LG Real Curve
LED SIGNAGE

LAPE Series

WELCOME!

WORLD TIME ZONES

15°
Wednesday, May 9

Wind	20 m/s
Humidity	68%
Atm pressure	756 mmHg
Water	2
Sunrise	06
Sunset	20
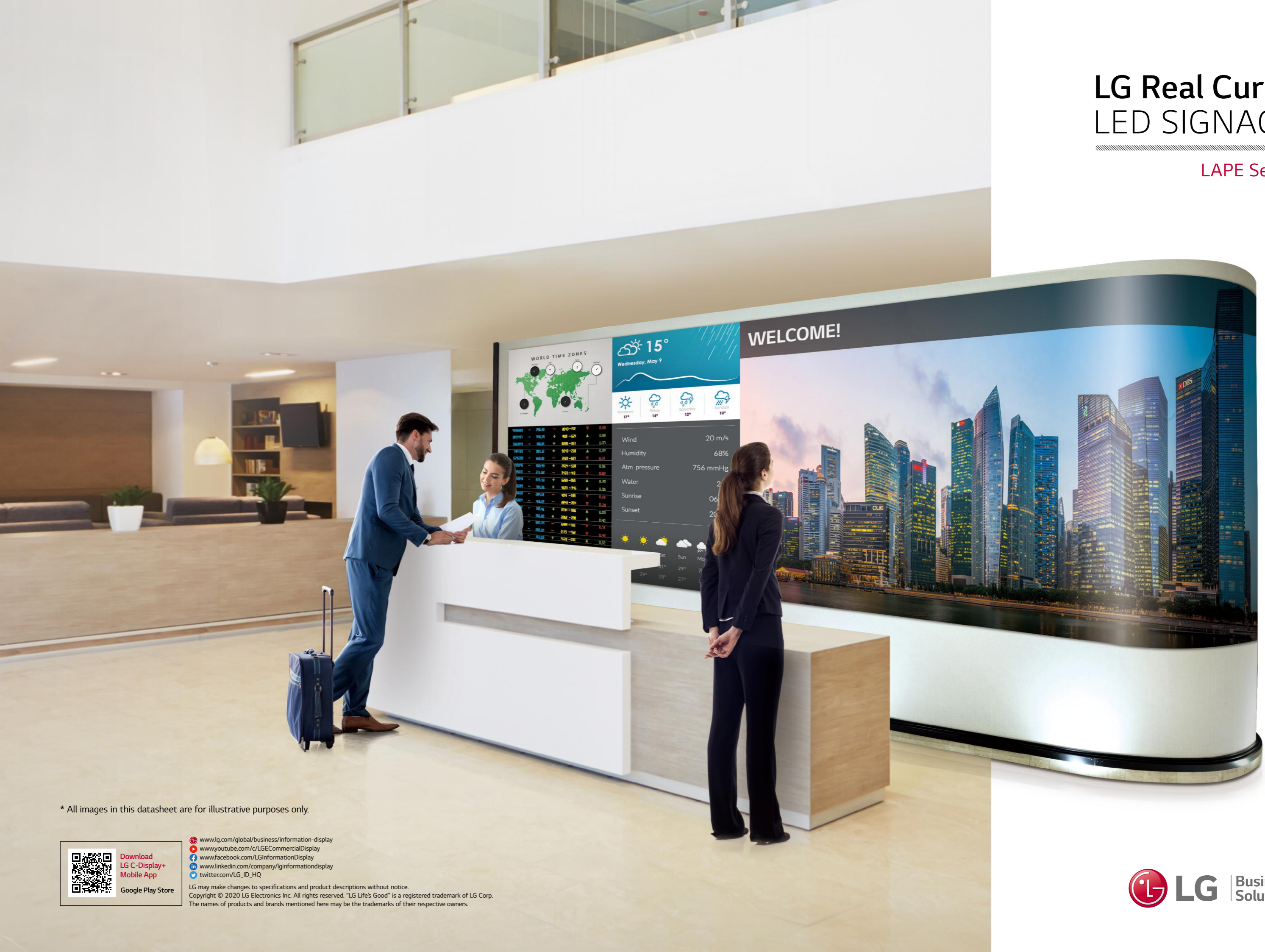
* All images in this datasheet are for illustrative purposes only.

LG | Business Solutions

An artistic landmark with dynamic content brings new horizons to the LED signage world

Boasting detailed color and super contrast, LG's Real Curve series brings content to life through freedom of design, giving it outstanding presence as a work of media art. A world-class slim screen was developed thanks to modular type architectural design concepts and flexible LDM, bringing technological innovation and artistic values together.

SPACE FITTING DESIGN
Go beyond conventional LED screens when designing your space

SELECTABLE TWO PRODUCT TYPES ACCORDING TO CUSTOMER NEEDS

The LAPE Series comes in 2 product types which differ in the way the power is installed. The one has a power separated from the LED screen while the other one has an embedded power in the screen. Each has their own distinctive benefits, so customers can choose between two types based on installation environment such as space size, outlet layout, service of points, or etc.

Remote Power Model
53mm
Embedded Power Model
105mm
Power Supply Unit
System Controller
System Controller

FLEXIBLE LDM

With a specially designed flexible LDM(LED Display Module), the LAPE series supports true concave and convex curvature up to 1,000R. This greatly amplifies design flexibility, providing users with the ability to create true curved screens for use in interior design or as an immersive screen experience.

Conventional*   **LG LAPE Series**

VS   1,000 R

* The "Conventional" shown above refers to an LED screen composed of flat LED unit cases.

SUPERIOR PICTURE QUALITY
Vivid high visual impact

REALISM THROUGH LIFELIKE COLORS

The LAPE series delivers vivid and distinctive picture quality through a wide range of color details with deep contrast thanks to LG's exclusive 'Dynamic Contrast Algorithm'.

As - Is   **To - Be**

Dynamic Contrast Alogorithm

DETAILED EXPRESSION OF COLOR DEPTH

16-bit color processing provides a higher greyscale level, which seamlessly displays different depths and densities of colors without distortion, thereby giving a more realistic and sophisticated content.

8 bit   **16 bit**
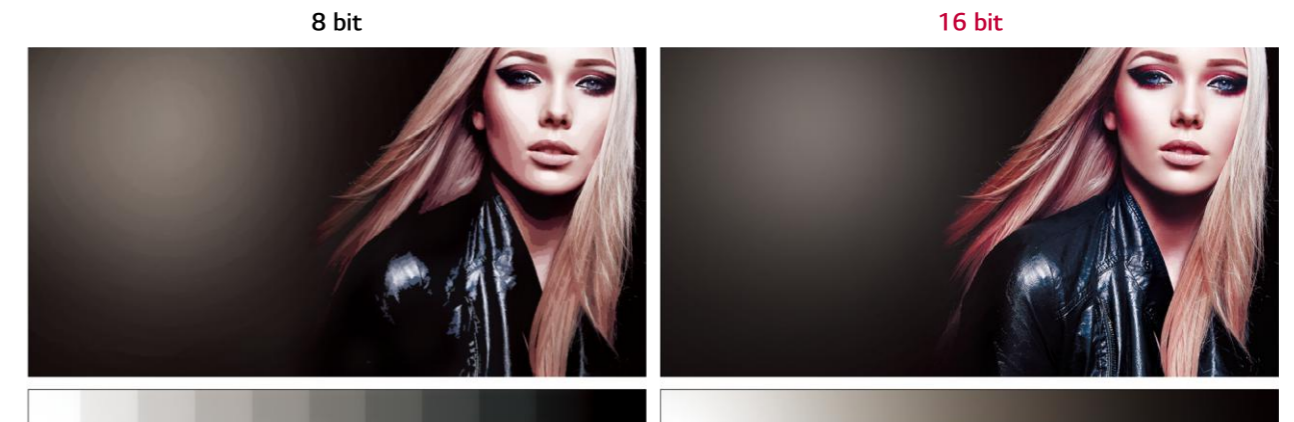
SMOOTH PLAYBACK IN DYNAMIC MOTION

Powered by LG's display technology, a high refresh rate of 3,840Hz assures the smooth playback of content. The flicker-free image prevents the black bars that occur from video shooting, as well as eye strain and blurred vision in viewers.

Low Refresh Rate   **High Refresh Rate (LG LAPE Series)**
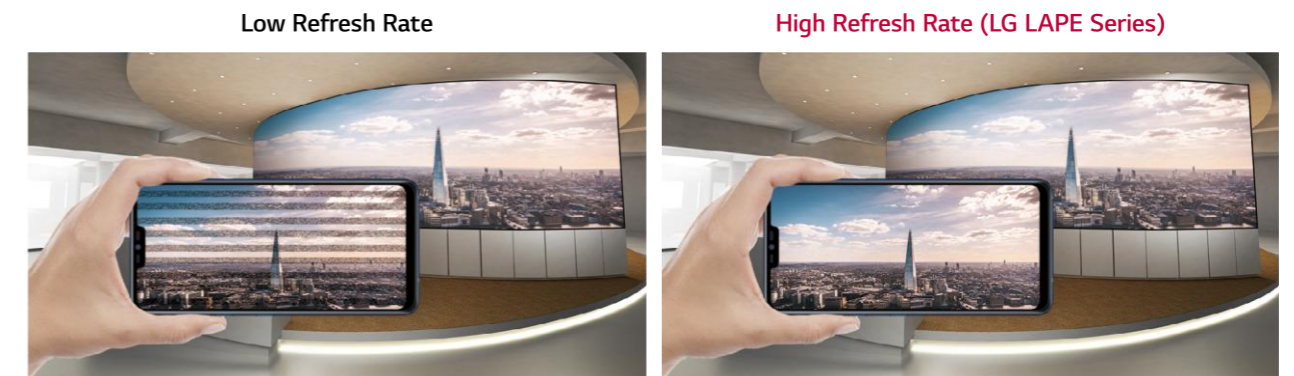
OPERATIONAL EFFICIENCY
Unique architectural platform maximizes efficiency

FLEXIBLE POWER MANAGEMENT

The power supply units (PSU) are separated from the screen, dramatically improving the latter's internal thermal condition. Thanks to the modular power concept design, users can choose the desired brightness of the screen by customizing* the number of PSUs** based on the electrical capacity of the user environment.

300 cd/m^2	500 cd/m^2	1,000 cd/m^2
PSU 16ea	PSU 25ea	PSU 28ea
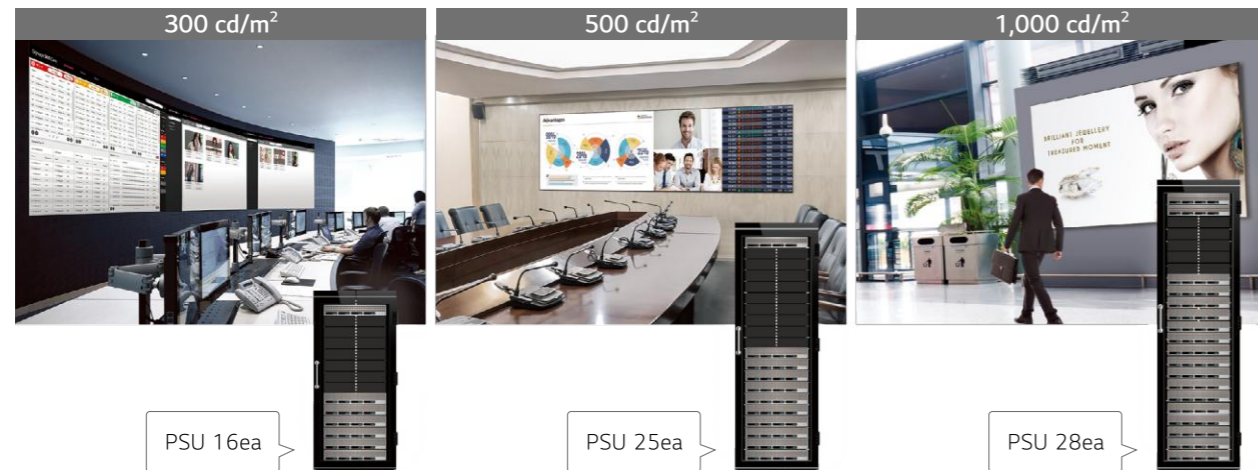
* Exclusive to the Remote Power models.
** The number of power units required may vary depending on the installation environment.
 The above description is an example of a UHD screen configuration with a 2.0 mm pitch in 'redundancy off' mode.

POWER/SIGNAL REDUNDANCY SUPPORT

The LAPE series is designed to support power / signal redundancy (optional), providing users with peace of mind. The power supply units (PSU) support power redundancy, assuring the continuous operation of the screen without power failure, while the dual controllers minimize screen failure with a bi-directional signal input.

Conventional*

LG LAPE Series

340 (11/09/18 19:53:27 GMT+3)

System Controller

System Controller

System Controller

Single point of failure

The four power modules are hot swappable, and a portion of each power module is reserved for power redundancy.

PSU

PSU**

* The "Conventional" shown above refers to LED displays which do not support the power/signal redundancy mode.
** Power redundancy is exclusive to the Remote Power models.

PRECISE FHD/UHD SCEEN CONFIGURATION

It has often been difficult to configure a perfect FHD/UHD resolution screen prohibiting native resolution image display. With the LAPE series, this is possible for all model options.

100% Perfect Fit for UHD/FHD Content

Pixel Pitch	1.5mm	2.0mm	2.5mm
Full HD (1,920 x 1,080)	6 x 3	8 x 4	12 x 6
Ultra HD (3,840 x 2,160)	12 x 6	16 x 8	24 x 12

(Unit Case)

SMART HIGH PERFORMANCE SYSTEM CONTROLLER

The LAPE series comes with a versatile 4K system controller, providing simplified system configuration in a high-resolution canvas platform. The controller also has a built-in high performance media player as well as scaler. Additionally, it has LG's exclusive picture control features such as 'Dynamic Contrast' and Power Saving Mode options.

Conventional*

LG LAPE Series

UHD 4K

2019 S/S COLLECTIONS NEW RELEASED

· Scaler
· Media Player
· Picture Control

Controller x 4

Scaler

LG System Controller

Control PC

Playback PC
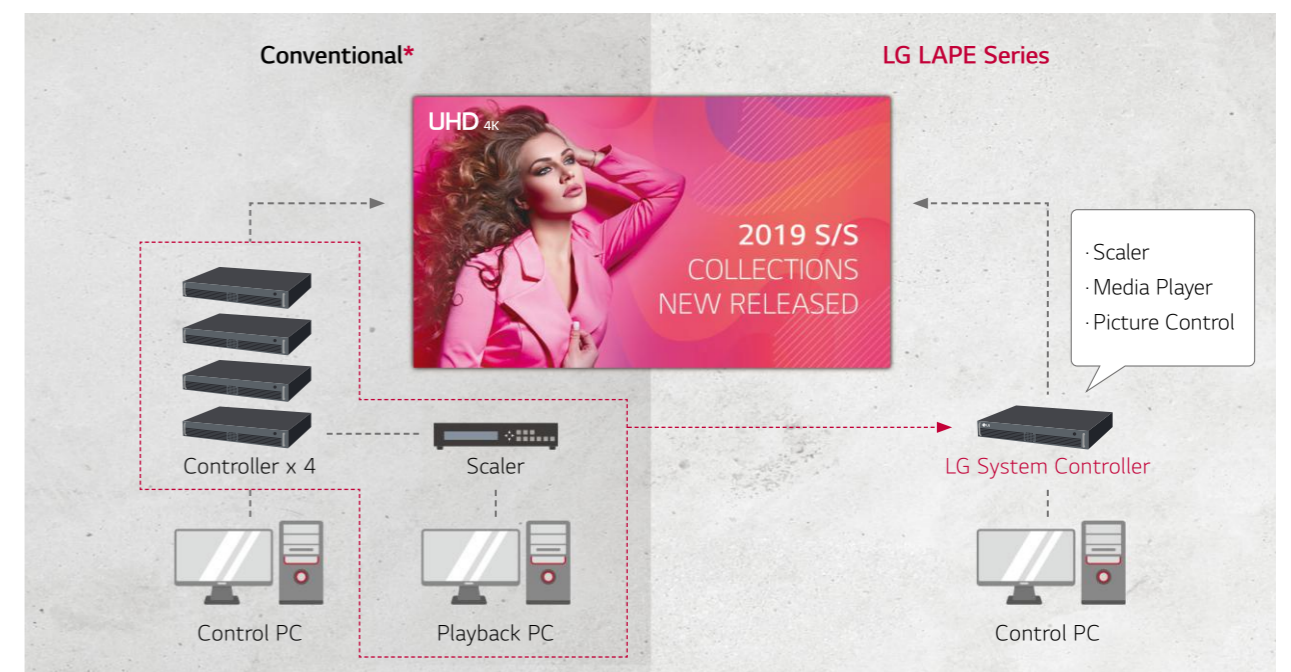
Control PC

* The "Conventional" shown above refers to LED displays that don't have an all-in-one system controller.

OPERATIONAL EFFICIENCY
Unique architectural platform maximizes efficiency

INTUITIVE MANAGEMENT SOFTWARE

LG's new management control software platform 'LED Assistant' provides easy screen management. Screen setting is made simple with a visual guide and all-in-one dashboard that shows the overall status of screen components at a glance.

Visualized Layout

Each Component's Status

Detailed User Guide

Log Report

REAL-TIME 365 CARE SERVICE

The maintenance gets easier and faster with an optional service Signage 365 Care*, a cloud service solution provided by LG service. It remotely manages status of LED displays in client workplaces for fault diagnosis and remote-control services, ensuring the stable operation of a client's business.

Repair

Signage 365 Care

Status, Usage Data

Monitoring / Fault Detection

* The availability of "Signage 365 Care" service can differ by region, so please contact the LG sales representative in your region for further details.

CONVENIENT SCREEN INSTALLATION
Reduce installation complexity

EASY TO HANDLE & INSTALL

Conventional large-sized and heavy cabinet-based installation often results in LED dot defects during installation. The LAPE series breaks free from conventional norms by introducing much smaller and light weight LDM(LED Display Module)-based installation, providing incomparable ease of handling with far less risk of LED dot damage during installation.

Conventional Unit Case

LG LAPE Module

VS

0.36kg

600 × 400 × 75mm

240 × 180 × 10.5mm

EASY SCREEN ALIGNMENT

The unit case of the LAPE series has been carefully designed for easy screen flatness alignment. Each LDM has 20 Z-axis alignment points for ultra-fine flatness alignment.
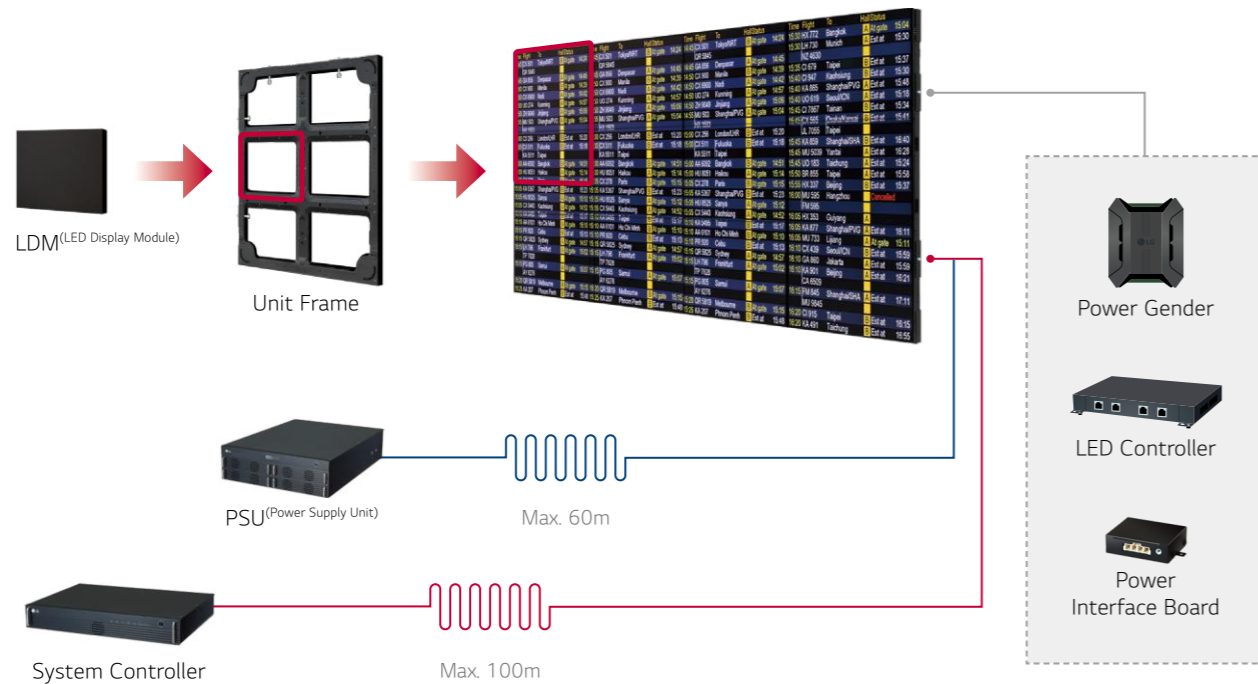

Flat Surface

Each LDM has 20 Z-axis alignment points for fine-tuning.

FRONT INSTALLATION & SERVICE

The LAPE series comes with front installation and front service access, freeing users from needing rear access space, as well as a sleek screen design for maximum space optimization.
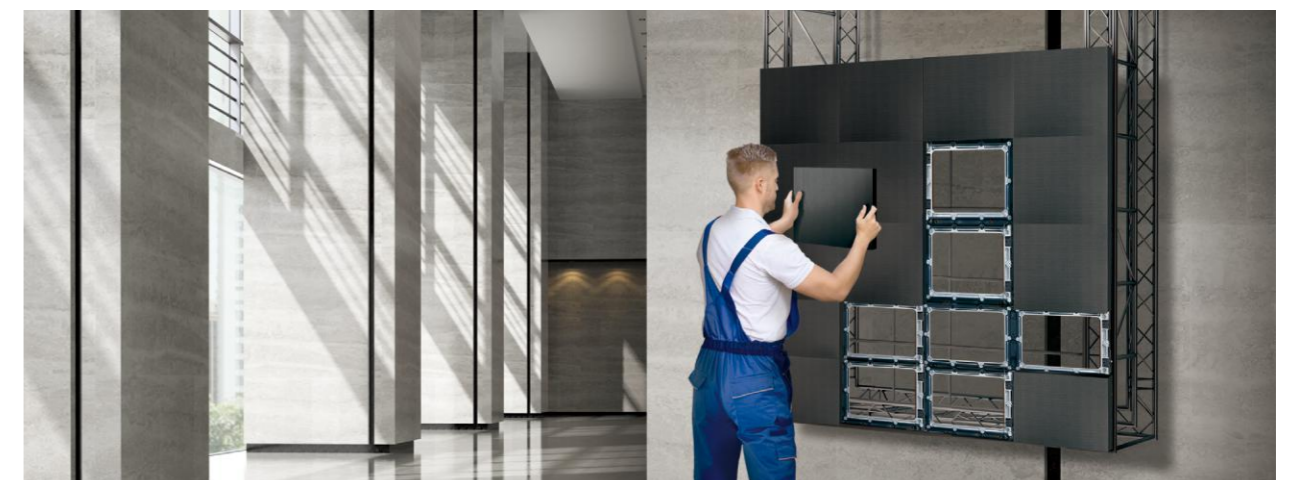
PRODUCT INFORMATION

REMOTE POWER MODELS

LDM (LED Display Module)

Unit Frame

PSU (Power Supply Unit)

Max. 60m

System Controller

Max. 100m

Power Gender

LED Controller

Power Interface Board

* The number of components required may differ depending on the screen size and other options.

EMBEDDED POWER MODELS

LDM

Unit Frame

System Controller

Max. 100m

Power Pack

LED Controller

* The number of components required may differ depending on the screen size and other options.

SPECIFICATIONS

Model Name		Remote Power Model			Embedded Power Model		
		LAP015E	LAP020E	LAP025E	LAP015EP	LAP020EP	LAP025EP
Physical Parameters	Pixel Configuration	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD
	Pixel Pitch (mm)	1.50	2.00	2.50	1.50	2.00	2.50
	Module Resolution (W x H)	160 × 120	120 × 90	96 × 72	160 × 120	120 × 90	96 × 72
	Module Dimensions (W x H, mm)	240 × 180	240 × 180	240 × 180	240 × 180	240 × 180	240 × 180
	Weight per Module (kg)	0.36	0.36	0.36	0.36	0.36	0.36
	No. of Modules per Cabinet (W x H)	2 × 3	2 × 3	2 × 3	2 × 3	2 × 3	2 × 3
	Cabinet Resolution (W x H)	320 × 360	240 × 270	192 × 216	320 × 360	240 × 270	192 × 216
	Cabinet Dimensions (W x H x D, mm)	480 × 540 × 53			480 × 540 × 105		
	Cabinet Surface Area (m^2)	0.260	0.260	0.260	0.259	0.259	0.259
	Weight per Cabinet (kg/Cabinet)	6.0	6.0	6.0	10.1	10.1	10.1
	Weight per Square Meter (kg/m^2)	22.2	21.8	21.3	38.4	38.0	37.4
	Physical Pixel Density (pixels/m^2)	444,444	250,000	160,000	444,444	250,000	160,000
	Flatness of Cabinet (mm)	±0.2	±0.2	±0.2	±0.2	±0.2	±0.2
	Cabinet Material	Die Casting Aluminum					
	Service Access	Front and Rear					
Optical Parameter	Min. Brightness (After Calibration)	1,000[1] cd/m^2			700 cd/m^2		
	Color Temperature	3,200 ~ 9,300	3,200 ~ 9,300	3,200 ~ 9,300	3,200 ~ 9,300	3,200 ~ 9,300	3,200 ~ 9,300
	Visual Viewing Angle (Horizontal)	160°	160°	160°	160°	160°	160°
	Visual Viewing Angle (Vertical)	140°	140°	140°	140°	140°	140°
	Brightness Uniformity	95%	95%	95%	95%	95%	95%
	Color Uniformity	±0.015Cx, Cy	±0.015Cx, Cy	±0.015Cx, Cy	±0.015Cx, Cy	±0.015Cx, Cy	±0.015Cx, Cy
	Contrast Ratio	6,000	6,000	6,000	6,000	6,000	6,000
	Processing Depth (bit)	16	16	16	16	16	16
Electrical Parameter	Power Consumption (W/Cabinet, Max.)	318	285	143	200	187	99
	Power Consumption (W/Cabinet, Avg.)	130	104	52	67	52	26
	Power Consumption (W/m^2, Max.)	1,225	1,100	550	770	720	380
	Power Consumption (BTU/h/Cabinet, Max.)	1,084	972	488	682	638	338
	Power Consumption (BTU/h/Cabinet, Avg.)	443	355	177	228	177	89
	Power Consumption (BTU/h/m^2, Max.)	4,177	3,751	1,876	2,626	2,455	1,296
	Power Supply (V)	100 to 240	100 to 240	100 to 240	100 to 240	100 to 240	100 to 240
	Frame Rate (Hz)	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
	Refresh Rate (Hz)	3,840	3,840	3,840	3,840	3,840	3,840
Operation Conditions	Lifetime (Hours to Half Brightness)	100,000	100,000	50,000	100,000	100,000	50,000
	Operating Temperature (℃)	0℃ to + 40℃	0℃ to + 40℃	0℃ to + 40℃	0℃ to + 40℃	0℃ to + 40℃	0℃ to + 40℃
	Operating Humidity	10-80% RH	10-80% RH	10-80% RH	10-80% RH	10-80% RH	10-80% RH
Certification	EMC	FCC Class A / CE / KC					
	Environment	RoHS	RoHS	RoHS	RoHS	RoHS	RoHS
Controller		LCLG003-D	LCLG003-A	LCLG003-B	LCLG005-D	LCLG005-A	LCLG005-B
Connectivity	Video Inputs	HDMI In, DP In, OPS In, USB			HDMI In, DP In, OPS In, USB		
	Control	RJ45 In, RS232C In/out			RJ45 In, RS232C In/out		
	Special Features	HDR10, Temperature Sensor, Power Detection ADA Compliant, PSU Hot Swappable			HDR10, Temperature Sensor, Power Detection		

* Specifications are subject to change without notice.

1) Brightness can be reduced (up to 300nit) by the number of PSU modules, thereby decreasing power consumption.