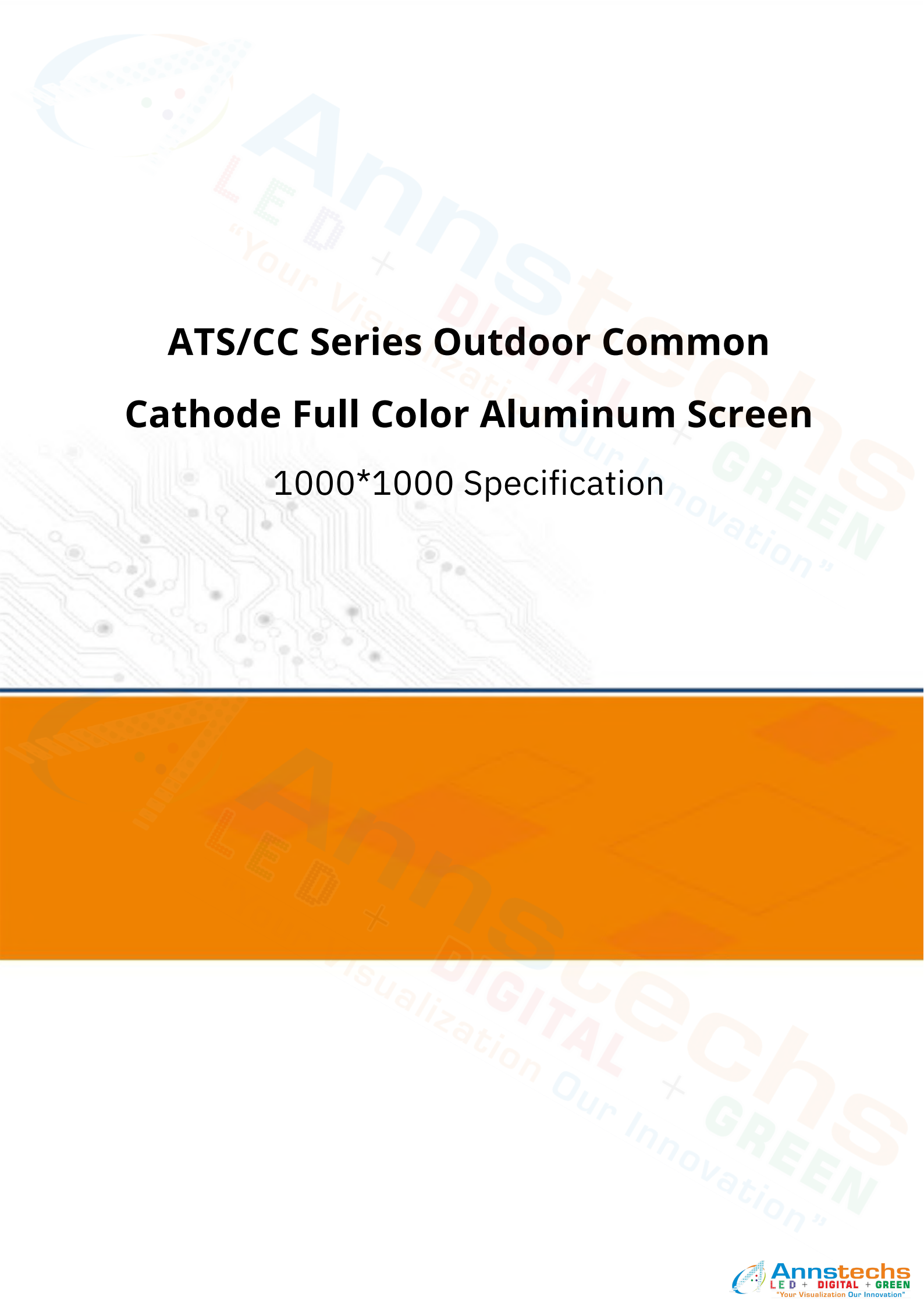


The background of the slide features a large, faint watermark of the Annstechs logo and the text "LED + DIGITAL + GREEN" and "Your Visualization Our Innovation". The logo itself is located in the top left corner, showing a stylized globe with colorful dots. The text "Annstechs" is in a large, light blue font, with "LED + DIGITAL + GREEN" in smaller, multi-colored letters below it. The tagline "Your Visualization Our Innovation" is in a light blue script font. The background also has a subtle pattern of circuit board traces.

ATS/CC Series Outdoor Common Cathode Full Color Aluminum Screen

1000*1000 Specification

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Chapter 1 Product Introduction

□ **Common Cathode with Energy-Saving**

Common Cathode is an energy-saving power supply technology for LED displays, effectively addressing issues of excessive heat and high power consumption in traditional Common Anode circuits. Screens using Common Cathode circuits have an average temperature **14.6°C lower** than traditional Common Anode circuits and reduce power consumption by **over 20%**.

□ **Four-Level Energy-Saving Technology**

Level I: Dynamic Energy Saving – Turns off the constant current tube chip's partial drive circuit when no signal is displayed.

Level II: Black Screen Energy Saving – Reduces static current consumption of the chip from 6mA to 0.6mA when the screen displays all-black content.

Level III: Full-Screen Energy Saving – Reduces static current consumption of the chip from 6mA to 0.5mA when low-level signals are sustained for 300ms.

Level IV: Split-Power Supply Voltage Reduction – Current flows through the LED beads first before reaching the IC negative terminal, reducing forward voltage drop and conductive resistance.

□ **Large-Size Cabinets**

Standard 1m × 1m large cabinets (1 cabinet = 1 square meter). Customizable cabinet dimensions to meet installation requirements for diverse scenarios.

□ **Optimized Structure & Flexible Installation**

90° seamless corner splicing for effortless naked-eye 3D display.

Modular design for modules, cabinets, and power supply boxes. Front/rear maintenance, connections, and wall-mounted installation support, reducing structural costs.

rigid

□ **Full Aluminum Cabinet Structure**

Die-cast aluminum modules and aluminum profile cabinets ensure superior flatness. Ultra-thin and lightweight design reduces weight by 20% per square meter compared to traditional iron cabinets, lowering transportation costs.

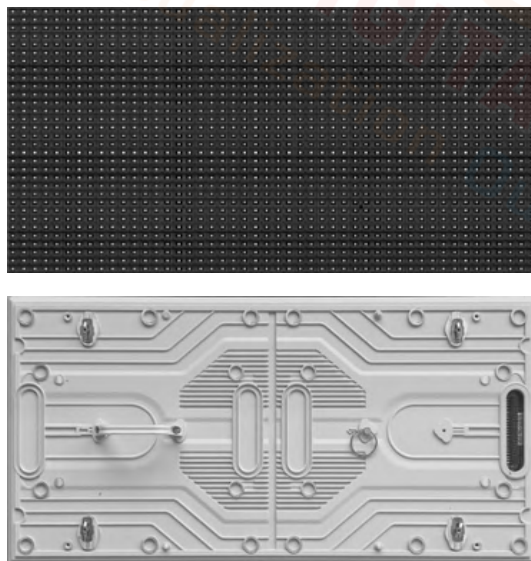
□ **Multi-Layer Heat Dissipation Design**

Dual-layer power supply with a unique heat dissipation design, coupled with the aluminum module itself has good thermal conductivity, so that the whole screen has a better heat dissipation effect, without the need to install air conditioning, high reliability, long service life.

Chapter 2 Structural Appearance

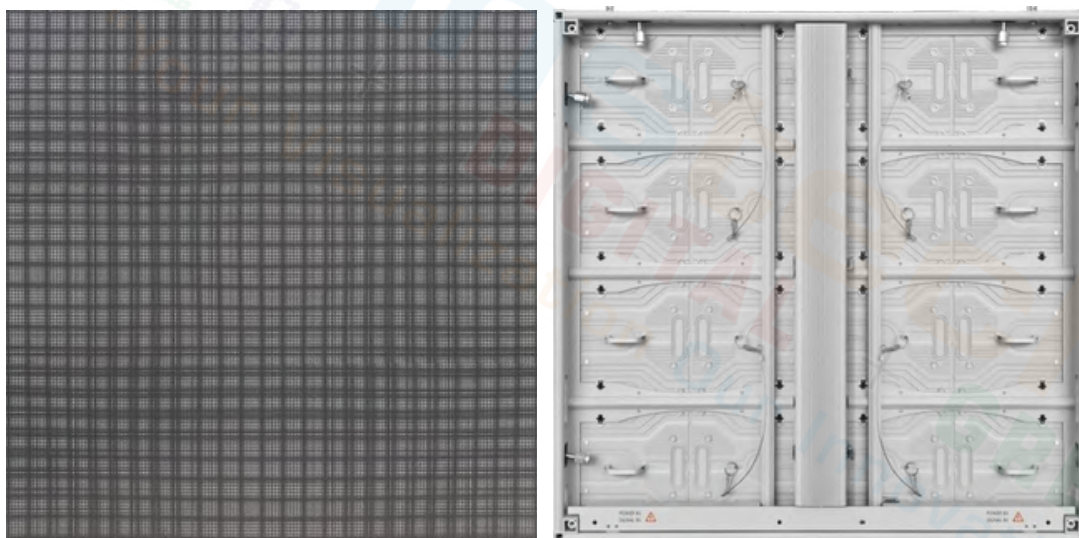
2.1 Module Pictures

Picture 2-1 Die-cast aluminium modules(500*250mm)



2.2 Cabinet Pictures

Picture 2-2 Profile cabinet(1000*1000mm)



2.3 Technical Parameters

Table 2-1 Technical Parameters

Item	FH2.97	FH3.91	FH4.81	FH6.25	FH7.81	FH10.42
Pixel Composition(SMD)	1415	1415	1921	2727	2727	2727
Pixel Pitch(mm)	2.97	3.91	4.81	6.25	7.81	10.42
Module Resolution(W×H)	168×84	128×64	104×52	80×40	64×32	48×24
Module Size(mm)	500×250					
Module Weight(kg)	1.93					
Module Qty/Cabinet(W×H)	2×4					
Cabinet Resolution(W×H)	336×336	256×256	208×208	160×160	128×128	96×96
Cabinet Size(mm)	1000×1000×85			1000×1000×87		
Cabinet Area(m²)	1					
Cabinet Weight(kg/cabinet)	25					
Cabinet Material	Profile Cabinet					
Cabinet Density (dot/m²)	112,896	65,536	43,264	25,600	16,384	9,216
IP Rating	IP66					
White Balance Brightness(nits)	≥5000	≥5500	≥6000	≥6500	≥6500	≥6500
Color Processor(bit)	14-16					
Color Temperature(K)	Adjustable from 6500 to 9000					
Visual Angle(H/V)	140°/ 120°					
Luminous point centre deviation	<3%					
Luminance uniformity	≥97%					
Chromaticity uniformity	Within ±0.003Cx, Cy					
Contrast Ratio	8000:1					
The Max Power Consumption(W/m²)	≤550	≤550	≤550	≤550	≤550	≤550
Average Power Consumption(W/m²)	≤186	≤186	≤186	≤186	≤186	≤186
Input Voltage	AC100~240V					
Frequency(Hz)	50&60					
IC Driving(s)	1/21	1/8	1/7	1/5	1/4	1/2
Refreshing Ratio(Hz)	3840/7680					
Maintenance Method	Front and Rear					
Lifespan(hrs)	100,000					
Work Temperature/Humidity	-30℃-60℃/10%RH-98%RH (Non Condensing)					
Storage Temperature/Humidity	-40℃-80℃/10%RH-98%RH (Non Condensing)					

*Note: Maximum power consumption fluctuates by 10% depending on the batch of LED chips, and specifications are subject to change without notice.

2.4 Packing List

Table 2-2 Packing List

Packing List	Quantity	Unit
LED Display	1	Set
User Manual	1	pcs
Approved Certificate	1	pcs
Warranty Card	1	pcs
Construction Notification	1	pcs

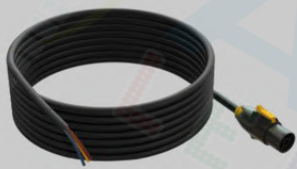
2.5 Power Supply Configuration Project

Table 2-3 Supply Configuration Project

Power Supply	Configuration Project
400W Power Supply	2pcs

2.6 Accessories

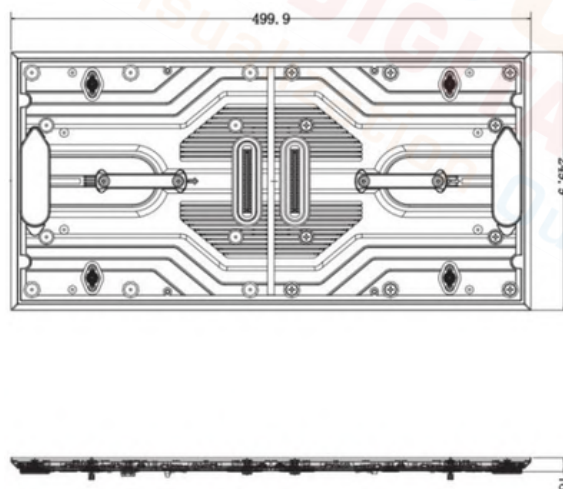
Table 2-4 Accessories List

Accessories		
		
Power Supply	Single Cable	Screws, Sleeve Piece
		
equipment for front and rear maintenance	connecting sheet	connecting sheet

Chapter 3 Installation

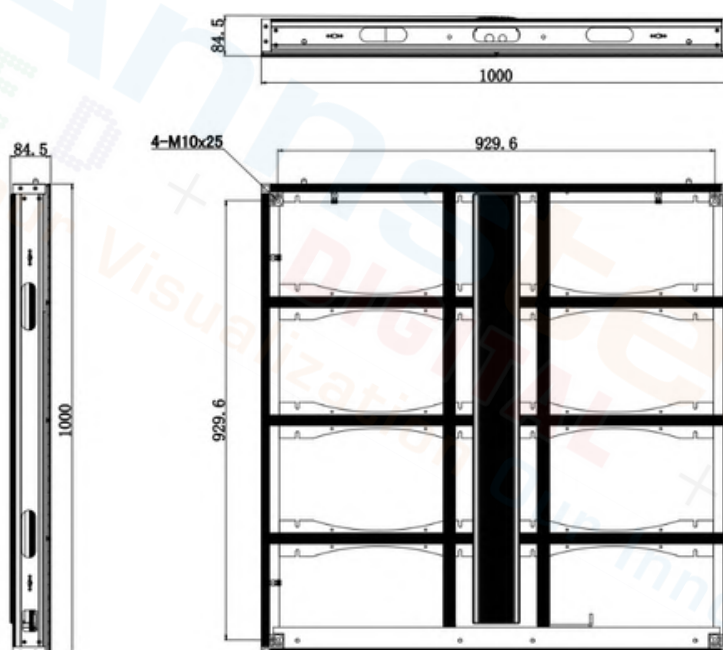
3.1 Kit Installation

Picture 3-1 Hole Installation Diagram for Kit



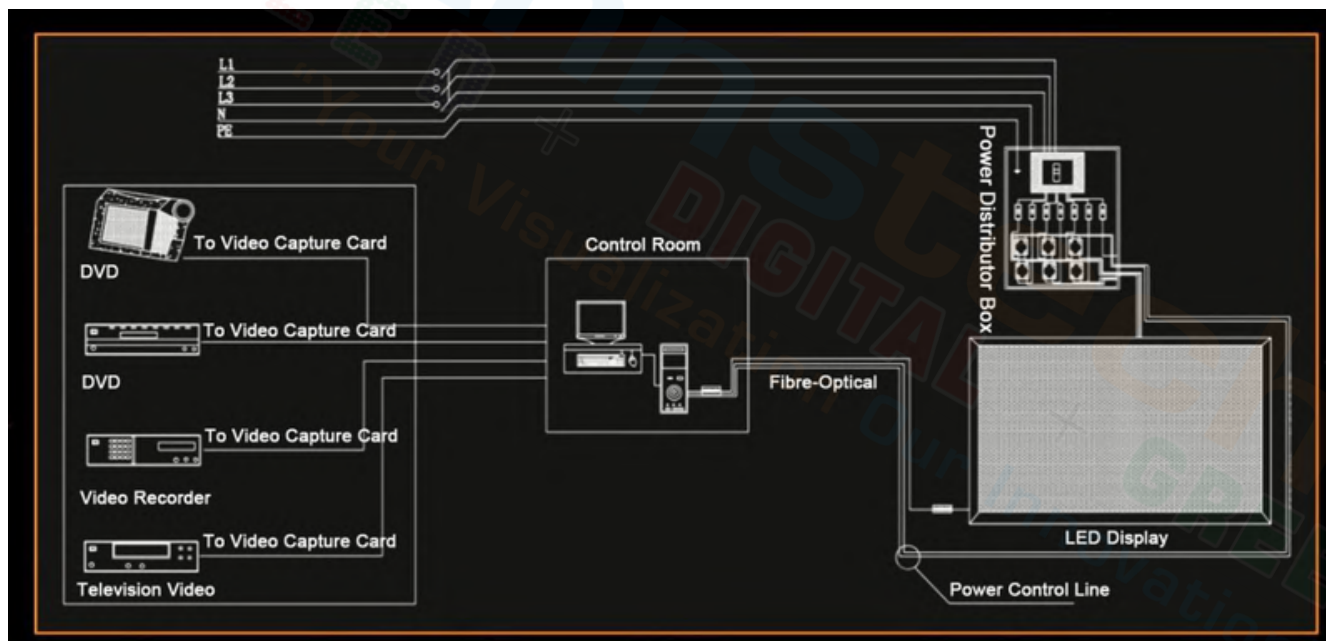
3.2 Cabinet Installation

Picture 3-2 Hole Installation Diagram for Kit



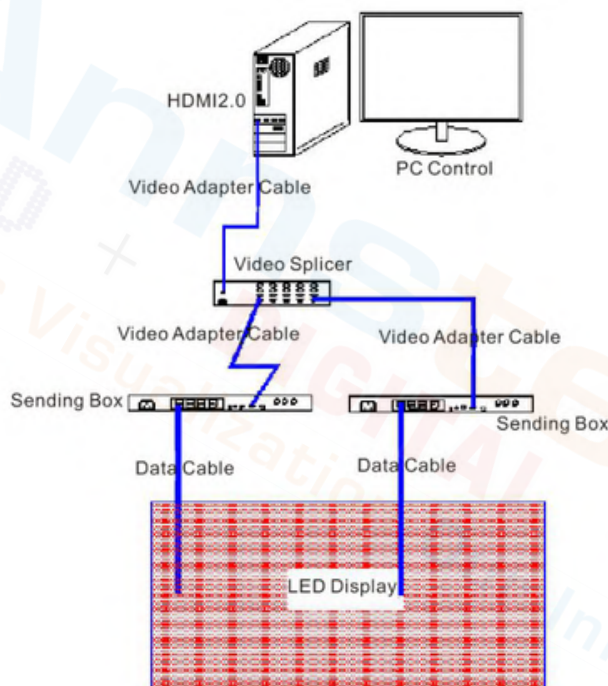
3.3 Display Installation

Picture 3-3 Diagram for Connection

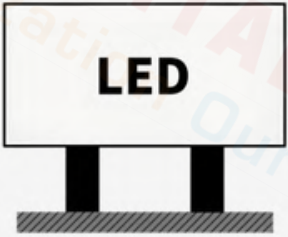


3.4 Networking Introduction

Picture 3-4 Topographic Picture for networking



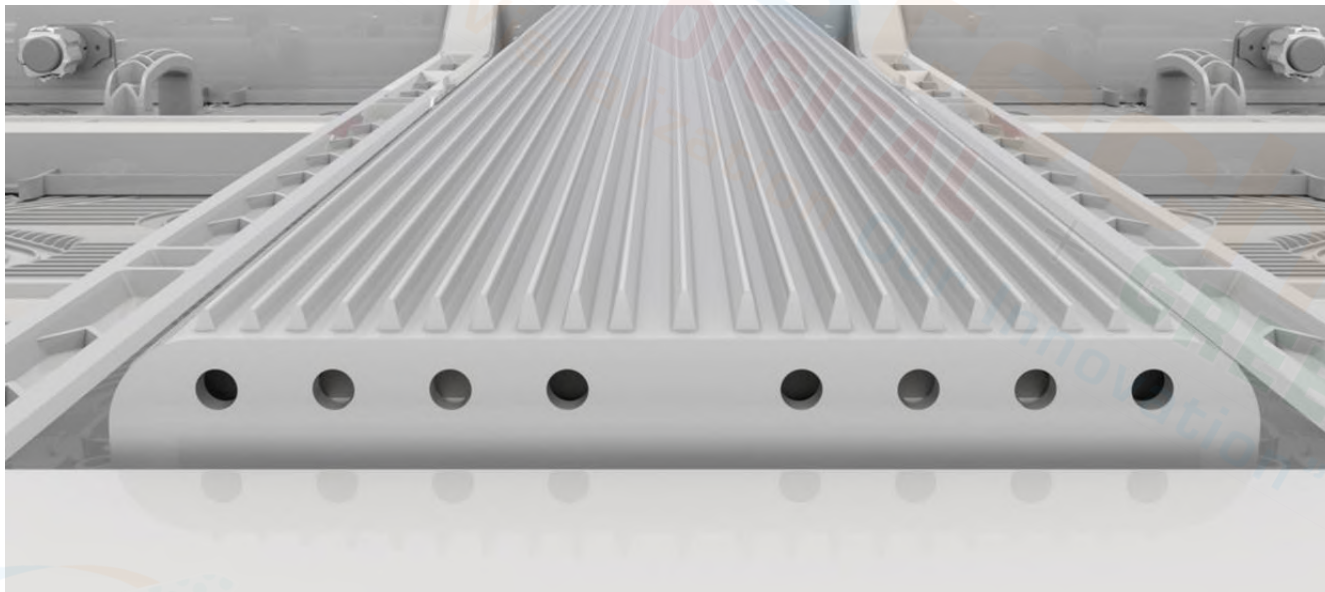
3.5 Installation Method

Installation Type	Picture
Hanging Style	
Supporting Style	
Landing Style	
Inlaying Style	
Struting Style	
Wall-attaching Style	

Chapter 4 Description for Product Features

4.1 Heat dissipation for double-layer power supply box

Double-layered power supply enclosure for aluminium extrusions, featuring an integrated concealed air duct to enhance natural heat dissipation, with provision for adding an internal fan.



4.2 Strong Adaptability for outdoor environmental condition





4.3 Structural Hard Link, Wireless Design.

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



4.4 Aluminum Profile Cabinet, Lightweight, Safety and Reliability, No Distortion.

FH 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 5 User Manual

5.1 Notification

Table 5-1 Notification

Item	Notification
Temperature	Keep the work temperature within -30°C~60°C
Humidity	Keep the storage temperature within -40°C~80°C
Waterproof	Keep the work humidity within 10%RH~98%RH
Dust-proof	Keep the storage humidity within 10%RH~98%RH
Anti-Electromagnetic radiation	IP66 IP66
Electrostatic Prevention	LED display shouldn't put under the environment where has strong interference by electromagnetic radiation, which would be easy to picture display abnormal.
Temperature	it should be ground connected well for power supply, cabinet, metal cover of display body, the resistance of ground connection<10Ω, to avoid making any damage to electric components.
Humidity	

5.2 User Manual

Table 5-2 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.

Item	User Manual
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	1.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. 2.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. 3.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.

5.3 Acceptance Request and Method

Table 5-3 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°, bottom angle 65°to LED display when making measurement, it is requested that LED display should not have obvious the problem of dark block. 