LAC Vision

Product
Specification Sheet

Product Series: Stage Series LED Rental Display

Product Model: LC***T-500-H

Document Revision History

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.

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	Modified the format of the specification and scanned the parameters.	Annie Bai	2025.05.14
3	V1.2	M	Modified the format and content of the specification	Joyce Dong	2025.08.21
4	V1.2	M	Modification	Gloria	2026.06.08
5	V1.2	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.

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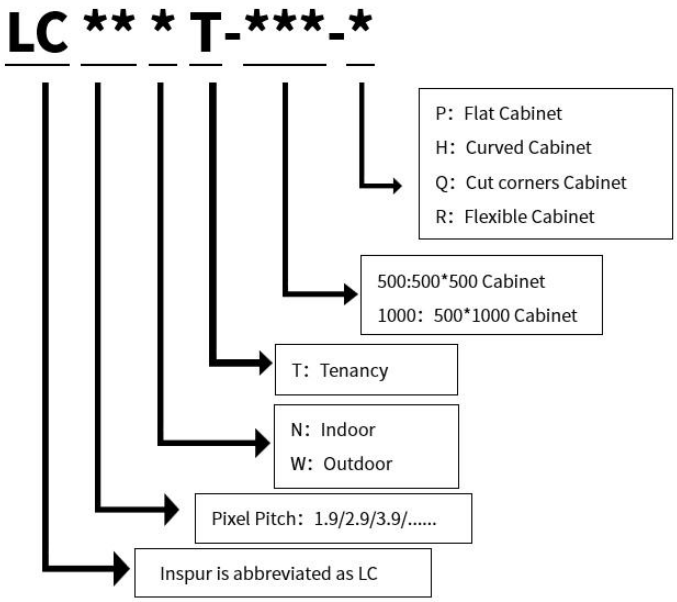
1. Scope of Application

This technical manual applies exclusively to the unit boards of the Stage Series models LC1.9NT-500-H, LC2.6NT-500-H, LC2.9NT-500-H, LC3.9NT-500-H, LC2.9WT-500-H, and LC3.9WT-500-H. The parameters provided below are for standard product configurations; custom specifications are available for specialized requirements.

2. Naming Rules

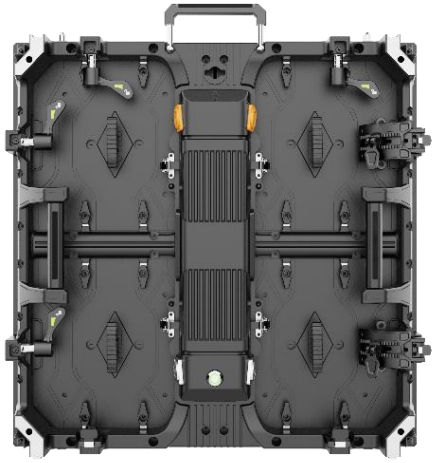


Example: The LC2.9NT-500-P is an indoor product within the Stage Series, featuring a pixel pitch of 2.9 mm and housed in a flat cabinet with dimensions of 500 * 500.

3. Product Introduction

LAC Vision Stage series rental LED screens stand out with their remarkable attributes, including ultra - high brightness, exceptional contrast, and rapid refresh rates, ensuring top - notch visual presentation. Designed for rapid assembly and disassembly, these screens feature slim and lightweight cabinets. They are versatile enough to be deployed in both indoor and outdoor environments. With two cabinet size

options available, they can be flexibly arranged in a variety of shapes, such as flat, curved, or right - angled configurations. This makes the installation process straightforward and the subsequent maintenance hassle - free.



3.1 Product Features

- 500 * 500 and 500 * 1000 international mainstream die - casting aluminum cabinets, featuring high - precision splicing for seamless display.
- Lightweight design with a convenient fixed structure, enabling rapid assembly and disassembly.
- An ultra - high refresh rate of 3840 Hz, delivering delicate and smooth picture display.
- Multi - angle adjustable arc design, facilitating easy construction of both convex and concave arcs.
- The modules support front and rear maintenance, and the central control box is detachable for convenient upkeep.
- Broadcast - level grayscale processing display, presenting rich image details.
- Supporting floor - mounting and ceiling - suspension installations to meet various stage construction requirements.

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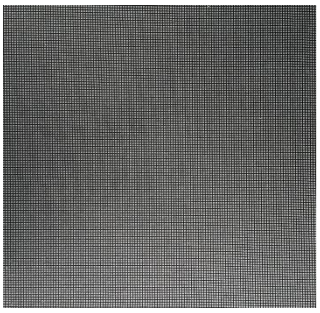
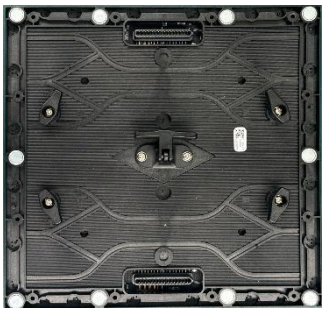
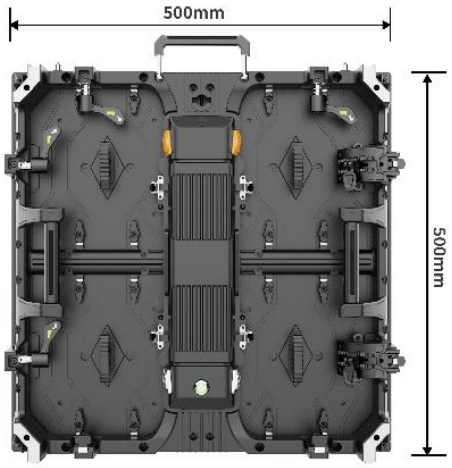
3.2 Module Images

Front（250×250mm）	Back（250×250mm）
	

3.3 Product Dimensions



4. Product Parameters

500×500 Cabinet							
Module	Type - H Series	LC1.9NT	LC2.6NT	LC2.9NT	LC3.9NT	LC2.9WT	LC3.9WT
	Pixel Structure	SMD 3 - in - 1					
	Pixel Pitch（mm）	1.953	2.604	2.976	3.91	2.976	3.91
	Module size（W×H×D）（mm）	250×250×16.5					
	Module Resolution（W×H）	128×128	96×96	84×84	64×64	84×84	64×64
	Pixel Density (dot/m²)	262144	147456	112896	65536	112896	65536
Cabinet	Unit Module Composition	2×2					

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	Cabinet Resolution（W×H）	256×256	192×192	168×168	128×128	168×168	128×128
	Cabinet size（W×H×D）	500×500×81.5				500×500×86	
	Unit Weight (kg)	6.5±0.5				7.0±0.5	
	Maintenance Method	Front and back maintenance					
	Level of Protection	IP30				IP65	
	Cabinet Material	Die-cast aluminum					
	Flatness (mm)	≤0.1 mm					
Optical Parameters	Brightness (cd/m²)	800				4500	
	Color Temperature	6500 (adjustable between 2000 K ~ 9500 K)					
	Horizontal Viewing Angle	160°					
	Vertical Viewing Angle	160°	160°	160°	140°	160°	140°
	Brightness/Chromin-ance Uniformity	≥98%					
	Maximum Contrast	5000:1					
Electrical Parameters	Peak Power (W/m²)	≤500				≤580	
	Average Power Consumption (W/m²)	≤160				≤190	
	Power Supply Requirements	AC 100 ~ 240 V（50/60 Hz）					
Processing Performance	Scan Count (Constant Current Drive)	1/32 S	1/24 S	1/28 S	1/16 S	1/14 S	1/8 S
	Frame Change Frequency	50/60 Hz					
	Refresh Rate (Hz)	3840 ~ 7680					
	Processing Depth (bit)	14 ~ 16					
Usage Parameters	Typical Lifespan (h)	≥100000					
	Operating Temperature/Humidity	-10°C ~ 45°C / 10% ~ 80%RH (no condensation)				-10°C ~ 50°C / 10% ~ 90%RH(no condensation)	
	Storage Temperature/Humidity	-20°C ~ 55°C / 10% ~ 85%RH (no condensation)				-20°C ~ 55°C / 10% ~ 95%RH(no condensation)	
	Radian Range	-12.5°~15°					

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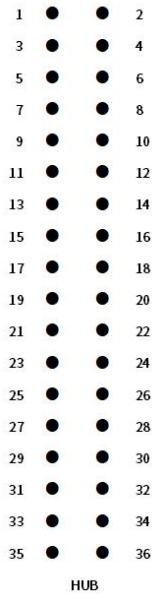
5. Signal Interface Definition of Unit Panel



Pin	Signal	Function	Pin	Signal	Function
1	VCC	Volt Current Condenser	2	VCC	Volt Current Condenser
3	GND	Power Ground	4	VCC	Volt Current Condenser
5	GND	Power Ground	6	GND	Power Ground
7	G1	Green Data Signal	8	R1	Red Data Signal
9	R2	Red Data Signal	10	B1	Blue Data Signal
11	B2	Blue Data Signal	12	G2	Green Data Signal
13	G3	Green Data Signal	14	R3	Red Data Signal
15	R4	Red Data Signal	16	B3	Blue Data Signal
17	B4	Blue Data Signal	18	G4	Green Data Signal
19	B	Row Decoding Signal	20	A	Row Decoding Signal
21	GND	Power Ground	22	C	Row Decoding Signal
23	LAT	Latch Signal	24	CLK	Clock Signal
25	GND	Power Ground	26	OE	Enable Signal
27	NC	None	28	NC	None
29	NC	None	30	NC	None
31	GND	Power Ground	32	GND	Power Ground
33	VCC	Volt Current Condenser	34	GND	Power Ground
35	VCC	Volt Current Condenser	36	VCC	Volt Current Condenser

6. Precautions

Item		Description
Environmental Precautions	Temperature Requirements	Storage temperature range: -20°C ~ 55°C. Thermal dissipation and cooling measures are required if the temperature exceeds 55°C. Operating temperature range: -10°C ~ 45°C. Temperature control equipment needs to be installed for other temperature ranges.
	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 screen has not been used for more than 3 days, a warm-up lighting method should be adopted each time it is turned on: First, illuminate the screen at 30% to 50% brightness for 4 to 8 hours as a

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		warm-up, and then adjust it to normal brightness (80% to 100%) to turn on the screen, thereby expelling moisture and ensuring normal operation without any abnormalities during use. If the screen has not been used for more than 7 days, a warm-up lighting method should be adopted each time it is turned on: First, illuminate the screen at 30% to 50% brightness for over 12 hours as a warm-up, and then adjust it to normal brightness (80% to 100%) to turn on the screen, thereby expelling moisture and ensuring normal operation without any abnormalities during use.
	Dust Prevention Requirements	For indoor products without an ingress protection (IP) rating or with an IP rating of IP30, the display screens should not be exposed to environments with excessive dust, such as during studio renovation or reconstruction. Special protection measures must be taken for the display screens. LED display screens should not be installed during the renovation process.
	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.
	Avoid strong light exposure	Strong light exposure can affect the display performance and lifespan of the screen. It should be installed in a direction that avoids prolonged direct sunlight.
	Keep away from water sources	Indoor products generally have low protection ratings. Since water is conductive and can cause short circuits in circuits, leading to damage to circuit components, they must be kept away from water sources.
	Static Electricity Hazards and Lightning Protection	The metallic components of the display screen, the casing of the switching power supply, and the enclosure must be well-grounded, with the grounding resistance kept at or below 1Ω. This measure is essential to prevent damage to electronic components caused by static electricity in humid conditions and to safeguard against electrical leakage that could pose a risk to human safety.
	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

		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.
	Liquid Protection during Disassembly and Maintenance	During disassembly and assembly operations, ensure no sweat or other liquids drip onto the display screen. If any liquid does come into contact with the screen, clean it immediately with alcohol to prevent corrosion damage to the product.
	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, chips, and other components.
	Environmental Inspection	A thermometer should be installed at the display screen installation site to continuously monitor the ambient conditions around the screen. After heavy rain, it is essential to promptly inspect the interior of the display screen for any signs of moisture, water droplets, or humidity-related issues.

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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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