

## **Series** Key Features

#### **Stadium**

- Superb original color representation (HDTV standard)
- 6,000 cd/m<sup>2</sup> high brightness
- Excellent color / brightness uniformity
- 16 bit color processing
- High refresh rate (4,000Hz)
- Various pitches and types
- Large unit case size for easy maintenance
- IP65/54 (front/rear)

### **High Performance Slim**

- Stunning Image Quality
- Light weight & Slim Design for wider application
- Low power consumption
- Two versions available (CREE / Multicolor)
- IP65/54 (front/rear)

#### **Standard**

- Versatile performance
- 5,000 cd/m<sup>2</sup> brightness
- · Light-weight & slim design
- Fast lock for quick installation and easy maintenance
- Half unit case size for various screen size configurations (4.63/6.94mm)
- IP65/IP54 (front/rear)



Stadium Scoreboard (SMD)

- LBS060DA1D (6.00 mm)
- LBS060DA3D (6.00 mm)
- LBS080DA1D (8.00 mm)
- LBS080DA3D (8.00 mm) • LBS100DA1D (10.67 mm) • LBS100DA3D (10.67 mm)
- LBS120DA1D (12.00 mm) LBS120DA3D (12.00 mm)
- •LBS160DA1D (16.00 mm) •LBS160DA3D (16.00 mm)



Stadium Scoreboard (OVAL)

- LBS160VA1D (12.00 mm)
- LBS200VA1D (16.00 mm)



Stadium Ribbon Board (SMD)

• LBF160DA1D (16.00 mm)



Stadium Perimeter (SMD)

• LBB160DA1D (16.00 mm)



High Performance Slim

- LBS062DA1-V (6.30 mm) LBS062DA3-V (6.30 mm)
- LBS083DA1-V (8.33 mm) LBS083DA3-V (8.33 mm)
- LBS100DA1-V (10.00 mm) LBS100DA3-V (10.00 mm)



Standard

- LBE046DD4 (4.63 mm)
- LBE069DD4 (6.94 mm)
- - LBE100DD4 (10.00 mm)
- LBS100DD5 (10.00 mm)



• LBE046DD4D (4.63 mm)



• LBE080DD4 (8.00 mm)

STADIUM SCOREBOARD

LBS100DA3D LBS120DA1D LBS120DA3D LBS160DA1D LBS160DA3D

		STADIUM SCOREBOARD				
		LBS060DA1D	LBS060DA3D	LBS080DA1D	LBS080DA3D	LBS100DA1D
	Pixel Configuration	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD
	Pixel Pitch (mm)	6.00	6.00	8.00	8.00	10.67
	Module Resolution (W x H)	32 x 32	32 x 32	24 x 24	24 x 24	18 x 18
	Module Dimensions (W x H, mm)	192 x 192	192 x 192	192 x 192	192 x 192	192 x 192
	Weight per Module (kg)	0.54	0.54	0.57	0.57	0.56
	No. of Modules per Unit Case (W x H)	6 x 4	6 x 4	8 x 8	8 x 8	8 x 8
	Unit Case Resolution (W x H)	192 x 128	192 x 128	192 x 192	192 x 192	144 x 144
Physical Parameters	Unit Case Dimensions (W x H x D, mm)	1,152 x 768 x 217	1,152 x 768 x 217	1,536 x 1,536 x 222	1,536 x 1,536 x 222	1,536 x 1,536 x 22
	Unit Case Surface Area (m')	0.885	0.885	2.359	2.359	2.359
	Weight per Unit Case (kg/unit)	42.0	42.0	104.0	104.0	104.0
	Weight per Square Meter (kg/m²)	47.5	47.5	44.1	44.1	44.1
	Physical Pixel Density (pixels/m²)	27,777	27,777	15,625	15,625	8,836
	Flatness of Unit Case (mm)	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
	Unit Case Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Service Access	Front or Rear	Front or Rear	Front and Rear	Front and Rear	Front and Rear
	Min. Brightness (After Calibration)	6,000	6,000	6,000	6,000	6,000
	Color Temperature	6,500	6,500	6,500	6,500	6,500
	Visual Viewing Angle (Horizontal)	160°	160°	160°	160°	160°
Optical	Visual Viewing Angle (Vertical)	90°	90°	90°	90°	110°
Specifications	Brightness Uniformity	≥ 97%	≥ 97%	≥ 97%	≥ 97%	≥ 97%
	Color Uniformity	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy
	Contrast Ratio	3,000	3,000	3,000	3,000	3,000
	Processing Depth (bit)	16	16	16	16	16
	Power Consumption (W/Unit, Max.)	736	667	1,932	1,771	1,817
	Power Consumption (W/Unit, Avg.)	294	267	773	708	727
Electrical	Power Consumption (W/m², Max.)	832	754	819	751	770
Specifications	Power Supply (V)	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
	Refresh Rate (Hz)	4,000	4,000	4,000	4,000	4,000
	Lifetime (Half brightness)	100,000	100,000	100,000	100,000	100,000
	Operating Temperature (°C)	-20 to +50	-20 to +50	-20 to +50	-20 to +50	-20 to +50
Operation Specifications	Operating Humidity	10-90%RH	10-90%RH	10-90%RH	10-90%RH	10-90%RH
,	IP Rating Front	IP65	IP65	IP65	IP65	IP65
	IP Rating Rear	IP54	IP54	IP54	IP54	IP54
Controller		LCLH001	LCLH001	LCLH001	LCLH001	LCLH001

	Pixel Configuration	3 in 1 SMD				
	Pixel Pitch (mm)	10.67	12.00	12.00	16.00	16.00
	Module Resolution (W x H)	18 x 18	16 x 16	16 x 16	12 x 12	12 x 12
	Module Dimensions (W x H, mm)	192 x 192				
	Weight per Module (kg)	0.56	0.56	0.56	0.56	0.56
	No. of Modules per Unit Case (W x H)	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
	Unit Case Resolution (W x H)	144 x 144	128 x 128	128 x 128	96 x 96	96 x 96
hysical arameters	Unit Case Dimensions (W x H x D, mm)	1,536 x 1,536 x 222	1,536 x 1,536 x 223	1,536 x 1,536 x 223	1,536 x 1,536 x 227	1,536 x 1,536 x 227
	Unit Case Surface Area (m²)	2.359	2.359	2.359	2.359	2.359
	Weight per Unit Case (kg/unit)	104.0	104.0	104.0	104.0	104.0
	Weight per Square Meter (kg/m')	44.1	44.1	44.1	44.1	44.1
	Physical Pixel Density (pixels/m')	8,836	6,944	6,944	3,906	3,906
	Flatness of Unit Case (mm)	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
	Unit Case Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Service Access	Front and Rear				
	Min. Brightness (After Calibration)	6,000	6,000	6,000	6,000	6,000
	Color Temperature	6,500	6,500	6,500	6,500	6,500
	Visual Viewing Angle (Horizontal)	160°	160°	160°	160°	160°
	Visual Viewing Angle (Vertical)	110°	100°	100°	90°	90°
ptical pecifications	Brightness Uniformity	≥ 97%	≥ 97%	≥ 97%	≥ 97%	≥ 97%
	Color Uniformity	± 0.05Cx,Cy				
	Contrast Ratio	3,000	3,000	3,000	3,000	3,000
	Processing Depth (bit)	16	16	16	16	16
	Power Consumption	1,737	1,783	1,737	1,760	1,668
	(W/Unit, Max.)  Power Consumption	695	713	695	704	667
	(W/Unit, Avg.)  Power Consumption (W/m, Max.)	736	756	736	746	707
lectrical pecifications	Power Supply (V)	100 to 240				
	Frame Rate (Hz)	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
	Refresh Rate (Hz)	4,000	4,000	4,000	4,000	4,000
	Lifetime (Half brightness)	100,000	100,000	100,000	100,000	100,000
	Operating Temperature (°C)	-20 to +50				
peration	Operating Humidity	10-90%RH	10-90%RH	10-90%RH	10-90%RH	10-90%RH
pecifications	IP Rating Front	IP65	IP65	IP65	IP65	IP65
	IP Rating Rear	IP54	IP54	IP54	IP54	IP54

\*The Lifetime (Half brightness) spec is subject to LED package specifications.

HIGH PERFORMANCE SLIM

LBS062DA1-V LBS062DA3-V LBS083DA1-V LBS083DA3-V LBS100DA1-V LBS100DA3-V

	I	STADIUM SCOREBOARD		STADIUM RIBBON BOARD	STADIUM PERIMETE
		LBS160VA1D	LBS200VA1D	LBF160DA1D	LBB160DA1D
	Pixel Configuration	Oval	Oval	3 in 1 SMD	3 in 1 SMD
	Pixel Pitch (mm)	16.00	20.00	16.00	16.00
	Module Resolution (W x H)	20 x 20	16 x 16	12 x 12	12 x 12
	Module Dimensions (W x H, mm)	320 x 320	320 x 320	192 x 192	192 x 192
	Weight per Module (kg)	2.15	2.15	0.90	0.51
	No. of Modules per Unit Case (W x H)	8x6	8x6	4x5	8x5
	Unit Case Resolution (W x H)	160 x 120	128 x 96	48 x 60	96 x 60
Physical Parameters	Unit Case Dimensions (W x H x D, mm)	2,560 x 1,920 x 254	2,560 x 1,920 x 254	768 x 960 x 254	1,536 x 960 x 215
	Unit Case Surface Area (m')	4.915	4.915	0.737	1.475
	Weight per Unit Case (kg/unit)	218.0	218.0	40.0	72.0
	Weight per Square Meter (kg/m²)	44.4	44.4	54.3	48.8
	Physical Pixel Density (pixels/m')	3,906	2,500	3,906	3,906
	Flatness of Unit Case (mm)	± 1.0	± 1.0	± 1.0	± 1.0
	Unit Case Material	Aluminum	Aluminum	Aluminum	Aluminum
	Service Access	Front and Rear	Front and Rear	TOP	Front and Rear
	Min. Brightness (After Calibration)	7,500	6,000	6,000	6,000
	Color Temperature	6,500	6,500	6,500	6,500
	Visual Viewing Angle (Horizontal)	160°	160°	160°	160°
Optical	Visual Viewing Angle (Vertical)	60°	60°	90°	90°
Specifications	Brightness Uniformity	≥ 97%	≥ 97%	≥ 97%	≥ 97%
	Color Uniformity	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy
	Contrast Ratio	3,000	3,000	3,000	3,000
	Processing Depth (bit)	16	16	16	16
	Power Consumption (W/Unit, Max.)	3,002	2,933	575	1,150
	Power Consumption (W/Unit, Avg.)	1,201	1,173	230	460
Electrical	Power Consumption (W/m², Max.)	611	597	780	780
Specifications	Power Supply (V)	100 to 240	100 to 240	100 to 240	100 to 240
	Frame Rate (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
	Refresh Rate (Hz)	4,000	4,000	4,000	4,000
	Lifetime (Half brightness)	100,000	100,000	100,000	100,000
	Operating Temperature (°C)	-20 to +50	-20 to +50	-20 to +50	-20 to +50
Operation Specifications	Operating Humidity	10-90%RH	10-90%RH	10-90%RH	10-90%RH
	IP Rating Front	IP65	IP65	IP65	IP65
	IP Rating Rear	IP54	IP54	IP43	IP54
Controller		LCLH001	LCLH001	LCLH001	LCLH001

	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)	6.30	6.30	8.33	8.33	10.00	10.00
	Module Resolution (W x H)	64 x 64	64 x 64	48 x 48	48 x 48	40 x 40	40 x 40
	Module Dimensions (W x H, mm)	400 x 400	400 x 400	400 × 400	400 × 400	400 x 400	400 x 400
	Weight per Module (kg)	2.45	2.45	2.45	2.45	2.45	2.45
	No. of Modules per Unit Case (W x H)	2 x 4	2 x 4	2 x 4	2 x 4	2 x 4	2 x 4
	Unit Case Resolution (W x H)	128 x 256	128 x 256	96 x 192	96 x 192	80 x 160	80 x 160
Physical Parameters	Unit Case Dimensions (W x H x D, mm)	800 x 1,600 x 1,43.5	800 x 1,600 x 143.5	800 x 1,600 1 143.5			
	Unit Case Surface Area (m')	1.280	1.280	1.280	1.280	1.280	1.280
	Weight per Unit Case (kg/unit)	40.0	40.0	40.0	40.0	40.0	40.0
	Weight per Square Meter (kg/m')	31.3	31.3	31.3	31.3	31.3	31.3
	Physical Pixel Density (pixels/m²)	25,600	25,600	14,411	14,411	10,000	10,000
	Flatness of Unit Case (mm)	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
	Unit Case Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Service Access	Front and Rear	Front and Rear	Front and Rear	Front and Rear	Front and Rear	Front and Rea
	Min. Brightness (After Calibration)	6,000	6,000	6,000	6,000	6,000	6,000
	Color Temperature	6,500	6,500	6,500	6,500	6,500	6,500
	Visual Viewing Angle (Horizontal)	160°	160°	160°	160°	160°	160°
ptical	Visual Viewing Angle (Vertical)	90°	90°	90°	90°	110°	110°
pecifications	Brightness Uniformity	≥ 97%	≥ 97%	≥ 97%	≥ 97%	≥ 97%	≥ 97%
	Color Uniformity	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy	± 0.05Cx,Cy
	Contrast Ratio	3,000	3,000	3,000	3,000	3,000	3,000
	Processing Depth (bit)	16	16	16	16	16	16
	Power Consumption (W/Unit, Max.)	920	955	943	978	920	943
	Power Consumption (W/Unit, Avg.)	368	382	377	391	368	377
lectrical	Power Consumption (W/m, Max.)	719	746	737	764	719	737
pecifications	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)	4,000	4,000	4,000	4,000	4,000	4,000
	Lifetime (Half brightness)	100,000	100,000	100,000	100,000	100,000	100,000
	Operating Temperature (°C)	-20 to +50	-20 to +50	-20 to +50	-20 to +50	-20 to +50	-20 to +50
peration pecifications	Operating Humidity	10-90%RH	10-90%RH	10-90%RH	10-90%RH	10-90%RH	10-90%RH
Specifications	ID Dating Front	IP65	IP65	IP65	IP65	IP65	IP65
	IP Rating Front				I .		
	IP Rating Rear	IP65	IP65	IP65	IP65	IP65	IP65

# LG Signage Introduction Outdoor LED Signage

\*The Lifetime (Half brightness) spec is subject to LED package specifications.

LBS100DD5

3 in 1 SMD

LBE100DD4

3 in 1 SMD

			STANDARD	
		LBE046DD4	LBE046DD4D	LBE069DD4
	Pixel Configuration	3 in 1 SMD	3 in 1 SMD	3 in 1 SMD
	Pixel Pitch (mm)	4.63	4.63	6.94
	Module Resolution (W x H)	54 x 108	54 x 108	36 x 72
	Module Dimensions (W x H, mm)	250 x 500	250 x 500	250 x 500
	Weight per Module (kg)	1.80	1.80	1.80
	No. of Modules per Unit Case (W x H)	2 x 2	2 x 1	2 x 2
	Unit Case Resolution (W x H)	108 x 216	108 x 108	72 x 144
Physical Parameters	Unit Case Dimensions (W x H x D, mm)	500 x 1,000 x 68	500 x 500 x 68	500 x 1,000 x 68
	Unit Case Surface Area (m')	0.500	0.500	0.500
	Weight per Unit Case (kg/unit)	12.0	7.5	12.0
	Weight per Square Meter (kg/m)	24.0	30.0	24.0
	Physical Pixel Density (pixels/m²)	46,656	46,656	20,736
	Flatness of Unit Case (mm)	± 0.5	± 0.5	± 0.5
	Unit Case Material	Magnesium	Magnesium	Magnesium
	Service Access	Rear	Rear	Rear
	Min. Brightness (After Calibration)	5,000	5,000	5,000
	Color Temperature	6,500	6,500	6,500
	Visual Viewing Angle (Horizontal)	110°	110°	110°
Optical	Visual Viewing Angle (Vertical)	110°	110°	110°
Specifications	Brightness Uniformity	97%	97%	97%
	Color Uniformity	± 0.003Cx,Cy	± 0.003Cx,Cy	± 0.003Cx,Cy
	Contrast Ratio	5,000	5,000	5,000
	Processing Depth (bit)	14	14	14
	Power Consumption (W/Unit, Max.)	300	160	300
	Power Consumption (W/Unit, Avg.)	100	53	100
: Electrical	Power Consumption (W/m², Max.)	600	600	600
Specifications	Power Supply (V)	100 to 240	100 to 240	100 to 240
	Frame Rate (Hz)	50 / 60	50 / 60	50 / 60
	Refresh Rate (Hz)	3,000	3,000	3,000
	Lifetime (Half brightness)	50,000	50,000	50,000
	Operating Temperature (°C)	-10 to +45	-10 to +45	-10 to +45
Operation Specifications	Operating Humidity	0-80%RH	0-80%RH	0-80%RH
	IP Rating Front	IP65	IP65	IP65
	IP Rating Rear	IP543	IP54	IP54
Controller		LCIN006	LCIN006	LCIN006

	Pixel Configuration	3 in 1 SMD			
	Pixel Pitch (mm)	6.94	8.00	10.00	10.00
	Module Resolution (W x H)	36 x 72	40 x 30	32 x 24	32 x 24
	Module Dimensions (W x H, mm)	250 x 500	320 x 240	320 x 240	320 x 240
	Weight per Module (kg)	1.80	1.30	1.30	1.30
	No. of Modules per Unit Case (W x H)	2 x 1	2 x 3	2 x 3	2 x 3
	Unit Case Resolution (W x H)	72 x 72	80 x 90	64 x 72	64 x 72
hysical arameters	Unit Case Dimensions (W x H x D, mm)	500 x 500 x 68	640 x 720 x 90	640 x 720 x 90	640 x 720 x 90
	Unit Case Surface Area (m')	0.500	0.461	0.461	0.461
	Weight per Unit Case (kg/unit)	7.5	17.0	17.0	17.0
	Weight per Square Meter (kg/m²)	30.0	36.9	36.9	36.9
	Physical Pixel Density (pixels/m²)	20,736	15,625	10,000	10,000
	Flatness of Unit Case (mm)	± 0.5	-	-	± 0.5
	Unit Case Material	Magnesium	Aluminum	Aluminum	Aluminum
	Service Access	Rear	Front or Rear	Front or Rear	Front or Rear
	Min. Brightness (After Calibration)	5,000	5,000	5,000	6,000
	Color Temperature	6,500	6,500	6,500	6,500
	Visual Viewing Angle (Horizontal)	110°	140°	140°	160°
ptical	Visual Viewing Angle (Vertical)	110°	110°	110°	110°
pecifications	Brightness Uniformity	97%	≥ 97%	≥ 97%	≥97%
	Color Uniformity	± 0.003Cx,Cy	± 0.003Cx,Cy	± 0.003Cx,Cy	± 0.003Cx,Cy
	Contrast Ratio	5,000	2,000	2,000	5,000
	Processing Depth (bit)	14	14	14	14
	Power Consumption (W/Unit, Max.)	160	300	300	300
	Power Consumption (W/Unit, Avg.)	53	100	100	100
lectrical	Power Consumption (W/m², Max.)	600	650	650	650
pecifications	Power Supply (V)	100 to 240	100 to 240	100 to 240	100 to 240
	Frame Rate (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
	Refresh Rate (Hz)	3,000	1,000	1,000	2,000
	Lifetime (Half brightness)	50,000	50,000	50,000	80,000
	Operating Temperature (°C)	-10 to +45	-10 to +45	-10 to +45	-10 to +50
peration pecifications	Operating Humidity	0~80%	0-80%RH	0-80%RH	0-80%RH
peemeacions	IP Rating Front	IP65	IP65	IP65	IP65
	IP Rating Rear	IP54	IP54	IP54	IP54
Controller		LCIN006	LCIN006	LCIN006	LCIN006

LBE069DD4D

3 in 1 SMD

LBE080DD4

3 in 1 SMD