



VIRON

**SOUTH AFRICA
EXCLUSIVE DISTRIBUTOR**

**UNITED ARAB EMIRATES
DISTRIBUTOR**

LED
DISPLAY
Product
CATALOGUE

About Us



829

Granted and accepted patents

3,000+

COB display projects worldwide

40,000+ m²

COB display projects worldwide

Company Introduction

Founded in 2004, Ledman Optoelectronic co., Ltd.(stock name:Ledman, stock code:300162), is one of the leading LED UHD display companies in the world. With about 20 years of experience in innovating COB display technology and 8K UHD display products, Ledman became the first high-tech list LED display company in China. As a reliable LED display manufacturer, Ledman was involved in many projects and solutions - the Ice and Snow Five Rings display products in the opening ceremony of the Beijing 2022 Winter Olympics. Ledman provides 8K Micro LED UHD display products based on our patent advanced COB technology. With the development of technology, we have for many years ranked first in the market share of the LED fine-pitch COB displays industry.

As a premier LED display manufacturer, Ledman has continued to lead the development of UHD display technology since we established it. Specializing in cutting-edge technology, we have successfully produced and developed a comprehensive suite of solutions and LED display products. We supply Ledman UHD display based on COB technology, Ledman LEDHUB interactive conference/education AIO, Ledman LEDPLAY UHD home giant video wall, LED creative display, and LED lighting. We are committed to delivering satisfaction to our customers and leading the development of the UHD LED display technology industry.

Production Base

High-Tech Manufacturing Base

Ledman Manufacturing Center is a wholly-owned subsidiary of Ledman, located in Huizhou, Guangdong Province. The Manufacturing Center is a large-scale manufacturing and R&D base for Ledman Optoelectronics, focusing on advanced COB and SMD packaging technologies for ultra-high-definition display products.

The Manufacturing Center covers a total area of 93,000 square meters and officially started operations in 2012. It is equipped with automated high-precision production equipment, a 10,000-square-meter anti-static cleanroom, and multiple fully automated imported production lines, creating an information-driven and intelligent production facility.

The Manufacturing Center boasts a team with nearly 20 years of experience in LED R&D. It possesses domestic high-level testing and experimental instruments for Micro LED optoelectronics, non-destructive analysis, mechanics, environmental testing, safety standards, electromagnetic compatibility, and failure analysis, providing high-quality LED products to over 100 countries and regions worldwide.



Solutions



Professional Display Solutions

Offering visual technologies to the mission-critical applications, Our Professional LED solutions portfolio not only offers high reliability LED display but also incorporates software systems to bring together of different sources into one panel while ensuring optimum security. Our solutions span the complete landscape, including public security, emergency control and command centers, smart city management centers, broadcast and conference rooms.

Commercial Display Solutions

Ledman indoor and outdoor commercial display solutions offer integration of project planning, control systems, product design, and construction to provide a comprehensive one-stop customized visual solution for high-end chain stores, urban complexes, outdoor advertising, architectural decoration, etc.

Solutions



Smart Conference Display Solutions

Based on the world's leading Micro LED display panel, this AIO (LEDHUB) system is designed for medium and large conference rooms, and it uses intelligence to subvert the conference experience. Currently, several display systems commonly used in large and medium-sized conference rooms generally have four major drawbacks: unclear viewing, inability to connect, inconvenient writing, and no remote control, which seriously restricts the efficiency and effectiveness of the meeting. The system has fully overcome the above four major problems and is a perfect solution tailored for large and medium-sized conference rooms.

Solutions



Education Solutions


Based on the traditional blackboard, the infrared AIO(LED-HUB) design is adopted to enable the writing on the blackboard to have Internet functions such as recording, broadcasting, and synchronous display.

The product can integrate traditional blackboards, computers, touch TVs or electronic green boards and sensors, etc., which not only retains the traditional chalk writing function, but also integrates modern electronic teaching equipment and teaching software resources.

Rental and Staging Display Solutions

Ledman Rental & Staging displays dazzle your audience with a vibrant and impactful visual performance. Our provides best-in-class rental & staging LED displays for exquisite live events, conferences, exhibitions, house of worship, offer ease-of-use, durability, and visual excellence for the shows.

After-Sales Service

Engineering Installation Services	Aftermarket Maintenance Services	Training Services
<p>Delivery of engineering implementation</p> <p>Provide one-stop project delivery services such as display site survey, program design, steel structure construction, display installation and system commissioning</p> <p>On-site guidance and training</p> <p>Provide on-site display installation technical guidance, system commissioning, operation guidance, use and maintenance training</p> <p>Remote guidance installation</p> <p>Customers can seek remote technical support guidance service through telephone, Email and other means if they have any problems during the installation process</p>	<p>Troubleshooting</p> <p>According to the display failure level and contract agreement, Ledman will arrange professional after-sales service engineers to solve the problem on site</p> <p>Remote technical guidance</p> <p>Customers in the use process, if any problem, you can seek remote technical support guidance services by phone, Email and other ways</p> <p>Parts sending repair</p> <p>Technical inspection visit</p> <p>Regular after-sales inspection visits to the display equipment, to ensure that the product to achieve the best use of the effect, and constantly improve the product power and service</p>	<p>Regularly carry out Ledman Optronics Partner Certified Engineer (LCE) training to continuously improve the technical ability and professionalism of our partners and enhance customer satisfaction</p> 

Global Service Network



Europe

Amsterdam, Netherlands
Rotterdam, Netherlands
Moscow, Russia

Asia

Tokyo, Japan

Latin America

Mexico City, Mexico

Middle East

Dubai, United Arab Emirates

South Africa

Viron Group, Johannesburg

North America

Orlando, USA

South America

Brasília, Brazil

Classic Cases



N Series N10 101sqm Dubai



M Series M1.5 5.2sqm Germany



D Series D2 13sqm USA



Dpro Series DPI3.9 200sqm Italy



M Series M1.2 3.3sqm Germany

Classic Cases



E Series E3 26sqm USA



E Series E3 56sqm Spain



E Series E2.9 cervé 16sqm Australia



N Series N10 88sqm Puerto Rico



N Series N10W 359sqm Serbia

Classic Cases



P25-50 3880sqm Russia



P10 188sqm Belgium



South China University of Technology

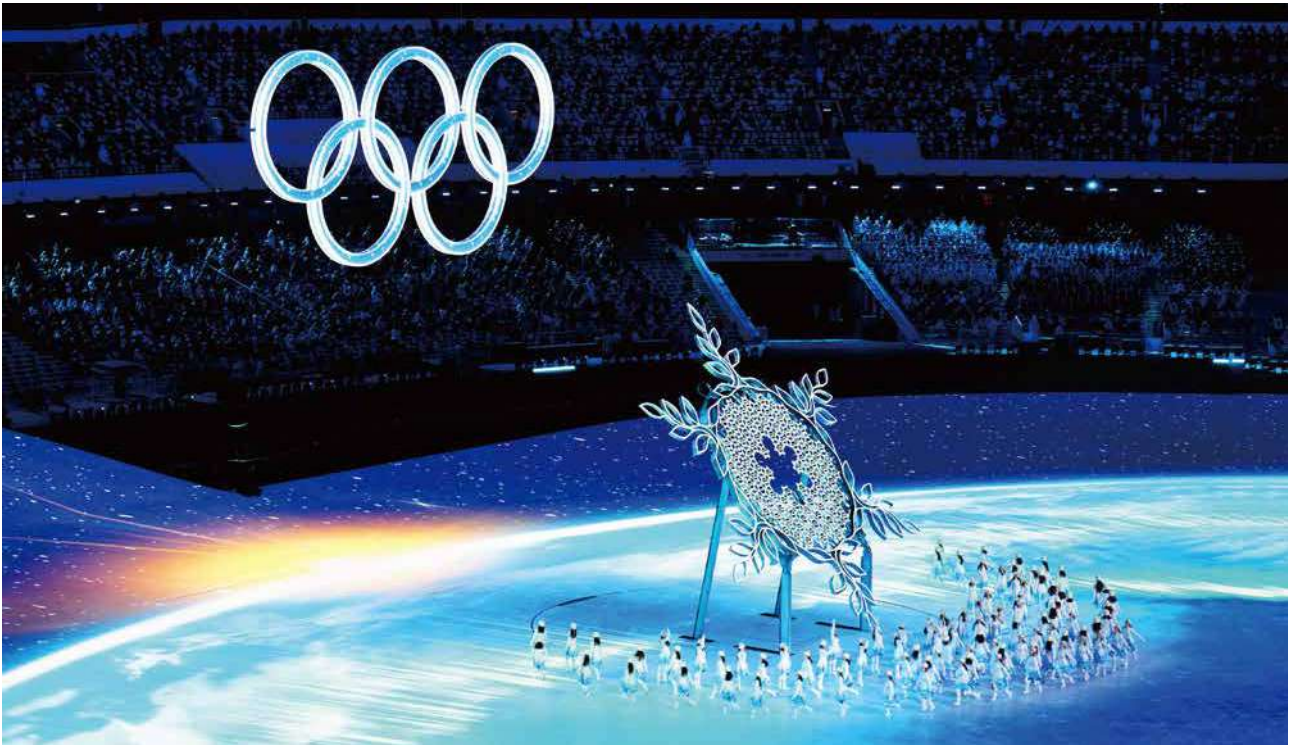


Xinyi Airport Service Hall



M Series M1.5 55sqm Japan

Classic Cases



2022 Beijing Winter Olympic the Five Rings



P2.5 211sqm China



Nanjing Huachang Dragon Valley

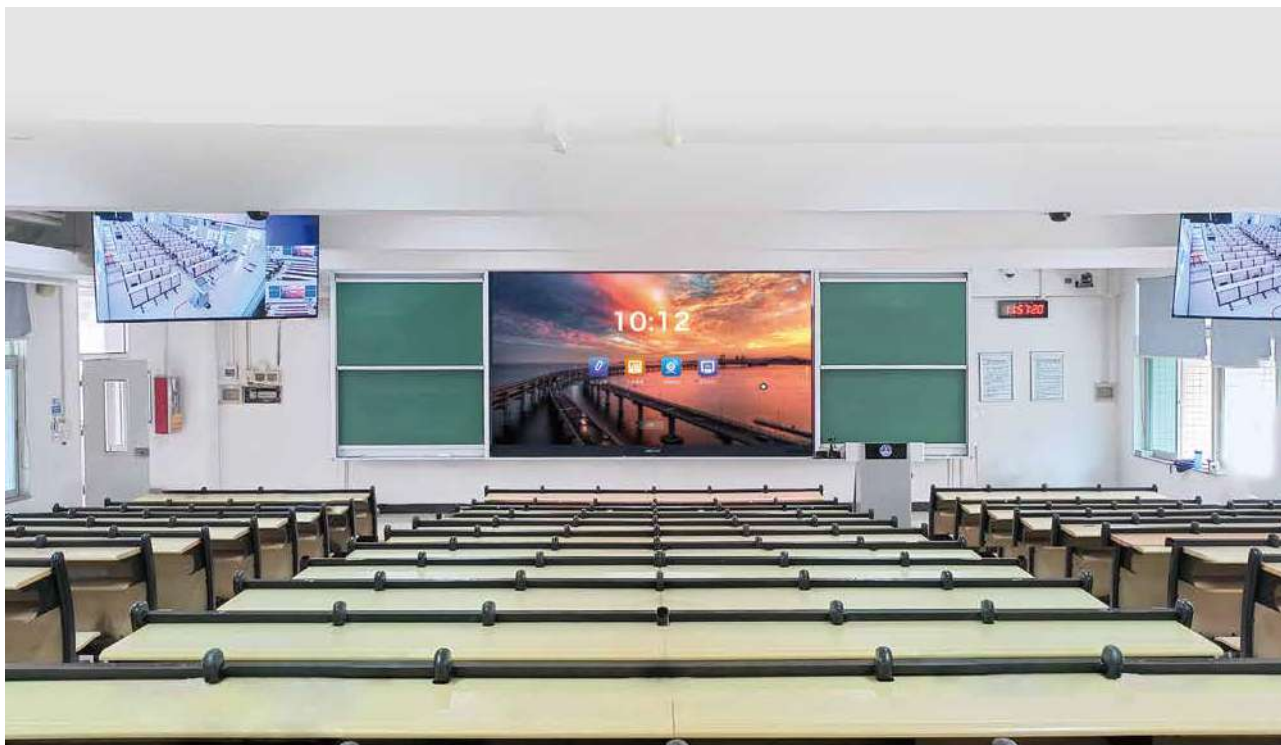


160sqm France



Alipay Shanghai · S Space Exhibition Hall

Classic Cases



South China University of Technology



Interactive Conference AIO



Private villa



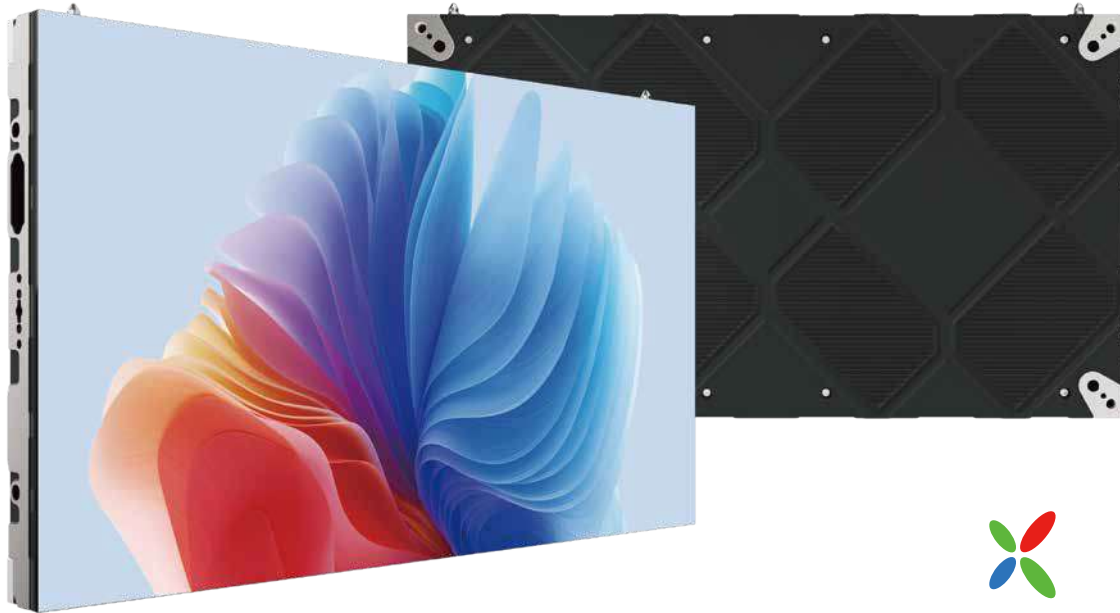
Interactive Conference AIO



High-end apartment

DS Series

Indoor Fixed COB Panel



Specifications

Model	DS0.7	DS1.2
Pixel Pitch Exhibited(mm)	0.79	1.26
LED Type	COB (Flip chip)	COB (Flip chip)
Module Size(WxH)	304×342	304×342
Pixel Per Module(dots)	384×432	240×270
Panel Size(mm)	608×342×36 / 608×684×40	608×342×36 / 608×684×40
Pixel Per Panel(dots)	768×432 / 768×864	480×270 / 480×540
Material	Die casting aluminum	Die casting aluminum
Weight(kg/panel)	5.3 / 10.4	5.2 / 10
Brightness(nits)	600	800
Gray scale (bit)	14	13
Refresh rate (Hz)	3900	3900
Color Temperature(K)	3200~9300	3200~9300
Viewing angle(H)	170°	170°
Viewing angle(V)	160°	160°
Power Max. (W/m ²)	180 / 170	200
Operating Temperature(°C)	-10~+45	-10~+45
Module IP Rating (Front)	IP65	IP65
Installation/Maintenance	Front	Front

Remark: Power consumption tolerance: ±15%, according to the actual situation.
Ledman Optoelectronics Co., Ltd. reserves the right to amend and interpret this document without prior notice.

Energy Saving

The power consumption is about 50% lower than that of similar products



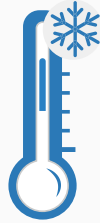
Cost Saving

lower price at the same resolution. Significant savings in investment for transformers and cables, as well as substantial reduction in electricity expenses



Ice Screen

The surface temperature of the display is lower than the body temperature



PSE Technology

Ledman's proprietary PSE technology makes it easy to achieve ultra-high definition display



Soft Eye Protection

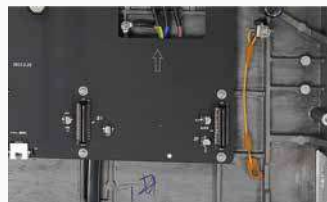
Surface light source design, uniform light output, German Rheinland TUV low blue light certification, softer and more eye-protectin



Aluminum Bottom Shell



Module with aluminum bottom shell for superior cooling and radiation protection



Equipped with a safety rope for ensured security



Higher strength and splicing accuracy

YS Series

Indoor Fixed COB Panel



Specifications

Model	YS0.4	YS0.9
Pixel Pitch Exhibited(mm)	0.46	0.93
LED Type	COB (Flip chip)	COB (Flip chip)
Module Size(WxH)	300×337.5	300×337.5
Pixel Per Module(dots)	640×720	320×360
Panel Size(mm)	600×337.5×40	600×337.5×40 / 600×675×40
Pixel Per Panel(dots)	1280×720	640×360 / 640×720
Material	Die casting aluminum	Die casting aluminum
Weight(kg/panel)	5.6	5.4/9.6
Brightness(CD/m ²)	600	600
Gray scale (bit)	13	13
Refresh rate (Hz)	3900	3900
Color Temperature(K)	3200~9300	3200~9300
Viewing angle(H)	170°	170°
Viewing angle(V)	160°	160°
Power Max. (W/m ²)	260	160
Operating Temperature(°C)	-10~+45	-10~+45
Module IP Rating (Front)	IP65	IP65
Installation/Maintenance	Front	Front

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Super Protection



Waterproof



Moisture-proof



Anti-bump



Anti-static



Dustproof

LEDMAN PSE Technology

Ledman's proprietary PSE technology makes it easy to achieve ultra-high definition display



Cost Saving

Lower price at the same resolution. Significant savings in investment for transformers and cables, as well as substantial reduction in electricity expenses



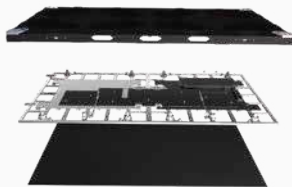
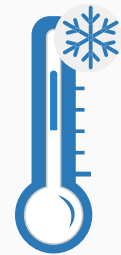
Energy Saving

The power consumption is about 50% lower than that of similar products

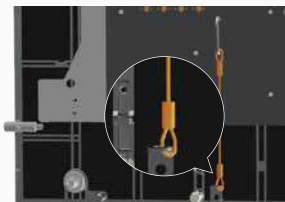


Ice Screen

The surface temperature of the screen is lower than the body temperature, only 31.6°C



Module with aluminum bottom shell for superior cooling and radiation protection



Equipped with a safety rope for ensured security



Higher strength and splicing accuracy

XS Series

Indoor fixed LED Panel



Specifications

Model	XS1.2
Pixel Pitch Exhibited(mm)	1.25
LED Type	COB (Flip chip)
Module Size(WxH)	250×250
Pixel Per Module(dots)	200×200
Panel Size(mm)	1000×500
Pixel Per Panel(dots)	800×400
Material	Die casting aluminum
Weight(kg/panel)	11.1
Brightness(CD/m ²)	600
Gray scale (bit)	13
Refresh rate (Hz)	3840
Color Temperature	3200~9300
Viewing angle(H)	170
Viewing angle(V)	160
Power Max. (W/m ²)	280
Operating Temperature(°C)	-10~+45
IP Rating (Front/Rear)	IP30/IP30
Installation/Maintenance	Front

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Super Protection



Waterproof



Moisture-proof



Anti-bump



Anti-static



Dustproof

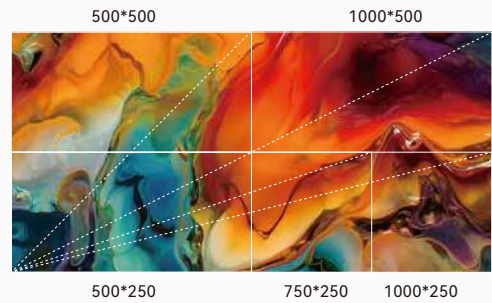
LEDMAN PSE Energy Saving Technology

LEDMAN PSE technology easily achieves ultra-high-definition display



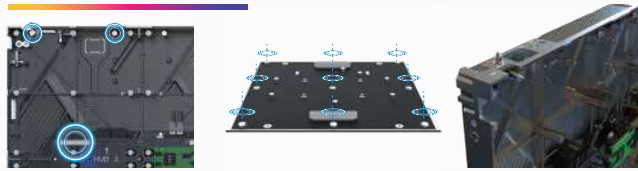
Flexibility

The cabinets sizes of 1000*250, 750*250, 500*250mm, 750*500mm, 1000*500, 500*500 are available



Flexible size, can be spliced right angle screen, four side screen

Magnetic Module



Uniform magnet distribution

Unique and stable triangular positioning

Single light board 22pcs support positions



The cabinet comes with an indicator light to visually monitor the running status of the screen



Fully Wall Installation

The wire enters and exits from the inside of the cabinet, can achieve complete wall installation, while reserving gaps for heat dissipation



QF Series

Indoor Fixed COB Panel



FCOB

Flip-Chip on Board

LED Chip

PCB

Specifications

Model	QF0.7	QF1.2	QF1.5
Pixel Pitch Exhibited(mm)	0.78	1.25	1.56
LED Type	COB (Flip chip)	COB (Flip chip)	COB (Flip chip)
Module Size(WxH)	150×168.75	150×168.75	150×168.75
Pixel Per Module(dots)	192×216	120×135	96×108
Panel Size(mm)	600×337.5×37	600×337.5×37	600×337.5×37
Pixel Per Panel(dots)	768×432	480×270	384×216
Material	Die casting aluminum	Die casting aluminum	Die casting aluminum
Weight(kg/panel)	4.6	4.5	4.5
Brightness(nits)	600	600	800
Gray scale (bit)	16	13	13
Refresh rate (Hz)	3840	3900	3840
Color Temperature(K)	3200~9300	3200~9300	3200~9300
Viewing angle(H)	170°	170°	170°
Viewing angle(V)	160°	160°	160°
Power Max. (W/m ²)	320	250	360
Operating Temperature(°C)	-10~+45	-10~+45	-10~+45
Module IP Rating (Front)	IP65	IP65	IP65
Installation/Maintenance	Front	Front	Front

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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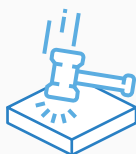
Super Protection



Waterproof



Moisture-proof



Anti-bump



Anti-static



Dustproof

Integrated Cabinet

The integrated cabinet results in good tightness and high overall protection



Multiple Installation

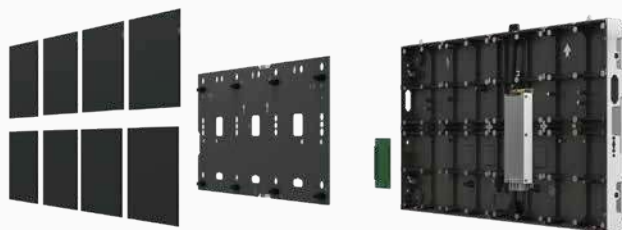
Support wall-mounted



Floor support installation



Cabinet Interior Modular Design



Full Front Maintenance



Die-cast Aluminum Cabinet

Strong electromagnetic shielding type, reducing the spread of electromagnetic energy



YF Series

Indoor Fixed COB Panel



FCOB
Flip-Chip on Board



Specifications

Model	YF0.9	YF1.2
Pixel Pitch Exhibited(mm)	0.93	1.25
LED Type	COB (Flip chip)	COB (Flip chip)
Module Size(WxH)	300×337.5	300×337.5
Pixel Per Module(dots)	320×360	240×270
Panel Size(mm)	600×337.5×40 / 600×675×40	600×337.5×40 / 600×675×40
Pixel Per Panel(dots)	640×360 / 640×720	480×270 / 480×540
Material	Die casting aluminum	Die casting aluminum
Weight(kg/panel)	5.6 / 9.8	5.4 / 9.8
Brightness(nits)	1200	2400
Gray scale (bit)	13	13
Refresh rate (Hz)	4320	4200
Color Temperature(K)	3200~9300	3200~9300
Viewing angle(H)	170°	170°
Viewing angle(V)	160°	160°
Power Max. (W/m ²)	350	560
Operating Temperature(°C)	-10~+45	-10~+45
Module IP Rating (Front)	IP65	IP65
Installation/Maintenance	Front	Front

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Integrated Cabinet

The integrated cabinet results in good tightness and high overall protection



Energy Saving

Reduce the loss and save the resources



Module Blackening Processing

Significantly improves black color consistency and enhances contrast



High Brightness

The maximum brightness can reach 2400 nits to meet the requirements of different application scenarios



Soft Eye Protection

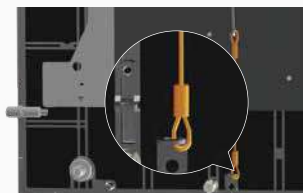
Surface light source design, uniform light output, German Rheinland TUV low blue light certification, softer and more eye-protectin



Aluminum Bottom Shell



Module with aluminum bottom shell for superior cooling and radiation protection



Equipped with a safety rope for ensured security



Higher strength and splicing accuracy.

DF Series

Indoor Fixed COB Panel



FCOB
Flip-Chip on Board



Specifications

Model	DF1.5	DF1.9
Pixel Pitch Exhibited(mm)	1.58	1.9
LED Type	COB (Flip chip)	COB (Flip chip)
Module Size(WxH)	304×342	304×342
Pixel Per Module(dots)	192×216	160×180
Panel Size(mm)	608×342×37/608×684×40	608×342×37/608×684×40
Pixel Per Panel(dots)	384×216/384×432	320×180/320×360
Material	Die casting aluminum	Die casting aluminum
Weight(kg/panel)	5.2/10	5.2/10
Brightness(nits)	1500	1000
Gray scale (bit)	13	13
Refresh rate (Hz)	4560	3900
Color Temperature(K)	3200~9300	3200~9300
Viewing angle(H)	170°	170°
Viewing angle(V)	160°	160°
Power Max. (W/m ²)	330	250
Operating Temperature(°C)	-10~+45	-10~+45
Module IP Rating (Front)	IP65	IP65
Installation/Maintenance	Front	Front

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Integrated Cabinet

The integrated cabinet results in good tightness and high overall protection



High Brightness

The maximum brightness can reach 1500 nits to meet the requirements of different application scenarios



Energy Saving

Reduce the loss and save the resources



Light and Thin

Cabinet thickness is only 37mm, making transportation and installation more convenient



Module Blackening Processing

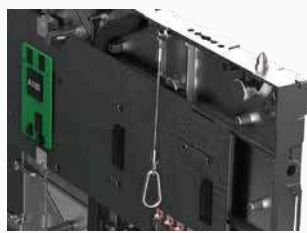
Significantly improve black color consistency and enhance contrast



Aluminum Bottom Shell



Module with aluminum bottom shell for superior cooling and radiation protection



Equipped with a safety rope for ensured security



Higher strength and splicing accuracy

X Series

Indoor Fixed SMD LED Panel



Specifications

Model	X15	X19	X24	X29	X39	X59
Pixel Pitch Exhibited(mm)	1.56	1.95	2.4	2.9	3.91	5.95
LED Type	SMD 1212	SMD 1212	SMD 1415	SMD 2121	SMD 2121	SMD 2020
Module Size(mm)	250×250					
Pixel Per Module(dots)	160×160	128×128	104×104	84×84	64×64	42×42
Panel Size(mm)	1000×500×48					
Pixel Per Panel(dots)	640×320	512×256	416×208	336×168	256×128	168×84
Material	Die casting Aluminum					
Weight(kg/panel)	11.5	11.9 11.5	11.9 11.5	11.5 11.5	11.5 11	11.5 11.5
Brightness(CD/m ²)	800	3500 800	4000 1000	4000 1000	4000 1000	4000 1000
Gray scale (bit)	14~16					
Refresh rate (Hz)	3840					
Color Temperature	3200~9300K					
Viewing angle(H)	140					
Viewing angle(V)	140					
Power Max. (W/m ²)	540	460 553	520 490	480 493	540 476	605 443
Operating Temperature(°C)	-10~+40					
IP Rating (Front/Rear)	IP30					
Installation/Maintenance	Front					

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High Protection

Three layers of protection can effectively reduce the lamp bead failure rate during the use of the screen



Dispensing process, increase the thrust of the lamp bead.

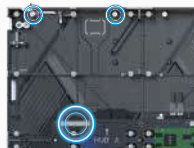


Mask, protective lamp bead.



Slightly inclined placement, anti-bump.

High Flatness



Unique and stable triangular positioning



Uniform magnet distribution



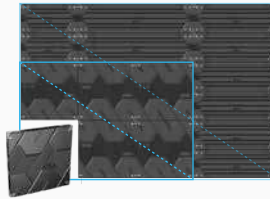
22pcs support positions

6-Axis Adjustment Function

6-axis adjustment function, bright and dark lines, flatness can be adjusted; Adjustable if needed.



Flexibility



Six different cabinets are arbitrarily spliced to meet the multiple installation of 250mm.



Right Angle 4-sided splicing can be realized

Module Without A/B

Module without A/B, easy to store and assemble the cabinet



Flexible Installation Method

Internal wiring, can achieve complete wall-mounted installation, while reserving gaps for heat dissipation.



Wall-mounted installation



Hanging installation



Stacking installation

KCII Series

Indoor Fixed SMD LED Panel

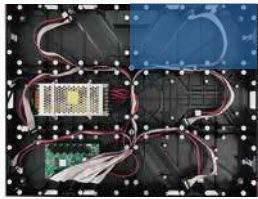


Specifications

Model	KCII1.2	KCII1.5	KCII1.8	KCII2.0	KCII2.5
Pixel Pitch Exhibited(mm)	1.25	1.538	1.86	2.00	2.50
LED Type	SMD 1010	SMD 1212	SMD 1515	SMD 1515	SMD 2121
Panel Size(mm)	640x480x65.5	640x480x65.5	640x480x65.5	640x480x65.5	640x480x65.5
Pixel Per Panel(dots)	512x384	416x312	344x258	320x240	256x192
Material	Die casting aluminum				
Weight(kg/panel)	8.2	7.8	7.8	7.8	7.8
Brightness(CD/m ²)	500	500	500	500	500
Refresh rate (Hz)	3840	3840	3840	3840	3840
Color Temperature	2000~9300	2000~9300	2000~9300	2000~9300	2000~9300
Viewing angle(H)	160±10	160±10	160±10	160±10	160±10
Viewing angle(V)	160±10	160±10	160±10	160±10	160±10
Power Max. (W/m ²)	420	400	390	390	390
AC Operating Voltage(V)	200~240	200~240	200~240	200~240	200~240
AC Input Frequency(Hz)	50/60	50/60	50/60	50/60	50/60
Operating Temperature(°C)	-10~+40	-10~+40	-10~+40	-10~+40	-10~+40
Operating Humidity	10%~80%	10%~80%	10%~80%	10%~80%	10%~80%
Installation/Maintenance	Front	Front	Front	Front	Front

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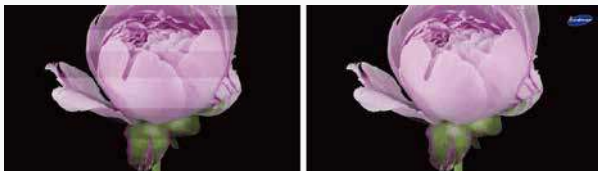
Display Flatness



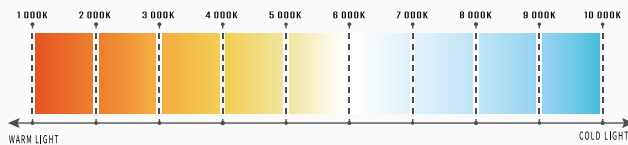
8 magnets

- Die-casting aluminum structure, the thickness of the cabinet is 1.8mm, and the thickness of material is strengthened to 2.5mm, which makes the cabinet more stable and reliable
- Module structure is made of PC material, Tested in high and low temperature environment, anti-UV test, and the whole design is strengthened so that it is not easy to be deformed under the severe environment
- There are 8 magnets on the modules, the force is uniform, and the modules are spliced more smoothly

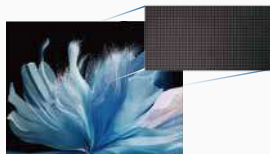
Display Performance



- High refresh IC, comes with PWM, refreshes at 3840Hz, and captures images without scanning lines or flickering

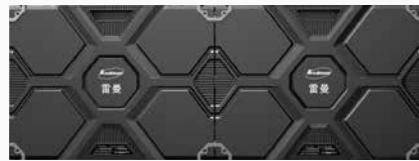


- It is convenient for customers to adjust the required color temperature according to their needs



- High-quality matte black lamp, high consistency of lamp beads, better effect after correction

High Reliability



- Wireless connection on the back of the screen, fully sealed design, dustproof, moisture-proof, and waterproof, improving external anti-interference ability
- The cabinet is made of aluminum structure, which dissipates heat naturally and does not require a fan
- Module parallel design, line faults do not interfere with each other

High Protection



- There is an anti-collision design on the bottom to avoid damage to the lamp beads during installation and transportation
- The module is directly connected to the cabinet using a butterfly-buckle design to prevent the module from falling

Safe And Reliable

- Non-metallic parts such as connectors, wires, bottom cases, and PCB boards have been tested for high and low temperature reliability. They are UV-resistant and have a flame retardant rating of 94UL-V1
- The power supply has an independent ground wire, and the AC end has insulation protection
- Passed high temperature test and salt spray resistance test

Easy To Replace And Upgrade



- Share the same die-casting cabinet, power supply, and receiving card (KC1.2 is an additional receiving card), with a high degree of standardization and convenient for subsequent upgrades and replacements
- The internal wires are the same, except that the KC1.2 cable is different
- The five points of the module share a bottom case

K Series

Indoor Fixed SMD LED Panel

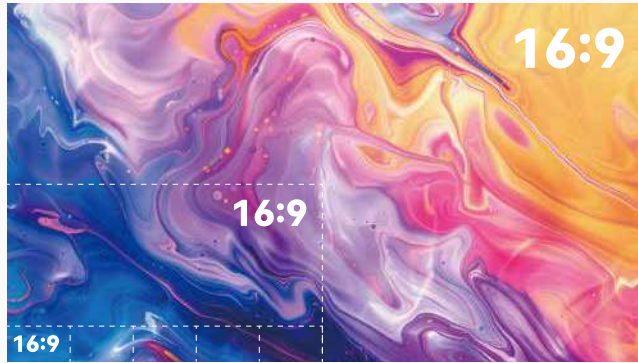


Specifications

Model	K1.2	K1.5	K1.6	K1.8	K2	K2.6	K3.2
Pixel Pitch Exhibited(mm)	1.2	1.52	1.68	1.8	2.0	2.66	3.2
LED Type	SMD 1010	SMD 1212	SMD 1212	SMD 1415	SMD 1415	SMD 1415	SMD 2020
Pixel Per Panel(dots)	832x468	672x378	609x342	544x306	512x288	384x216	320x180
Panel Size(mm)	1024x576x56						
Material	Die casting aluminum						
Weight(kg/panel)	15	15	15	15	15	15	15
Brightness(CD/m ²)	600	600	600	800	800	800	800
Gray scale (bit)	14~16	14~16	14	14	14	14	14
Refresh rate (Hz)	3840	3840	3840	3840	3840	3840	3840
Color Temperature	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300
Viewing angle(H)	140	140	140	140	140	140	140
Viewing angle(V)	140	140	140	140	140	140	140
Power Max. (W/m ²)	420	420	460	440	460	460	460
AC Operating Voltage(V)	110~240			100~240			
AC Input Frequency(Hz)	50/60						
Operating Temperature(°C)	-10~+40						
Operating Humidity(RH)	10%~90%						
Installation/Maintenance	Front						

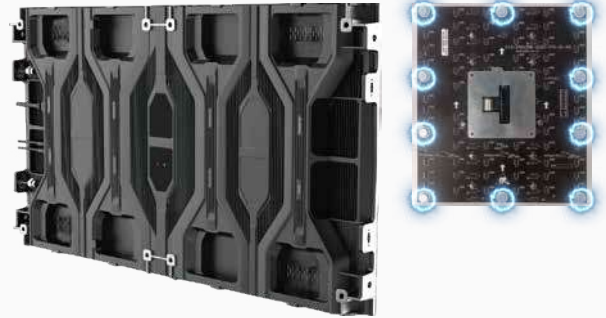
Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Amazing Display Effects



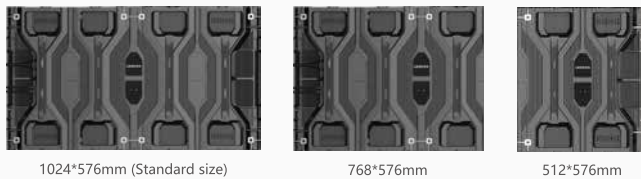
- 16:9 display (46.25 inches), capable of point-to-point splicing in 2K, 4K (K2.6 K3.2), high definition display
- IC with high refresh rate of 3840Hz, high grayscale level, presenting more vibrant colors

Sturdy and with Better Flatness



- Full cabinet die-casting aluminum structure, high precision and sturdy, reliability
- Each module has 10 magnetic iron sheets that firmly adhere to the structure, ensuring better flatness of the cabinet

Flexible Size

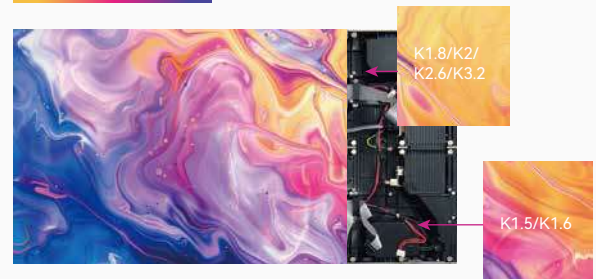


Multiple sizes to choose, covering a wider range of application scenarios



At the same time, it can also splice right angle screens

Platform Sharing



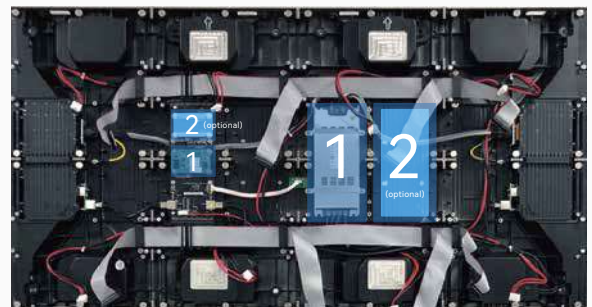
- Empty cabinet structure and power supply can be shared
- K1.5 and K1.6 product modules can be interchanged; The K1.8 K2 K2.6 K3.2 product modules can be interchanged, which is more conducive to customer backup and saves costs.

Light and Thin



- Improved lighter design by removing unnecessary hardware elements
- 15 kg/panel; Die casting aluminum structure; Module without base plate design

High Reliability



- Power supply, receiving card dual backup (optional)

E Series

Indoor Fixed SMD LED Panel



Specifications

Model	E19	E19 High Brightness	E2	E2 High Brightness	E29	E29 High Brightness	E3	E3 High Brightness	E5	E5 High Brightness
Pixel Pitch Exhibited(mm)	1.95	1.95	2.4	2.4	2.97	2.97	3.9	3.9	5.95	5.95
LED Type	SMD 1415	SMD 1515	SMD 1415	SMD 1515	SMD 2020	SMD 1921	SMD 2020	SMD 1921	SMD 2020	SMD 1921
Pixel Per Panel(dots)	384x256	384x256	416x208	416x208	336x168	336x168	256x128	256x128	168x84	168x84
Panel Size(mm)	750*500*65				1000x500x62					
Material	Aluminum				Aluminum					
Weight(kg/panel)	11	11	12.7	12.7	13	13	13	13	13	13
Brightness(CD/m ²)	800	3500	800	3500	800	3500	800	3500	800	3500
Gray scale (bit)	14~16	14~16	14~16	14~16	14~16	14~16	14~16	14~16	14~16	14~16
Refresh rate (Hz)	3840	3840	3840	3840	3840	3840	3840	3840	1920	1920
Color Temperature	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300	3200~9300
Viewing angle(H)	140	140	140	140	140	140	140	140	140	140
Viewing angle(V)	120	140	140	140	120	140	140	140	140	140
Power Max. (W/m ²)	486	555	486	475	486	435	486	435	486	435
AC Operating Voltage(V)	100~240									
AC Input Frequency(Hz)	50/60									
Operating Temperature(°C)	-10~+40									
Operating Humidity(RH)	10%~80%									
Installation/Maintenance	Front									

Remark: Power consumption tolerance: ±15%, according to the actual situation. Ledman Optoelectronics Co., Ltd. reserves the right to amend and interpret this document without prior notice.

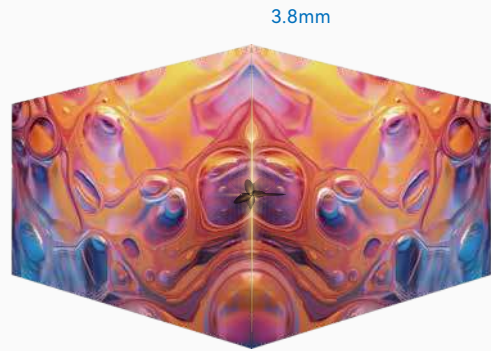
Good Splicing Effect



Die Casting Aluminum

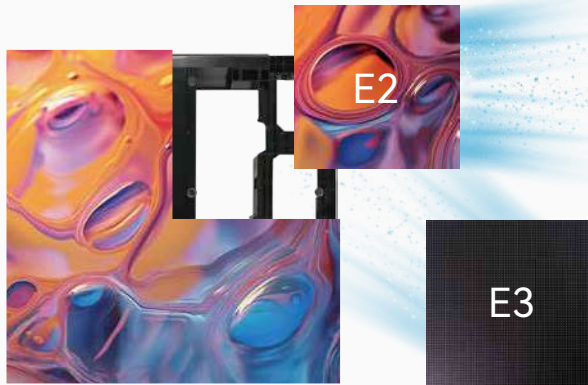
Full cabinet die-casting aluminum structure with high precision and high strength ensures the flatness of the display during installation.

Flexible Coverage



Can splice right angle screens, the gap is less than 3.8mm

The Platform Can Be Shared



Different pixel pitch modules can be exchanged without pressure.



- There are multiple types of cabinet sizes, which are more suitable for a wider range of scenarios
- Can also be customized for rental use

Amazing Display Effect



There is black shading cotton around the cabinet to ensure the display is light-proof



Having a mask provides better protection for the led and enhances ink consistency

Convenient Installation and Maintenance

- The entire series supports front and rear installation and maintenance, allowing users to put it into use quickly and save time
- Optional hoisting is also available. Taking 500 * 500mm cabinet as an example, 20pcs can be hoisted

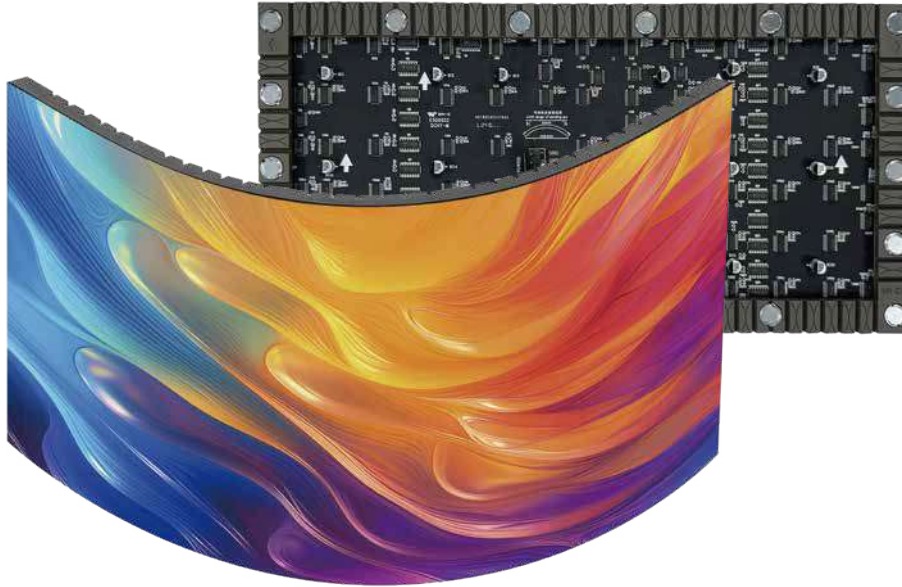


Light Weight and Thin

- Taking 1000 * 500mm as an example, a single cabinet weighs only 13 kilograms and has a thickness of only 62mm
- Easy installation by one person, saving labor costs

KR Series

Fixed Indoor Soft Module Panel



Specifications

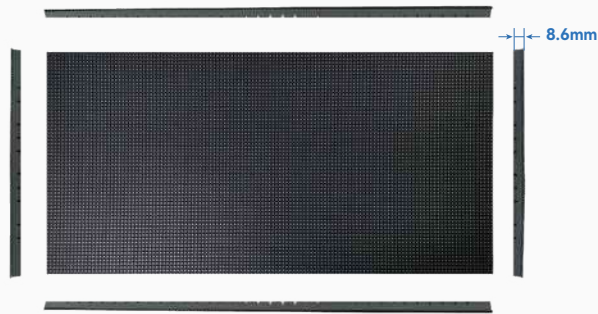
Model	KR1.5	KR1.8	KR2	KR2.5
Pixel Pitch Exhibited(mm)	1.538	1.86	2.00	2.50
LED Type	SMD 1212	SMD 1515	SMD 1515	SMD 1515
Module Size(mm)	320x160x8.6	320x160x8.6	320x160x8.6	320x160x8.6
Pixel Per Panel(dots)	208x104	172x86	160x80	128x64
Material	Silica gel	Silica gel	Silica gel	Silica gel
Weight(kg/panel)	0.34	0.34	0.34	0.29
Brightness(CD/m ²)	600~650	700~750	700~750	700~750
Refresh rate (Hz)	3840	3840	3840	3840
Color Temperature	10000~12000	10000~12000	10000~12000	10000~12000
Viewing angle(H)	150	150	150	150
Viewing angle(V)	120	120	120	120
Minimum assembly diameter of cabinet	Ø1019	Ø611	Ø611	Ø407
Curved arc (°)	≥162	≥150	≥150	≥135
Module supply voltage DC(V)	5	5	5	5
Module current Max. DC(A)	4.5	4.4	4.6	4.2
AC Operating Voltage(V)	220	220	220	220
AC Input Frequency(Hz)	60	60	60	60
Power Max. (W/m ²)	440	430	450	410
Operating Temperature(°C)	-20~40	-20~40	-20~40	-20~40
Installation/Maintenance	Front or Rear	Front or Rear	Front or Rear	Front or Rear

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Stunning Display



Thin and Light Design



The module thickness is only 8.6mm, ultra-light and thin design, takes up little space

Good Flatness



The box structure adopts high strength sheet metal sandblasted iron box with unique segmented splicing technology. Effectively reduce the splicing gap of the screen body

Low Power Consumption and Energy Saving



Low current, low heat, Maximum power consumption of module: 22.5W/pcs, 440W/sqm



The module is equipped with 18 magnets, and the magnetic content of each magnet reaches 2000 GS, which solves the problems of degumming and warping of ordinary soft modules, and effectively improves the flatness and use effect of the screen

High Reliability



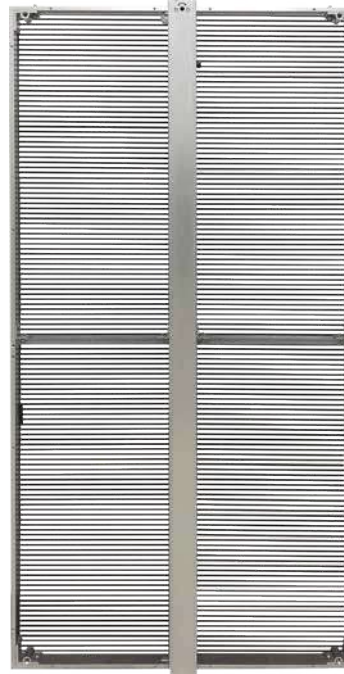
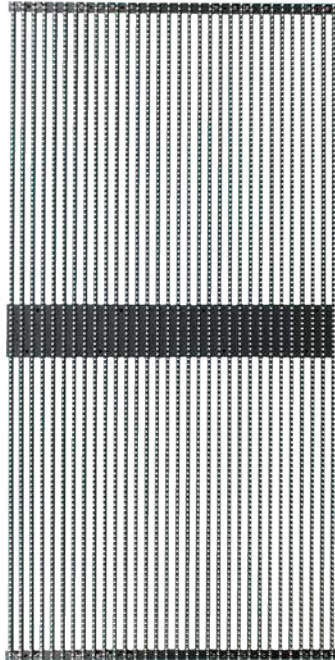
PCB board adopts flexible soft board, bottom shell adopts silica gel material, which has good flexibility and eliminates static electricity



The PCB board uses copper column welding and back glue to form a lockable iron base with the bottom shell, which makes the module more solid and reliable

S Series

Indoor Fixed Transparent Screen



Specifications

Model	S3.9-7.8
Pixel Pitch (mm)	H3.9 / V7.8
Size (mm)	500x1000x76 500x1500x76
Material	128x128 128x192
pixels (dot)	Aluminum
Weight (kg/panel)	5 8
Transparency Rate	60%
Brightness (nit)	4500
Processing depth (bit)	14-16
Display refresh rate (Hz)	3840
Power Consumption (Max./Avg.)	690/230
IP Rating (Front/Rear)	IP20/IP20
Maintenance of the whole panel	Front & Rear

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Excellent Performance

The display still shows well even in sunlight facing the street



Brightness
5000 nit



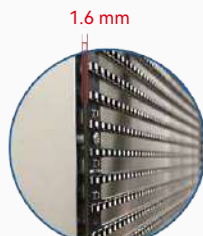
Gray Scale
14 bit



Refresh Rate
3840 Hz

High Transmittance

The circuit board is only 1.6 millimeters and has a large transmittance in the viewing angle range



S Series

Thin and Light Design

Available in two sizes 500*1000 mm/500*1500 mm

The weight per square is less than 11 KG, 500*1000mm is 5kg/cabinet, 500*1500mm is 8kg/ cabinet



8Kg
500*1500mm



5Kg
500*1000mm



The thinnest part of the cabinet is only 36 mm

36 mm

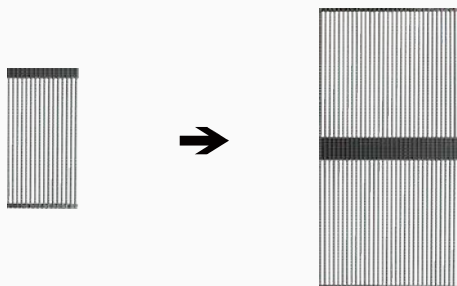
Flexible Installation, Beautiful Appearance

- All-aluminum frame, hidden wire design, fashionable and beautiful
- Various mounting options: hanging/wall-mounted/stacking



Convenient Installation

The module size is 500*250 mm and not divided into left and right modules. It's convenient for customers to use



Various Options

- The front and back of the screen can be fitted with a transparent acrylic plate (optional)
- Protects the screen from collision and keep safer.
- Does not affect the performance and maintains transparency



Z Series

Outdoor Fixed LED Panel



Specifications

Model	Z6	Z10W
Pixel Pitch Exhibited(mm)	6.66	10
LED Type	SMD2727	SMD2727
Module Size(WxH)	480x320	480x320
Pixel Per Module(dots)	72x48	48x32
Panel Size(mm)	960x960x70	960x960x70
Pixel Per Panel(dots)	144x144	96x96
Material	Aluminum	Aluminum
Weight(kg/panel)	23	23
Brightness(CD/m ²)	9000	9000
Gray scale (bit)	16	16
Refresh rate (Hz)	7680	7680
Color Temperature	3200~9300	3200~9300
Viewing angle(H)	140	140
Viewing angle(V)	90	90
Power Max. (W/m ²)	535	535
Operating Temperature(°C)	-20~+50	-20~+50
IP Rating (Front/Rear)	IP66	IP66
Installation/Maintenance	Front & Rear Installation	Front & Rear Installation

Remark:Power consumption tolerance: ±15%, according to the actual situation.
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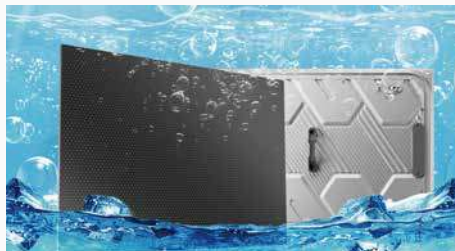
Stable

10 Years of Experience in Outdoor Fixed Installation R&D and Production



Standardized production process flow, strict control of each production process, and ensuring product quality

i + 3 Sealed Independent Waterproofing



patented side extrusion waterproofing; The front of the module is glued, and the edges of the module are glued to reduce edge wear and achieve all-round dust and water prevention; Resistance to typhoon, rainstorm, high humidity, high temperature, low temperature and salt fog

Ultimate Heat Dissipation



The control box is made of aluminum profile, which conducts heat quickly; The back cover is designed with a heat dissipation strip, which increases the heat dissipation area and facilitates fast convective heat dissipation; Effectively slowing down the aging of internal components and extending their service life

Flexible Size



Standard dimensions of the cabinet : 960 * 960mm, 960 * 1280mm, 960 * 640mm.; Can cut 45° angle, splicing right angle screen

Three Highs

 **9000 CD/m²**
High Brightness

Fearless of intense sunlight, strong light, and light decay, with brightness reaching 9000nits, the display remains clear and visible even under strong sunlight.

 **7680 Hz**
High Refresh Rate

Capable of achieving 16bit high grayscale, 7680Hz ultra-high refresh rate; Presents a smooth and delicate visual effect, with no flickering when taking photos.

 **High Contrast**

With a high brim design,mask height of 5mm, it provides better consistency and higher contrast; More outstanding picture quality

Low Carbon and Environmental Protection

Energy-saving, RoHS compliant, recyclable aluminum, low heat, long lifespan, no need for air conditioning.

20%

Energy Saving

20%

Savings on Electricity Bills

RoHS



N Series

Outdoor Fixed Display Panel

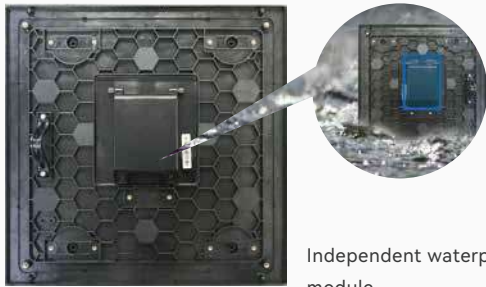


Specifications

Model	N3	N4	N5	N6	N8	N10W	N10	N16
Pixel Pitch (mm)	3.8	4.44	5.7	6.66	8.88	10	10.66	16
Panel Size (mm)	1280×960×93			1280×960×96			1280×960×98	
Pixel (dot)	336×252	288×216	224×168	192×144	144×108	128×96	120×90	80×60
Material	Aluminum							
Weight (kg/panel)	38	38	38	38	38	38	39	39
Brightness (nit)	5000	5500	6500	6500	6500	6500	8000	8500
Gray scale (bit)	14-16	14-16	14-16	14-16	14-16	14-16	14-16	16
Refresh rate (Hz)	3840	3840	3840	3840	3840	3840	1920	3840
Power Max./Avg. (W/m ²)	670/223	720/240	750/250	750/250	750/250	750/250	380/126	410/136
IP Rating (Front/Rear)	IP65/IP54							
Maintenance	Front & Rear							
Certification	CE ETL FCC							

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Double Waterproof Design

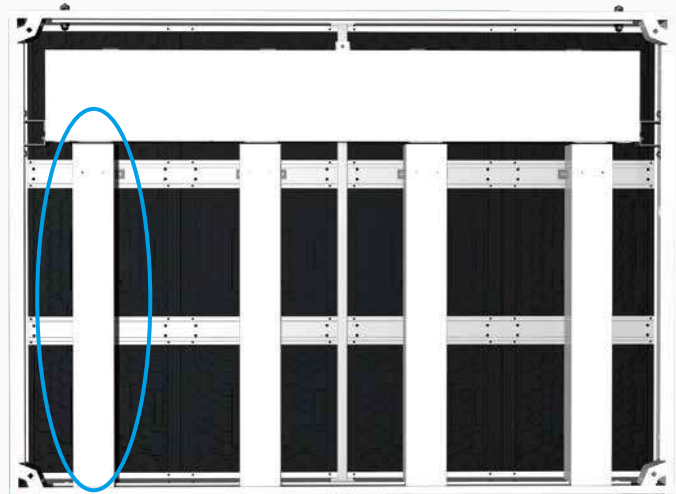


Independent waterproof module



Waterproof cabinet structure

Neat and Beautiful



Hidden wire box



Internal wiring design, the screen body is clean and beautiful.



Anti-loosening design to prevent failure caused by shaking during transportation.

Excellent Display Consistency



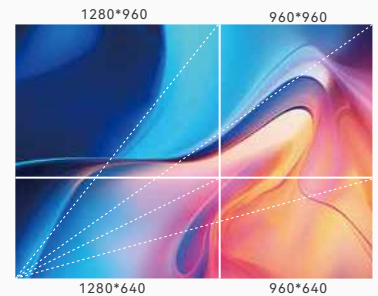
- The module comes standard with a mask, which is anti-glare, has higher contrast and better consistency.
- The mask adopts a high brim design, so the picture is still clearly visible when facing direct sunlight.

Flexible Size

Various cabinet sizes: 1280*960mm, 960*960mm, 960*640mm, 1280*640mm, etc.



Curved/right-angle screens can be spliced at the same time.



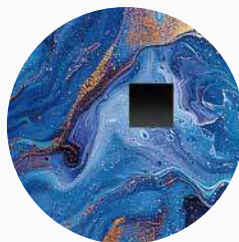
High Reliability and Stability



Fanless design, waterproof, moisture-proof, dust-proof effect is better.



Profile aluminum structure, natural heat dissipation, passed high and low temperature tests, not afraid of harsh environments.



Parallel module design, the failure of one module will not affect the normal display of other modules.

Easy to Install and Maintain

Can realize front and rear maintenance and installation.



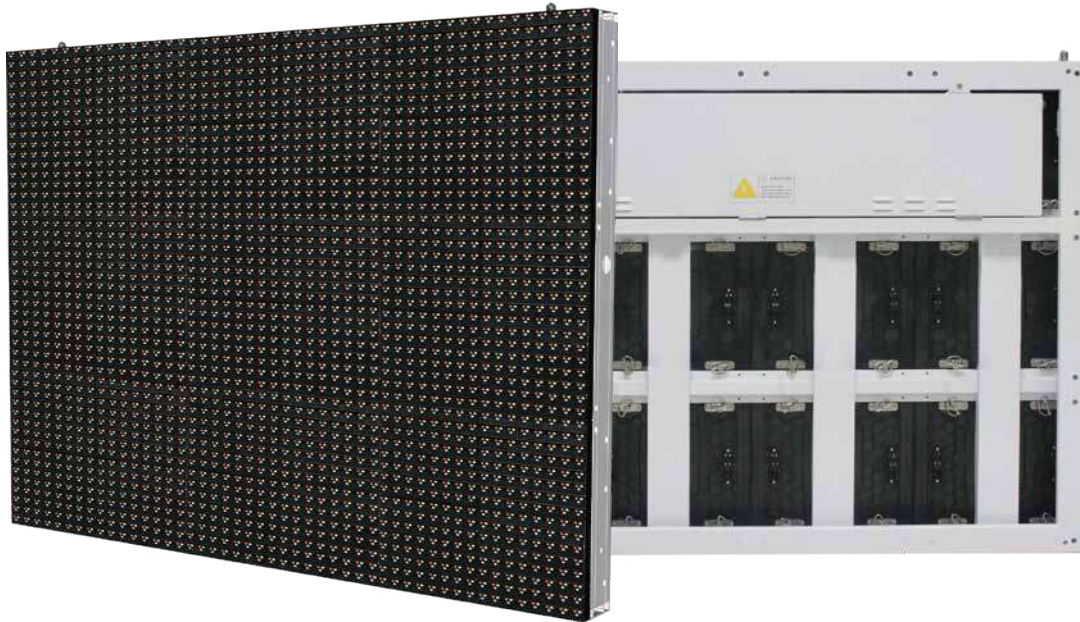
When installing from the front, only 93mm of back space is required.



During rear maintenance, only 450mm of back space is required.

NS Series

Outdoor Fixed Display Panel



Specifications

Model	NS5	NS6	NS8	NS10W
Pixel Pitch (mm)	5.7	6.66	8.88	10
Panel Size(mm)	1280×960×93			
Pixel (dot)	224×168	192×144	144×108	128×96
Material	Aluminum			
Weight (kg/panel)	38			
Brightness (nit)	9500			
Gray scale (bit)	14-16	14-16	14-16	14-16
Refresh rate (Hz)	3840	3840	3840	3840
Power Max./Avg. (W/m ²)	640/213	640/213	640/213	640/213
IP Rating (Front/Rear)	IP65/IP54			
Maintenance	Front & Rear			
Certification	CE ETL FCC			

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Save Energy



Energy saving is reduced by **25%** compared with traditional display screen (at the same brightness).

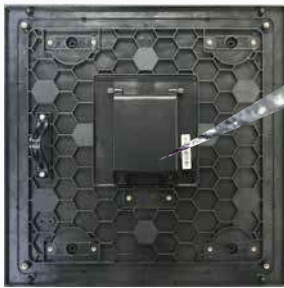
High Brightness



9500 nit (Avg.)
10000 nit (Max.)

Be not afraid of the scorching sun, be not afraid of the strong light, be not afraid of the fading of light, The average brightness reaches 9500nit, and the maximum brightness is 10000nit. The content displayed under the strong sun is still clearly visible.

Double Waterproof Design



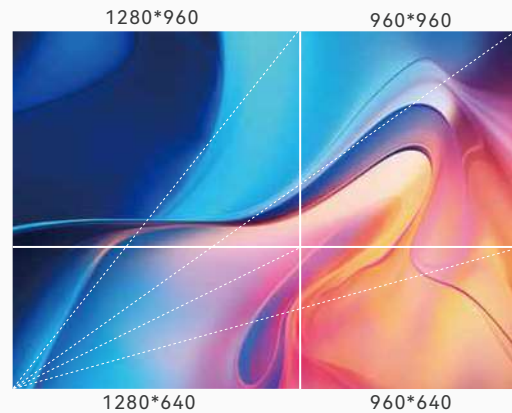
Independent waterproof module



Waterproof cabinet structure

Flexible Size

Various cabinet sizes: 1280*960mm, 960*960mm, 960*640mm, 1280*640mm, etc.



High Reliability and Stability



Fanless design, waterproof, moisture-proof, dust-proof effect is better.



Profile aluminum structure, natural heat dissipation, passed high and low temperature tests, not afraid of harsh environments.



Parallel module design, the failure of one module will not affect the normal display of other modules.

Convenient Installation and Maintenance

Can realize front and rear maintenance and installation.



For front installation, only 93mm of back space is needed.



For post-maintenance, only 450mm of back space is needed.

L Series

Outdoor Fixed Display Panel

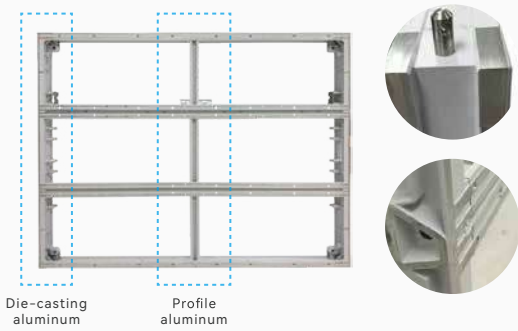


Specifications

Model	L2.5	L3.1	L3	L4	L5	L6
Pixel Pitch (mm)	2.5	3.12	3.9	4.8	5.95	6.25
Module Size (mm)	250×250	250×250	250×250	250×250	250×250	250×250
Panel Size (mm)	1000×750×93	1000×750×94	1000×750×91	1000×750×91	1000×750×95	1000×750×91
Panel Pixel (dot)	400×300	320×240	256×192	208×156	168×126	160×120
Material	Aluminum					
Weight (kg/panel)	26	26	25.5	26.5	26.5	26.5
Brightness (nit)	5000	5000	5500	5500	6500	6500
Gray scale (bit)	14-16	14-16	14-16	14-16	14-16	14-16
Refresh rate (Hz)	3840	3840	3840	3840	3840	3840
Power Max./Avg. (W/m ²)	700/233	665/222	750/250	720/240	750/250	750/250
IP Rating (Front/Rear)	IP65/IP54					
Installation/Maintenance	Rear	Front & Rear				

Remark: Power consumption tolerance: ±15%, according to the actual situation.
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Screen Surface Flatness



- Die-cast aluminum Cabinet + profile aluminum structure, high strength and high precision
- After assembly, overall CNC is used to ensure the flatness of the entire cabinet

Excellent Display Effect



High Brightness
4000-6500 nit



High refresh rate
3840 Hz



High contrast

The module surface adopts a high brim design, which has good ink color consistency and high contrast, effectively extending the service life of the lamp beads

High Reliability and Stability



Lightweight, single cabinet size
750*500mm available, easy to transport



The cabinet has an optional quick lock to achieve quick connection between cabinets

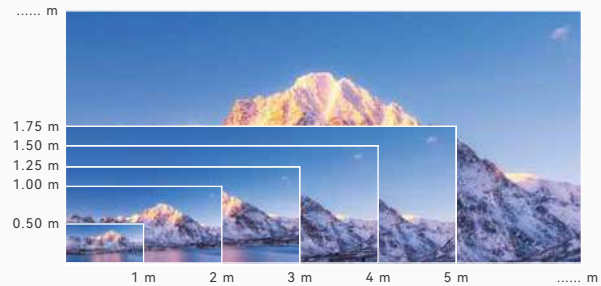


Standard aviation plug

Wider Applicability



- Rich dot spacing to meet outdoor small spacing requirements, including P2.5 spacing products
- Various cabinet sizes are available



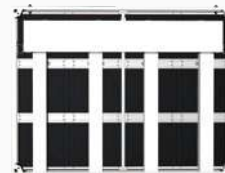
- The standard size of the module is 250*250mm, which can be installed completely over the entire meter

Excellent Compatibility



- Modules and control boxes are compatible within the same product range
- No AB module

High Reliability



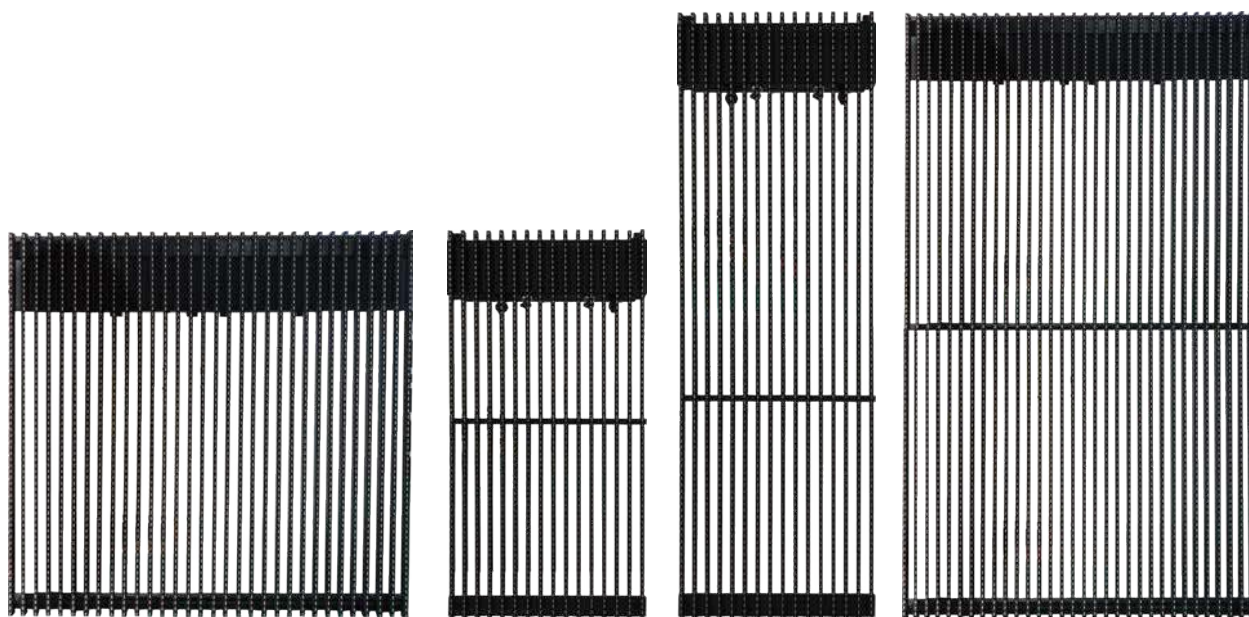
Internal fanless design makes it better waterproof and dustproof, greatly reducing the failure rate and increasing the space for heat dissipation



Parallel module design, failure of one module will not affect the display of other modules

S Series

Outdoor Fixed Transparent Screen



Specifications

Model	S15-15	S15-25	S15-31	S15-41
Pixel Pitch (mm)	H15.625/V15.625	H25/V15.625	H31.25/V15.625	H41.66/V15.625
Panel Size (mm)	1000×1500×102.6			
Panel Pixel (dot)	64×96	40×96	32×96	24×96
Material	Aluminum	Aluminum	Aluminum	Aluminum
Weight (kg/panel)	29	19	17.5	16
Brightness (nit)	7500	7500	7500	7000
Gray scale (bit)	16	16	16	16
Refresh rate (Hz)	3840	3840	3840	3840
Power Max./Avg. (W/m ²)	360/120	360/120	380/126	320/106
IP Rating (Front/Rear)	IP65/IP54	IP65/IP54	IP65/IP54	IP65/IP54
Installation/Maintenance	Rear	Front or Rear		
Certification	CE ETL FCC			

Remark: Power consumption tolerance: ±15%, according to the actual situation.
Ledman Optoelectronics Co., Ltd. reserves the right to amend and interpret this document without prior notice.

Passed Certification Standards

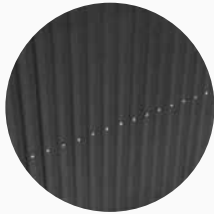


FCC certification



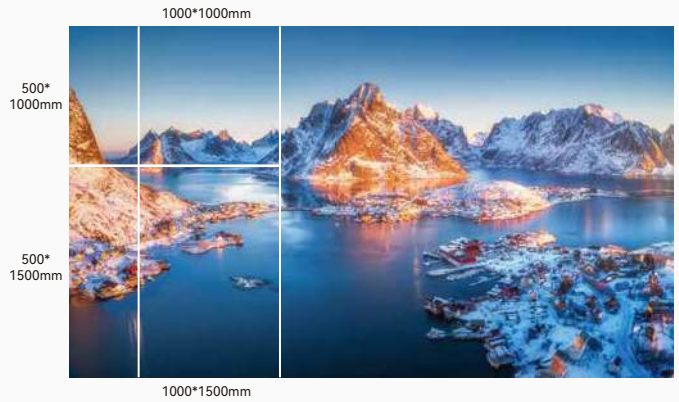
EMC certification

Humanization Design



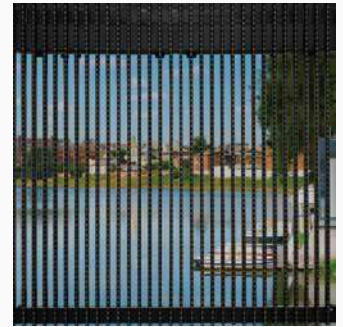
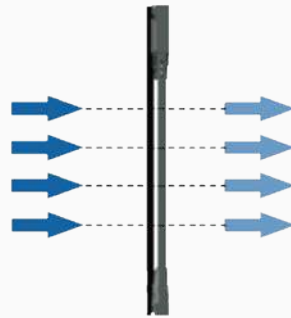
Standard transparent version of the box, you can also choose the back of the box sealing design

Flexibility



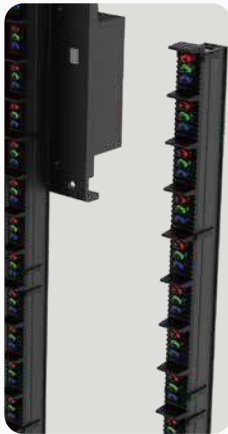
Multiple cabinet sizes are available, and same width cabinets can be spliced together

High Permeability



No block for light, air and breath

Front / Rear Maintain



Front maintenance module

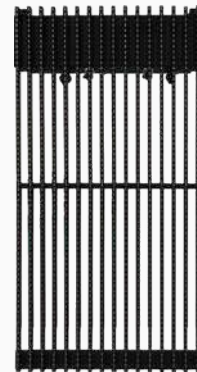


Rear maintenance module



Rear maintenance PSU

Convenient



14kg
500*1000mm

The weight of a single 500*1000mm cabinet is only 14 KG, which can be installed by one person, saving labor costs

JS Series

Indoor Rental COB Panel



Specifications

Model	JS0.7	JS1.2
Pixel Pitch Exhibited(mm)	0.79	1.26
LED Type	COB (Flip chip)	COB (Flip chip)
Module Size(WxH)	304×342	304×342
Pixel Per Module(dots)	384×432	240×270
Panel Size(mm)	608×342×80	608×342×80
Pixel Per Panel(dots)	768×432	480×270
Material	Die casting aluminum	Die casting aluminum
Weight(kg/panel)	7.4	7.3
Brightness(nits)	600	800
Gray scale (bit)	13	13
Refresh rate (Hz)	3840	4320
Color Temperature(K)	3200~9300	3200~9300
Viewing angle(H)	170°	170°
Viewing angle(V)	160°	160°
Power Max. (W/m ²)	190	220
Operating Temperature(°C)	-10~+45	-10~+45
Module IP Rating (Front)	IP65	IP65
Installation/Maintenance	Front&Rear	Front&Rear

Remark:Power consumption tolerance: ±15%, according to the actual situation.
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Super Protection



Waterproof



Moisture-proof



Anti-bump



Anti-static



Dustproof

Energy Saving

The power consumption is about 50% lower than that of similar products



Colorful

Higher color reproduction, lossless image quality, ultra-high contrast, and high black color consistency



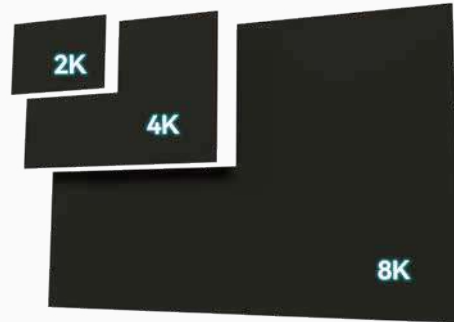
Ice Screen

The surface temperature of the display is lower than the body temperature



Perfect Display

Arbitrarily spliced into a display ratio of 16:9
Easily achieve 2K 4K 8K point splicing



Quick Installation



Equipped with a quick lock



Support floor stand mounting



Support lifting beam mounting

W Series

Outdoor & Indoor Rental Display Panels



Specifications

Model	W1.9	W2.3	W2.6	W2.9	W3.9	W2	W3	W4
Pixel Pitch Exhibited(mm)	1.95	2.38	2.6	2.97	3.9	2.97	3.9	4.8
LED Type	SMD1212	SMD1415	SMD1415	SMD2020	SMD2020	SMD1515	SMD1921	SMD1921
Pixel Per Panel(dots)	256×256 256×512	210×210 210×420	192×192 192×384	168×168 168×336	128×128 128×256	168×168 168×336	128×128 128×256	104×104 104×208
Panel Size(mm)	500x500x80 / 500x1000x80							
Material	Die casting aluminum							
Weight(kg/panel)	7.9/14	7.8/14	7.5/13.5	7.5/13.5	7.5/13.5	8.5/14.5	7.7/14	7.7/14
Brightness(CD/m ²)	800	1000	1000	1000	1000	4000	4500	4500
Power Max. (W/m ²)	432	512	488	550	530	615	650	690
Inner arc	0° 6° 12°							
Outer arc						0° 3°	0° 3° 6°	
Gray scale (bit)	14-16					14-16		
Refresh rate (Hz)	3840					3840		
Color Temperature	3200~9300					3200~9300		
Viewing angle(H/V)	140 / 140					140 / 110		
AC Operating Voltage	100~240					100~240		
Operating Temperature(°C)	-20~+50					-20~+50		
IP Rating (Front/Rear)	IP30/IP30					IP65/IP54		
Installation/Maintenance	Front/Rear					Front/Rear		

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Amazing Performance Enjoyment

 **5000 nit**
High brightness

Ensuring a clear display in high ambient light conditions

 **3840 Hz**
High refresh

>3840Hz refresh rate. More comfortable for watching and no scan lines for shooting

 **16 bit**
High gray

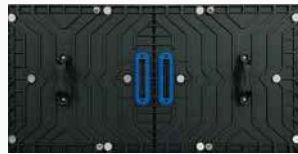
PWM high order IC, low brightness still does not affect the display effect

No Worry for Flatness

Overall die-casting molding of the cabinet has high precision to ensure the cabinet flatness



Small modules (250*250mm) have 8pcs N45 magnets



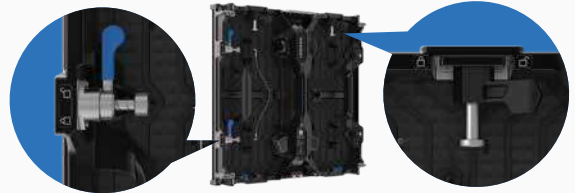
Large modules (500*250mm) have 12pcs N45 magnets to ensure modules flatness

Quick Installation

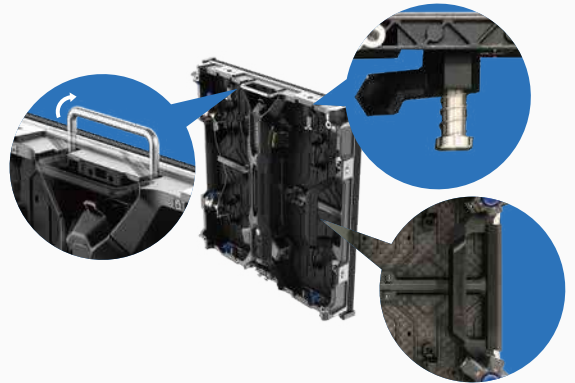
thin and light design for quick installation



Can realize single person installation



Handle rubberized treatment is for non-slip, easy to install



Better Consistency



Brand lamps, bright color uniformity is good

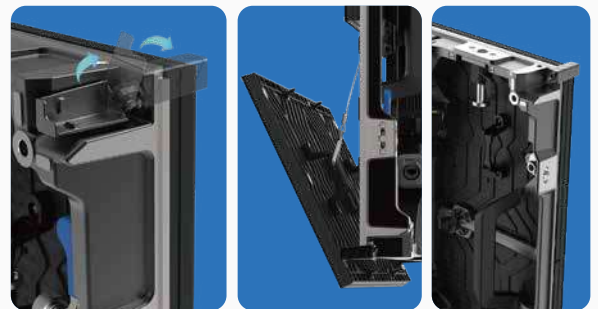


Standard mask, anti-glare, improve consistency



Standard shade cotton, effectively preventing light leakage between the cabinets

High Protection



- The cabinets have corner protection design, 4 corners of the cabinet edge ensure that lamp can realize X Y Z three-axis and 6-face protection and reduce the probability of transportation, moving process of knocking lamps
- The modules have safety ropes to solve the safety problem of falling module
- The cabinet bottom has an anti-knock design

WE Series

Outdoor & Indoor Rental Display Panels



Specifications

Model	WE2.6	WE3
Pixel Pitch Exhibited(mm)	2.604	3.91
LED Type	SMD 1515	SMD 1921
Panel Size(mm)	500x500x85	500x500x85
Pixel Per Panel(dots)	192x192	128x128
Material	Die casting aluminum	Die casting aluminum
Weight(kg/panel)	6.6	7
Brightness(CD/m ²)	600	3500-4000
Gray scale (bit)	14	14
Refresh rate (Hz)	3840	3840
Color Temperature	3200~9300	3200~9300
Viewing angle(H)	120	120
Viewing angle(V)	120	120
Power Max. (W/m ²)	402	543
AC Operating Voltage(V)	200~240	200~240
AC Input Frequency(Hz)	50/60	50/60
Operating Temperature(°C)	-20~+45	-20~+45
IP Rating (Front/Rear)	IP30/IP30	IP65/IP54
Installation/Maintenance	Rear	Rear

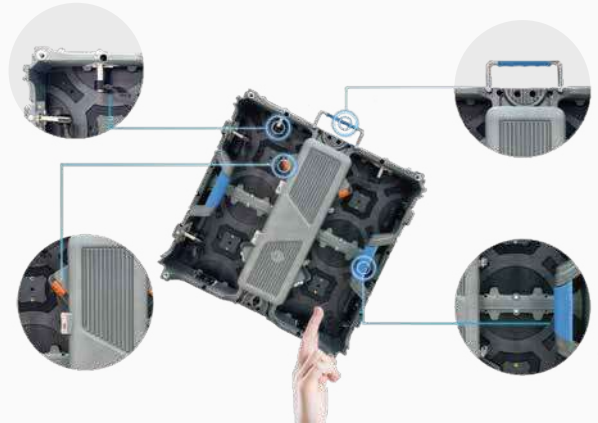
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Good Flatness



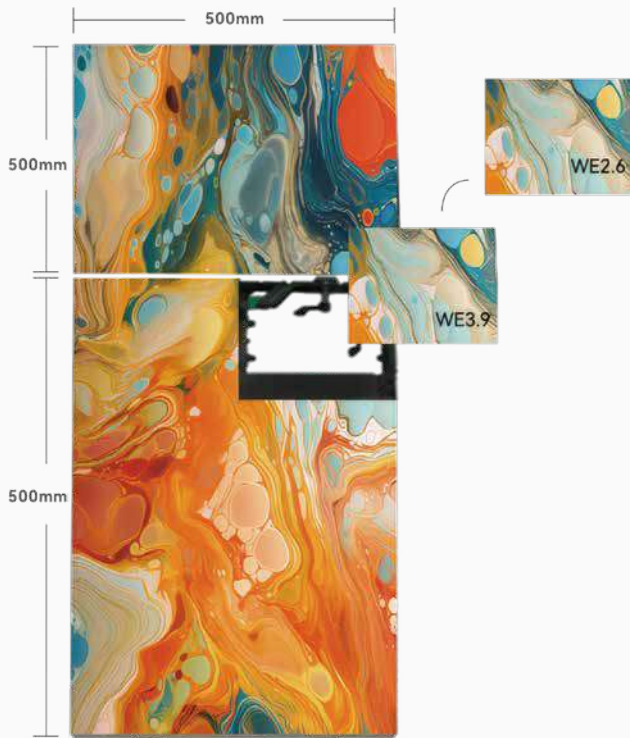
- The overall die casting of the cabinet is formed with high precision, ensuring the flatness of the cabinet
- There are positioning beads on the side and positioning pillars on the top for quick positioning to ensure flatness during installation

Convenient and Fast



- 500 * 500mm indoor weight 6.6kg, 500 * 1000mm indoor weight 14.5kg, 500 * 500mm outdoor weight 7.0kg, lightweight design, quick installation
- Equipped with a quick lock on top and bottom, it can be installed by a single person
- Handle wrapped with glue for anti slip and easy installation

Flexibility



- Interchange of modules with different spacing points (waterproof rings need to be added outdoors)
- The 500 * 500mm cabinet and the 500 * 1000mm cabinet can be spliced together

Good Display Effect



- High refresh rate display: >3840Hz refresh rate, more comfortable viewing, shooting without scanning lines
- Standard mask, anti glare, enhances consistency

Curved Design



Can be spliced into arcs to meet more application needs

Perimeter Series

Outdoor Rental/Sport Display Panels



Specifications

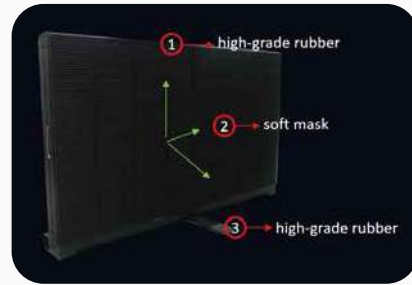
Model	U10
Pixel Pitch (mm)	10
Panel Size (mm)	1600x900x125
Pixel (dot)	160x90
Material	Aluminum
Weight (kg/panel)	60
Gray scale (nit)	14-16
Brightness (nit)	5500
Refresh rate (Hz)	3840
Power Max./Avg. (W/m ²)	690/230
IP Rating (Front/Rear)	IP65/IP54
Module Maintenance Mode	Front/Rear

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Compliance with UEFA Standards



Safe and Reliable



Cabinet top part has protection pillow. The module's soft mask design to protect players from collision during court games

Excellent Visual Presentation



Brightness
5500 nit



Refresh Rate
3840 Hz



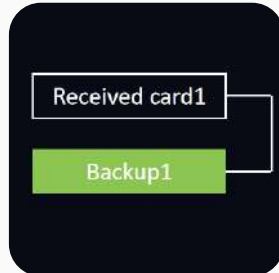
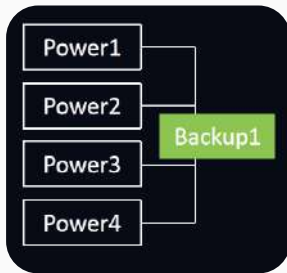
Gray Scale
16 bit

High Brightness, High Refresh Rate, Gray Scale, High-order IC, Realistic and colorful picture



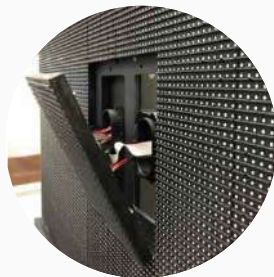
The cabinet can be rotated by 90° to quickly form a safe channel

High Stability



Dual backup of power supply and receiver card to ensure normal operation of the display

Easy Installation and Maintenance



Use T-shape maintenance tool, rotate counterclockwise to remove the module for maintenance
There is a hook lock on the side of the cabinets, and the cabinets can be hooked to each other

Dual Waterproof Design



Dual waterproof design, cabinet structure waterproof + modules independent waterproof, the display can continue to serve you in rainy days

LEDMAN LEDHUB

Interactive Conference All-in-one

2nd
Generation



Specifications

Model	EA135HW
Screen Size	135 inches
Panel Type	COB
Screen Resolutions	1920*1080
Pixel Pitch Exhibited (mm)	1.5
Bare Metal Size (mm)	3012*1838.07*56.6
Brightness (cd/m ²)	600
Visual Angle (H/V)	170°/160°
Refresh Rate (Hz)	3840
Power Max. (W)	1400
Net Weight (kg)	150
Installation/Maintenance Mode	Wall Hanging, Moving Bracket(Optional); Front Maintenance
Built-in System	Android8.0
Android Hardware Configuration	4G+32G
Screen Mirroring	9-screen
Screen Transfer Terminal	Android phone, iPhone, iPad, iMac, Windows PC
One-button Shutdown	Can be One-button Into the Shutdown State,One-button to Wake Up
Built-in Stereo	Built-in 2*15W
Audio and Video Input	HDMI*2
Audio and Video Output	HDMI*1, TRS*2
USB Interface	USB2.0*3, USB3.0*1, USB2.0*1 (Available only when Windows OS option is selected)
Network Interface	LAN*1, RS232, USB2.0*2

6 Highly Protective



"Strong"
Without Worries

Super Protection, anti-collision and shock-proof, not fragile screen, the front is waterproof and moisture-proof, easy to clean, higher reliability, zero dead pixel rate Ex-factory, long use time without trouble

Open Your Horizons and Enjoy Brightness

600 nits brightness is as bright as the sunshine, intense contrast brings your content to life. You can enjoy the realism of true nature and no need to turn off the lights or draw the curtain

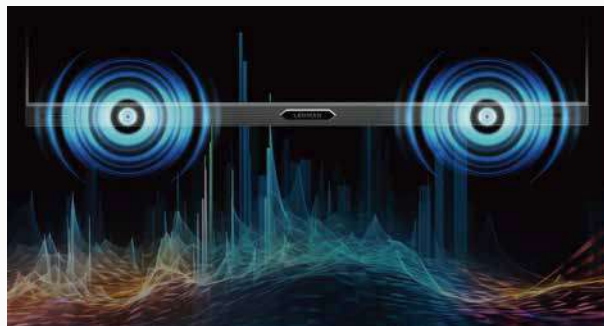


Multi Integrated
Interfaces

Equipped with various types of interfaces. Meet different usage scenes. Perfect Compatibility.

Wireless Screen Sharing Enjoy Working on The Big Screen

Support 9-split Screen | Extremely Fast Screen Loading | No Delay



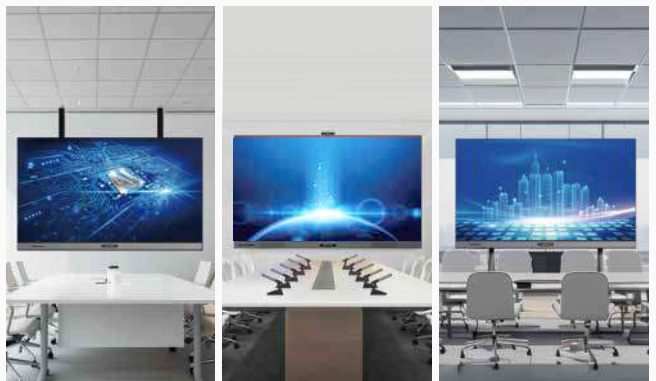
Audio & Video
at Immersive and
Realistic Experience

Built-in two channel 15W high-power speakers. Symmetrical layout. Provide you with audio and video entertainment that you've experienced in theater.

Various Installation Methods

Hoisting, Wall Hanging, Mobile Support

Interactive System Options



LEDMAN LEDHUB

Interactive Conference All-in-one

2nd
Generation



Specifications

Model	CB110H	CB138H	CB165H	CB138V	CB163V
Screen Size	110 inches	138 inches	165 inches	138 inches	163 inches
Panel Type	COB	COB	COB	COB	COB
Screen Resolutions	1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160	3840 x 2160
Pixel Pitch Exhibited (mm)	1.2	1.5	1.9	0.79 (Super COB Based on technology)	0.93 (Super COB Based on technology)
Bare Metal Size(mm)	2466 x 1522 x 64	3074 x 1864 x 64	3682 x 2206 x 66	3074 x 1864 x 64	3634 x 2179 x 66
Brightness (cd/m ²)	450	450	450	450	450
Visual Angle (H / V)	170°/160°				
Refresh Rate(Hz)	3180	3000	3000	3840	3840
Power Max. (W)	1150	1900	2600	950	1150
Net Weight (kg)	136.5	191	261	191	253
Installation/Maintenance Mode	Wall Hanging, Moving Bracket(Optional); Front Maintenance				
Built-in System	Android 8.0/Windows10 Dual System				
Touch Technology	Infrared Touch, 10 Points				
Screen Mirroring	9-screen				
Screen Transfer Terminal	Android phone, iPhone, iPad, iMac, Windows computer				
One-button Shutdown	Can be One-button Into the Shutdown State,One-button to Wake Up				
Built-in Stereo	Built-in 2*15W				
Audio and Video Input	HDMI*2				
Audio and Video Output	HDMI*1 TRS*1				
USB Interface	USB-B*1, USB2.0*4, USB3.0*3				
Network Interface	LAN*2				

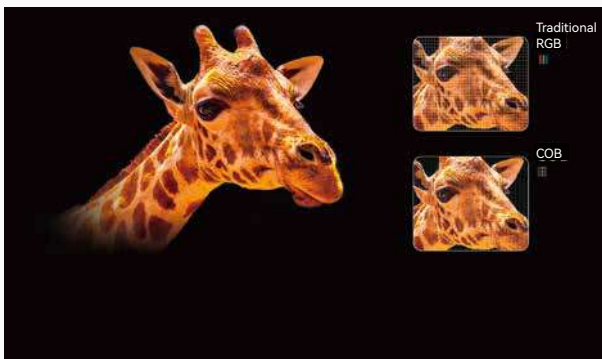
New Generation COB UHD Display Panel

Ideal LED display panel for touchable large displays



Strong Protection And Worry-free

Ultra-protective, anti-collision and anti-shock, break-age-proof screen, waterproof and moisture-proof on the surface. Easy clean, higher reliability, zero factory pixel failure rate, extremely long uptime.



Brilliant By Nature

High brightness, high contrast ratio, high color gamut, HDR super beautiful image quality. Anti-blue light, self-luminous, area light, multiple eye protection, more healthy.



Easy Reach At Your Fingertips

Own patented COB technology, touchable and interactive, smooth panel and operation. Ledman's patented algorithm for screen scaling, one finger full screen scaling, three fingers summoning function Hoverball .

Interactive System Options



Conference Scenario Solution

LEDMAN All-in-one---New Future of Conference Display

Writing White Board

Four basic functions: write, wipe, save and transfer. Write without borders, wipe by palm, save in one click, code scanning to take away. Make meeting minutes easily create and freely take.

Wireless Screen Mirroring

Rapid screen sharing across operating systems. Up to nine split screens mirroring at the same time. Reverse screen mirroring for bidirectional operation.

Document Management

Support mobile upload and USB Stick reading. Automatically classified management for multi-format, diverse documents. Easily display, efficiently access.

Video Conferencing

Applicable for all mainstream cloud meeting platforms. Allow for cross-platform and multi-terminal access, seamless connection and remote collaboration. Meeting recording, not missing every detail, let the meeting break the time and space limitations.

Powerful Performance | Efficient And Smooth

Dual System Flexible Switching



Windows & Android. No application Limitations. Available professional software at any time.

Octa-core Chip



High main frequency, large file rapid load. Multi-threading, multi-tasking with ease.

Rapid Multi-touch



High precision positioning. Multipoint interaction.

4K Sensor Camera



Full screen for center position speaker. Smart camera tracking.

Application Scenarios

Government and enterprise office/ Business conference/ Education training Exhibition/ Universities and institutions/ Smart healthcare



LEDMAN LEDHUB

Interactive Conference All-in-one

3rd
Generation



Specifications

Model	CB138H	CB138V	CB163V	CB165H
Screen Size	138 inches	138 inches	163 inches	165 inches
Panel Type	COB	COB	COB	COB
Screen Resolutions	1920 x 1080	3840 x 2160	3840 x 2160	1920 x 1080
Pixel Pitch Exhibited (mm)	1.5	0.79 (Super COB Based on technology)	0.9 (Super COB Based on technology)	1.9
Bare Metal Size (mm)	3074 x 1864 x 64	3074 x 1864 x 64	3634 x 2179 x 64	3682 x 2206 x 66
Brightness (cd/m ²)	600	600	600	600
Visual Angle (H / V)	170°/160°			
Refresh Rate(Hz)	3840	3840	3840	3840
Power Max. (W)	1100	950	1150	1500
Net Weight (kg)	193	193	257	267
Installation/Maintenance Mode	Wall Hanging, Moving Bracket(Optional); Front Maintenance			
Built-in System	Android 13 / Windows11 Dual System			
Touch Technology	Infrared Touch, 20 Points			
Screen Mirroring	16-screen			
Screen Transfer Terminal	Android phone, iPhone, iPad, iMac, Windows computer			
One-button Shutdown	Can be One-button Into the Shutdown State,One-button to Wake Up			
Built-in Stereo	Built-in 2*15W			
Audio and Video Input	HDMI*3 , TYPE-C*1 , 3.5mm TRS*1			
Audio and Video Output	HDMI*1 , 3.5mm TRS*1 , SPDIF*1			
OPS Interface	HDMI OUT*1, USB3.0*2, USB2.0*2, TYPE-C *1, DP*1, LAN*1, 3.5mm TRS IN*1, 3.5mm TRS OUT*1, WIF*1, AP*1			
USB Interface	USB3.0*6			
Network Interface	LAN*2			

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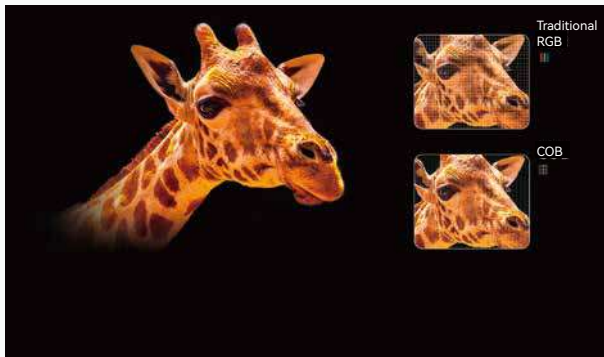
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NFC

Screen sharing by NFC
User authorization management by NFC

Multiple Interface

Equipped with multiple types of interfaces. Meet different usage scenes. Perfect Compatibility.



Powerful Performance | Efficient And Smooth

Dual System Flexible Switching



Windows 11 & Android 13

No application Limitations

Available professional software at any time

Octa-core Chip



High main frequency, large file rapid load

Multi-threading, multi-tasking with ease

Lift-off Detection



LEDMAN smart stylus detection

Magnetic adhesion

Easily entering writing mode by picking up the stylus

4K Sensor Camera



Full screen for center position speaker

Smart camera tracking

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Applicable for all mainstream cloud meeting platforms.
Allow for cross-platform and multi-terminal access, seamless connection and remote collaboration.
Meeting recording, not missing every detail, let the meeting break the time and space limitations.



LEDMAN LEDHUB

Interactive Conference All-in-one

3rd
Generation



Specifications

Model	EA135H	EA163Q
Screen Size	135 inches	163 inches
Panel Type	COB	COB
Screen Resolutions	1920*1080	2304*1296
Pixel Pitch Exhibited (mm)	1.5	1.5
Bare Metal Size (mm)	3012*1838*57	3612*2169*57
Brightness (cd/m ²)	600	600
Visual Angle (H/V)	170°/160°	170°/160°
Refresh Rate (Hz)	3840	3840
Power Max. (W)	1400	2000
Net Weight (kg)	150	200
Installation/Maintenance Mode	Wall Hanging, Moving Bracket(Optional); Front Maintenance	
Built-in System	Android 13	
Android Hardware Configuration	8G+128G	
Screen Mirroring	16-screen	
Screen Transfer Terminal	Android phone, iPhone, iPad, iMac, Windows PC	
One-button Shutdown	Can be One-button Into the Shutdown State,One-button to Wake Up	
Built-in Stereo	Built-in 2*15W	
Audio and Video Input	HDMI*3 , TYPE-C*1 , 3.5mm TRS*1	
Audio and Video Output	HDMI*1 , 3.5mm TRS*1 , SPDIF*1	
USB Interface	USB3.0*6	
Network Interface	LAN*2	

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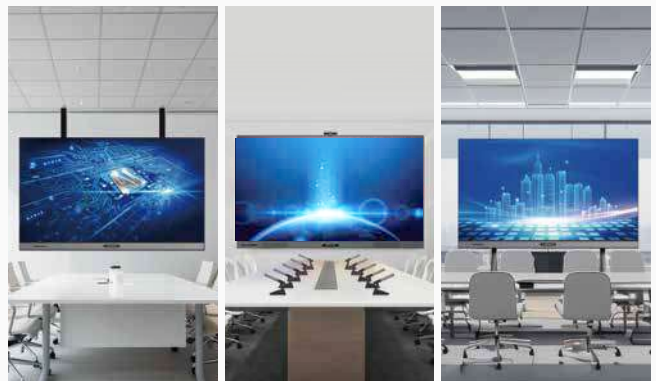
NFC

Screen sharing by NFC
User authorization management by NFC

Various Installation Methods

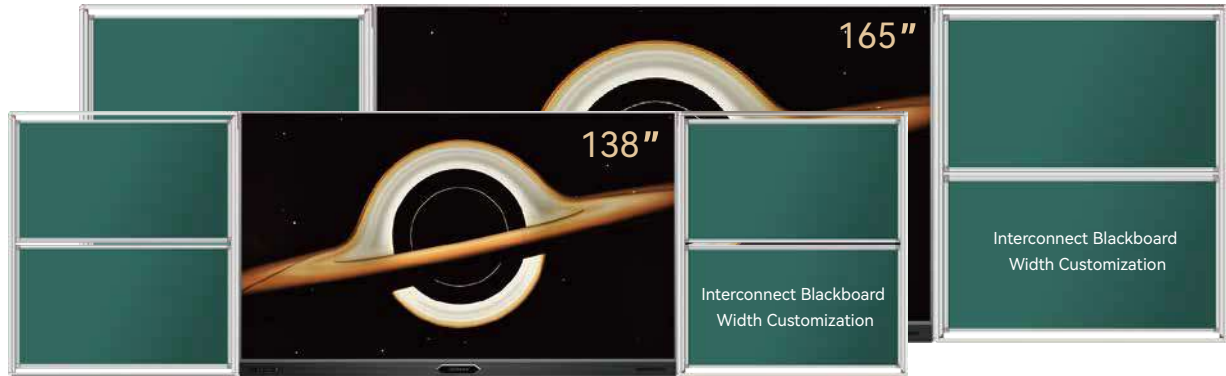
Hoisting, Wall Hanging, Mobile Support

Interactive System Options



LEDMAN LEDHUB Interactive Education AIO

Leading the new future of innovative teaching mode



Specifications

Name		Smart Classroom Education Display System	
LEDHUB	Screen Size	138inches	165 inches
	Pixel Pitch (mm)	1.5	1.9
	Display Size (mm)	3040*1710	3648*2052
	Panel Type	COB	
	Screen Resolution	1920*1080, HD	
	Screen Brightness (cd/m2)	450	
	Visual angle (Level / Vertical)	170°/160°	
	Maintenance mode	Front	
	Android version	Android 8.0	
	Windows system version	Windows 10	
	Touch technology	Infrared touch, 10 points	
	Touch recognition accuracy (mm)	1	
	Response time (ms)	9.5	12
	Support for screentransfer terminal	Windows, MAC Android phones: software required) Iphone、Ipad	
	Hardware screen transmitter	Support	
	Support for multi-screen simultaneous interpretation	9-screen	
	Reverse control	Support for touch reverse control	
	Writing whiteboard	Intelligent multi-point writing whiteboard	
	One-button Shutdown	Can be One-button Into the Shutdown State, One-button to Wake Up	
	Built-in stereo	Built-in 2*15W	
Audio and Video Input	HDMI*2, 3.5mm TRS*1		
Audio and Video Output	HDMI*2, 3.5mm TRS*2		
USB Interface	USB-B*1, USB2.0*4, USB3.0*3		
Network interface	LAN*2, WIFI*2 AP*2		
Control interface	RS-232*1, USB2.0*1		
Peak power consumption (W)	1900	2600	
Power supply requirement	100-240V/AC (50-60Hz)		
Lifting Blackboard	Hardness	9H	
	Color	Green/White	
	Touch accuracy (mm)	≤2	
Other Information	Bare metal size (mm, LEDHUB+Blackboard)	6336.1*1864.2*111	7701.5*2199.0*111
	Weight(kg, LEDHUB+Blackboard)	256	377

Remark:Power consumption tolerance: ±15%, according to the actual situation.
Ledman Optoelectronic Co., Ltd. reserves the right to modify specifications and parameters without further notice.
Ledman Optoelectronic Co., Ltd. reserves the final interpretation right of this document.



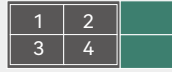
Main Function



Synchronous Display



Arbitrary Zooming



Four Split-screen Whiteboards



Complete Annotation



Support Multiple External Devices



Online Teaching

Intelligent Interactive Education Display

Ideal LED display panel for large display touch applications



Easy Reach At Your Fingertips

Own patented COB technology, touchable and interactive, smooth panel and operation
 Ledman's patented algorithm for screen scaling, one finger full screen scaling, three fingers summoning function, Hoverball

High Reliability



Anti-collision

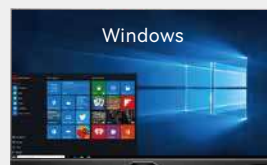


Module Waterproof



Soft Eye Protection

Dual System



Built-in Android 8.0, Windows10 Dual System

LEDMAN

LEDPLAY
Household COB
Giant Video Wall

Luxurious Customized Future Home
Mega Screen Audiovisual Lifestyle

Micro LED



Extra-large size

supports custom customization



Ultra-HD quality

Micro LED



Seamless connection

easy access

600cd/m²

high brightness

1000000:1

high contrast

120% DCI-P3

wide color gamut

Smart home

RS232 smart
connectivity

MEMC

motion
compensation

HDR

supports HDR
(High Dynamic
Range)

Vast content

millions of videos

Powerful
performance

flagship chip
8K decoding

low blue
light

TÜV Rheinland

Smart
interaction

pop-up camera
far-field voice

LEDPALY

designed specifically
for top-end users



Private villa



Luxury residence



Luxury club

Product Specifications

Product Model		LH108XPro	LQ110Pro	LQ135XPro	LV138Pro	LV163Pro
Screen Parameters	Screen Size	108 inches	110 inches	135inches	138inches	163inches
	Screen Type	COB (Chip-on-Board) packaged Micro LED display panel				
	Screen Resolution	2560*1440	3072*1728	3200*1800	3840*2160	3840*2160
	Screen Brightness (cd/m ²)	600				
	Viewing Angle (Horizontal/Vertical)	170°/170°				
	Color Gamut (DCI-P3)	120%				
	Screen Refresh Rate	IP65 (Front)				
	Display Mode	Front Maintenance				
System Platform	System Hardware Configuration	"8.5GB DDR4 128GB EMMC"				
	Built-in System	Android System				
	Android System Version	Android 9.0				
Human Machine Interaction	Wireless Casting	Supported				
	Remote Control	Supported				
	Voice Remote Control	Supported				
	Far-field Control	Supported				
	Adjustable Camera	Supported				
Image and Sound	Microphone Array	DTS M6 Decoding				
	Video Call	Supports 8K video playback or 4K 60Hz 10-bit refresh rate, MEMC motion compensation, and HDR				
	Internal Speaker	"Midrange 215W, Bass 218W"				
Functional Interfaces	HDMI IN	"HDMI 2.0*1, HDMI 2.1(ARC)*1"				
	USB Interface	"USB2.01, USB3.01"				
	Network Interface	LAN*1				
	SPDIF	Fiber Optic*1				
	Built-in WiFi	"2.4G/5G Dual-band, Supports WIFI6"				
	Built-in Bluetooth	BT5.2				
	Headphone Output	Earphone*1				
Central Connector	RS232*1					
Electrical Parameters	Rated Power (W)	720	720	1120	1120	1600
	Standby Power (W)	<0.5	<0.5	<0.5	<0.5	<0.5
	Power Supply	100-240V/AC (50-60Hz)				
Accessory Requirements	Power Consumption	Infrared + Bluetooth				
	Electric Plug	√	√	√	√	√
	Wall Mount	√	√	√	√	√
	Stand Type	√	√	√	√	√
Dimensions and Weight	Stand Dimensions (mm)	2412*1362*38	2444*1380*38	3012*1699.5*38	3052*1722*38	3612*2037*38
	Overall Dimensions (mm)	90	100	130	150	190
	Screen Weight (KG)	1563.5*197*210.5				
	Total Weight (KG)	16				

* The above data comes from the Ledman laboratory. The images in this manual are for reference only, and the actual product shall prevail. Ledman reserves the right to modify the product, and changes in specifications may be made without prior notice.



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