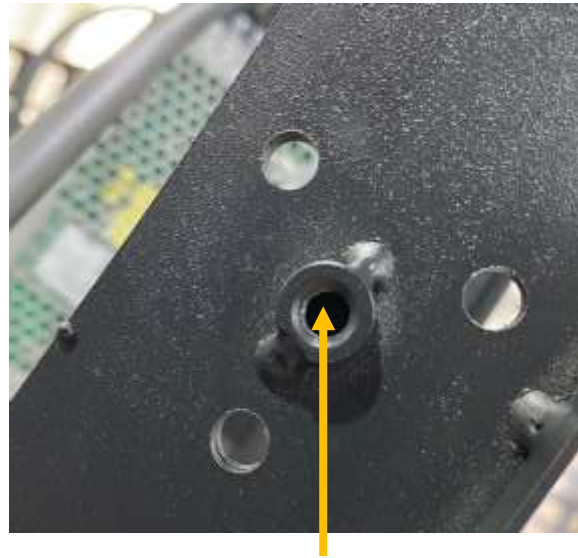
Refer to the **VIDEO** →
for removal of the LED
modules



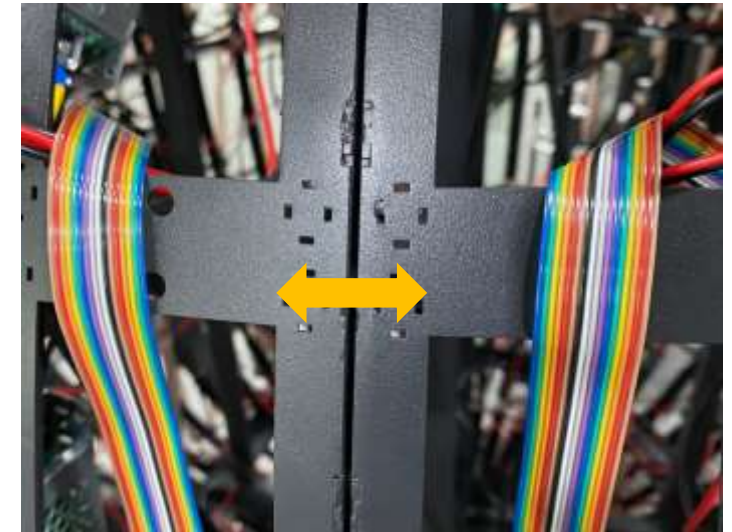
Tips: If the modules are too congested to install because the cabinets are spliced too tightly, insert a screw into this blind hole and tighten it. This will widen the gap between the cabinets, creating more space for module installation.



Too tight gap



Blind hole for screw
to enlarge the space



Space widened

Packing List				
No.	Item	Pcs	Unit	Remark
1	Cabinet frames	12	PCS	-
2	Mobile base	1	PCS	-
3	Circle LED module C	1	PCS	-
4	LED Module U1	48	PCS	-
5	LED Module U2	48	PCS	-
6	LED Module U3	48	PCS	-
7	LED Module U4	48	PCS	-
8	LED Module D1	48	PCS	-
9	LED Module D2	48	PCS	-
10	LED Module D3	48	PCS	-
11	LED Module D4	48	PCS	-
12	Mooncell controller B800ES	1	PCS	-
13	Circle LED module C	1	PCS	for spares
14	LED Module U1/U2/U3/U4+D1/D2/D3/D4	8	PCS	for spares
15	power supply 110v/240v	2	PCS	for spares
16	receiving card	2	PCS	for spares
17	Ribbon cable 80cm	30	PCS	for spares
18	5V power cable for module 60cm	10	PCS	for spares
19	LEDs	100	PCS	for spares
20	IC	20	PCS	for spares
21	Magnet	100	PCS	for spares
22	Network cables for receiving card	6	PCS	for spares
23	power cables for connecting cabinets	3	PCS	for spares
24	Screws for cabinets assembly	60	PCS	-
25	Allen wrench	2	PCS	-
26	Main power cable 11m	6	PCS	-
27	Main network cable 20m	8	PCS	attached on the cabinets
28	Flash disk	1	PCS	-

PART II Software Setting

Download the software AutoLEDSetupV3.115.144 via following link:
<https://en.mooncell.com.cn/service/download/?yiji=10&erji=17>

The screenshot displays the Mooncell website's 'Download Center' page. The page features a navigation bar at the top with links to 'Products Center', 'Solutions', 'Typical Cases', 'Services & Support', 'News & Updates', and 'About Us'. Below the navigation bar, there is a secondary navigation bar with links to 'Download Center', 'MCE Certification', 'Service & Network', 'FAQs', 'Tutorial Videos', and 'Complaints & Suggestions'. The main content area is titled 'Download Center' and includes a 'Software Download' section. This section lists several software packages, each with a green icon, a title, a date, a size, and download/update buttons. The first item, 'AutoLEDSetupV3.115.144', is highlighted with a red box. The other items listed are 'Autoled3.7.5(Multilang...', 'T6 Controller v3.1.26', 'AutoLED Setup V3.41(T6/Two in One)', and 'AutoLED 5.1.3'. A sidebar on the left contains a 'Download Center' section with a 'Software Download' link, and a list of categories including 'Image Processing', 'Control Systems', 'Cloud-Based', 'Linkage Player Box', 'Multimedia Server', and 'Instructions for use document'.

Software Name	Date	Size	Download Button	Update Button
AutoLEDSetupV3.115.144	2025/07/05	0Bytes	Download Now	Update Explanation
Autoled3.7.5(Multilang...	2024/12/10	0Bytes	Download Now	Update Explanation
T6 Controller v3.1.26	2024/09/12	0Bytes	Download Now	Update Explanation
AutoLED Setup V3.41(T6/Two in One)	2024/09/10	0Bytes	Download Now	Update Explanation
AutoLED 5.1.3	2024/09/10	0Bytes	Download Now	Update Explanation

Connect the hardware as following cables wiring diagram

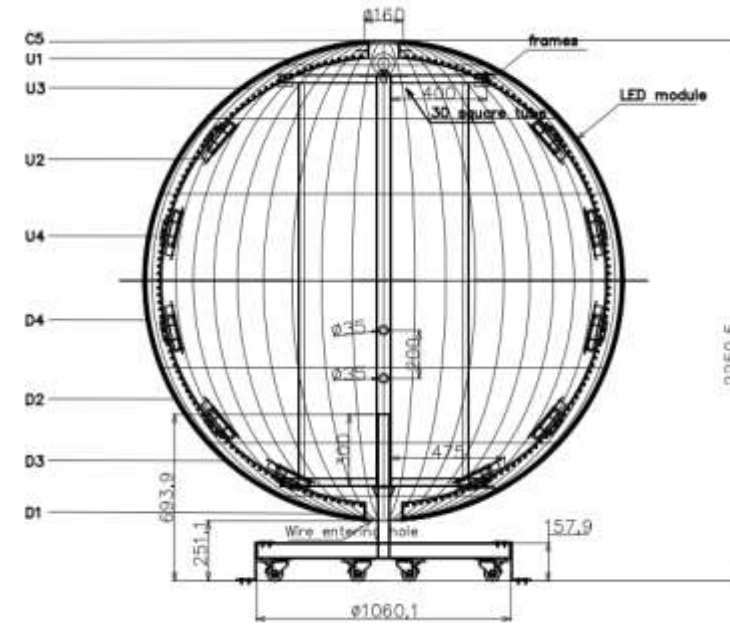


PC

HDMI/DP cable



LED Controller B800ES



LED Sphere

Ribbon cable

Network cable



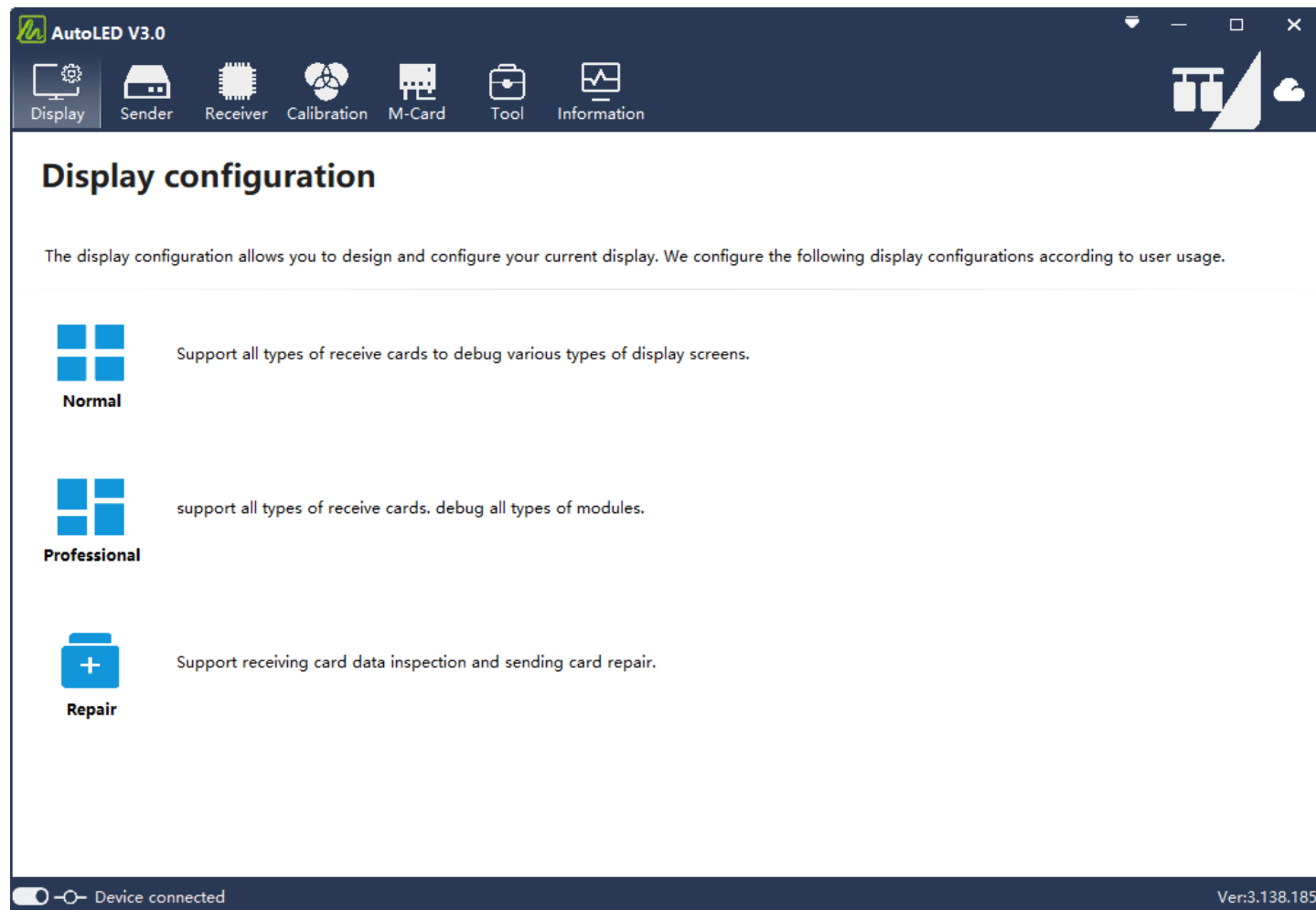
Receiving card

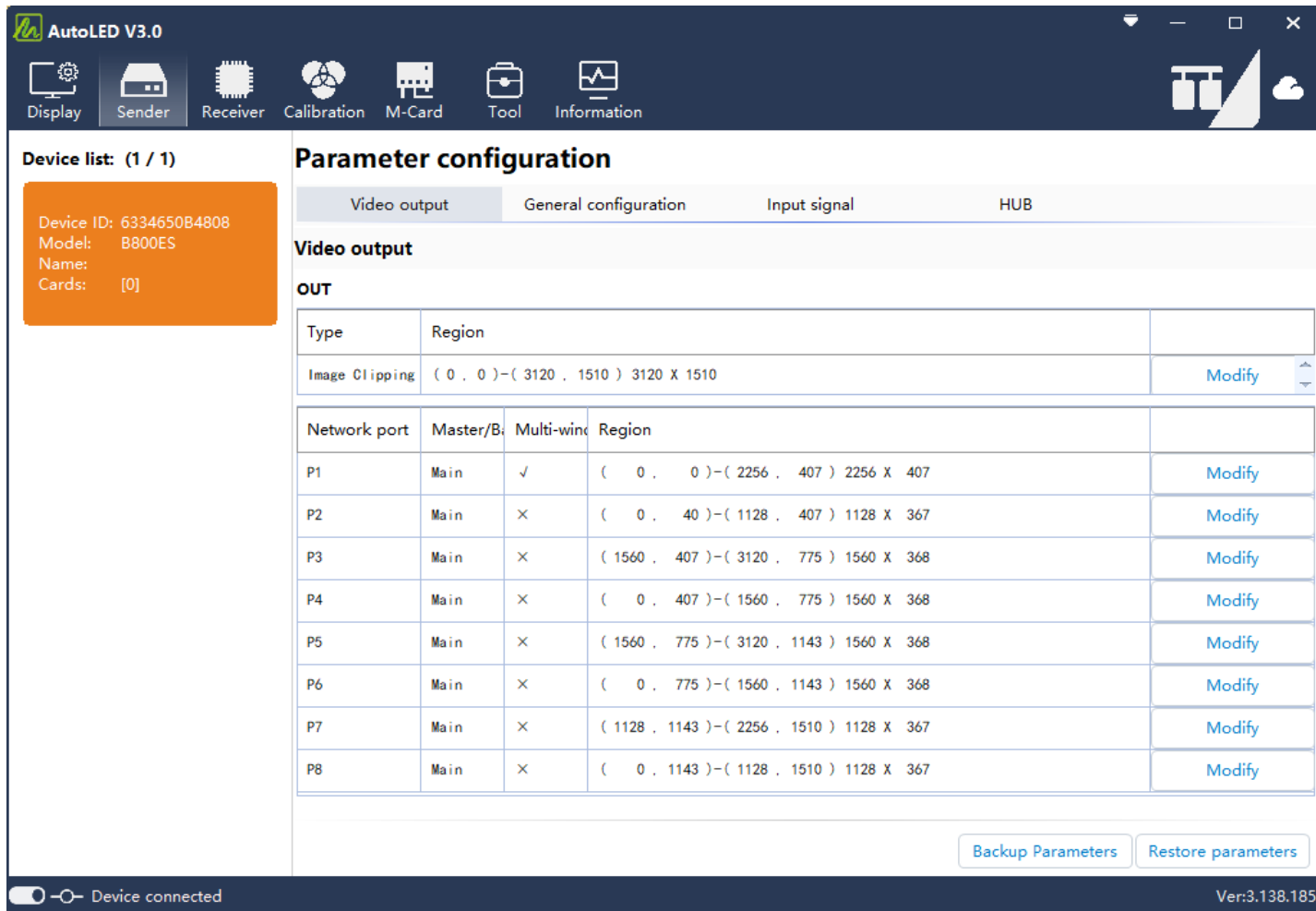
打开AutoLED软件程序（屏幕调试程序）

主界面会显示是否连接控制器800ES以及其状态

Open the AutoLED software program (screen debugging program).

The main interface will display whether the 800ES controller is connected and show its status.

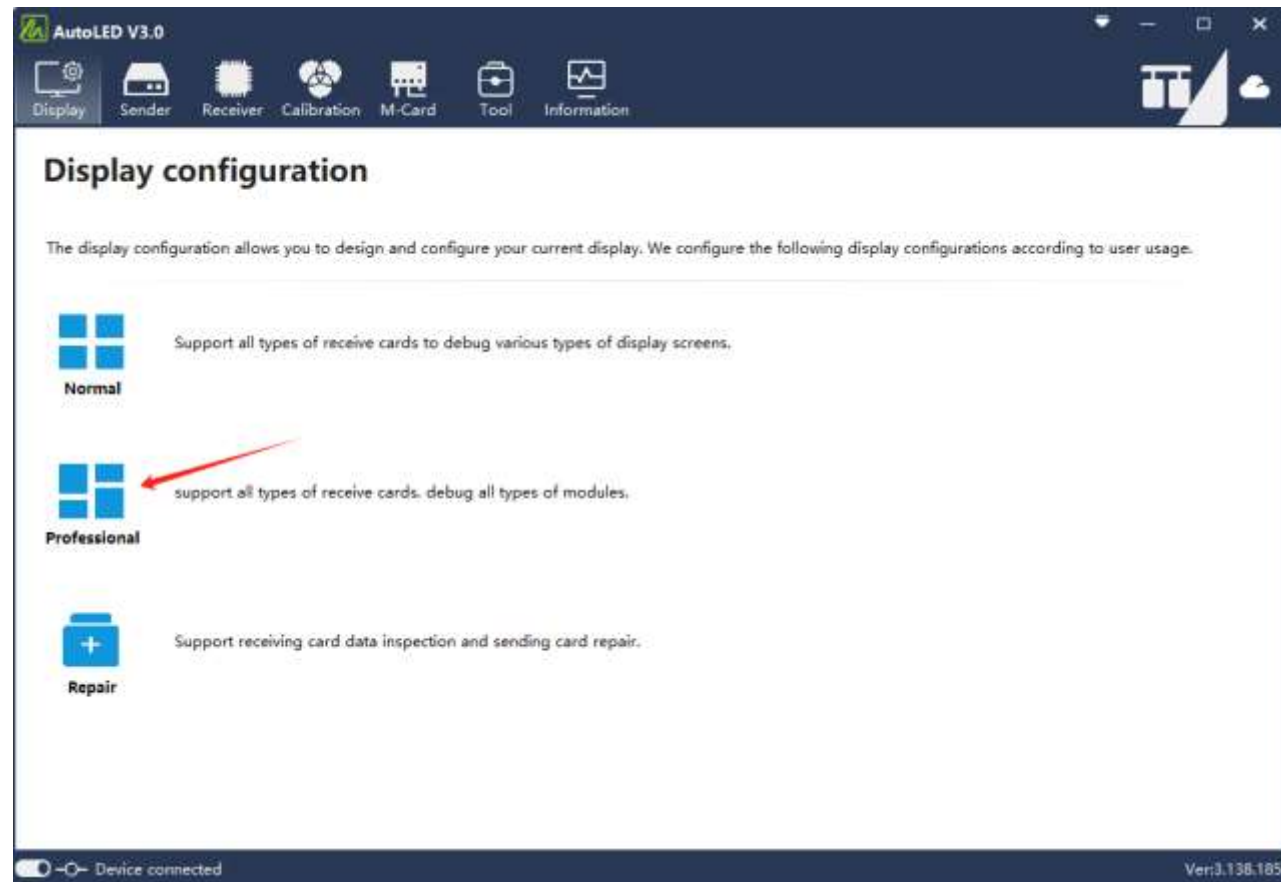




如果需要重新发送需要进入复杂连屏界面（出厂时将程序文件和连屏文件整合为一体）

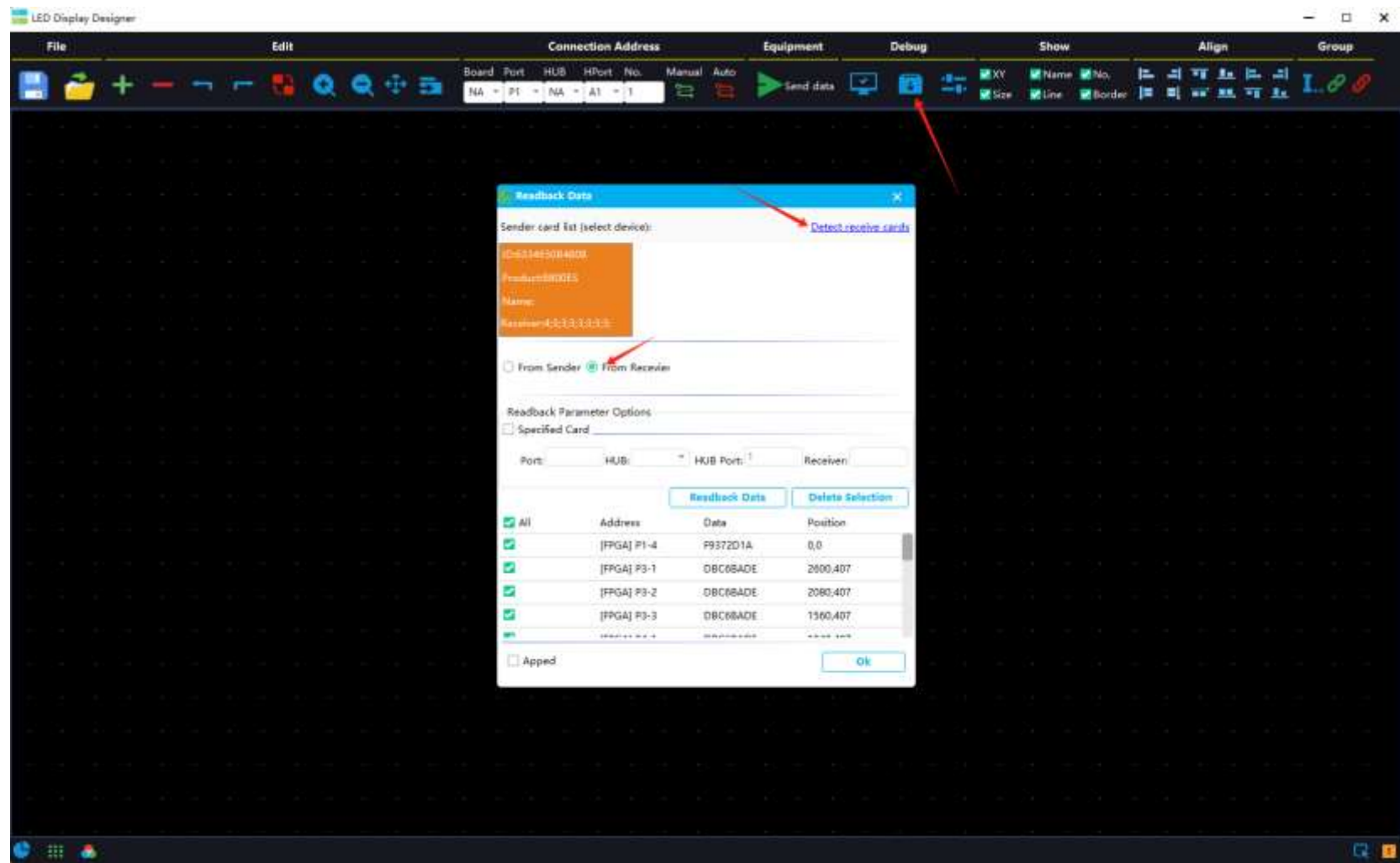
If retransmission is required, enter the Professional.

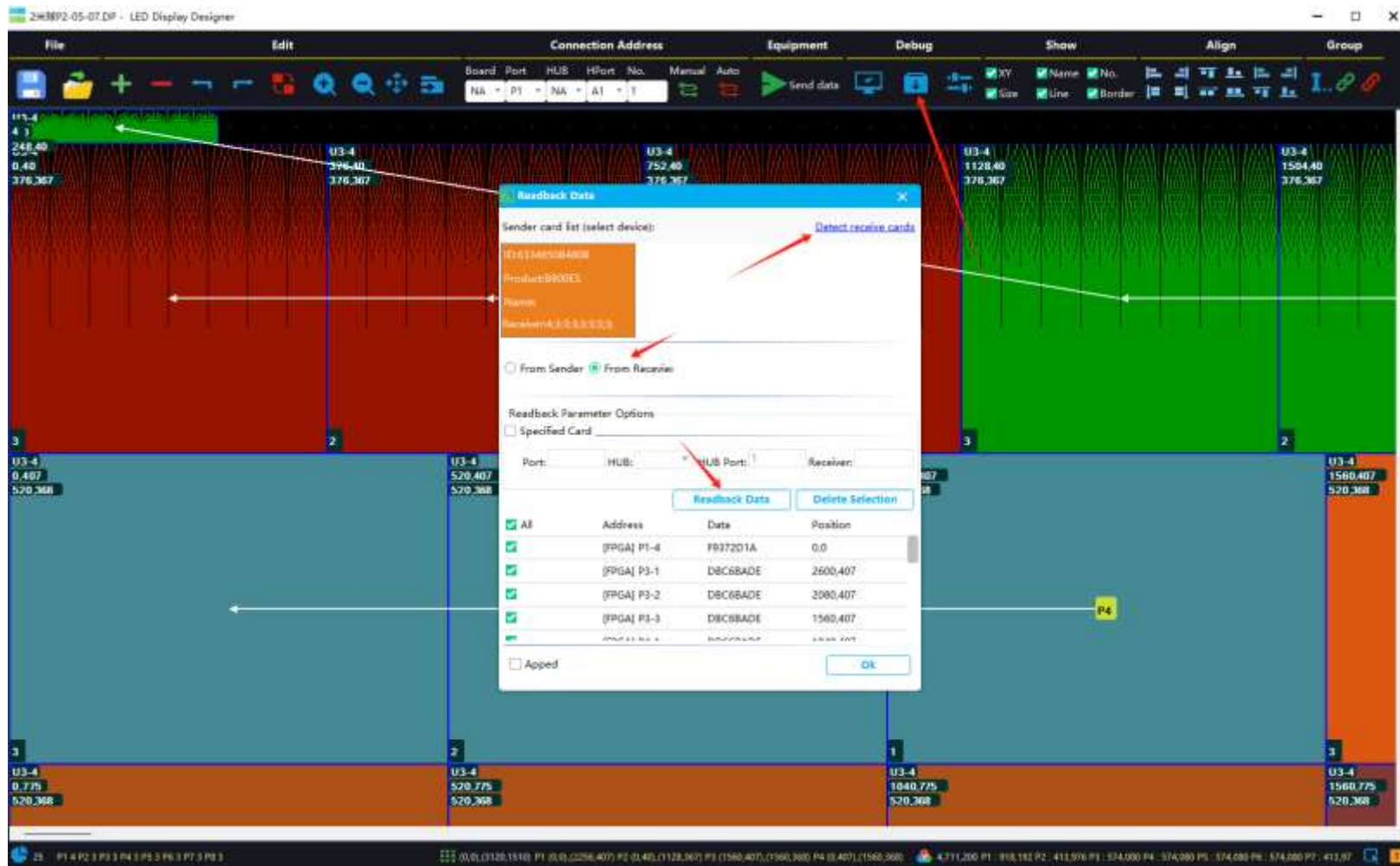
(The program file and screen connection file are integrated into one at the factory).



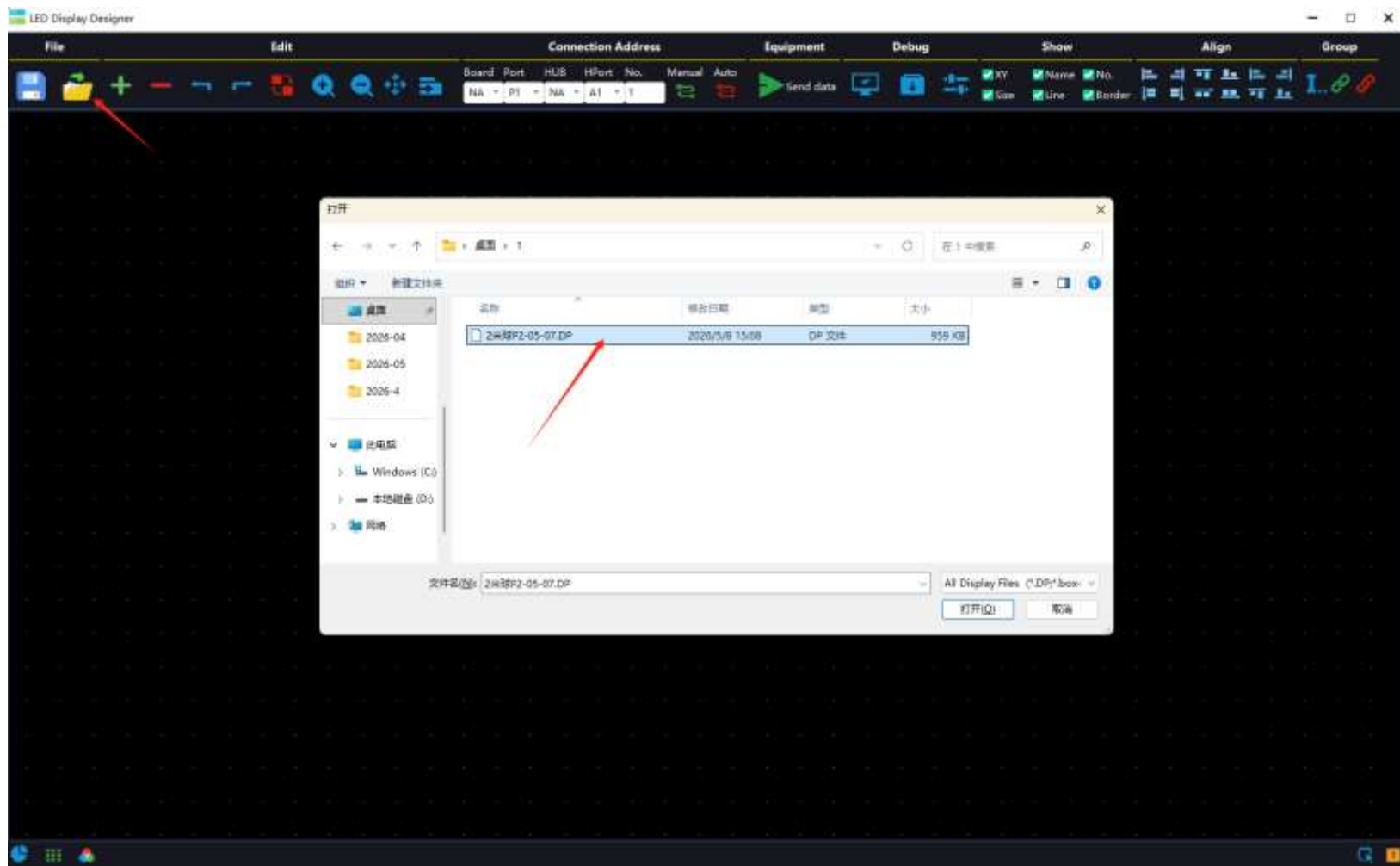
可以回读检查显示屏是否正常连屏

It supports readback to check whether the display screens are connected normally.



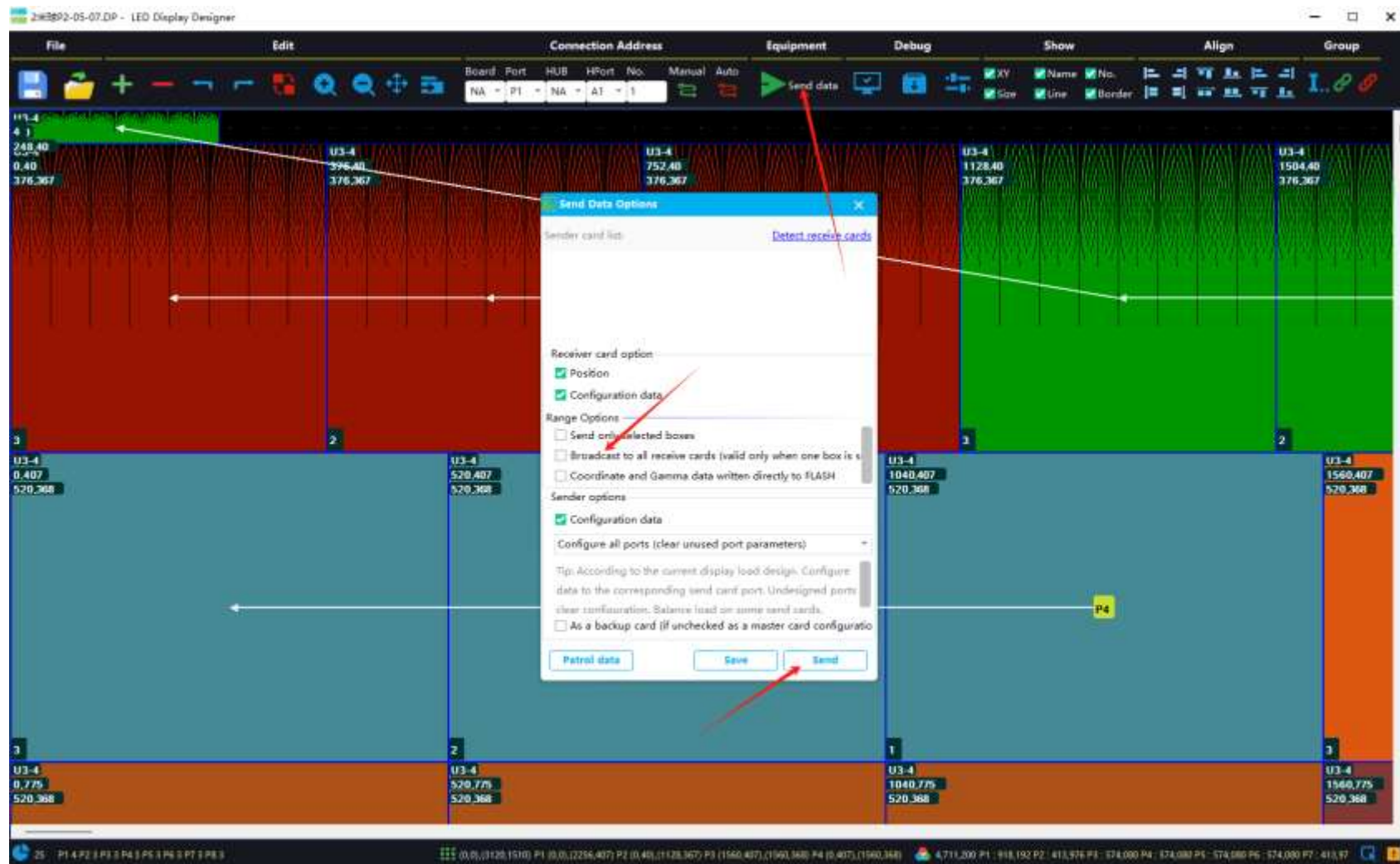


如果数据丢失的话加载我们提供的程序文件
If data is lost, load the program file we provide.



选择发送选择需要发送的接收卡

Select SEND DATA, then choose the receiving card to be programmed.



如果需要单独读取箱体信息，右键点击编辑箱体（edit box）
If you need to read cabinet information separately, right-click Edit Box.

