



NXT Series Chip-On-Board User Manual

Document

Revision: 1.1

Nanolumens, Inc.

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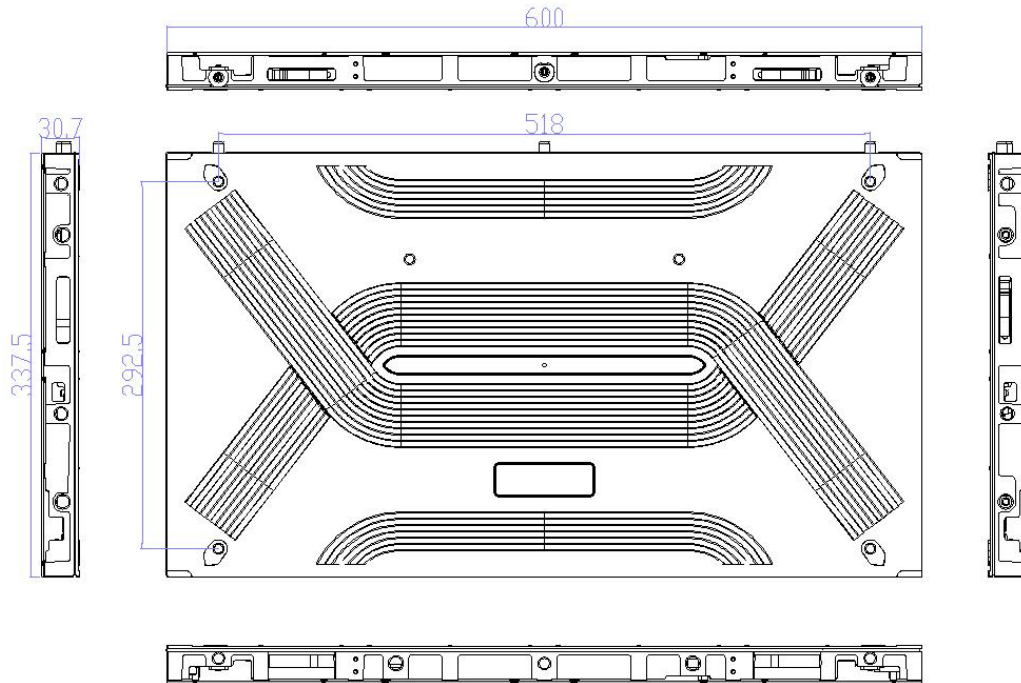


I. Product Introduction

a. Product Spec sheet

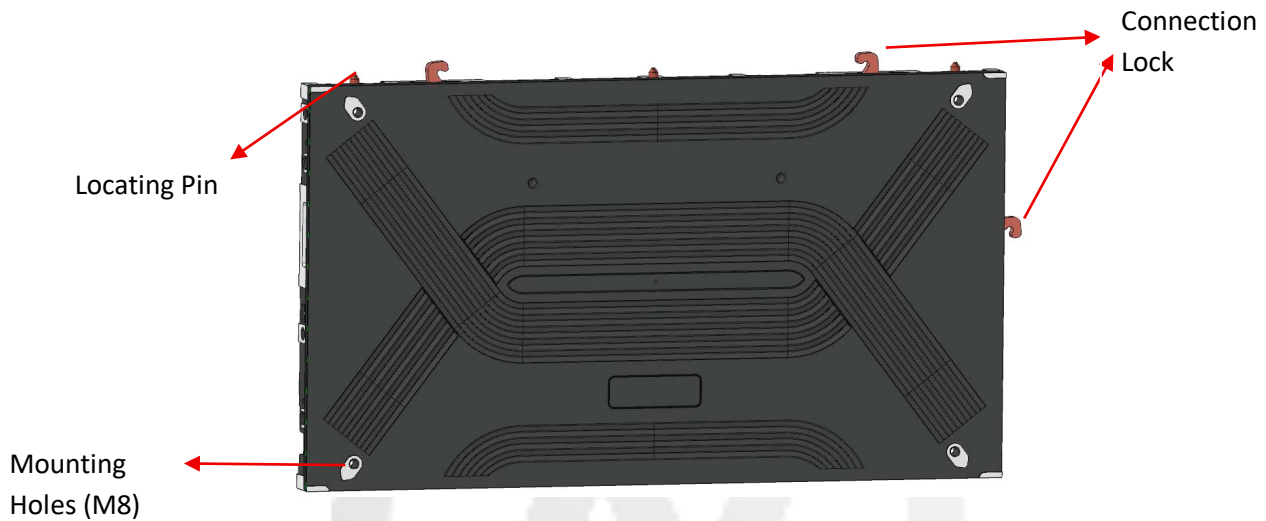
	COB			SMD				
Specification	0.93 mm	1.2 mm	1.5 mm	1.2 mm	1.5 mm	1.8 mm	2.5 mm	3.75 mm
Module Size (W x H) {1}	600.0 x 337.5 mm (23.62 x 13.29 in)			600.0 x 337.5 mm (23.62 x 13.29 in)				
Module Resolution	640 x 360	480 x 270	384 x 216	480 x 270	384 x 216	320 x 180	240 x 135	160 x 90
Module Depth {2}	31.5 mm / 1.25"			50 mm / 1.97"				
Watts / ft²	47 Max Prelim.			58 Max / 19.3 Avg	50 Max / 16.33 Avg	55 Max / 18.3 Avg	58 Max / 19.3 Avg	58 Max / 19.3 Avg
Weight / ft²	3.81 kg / 8.40 lbs			2.34 kg / 5.2 lbs				
Contrast	6000:1			≥4000:1				
Max Brightness (standard)	800 Nits			800 Nits				
Viewing Angle Max {3}	178° horz / 178° vert			178° horz / 178° vert				
Viewing Angle L50 {3}	168° Horz / 163° Vert			170° Horz / 170° Vert				
Curveable	Faceted			Faceted				
Mount Required?	Yes			No				
Serviceability	Front			Front				
Indoor / Outdoor	Indoor			Indoor				
Input Voltage (VAC)	110/120/208/220/240 VAC – Single Phase			110/120/208/220/240 VAC – Single Phase				
Output Bit Depth {4}	8-bit Standard (16.7M) / Up to 10-bit (>1B)			8-bit Standard (16.7M) / Up to 10-bit (>1B)				
Lifetime	>100,000 hours			>100,000 hours				
Warranty	2 yr standard / 3 yr extended			2 yr standard / 3 yr extended				

b. Product Dimension per Cabinet

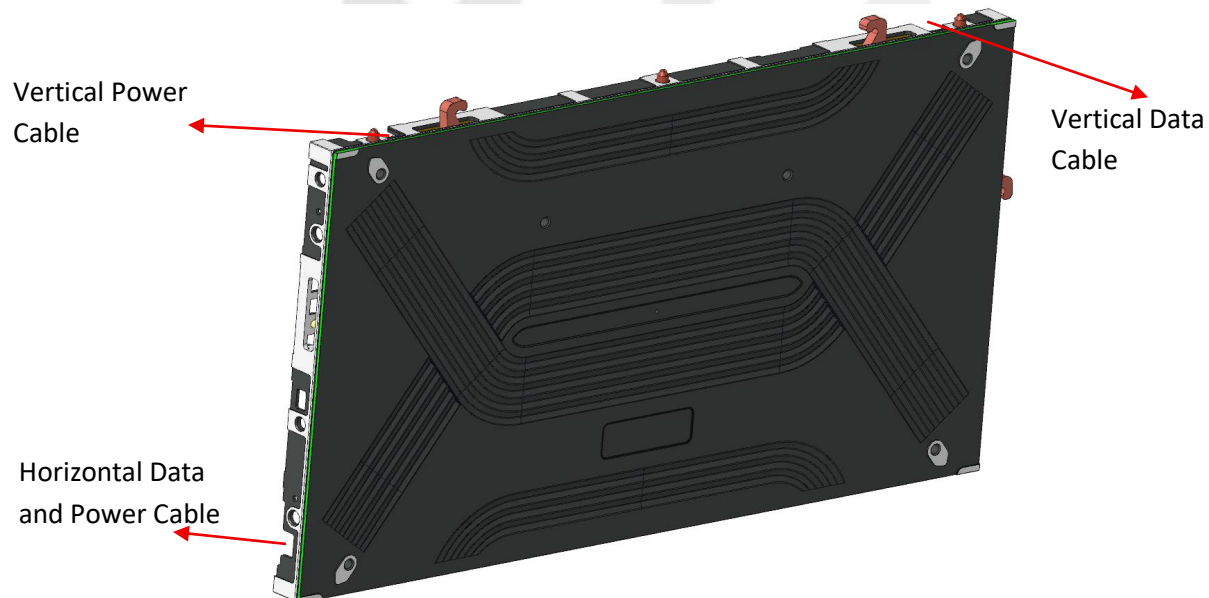


II. Product Mounting Detail

a. Cabinet Connection



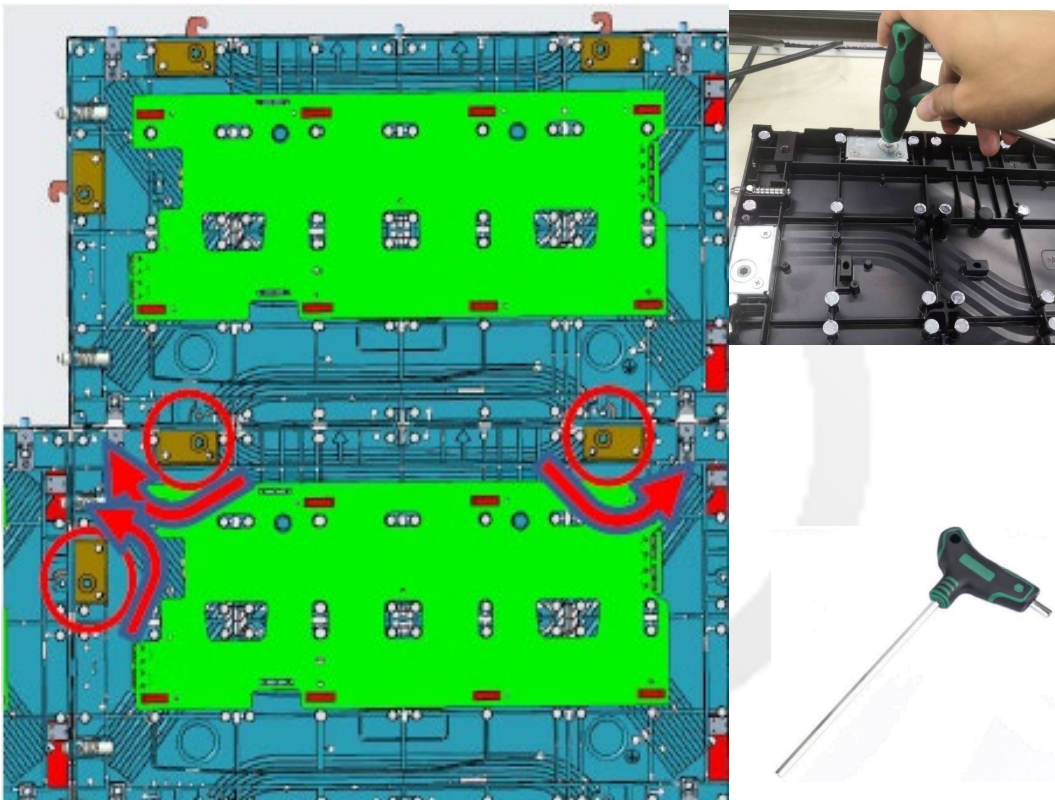
b. Wiring Connection

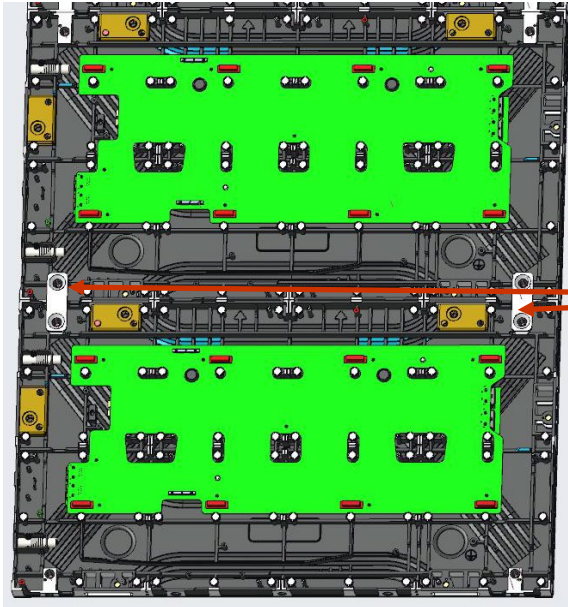


III. Product Assembly

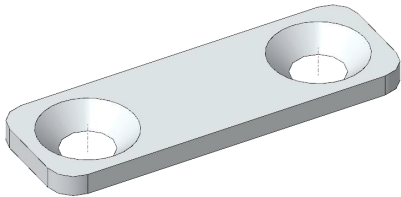
a. Cabinet assembly

Use an Allen wrench to secure the cabinet in all directions (up, down, left, and right) through the connection locks by rotating the hook. Then, fasten the upper and lower cabinets together using connection block and M8×16 hex socket countersunk head screws, as shown in the figure below.



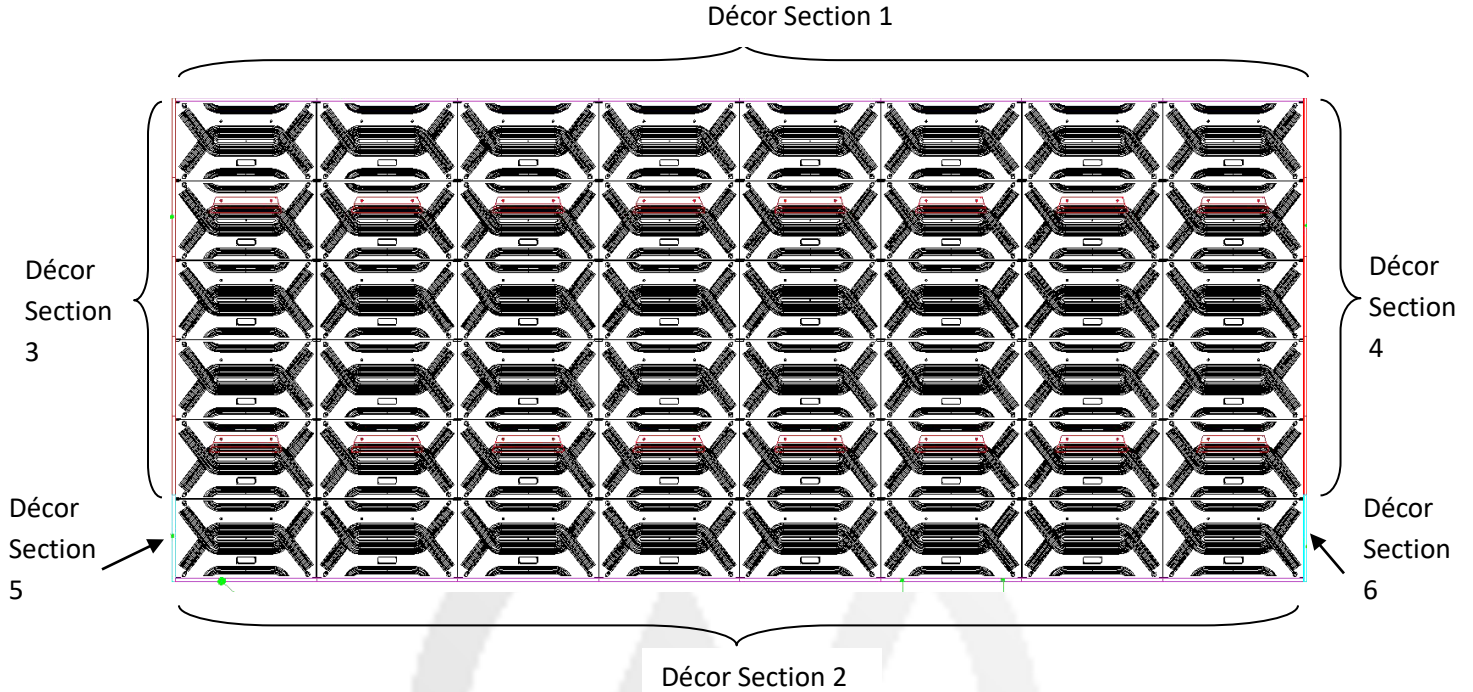


Fasten with M8*16 hex
socket



b. Décor Installation

The left and right décor are secured by snap locks into the side locating pin holes. (Note: the locating pins on the far left of the entire screen must be removed.) The edging marked with an 'R' sticker is the right edging, while the one marked with an 'L' sticker is the left décor.



Section	Part Number	Décor Type	Mounting Method
1	CFAB-46358	Top Décor	2pcs of M8×20mm Countersunk Hex Screw per cabinet décor
2		Bottom Décor	4pcs of M3×20mm Countersunk Philips Screw per cabinet décor
3	CFAB-46357	Right Décor	Directly installed through plastic snap locks
4	CFAB-46486	Left Décor	
5	CFAB-46359	Right Corner Décor	
6	CFAB-46487	Left Corner Décor	

c. Nixel (LED module) Installation

During assembly, if any flatness issues are detected, adjustments and corrections should be made promptly.

- a) The Nixel connection uses a rigid connection, aligned by the locating holes on the cabinet and secured through the bridge board and connectors on the back of the Nixel. During installation, apply gentle pressure—forceful insertion is strictly prohibited. ESD gloves must be worn when handling and installing Nixels.



- b) Cabinet and Nixel serial number: Each cabinet has a mark number located inside the top-right corner. This number indicates the cabinet’s position during factory calibration. Each Nixels also has a mark number on its back, such as ‘4-3,’ where ‘4’ refers to the cabinet number during factory calibration, and ‘3’ indicates the panel’s position within that cabinet.

1-1	1-2	6-1	6-2						
1-3	1-4	6-3	6-4						
2-1	2-2	7-1	7-2						
2-3	2-4	7-3	7-4						
3-1	3-2	8-1	8-2	●●●●					
3-3	3-4	8-3	8-4						
4-1	4-2	9-1	9-2						
4-3	4-4	9-3	9-4						
5-1	5-2	10-1	10-2						
5-3	5-4	10-3	10-4						

IV. Control System

a) Input Voltage Requirement

The input voltage should be 110V~220V, frequency 50Hz~60Hz, consistent with the display power supply voltage.

b) System Connection Diagram

- (1) Turn off the power supply of all screens and devices before connection.
- (2) Connect the DVI signal of the computer (or other equipment) to the controller through the DVI cable or connect with the HDMI cable.
- (3) Connect the output signal of the controller to the screen with the signal input cable.
- (4) When all connections are completed, power on the video input device equipment first, and then the display.

c) Safety Precautions

- (1) Before powering on the screen, verify all cable connections—including those between cabinets, main cables, and controllers. To ensure there are no incorrect connections, reverse connections, short circuits, open circuits, or loose connection. Use a multimeter and other appropriate tool for testing.
Before performing any maintenance, disconnect all main power supplies to ensure the safety of personnel and equipment. Live electrical work on any equipment or cables is strictly prohibited.
- (2) Do not forcibly pull out or insert power cords, cables, or other wires. Avoid placing heavy objects on power, signal, or communication cables, and prevent trampling or squeezing. Do not modify the cables.
- (3) To prevent fire hazards caused by power cord overload, do not exceed the product's rated capacity. Refer to the maximum power consumption specifications and avoid turning on all load switches simultaneously, as this can cause high peak voltage and increase the risk of fire.

V. Screen Configuration

Control software: Nova LCT-Mars

Notes:

For detailed operation, please refer to the specification of the specific software system.

If you need technical support, please contact us.

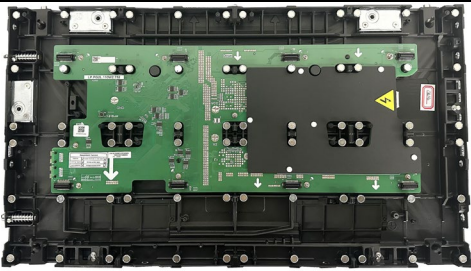
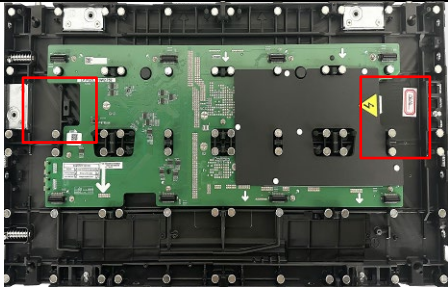
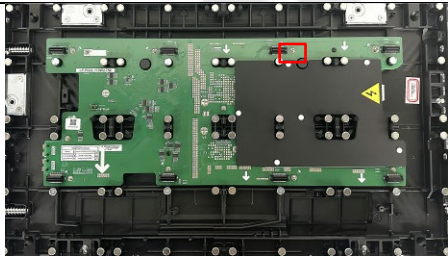
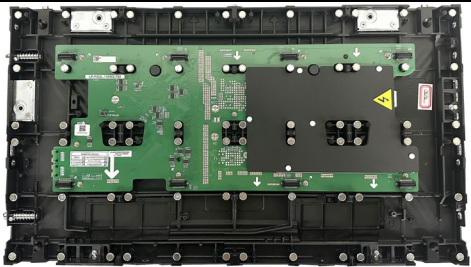


VI. Common Hardware Faults Troubleshooting

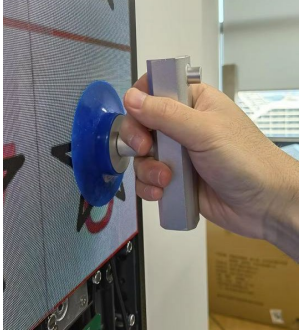
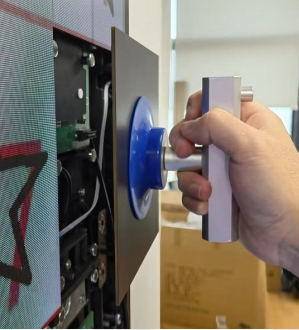
- a) Part of the display is not displaying after power on
 - 1) Check whether the data cables inside the cabinets are in good contact;
 - 2) Check whether the power cables inside the cabinets are in good contact.
- b) Hub card indicator light is not on
 - 1) Check whether the power supply is normal;
 - 2) Check whether the power switch of the system is turned on.
- c) No image on the display after connecting its to the computer with HDMI cable
 - 1) Check whether it is currently on HDMI channel;
 - 2) Check whether the HDMI cable on the system and the external computer falls off or is defective.

VII. Component Replacement

a) Three-in-one Hub Card replacement

Step	Illustration	Procedure
1.		Locate the faulty cabinet and remove all Nixels
2.		Disconnect the power cord and data cable
3.		Remove the screws from the three-in-one hub card
4.		Replace with the new hub card

b) Nixel Replacements

Step	Illustration	Procedure
1.		Find out the specific position of the Nixels, and stick the suction cup side of the front maintenance tool to the center of the Nixels, and press with a light force
2.		Gently remove the Nixels in a parallel direction
3.		Remove the screws from the three-in-one hub card
4.		Install the Nixels with arrow pointing in the same direction as the arrow on the hub card