Installation Manual of NX Series

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Change History

Document Version	Release Date	Description
V1.0.0	2021-12-24	First release

Chapter 1 Rack Installation

1.1 About Rack

There are two types of racks for installing our full-color LED products: all-in-one rack and wall mount rack. The wall mount rack is used for installing front-maintenance cabinets only. The rack models vary depending on the project scale and installation environment, so the rack illustrations in this manual are for reference only.

1.2 Install the Rack

Precautions

- Installation personnel must wear protective gear.
- Take safety measures when working at heights.
- Make sure that the rack is mounted vertically to the flat ground without tilting or twisting.
- Check that all structural parts and fasteners are fully mounted without missing.
- After all the accessories are mounted, clean all the debris in the rack and avoid metal debris being remained.

1.2.1 Install All-in-One Rack

Before staring to install, please check the structure drawing.

1.2.2 Install the Rack Frame

Step 1 Position the aluminum profile with each other according to the drawing and connect them together with L-shape corner joints.

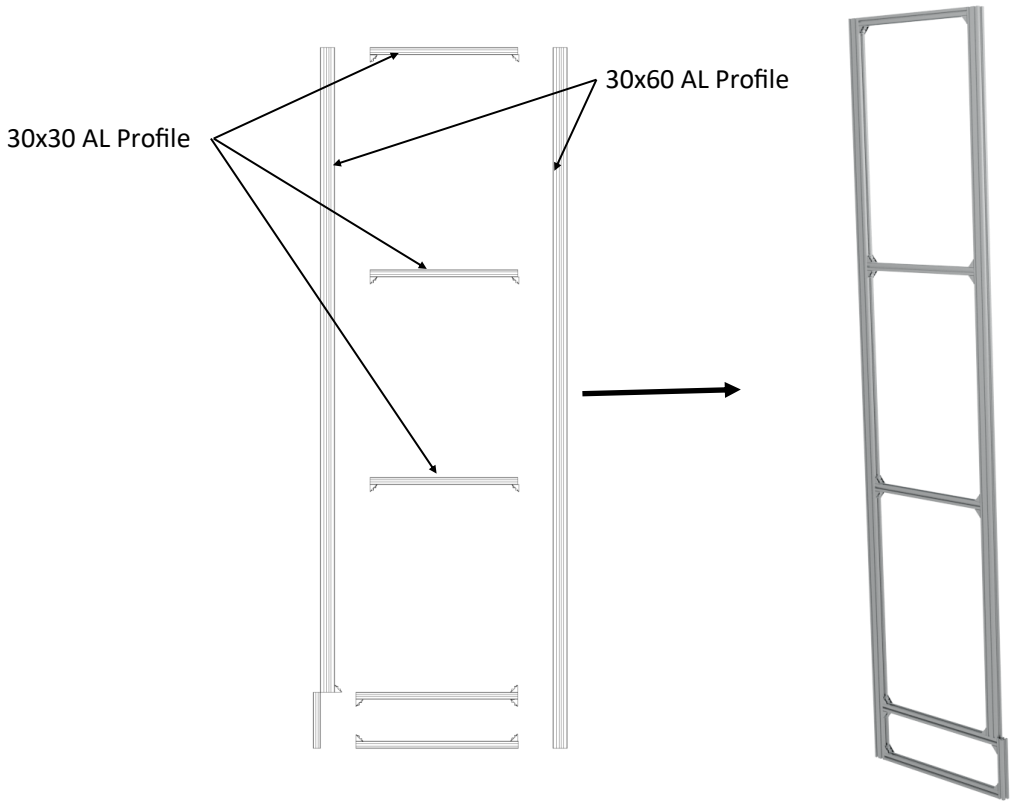

Figure1-1 Install the Rack Frame

* Normally the rack frame will be finished before shipment.
* If it's too long for transport, the rack frame will be cut in two. Then this needs to use straight line connector to connect them back together.

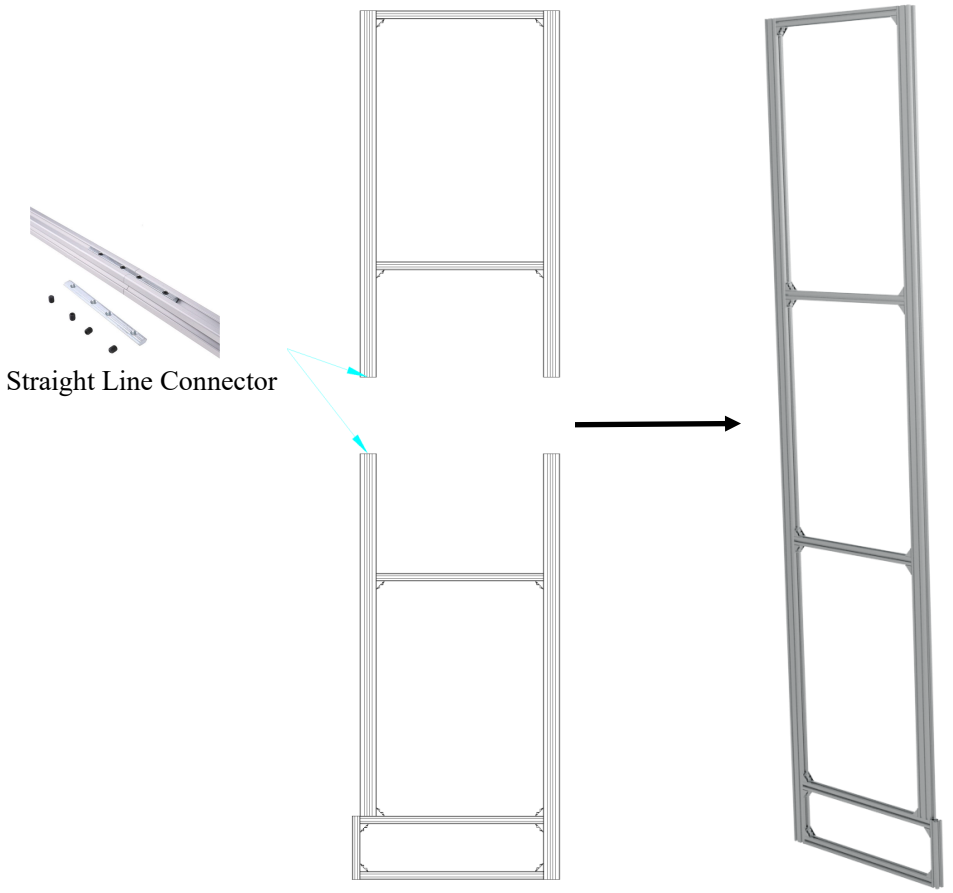

Figure1-2 Connect the Straight Line Connector

Step 2 Place the rack frame together and use connection rails to fix all the rack frame.

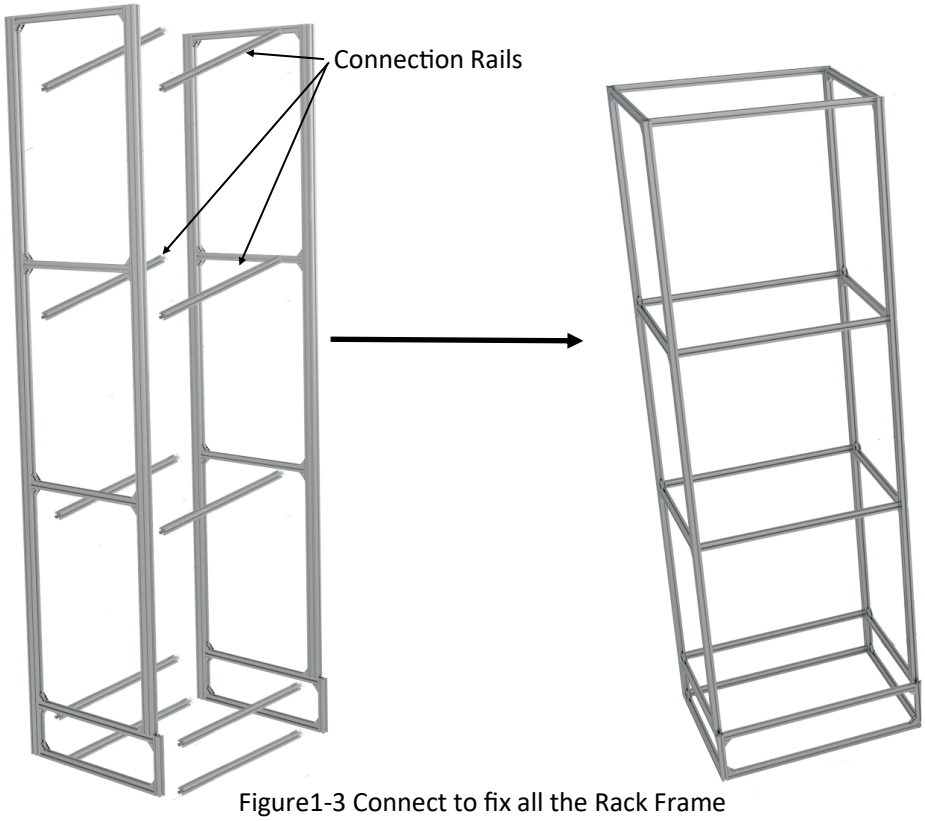

Figure1-3 Connect to fix all the Rack Frame

Step 3 Place the lower beam to the rack frame.

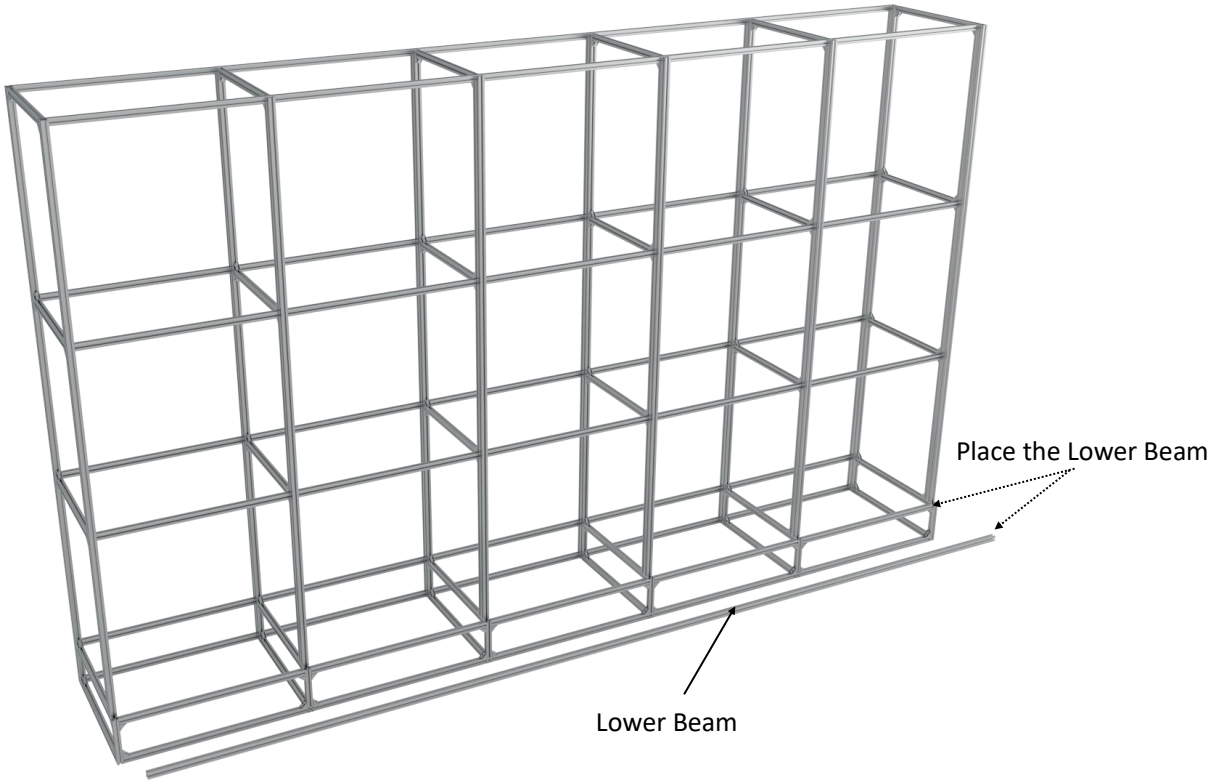

Figure1-4 Place the Lower Beam

Step 4 Finishing the all the rack.

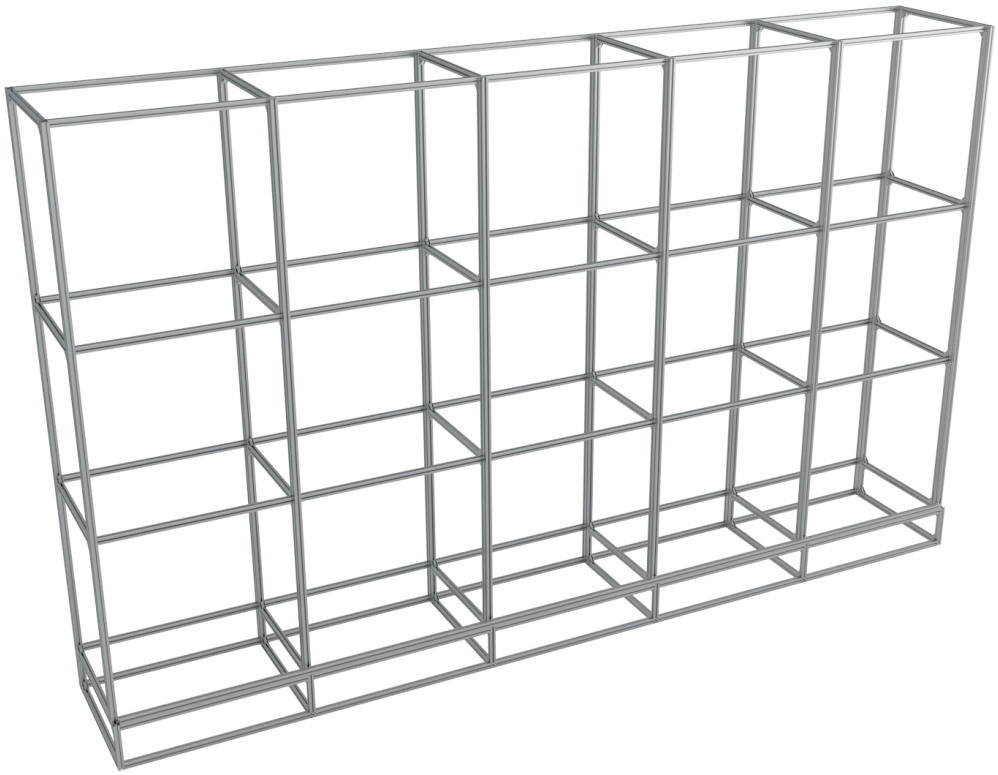

Figure1-5 Finishing the Rack

* If the lower beam is too long for transport, it will be cut in two. Then it needs to use straight line connector to connect them back together.

Figure1-6 Connect the Lower Beam

* Use the gradienter to measure each vertical component and ensure they are vertical and on the same plane.

1.3 Install the Wall Mount Rack

The wall mount rack is used for front maintenance product only.

Step 1 Install the base rails. Secure the base rails to the wall with expansion bolts and keep the base rails flat and level.

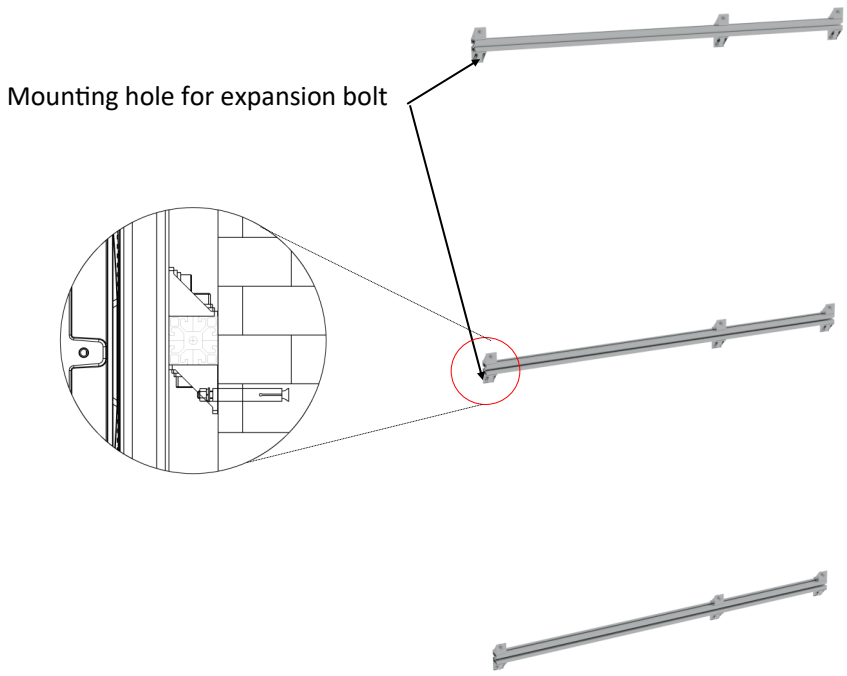

Figure1-7 Install the Base Rails

Step 2 Install the rack to the base rails with L-shape corner joint.

Figure1-8 Install the rack

Step 3 Install the lower rails to the rack with L-shape corner joint.

Figure1-9 Install the Lower Rails

Chapter 2 Cabinet Installation

2.1 Introduction

About the Cabinet

A cabinet is a basic unit for LED engineering installation in which LED modules are neatly mounted on a metal sheet (die-casting aluminum) box, with a built-in independent receiving card and switching power supply, an engineering installation structure, and independent display.

Appearance

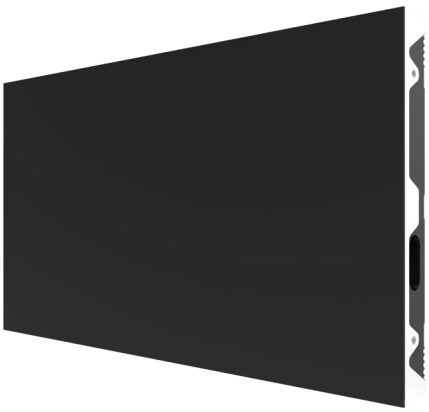

Figure2-1 Cabinet Front View

Figure2-2 Cabinet Rear View

2.2 Install the Cabinets

Precautions

Read the following precaution tips before you install the LED screens:

- Avoid humid or high-pH environment to prevent damage to the LED lamps.
- Do not expose the device to rain or humid environment to reduce the risk of fire or electric shock.
- Electric discharge may last for a short period of time after the power is shut down. Please wait two minutes after the power is shut down to operate the device.
- Only use the original power cable delivered with the device. Contact authorized dealer to purchase power cable with same specifications.
- Please do not frequently plug and unplug the power cable when the power is on.

2.2.1 Cabinet Connection

Align two cabinets with the locating studs and connection holes. Lock the cabinets together with M8 socket cap screws through connection holes.

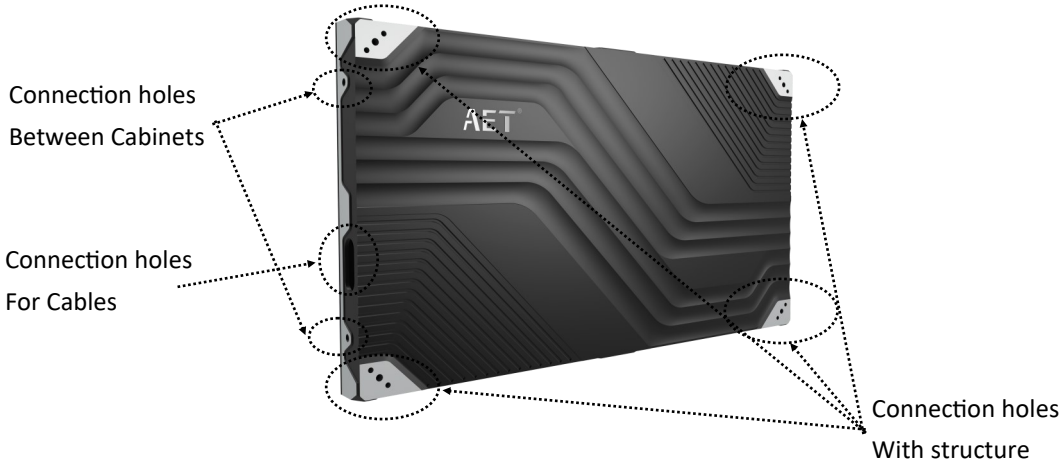

Figure2-3 Locating Studs and Connection Holes on the Cabinet

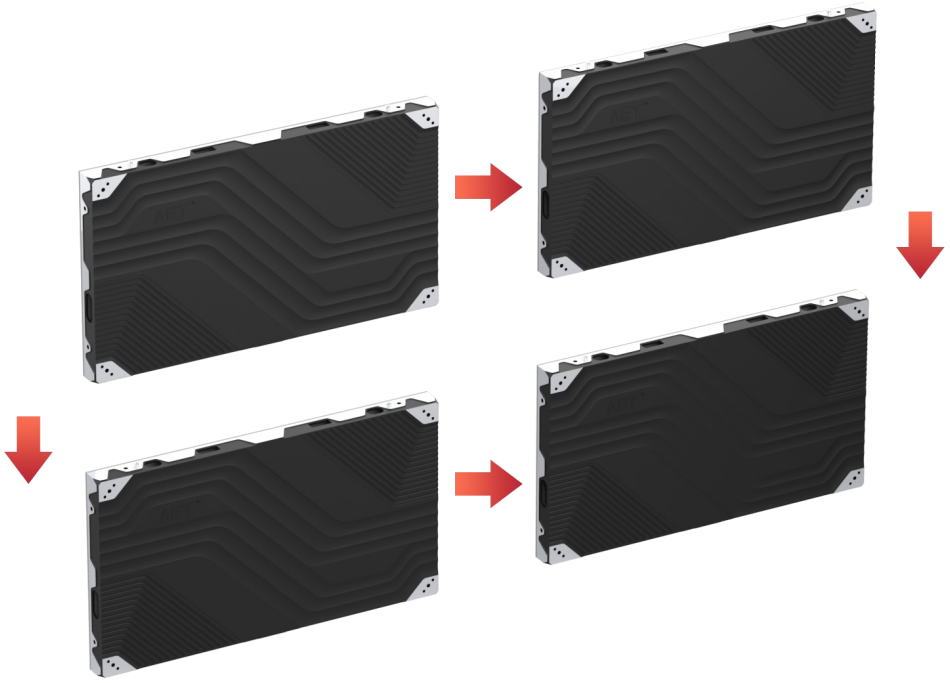

Figure2-4 Cabinet Connection

2.2.2 Install Cabinets into the Rack Frames

After the rack frames are well installed (see Chapter 1 Rack Installation for details), perform the following steps to install the cabinets into the rack frames:

Install the first cabinet from the lower middle part and it's recommend that connect 2 cabinets first and then install into the rack frame.

Step 1 Put the socket cap screw into the cabinet via 4 holes on the top left and bottom left, top right and bottom right. Then put on T-nuts to the screw.

Step 2 Use a gradienter to adjust the flatness and verticality and then secure the cabinet to the rack frames. For some parts of the screen that do not have rack fames near the rear, use joint pieces to fix the cabinet.

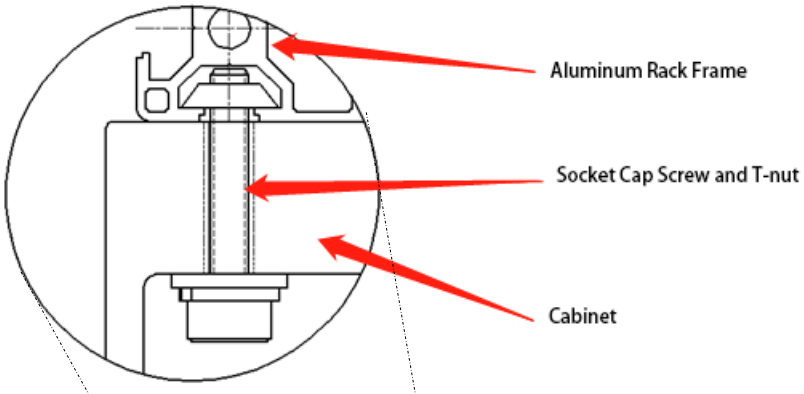

Figure2-6 Install into the Rack Frame

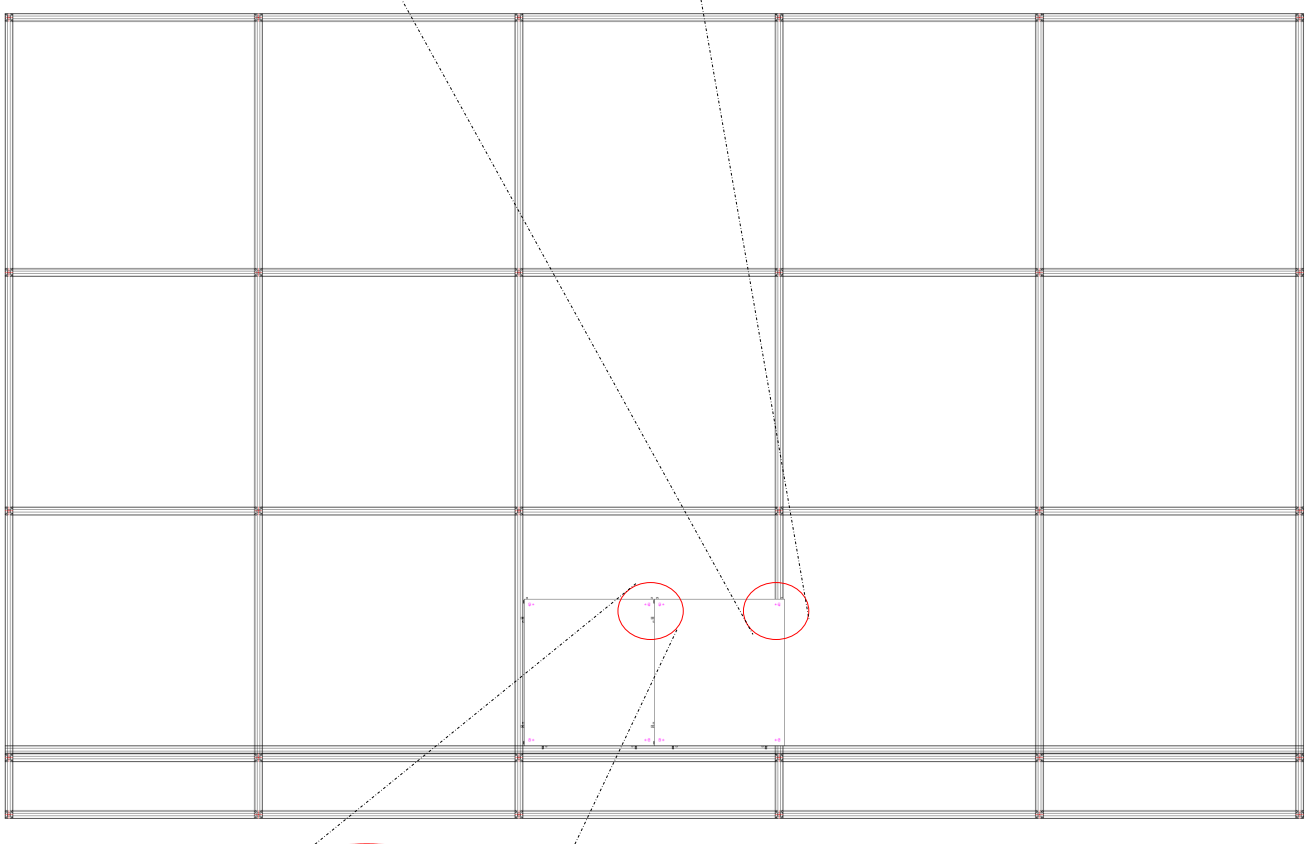

Figure2-5 Cabinet Installation

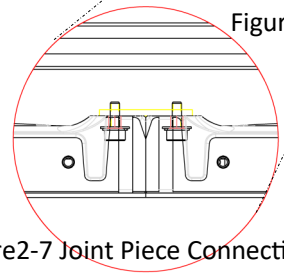

Figure2-7 Joint Piece Connection

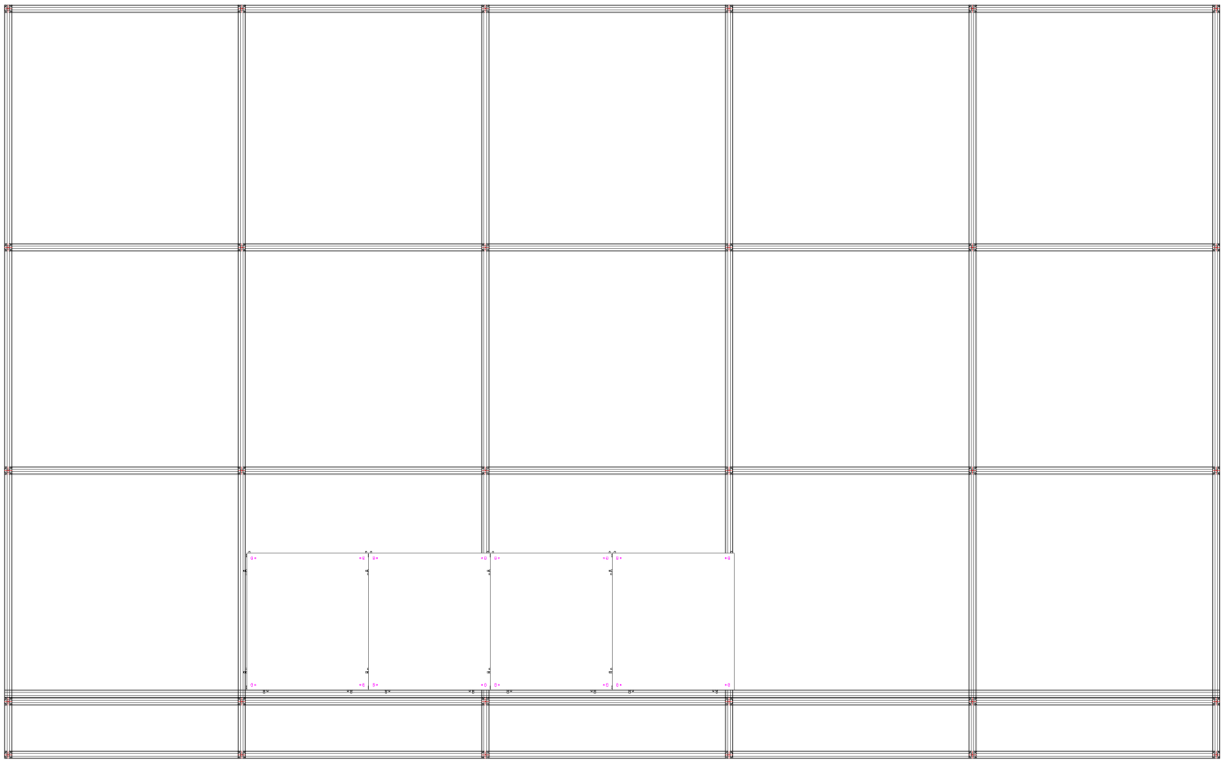

Figure2-8 Cabinet Installation from middle to the left and right

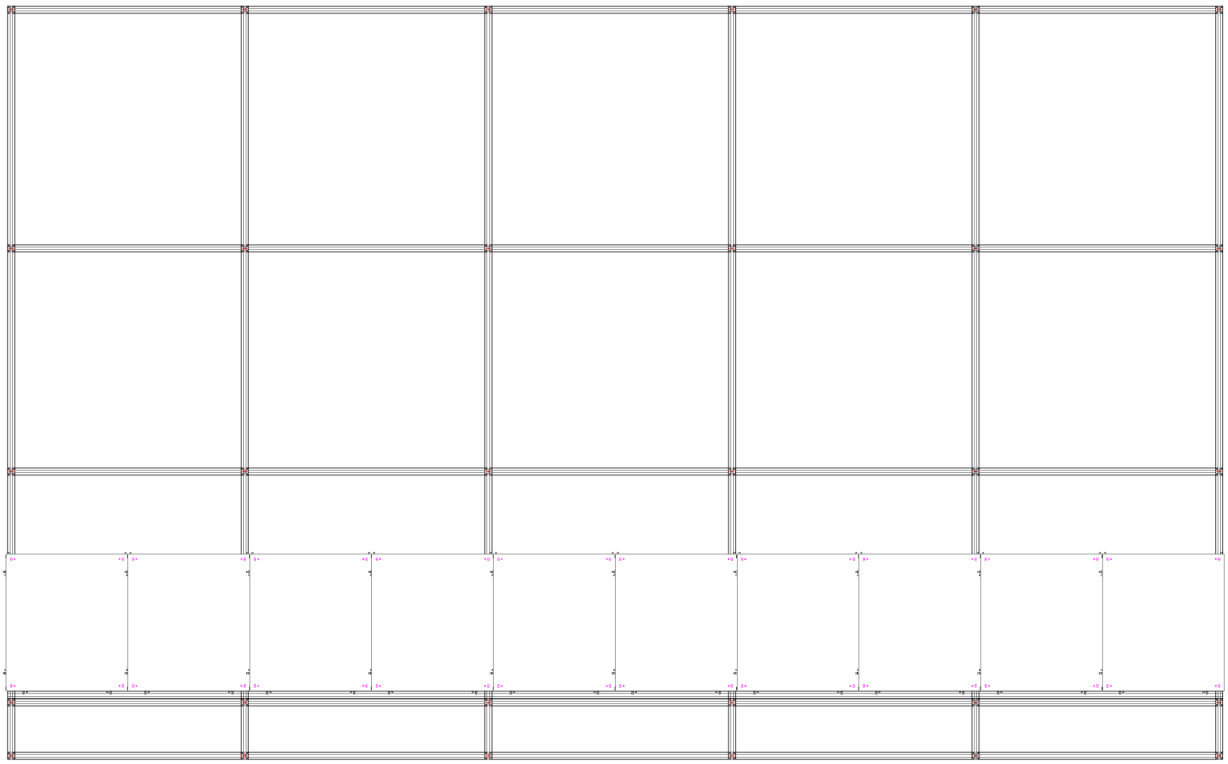

Figure2-9 Cabinet Installation from middle to the left and right

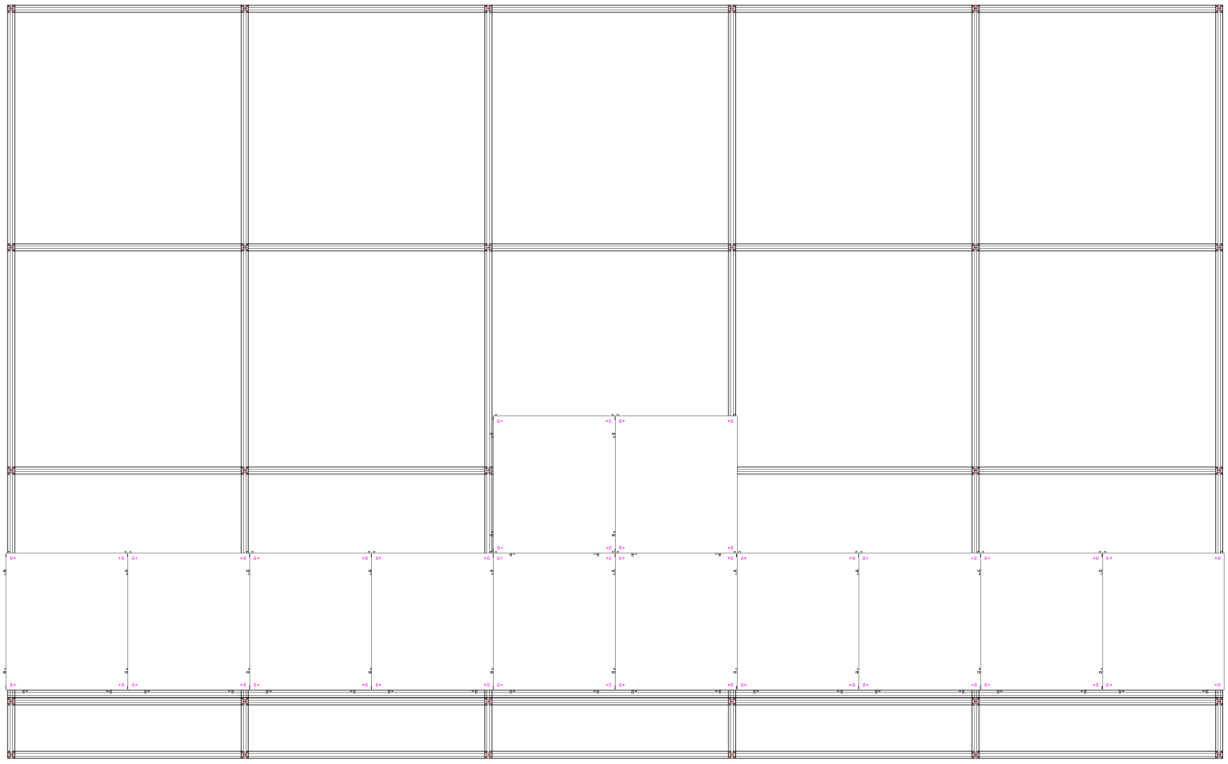

Figure2-10 Cabinet Installation from bottom to the top

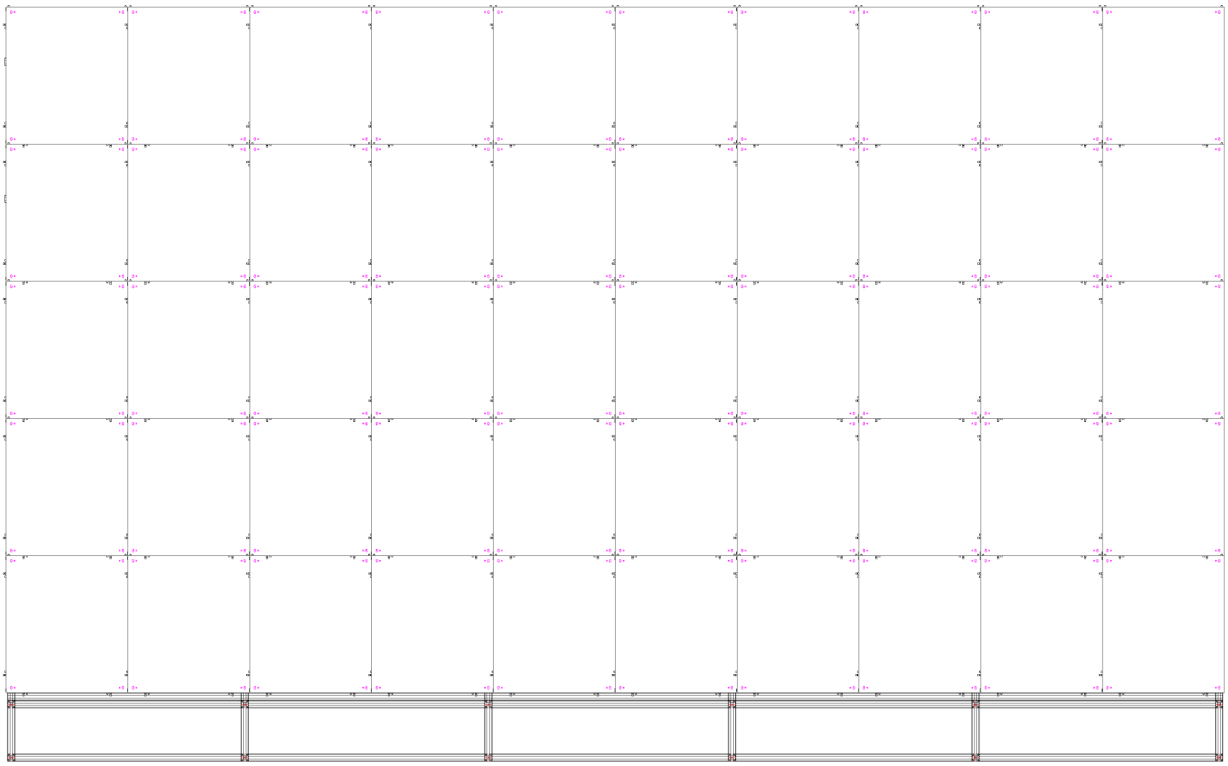

Figure2-11 Cabinet Installation from bottom to the top

2.2.3 Install Cabinets into the Wall Mount Rack

The installation of the cabinet into wall mount rack is actually the same as all-in-one rack.

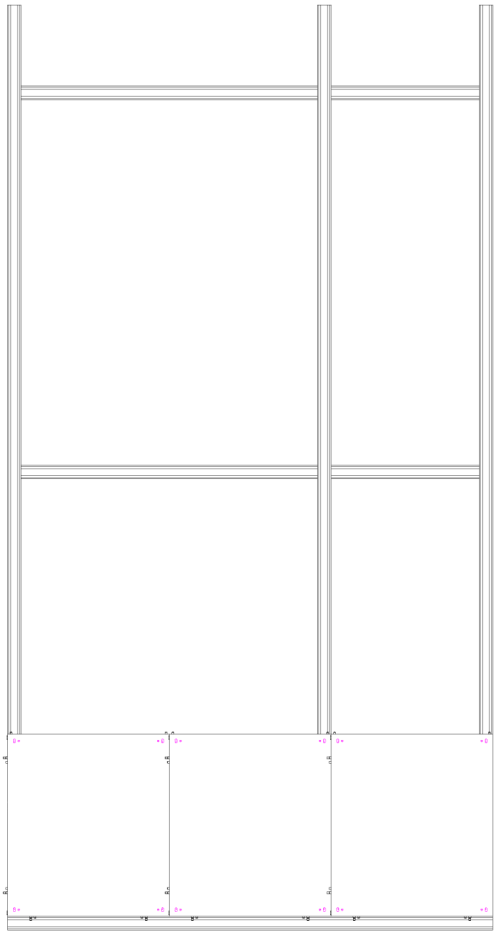

Figure2-12 Install cabinets into wall mount rack

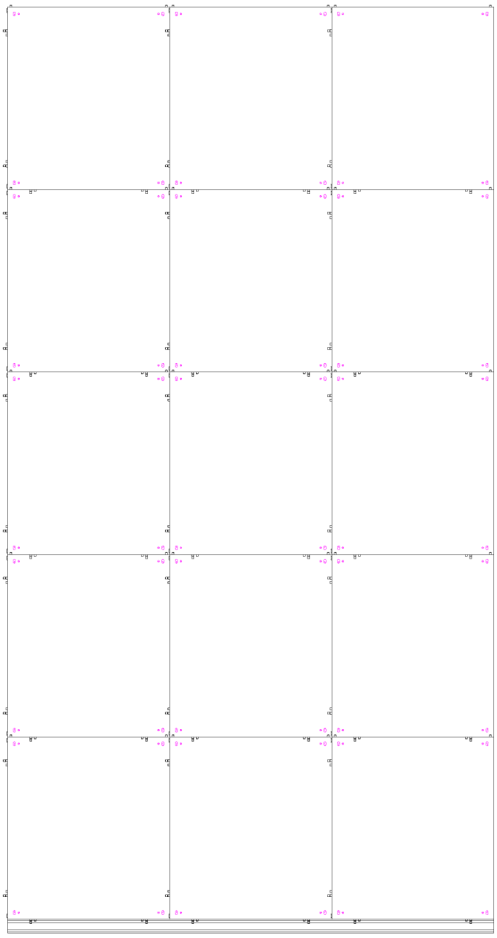

Figure2-13 Install cabinets into wall mount rack

Chapter 3 Cable Connection

3.1 Power Cable Connection

After all the cabinets well installed, connect the power cable as the specific connection diagram.

Here is an example as following picture:

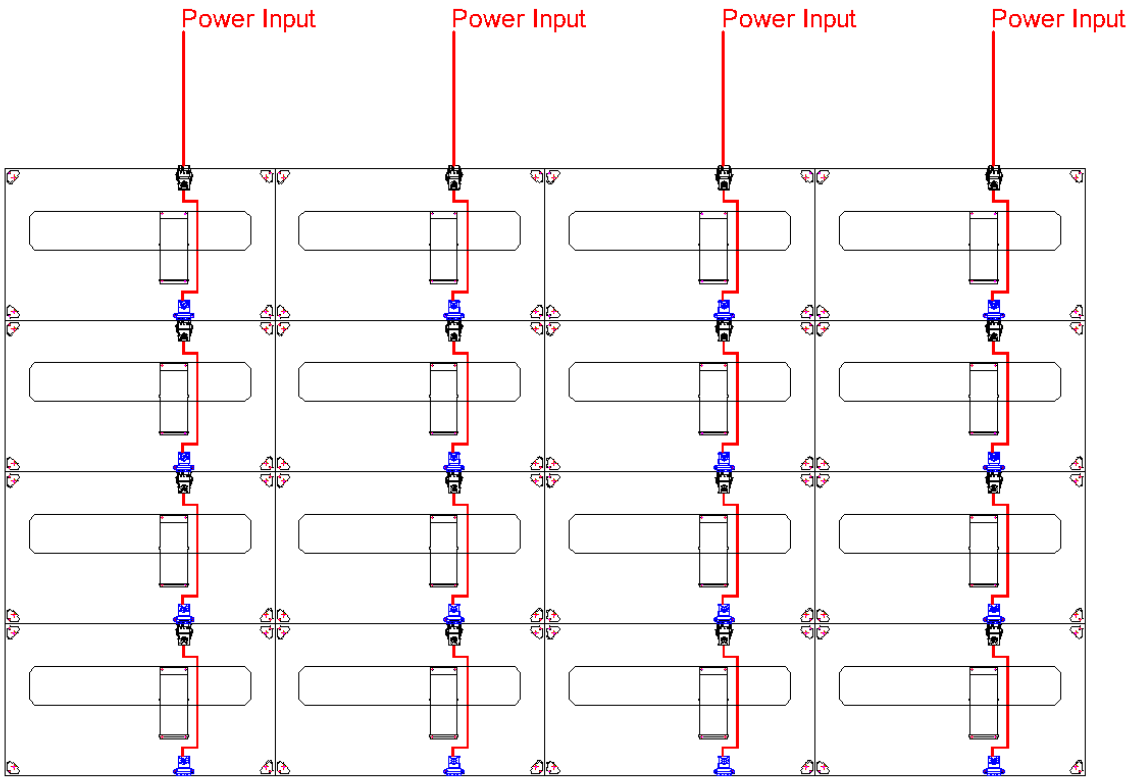

Figure3-1 Power Cable Connection

3.2 Signal Cable Connection

Connect the signal cable as the specific connection diagram.

Here is an example as following picture:

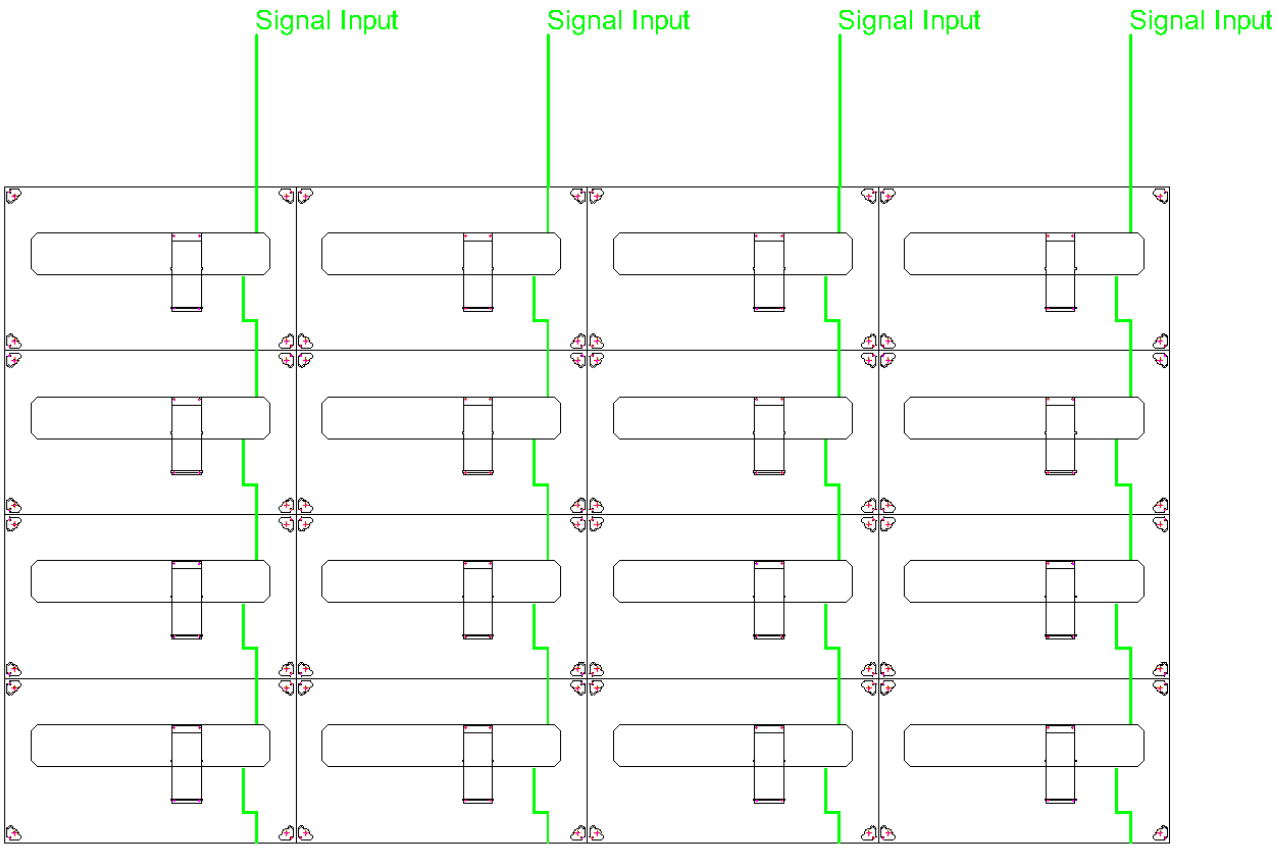

Figure3-2 Signal Cable Connection

Chapter 4 Module Installation

4.1 Introduction

About the module

A module is the most important part of LED screen, which contains led pixels and driver ICs. Connecting with the hub board, the module can show then contents that send from the input source.

4.2 Module Installation

- The module installation should be after all the cabinets and cables completed.
- The module array of Koala is 2*2 per cabinet. Check the narrow on the backside to see the direction(the narrow top).
- The installation of module also should be from the middle to the side, from bottom to the top.
- Wear glove when installing modules and be careful about the corner pixels, not to damage the LED pixels.