



**SHENZHEN LIKELED CO., LTD**

**OAA Series OAA series  
Aluminium  
Outdoor Full Color LED Display  
(960×960mm)  
Specification**

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# Catalogue

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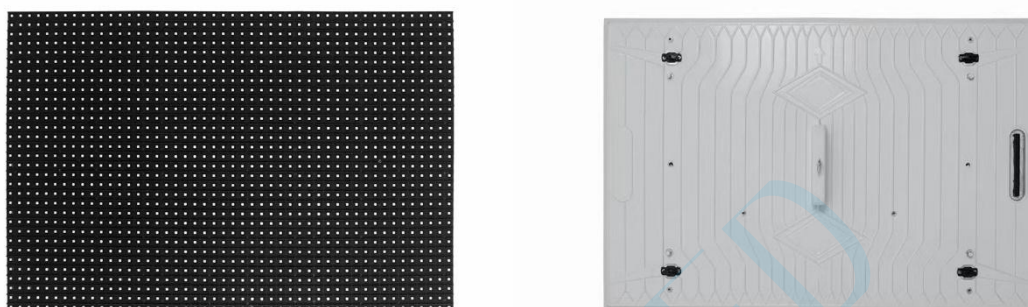
# Chapter 1 Product Introduction

- **Energy-Saving with Low Power Consumption.**  
After utilizing the technology of common cathode to FC series of LED display, its average power consumption has got lower than traditional LED display by 30%~70%.
- **Ultra-Lightweight and Thinness.**  
The weight of single module is just 2KG; Size of standard cabinet is 960\*960mm, a standard cabinet is comprised of 6 modules, material is aluminum profile cabinet, its weight is just 25KG. To compare with Iron cabinet (35KG) and die-casting aluminum cabinet (28.5KG), the FC series of LED display has superior structural design, to make the whole of display be more light and thinness.
- **Its structure is simple, Wireless Design.**  
FC series of aluminum module LED display is to adopt hard link, wireless design, simple and tidy, it is beautiful appearance.
- **Strong Environmental Adaptability.**  
It is ultra-low temperature rise, low decay, it can work normally under the temperature of 80 degree at most, and work normally under minus 40 degree at least, moreover, it can work on seaside normally in the long run, which has strong ability for salt spray resistance.
- **Fire Resistance.**  
Aluminum module is metal material, it has high melting point, even if outdoor environmental temperature is high, aluminum module LED display is not self-ignited as well, it also doesn't distort because of high temperature, also doesn't become combustion improver of other combustive substance.
- **Great Thermal Conductivity.**  
Aluminum module has nice thermal conductivity, it can dissipate heat to outside from inner display fast, no need install fan, it can adapt more harsh outdoor environmental condition.
- **Easy to Realize front and rear maintenance.**  
FC series of LED display is to adopt reasonable structure, easy to realize front and rear maintenance, convenience and simple, it can save clients a lot of maintenance time and cost.
- **High Refreshing, High Grayscale.**  
Ultra-high grayscale 16 bit above, ultra-high refreshing 3840Hz above, its picture display is exquisite and true, brightness is stable and even, no flicker, no "Particle" sense.
- **IC Driving.**  
It has the function of list up and down hidden, high refreshing ratio, dark dot amended in first line, low grayscale amended, color cast and spot amended, etc
- **Big Visual Angle, High Contrast Ratio.**  
It is to adopt 2727 LED chip, primary color is Red, Green and Blue, nice conformity, contrast ratio can be up to 5000:1, visual angle can be up to above 140° , high reliability, long lifespan.

## Chapter 2 Appearance Structure

### 1.1 Appearance Picture

Picture 2-1-1 Module Appearance Picture



Picture 2-1-2 Cabinet Appearance Picture



## 1.2 Technical Parameter

Table 1-1 Technical Parameter

Item	Parameter		
Module Parameter	Parameter/ Item No.:	OAA-5.7	OAA-10
	Pixel Composition	2727 3-in-1 LED	2727 3-in-1 LED
	Pixel Pitch (mm)	5.7mm	10mm
	Module Resolution (W×H)	84*56=4704	48*32=1536
	Module Size (mm)	480*320	480*320
	Module Weight (kg)	2	2
	Input Voltage for Module (V)	3.8	3.8
	The Max Current for Module (A)	25	25
	The Max Power for Module (W)	95	95
Cabinet Parameter	Module Qty/Cabinet (W×H)	2*3	2*3
	Cabinet Resolution (W×H)	168*168=28224	96*96=9216
	Cabinet Size (mm)	960*960	960*960
	Cabinet Area (m <sup>2</sup> )	0.9216	0.9216
	Cabinet Weight (kg)	23	23
	Cabinet Density (dots/m <sup>2</sup> )	30625 dots/m <sup>2</sup>	10000dots/ m <sup>2</sup>
	Cabinet Evenness (mm)	≤0.5	≤0.5
	Maintenance Method	Front and Rear Maintenance	
	Cabinet Material	Aluminum Profile	
Optical Parameter	Single Dot Brightness Amended	Yes	
	Single Dot Color Amended	Yes	
	White Balance Brightness (nits)	5500	7500
	Color Temperature (K)	9000-13000, being adjustable	
	Visual Angle (Horizontal/Vertical)	140°/120°	
	Brightness / Colorful Evenness	≥99%	
	Contrast Ratio	5000:1	
Electric Parameter	The Max Power Consumption (W/m <sup>2</sup> )	650	650
	Average Power Consumption (W/m <sup>2</sup> )	218	218
	Input Voltage (V)	200-240	
Performance Parameter	Frequency (Hz)	≥60	
	IC Driving	Constant Current, 1/7 Scanning	Constant Current, 1/2 Scanning
	Grayscale	It is available within 65536	
	Refreshing Ratio (Hz)	3840	
	Color Processor	12 bit	
	Lifespan (hrs)	100,000 H	
	Work Temperature/Humidity (°C/RH)	-10°C -50°C/10%RH-98%RH (Non Condensing)	
	Storage Temperature/Humidity (°C/RH)	-20°C -60°C/10%RH-98%RH (Non Condensing)	
*We would not provide additional notification if the product information has any update, our company do not take any obligation because of this.			

## 2.3 Packing List

Table 1-1 Packing List

Packing List	Qty	Unit
LED Display	1	Set
User Manual	1	Pcs
Approved Certificate	1	Pcs
Warranty Card	1	Pcs
Construction Notification	1	Pcs




## 2.4 Power Supply Configuration Project

Table 1-2 Power Supply Configuration Project

Power Supply	Configuration Project
300W Power Supply	Can load 3pcs modules

## 2.5 Accessories

Table 1-1 Accessories List

Accessories	Name	Picture
Assemble Accessories	Power Supply、Single Cable	
	Screws、connecting sheet	
	Sleeve Piece、Key、T-type equipment for front and rear maintenance	

## Chapter 3 Interface Definition

Picture 3-1 Interface Picture (HUB75)

1↻	2↻
3↻	4↻
5↻	6↻
7↻	8↻
9↻	10↻
11↻	12↻
13↻	14↻
15↻	16↻

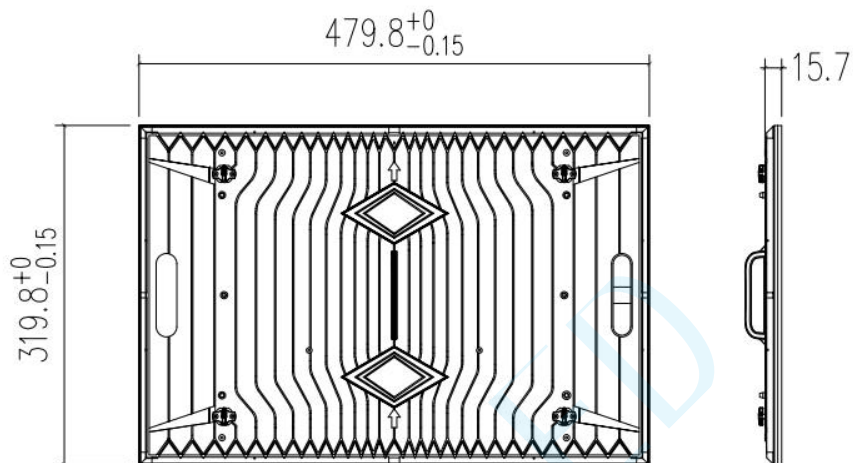
Table 3-1 Interface Definition

Pin	Signal	Function	Pin	Signal	Function
1	R1	Red Data Signal	2	G1	Green Data Signal
3	B1	Blue Data Signal	4	GND	Power Ground
5	R2	Red Data Signal	6	G2	Green Data Signal
7	B2	Blue Data Signal	8	E	Row Decoding Signal
9	A	Row Decoding Signal	10	B	Row Decoding Signal
11	C	Row Decoding Signal	12	D	Row Decoding Signal
13	CLK	Clock Signal	14	LAT	Latch Signal
15	OE	Enable Signal	16	GND	Power Ground

## Chapter 4 Installation

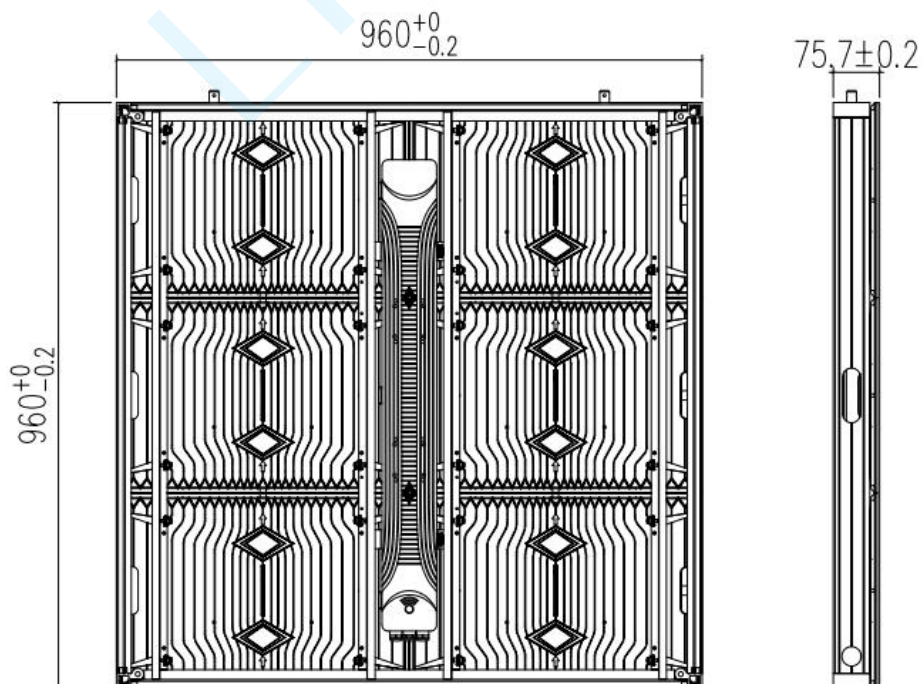
### 1.3 Kit Installation

picture 4-1 Hole Installation Diagram for Kit



### 1.4 Cabinet Installation

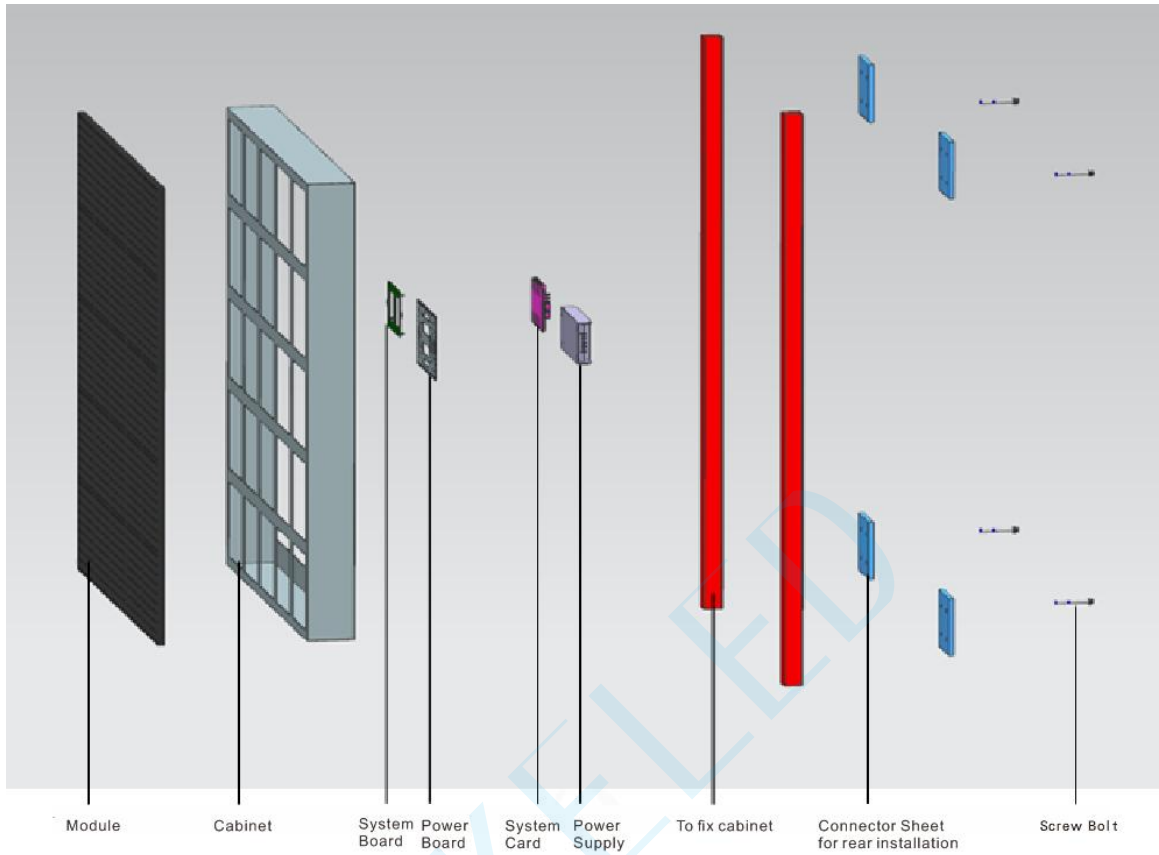
Picture 4-2 Cabinet Diagram



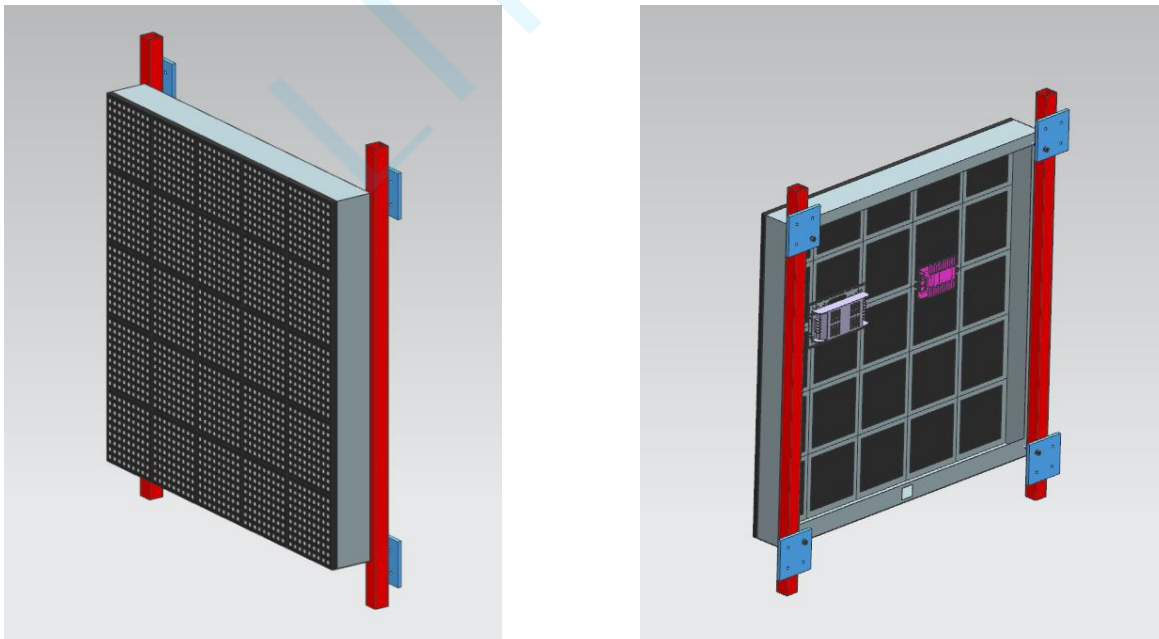


## 1.4.1 Front Installation for Cabinet

Picture 1.4.1-1 Components for Cabinet Installation



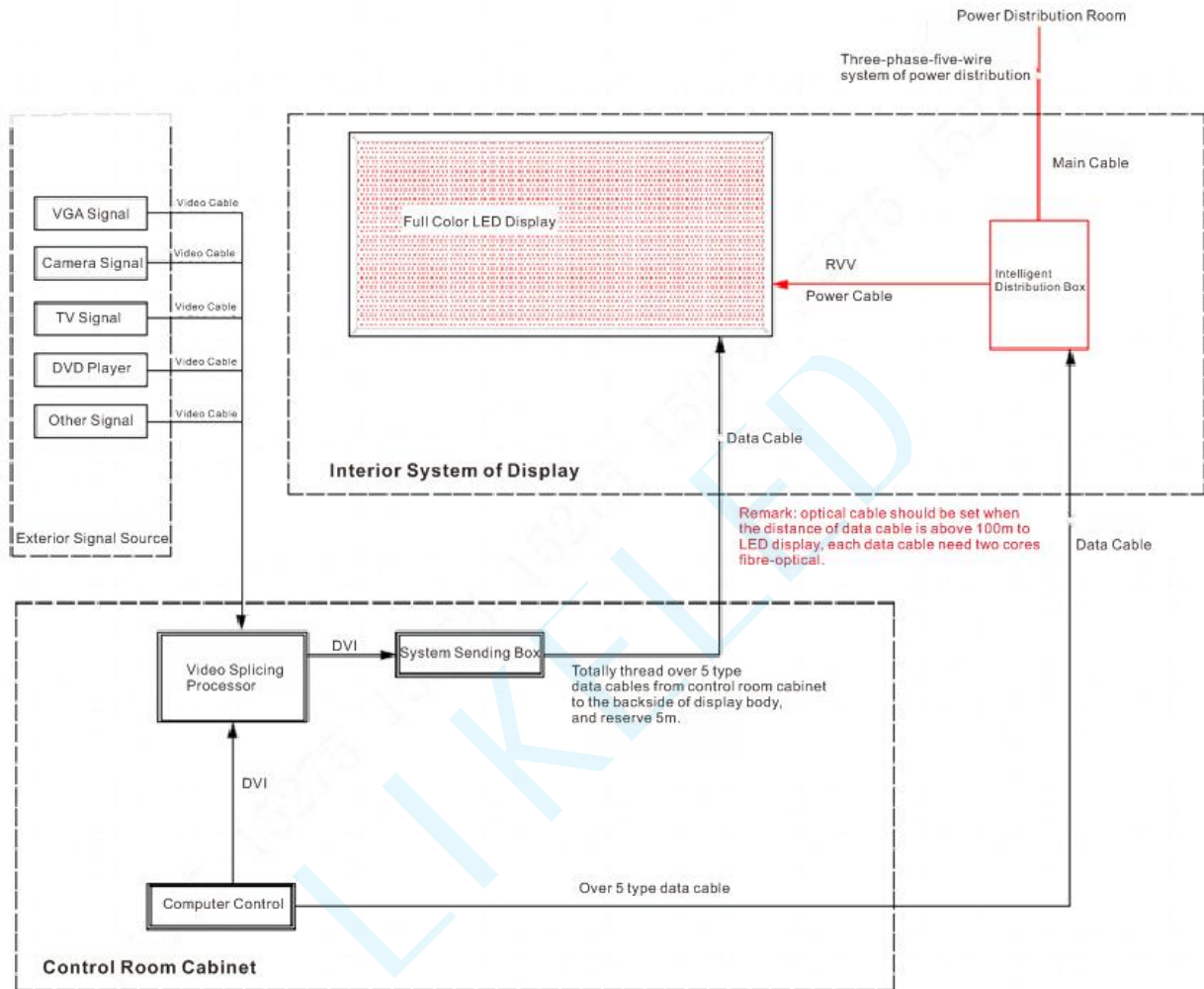
Picture 1.4.1-2 After finishing to install for cabinet front installation



## 1.5 Display Installation

### 1.5.1.1 Diagram for Cable Connection

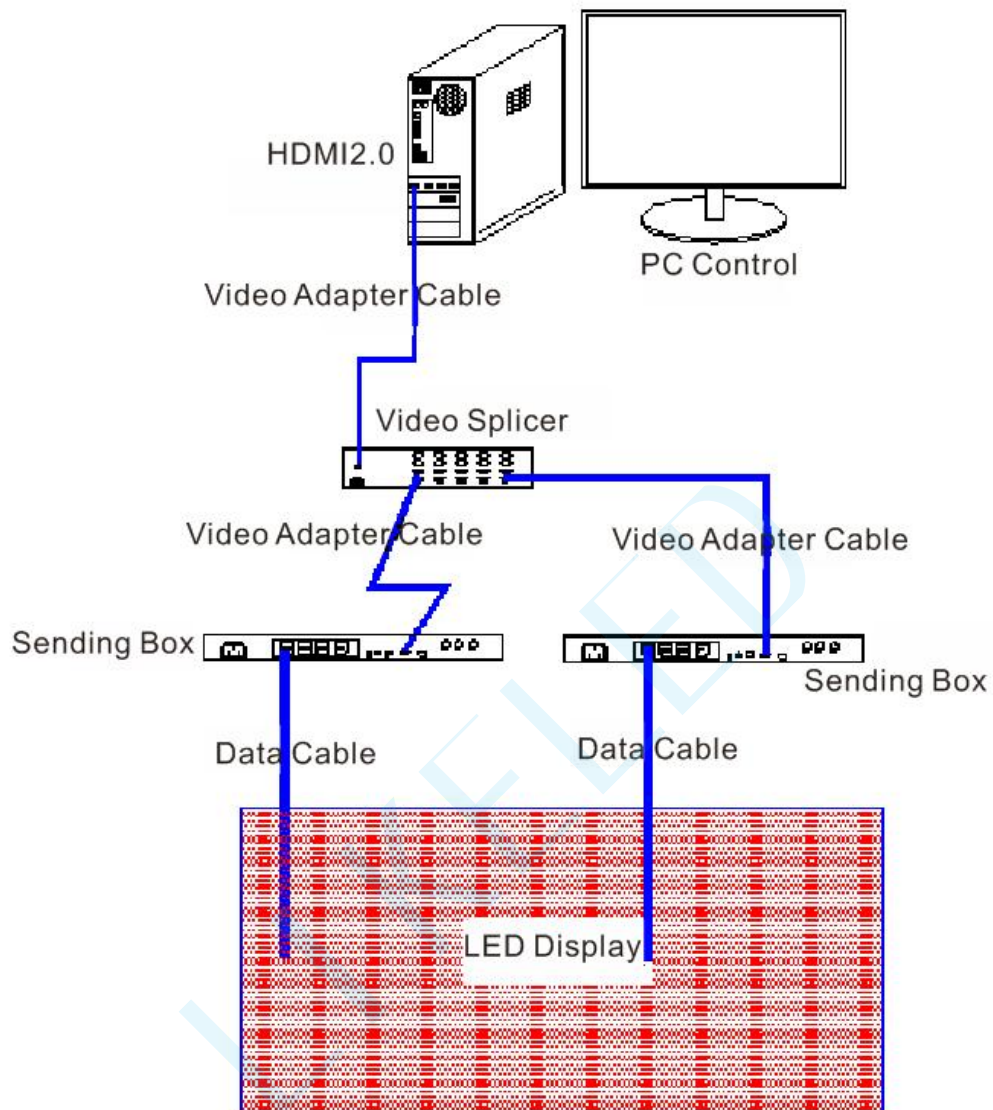
Picture 1.5-1 Diagram for Connection



Topographic Picture for Display System


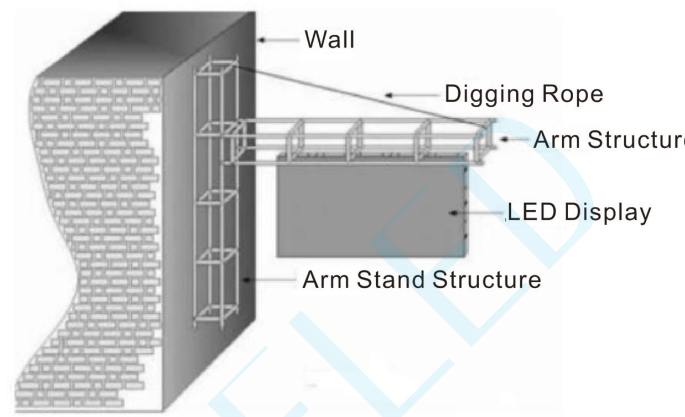
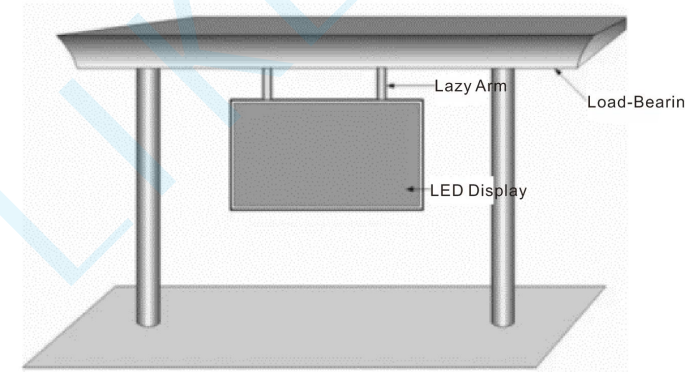

### 1.5.1.2 Networking Introduction

Picture: Topographic Picture for networking



### 1.5.1.3 Installation Method:

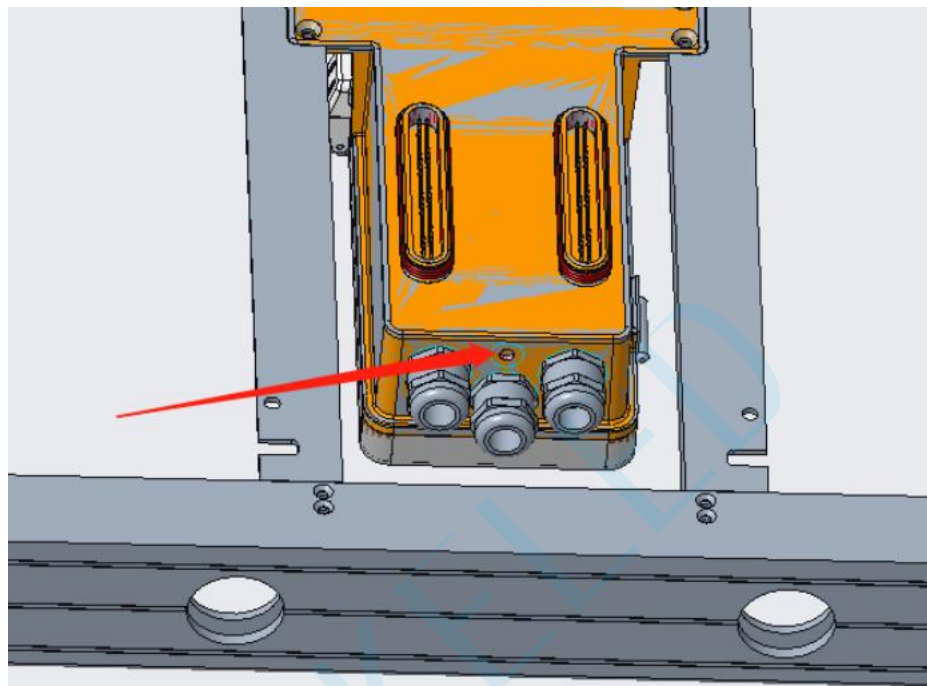
Installation Type	Picture
<p>Wall Mounted Installation</p>	

Installation Type	Picture
<p>Floor Mounted Installation</p>	 <p>The diagram shows a floor-mounted LED display. On the left, a brick wall is shown with the letters 'LED' on it. To the right, a cutaway view of the display structure is shown, with labels: 'LED Display' pointing to the main panel, and 'Fixed Steel Frame and Rim' pointing to the outer border. Below the main panel, a 'Load-bearing wall' is indicated.</p>
<p>Cantilever Type Installation</p>	 <p>The diagram illustrates a cantilever type installation. A brick wall is shown on the left. A metal 'Arm Stand Structure' is attached to the wall. A 'Digging Rope' is used to secure the structure. An 'Arm Structure' extends from the wall, supporting an 'LED Display'.</p>
<p>Hanging Type Installation</p>	 <p>The diagram shows a hanging type installation. A table-like structure with a 'Load-bearing Top' and two legs is shown. A 'Lazy Arm' is attached to the top, which holds an 'LED Display'.</p>
<p>Upright Type Installation</p>	 <p>The diagram shows an upright type installation. A rectangular sign with the letters 'LED' is mounted on a vertical post. The sign is supported by a horizontal bar at the top of the post.</p>

## Chapter 5 Description for Product Features

### 5.1. New added vent valve

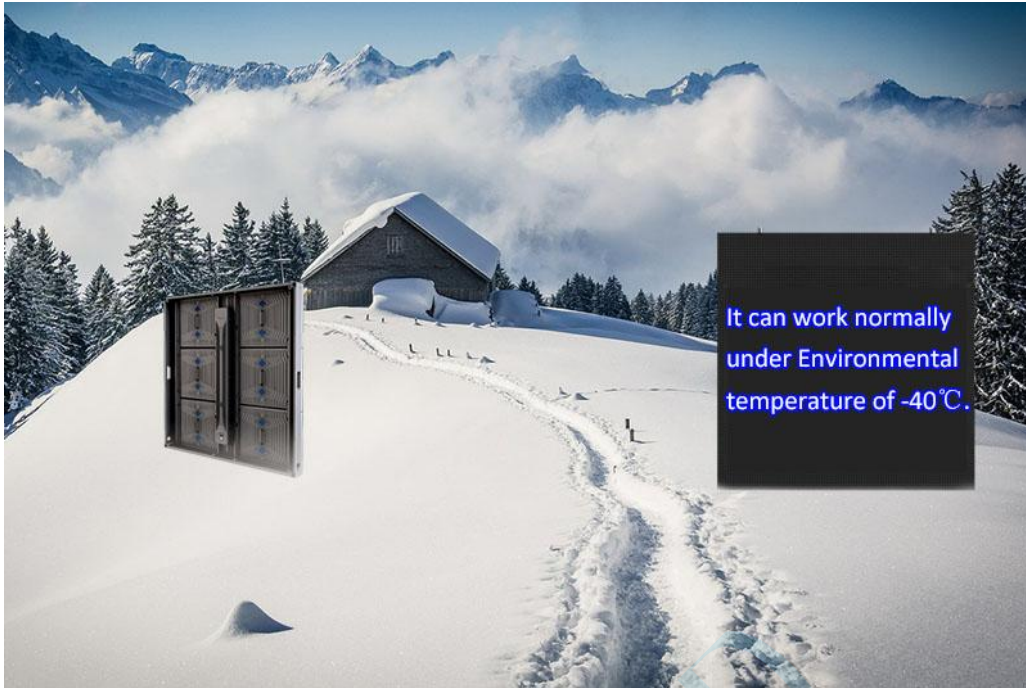
For the FC series of LED display, a vent valve has added in the bottom of power box, it can adjust inner gas pressure, recoil temperature rise and balance inner environment.



### 5.2. Strong Adaptability for outdoor environmental condition:







### 5.3. Structural Hard Link, Wireless Design.

The product structure is to adopt hard link, wireless design, its appearance is tidy and beautiful.



### 5.4. Aluminum Profile Cabinet, Lightweight, Safety and Reliability, No Distortion.

FC series of LED display is to adopt aluminum profile cabinet, the weight of single cabinet is just 25KG, display module is die-casting aluminum material, it is fire resistance, no distortion even it is under the high environmental temperature.



## Chapter 6 User Manual

Table 6-1 Notification

Item	Notification
Temperature	Keep the work temperature within $-10^{\circ}\text{C} \sim 50^{\circ}\text{C}$
	Keep the storage temperature within $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
Humidity	Keep the work humidity within 10%RH~98%RH
	Keep the storage humidity within 10%RH~98%RH
Waterproof	Cabinet: IP65; Module: IP68
Dust-proof	Cabinet: IP65; Module: IP68
Anti-Electromagnetic radiation	LED display shouldn't put under the environment where has strong interference by electromagnetic radiation, which would be easy to picture display abnormal.
Electrostatic Prevention	It should be ground connected well for power supply, cabinet, mental cover of display body, the resistance of ground connection $< 10 \Omega$ , to avoid making any damage to electric components.

Table 6-2 User Manual

Item	User Manual
Electrostatic Protection	The installer need wear electrostatic ring and electric gloves, each equipment should take ground connection well when installing.
Connection Type	There are positive and negative electrode silk printed on module, don't allow to reverse connect, and prohibit to connect with AC 220V.
Operate Type	Prohibit to assemble module, cabinet and whole of display under power on, operation should be under power off completely, to protect personal safety; Prohibit anyone to touch when the LED display is working, in case the static electricity which is generated by body to break through LED and other components.
Dismantle and Transportation	Don't allow to throw, push, compress module, to prevent module falling down, to avoid breaking kit, damage LED chips, etc.
Environmental Inspection	It should match temperature and humidity meter for LED display at installation site, to monitor its surrounding environment, so that it can find out if LED display being affected with damp, moisture, etc.
The Usage of LED display	The environmental humidity should be 10%RH~65%RH, it is suggested to turn on LED display one time each day, normal to use above 4 hours each time, to remove its damp.
	When the environmental humidity is above 65%RH, it should make dehumidification to environment, and it is suggested to work LED display above 8h each day.

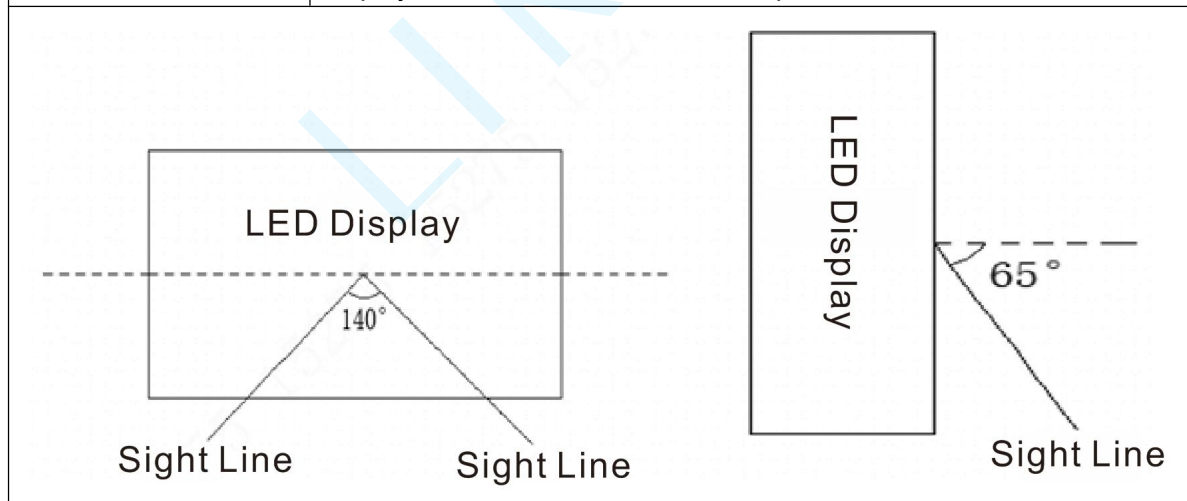


When LED display has not turned on for a long time, it should preheat LED display to remove moisture before use, to avoid damage LED because of damp, the specific method: 20% brightness to work for 2h, 40% brightness to work for 2h, 60% brightness to work for 2h, 80% brightness to work for 2h, 100% brightness to work for 2h, by this to gradually increase its brightness.

## Chapter 7 Acceptance Request and Method

Table 7-1 Acceptance Request and Method for LED Display

Item	Acceptance Request and Method
Brightness of LED Display	Switch LED display to work as full brightness, use light-gun to measure the brightness of LED display within 10 minutes. When measuring its brightness, the light-gun need be vertical to LED display, to adjust the distance of light-gun and LED display, ensure the view window, black area, cover above 16 pixels, adjust focal length, to ensure LED chip being able to clearly view in eyepiece, then measure and record brightness data.
Visual Angle	The one should stand on the angle of $140^{\circ}$ , bottom angle $65^{\circ}$ to LED display when making measurement, it is requested that LED display should not have obvious the problem of dark block.



## Chapter 8 Product Application

Application field: It is mainly used for various of exterior building advertisement, airport, government culture and vertical advertisement in high speed road, etc.

