

**KL Series II**

# KL Series II

1.2mm | 1.5mm | 1.8mm | 2.5mm



**16:9**

Golden ratio



**HFR+**

High frame rate mode



**800nits**

Maximum brightness



**X/Y/Z axis**

Six-direction alignment



**Fine Adjustment**

Grayscale improvement technology



**Color Precision**

Color management technology



**3840Hz**

High refresh rate



**Dual receiving card &  
dual power box**

Optional version



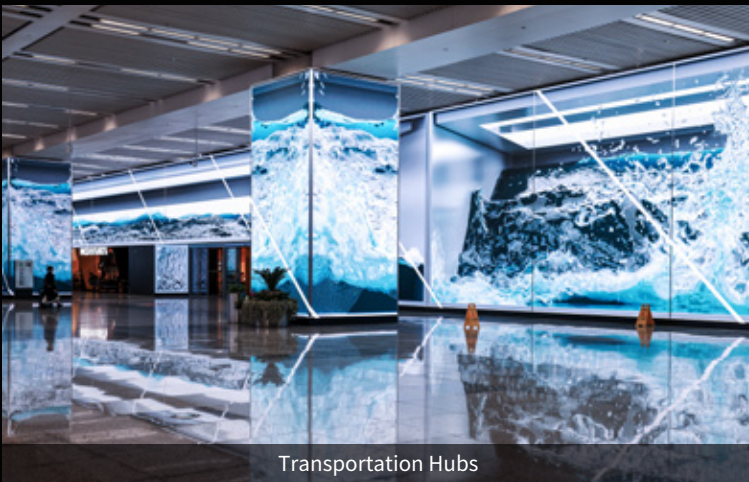
## For all commercial display applications



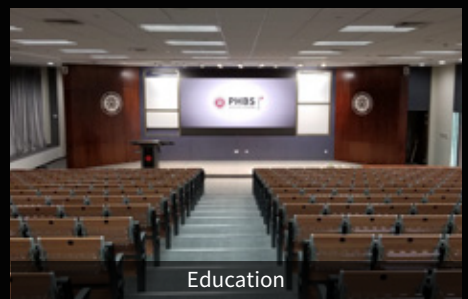
Control rooms



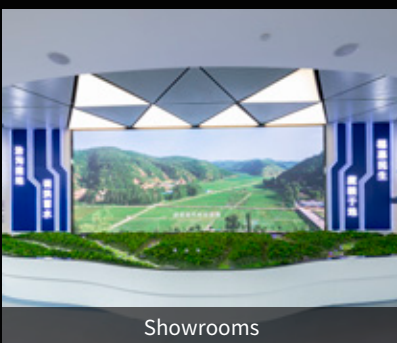
Retail, shopping malls



Transportation Hubs



Education



Showrooms



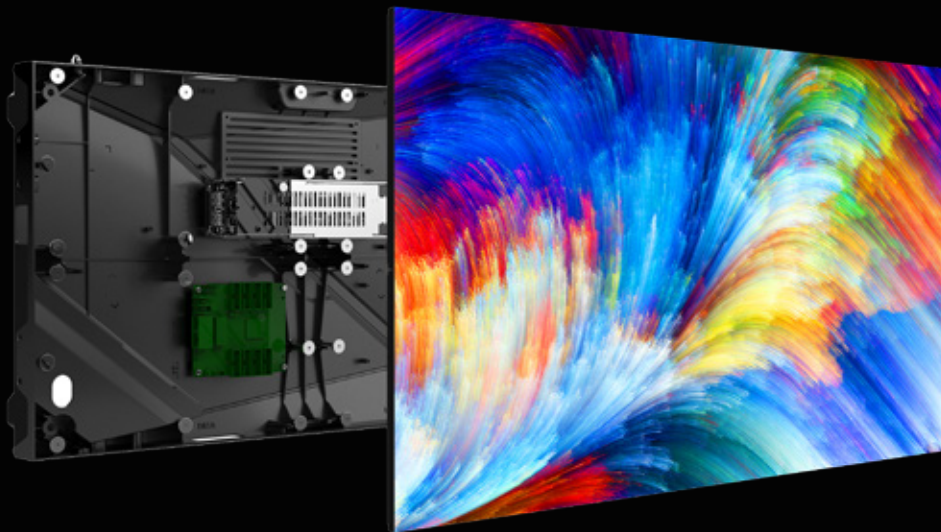
Enterprises



Conference Rooms

## Ready-to-use panel with superior quality

Adopting the closed design, the panel contains high-quality power supply, receiving card and other components. Delivered in the form of ready-to-use panel, product quality is more guaranteed.



Fine die-casting  
aluminum cabinet



High-performance receiving card



High-quality power box

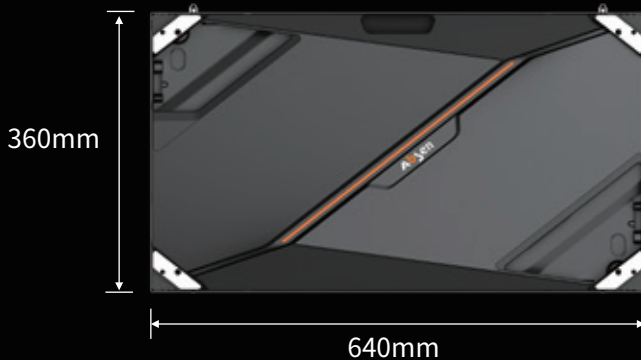


Magnets with strong attraction force



## Golden ratio brings better visual comfort

Based on ergonomic research, the panel adopts the golden ratio of 16:9 to enhance viewing comfort. It is also more suitable for playing mainstream videos.



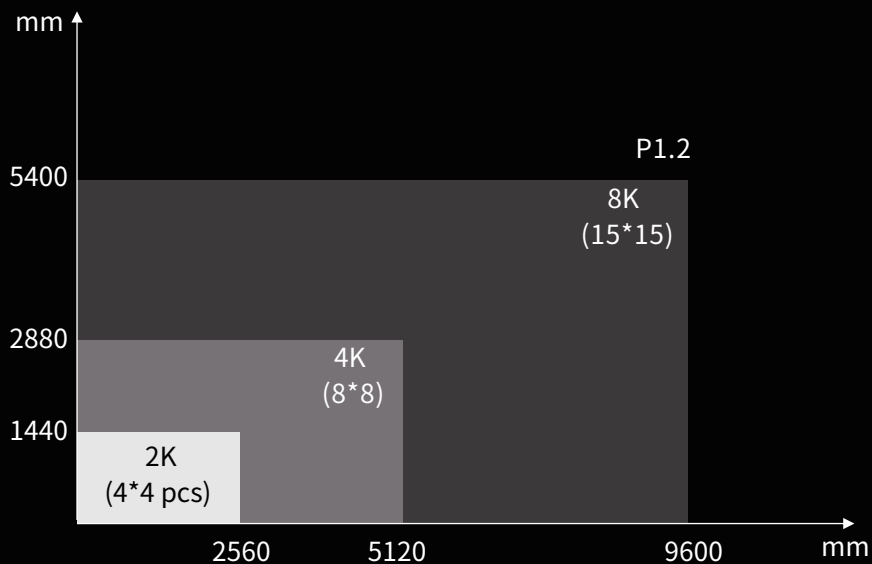
# 16:9

Panel size

The optimal aspect ratio for viewing  
Mainstream video aspect ratio

## Easily enjoy 8K vision display

112 panels can be spliced into a 16:9 screen to quickly achieve a 2K, 4K or even 8K display, making it especially suitable for use in places such as studios, command centers and conference rooms.



## Fine Adjustment grayscale improvement technology

The grayscale performance is increased by four times, making the grayscale changes more naturally. Even under low brightness, it can perfectly display details even in the dark parts of the picture.



Fine grayscale, details visible in dark parts



Low grayscale, details lost in dark parts

## Color Precision management technology

Intelligent adjustment is made through Color Precision management technology to match the color gamut range of the display with the source image. Highly reproduce natural scenes and achieve high-fidelity colors.



Original image



No color management, with color deviation

With color management, no color deviation



## HFR+ mode for capturing the best moments

Supports HFR+ mode\* (120Hz high frame rate), smoothly displaying high-speed, quick-changing content and enhancing visual fluency, making it especially suitable for playing high-speed motion pictures and 3D pictures.



\*HFR: High Frame Rate; KL1.2 II does not support 120Hz

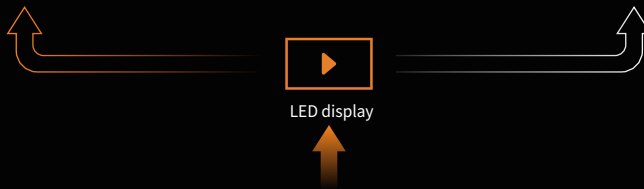
# Ultra-low latency enables real-time image display

Reduces delays in transmission of video sources, synchronizes the display of real-time images and helps achieve live broadcasting with ease.



Sync to KL II series  
Low latency

Sync to other displays  
Significant latency



Live broadcast of transmitted computer images

## Record exciting moments as you like

The brightness can reach up to 800nits, which greatly reduces the influence of ambient light on the display effect. Using PWM LED driver IC, the refresh rate is as high as 3840Hz, and there is no scan line when taking pictures.



Photo taken without scan lines

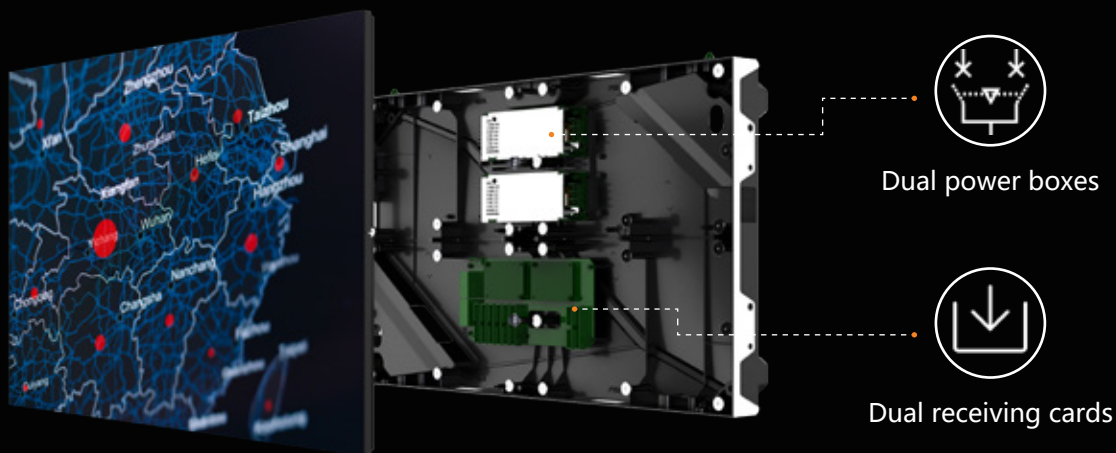


Photo taken with scan lines



## Always keep the signal uninterrupted

Supports dual receiving cards and dual power boxes to ensure uninterrupted power supply and signal, so as to realize continuous transmission of information. This function is especially suitable for use in places such as control rooms and studios.



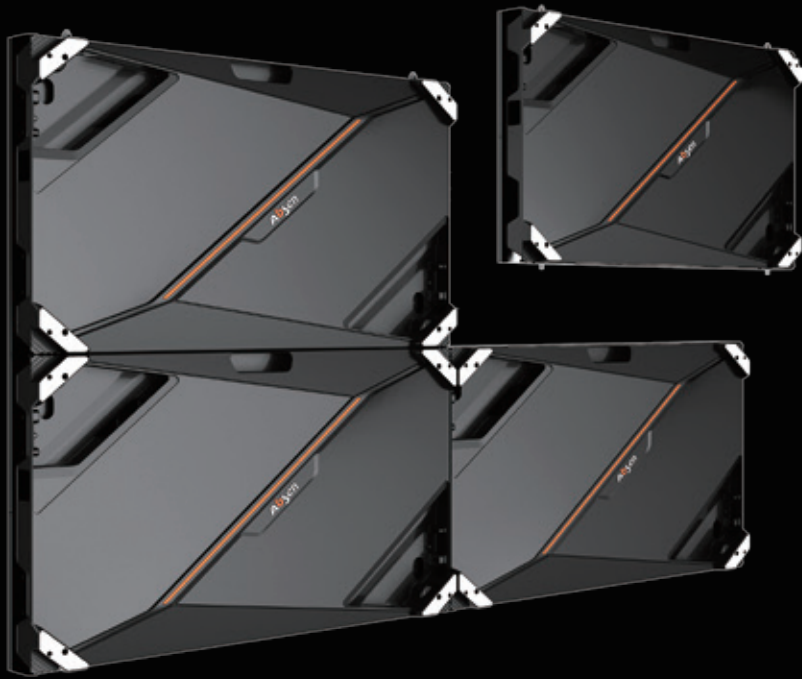
Control room



Studio

## Multiple installation methods

The KL II Series supports hanging, wall mounting and stacking installation, etc.  
Hidden wiring design is adopted to make the installation more tidy.  
It supports six-direction alignment to improve flatness of the screen.



Stacking  
installation



Wall-mounting  
installation



Hanging  
installation



Hidden wiring  
design



Anti-collision  
design



Quick  
plug-in/out



X/Y/Z axis  
alignment

## Standard elegant accessories

Provide standard hanging bar and backing strip accessories to make installation easier.  
Provide ultra-thin trim pieces solution to enhance aesthetic feeling in all directions.



- 640mm/1280mm hanging bar



- 2-in-1/ 3-in-1 backing strip



- Ultra-thin trim pieces



## Easy and convenient front maintenance

Support front maintenance of module, receiving card and power box.  
No need to build a dedicated maintenance channel, thereby saving installation space.



Module



Receiving card



Power box

# Standardized quality control

It is manufactured in Absen's own factory through a standardized production process, and has obtained multiple certifications, allowing customers to use it without any worries.



## Standardized manufacturing process

Every step of the production process is strictly managed to ensure product quality



## Strict quality control

18 monitoring procedures  
29 operating procedures  
33 recording procedures  
2,285 inspections and tests



## Multiple certifications obtained, legal and compliant

Certified through CCC, China Energy Conservation Certification, etc.  
Passed performance/ blue light hazard/ photobiology test, etc.,  
which are recognized by CNAS accredited institution

# Professional service, best experience

Absen has built up a global network , able to provide prompt and professional local services.

## Absen service ability



### Comprehensive support

Enjoy 2-year warranty, support up to 3-year extended warranty, lifetime maintenance, and enjoy 10+ items of professional service solutions to help you solve problems



### Global coverage

400+ Absen certified partners, 2,400+ Absen certified engineers, covering most of the global market, the global service network is continuing to expand vigorously



### Multiple service channels

Providing service via multiple channels such as Hot line, WeChat, WhatsApp, E-mail and official website to quickly take care of service requirements



### 24/7 response

24/7/365 available, quick response in 10 seconds



### One-stop service

Enjoy exclusive and professional service in the whole process of pre-sales, sales and after-sales



### Service channels

Hot line: +86 400-700-3278  
WeChat: 13923413428  
WhatsApp: 008613923413428  
Email: [service@absen.com](mailto:service@absen.com)  
Official website: [www.absen.com](http://www.absen.com)



### Service time (GMT+8)

8:30~24:00: Staff service  
00:00~8:30: Intelligent system service



## Absen service philosophy

### Initiative

Proactive care and return visits, regular touring inspection services for customers

### Efficiency

Absen customer service center responds within 10 seconds, intelligently match the best local service resources, and enjoy a fast service experience

### Standardization

Comprehensive service engineer training system, ACE professional training and certification, ACP professional certification; establishing customer's product files and record the entire service process

### Thoughtfulness

Longer warranty, worry-free quality



## Ready-to-Use LED

· Superior Quality / Worry-Free / Safe & Secure

## Superior Quality

Excellent product design

Reliable raw material

Standard manufacturing process

Quality control throughout the whole manufacturing process

Extraordinary visual effect



VS

---

## Inferior Quality

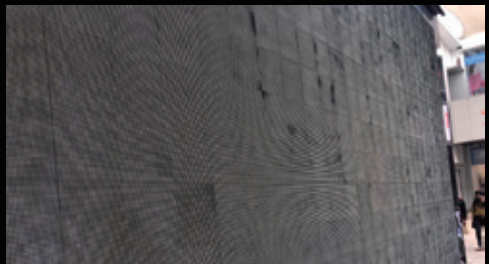
Crude product design

Poor raw material

Non-standard manufacturing process

No strict quality control

Terrible visual effect



## On-Site Assembly LED

· Inferior Quality/ Troublesome/ Hidden Dangers

## Worry-Free

- Ready-to-use panel
- Quick installation
- One-stop standard solution
- Global service and long term warranty



## Safe & Secure

- Safe and trustworthy
- Certification
- Professional installation & maintenance services



## Troublesome

- On-site assembly
- Complicated installation
- Non-standard solution
- Unreliable after-sales service



## Hidden Dangers

- Great security risks
- No certification
- Non-standard installation & maintenance services





## Parameters

		KL1.2 II	KL1.5 II	KL1.8 II	KL2.5 II
Physical parameters	LED type	Black SMD1010	Black SMD1212	Black SMD1515	Black SMD1515
	Pixel pitch (mm)	1.25	1.53	1.86	2.5
	Panel dimensions (W*H*D, mm)	640×360×65	640×360×65	640×360×65	640×360×65
	Panel resolution	512×288	416×234	344×192	256×144
	Panel weight (kg)	6	6	6	6
	Panel material	Die casting aluminum			
Photoelectric parameters	Module size (W*H, mm)	320×180	320×180	320×180	320×180
	Brightness (nit)	800	800	800	800
	Refresh rate (Hz)	≥3840	≥3840	≥3840	≥3840
	Grayscale (bit)	16	16	14	14
	Contrast ratio	5000:1	5000:1	5000:1	5000:1
	Color temperature (K)	3000~12000	3000~12000	3000~12000	3000~12000
	Viewing angle (H/V, °)	160/160	160/160	160/160	160/160
	Drive mode	1/32	1/52	1/43	1/32
	AC operating voltage (V)	200~240	200~240	200~240	200~240
Application parameters	Power consumption (max./avg., W/m <sup>2</sup> )	600/200	560/187	520/173	540/180
	Storage temperature (°C)	- 40~ + 60			
	Operating temperature (°C)	- 10~ + 40			
	Storage humidity (RH)	10%~85%			
	Operating humidity (RH)	10%~80%			
	IP rating (front/ rear)	IP40/IP21			
	LED lifetime (h)	100000			
	Panel maintenance type	Fully front			
	Panel installation type	Stacking/ wall-mounting/ hanging			

\*Note: It is normal for the power consumption to fluctuate within ±15% due to the influence of the brightness of different batches of lamps. Please refer to the actual situation.



### Absen Optoelectronic Co.,Ltd

18-20F Building 3A, Cloud Park, Bantian Huawei Base,  
Longgang District Shenzhen, 518129, P.R.China  
T: +86-755-89747399 E: absen@absen.com  
F: +86-755-89747599 W: www.absen.com

### Absen Inc.

7120 Lake Ellenor Drive, Orlando,  
Florida 32809, USA  
T: +1-407-203-8870 E: info@usabsen.com  
F: +1-407-203-8873 W: www.usabsen.com

### Absen GmbH

Hessenring 4c, 64546 Moerfelden-Walldorf (Frankfurt am Main),  
Germany  
T: +49 (0) 6105 718941-0 E: europe@absen.com  
F: +49 (0) 6105 718941-29 W: www.absen-europe.com

# JD Glass LED Guardrail Screen

**Abesen**  
Trusted LED Supplier



Transparent  
& Simple



Safe &  
Reliable



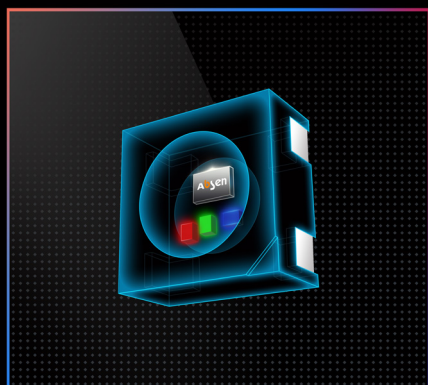
Complete  
Solution



Eco-friendly

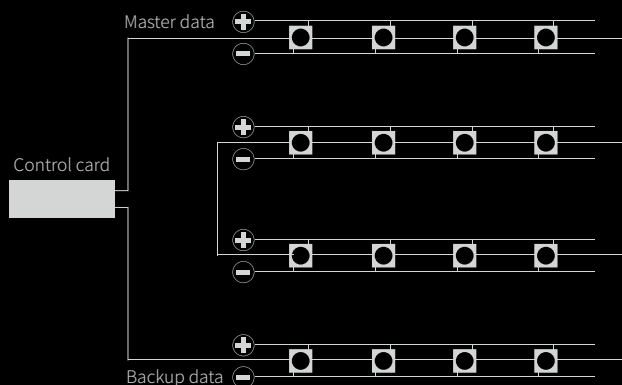
## Core technology

Built-in driver	Accurate control
Fine structure	Stable display effects
True 16-bit gray scale	True-to-life color

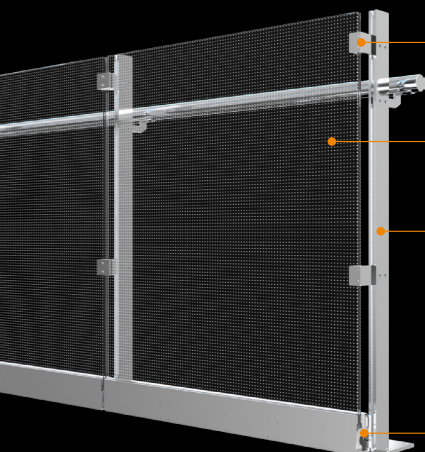


## Two-way drive to secure quality

Two-way driven Drive-IN LED enables data backup signal to work automatically in case of a single point of failure to achieve seamless switching without compromising display effects.



## Powerful screen creates the sense of security



Flexible and customized fixed parts provide mechanical stability

Double-sided laminated tempered glass resistant to shock and collision

Surface with anti-fingerprint technology. Stain-resistant for easy cleaning and consistent with environmental protection requirements

Waterproof plate for power supply and ground wire for guaranteed security

## Transparent screen to integrate with the guardrail

Transparent is higher than 83%. Integrate with the main body of the guardrail for a simple and beautiful look

**83%**  
Transparent





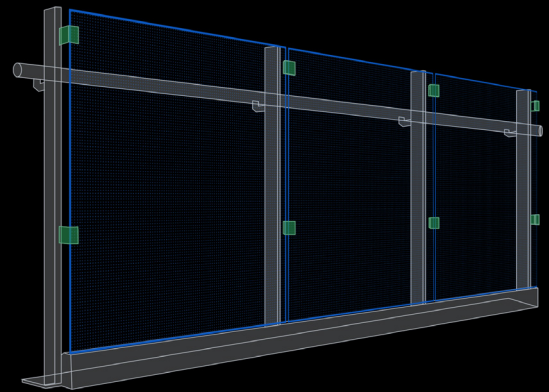
## Dynamic displays and vivid colors beyond sensory experiences

True 16-bit gray scale, guaranteeing clear colors and contrasts



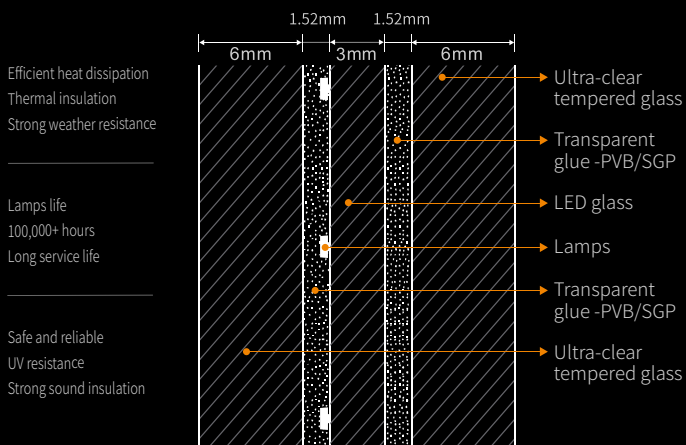
## Modular design for easy installation and maintenance

Modular design for quick installation and disassembly to save time and effort

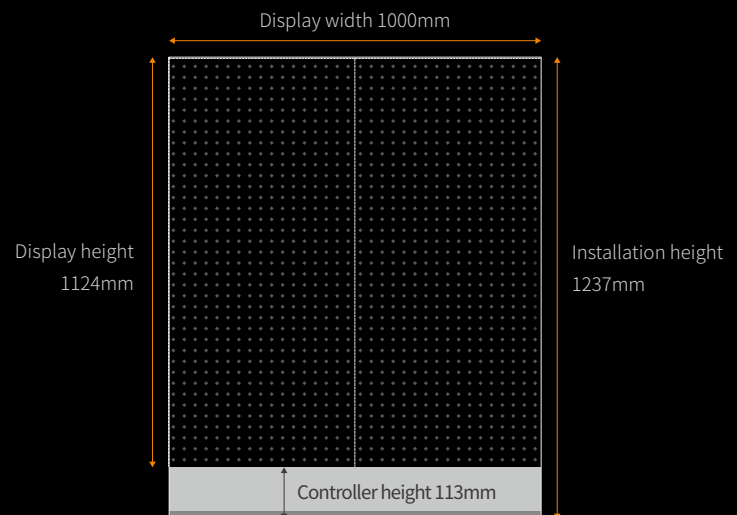


## Energy-saving & environmentally- friendly stable and durable

Nano materials: resistant to high temperatures, oxidation, acid, and alkali  
Special transparent glue, all in one design



## Panel size



## Application

Widely applicable in shopping malls, airports, high-speed railway stations, subway stations, plazas, gymnasiums, squares, etc.



## Product parameters

Product	JD10-P Guardrail	Unit
LED type	Built-in driver	/
Pixel pitch (H/V)	10.42 / 9.8	mm
Brightness	3000	nit
Transparent	83%	/
Panel size (W*H)	1000x1124	mm
Weight	59	Kg
Grayscale	16	Bit
Viewing angle (H/V)	178/178	°
Power Consumption (Max/Ave)	800/267	W/m <sup>2</sup>
Scanning mode	Static scanning	/
IP rating	IP30	/
Input voltage	100-240	V

### Absen Optoelectronic Co.,Ltd

Address: 18-20F Building 3A, Cloud Park, Bantian Huawei Base,  
Longgang District Shenzhen, 518129, P.R.China TEL: +86-755-89747399  
FAX: +86-755-89747599 E-mail: absen@absen.com Website: www.absen.com



Twitter: @LEDAbsen  
LinkedIn: Absen

Facebook: @LEDAbsen  
Instagram: absenled



## Mars Series AbsenLive Break the Horizon



Integrated anchor



Thinner panel



High load capacity



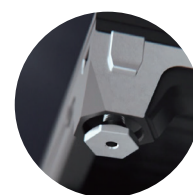
Optional sub-frame

### Professional floor display

- 2.5, 4.8mm pixel pitch
- 0~20mm height adjustable
- 10%~38% thinner than conventional panel  
(compared to other products with 130mm thickness)
- Ultra-high load capacity
- Water resistance surface
- Front installation
- Full front maintenance  
(module, PSU, receiving card, HUB board)

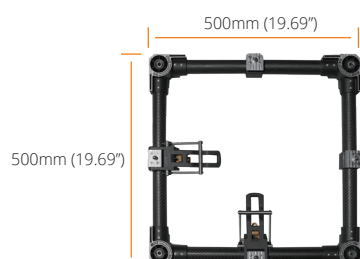


500x500mm (19.69x19.69")

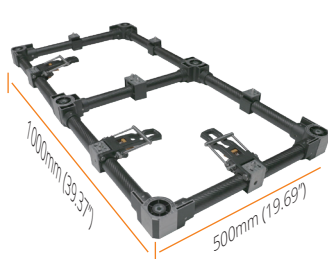


Anchor design  
for height adjustment

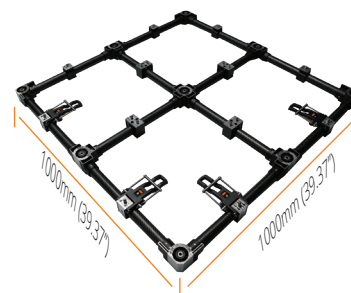
### Optional sub-frame enables fast installation\*



• For 1x1 panel • 3.7kg (8.16lbs)



• For 2x1 panels • 6.3kg (13.89lbs)



• For 2x2 panels • 9.9kg (21.83lbs)

\*All MR series products can be installed with sub-frame, and the anchor-free matte version is the most recommended.



## ◀ MR2.5

- GOB(Glue on Board) packaging technology
- Deep black non-reflective surface
- 1000kg/m<sup>2</sup> load capacity
- 144Hz frame rate (Brompton/NovaStar system)
- 1000nits brightness

## ◀ MR4.8 matte version

- Anti-reflection matte finish
- Perfect black consistency
- 2500kg/m<sup>2</sup> load capacity
- 251Hz/240Hz frame rate (Brompton/NovaStar system)
- ≤1500nits brightness



## ◀ MR4.8 glassy version

- Tempered glass finish
- 2500kg/m<sup>2</sup> load capacity
- 7H surface hardness level
- 1000nits brightness
- MOQ: 500 tiles

## ◀ MR4.8 interactive matte version

- Support up to 1920x1080 resolution
- NovaStar control system
- Anti-reflection matte finish
- 2500kg/m<sup>2</sup> load capacity
- 1000nits brightness

## ◀ Product specification

Parameters	MR2.5		MR4.8 matte version		MR4.8 anchor-free matte version (Need to be used with subframe)		MR4.8 glassy version	MR4.8 interactive matte version
Control system	Brompton	NovaStar	Brompton	NovaStar	Brompton	NovaStar	NovaStar	NovaStar
LED type	SMD1515	SMD1515	SMD1921	SMD1921	SMD1921	SMD1921	SMD1921	SMD1921
Pixel pitch (mm)	2.5	2.5	4.8	4.8	4.8	4.8	4.8	4.8
Panel dimensions (WxHxD, mm)	500x500x80 (19.69x19.69x3.15")		500x500x85 (19.69x19.69x3.35")				500x500x92 (19.69x19.69x3.62")	500x500x85 (19.69x19.69x3.35")
Panel resolution	200x200	200x200	104x104	104x104	104x104	104x104	104x104	104x104
Panel weight (kg)	12 (26.46lbs)						16 (35.27lbs)	12 (26.46lbs)
Panel material	Die casting aluminum							
Module size (WxH, mm)	250x250							
Brightness (nit)	1000	1000	1500	1000	1500	1500	1000	1000
Refresh rate (Hz)	3840	3840	7680	3840	7680	7680	3840	3840
Grayscale (bit)	15	15	16	14	16	16	14	14
Contrast ratio	1200:1	1200:1	6000:1	1500:1	6000:1	6000:1	3000:1	4000:1
Color temperature (K)	6500							
Viewing angle (H/V, °)	160/160	160/160	140/140	140/140	140/140	140/140	140/140	140/140
Drive mode	1/20	1/20	1/7	1/7	1/7	1/7	1/7	1/7
AC operating voltage (V)	100~240							
Power consumption (max./avg., W/m <sup>2</sup> )	600/200	600/200	640/214	640/214	640/214	640/214	640/214	640/214
IP rating	IP65/IP54	IP65/IP54	IP65/IP54	IP65/IP54	IP65/IP54	IP65/IP54	IP65/IP54	IP65/IP54
Certification	FCC, ETL, CE, RoHS							

### Absen Optoelectronic Co.,Ltd

18-20F Building 3A, Cloud Park, Bantian Huawei Base,  
Longgang District Shenzhen, 518129, P.R.China  
T: +86-755-89747399 E: absen@absen.com  
F: +86-755-89747599 W: www.absen.com

### Absen Inc.

7120 Lake Ellenor Drive, Orlando,  
Florida 32809, USA  
T: +1-407-203-8870 E: info@usabsen.com  
F: +1-407-203-8873 W: www.usabsen.com

### Absen GmbH

Hessenring 4c, 64546 Moerfelden-Walldorf (Frankfurt am Main),  
Germany  
T: +49 (0) 6105 718941-0 E: europe@absen.com  
F: +49 (0) 6105 718941-29 W: www.absen-europe.com



Twitter: @LEDAbsen  
Facebook: @LEDAbsen  
LinkedIn: Absen  
Instagram: absenled



# TSC Series Flexible Display

Pliable and Graceful



## Easy to bend for convenient use

A soft module is less than 2cm thick and is pliable up to 120°. It passed 10,000 folding tests and easily fits all curved surfaces without warping.

≤2cm

Thickness of soft module

≤200g

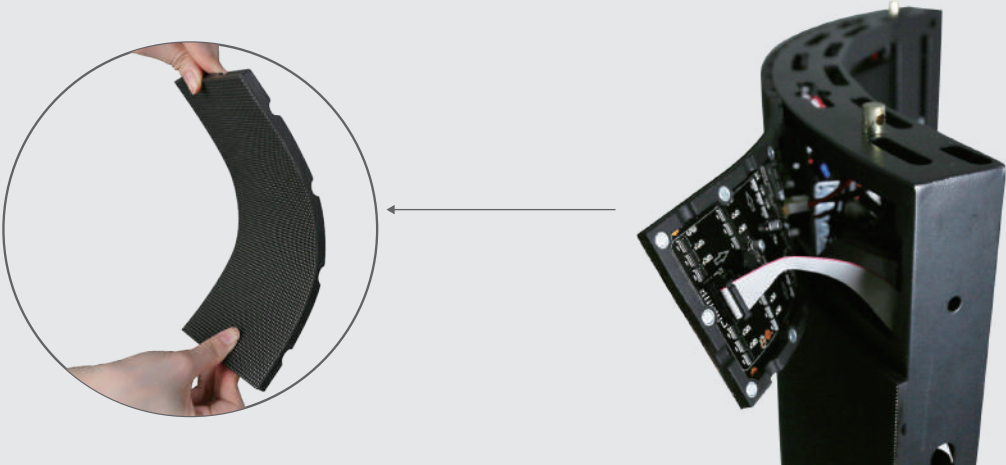
Weight of one module

≤120°

Wide angle bending

10000<sup>times</sup>

Bending test



## Reliable high-quality product

Composed of layers of quality raw materials, the module uses highly fireproof PCBs and soft bottom housing, thoroughly ensuring its reliability.

LED lamp+ Organic molecular silicone mask\*

### Flexible PCB

- Class A fiberglass board material
- Only 0.4-0.6mm thick
- Flame resistance meets 94V-0 standard



### Soft silicone bottom housing

- Environmentally-friendly flame-resistant special silicone material
- Flame resistance is V-1 grade



### Powerful magnets

- Inlay process



\* Only for TSC4M and TSC5M

## Colorful and eye-catching

High contrast ratio and high grayscale for better image effect.



### 4000:1 contrast ratio

Black surface LED lamps+ soft mask\*  
to effectively enhance the contrast ratio



### High grayscale

The image is still clear and detailed  
even in low brightness



Fine images and distinct dark textures



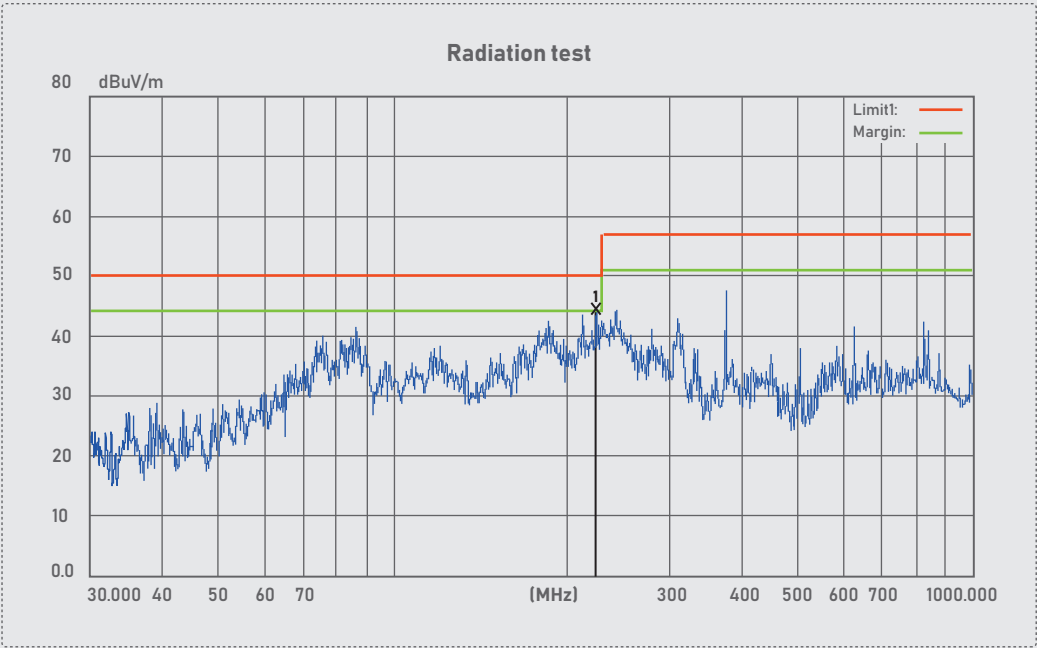
Blurred image without dark details

\* Only for TSC4M and TSC5M

## Low electromagnetic radiation

The product has undergone strict radiation testing to reduce its electromagnetic interference with other equipment and objects in its surroundings.

### PCB circuit design meets EMC standards

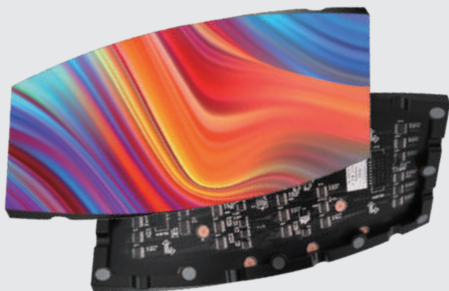


## Supports customization of different shapes

Various customizable shapes (concave/convex/wave/cylinder) according to customer needs to help customers showcase their creativity.



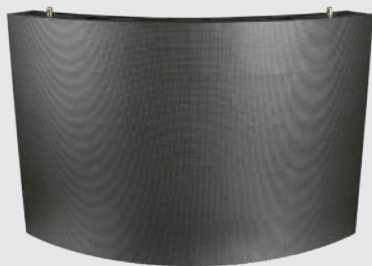
Cylinder



Other curved shapes

## Ready-to-use panel delivery ensures easy use

Complete ready-to-use panel delivery and strong magnets support fast installation and front/rear maintenance\*.



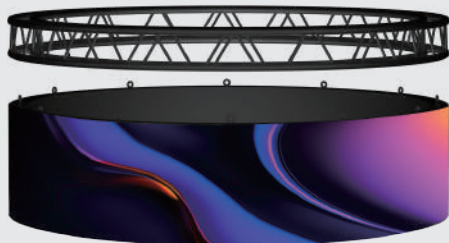
Supports front maintenance  
of module  
→  
No tools required



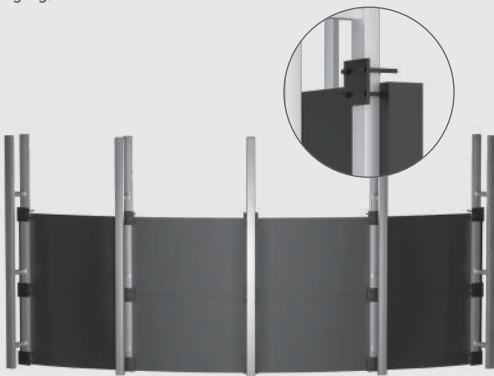
\* Module, power supply, receiving card: Support front/rear maintenance to meet different project needs

## Flexible installation

Installation in front/rear according to site conditions; supports hanging, wall-mounting and stacking installation.



Hanging



Stacking

## Application scenarios

TSC Series can help create a three-dimensional effect and atmosphere.



Malls/shopping centers



Chain stores



Showrooms

and more...



## Parameters

Model	TSC1.8M	TSC2M	TSC2.5M	TSC3M	TSC4M	TSC5M
LED type	SMD 1515	SMD 1515	SMD 1515	SMD 1515	SMD 2121	SMD 2121
Module size (mm)	240*120	240*120	240*120	240*120	256*128	320*160
Module resolution	128*64	120*60	96*48	80*40	64*32	64*32
Driving mode	1/32	1/30	1/24	1/20	1/16	1/16
Brightness(nit)	800	800	800	800	800	1000
Viewing angle(H/V,°)	160°/160°	160°/160°	160°/160°	160°/160°	160°/160°	160°/160°
Center bending angle	≤90°	≤120°	≤120°	≤120°	≤120°	≤120°
Application environment	Indoors	Indoors	Indoors	Indoors	Indoors	Indoors
Operating voltage	AC100~240 , 50/60Hz					
Operating temperature	-10℃~+40℃					
Operating humidity	10%~80%RH					
LED lifetime	100,000 hours					

★ Shenzhen Absen Optoelectronic Co., Ltd. reserves the right to modify product design, specifications, and parameters without further notice.  
Photos are used for illustration purpose only as products may differ from these photos. All rights reserved by Shenzhen Absen Optoelectronic Co., Ltd.



**Absen Optoelectronic Co.,Ltd**

18-20F Building 3A, Cloud Park, Bantian Huawei Base,  
Longgang District Shenzhen, 518129, P.R.China

+86-400-700-3278 +86-755-89747399  
www.absen.com absen@absen.com

