LG | Business Solutions

* All images in this datasheet are for illustrative purposes only.

LG MAGNIT

Micro LED True Innovation behind New Depths
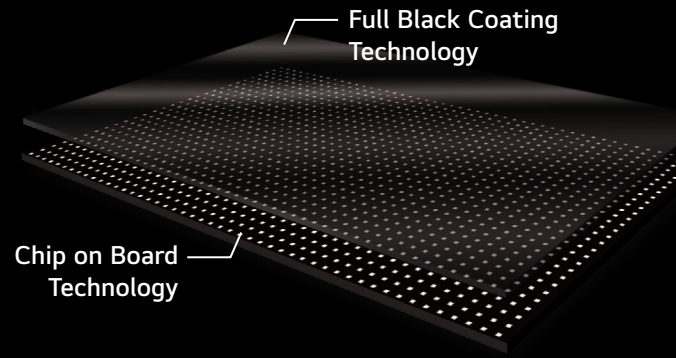
Infinity Black

Accurate Colors

Wide Viewing Angle

Intelligent
Processor

Cable-Less
Concept

High Reliability

Full Black Coating
Technology

Chip on Board
Technology

Black Immersion, Enlivened Details

By removing a package surrounding R, G, B LED chips and applying LG's own Full Black Coating technology, the LG MAGNIT surprisingly delivers much deeper black than the conventional package LED signage*. This not only enhances color vividness, but also makes the details which were hidden in the shadows appear, providing audiences a sense of immersion.

* Based on LG's conventional LED Signage
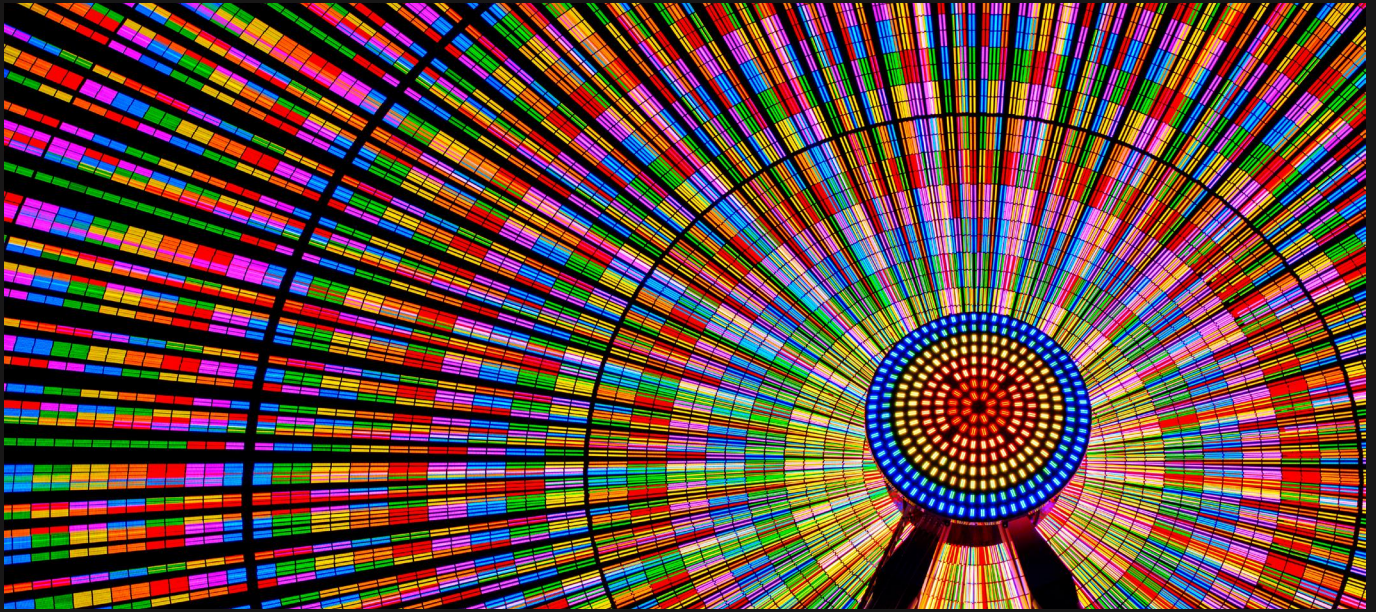
LG Conventional LED Signage
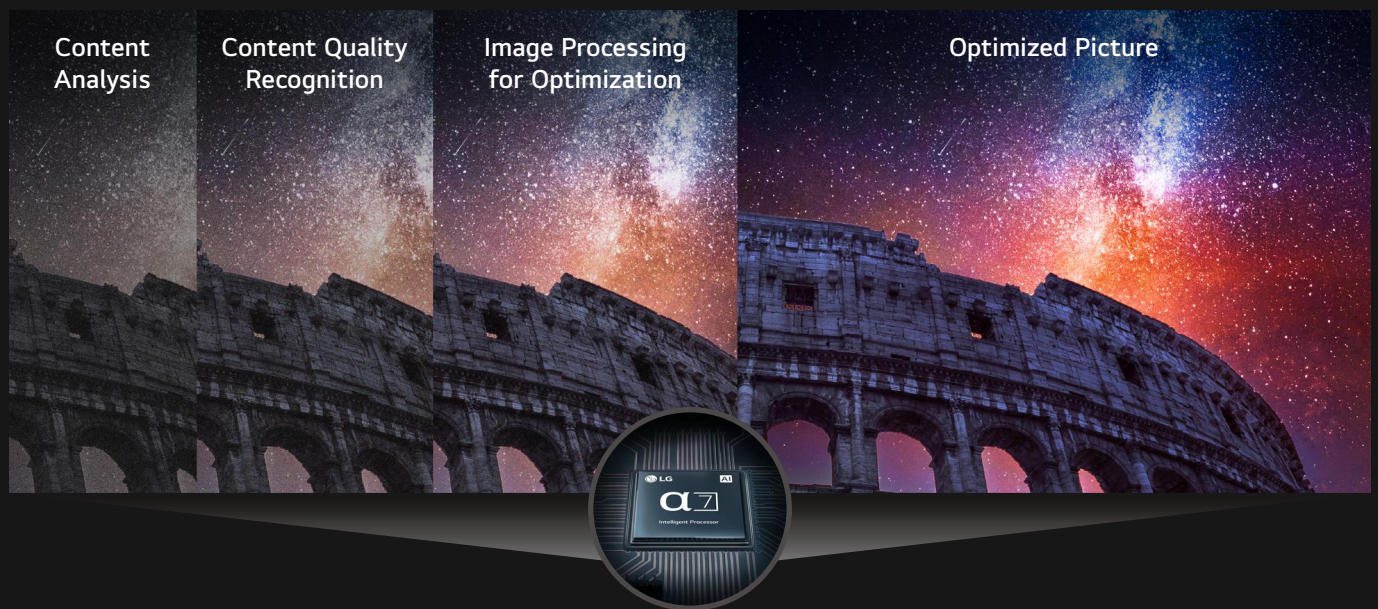
LG MAGNIT

Stronger Light and Shadow

The solid black LG MAGNIT makes also results in superbly high contrast ratio which is a vital part of the picture quality. The difference between the dark parts and the light parts is clearly great, making every part of the content distinctive.

Accurate Colors as Intended

By carefully selecting an LED chip which is a key factor to determine color purity, its narrowed wavelength allows LG MAGNIT to show uniform colors across the screen. Furthermore, the enhanced Gamut Transfer technology supports it to describe colors close to the original color, which is essential for places where exact color representation is demanding.
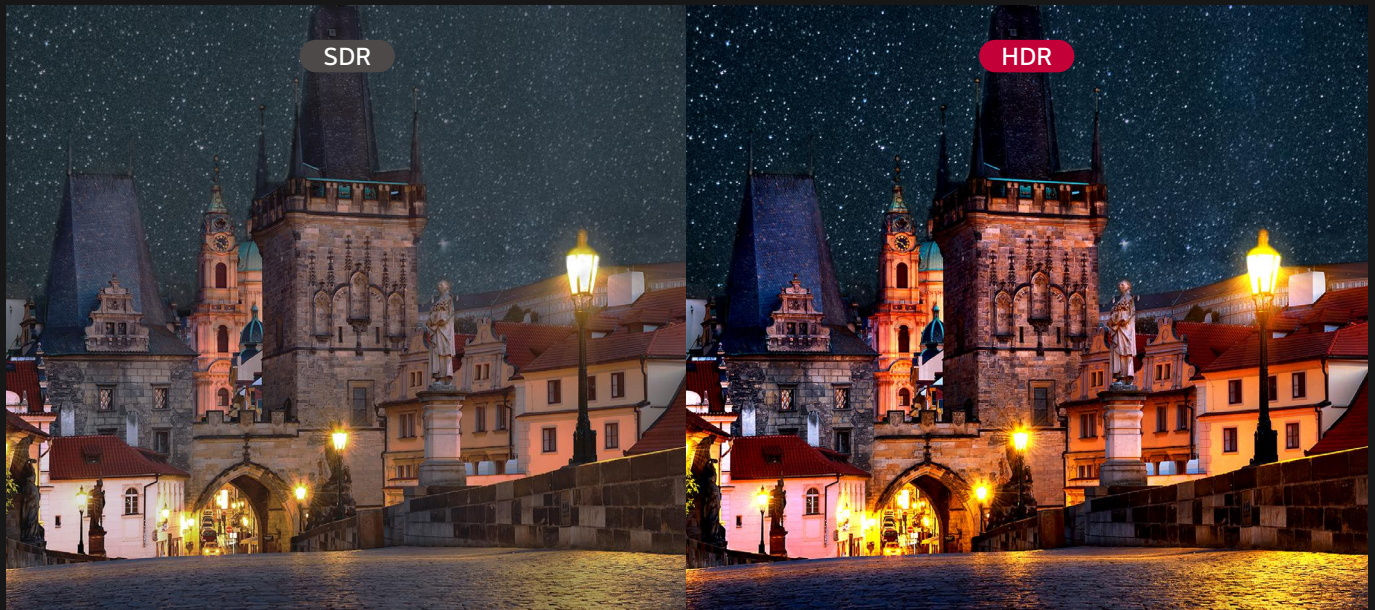

Content Analysis   Content Quality Recognition   Image Processing for Optimization   Optimized Picture

Alpha 7 Intelligent Processor

Intelligent Image Processor

The Alpha 7 Intelligent Processor which is adopted from LG's TV technology recognizes and analyzes the original content, optimizing the clarity and sharpness of the content for itself.
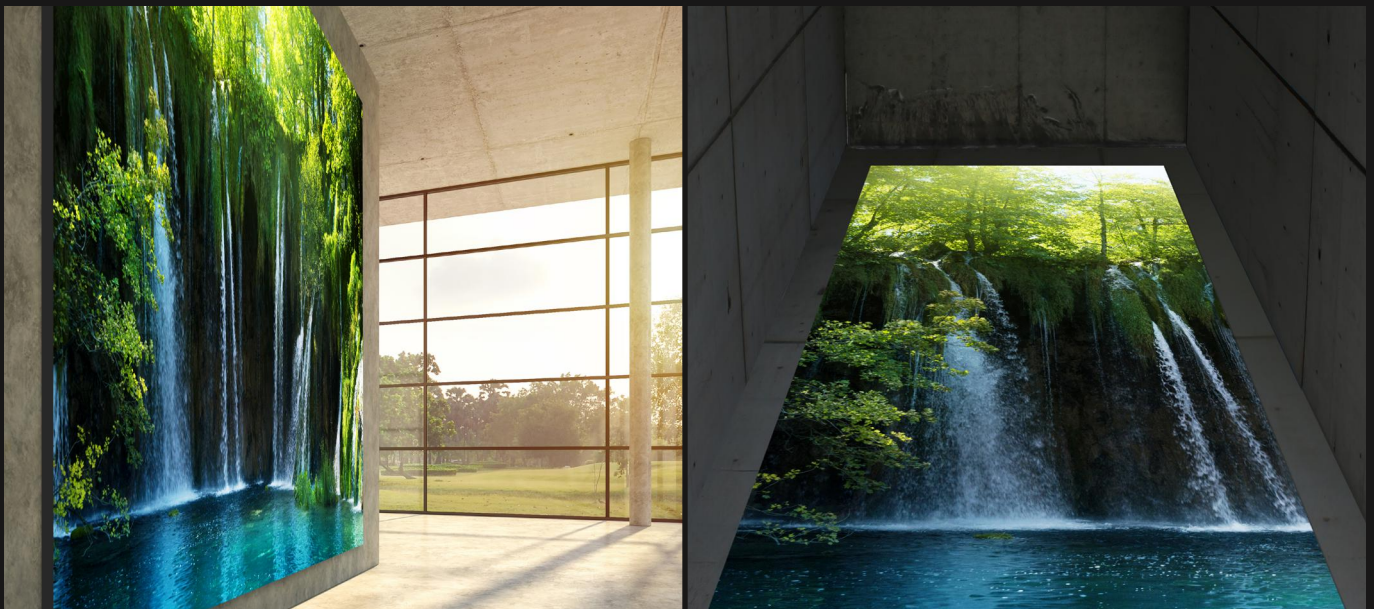
* The above functions are created by using deep learning AI technology to improve the picture quality.
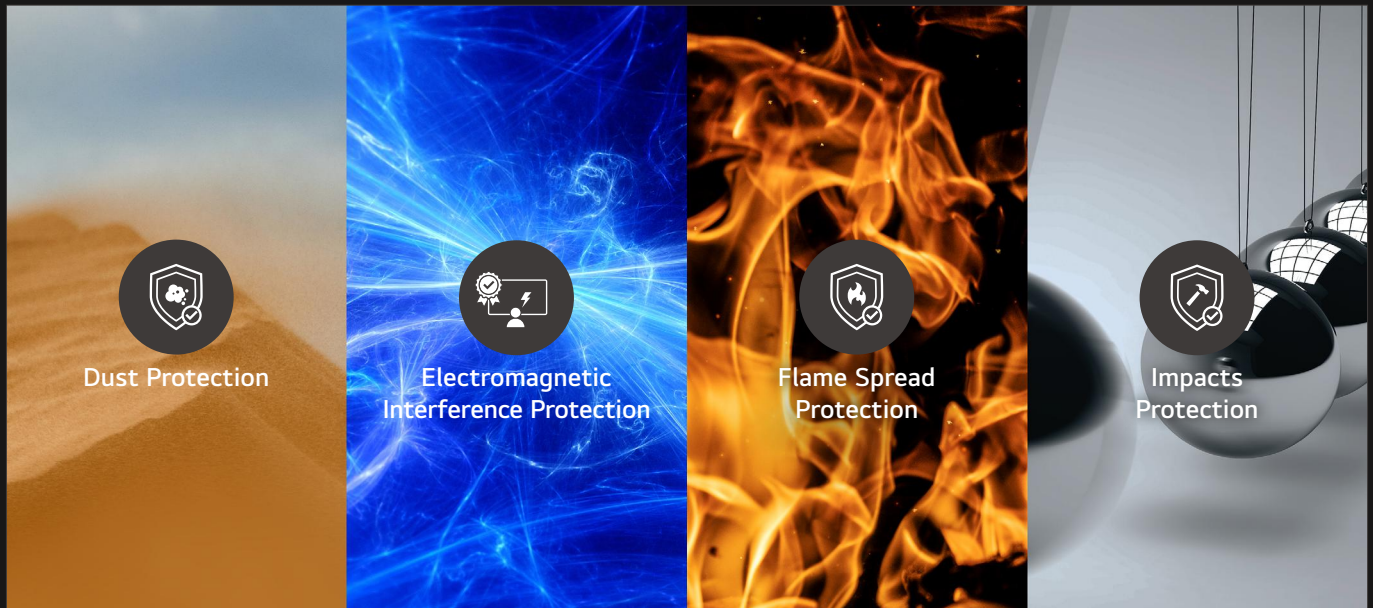
Vivid Color Expression Powered by HDR

With HDR (HDR10, HDR10 Pro*) support, content becomes vivid with great visual impact. The wider color spectrum and greater contrast ratio allow viewers to fully enjoy lively content.

* HDR10 Pro is LG's own HDR solution to process HDR signal by using enhanced dynamic tone mapping.

Wide Color Viewing Angle

Thanks to the structure of LG MAGNIT, it minimizes color distortion according to the viewing angle. In other words, the original color can be appreciated even from the side angles, captivating various pedestrians even if it is installed in a large public places.

Dust Protection

Electromagnetic Interference Protection

Flame Spread Protection
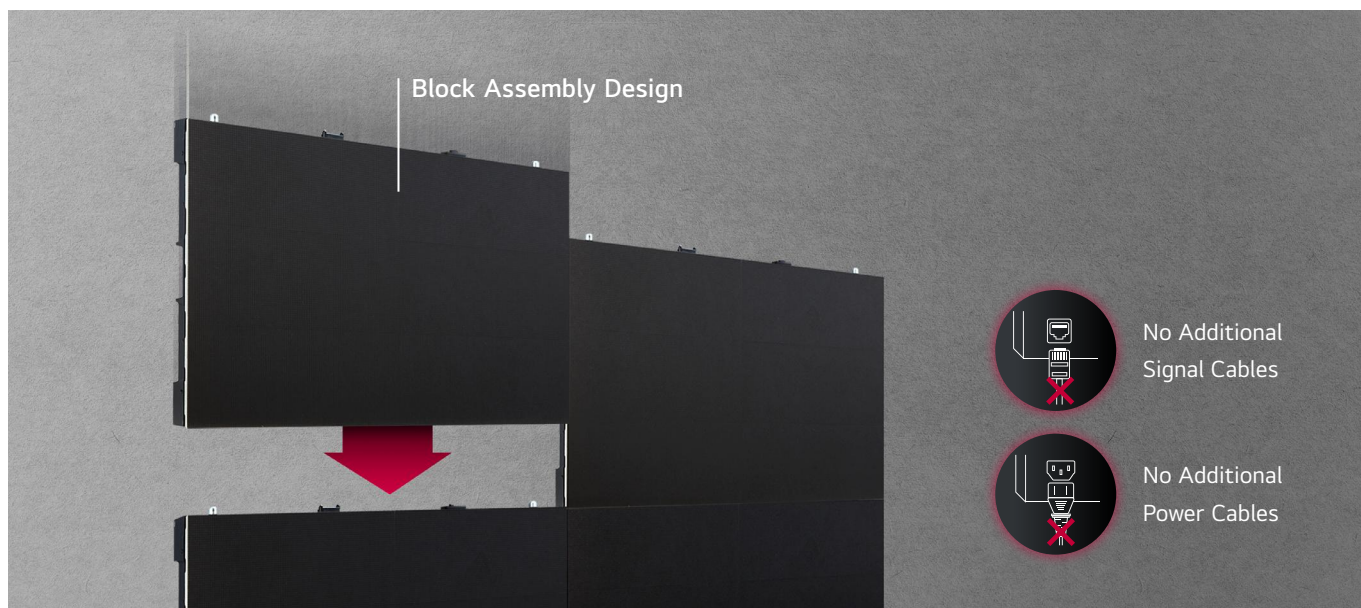
Impacts Protection

Care Less with Sturdy Design

LG has improved durability to protect against various risks caused by factors such as dust, electro-magnetic interference, flame spread and physical impacts. This is particularly important for installation in public places, as it helps minimize unforeseen accidents.

* Based on in-house testing in accordance with the certification criteria, or under actual operating conditions.
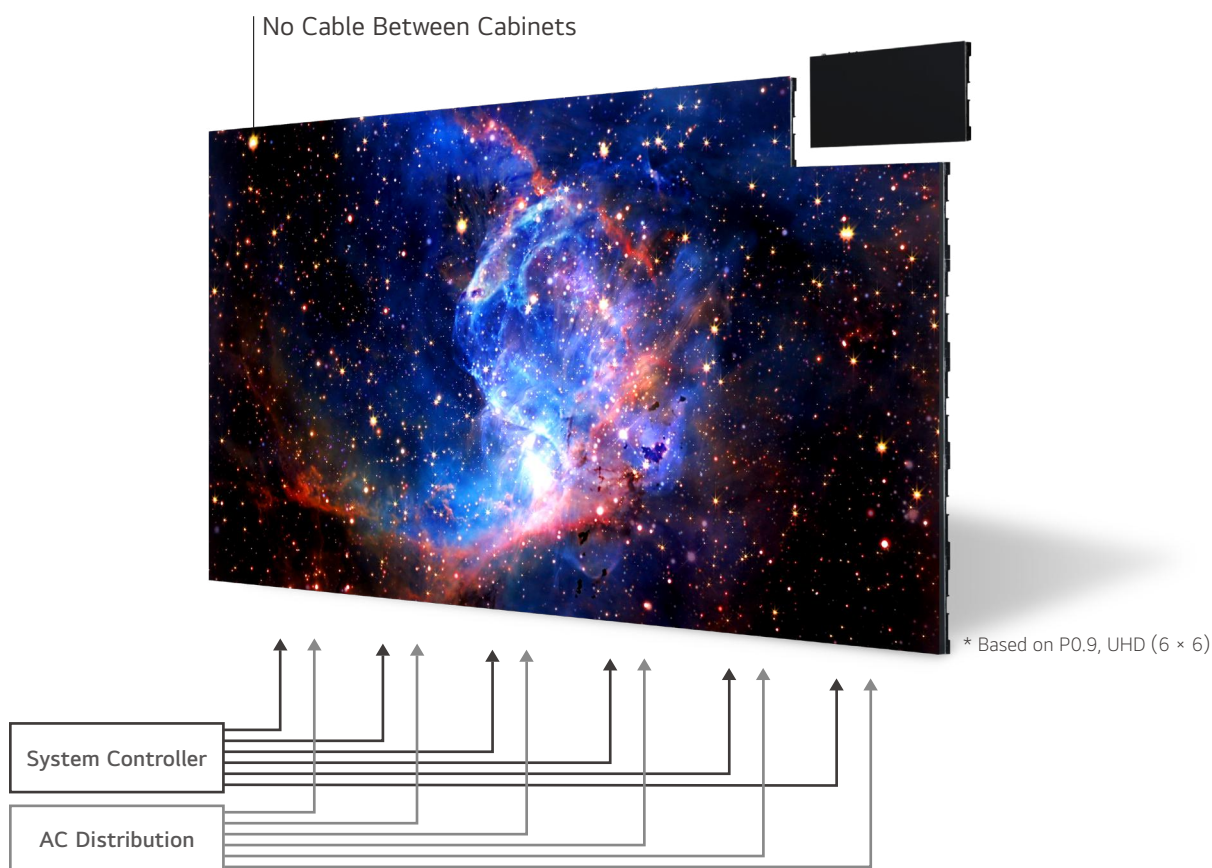

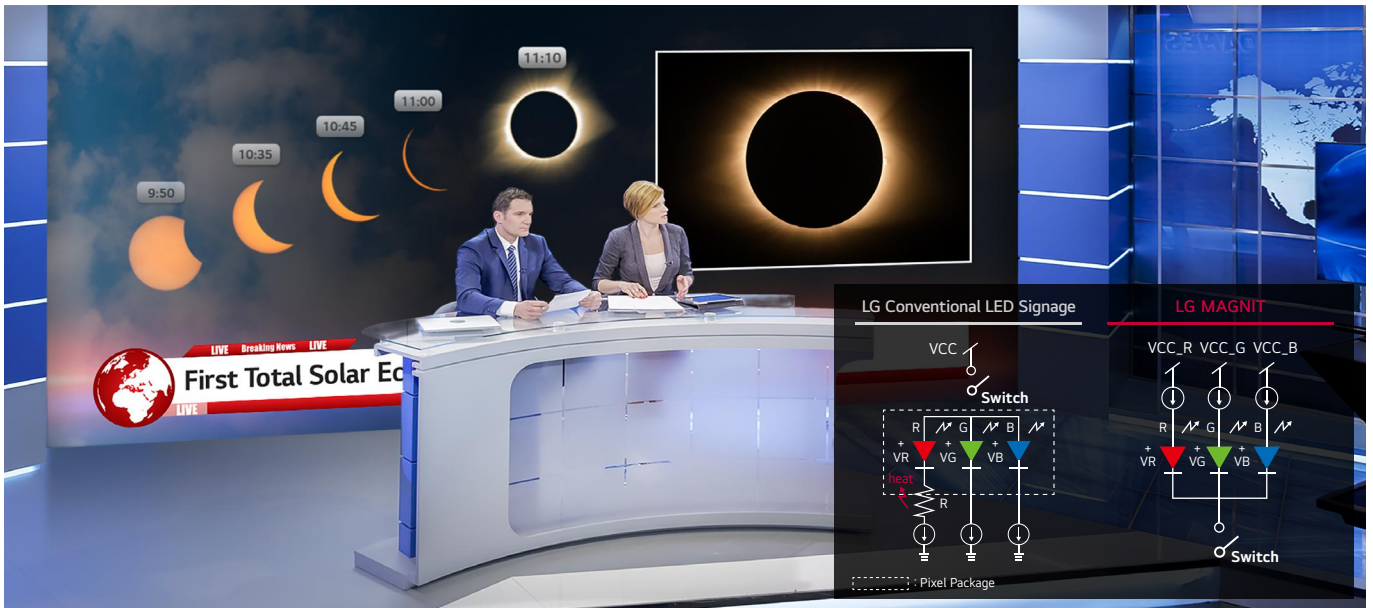## Sleek Look with Smooth Surface

The screen surface of LG MAGNIT is very smooth just as LCD, making it looks nice even when the screen is off. Also, audiences or installers feel soft when touching the screen. If fingerprints are on the surface, they can be simply removed by wiping with a soft cloth without the need for any chemicals.

Block Assembly Design

No Additional Signal Cables

No Additional Power Cables

Optimum Cable-less Design for Simple Installation

The Cable-less Signal Transmission technology has been adopted for innovative LG MAGNIT. Thanks to this, no signal and power cable connection is required between the cabinets and you don't need cables except for connecting the screen to its system controller and power. When configuring a UHD resolution screen of 16:9 ratio, only 6 signal cables and 6 power cables are needed.This way, its block assembly design facilitates hassle-free installation and simplifies rear structure of the screen.

No Cable Between Cabinets

* Based on P0.9, UHD (6 × 6)

System Controller

AC Distribution

Efficient Power Consumption by Colors

Common Cathode Drive-IC is one of the reasons why LG MAGNIT has low power consumption. It supplies the right necessary voltage to each R, G, B sub-pixel individually to minimize unnecessary power consumption.

Power Saving Standby Mode

When there is no input signal for a period of time, the screen turns off and the main circuit parts inside the LED cabinet go to a standby mode. This saves additional power consumption and enables the product to be reactivated simply by using a remote control.

Intuitive UX with Remote Control

By applying the same intuitive UI* as general LG digital signage, the user can easily adapt to it. It also allows users to easily access the settings by using a remote control instead of connecting to a PC.
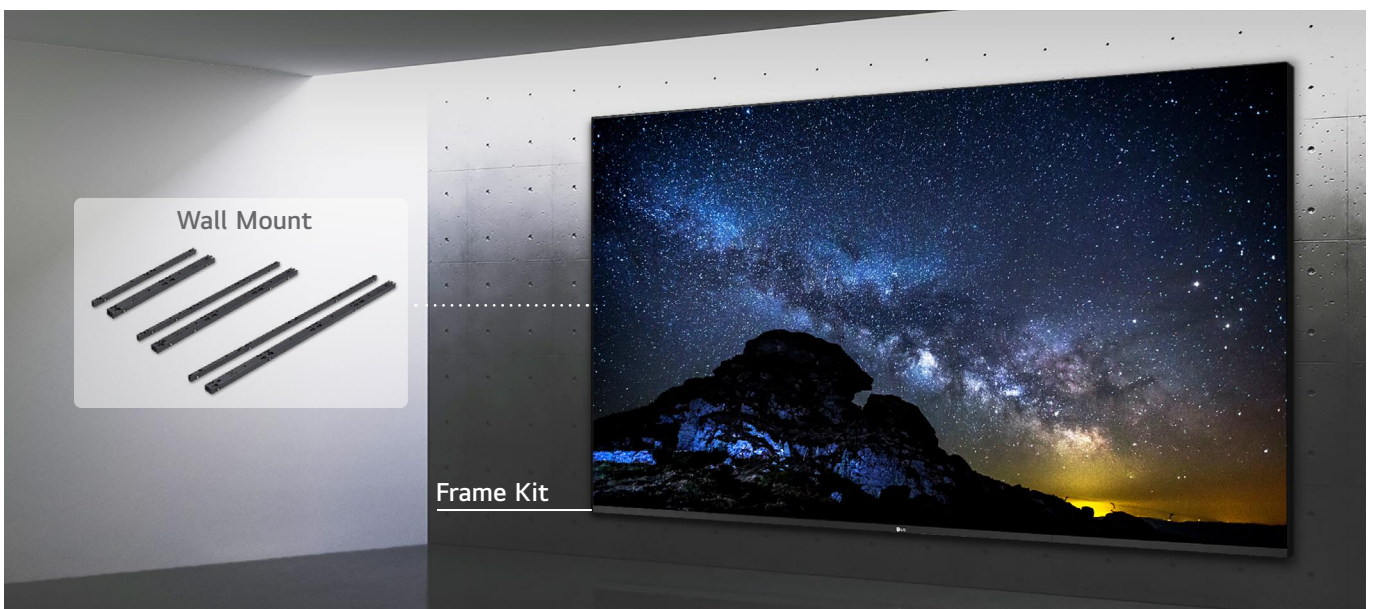
* Available for over 1,280 × 720 resolution screen.

Compatibility with AV Control System

LG MAGNIT has been certified Crestron Connected® for a higher level of compatibility with professional AV controls to achieve seamless integration and automated control*, boosting business management efficiency.

* Network-based control

Dedicated Accessories for Tidiness

Three pairs of wall mount accessories and a frame kit are provided as options for LG MAGNIT. The wall mounts can be combined with any screen size to be installed clearly and neatly. Also, when building a screen of 163-inch, Ultra HD resolution, the frame kit will make the display have a smooth edge.

Total Content Management

LG MAGNIT is compatible with LG SuperSign CMS solution which is all-in-one content management solution for content editing, scheduling and distribution. Managers can operate LG's commercial displays including LG MAGNIT all at once, enabling systematic and efficient management.

Real-time ConnectedCare Service
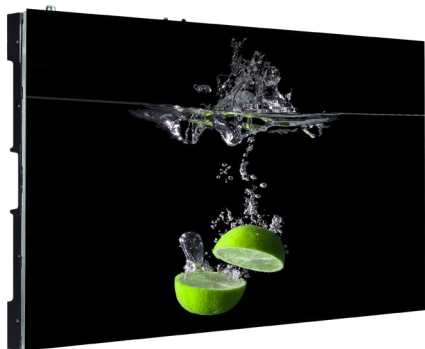
Maintenance is easy and fast with the optional ConnectedCare* service, a cloud service solution provided by LG. It remotely manages the status of displays in client workplaces for fault diagnosis and remote-control services, enabling the stable operation of clients' businesses.

* ConnectedCare is the brand name of LG Signage365Care Service. The availability differs by region.
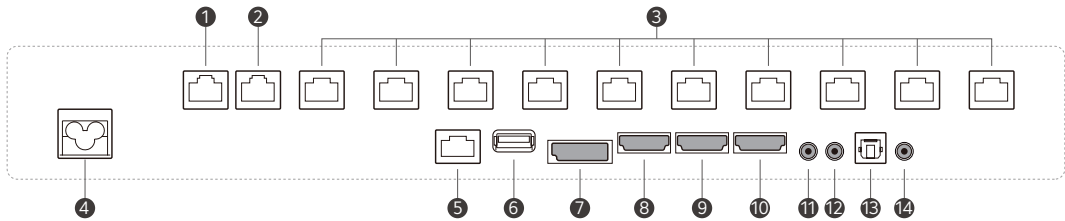
PRODUCT INFORMATION

Cabinet	LSAB007 / LSAB009 / LSAB012
Pixel Configuration	Micro
Pixel Pitch	0.78 / 0.94 / 1.25 mm
Brightness	P0.78 : 500 / 1,000 nit (Peak.) P0.94 / P1.25 : 600 / 1,200 nit (Peak.)
Contrast Ratio	P0.78 : 28,000:1 @10lux P0.94 : 33,000:1 @10lux P1.25 : 30,000:1 @10lux
Processing Depth	20 (HDR10, HDR10 Pro)
Service Access	P0.78 / P1.25 : Front P0.94 : Front and Rear

System Controller	CSAD
Resolution	3,840 × 2,160 @ 60Hz
Input	HDMI 2.0, HDCP 2.2, DP 1.2 / HDCP 1.3
Output	Ethernet (10-channel)
Control	LAN, RS-232C (LOOP)

CONNECTIVITY
SYSTEM CONTROLLER

1. IR-APL OUT
2. IR-APL IN
3. Ethernet (5Gbps)
4. AC-IN
5. LAN IN
6. USB 2.0 IN
7. DP
8. HDMI 1
9. HDMI 2
10. HDMI 3
11. RS-232C IN
12. RS-232C OUT
13. OPTIC
14. IR & Light Sensor

SPECIFICATIONS

Panel	Model Name	LSAB007	LSAB009	LSAB012
Physical Parameters	Pitch Name	P0.78	P0.94	P1.25
	Pixel Configuration	Micro	Micro	Micro
	Pixel Pitch (mm)	0.78	0.9375	1.25
	Module Resolution (W × H)	384 × 144	320 × 120	240 × 90
	Module Dimensions (W × H, mm)	300 × 112.5	300 × 112.5	300 × 112.5
	Weight per Module (kg)	0.18	0.19	0.18
	No. of Modules per Cabinet (W × H)	2 × 3	2 × 3	2 × 3
	Cabinet Resolution (W × H)	768 × 432	640 × 360	480 × 270
	Cabinet Dimensions (W × H × D, mm)	600 × 337.5 × 44.9	600 × 337.5 × 44.9	600 × 337.5 × 44.9
	Cabinet Surface Area (m²)	0.203	0.203	0.203
	Weight per Cabinet (kg/Cabinet)	7.8	6.8	7.8
	Weight per Square Meter (kg/m²)	38.5	33.6	38.5
	Physical Pixel Density (pixels/m²)	1,638,400	1,137,778	640,000
	Flatness of Cabinet (mm)	± 0.5	± 0.5	± 0.5
	Cabinet Material	Die Casting Aluminum	Extrusion Aluminum	Die Casting Aluminum
	Service Access	Front	Front and Rear[1]	Front
Optical Specifications	Max Brightness (After Calibration, nit)	500 / 1,000 (Peak)	600 / 1,200 (Peak)	600 / 1,200 (Peak)
	Color Temperature (K)	3,200-9,300 (Default 7,300)	3,200-9,300 (Default 7,300)	3,200-9,300 (Default 7,300)
	Visual Viewing Angle (H × V)	150 × 150	160 × 160	160 × 160
	Brightness Uniformity	95%	95%	95%
	Color Uniformity	±0.02 Cx, Cy	±0.02 Cx, Cy	±0.02 Cx, Cy
	Contrast Ratio	28,000 : 1 @ 10lux	33,000 : 1 @ 10lux	30,000 : 1 @ 10lux
	Processing Depth (bit)	20 (HDR10, HDR10 Pro)	20 (HDR10, HDR10 Pro)	20 (HDR10, HDR10 Pro)
Electrical Specifications	Power Consumption (W/Cabinet, Max.)	60	72	60
	Power Consumption (W/Cabinet, Avg.)	40	47	35
	Power Consumption (W/m², Max.)	296	356	296
	Heat Dissipation (BTU/h/Cabinet, Max.)	205	246	205
	Heat Dissipation (BTU/h/Cabinet, Avg.)	137	161	120
	Heat Dissipation (BTU/h/m², Max.)	1,011	1,215	1,013
	Power Supply (V)	100 to 240	100 to 240	100 to 240
	Frame Rate (Hz)	50 / 60	50 / 60	50 / 60
	Refresh Rate (Hz)	3,840	3,840	3,840
Operation Specifications	LED Lifetime (Half Brightness)	100,000	100,000	100,000
	Operating Temperature (°C)	0 to +40	0 to +40	0 to +40
	Operating Humidity	10-80% RH	10-80% RH	10-80% RH
	IP Rating Front / Rear	IP50 / IP20	IP50 / IP20	IP50 / IP20
Certification		Safety 60950-1, EMC Class B, BS476 Part7 Class1	Safety 60950-1, EMC Class B, BS476 Part7 Class1	Safety 60950-1, EMC Class B, BS476 Part7 Class1
Environment		RoHS	RoHS	RoHS
Controller		CSAD	CSAD	CSAD
90 Degree Corner Cut		No	No	No

[1] Module can be accessed only from the front.

Controller	Model Name	CSAD
	Cabinet	LSAB Series
Max Output Range	Loading Capacity	3,840 × 2,160 @ 60Hz
	Output Resolution	8.2944 Millon Pixels
Input	HDMI	HDMI 2.0
	HDCP	HDCP 2.2
	DP	DP 1.2 / HDCP 1.3
Output	Ethernet (To LED Screen)	Yes (10-channel)
Control	LAN	Yes
	RS-232C	Yes (LOOP)
Sensor	Ambient Light	Yes
	Temperature	Yes
Video Processing	Brightness Adjustment	Yes
	Chroma Adjustment	Yes
	Improved Grayscale at Low Brightness	Yes
	Scaling	Yes
	HDR	HDR10 Pro
Application	CMS	SuperSign CMS
	webOS API	Yes
	LG ConnectedCare	Yes
	Configuration SW	LED Assistant
Mechanical	Size (W × H × D, mm)	443 × 63 × 298
	Weight (kg)	4.5

* Specifications are subject to change without notice. Please make sure to check the product manual for details about product usage.