SONY

Crystal LED
BH- and CH-series

The latest generation of Crystal LED premium displays from Sony makes the appeal of super-size LED video walls even more accessible. See the bigger picture with spectacularly bright, richly colored images, easier installation and simplified maintenance.

Premium super-size images, even in bright environments

BH-series

From corporate entrances and lobbies to retail showrooms – the BH-series delivers impressively big, bright images bursting with rich vibrant color, even in brightly-lit spaces.

Harnessing latest advances in Sony's high-efficiency LED driver technology, the BH-series fills the room with an extraordinary 1,800 nits of brightness – more than double that of other high-end LED displays. It's complemented by an anti-reflection coating on each display panel that prevents ambient light bounce-back under harsh illumination or sunlight. It all adds up to a phenomenal viewing experience that your audience won't forget.

Immersive visual experiences with more depth and color

CH-series

Two secrets of creating truly immersive images are bright, vibrant colors and deep black levels that bring more contrast, depth and texture to faces and other on-screen objects.

In addition huge black area in display by using super fine LED, the CH-series uses Sony's unique Deep Black Coating surface technology enabling our Crystal LED displays to achieve outstanding black levels – superior to other high-end LED video walls. Coupled with the display's extra-wide color gamut, audiences will love being pulled into richly immersive images.

Accurate, natural, smoothly graduated colors

True-to-life, smoothly graduated colors are a must-have for critical viewing applications like movie/TV content production as well as automotive design, product development, and retail.

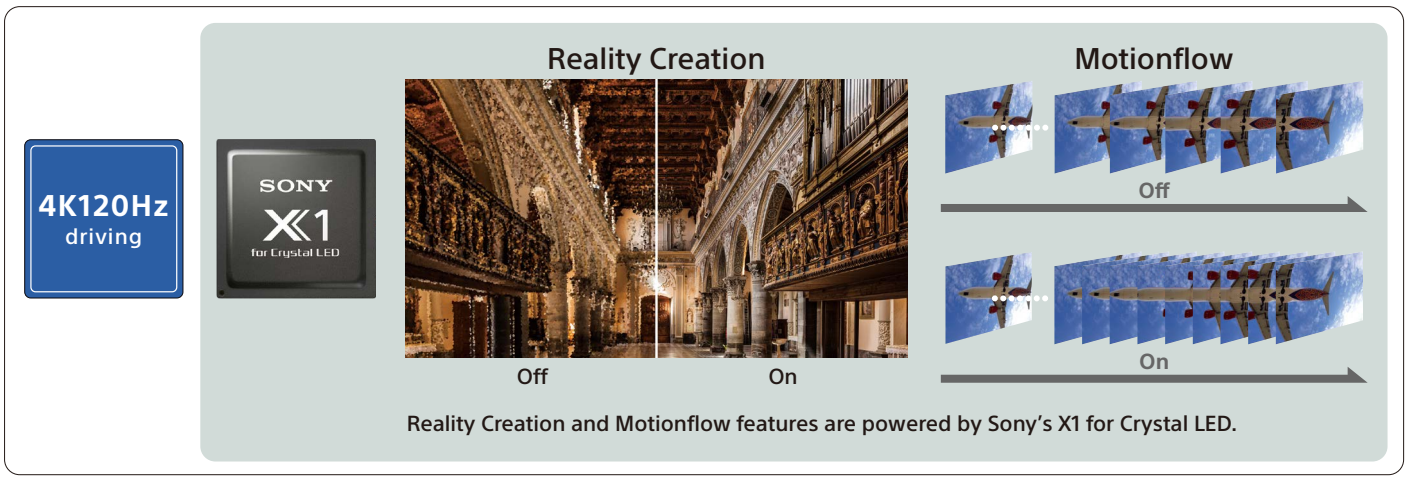
The BH- and CH-series reproduce color gradations with immense accuracy, using 22-bit Super Bit Mapping – Sony's unique color mapping process enabled by the power-packed X1™ for Crystal LED picture processor. You'll see the difference with smooth, natural color transitions and faithful reproduction of subtle tones in dark scenes – something conventional LED displays struggle to achieve.

Amazing images with any content

Lower-resolution content – like archive footage or video captured with network cameras – doesn't often look its best when it's displayed on a large LED screen. Images can look grainy and pixilated, while fast movements can be blurry and uncomfortable to watch on a big display.

The BH- and CH-series harness advanced 4K 120Hz driver technology, together with real-time image enhancement features powered by Sony's X1 for Crystal LED picture processor. Every video frame is individually analyzed and optimized to ensure content looks crisp and super-smooth, even if it wasn't originally shot for large-scale display.

* Reality Creation and Motionflow™ features may not operarate when total Crystal LED display resolution is over 4K and multiple display controllers are used.

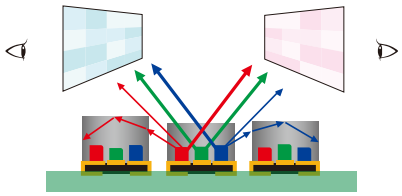


Uniform images with wide viewing angle and natural color

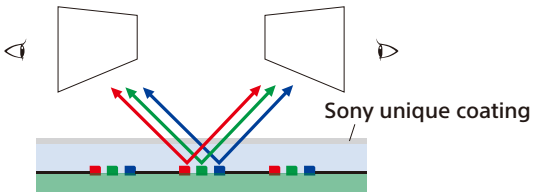
Reliably producing seamless, extra-large images with a wide viewing angle and minimal color shifting are big challenges with any LED display technology. The BH- and CH-series deliver a spectacularly immersive, totally seamless visual experience with an extra-wide viewing angle and no unnatural color shifts.

Uniform color at all angles

Sony's unique Chip on Board (COB) and coating technologies reduce color shifting when the display is viewed from any angle.



Conventional LED Display
using SMD technology



Crystal LED BH/CH-series
using COB technology and Sony unique coating technology

Seamless images

Modules are factory preassembled and calibrated to ensure quick, precise installation.

Consistently precise color

Color adjustment* can be simplified with our auto adjustment tool using a Sony Alpha camera.

* Color adjustment available via future firmware update.

Easy installation, less maintenance

We've designed our latest generation BH- and CH-series to be even easier to install and maintain in a wide range of environments – from corporate boardrooms to entrance lobbies, showrooms and retail stores.

Designed with intelligence

Newly designed cabinets are thin and light, broadening options for installation in spaces with limited depth or weight restrictions.

Rapid installation

With fewer parts to assemble, on-site installation time is dramatically reduced, further cutting integration costs.

Simpler maintenance

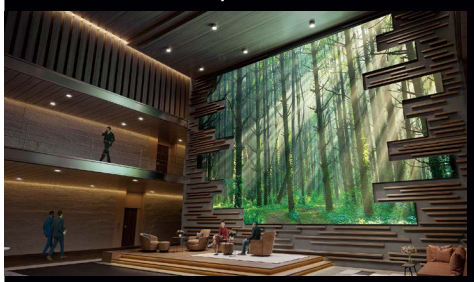
All system components and cabling are accessible from the front, simplifying installation and maintenance where there's no rear access.

Applications


Corporate


Retail

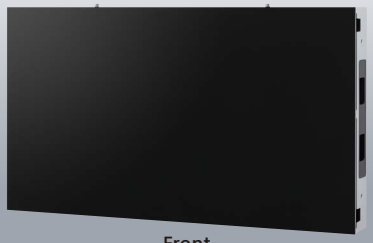

Showrooms


Corporate Lobbies


Boardrooms


Museum

Display Cabinet



Front

Rear

Display Controller

Front

Rear

Specifications

Display Cabinet

Specification	ZRD-BH12D	ZRD-BH15D	ZRD-CH12D	ZRD-CH15D
Surface	Anti-reflection coating		Deep black coating	
Pixel Pitch	1.27 mm	1.59 mm	1.27 mm	1.59 mm
Resolution (W x H)	480 x 270	384 x 216	480 x 270	384 x 216
Brightness (Max.)	1,800 cd/m²		1,200 cd/m²	
Contrast Ratio (0 lx)	More than 1,000,000 : 1			
Viewing Angle (H/V)	170° / 170°		160° / 160°	
Color Gamut (BT2020, Δu'v' coverage)	Approx. 85 %			
Color Gamut (DCI-P3, Δu'v' coverage)	Approx. 98 % (ZRD-BH12D/CH12D : DCI acceptable)			
Color Gamut (sRGB, Δu'v' area)	Approx. 146 %			
Bit Depth	22 bit Internal Processing			
Frame Rate	Up to 120 fps			
Signal Interface	1 in 1 out (2 x RJ45)			
Operating Temperature / Operating Humidity	0 °C to 45 °C / 20 to 80 % (no condensation)			
Storage Temperature / Storage Humidity	- 20 °C to 60 °C / 20 % to 80 % (no condensation)			
Power Requirements	AC 100 - 240 V, 50 / 60 Hz			
Power Consumption (Max.)	110 W (Per-sqm: 526 W) (TBD)			
Power Consumption (Ave.)	53 W (Per-sqm: 253W) (TBD)			
Dimensions (W x H x D)	610 x 343 x 69 mm (24 1/8 × 13 5/8 × 2 3/4 in)			
Mass	Approx. 8.6 kg (18 lb 15.36 oz) (Per-sqm: Approx. 41.1 kg)			
Application	Indoor			

*Please refer to the installation manual for installation.

Display Controller

Specification	ZRCT-300
Maximum Control Number of Display Cabinet	ZRD-BH12D/CH12D : 64 ZRD-BH15D/CH15D : 100
Maximum Input Resolution (W x H)	3,840 x 2,160
Maximum Input Frame Rate	120 fps
Multiple Controller Link	Yes
Maximum Linkage Number of Controller	20
Video Input	HDMI x 2, DisplayPort (DP1.2) x 2
Cabinet Output	RJ45 x 12
Control	RJ45 (ethernet) x 1, USB x 1
Fan Noise	27 dBA - 32 dBA (27 dBA@25 °C ,32 dBA@ 35 °C)
Operating Temperature / Operating Humidity	0 °C to 40 °C / 20 % to 80 % (no condensation)
Storage Temperature / Storage Humidity	- 20 °C to 60 °C / 20 % to 80 % (no condensation)
Power Requirements	AC 100 - 240 V, 50 / 60 Hz
Power Consumption (Max.)	100 W
Dimensions (W x H x D) (Without protrusion)	440 x 65 x 349 mm (17 3/8 x 2 5/8 x 13 3/4 in) *1.5 U 19-inch rack
Mass	Approx. 6.4 kg (14 lb 1.75 oz)

* This equipment is compliant with class A.
Operation of this equipment in a residential area could cause harmful interference in which case the user may be required to take adequate measures.

Input Signal

HDMI

Resolution	Input frame rate*1	Input bit depth	Input color sampling
3840 x 2160	60P/50P	8 bit	RGB 4:4:4*2/YCbCr 4:4:4*2/YCbCr 4:2:0
		10 bit	YCbCr 4:2:2*2
		12 bit	YCbCr 4:2:2*2
	30P/25P/24P	12/10 bit	RGB 4:4:4*2/YCbCr 4:4:4*2
		8 bit	RGB 4:4:4/YCbCr 4:4:4
		12 bit	YCbCr 4:2:2
1920 x 1080	60P/50P/30P/25P/24P	12/10/8 bit	RGB 4:4:4/YCbCr 4:4:4/YCbCr 4:2:2*3
1280 x 720	60P/50P		
1024 x 768	60P		
800 x 600			
720 x 480			
720 x 576	50P		
640 x 480	60P		

*1: 1,000/1,001 frame rate is also supported for 60p/30p/24p.
*2: Strongly recommend using premium high speed HDMI cables.
*3: 12bit only

DisplayPort : Single Input

Resolution	Input frame rate*1	Color bit depth	Input color sampling
3840 x 2160*2	60P/50P/30P/25P/24P	8/10 bit	RGB 4:4:4
1920 x 2160	120P*2/100P*2/60P/30P/25P/24P		
1920 x 1080	120P/100P/60P/50P/30P		

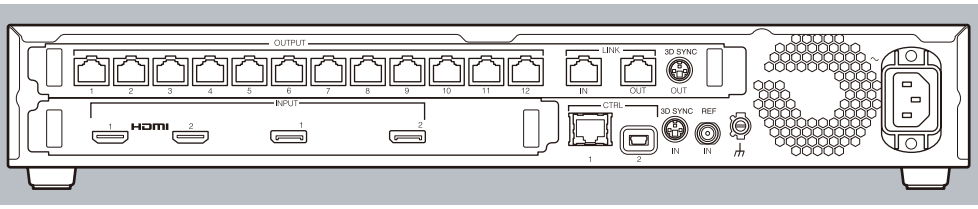
DisplayPort : Dual Input

Resolution	Input frame rate*1	Color bit depth	Input color sampling
3840 x 2160*3	120P/100P	8/10 bit	RGB 4:4:4

*1: 1,000/1,001 frame rate is also supported.
*2: Only multi-stream is supported.
*3: Supported by two input signals of 1920 x 2160, 120P.

Display Controller

Connector Panels



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Please visit pro.sony/crystal-led or contact your Sony representative for specific models available in your region.

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