LG MAGNIT LBAF Series

Micro LED for Virtual Production

Easy Installation and Maintenance

Curve Effect Available

Stacking & Hanging System Available

Black Immersion

Accurate Colors

Wide Viewing Angle

Broadcast Quality Available

LBAF

Pixel Pitch	1.56 mm
Brightness	1,500 nit
Weight per Cabinet	0.15 kg/Cabinet
Service Access	Rear
Certification	CE / FCC / ETL

Position Guide Pin

LDM Holder & Screwless Design

Headless Bolt

Quick Lock & One Hand Control

Easy Installation & Maintenance

The module can be easily removed with even bare hands, as it features rear service access that does not require any tools. Additionally, the positioning pins and magnets help perform easy panel adjustments, resulting in a smooth screen assembly.


Concave

0° ~ 10°

Curve Effect Available

The angle adapter system and fast lock are designed to fascilitate easy installation for curved display. The system allows for adjustment of up to 10 degrees in concave area while providing a secure mechanical connection.



Hanging Installation

Stacking Installation

Stacking & Hanging System Available

It can be installed by stacking or hanging, using the optional accessories such as single or double beams for customization to the studio environment.

Full Black Coating Technology

Chip on Board Technology
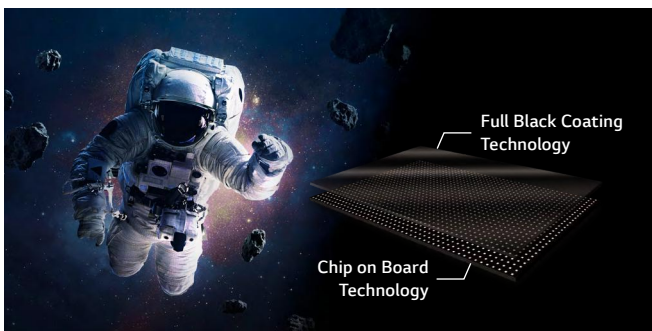
Black Immersion, Enlivened Details

By removing a package surrounding R, G, B LED chips and applying LG's own Full Black Coating technology, the LBAF series 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
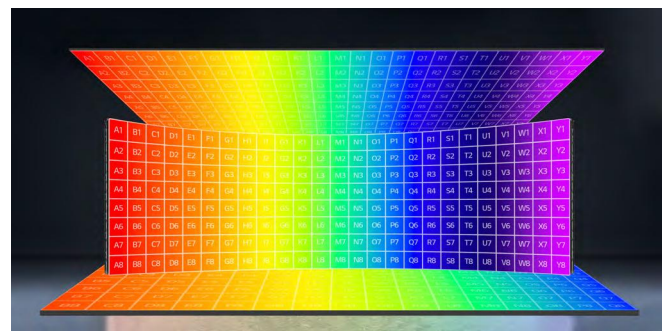
Accurate Colors as Intended

By carefully selecting an LED chip which is a key factor to determine color purity, its narrowed wavelength allows LBAF series 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.

Wide Color Viewing Angle

Thanks to the structure of LBAF series, 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.
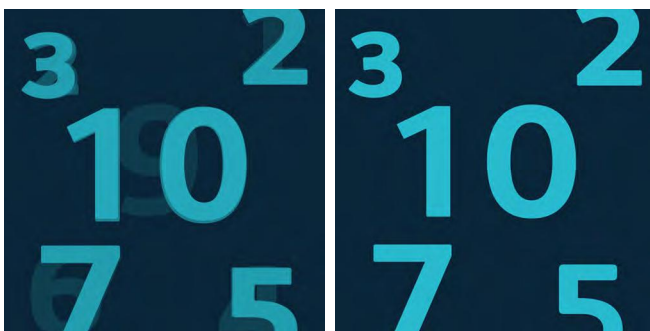

Broadcast Quality Available

With HDR capability and low latency video processing, LBAF supports broadcast-quality, providing accurate and smooth playback.


V-Sync

The flow of black lines can be prevented by adjusting the LED display's V-Sync to match the frequency between the camera and LED. This can reduce a rolling shutter effect while the camera is shooting.

Phase Shift

Phase Shift can make adjustments to the LED screen output timing. The LED screen can adjust timing manually to remove visual artefacts with Phase Shift if the camera recording results have caused a double image (double frame).
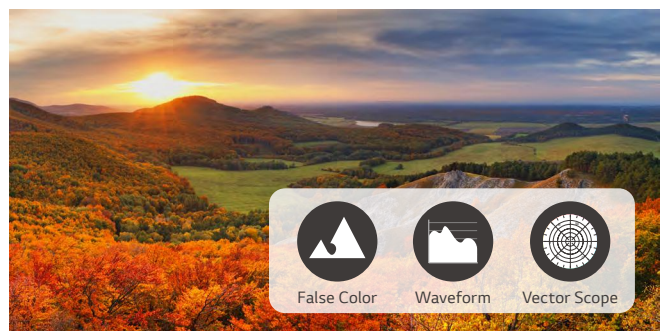
Detailed Analysis of Video Signals

The LBAF series analyzes video input of Y', Y'-Cb, and Y'Cr and shows Waveform and Vector Scope on LED tiles. False Color, Waveform, and Vector Scope for more video details or adjustments can be read on a display.
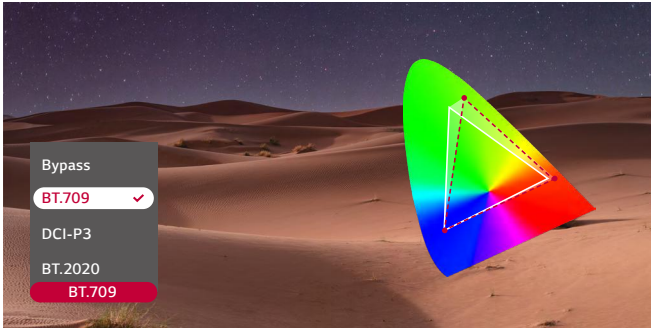
Color Gamut Adjustment

The RGB color gamut can be manually adjusted to match colors between LED tiles and camera to achieve desired colors.
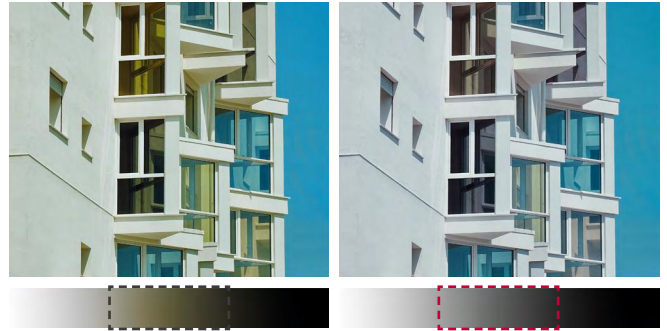

Gamma Adjustment

Gamma adjustment can be made manually from 0 to 1023 to calibrate RGB and fix errors.

Custom 3D-LUT

With LED displays supporting customized 3D-LUT, users can achieve their desired colors more accurately.

HDR Manual Adjustment

Although HDR metadata is not transferred from recorded video, accurate tone-mapping can be made with this HDR manual adjustment feature.

Compatibility with LG Software Solutions

When connected with LG's CBAF system controller, the LBAF series is compatible with LG software solutions including SuperSign CMS, LED Assistant, and ConnectedCare, which help customers operate their own business properly.

* The availability of the 'LG ConnectedCare' service differs by region, and it needs to be purchased separately. So please contact the LG sales representative in your region for more details.
* The items that can be monitored by LG ConnectedCare : Main Board (Temp., Signal Status, FPGA Ver, Ethernet Connection Status), Receiving Card (Temp., LED Power)
* Actual GUI may vary in different webOS versions.
* LG Software solutions needs to be purchased separately.

SPECIFICATIONS

LBAF015-G1

		LBAF015-G1
	Pitch Name	P1.50
Physical Parameters	Pixel Configuration	COB
	Pixel Pitch (mm)	1.56
	Module Resolution (W × H)	96 × 108
	Module Dimensions (W × H, mm)	150 × 168.75
	Weight per Module (kg)	0.15
	No. of Modules per Cabinet (W × H)	4 × 4
	Cabinet Resolution (W × H)	384 × 432
	Cabinet Dimensions (W × H × D, mm)	600 × 675 × 79.8
	Cabinet Surface Area (m²)	0.405
	Weight per Cabinet (kg/Cabinet)	15.5
	Weight per Square Meter (kg/m²)	38.3
	Physical Pixel Density (pixels/m²)	409,600
	Flatness of Cabinet (mm)	±0.15
	Cabinet material	Die Casting Magnesium Alloy
	Service Access	Rear
Optical Specifications	Max. Brightness (After Calibration, nit)	1,500
	Color Temperature (K)	3,200~9,300
	Visual Viewing Angle (H × V)	160 × 160
	Brightness Uniformity (%)	≥ 95
	Color Uniformity	±0.015 Cx, Cy
	Contrast Ratio	100,000 : 1 (Max.)
	Processing Depth (bit)	16 (HDR10, HDR10 Pro)
Electrical Specifications	Power Consumption (W/Cabinet) (Max./Avg.)	210 / 175
	Power Consumption (W/m², Max.)	519
	Heat Dissipation (BTU/h/Cabinet) (Max./Avg.)	729 / 599
	Heat Dissipation (BTU/h/m², Max.)	1,775
	Power Supply (V)	100 to 240
	Frame Rate (Hz)	96 / 100 / 120
	Refresh Rate (Hz)	7,680
Operation Specifications	Lifetime (Half Brightness)	100,000
	Operating Temperature (°C)	0° to +40°
	Operating Humidity	10-80% RH
Certification		CE / FCC / ETL
Environment		RoHS / REACH
Controller		CBAF-0151
90 Degree Corner Cut		No

CBAF-0151 (Controller)

	Cabinet	LBAF015-G1
Max Output Range	Loading Capacity	3,840 × 2,160 @ 60 Hz
	Output Resolution	8.2944 Million Pixels
Input		HDMI 2.0, HDCP 2.2, DP 1.2 / HDCP 1.3, SDI (4 × 3G-SDI)
Output		Ethernet (10-channel (to LED))
Control	LAN	Yes
	USB	Yes (Service Only)
	RS-232C	Yes (LOOP)
	GenLock	Yes (In / Out)
Sensor	Ambient Light	Yes
	Temperature	Yes
Video Processing		Brightness Adjustment, Chroma Adjustment, Improved Grayscale at Low Brightness, Scaling, HDR10/HDR10 Pro/PQ/HLG
Application		SuperSign CMS, webOS API, LG ConnectedCare[1], Configuration SW (LED Assistant)
Mechanical	Size (W × H × D, mm)	446 × 63 × 314
	Weight (kg)	5.8

[1] The availability can differ by region.

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