

Product Specification Sheet

Product Series: Grid Series Outdoor Module

Product Model: LC15HWP25- LC35HWP100

Document Revision History

No	Revision No.	Change Status	Description of Changes (+/-)	Approved By	Date
1	V1.0	C	Creation	Annie Bai	2024.11.23
2	V1.1	M	Modified the font/formatting & supplemented the product dimensions and usage precautions.	Kevin Meng	2025.08.25
3	V1.2	M	Modified the format and content of the specification	Joyce Dong	2025.09.09
4	V1.3	M	Modified product brightness parameters	Joyce Dong	2025.12.12
5	V1.3	M	Modification	Gloria	2026.06.08
6	V1.3	M	Modification	Lynn	2026.06.09

*Note on Change Status: C——Creation, A——Addition, M——Modification, D——Deletion

Disclaimer: This document outlines the technical parameters for the standard model within this series. The actual product specifications may vary based on the configuration specified in the sales contract. The images provided are for illustrative purposes only, the actual product may differ.

This document provides the technical specifications and images for the standard model, serving merely as a reference. The actual terms and details shall be governed by the contract.

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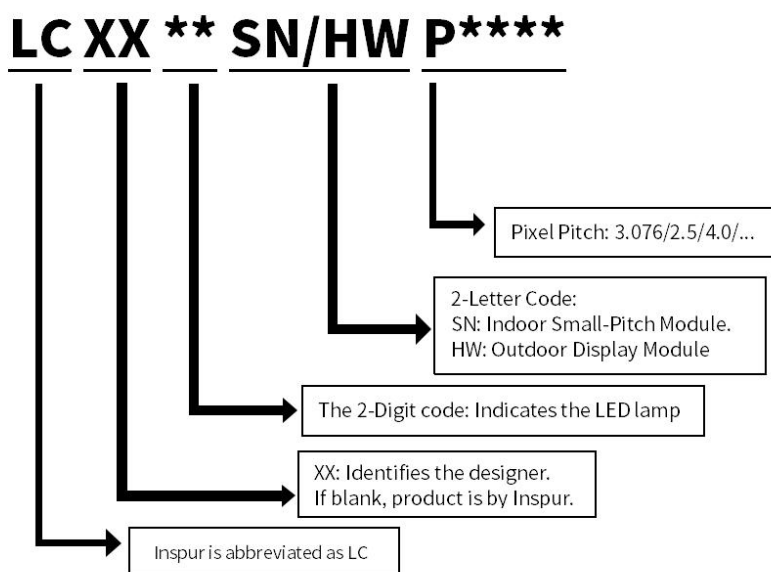
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1. Scope of Application

This technical manual applies exclusively to modules of the Grid Series, including models LC15HWP25, LC14HWP3076, LC19HWP40, LC19HWP50, LC27HWP6667, LC35HWP80, and LC35HWP100.

Below are the standard product specifications, customization is available for special requirements.

2. Naming Rules

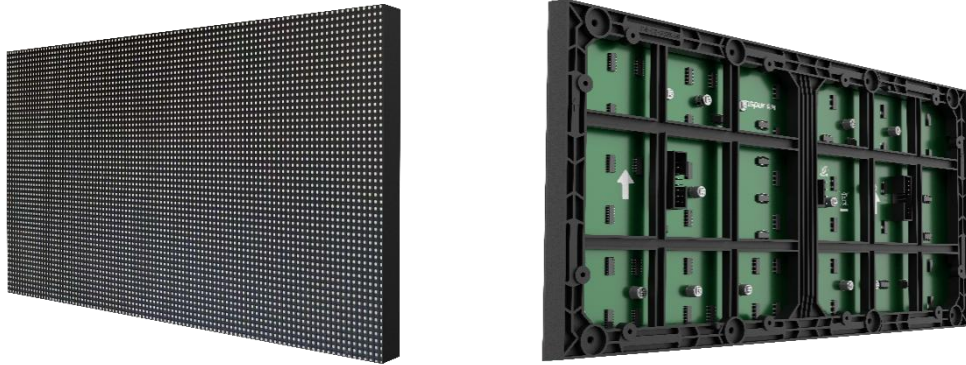


Example: The model LC14HWP3076 refers to an outdoor display module independently developed by Vision, featuring a pixel pitch of 3.076 mm.

3. Product Introduction

The Vision Grid Series LED outdoor modules support advanced HDR digital imaging technology, featuring high brightness, high contrast, and ultra-wide viewing angles. They deliver superior display performance from all perspectives, ensuring high reliability and long service life. These modules are widely deployed in outdoor settings such as urban landmarks, stadiums, commercial centers, and public squares.

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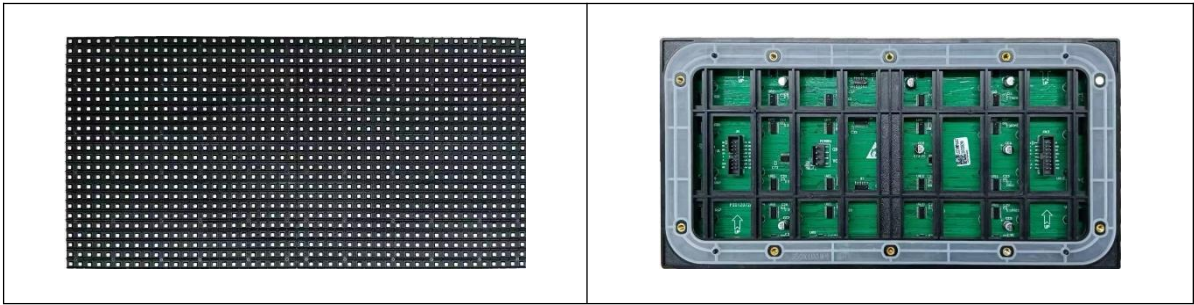
3.1 Product Features

- LED Lamps from reputable brands are selected, packaged with matte black brackets for uniform ink color.
- Optimized mask design enhances contrast and viewing angles.
- High brightness and contrast deliver exceptional visual performance.
- Ghost-free constant-current driving, over 14-bit broadcast-grade grayscale processing, wide color gamut coverage for lifelike display.
- Supports pixel-level brightness and chromaticity correction for refined image rendering.
- Reinforced ribs on both vertical and horizontal axes ensure product stability and reliability.
- Compatible with mainstream control systems via HUB interface for easy installation and maintenance.
- Premium-grade components and surface-mount technology minimize dead pixels, ensuring high reliability and longevity.
- High-performance outdoor protective potting is applied to the module's emitting surface, offering strong weather resistance for harsh environments.

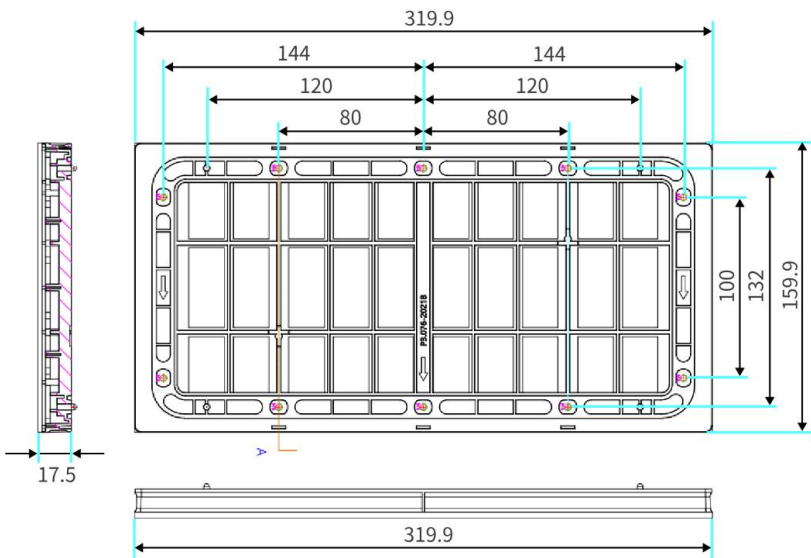
3.2 Module Images

Front (320×160mm)	Back (320×160mm)
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3.3 Product Dimensions



Unit: mm

Note: The dimension diagram uses P3076 as an example, data varies by model. Before fabricating the enclosure, confirm the hole location diagram for the ordered product with the company's Product Department. Refer to the CAD drawings for details.

4. Product Parameters

Grid Series LED Outdoor Modules								
Module	Number	LC15HW P25	LC14HW P3076	LC19HW P40	LC19HW P50	LC27HW P6667	LC35HW P80	LC35HW P100
	Pixel Structure	1R1G1B						
	LED Package	SMD 1415	SMD 1415	SMD 1921	SMD 1921	SMD 2727	SMD 3535	SMD 3535
	Pixel Pitch (mm)	2.5	3.076	4.0	5.0	6.667	8.0	10
	Module size (W×H×D)	320×160						
	Module Resolution	128×64	105×52	80×40	64×32	48×32	40×20	32×16

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	(W×H)							
	Pixel Density (dot/m ²)	160000	105688	62500	40000	22498	15625	10000
	Module Weight (kg)	0.43±0.1						
	Power Consumption	≤38W						
Optical Parameters	Luminous Point Pitch Deviation	<3%						
	Brightness (cd/m ²)	≥4500						
	Color Temperature	6500K (Adjustable from 2000 K to 9300 K)						
	Viewing Angle	Horizontal 140° / Vertical 140°						
	Brightness/Chromaticity Uniformity	≥97%						
	Maximum Contrast	5000:1						
Electrical Parameters	Peak Power (W/m ²)	≤760						
	Average Power Consumption (W/m ²)	≤255						
	Power Supply Requirements	DC 4.5 ~ 5 V						
Processing Performance	Single-Channel Luminance Calibration	support						
	Single-Channel Chromaticity Calibration	support						
	Scanning method	1/16 S	1/13 S	1/10 S	1/8 S	1/8 S	1/5 S	1/2 S
	Frame Change Frequency	50/60 Hz						
	Refresh Rate (Hz)	3840						
	Gray Level	16384						
	Processing Depth (bit)	14						
	Brightness control	Manual/Automatic/Programmable Control						
	Interface type	HUB75E						

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Usage parameters	Typical Lifespan (h)	≥50000
	Operating Temperature/Humidity	-20°C ~ 50°C / 10% ~ 90%RH (no condensation)
	Storage Temperature/Humidity	-40°C ~ 60°C / 10% ~ 90%RH (no condensation)
	Installation Method	Fixed Installation

5. Signal Interface Definition of Unit Panel

1	●	●	2	Pin	Signal	Function	Pin	Signal	Function
3	●	●	4	1	R1	Red Data Signal	2	G1	Green Data Signal
5	●	●	6	3	B1	Blue Data Signal	4	GND	Power Ground
7	●	●	8	5	R2	Red Data Signal	6	G2	Green Data Signal
9	●	●	10	7	B2	Blue Data Signal	8	GND	Power Ground
11	●	●	12	9	A	Row Decoding Signal	10	B	Row Decoding Signal
13	●	●	14	11	C	Row Decoding Signal	12	GND	Power Ground
15	●	●	16	13	CLK	Clock Signal	14	LAT	Latch Signal
HUB75E				15	OE	Enable Signal	16	GND	Power Ground

6. Precautions

Item		Description
Environmental Precautions	Temperature Requirements	Storage Temperature Range: -40°C to 60°C. Temperature adjustment (heating or cooling) is required for other temperature ranges. Operating Temperature Range: -20°C to 50°C. Temperature control equipment needs to be installed for other temperature ranges. Lamp Surface Temperature During Operation: ≤60°C. Temperature control equipment must be added if the temperature exceeds the limit.
	Humidity Requirements	Storage humidity range: 10% ~ 85%RH. Dehumidification treatment is required if the humidity exceeds 85%RH. Operating humidity range: 10% ~ 80%RH. The equipment can only be used normally after dehumidifying the operating environment when the humidity exceeds the standard.
	Handling of Overdue Storage	If the product remains unopened and in storage for more than one month, or if it has been unpacked and left without power for over 48 hours, it must undergo a

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		6-hour aging process before normal use. The aging method involves gradually increasing brightness: First, set the full-brightness level to 10% and allow it to warm up for over 1 hour. Then, increase the full-brightness level to 30% and let it warm up for another over 1 hour. Next, raise the full-brightness level to 60% and maintain it for over 2 hours of warm-up. After that, set the full-brightness level to 80% and allow for over 1 hour of warm-up. Finally, set the full-brightness level to 100% and let it warm up for over 1 hour. After completing these steps, adjust the brightness to the normal level to illuminate the screen. This process helps expel moisture, ensuring normal operation without any abnormalities.
	Dust Prevention Requirements	The back features an IP5X dust-resistance rating. To enhance the product's service life, the display screen should not be exposed to environments with excessive dust, such as dusty outdoor areas or high-dust indoor workshops. Special protective measures for the display enclosure are required.
	Corrosion-Resistant Gas Protection	Corrosive gases can cause corrosion and crystal leakage in electronic components.
	Electromagnetic Radiation Protection	The display should not be installed in environments where electromagnetic or radio frequency radiation exceeds a field strength of 5V/m.
	Anti-static	It prevents damage to electronic components caused by static electricity in humid environments and also avoids electrical leakage that could harm the human body.
	Shock Resistance	The display screen should be mounted on a sturdy and reliable installation structure that is free from intense vibrations.
	Keep Away from Water Sources	With an IPX4 waterproof rating on the back, the product cannot be installed without any protective covering. Since water conducts electricity and can cause short circuits in circuits, leading to damage to circuit components, it must be kept away from water sources.
	Prevent Lightning Strikes	As this product is designed for outdoor installation, appropriate lightning protection measures should be taken to prevent damage caused by lightning strikes, which could affect its normal use.
	Personal Injury Prevention	The installation angle and height of the display should be appropriate, and sharp edges should be packaged to prevent injury to personnel.
	Special Environment	When using LED displays in special environments, proper usage must be ensured according to the product's application environment. (Examples: 1. Seaside, swimming pools, bathhouses, basements, tunnels. 2. Chemical environments, sulfide environments, halogen environments. 3. Environments with heavy sand or dust. 4. Environments with strong ultraviolet radiation. 5. Environments with strong electromagnetic fields. 6. Environments

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		with temperatures below -20°C or above 55°C, etc.)
Usage Precautions	Cleaning Method	To clean the module surface, gently brush it with a soft-bristled brush. Do not use any liquid substances to clean the LED module surface, as this may damage the LED beads.
	Electrostatic Discharge (ESD) Protection	Installation personnel must wear anti-static wristbands and gloves, and all tools used during assembly must be properly grounded.
	Product Lot Number Management	Products from different lot numbers must not be installed on the same display screen. Otherwise, color blocks (mosaic patterns) may easily appear on the screen.
	Product Wiring	The unit board must not be directly connected to 220V, and the positive and negative power supply terminals of the unit board must not be reversed.
	Disassembly, Assembly, and Transportation Process	Do not dismantle, push, squeeze, or apply pressure to the modules to avoid damaging the display screen.
	No Touching While Powered On	It is strictly prohibited to touch or handle the LED display screen when it is powered on and in use, to prevent electrostatic discharge (ESD) generated by human body friction from damaging the LED lamps, Lamps, and other components.
	Installation Torque Control:	When connecting power wires, ensure that the screws on terminal connectors are tightly fastened to prevent looseness at the connection points, which could otherwise lead to high contact resistance, resulting in wire burning or product damage. The torque for M4 screws should be between 6.0~8.0 Kgf.cm, and for M3 screws, it should be between 4.0~6.0 Kgf.cm.
	No Live Working	It is strictly prohibited to assemble unit boards while they are powered on. Modules should be mounted and assembled on the wall only after the main power input has been disconnected. Inserting power cords or signal connections while the system is powered is not allowed.
	No Touching While Powered On	It is strictly prohibited for personnel to touch or handle the LED display screen while it is illuminated and in use, to prevent electrostatic discharge (ESD) caused by human friction from damaging the LED lights, Lamps, and other components.
	Safety Requirements	It is essential to ensure the stability of the power supply system, maintaining normal levels of frequency, voltage, and current harmonics. The metal components of the display screen, the housing of the switching power supply, and the enclosure must be properly grounded, with attention given to ensuring that the grounding resistance is $\leq 1\Omega$. Additionally, the leakage current to ground should not exceed 5% of the input current. The electrical strength should comply

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		with the provisions of Section 5.7.5 in the SJ/T11141-2017 General Specification for Light Emitting Diode (LED) Displays.
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Note:

The above parameters represent typical values for the product. Variations may occur across different production batches, and the actual parameters of the product shall be subject to the factory inspection report.

During the product manufacturing process, continuous optimization and iteration are carried out, and the product specifications may be adjusted at any time. Please consult with regional agents before making a purchase.

For customized products, a new specification sheet needs to be issued.

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