* All images are for illustrative purposes only.

LG | Business Solutions

SMART CITY PROJECT

SOCIETY
RETAIL
SECURITY
HOME
HEALTHCARE
ENERGY
MOBILITY
Skyscrapers
Shopping centers
Woodland park area
City government
Transport
Business centers
Roads

BRONZE AWARD 2020

reddot winner 2020
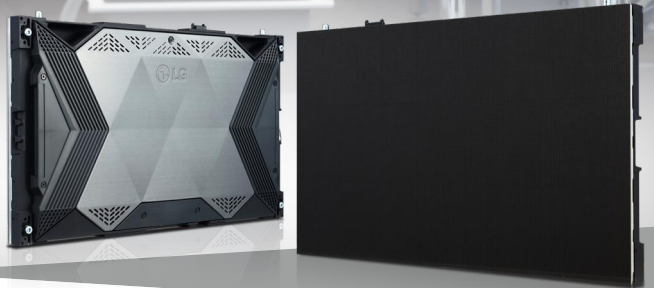
LG **LED** Bloc   LSAA Series

True Innovation Behind Simplicity

Optimum Cable-less Installation
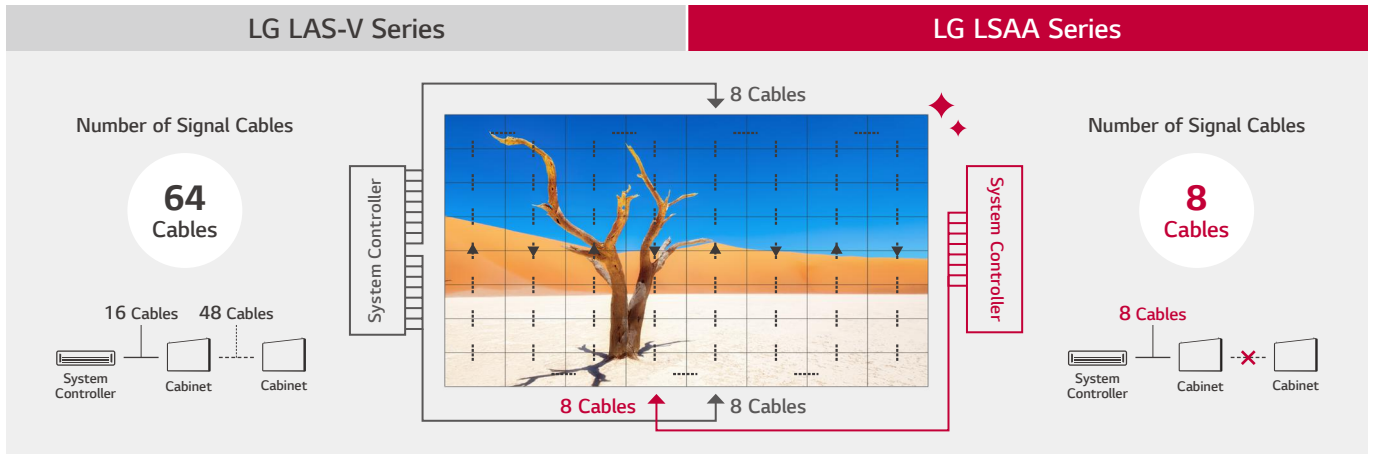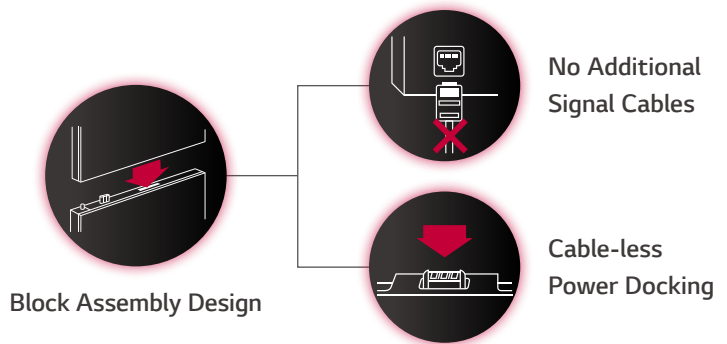
Alpha 7 Intelligent Processor

Dedicated Accessories

Meeting Room Solution Compatibility

OPTIMUM CABLE-LESS DESIGN FOR SIMPLE INSTALLATION

The LSAA series is the innovative LED signage applying the cableless transmission technology with non connectors*. For up to UHD resolution with the 16:9 ratio, it does not require a cable connection between the cabinets to supply signal & power. Its block assembly design makes the LSAA series easier to be installed than before.

* Non Connectors: Connectors that use RF (Radio Frequency) to transmit and receive data between two devices.

No Additional Signal Cables

Cable-less Power Docking

Block Assembly Design

LG LAS-V Series	LG LSAA Series

Number of Signal Cables

64 Cables

16 Cables 48 Cables

System Controller   Cabinet   Cabinet

8 Cables

8 Cables

8 Cables   8 Cables

System Controller

System Controller

Number of Signal Cables

8 Cables

8 Cables

System Controller   Cabinet   Cabinet

* Based on P1.2, 16:9, UHD Resolution (8 × 8 Cabinets)

`P1.25`

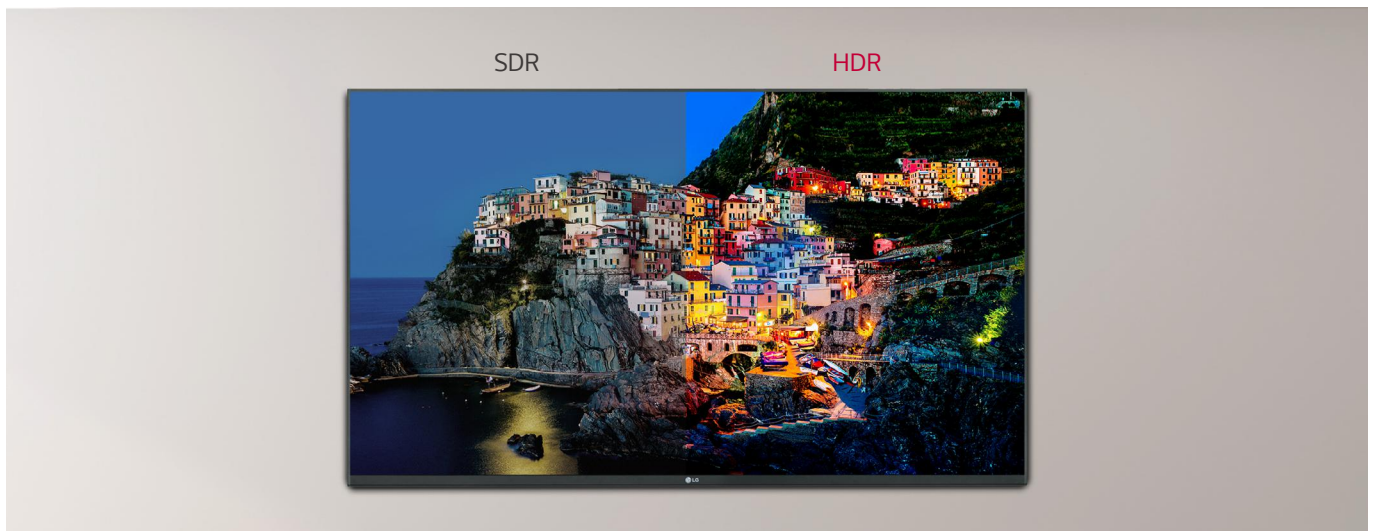# Cable-less Signal Transmission & Power Docking

POWERFUL PICTURE QUALITY

Alpha 7 Intelligent Processor

P1.25 P1.5

Optimized Image Quality with α 7 Intelligent Processor

The "Alpha 7 Intelligent Processor" applied to the LSAA series recognizes and analyzes the original content, optimizing the clarity and sharpness of the content for itself.

SDR   HDR

P1.25 P1.5

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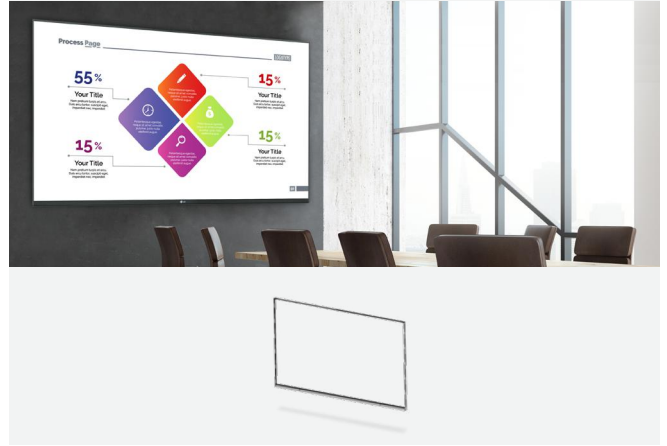
* HDR10 Pro is LG's own HDR solution for processing HDR signal by using enhanced dynamic tone mapping.

OPTIMUM LED DISPLAY FOR ENTERPRISE USAGE

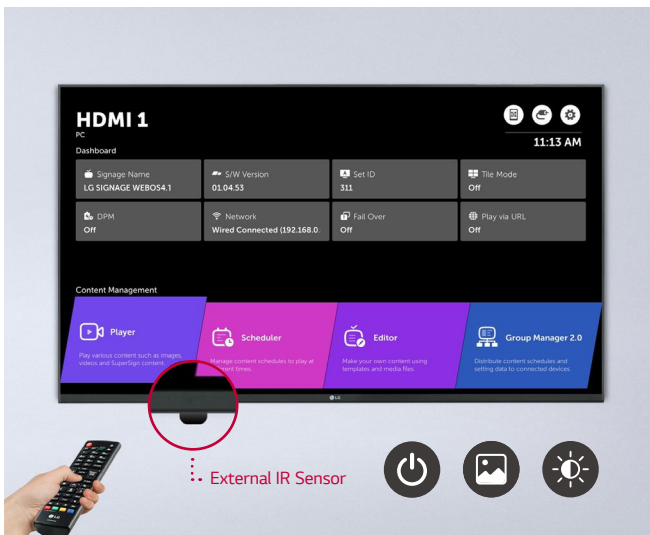**» Wall Mount Kit**
for Various Installation in Size
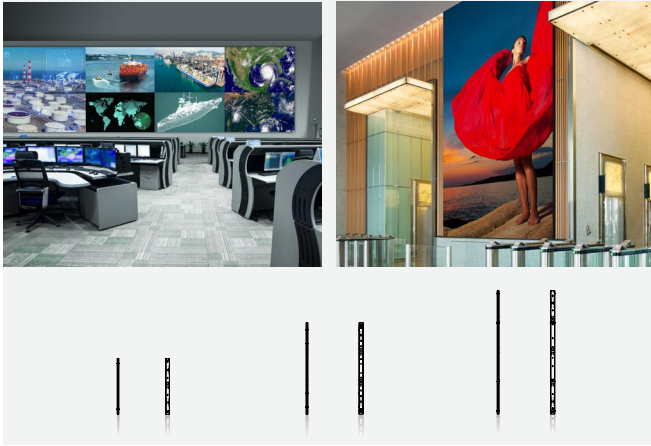
» Frame Kit
for 16:9 Installation in FHD / UHD Resolution

P1.25 P1.5

Dedicated Accessories Available

The screen size can be easily expanded as desired using the dedicated wall mount kits. In addition, LG offers two types of frame kits for cabinet 4 × 4 (108") and 6 × 6 (163").

External IR Sensor

P1.25 P1.5

P1.25 P1.5

Easy Remote Control Support

The LSAA series allows users to easily access the settings, such as Picture Mode, volume, etc. by using a remote control instead of connecting to a PC. It uses the same UI as general LG digital signage, so users can easily adapt to it.

Compatibility with AV Conference Systems

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

* The easy-viewing UI menu is available for over 1,280 × 720 resolution screens.

* Network-based control

DELICATE FEATURES CONSIDERING UP-CLOSE USE

	Class A	Class B
USA	Non-residential	Residential
EU	Industrial	Residential, Commercial, Light Industrial

Emissions Increase

`P1.25` `P1.5`

EMC Class B Certified

The LG LSAA series is certified as EMC Class B, which requires electronic equipment made for use in residential environments as well as commercial, industrial, or business environments. Therefore, it is suitable for up-close uses such as corporate meeting rooms, board rooms, etc.


LG Conventional Single LED Package	LG LSAA Series 4-in-1 LED Package

VS
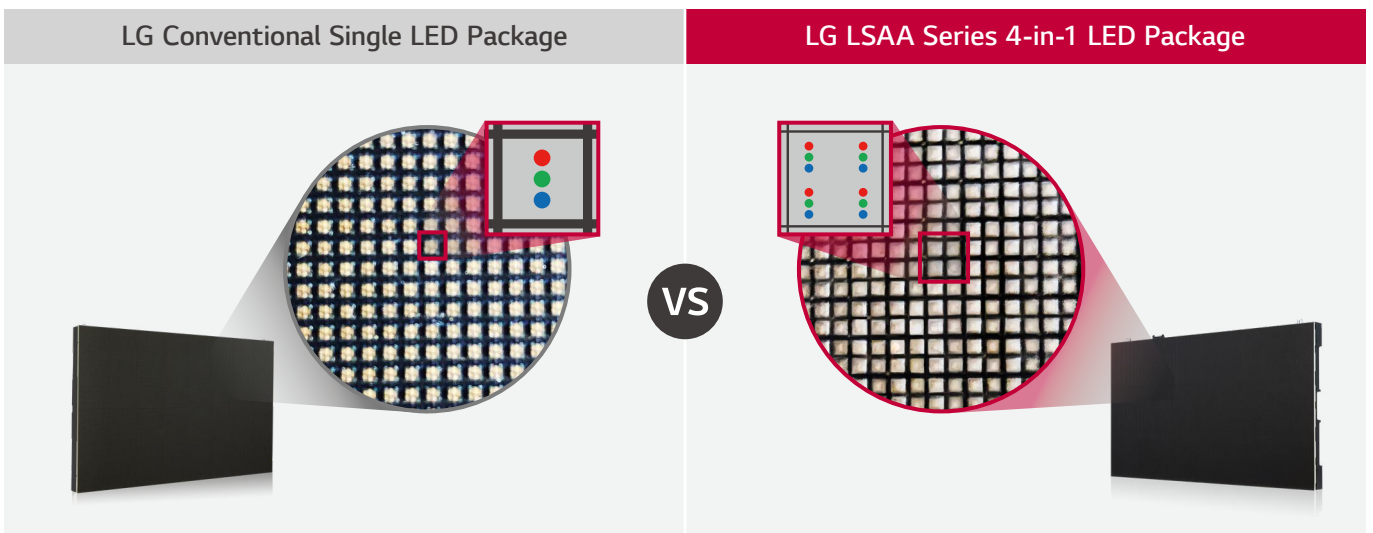
`P1.25`

4-in-1 LED Package

By adopting a 4-in-1 LED package in which 4 pixels are combined and integrated into one single LED package, the LSAA series offers better LED module protection. It is more robust to human touch than the conventional LED display.
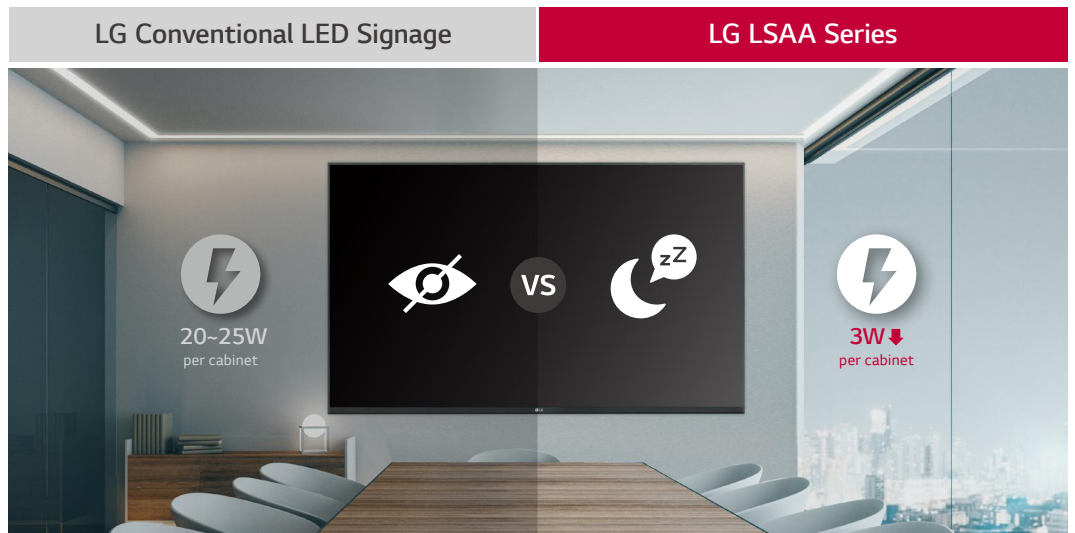
ENHANCED POWER EFFICIENCY

LG Conventional LED Signage	LG LSAA Series
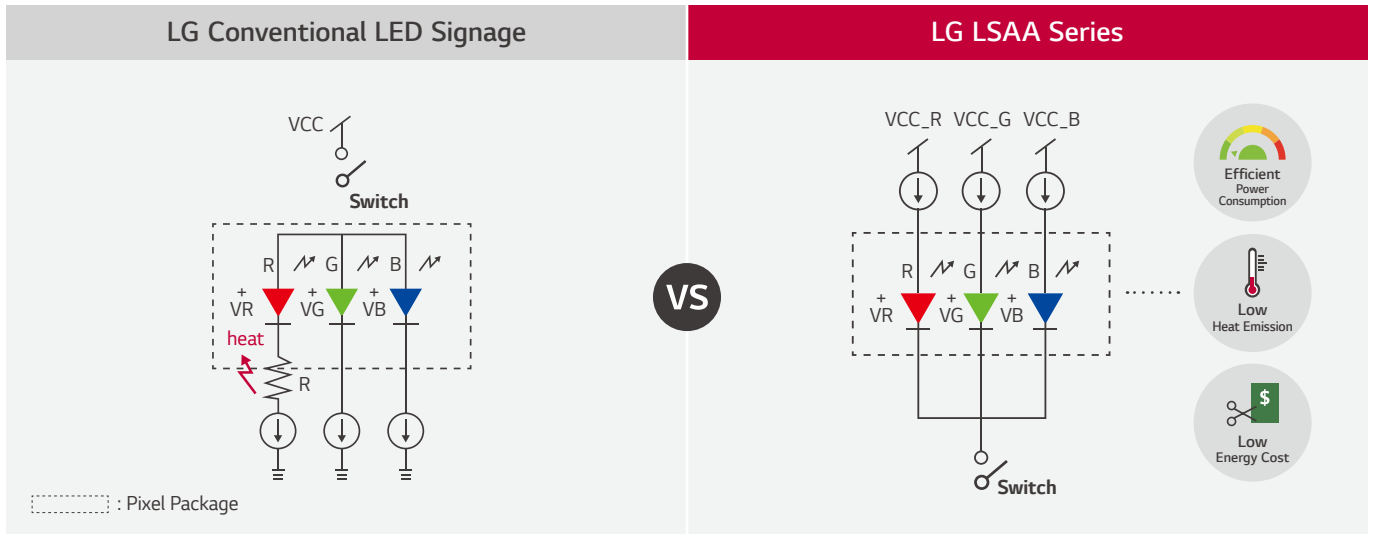
P1.25 **P1.5**

Energy Saving Power System

By applying Common Cathode Drive-IC, LSAA series supplies the right necessary voltage to each R/G/B sub-pixel individually, ensuring efficient power consumption.

LG Conventional LED Signage	LG LSAA Series

P1.25 **P1.5**

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.
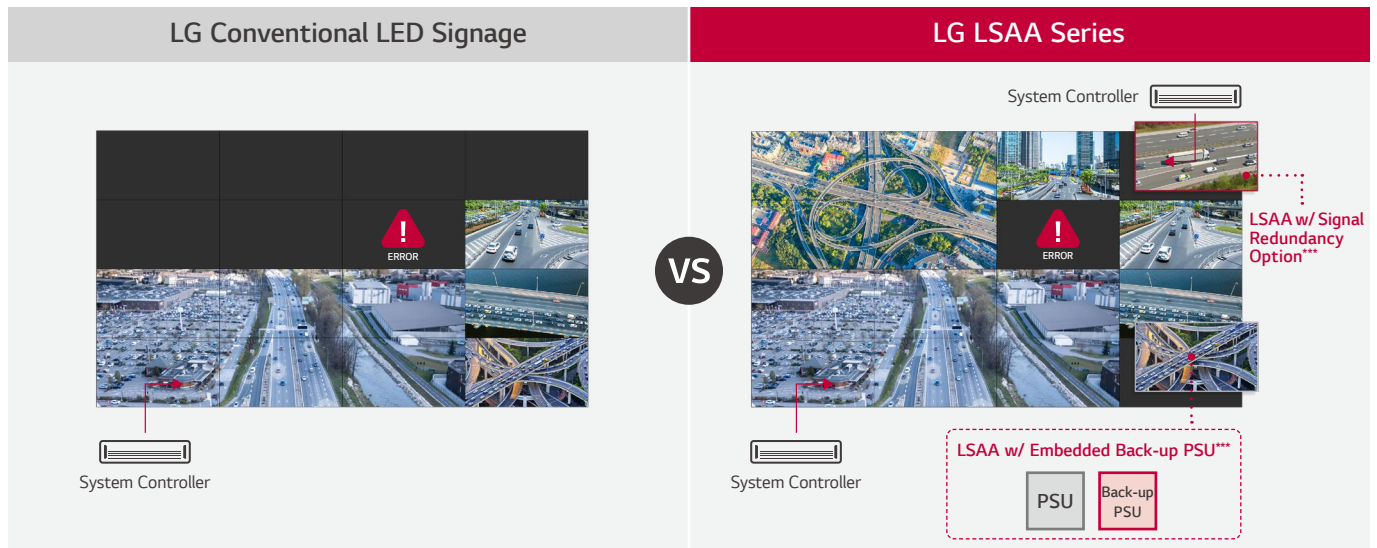
DELICATE FEATURES FOR OPERATION AND MANAGEMENT

P1.25 P1.5

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.

LG Conventional LED Signage	LG LSAA Series

System Controller

LSAA w/ Signal Redundancy Option***

LSAA w/ Embedded Back-up PSU***

PSU   Back-up PSU

System Controller

VS

System Controller

P1.25 P1.5

Power / Signal Redundancy Support

The LSAA series is designed to support redundancy of signal and power, providing users with comfort. With optional embedded back-up power supply unit and signal redundancy, customers can assure the continuous operation of the screen without power failure, while the dual controllers minimize screen failure with a bi-directional signal input.

* The "Conventional" shown above refers to LED displays which do not support the power/signal redundancy mode.
** The power/signal redundancy features are available from the fourth quarter of 2020.
*** The power/signal redundancy models are optional.

USAGE SCENES

PRODUCT INFORMATION

LG SuperSign

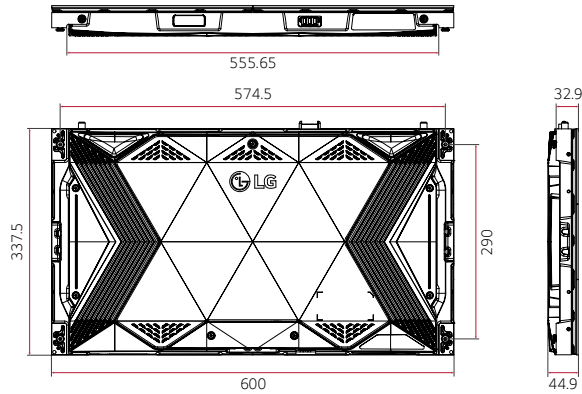| Cabinet	LSAA012-MX/SX	LSAA015-MX2/SX2
Pixel Configuration	4 in 1	3 in 1
Pixel Pitch (mm)	1.25	1.56
No. of Modules per Cabinet (W × H)	2 × 3	2 × 3
Cabinet Resolution (W × H)	480 × 270	384 × 216
Cabinet Dimensions (W × H × D, mm)	600 × 337.5 × 44.9	600 × 337.5 × 44.9
Brightness	600 nit (Typ.), 1,200 nit (Peak)	800 nit (Typ.), 1,600 nit (Peak)
Contrast Ratio	4,000 : 1 (Typ.), 8,000 : 1 (Peak)	5,000 : 1 (Typ.), 9,000 : 1 (Peak)

webOS

System Controller	CSAA-012X	CSAA-015X2
Resolution	UHD (3,840 × 2,160)	UHD (3,840 × 2,160)
Input Signal	HDMI 2.0, HDCP 2.2, DP 1.2 / HDCP 2.2	HDMI 2.0, HDCP 2.2, DP 1.2 / HDCP 2.2
Output Signal	Ethernet (8-channel)	Ethernet (10-channel)
Control	LAN, RS-232C (LOOP)	LAN, RS-232C (LOOP)
HDR Compatibility	HDR10 Pro	HDR10 Pro
Dimension (W × H × D, mm)	446 × 63 × 301	446 × 63 × 301

DIMENSION (unit: mm)

CABINET

555.65

574.5

337.5

290

600

32.9

44.9

SYSTEM CONTROLLER

CSAA-012X

446

301

290

63

CSAA-015X2

446

301

290

63
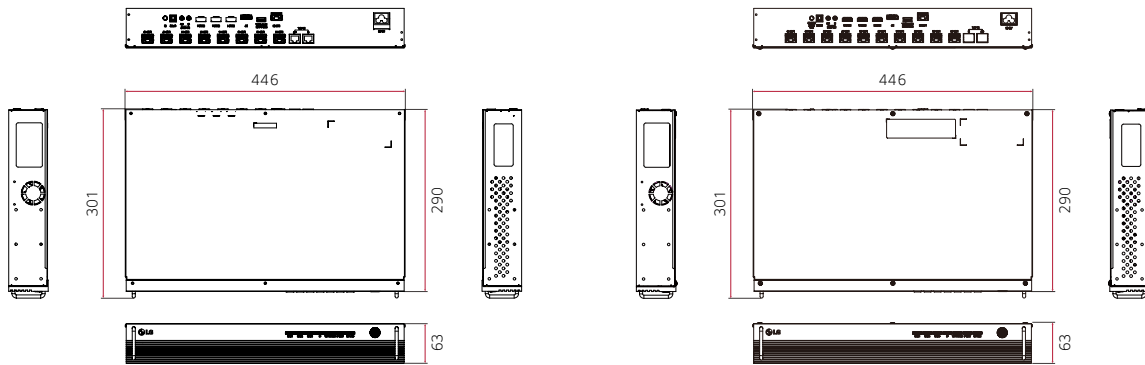
CONNECTIVITY

SYSTEM CONTROLLER
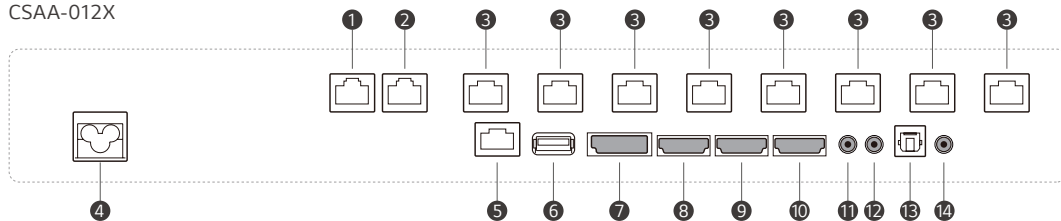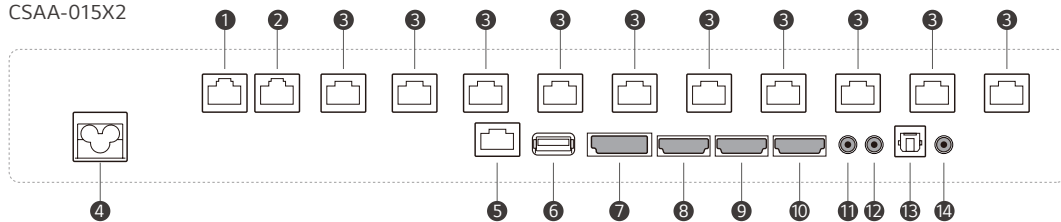
CSAA-012X

① ② ③ ③ ③ ③ ③ ③ ③ ③

④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

CSAA-015X2

① ② ③ ③ ③ ③ ③ ③ ③ ③ ③

④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

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

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

* Dimensions & Jack Panels may differ from the above image, so please contact LG sales team to verify before ordering.

SPECIFICATIONS

Panel	Model Name	LSAA012-MX/SX	LSAA015-MX2/SX2
Physical Parameters	Pixel Configuration	4 in 1	3 in 1
	Pixel Pitch (mm)	1.25	1.56
	Module Resolution (W × H)	240 × 90	192 × 72
	Module Dimensions (W × H, mm)	300 × 112.5	300 × 112.5
	Weight per Module (kg)	0.20	0.20
	No. of Modules per Cabinet (W × H)	2 × 3	2 × 3
	Cabinet Resolution (W × H)	480 × 270	384 × 216
	Cabinet Dimensions (W × H × D, mm)	600 × 337.5 × 44.9	600 × 337.5 × 44.9
	Cabinet Surface Area (m²)	0.203	0.259
	Weight per Cabinet (kg/Cabinet)	7.3	7.7
	Weight per Square Meter (kg/m²)	36.1	38.1
	Physical Pixel Density (pixels/m²)	640,000	409,600
	Flatness of Cabinet (mm)	±0.5	-
	Cabinet Material	Die-cast Aluminum	
	Service Access	Front and Rear[1]	
Optical Specifications	Brightness (After Calibration)	600 nit (Max.) 1,200 nit (Peak)	800 nit (Max.) 1,600 nit (Peak)
	Color Temperature (Default/Adjustable)	6,500 K / 3,200 ~ 9,300 K[2]	6,500 K / 3,200 ~ 9,300 K[2]
	Visual Viewing Angle (H × V)	170 × 170	170 × 170
	Brightness Uniformity	98%	≥95%
	Color Uniformity	±0.015 Cx, Cy	±0.015 Cx, Cy
	Contrast Ratio	4,000 : 1 (Max.), 8,000 : 1 (Peak)	5,000 : 1 (Typ.), 9,000 : 1 (Peak)
	Processing Depth (bit)	20 (HDR10, HDR10 Pro)[3]	
Electrical Specifications	Power Consumption (W/Cabinet, Max.)	99, 110	93
	Power Consumption (W/Cabinet, Avg.)	76	67
	Power Consumption (W/m², Max.)	489, 543	459
	Heat Dissipation (BTU/h/Cabinet, Max.)	338, 375	317
	Heat Dissipation (BTU/h/Cabinet, Avg.)	259	190
	Heat Dissipation (BTU/m², Max.)	1,667, 1,852	1,568
	Power Supply (V)	100 to 240	100 to 240
	Frame Rate (Hz)	50 / 60	50 / 60
	Refresh Rate (Hz)	3,840	3,840
Operation Specifications	Lifetime (Half Brightness)	100,000	100,000
	Operating Temperature	0°C to +40°C	0°C to +40°C
	Operating Humidity	10-80% RH	10-80% RH
	IP Rating Front	IP20	IP20
	IP Rating Rear	IP20	IP20
Certification		Safety 60950-1, EMC Class B, BS476 Part7 Class1	Safety 60950-1, EMC Class B
Environment		RoHS	RoHS
Controller		CSAA-012X	CSAA-015X2

[1] Module can be accessed only from the front.
[2] Adjustable via LED Assistant on PC
[3] LG's own HDR solution to process HDR signal by using enhanced dynamic tone mapping.

Controller	Model Name	CSAA-012X	CSAA-015X2
	Unit Case	LSAA012-MX/SX	LSAA015-MX2/SX2
Max Output Range	Loading Capacity	3,840 × 2,160 @60Hz	3,840 × 2,160 @60Hz
	Output Resolution	8.2944 Millon Pixels	8.2944 Millon Pixels
Input	HDMI	HDMI 2.0	HDMI 2.0
	HDCP	HDCP 2.2	HDCP 2.2
	DP	DP 1.2 / HDCP 2.2	DP 1.2 / HDCP 2.2
Output	Ethernet (To LED Screen)	Yes (8-channel)	Yes (10-channel)
Control	LAN	Yes	Yes
	RS-232C	Yes (LOOP)	Yes (LOOP)
Sensor	Ambient Light	Yes	Yes
	Temperature	Yes	Yes
Video Processing	Brightness Adjustment	Yes	Yes
	Chroma Adjustment	Yes	Yes
	Improved Grayscale at Low Brightness	Yes	Yes
	Scaling	Yes	Yes
	HDR	HDR10 Pro	HDR10 Pro
Application	CMS	SuperSign CMS	SuperSign CMS
	webOS API	Yes	Yes
	LG ConnectedCare	Yes	Yes
	Configuration SW	LED Assistant	LED Assistant
Mechanical	Size (W × H × D, mm)	446 × 63 × 301	446 × 63 × 301
	Weight (Kg)	4.5	4.5

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