

## ZRD-VP23EM

Crystal LED video wall modular display cabinet, compatible with Megapixel HELIOS processor



### Overview

#### **Image quality, flexibility and familiar workflow to meet today's virtual production needs**

Optimized for demanding virtual production applications, the ZRD-VP23EM Crystal LED modular display cabinet allows creation of LED video walls of virtually any size and scale.

Drawing on Sony's leadership in motion picture production and entertainment technology, the ZRD-VP23EM offers content creators and rental specialists a combination of exceptional image quality, installation flexibility, simple maintenance and low ownership costs to accommodate the needs of modern virtual production facilities.

Sony's newly developed Deep Black and Anti-Reflection Surface Technology delivers very high image quality, with an impressive 1,500 cd/m<sup>2</sup> brightness, wide color gamut and high refresh rate complemented by extremely deep black levels to allow the creation of ultra-realistic virtual sets.

The ZRD-VP23EM is compatible with the industry-standard Megapixel HELIOS processor, simplifying integration into a wide range of virtual production environments while reducing training requirements.

## Features

### **Industry-leading black levels with reduced reflections and glare**

Achieving deep, realistic black levels is one of the most persistent challenges in virtual production workflow. Incident light from other sources falling on the LED wall can cause inadequate black levels in virtual backgrounds, requiring costly correction in post production. The ZRD-VP23EM utilizes Sony's newly developed Deep Black and Anti-Reflection Surface Technologies to achieve unmatched black levels, allowing incredibly natural, realistic mixing of real and virtual elements.

Development of the advanced surface technology for the ZRD-VP23EM has demanded exhaustive evaluation of different candidate materials and techniques. A key challenge was achieving unprecedented black levels, extremely high brightness and a wide cinematic color gamut while minimizing reflections from the panel surface under the glare of powerful studio lighting. The successful result has been made possible by Sony's extensive heritage and technical knowledge of display surface treatments and optical engineering, coupled with our close relationships with industry-leading material vendors.

### **Very high brightness and wide, cinematic color gamut**

The ZRD-VP23EM is ideally suited to the demands of virtual production, with an extremely high display brightness of 1,500 cd/m<sup>2</sup>, complemented by accurate reproduction of over 98% of the DCI-P3 color gamut.

### **High refresh rate reduces scanline artifacts**

If the refresh rate of an LED display is too low, it can cause flickering and distracting scanline artifacts that are particularly noticeable with today's high frame rate cameras used for virtual production. The ZRD-VP23EM series employs high performance LED driver ICs capable of extremely high refresh rates up to 7,680 Hz – significantly greater than other commercially available

LED wall solutions.

## **Installation flexibility**

The ZRD-VP23EM gives system integrators and rental specialists exceptional installation freedom. Popular with the virtual production rental industry, the self-stacking cabinet's square 1:1 proportions simplify rapid LED wall assembly. The modular LED panels are easy to install without needing special skills or costly jigs and other complex equipment, simplifying the construction of LED walls of virtually any scale and shape, including very large stacks and curved surfaces. Easy Z-axis adjustment allows fine alignment of individual cabinets, ensuring that the LED wall surface is extremely flat to eliminate visible lines when shooting from an angle. The ZRD-VP23EM features protection measures to minimize the risks of costly accidental damage when individual cabinets are joined together during LED wall construction. In addition, each module has LED surface protection that safeguards LEDs from being dislodged or damaged.

## **Quick, easy routine maintenance**

The ZRD-VP23EM is designed for easy maintenance, reducing pressure on technical crews with time-saving features for simple maintenance. Individual LED modules can be easily exchanged with access from the back of the cabinet. A status indicator light on the back of each module makes it simple to identify any units that need exchanging. Each module's power unit can be easily detached via a simple locking knob, with no special tools needed.

## **Energy efficient design**

Electrical power consumption is a significant contributor to everyday running costs for any virtual production facility. Energy-efficient super fine LED circuits are combined with advanced Sony power control technology, reducing consumption by up to 38%\* compared to conventional LED walls.

\* As power per unit brightness.

Workflow friendly

Crystal LED is designed to fit smoothly and efficiently into today’s virtual production workflow. ZRD-VP23EM is available in versions that are fully compatible with leading LED wall display controller company Brompton, simplifying integration into a wide range of virtual production environments while reducing training requirements. Furthermore, exceptional black levels and consistently accurate color reproduction during shooting means less additional work in post-production.

Specifications

General	
Supported Display Controller	Megapixel HELIOS
Pixel Pitch	0.23 cm
Surface	Deep Black and Anti-Reflection Surface Technology
Resolution (W x H)	216 x 216
Brightness (max.)	1,500 cd/m <sup>2</sup>
Contrast Ratio (0 lx)	More than 1,000,000:1
Viewing Angle (H/V)	170°/170°
Color Gamut	Approx. 88% (BT2020, Δu’v’ coverage)
	Approx. 98% (DCI-P3, Δu’v’ coverage)

	Approx. 151% (sRGB, Δu'v' area)
Refresh Rate	7,680 Hz
Signal Interface	1 in 1 out (2 x RJ45)
Operation Temperature / Operation Humidity	0 °C to 45 °C (32 °F to 113 °F) / 20 to 80% (No condensation)
Storage Temperature / Storage Humidity	-20 °C to 60 °C / 20 to 80% (No condensation)
Power Requirements	AC100-240V, 50/60Hz
Power consumption (max.)	145 W
Calibration mode: Off or Overdrive: On	(Per-sqm: 580 W)
Power Consumption (Calibrated 100% brightness)	125 W
Calibration mode: On	(Per-sqm: 500 W)
Power Consumption (Ave. 30% brightness)	63 W
Calibration mode: On	(Per-sqm: 252 W)
Dimensions (W x H x D)	500 x 500 x 93 mm (19 11/16 × 19 11/16 × 3 21/32 in)

Mass / Weight	Approx. 10.1 kg (22 lb 4.27 oz) (Per-sqm: Approx. 40.4 kg)
Max. Self-stacking / Hanging	Max. 14 cabinets (23 ft) / Max. 14 cabinets (23 ft)
Application	Indoor

## Gallery



