LG PREMIUM FINE-PITCH **LED DISPLAY**

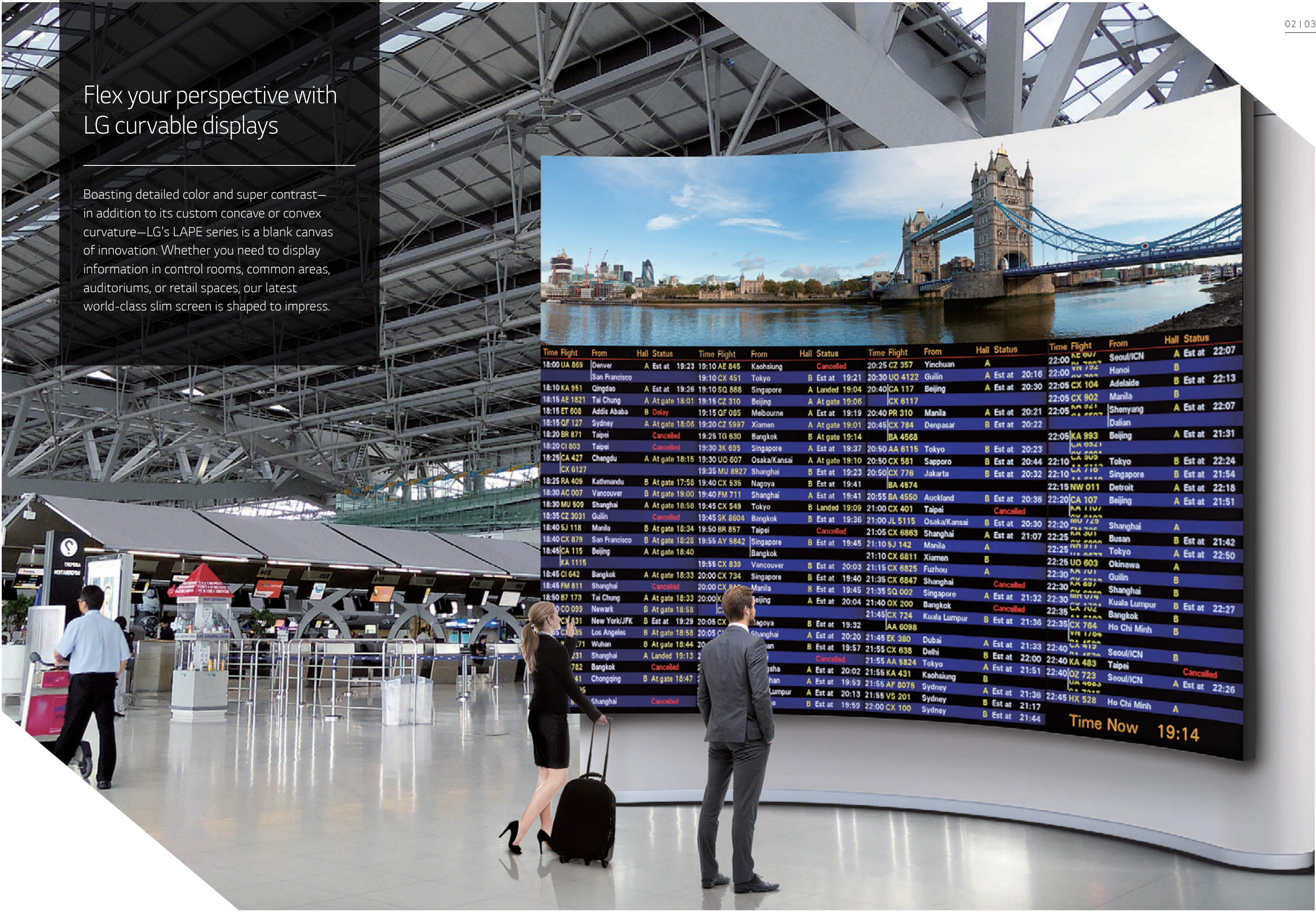**LAPE Series**

※ Actual on-site appearance may differ from the above simulated scene.

LG | Business Solutions

Flex your perspective with LG curvable displays

Boasting detailed color and super contrast—in addition to its custom concave or convex curvature—LG's LAPE series is a blank canvas of innovation. Whether you need to display information in control rooms, common areas, auditoriums, or retail spaces, our latest world-class slim screen is shaped to impress.

A TRUE, CURVABLE DISPLAY AND SLIM DESIGN

Reach beyond conventional flat screens when designing your space

FLEXIBLE LDM

A true breakthrough in curvable displays, our LAPE series can be shaped for applications of true concave and convex curvature up to 40" radius (1,000R). This curvature range enhances design flexibility and creates unparalleled opportunities for creating dramatic screen experiences.

Conventional*   LG LAPE Series

VS

40" R

* The conventional example shown above refers to an LED screen composed of flat LED unit cases.

SLEEK DESIGN

Maximize your usable floor space with our ultra-thin screen depth. We designed the power module separately from the screen, which dramatically reduces the amount of space required to wall mount the screen. This allows hot-swappable, redundant power and easier access for serviceability. The system controller is also separate from the screen, containing a built-in media player, 4K input and scaling capability..

1.6 in /
40 mm*

* Additional space for LED controller, power interface board, and mounting bracket is needed.

SUPERIOR PICTURE QUALITY

Enjoy vivid and impactful displays

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.

Conventional   LG LAPE Series

Dynamic
Contrast Algorithm

DETAILED EXPRESSION OF COLOR DEPTH

Our 16-bit color processing provides a higher grayscale level, which seamlessly displays different depths and densities of colors without distortion and delivers a more realistic and sophisticated picture.

8-bit   16-bit (LG LAPE Series)
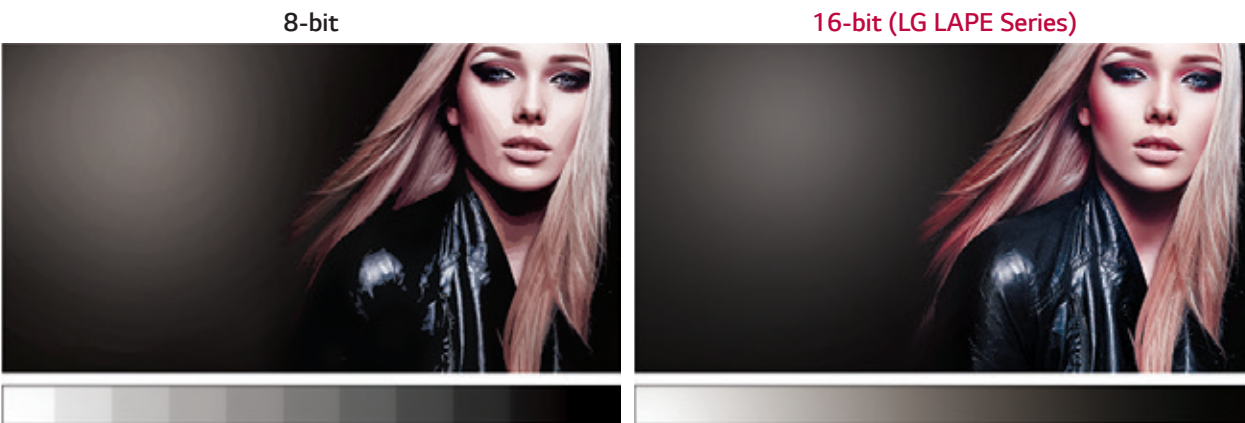
SMOOTH PLAYBACK IN DYNAMIC MOTION

Powered by LG's display technology, a high refresh rate of 3,840 Hz assures the smooth playback of content. The flicker-free image is easier on the eyes and prevents black bars from distorting the video.

Low Refresh Rate   High Refresh Rate (LG LAPE Series)

OPERATIONAL EFFICIENCY
Maximize performance with our unique architectural platform

FLEXIBLE POWER MANAGEMENT

Our engineers dramatically improved the internal thermal condition of the LAPE series' screens by separating the power supply units (PSUs). Thanks to the modular power design, users can choose their desired screen brightness by customizing the number of PSUs* based on the electrical capacity of their specific environment.

300 nits	500 nits	1,000 nits

16 PSUs	25 PSUs	28 PSUs

* 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

To ensure your displays project continuously, the LAPE series is designed with optional, built-in power/signal redundancy.* This PSU feature assures the continuous operation of the screen without power failure, while the dual controllers minimize screen failure with a bi-directional signal input.

Conventional**

System Controller

ERROR

Single point of failure

PSU

LG LAPE Series

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

ERROR

System Controller

System Controller

The four power modules are hot swappable, and a portion of each power module is reserved for power redundancy.
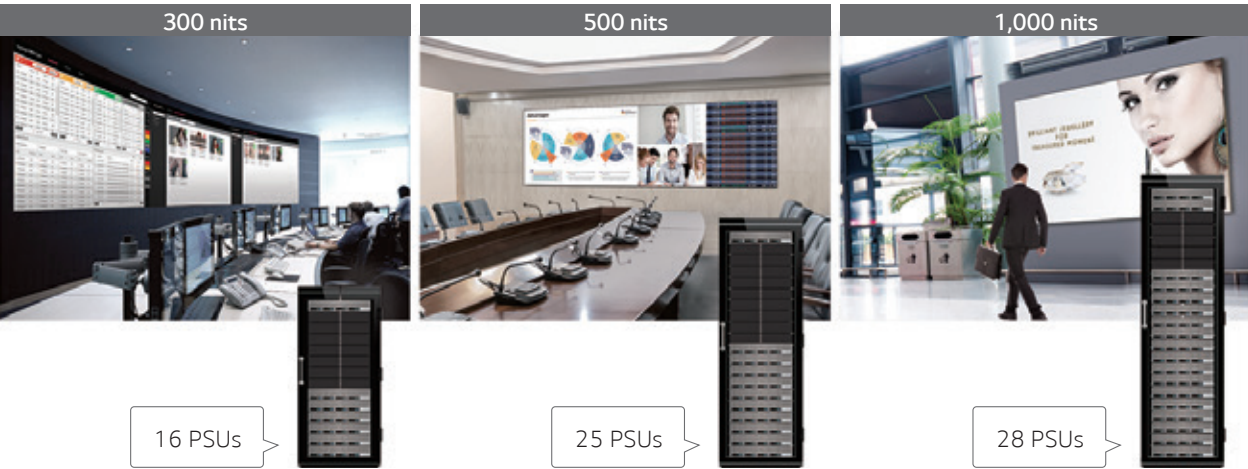
PSU
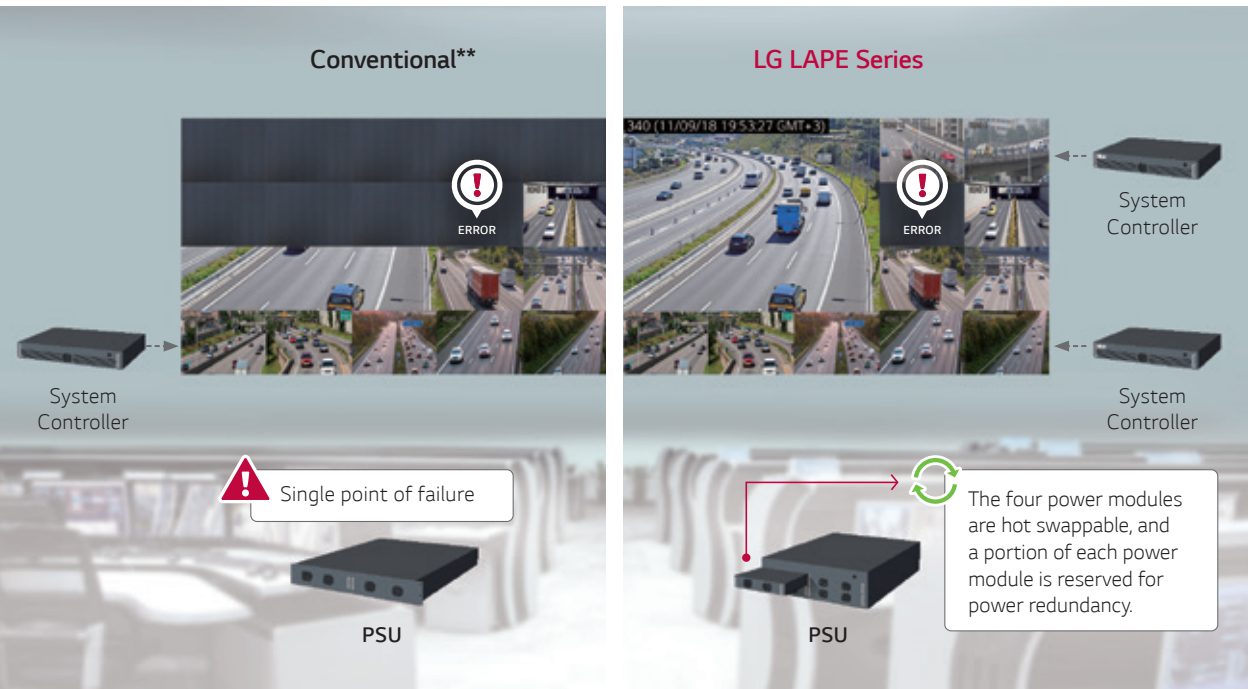
* Additional equipment costs may apply.
** The conventional example shown above refers to LED displays which do not support the power/signal redundancy mode.

PRECISE FHD/UHD SCREEN CONFIGURATION

With the LAPE series, it is now possible to configure a perfect FHD/UHD resolution display that eliminates native resolution issues. Depending on your goals, the table below shows how to configure FHD and UHD displays with all three LAPE models.

Perfect Fit for FHD/UHD Content

	LAPE 1.5	LAPE 2.0	LAPE 2.5
Full HD (1,920 x 1,080)	6 x 3 unit configuration	8 x 4 unit configuration	10 x 5 unit configuration
Ultra HD (3,840 x 2,160)	12 x 6 unit configuration	16 x 8 unit configuration	20 x 10 unit configuration

SMART, HIGH PERFORMANCE SYSTEM CONTROLLER

The LAPE series comes with a versatile 4K system controller that provides a simplified system configuration in a high-resolution canvas platform. The controller also has a built-in high performance media player and scaler. Additionally, it incorporates LG's exclusive picture control features, such as dynamic contrast and power saving mode options.

Conventional*

LG LAPE Series

UHD 4K

· Scaler
· Media Player
· Picture Control

Controller x 4

Scaler

LG System Controller

Control PC

Playback PC
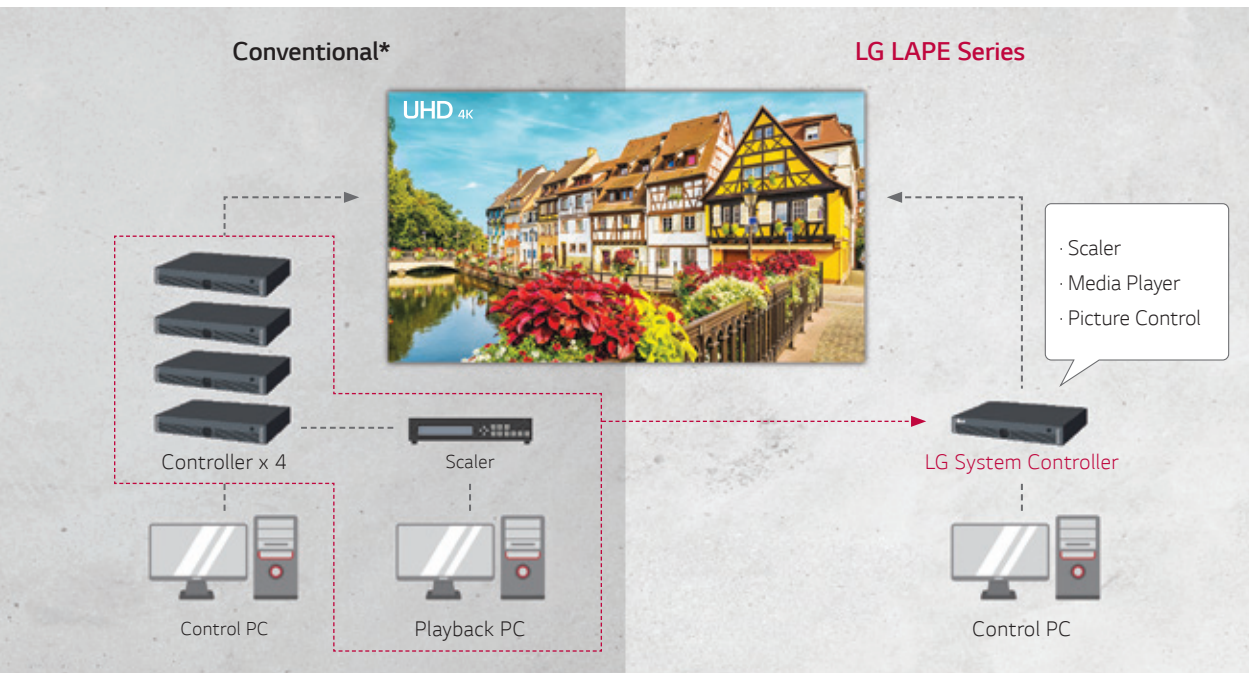
Control PC

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

OPERATIONAL EFFICIENCY
Maximize performance with our unique architectural platform

INTUITIVE MANAGEMENT SOFTWARE

LG's new management control software platform, LED Assistant, provides a simple visual guide and all-in-one dashboard that shows real-time status of screen components to facilitate oversight at a glance.

Visualized Layout

Component's Status

Detailed User Guide

Log Report
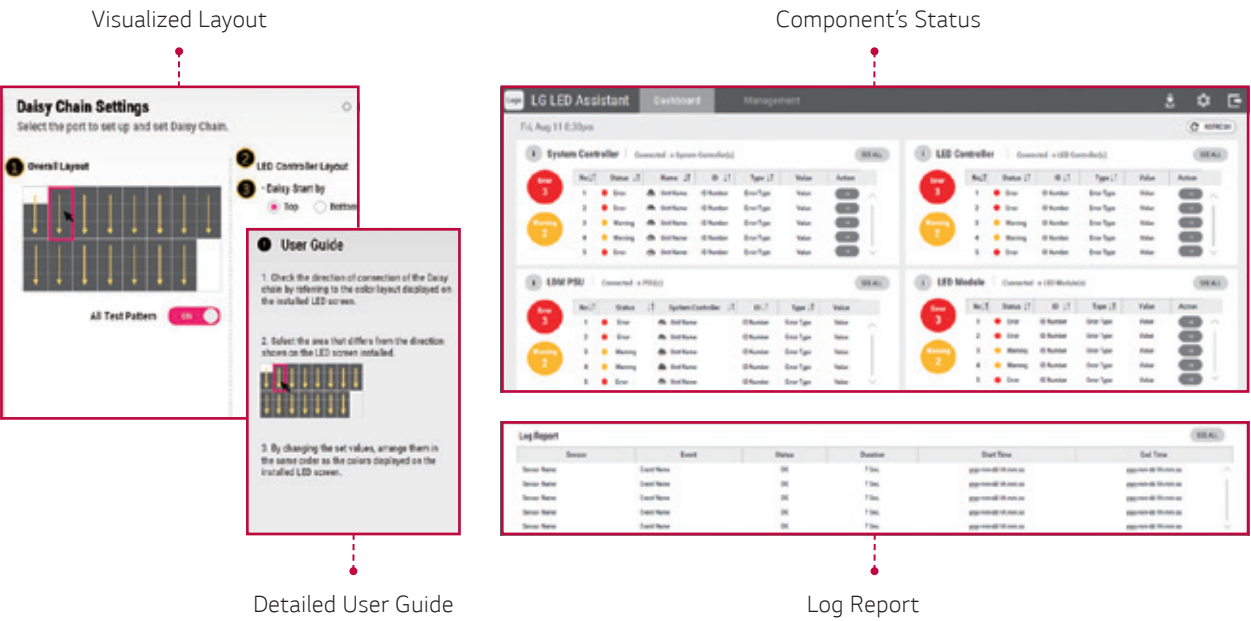
REAL-TIME 365 CARE SERVICE

To further facilitate and fast-track maintenance tasks, we also offer Signage 365 Care,* an optional, cloud-based service provided by LG Service. With Signage 365 Care, your workplace LED displays can be remotely monitored for fault diagnosis and remote control services.

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 INSTALLATION
Achieve precise alignment

EASY TO HANDLE & INSTALL

Conventional installations of large-sized and heavy cabinet-based displays often result in visible LED pixel defects. To correct this issue, the LAPE series introduces much smaller, lightweight LDM-based installation, which creates incomparable ease of handling with far less risk of LED pixel damage during set up.

Conventional Unit Case

LG LAPE Module

VS

0.73 lb/ 0.33kg

23.6" x 15.7" x 3.0" / 600 x 400 x 75 mm

9.4" x 7.1" x 0.4" / 240 x 180 x 9 mm
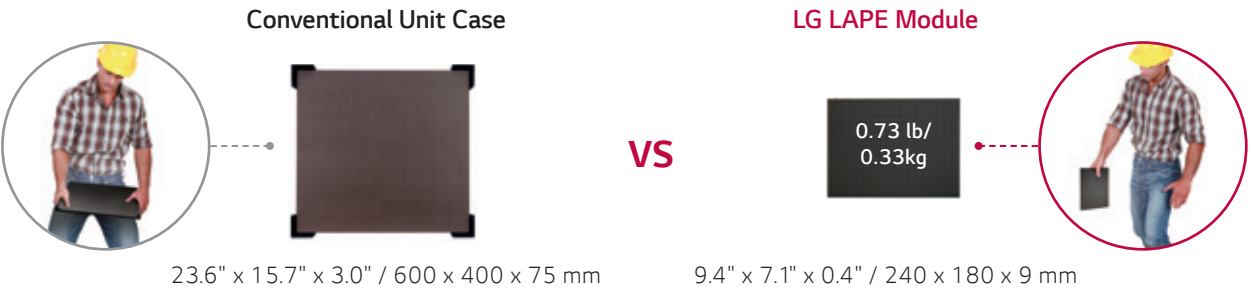
PRECISE SCREEN ALIGNMENT

The standard unit frame of the LAPE series has been carefully designed to achieve perfect screen flatness and alignment. At the four corners of each frame, magnetic screws have been applied to facilitate real-time LDM Z-axis alignment.

Magnet applied to four corners of unit frame

Z-axis alignment can be performed without removing LDM from the unit frame

Each LDM has 10 Z-axis alignment points for fine-tuning
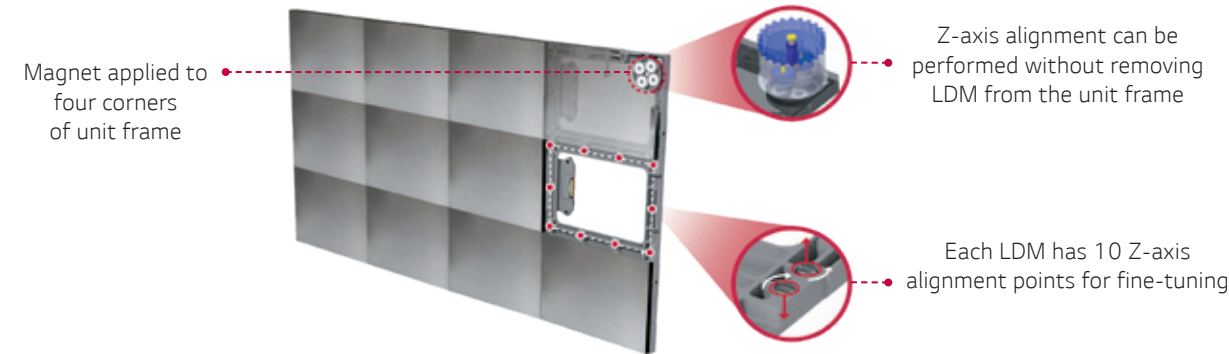
CONVENIENT FRONT INSTALLATION & SERVICE

The LAPE series was designed with front installation and front service access, which dramatically improves accessibility while also providing larger workspaces for service updates.
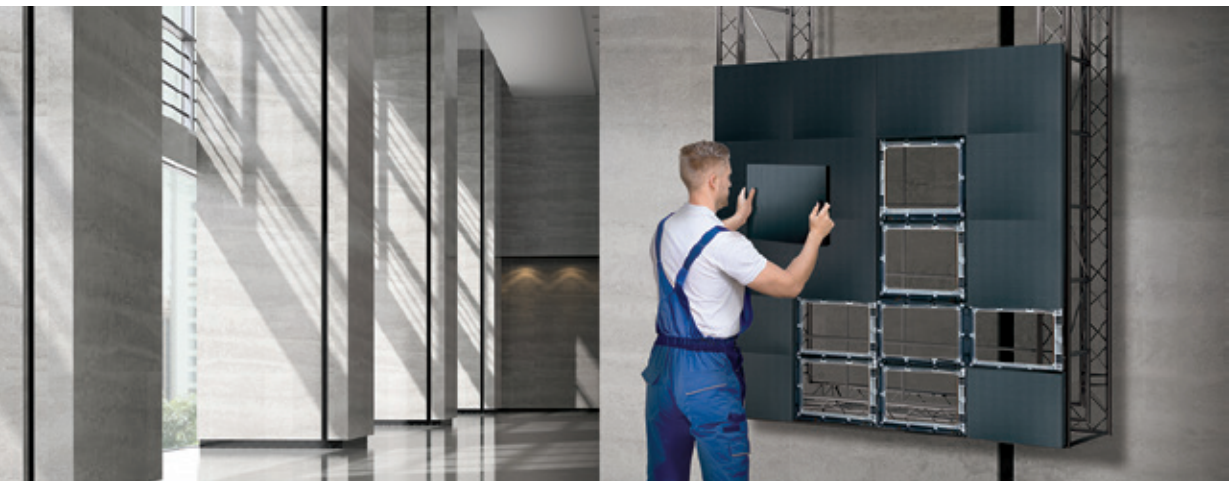
PRODUCT INFORMATION

SYSTEM CONNECTION

LDM

Unit Frame

System Controller   LED Controller

Rack
(Provided by Customer)

Power
Supply Unit

Power Interface
Board

Power Gender

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

SPECIFICATIONS

Module Name		LAPE 1.5 mm	LAPE 2.0 mm	LAPE 2.5 mm
Physical Parameters	LED Display Module	LAP015EL6B	LAP020EL6B	LAP025EL4D
	Pixel Configuration	3-in-1 SMD	3-in-1 SMD	3-in-1 SMD
	Pixel Pitch	0.1" / 1.50 mm	0.1" / 2.00 mm	0.1" / 2.50 mm
	Module Resolution (W x H)	160 x 120	120 x 90	96 x 72
	Module Dimensions (W x H)	9.5" x 7.1" / 240 x 180 mm	9.5" x 7.1" / 240 x 180 mm	9.5" x 7.1" / 240 x 180 mm
	Weight per Module	0.7 lbs / 0.3 kg	0.7 lbs / 0.3 kg	0.7 lbs / 0.3 kg
	No. of Modules per Unit Frame (W x H)	2 x 3	2 x 3	2 x 3
	Unit Frame Resolution (W x H)	320 x 360	240 x 270	192 x 216
	Unit Frame Dimensions (W x H x D)	18.9" x 21.3" x 1.6" / 480 x 540 x 40 mm	18.9" x 21.3" x 1.6" / 480 x 540 x 40 mm	18.9" x 21.3" x 1.6" / 480 x 540 x 40 mm
	Unit Frame Surface Area	403 in^2 / 0.3 m^2	403 in^2 / 0.3 m^2	403 in^2 / 0.3 m^2
	Weight per Unit Frame	11.3 lbs / 5.1 kg per unit (includes 1 Unit Frame, 6 LDMs and 3 Power Genders)		
	Weight per Square Meter	4.1 lbs / ft^2 / 19.8 kg / m^2	4.1 lbs / ft^2 / 19.8 kg / m^2	4.1 lbs / ft^2 / 19.8 kg / m^2
	Physical Pixel Density	444,444 pixels per m^2	250,000 pixels per m^2	160,000 pixels per m^2
	Flatness of Unit Frame	±0.2	±0.2	±0.2
	Unit Frame Material	Die Casting Aluminum	Die Casting Aluminum	Die Casting Aluminum
	Service Access	Front / Rear	Front / Rear	Front / Rear
Optical Specifications	Max. Brightness (After Calibration)	1,000 nits	1,000 nits	1,000 nits
	Color Temperature	3,200 - 9,300	3,200 - 9,300	3,200 - 9,300
	Visual Viewing Angle (Horizontal)	160°	160°	160°
	Visual Viewing Angle (Vertical)	140°	140°	140°
	Brightness Uniformity	≥97%	≥97%	≥97%
	Color Uniformity	±0.015Cx, Cy	±0.015Cx, Cy	±0.015Cx, Cy
	Contrast Ratio	6,000:1	6,000:1	6,000:1
	Processing Depth (Bit)	16	16	16
Electrical Specifications	Power Consumption (Avg.)	170 W per Unit	170 W per Unit	170 W per Unit
	Power Consumption (Max.)	330 W per Unit (@1,000 nits)	330 W per Unit (@1,000 nits)	330 W per Unit (@1,000 nits)
	Power Consumption (Max.)	118 W / ft^2 / 1,270 W / m^2 (@1,000 nits)	118 W / ft^2 / 1,270 W / m^2 (@1,000 nits)	118 W / ft^2 / 1,270 W / m^2 (@1,000 nits)
	Power Supply	100 to 240 V	100 to 240 V	100 to 240 V
	Frame Rate	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
	Refresh Rate	3,840 Hz	3,840 Hz	3,840 Hz
Operation Specifications	Lifetime (Half Brightness)*	100,000 Hours	100,000 Hours	50,000 Hours
	Operating Temperature	32° to 104° F / 0° to 40° C	32° to 104° F / 0° to 40° C	32° to 104° F / 0° to 40° C
	Operating Relative Humidity	10% to 80%	10% to 80%	10% to 80%
Environment		RoHS	RoHS	RoHS

* The Lifetime (Half Brightness) spec is subject to LED package spec.

Unit Frame			LFLG000E
Frame	Color		Black
	Dimension (W x H x D)		18.9" x 21.3" x 0.7" / 480 x 540 x 17 mm
	Weight	per Unit	5.6 lbs / 2.54 kg
		per Unit Area	2.0 lbs / ft^2 / 9.8 kg / m^2
	Carton Dimensions (W x H x D)		20.9" x 23.6" x 1.4" / 530 x 600 x 35 mm
	Packed Weight		7.7 lbs / 3.5 kg
Environmental Conditions	Operation Temperature		32° to 104° F / 0° to 40° C
	Storage Temperature/Relative Humidity		-4° to 140° F / -20° to 60° C / 5% to 85%
	Operational Relative Humidity		10% to 80%

LED Controller			LLLG003E*
LED Controller	Interface	Data Out	O(9), 30 Pin to LDM
		Power In	O(1) (15 Pin)
		Power Out	O(1) (15 Pin)
		RJ45	O(1), from System Controller / O(1), to LED Controller / O(2), Redundancy (Optional)
	Power Consumption		10 W
Physical Specifications	Dimension (W x H x D)		8.1" x 6.1" x 1.2" / 206 x 156 x 30.1 mm
	Weight		1.3 lbs / 0.6 kg
	Carton Dimensions (W x H x D)		11.1" x 9.1" x 6.7" / 282 x 232 x 164 mm
	Packed Weight		3.09 lbs / 1.4 kg
Environmental Conditions	Operation Temperature		32° to 104° F / 0° to 40° C
	Storage Temperature/Relative Humidity		-4° to 140° F / -20° to 60° C / 5% to 85%
	Operational Relative Humidity		10% to 80%
Accessory	DC Power Cable		O(2)
	Data Cable		O(6)
	QSG		O(1)

System Controller			LCLG003E*
System Controller	Interface	HDMI	O(1)
		DP	O(1)
		OPS	O(1)
		RJ45	In (1), Out (16)
		RS232C	In (1), Out (1)
		USB 2.0	O(1)
Physical Specifications	Dimension (W x H x D)		17.4" x 12.6" x 2.9" / 443 x 320 x 63 mm
	Weight		10.80 lbs / 4.9 kg
	Carton Dimensions (W x H x D)		20.9" x 15.4" x 6.7" / 530 x 392 x 169 mm
	Packed Weight		14.1 lbs / 6.4 kg
Accessory	Basic	AC Power Cable	O(1)
		Phone to RS232C Gender	O(1)
		HDMI Cable	O(1)
		QSG	O(1)
		Rack Bracket	O(2)
Special Features	Temperature Sensor		Yes
	LOD (LED Open Detection)		No
	Power Detection		Yes
	Dual Directional Feed of Signal		Yes
Power	Power Supply		100 - 240 V~, 50 / 60 Hz
	Power Type		Built-In Adaptor
	Power Consumption		50 W
Environmental Conditions	Operation Temperature		32° to 104° F / 0° to 40° C
	Storage Temperature/Relative Humidity		-4° to 140° F / -20° to 60° C / 5% to 85%
	Operational Relative Humidity		10% to 80%

Power Supply Unit			LPLG00*
Connectivity	Data	RJ45	In (1)
		USB	O(1)
		RS232C	O(2)
	Power	Out	O(3)
Physical Specifications	Dimension (W x H x D)		17.4" x 23.6" x 5.1" / 443 x 598.6 x 130.5 mm
	Weight		57.3 lbs / 26 kg
	Carton Dimensions (W x H x D)		27.9" x 27.9" x 10.8" / 709 x 556 x 274 mm
	Packed Weight		75 lbs / 34 kg
Accessory	Basic	Power Cord	O(4)
		24P Power Cable	O(1)
		Interface Board	O(1)
		RS232C Cable	O(1)
Special Features	Dual Power		Yes
Power	Power Supply		100 - 240 V~, 50 / 60 Hz
	Power Type		Separate Type (Power Redundancy)
	Power Out		48 V DC 3 Ports
	Dimension		17.5" x 5.1" x 24.0" / 445.2 x 130.3 x 608.3 mm
	Redundancy		O
	Hot Swap		O
	Power Status LED		O
	Maximum Distance		196.9 ft / 60 m
Environmental Conditions	Operational Temperature		32° to 104° F / 0° to 40° C
	Storage Temperature/Relative Humidity		-4° to 140° F / -20° to 60° C / 5% to 85%
	Operational Relative Humidity		10% to 80%
Standard (Certification)	EMC		Class A
	ErP / Energy Star		No / No

* Model codes may vary by system configuration. Please contact the LG sales representative in your region for further details.