

Product Specification Sheet

Product Series: Aura Series Outdoor
Energy-saving LED Display

Product Model: EV9640-EV96100

Document Revision History

No	Revision No.	Change Status	Description of Changes (+/-)	Approved By	Date
1	V1.0	C	Creation	Jack Zhang	2024.12.23
2	V1.1	M	Modify the specification sheet format, scan parameters	Annie Bai	2025.05.14
3	V1.2	M	Modify the Brightness parameter to be Customization and add a default Brightness value selection	Kevin Meng	2025.08.27
4	V1.3	M	Modify the format and content of the specification sheet	Joyce Dong	2025.09.05
5	V1.4	M	Modified product brightness parameters	Joyce Dong	2025.12.12
6	V1.4	M	Modification	Gloria	2026.06.08
7	V1.4	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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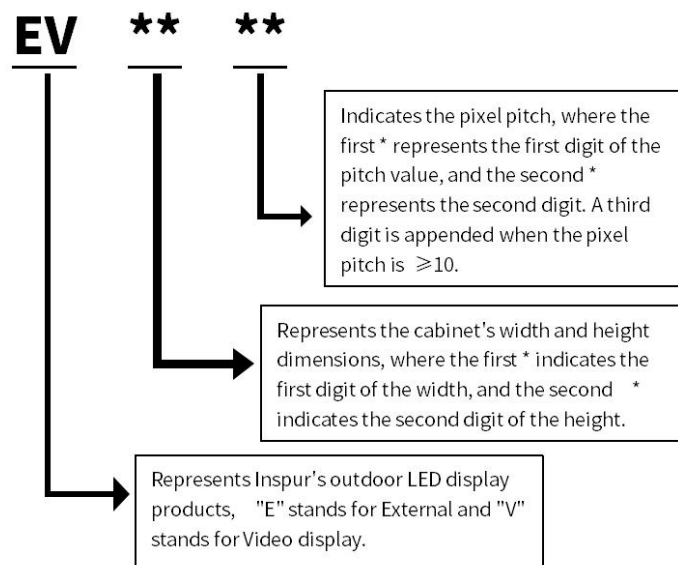
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1.Scope of Application

This technical manual is only applicable to the Cabinet of the Aura Series EV9640, EV9657, EV9667, EV9680, and EV96100. The following are the parameters of the regular type products, and customization is available for special requirements.

2.Naming Rules



Example: EV9640 refers to the LAC Vision outdoor LED large screen, with a cabinet of 960mm×960mm and a pixel pitch of 4.0mm.

3.Product Introduction

The LAC Vision Aura series outdoor bare-mounted energy-saving cold screens feature high contrast, high refresh rate, wide viewing angles, high fault detection reliability, and front/rear maintenance capabilities. The screens remain clear and vibrant even under direct sunlight, delivering natural and realistic display effects, making them highly suitable for outdoor advertising media.

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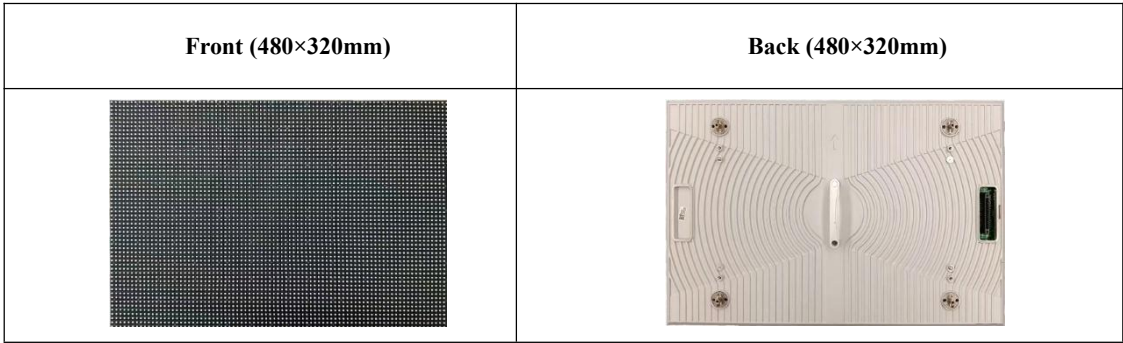


3.1 Product Features

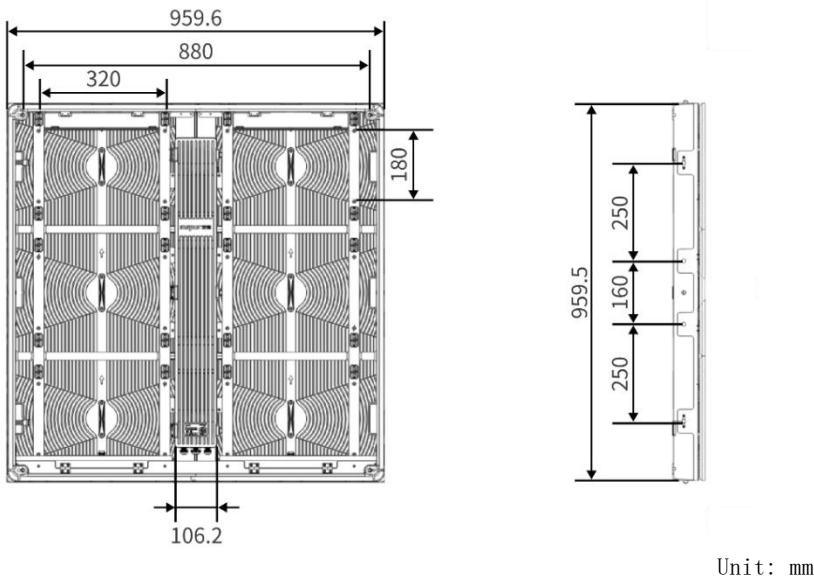
- The cabinet is die-cast and integrally formed, processed with CNC technology, ensuring high flatness and strong structural stability.
- IP66 high protection rating, fully waterproof modules, sealed design, and wireless plug-in connections, suitable for use in various harsh environments.
- Hollow bare-mounted structure, die-cast aluminum bottom shell, and professional-grade heat dissipation design for accelerated heat dissipation.
- Enhanced by energy-saving technology, the surface of the LED beads remains cool to the touch, utilizing natural air cooling without the need for external air conditioners.
- Supports an ultra-high refresh frequency of 7680 Hz, ensuring delicate and smooth picture display.
- High brightness and high contrast, providing an excellent visual experience.
- Supports front/rear maintenance, adapting to all installation environments and facilitating easy maintenance.
- Can be spliced in any direction and size, creating uniform images without visible seams.

3.2 Module Images

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3.3 Product Dimensions



4. Product Parameters

Aura Series Outdoor Energy-saving LED Display						
Module	Model	EV9640	EV9657	EV9667	EV9680	EV96100
	Pixel Structure	1R1G1B				
	LED Package	SMD1921	SMD2727	SMD2727	SMD2727	SMD3535
	Pixel Pitch (mm)	4	5.714	6.67	8	10
	Module Size (W×H)(mm)	480×320				
	Module Resolution (W×H)	120×80	84×56	72×48	60×40	48×32

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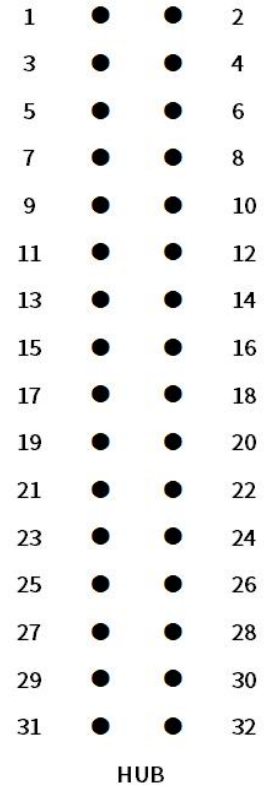
	Pixel Density (dot/m ²)	62500	30625	22500	15625	10000
Cabinet	Unit Module Composition	2×3				
	Unit Resolution (W×H)	240×240	168×168	144×144	120×120	96×96
	Unit Size (W×H×D)(mm)	960×960×88				
	Unit Weight (kg)	29.5				
	Maintenance Method	Front and back maintenance				
	Protection Rating	≥IP66				
	Cabinet Material	Die-cast aluminum				
	Flatness (mm)	≤0.2				
Optical Parameters	Pixel Correction	Support point-by-point correction of brightness and chromaticity				
	Brightness (cd/m ²)	5500~7500 (Supports high-brightness customization)				
	Color Temperature (K)	9000 (adjustable between 2000 K ~ 12000 K)				
	Viewing Angle	Horizontal 160°/vertical 120°				
	Brightness Uniformity	≥98%				
	Chromaticity Uniformity	Within ±0.003Cx, Cy				
	Maximum Contrast	5000:1				
Electrical Parameters	Peak Power Consumption (W/m ²)	≤520				
	Average Power Consumption (W/m ²)	≤170				
	Power Supply Requirements	AC 100 ~ 240 V (50/60 Hz)				
Processing Performance	Drive Mode (Constant Current Drive)	8S	8S	6S	4S	2S
	Frame Change Frequency	50/60 Hz				
	Refresh Rate (Hz)	3840 ~ 7680				
	Processing Depth (bit)	16				
Usage Parameters	Typical Lifespan (h)	≥100000				
	Operating Temperature/Humidity	-20°C ~ 50°C / 10% ~ 90%RH (no condensation)				
	Storage	-40°C ~ 80°C / 10% ~ 90%RH (no condensation)				

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	Temperature/Humidity	
	Installation Method	Outdoor fixed installation

5. Signal Interface Definition of Unit Panel

Pin	Signal	Function	Pin	Signal	Function
1	GND	Power Ground	2	GND	Power Ground
3	GND	Power Ground	4	GND	Power Ground
5	GND	Power Ground	6	GND	Power Ground
7	GND	Power Ground	8	GND	Power Ground
9	R1	Red Data Signal	10	G1	Green Data Signal
11	B1	Blue Data Signal	12	GND	Power Ground
13	R2	Red Data Signal	14	G2	Green Data Signal
15	B2	Blue Data Signal	16	GND	Power Ground
17	A	Row Decoding Signal	18	B	Row Decoding Signal
19	C	Row Decoding Signal	20	GND	Power Ground
21	CLK	Clock Signal	22	LAT	Latch Signal
23	OE	Enable Signal	24	GND	Power Ground
25	GND	Power Ground	26	GND	Power Ground
27	GND	Power Ground	28	GND	Power Ground
29	GND	Power Ground	30	GND	Power Ground
31	GND	Power Ground	32	GND	Power Ground



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6.Precautions

Item		Description
Environmental Precautions	Temperature Requirements	Storage Temperature Range: -40°C ~ 80°C. Temperature adjustment (heating/cooling) is required for other temperature ranges. Working Temperature Range: -20°C ~ 50°C. Temperature control equipment must be installed for other temperature ranges. During operation, the temperature of the LED panel surface should not exceed 60°C. Temperature control equipment must be added if the temperature exceeds this limit.
	Humidity Requirements	Storage Humidity Range: 10% ~ 90%RH. Dehumidification is required if the humidity exceeds 90%RH. Working Humidity Range: 10% ~ 90%RH. Dehumidification of the operating environment is necessary before normal use if the humidity exceeds this limit.
	Handling of Overdue Storage	If the product remains unopened and stored for more than one month or if it is powered off for more than 48 hours after being opened, a 6-hour aging process must be conducted before normal use. The aging process involves gradually increasing brightness as follows: Sequentially set the full brightness to 10% and preheat for more than 1 hour, then to 30% and preheat for more than 1 hour, followed by 60% and preheat for more than 2 hours, then 80% and preheat for more than 1 hour, and finally to 100% and preheat for more than 1 hour. Afterward, adjust the brightness to the normal level to illuminate the screen, thereby expelling moisture and ensuring normal operation without any abnormalities.
	Dust Prevention Requirements	The back of the product has an IP6X dustproof rating. To enhance product lifespan, minimize exposure to dusty environments, such as outdoor areas with heavy sand or dust or indoor high-dust workshops.
	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.
	Vibration Protection	The display should be installed on a sturdy and reliable mounting structure without strong vibrations.
	Lightning Protection	As this product is designed for outdoor installation, appropriate lightning protection measures must be implemented to prevent damage from lightning strikes and ensure normal use.
	Personal Injury	The installation angle and height of the display should be appropriate, and sharp

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	Prevention	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 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.
	Safety Requirements	Ensure the stability of the power supply system, maintain normal levels of frequency, voltage, and current harmonics. The metal components of the screen, switch power supply casings, and cabinets must be well-grounded. Note that the grounding resistance should be $\leq 1\Omega$, and the leakage current to ground should not exceed 5% of the input current. The electrical strength should meet the requirements specified in Section 5.7.5 of SJ/T11141-2017 General Specification for Light-Emitting Diode (LED) Displays.

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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