LC Series

LC1.86P

LED Display Light Everywhere



Product features:

- **320X160mm universal size**
- **Bottom case texture design**
- **High-quality lamp beads**

  Lamp beads do not fall off easily.



- **New design of PCB board is more reliable**
- **Lightweight installation**

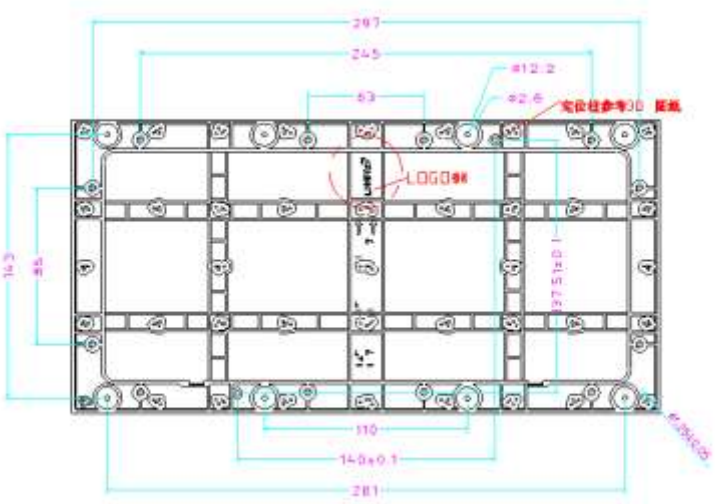
  Module as a unit for assembling, reduced screen weight, reduce the structural load of the building.



- **Excellent visual experience**
- **Good Compatibility**

  Replace the indoor ***P1.2~P4*** module with the same series.

- **Support for coating process***
- **Supports 45° tangent angle***
- **Support 7680Hz refresh***



Note: Drawings are for reference only.

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SPECIFICATION PARAMETERS:

	Parameter	Value
Module	Pixel Pitch	1.86mm
	LED Type	SMD1515
	Module Resolution（W×H）	172×86=14792 Pixels
	Pixel density（pixels/sq.m.）	288906 dot/㎡
	Module Size (WxHXD)	W320mmxH160mmxD16mm
	Module Weight	0.43±0.02kg
	HUB	HUB75
Optical	Single-dot Brightness Calibration	Support
	Brightness	450~500 cd/㎡
	Color Temperature	2000K ~ 9300K Adjustable
	Beam Angle（Hor/Ver°）	140°/140°
	Brightness/Color Uniformity	⩾98%
	Contrast Ratio	5000:1
Electroni	Input Power <Max>	300 W/㎡
	Input Power <Typical>	90 W/㎡
	Power Supply Input Voltage	AC90 ~ 132V/ AC186 ~ 264V, Frequency 47-63（Hz）
Performance	Frame Changing Frequency	60Hz
	Refresh Rate	3840Hz（Standard） 7680Hz（Optional）
	Processing Depth	12~14Bit
	Video Support	2K HD, 4K UHD
Environm	Life Span（hrs）	100000hrs
	Working Temp/Humidity（℃/RH）	-20℃~45℃ / 10%~50%RH (No Condensation)
	Storage Temp/Humidity（℃/RH）	-20℃~50℃ / 10%~60%RH (No Condensation)
	Certification	BIS/CE/CB/ROHS/EAC

Note:

1.Product pictures are for illustration only, the actual product effects (including but not limited to appearance, color, size) may be slightly different, please refer to the actual product.

2.The specification parameters are reference values. Part of the data comes from Unilumin' s internal laboratory and is obtained under a specific test environment. In actual use, it may be slightly different due to product batch differences, configuration differences, software versions, use conditions and environmental factors. Actual usage shall prevail.

3. Different configurations can achieve different refresh rates.

ENVIRONMENTAL PRECAUTIONS:

① **Temperature range:** Working temperature control at -20-45℃;

Storage temperature control at -20-50℃;

② **Humidity range:** Working humidity control at 10%-50%RH;

Storage humidity control at 10%-60%RH;

③ **Waterproof:** Protection class IP30 for indoor products (lamp face), water can easily cause a short circuit, resulting in damage to the circuit board and components.Therefore, indoor products need to be kept away from water sources and must not be cleaned to avoid liquid leakage into the screen;

④ **Dustproof:** Protection class IP30 for indoor products (lamp face), the display is exposed to a dusty environment, which can easily cause circuit short circuits, resulting in damage to the circuit board and components;

⑤ **Anti-electromagnetic radiation:** The display should not be placed in the electromagnetic radiation interference in the environment, easy to cause the screen display abnormalities, affecting the display effect;

⑥ **Anti-static:** Power supply, cabinet, screen metal shell need to be well grounded, ground resistance < 10Ω, avoid static damage to electronics;

⑦ **Protect against corrosive gases:** Corrosive gases contain salt or acid gases in the air, which can cause corrosion of electronic components, crystallization leakage and other phenomena;

⑧ **Anti-rodent and pest control:** Rodents and insects chew on the wire, which can cause damage to the wire, rodent and insect excreta have a certain degree of corrosiveness to electronic devices, excessive corrosion is prone to cause damage to electronic components.

PRECAUTIONS FOR USE AND OPERATION:

① **Electrostatic protection：** Installers need to wear electrostatic rings and electrostatic gloves, and each tool in the assembly needs to be strictly grounded;

② **Connect the lines:** The module has positive and negative silkscreen markings, cannot be reversed, and is strictly prohibited from connecting to 220V AC power;

③ **Method of operation：** It is strictly prohibited to assemble modules, cabinets, and complete screens under energized conditions. it needs to be operated under complete power failure to protect personal safety; It is forbidden for personnel to touch the display when it is lit, so as to avoid the static electricity generated by human body friction to break through the LED and components;

④ **Disassembly and transportation:** The modules shall not be dropped, pushed, squeezed or crushed, prevent the module from falling and bumping, so as to avoid rupture of the kit, damage to the lamp beads and other problems; Especially indoor/outdoor small-pitch products should not be violently disassembled and handled;

⑤ **Environment check:** The display site needs to be configured with a temperature and humidity meter to monitor the environment around the screen, in order to find out in time whether the display has moisture, water vapor and other problems; The mounting position should not be close and directly in front of air conditioning vents and heaters and other appliances that have a significant effect on temperature;

⑥ **Environment of use:** It is strictly prohibited to install the indoor module magnet in an outdoor or sub outdoor environment; Non-customized outdoor conventional products are prohibited from being installed near seashores and high salt, acid, and alkaline sites;

⑦ **Playback control:** Please do not display only static screen or static text for a long period of time, which will cause serious attenuation of lamp brightness or lead to batch dead lamp problem, scrolling screen or text need to be played;

⑧ **Reserve craft seams:** When installing outdoor products, the process seam between module and module & between box and box should be reserved to avoid various display problems caused by thermal expansion and contraction of products;

⑨ **Avoid construction on the installed LED display screen：** LED display installation is strictly prohibited after re-construction to prevent the LED display by the impact of high current and dust, such as: welding, chainsaw and other equipment operation;

⑩ **Use of the display:**

A、The ambient humidity in the range of 10%-65% RH, it is recommended that the screen should be opened once a day, each normal use of more than 4 hours to remove moisture from the display;

B、When the ambient humidity is above 65%RH, it is necessary to dehumidify the environment and it is recommended to use it normally for more than 8 hours a day and close the doors and windows to prevent the display from being damp and causing defects;

C、When the display is not in use for a long time, the display needs to be preheated and dehumidified before use to avoid moisture caused by bad lamps, the specific way: 20% of the brightness is lit for 2 hours, 40% of the brightness is lit for 2 hours, 60% of the brightness is lit for 2 hours, 80% of the brightness is lit for 2 hours, and 100 brightness is lit for 2 hours, and so the brightness of the gradual increase in aging.

PRODUCT PACKAGING DESCRIPTION:

① **Package content:** 1 pack of 40

② **Package size:** L655*W365*H395mm

③ **Packaging appearance:** Refer to the following figure



DISPLAY ACCEPTANCE REQUIREMENTS AND METHODS:

① **Screen Brightness:** Set the display to full brightness and complete the display brightness measurement with the light gun within 10 minutes. When measuring the brightness, the light gun is required to be perpendicular to the screen. Adjust the distance between the light gun and the display to ensure that the black position of the observation window covers more than 16 pixel points, adjust the focus so that the LED beads can be clearly seen in the eyepiece, and then measure and read the brightness data;

② **Viewing angle:** Measurement of people standing in the screen body around 160 °, screen body under the perspective of 80 ° position observation, the screen body is required to have no obvious black spots, no obvious dark block problem;

③ **Grounding:** The switching power supply shell, box, screen structure is correctly grounded, and the grounding point is correctly grounded to the label marking;

④ **Lightning treatment:** The building is required to have lightning rods or lightning belt facilities and effective grounding, the power distribution box is required to have a surge protector.