

# Outdoor LED Signage

## XHB Series

Make a lasting impression



# Overview

Introducing Samsung XHB series: a mesmerizing outdoor display designed to perform in any scenario. With consistent brightness, XHB is the ideal solution to deliver clear and brilliant visuals in the sun or rain, all day and night. The IP66 waterproof design keeps XHB safe during downpours, while the fan-less, heat dissipation technology prevents overheating in direct sunlight. The display runs at just 700 W/m<sup>2</sup>, reducing power consumption up to 22.2% compared with conventional products. And with a slim, lightweight cabinet design, installation is now easier than ever.

## Key features



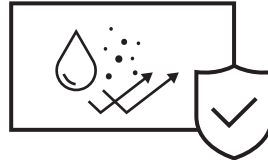
### Brilliant Picture Quality

- 8,000 nit max brightness
- HDR10+ / HLG support
- Proprietary S-box support



### Improved Energy Efficiency

- Power consumption at just 700 W/m<sup>2</sup>



### Reliable Outdoor Performance

- Advanced fan-less heat dissipation technology
- IP66 certification on cabinet and components inside



### Easy & Flexible Installation

- 99.4mm slim depth
- 23.8kg lightweight cabinet
- Fully customizable design – Flat, L-Type, Curve, Fascia



# Key features



## High brightness

Exceptionally clear, even in the sun

Enjoy stunning picture quality at all times. Featuring consistent brightness day and night, the XHB series illuminates the surrounding area, creating long-lasting impressions with crystal-clear content in any weather or lighting conditions.

\* Samsung LED Signage installed at Incheon SK Happy Dream Park in Incheon, South Korea



## Superior picture quality powered by native S-box

Superior visuals powered by proprietary S-box

Experience crisp, controlled images in every scene. Equipped with Samsung's powerful S-box full of the latest technology, the XHB series delivers immersive content to delight spectators anytime, anywhere.

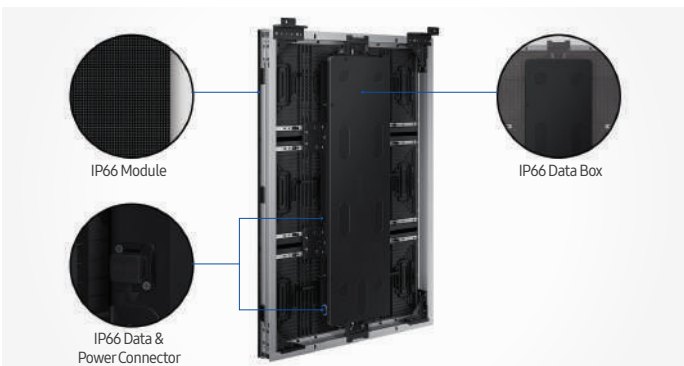


## Energy Saving - Business friendly

Increase energy efficiency for sustainable operations

Make operations more efficient without compromising performance. XHB series runs at just 700 W/m<sup>2</sup>, reducing power consumption up to 22.2% compared with conventional products. Its improved energy efficiency allows for a more sustainable business operation.

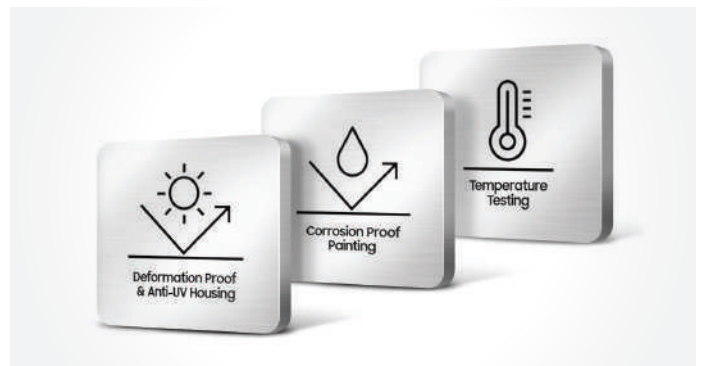
\* Figure is based on XHB-S P8 cabinet and against Samsung's XPR-S P8 outdoor LED Signage.



## Outdoor reliability

Reliable performance anywhere in the world

Protect against the elements. The IP66 waterproof design, rated for both the outside cabinet and internal components, ensures reliable use during downpours. Combined with fan-less, heat dissipation technology, XHB maintains performance even in direct sunlight for consistency in any outdoor environment.



## Rigorous test

Tested to the extremes for guaranteed performance

The XHB series has been rigorously tested against the elements including accelerated lifecycle test, real-life operation tests in wet environments and simulations replicating the harshest sunlight to ensure the displays can withstand even the toughest environments.

## Key features

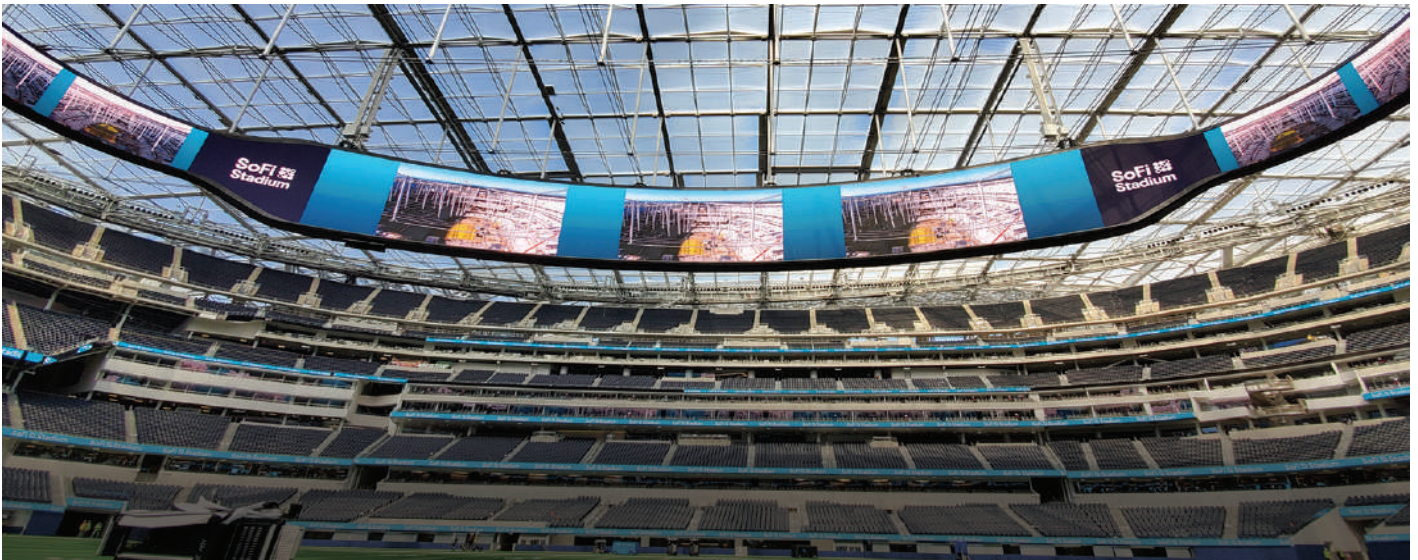


## Slim & lightweight design

### Twice as thin cabinet design

Set up and save time at half the size. The XHB series is now more than twice as thin and 1.7 times lighter than previous models\*. Its ultra-slim 99.4mm cabinet weighing just 23.8kg provides one-man handling for fast setup of the solution.

\* Dimensions and weight compared to against Samsung's XPR series outdoor LED Signage.  
\* Weights are compared in cabinet units.



## Versatile design for any location

### Flexible designs for any scenario

The XHB series provides endless design possibilities for any business environment. Thanks to a variety of bespoke cabinet options, including Flat, L-Type, Curve and Fascia, businesses can get the optimal shape, size and bend for their display to naturally blend into the environment.

\*Samsung LED Signage installed at SoFi Stadium in Los Angeles, USA (top), AFAS Circustheater in The Hague, Netherlands (Left Bottom), New York Mets Ballpark in New York, USA (Right Bottom)

# Specifications

Model		XHB-S (Gold Wire) - 2 x 3 type			
		LH060XHBTAS	LH080XHBTAS	LH100XHBTAS	LH160XHBTAS
Physical Parameter	Pixel Pitch	6.16 mm	8.21 mm	10.78 mm	16.43 mm
	Pixel Configuration	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue
	Diode Type	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Discrete lamp (DIP)
	Diode Info	XD Au	XD Au	XD Au	XD347
	Configuration (WxH, per cabinet)	112 x 168 pixels	84 x 126 pixels	64 x 96 pixels	42 x 63 pixels
	Diode Density (per m <sup>2</sup> )	26,354 /m <sup>2</sup>	14,836 /m <sup>2</sup>	8,605 /m <sup>2</sup>	3,704 /m <sup>2</sup>
	Dimensions (mm, WxHxD, per cabinet)	6899 x 1035.4 x 91.3	6899 x 1035.4 x 92.0	6899 x 1035.4 x 92.9	6899 x 1035.4 x 100.9
	Dimensions (inch, inchxD, per cabinet)	49.0 x 3.6 inch	49.0 x 3.6 inch	49.0 x 3.7 inch	49.0 x 4.0 inch
	No. of Modules (WxH, per cabinet)	2x3	2x3	2x3	2x3
	Weight (per cabinet/per m <sup>2</sup> )	23.2 / 32.5	23.2 / 32.5	23.2 / 32.5	27.4 / 38.3
Cabinet Construction	Aluminum	Aluminum	Aluminum	Aluminum	
Optical Parameter	Brightness	8,000 nit	8,000 nit	8,000 nit	8,000 nit
	Contrast Ratio	8,000:1	8,000:1	8,000:1	8,000:1
	Viewing angle - Horizontal	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)
	Viewing angle - Vertical	130° (+60/-70°)	117° (+47/-70°)	107° (+37/-70°)	115° (+45/-70°)
	Video Processing	24 bit, 100% digital	24 bit, 100% digital	24 bit, 100% digital	24 bit, 100% digital
	Color Processing	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)
	Number of colors	281 trillion colors	281 trillion colors	281 trillion colors	281 trillion colors
	Gray Scale Intensity	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue
	Dimming Capability	256 levels of brightness	256 levels of brightness	256 levels of brightness	256 levels of brightness
Color temperature - Default	6,500K	6,500K	6,500K	6,500K	
Electrical Parameter	Video Rate	60 frames per second	60 frames per second	60 frames per second	60 frames per second
	Input Power Range	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz
	Power consumption - Max (/cab)	480 W	500 W (TBC)	480 W	285 W (TBC)
	Power consumption - Typ (/cab)	160 W	167 W (TBC)	160 W	95 W (TBC)
	Power consumption - Max (/m <sup>2</sup> )	680 W/m <sup>2</sup>	700 W/m <sup>2</sup> (TBC)	680 W/m <sup>2</sup>	399 W/m <sup>2</sup> (TBC)
	Power consumption - Typ (/m <sup>2</sup> )	230 W/m <sup>2</sup>	235 W/m <sup>2</sup> (TBC)	227 W/m <sup>2</sup>	133 W/m <sup>2</sup> (TBC)
	Refresh rate	7,680 Hz	7,680 Hz	7,680 Hz	7,680 Hz
	Calibration White Point	D65 - 6500K	D65 - 6500K	D65 - 6500K	D65 - 6500K
	Calibration Standards	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut
Operation Conditions	Working Temperature	-40°C to +55°C (-40°F to 131°F)	-40°C to +55°C (-40°F to 131°F)	-40°C to +55°C (-40°F to 131°F)	-40°C to +55°C (-40°F to 131°F)
	Cooling	Fanless	Fanless	Fanless	Fanless
	IP Rating	Front IP66/ Rear IP66	Front IP66/ Rear IP66	Front IP66/ Rear IP66	Front IP66/ Rear IP66
	LED Lifetime	100,000 hours	100,000 hours	100,000 hours	100,000 hours
	Monitoring Function	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module
Certification	Certification	CE, UL / ULC listed	CE, UL / ULC listed	CE, UL / ULC listed	CE, UL / ULC listed
	Safety	62368-1, 60950-1, UL48	62368-1, 60950-1, UL48	62368-1, 60950-1, UL48	62368-1, 60950-1, UL48
Service	Service	Front and Rear	Front and Rear	Front and Rear	Front and Rear
Package	Box Dimension (mm, WxHxD)	1206 x 864 x 278	1206 x 864 x 278	1206 x 864 x 278	1206 x 864 x 278
	Package Weight (kg, per cabinet)	30.3	30.3	30.3	34.5

\*The above specifications are based on a 2x3 type cabinet models.

\*Specifications such as configuration, dimensions, number of modules and weight per cabinet may vary depending on cabinet type.

\*The above specifications are preliminary and subject to change in the final release.

Model		XHB-E (Cu Wire) - 2 x 3 type			
		LH060XHBCAE	LH080XHBCAE	LH100XHBCAE	LH160XHBCAE
Physical Parameter	Pixel Pitch	6.16 mm	8.21 mm	10.78 mm	16.43 mm
	Pixel Configuration	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue
	Diode Type	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Discrete lamp (DIP)
	Diode Info	XD Cu	XD Cu	XD Cu	XD347
	Configuration (WxH, per cabinet)	112 x 168 pixels	84 x 126 pixels	64 x 96 pixels	42 x 63 pixels
	Diode Density (per m <sup>2</sup> )	26,354 /m <sup>2</sup>	14,836 /m <sup>2</sup>	8,605 /m <sup>2</sup>	3,704 /m <sup>2</sup>
	Dimensions (mm, WxHxD, per cabinet)	6899 x 1035.4 x 91.3	6899 x 1035.4 x 92.0	6899 x 1035.4 x 92.9	6899 x 1035.4 x 100.9
	Dimensions (inch, inchxD, per cabinet)	49.0 x 3.6 inch	49.0 x 3.6 inch	49.0 x 3.7 inch	49.0 x 4.0 inch
	No. of Modules (WxH, per cabinet)	2x3	2x3	2x3	2x3
	Weight (per cabinet/per m <sup>2</sup> )	23.2 / 32.5	23.2 / 32.5	23.2 / 32.5	27.4 / 38.3
Optical Parameter	Cabinet Construction	Aluminum	Aluminum	Aluminum	Aluminum
	Brightness	7,000 nit	7,000 nit	7,000 nit	7,000 nit
	Contrast Ratio	7,000:1	7,000:1	7,000:1	7,000:1
	Viewing angle - Horizontal	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)	160° (+/- 80°)
	Viewing angle - Vertical	130° (+60/-70°)	117° (+47/-70°)	107° (+37/-70°)	115° (+45/-70°)
	Video Processing	24 bit, 100% digital	24 bit, 100% digital	24 bit, 100% digital	24 bit, 100% digital
	Color Processing	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)	16 bit per color (48 bit total)
	Number of colors	281 trillion colors	281 trillion colors	281 trillion colors	281 trillion colors
	Gray Scale Intensity	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue	65,536 levels of red, green, and blue
	Dimming Capability	256 levels of brightness	256 levels of brightness	256 levels of brightness	256 levels of brightness
Electrical Parameter	Color temperature - Default	6,500K	6,500K	6,500K	6,500K
	Video Rate	60 frames per second	60 frames per second	60 frames per second	60 frames per second
	Input Power Range	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz
	Power consumption - Max (/cab)	600 W (TBC)	600 W (TBC)	600 W	255 W (TBC)
	Power consumption - Typ (/cab)	200 W (TBC)	200 W (TBC)	200 W	85 W (TBC)
	Power consumption - Max (/m <sup>2</sup> )	840 W/m <sup>2</sup> (TBC)	840 W/m <sup>2</sup> (TBC)	840 W/m <sup>2</sup>	357 W/m <sup>2</sup> (TBC)
	Power consumption - Typ (/m <sup>2</sup> )	280 W/m <sup>2</sup> (TBC)	280 W/m <sup>2</sup> (TBC)	280 W/m <sup>2</sup>	119 W/m <sup>2</sup> (TBC)
	Refresh rate	7,680 Hz	7,680 Hz	7,680 Hz	7,680 Hz
	Calibration White Point	D65 - 6500K	D65 - 6500K	D65 - 6500K	D65 - 6500K
	Calibration Standards	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut	REC 709, REC 2020 or Max Gamut
Operation Conditions	Working Temperature	-40°C to +55°C (-40°F to 131°F)	-40°C to +55°C (-40°F to 131°F)	-40°C to +55°C (-40°F to 131°F)	-40°C to +55°C (-40°F to 131°F)
	Cooling	Fanless	Fanless	Fanless	Fanless
	IP Rating	Front IP66/ Rear IP66	Front IP66/ Rear IP66	Front IP66/ Rear IP66	Front IP66/ Rear IP66
	LED Lifetime	100,000 hours	100,000 hours	100,000 hours	100,000 hours
	Monitoring Function	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module	Temperature, module working, F/W version, interface status, power status, LOD, cal data on module
Certification	Certification	CE, UL / ULC listed	CE, UL / ULC listed	CE, UL / ULC listed	CE, UL / ULC listed
	Safety	62368-1, 60950-1, UL48	62368-1, 60950-1, UL48	62368-1, 60950-1, UL48	62368-1, 60950-1, UL48
Service	Service	Front and Rear	Front and Rear	Front and Rear	Front and Rear
Package	Box Dimension (mm, WxHxD)	1206 x 864 x 278	1206 x 864 x 278	1206 x 864 x 278	1206 x 864 x 278
	Package Weight (kg, per cabinet)	30.3	30.3	30.3	34.5

\*The above specifications are based on a 2x3 type cabinet models.

\*Specifications such as configuration, dimensions, number of modules and weight per cabinet may vary depending on cabinet type.

\*The above specifications are preliminary and subject to change in the final release.

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## SMART LED Signage

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