

OV-513

50" SXGA DLP™ projection module



Barco's OV-D2 series integrates cutting edge DLP™ technology into 50" video wall systems that are designed and optimized for use in a 24/7 mission critical environment. The Barco designed projection engine provides a set of unique features, resulting in an unrivaled DLP™ rear projection system with outstanding picture quality, reliability and ease of use.

Superior display quality

- Latest high contrast DLP™ technology
- Brightness, contrast, and large viewing angles tailored to the human eye providing maximum readability
- Vibrant colors
- Sense⁶ technology providing consistently excellent video wall uniformity over time

Reliability and lifetime serviceability

- Engineered for ease of maintenance and serviceability
- Durable components with high reliability from lamp to screen
- Dual redundant lamp offering 100% reliability
- Easy lamp replacement from the rear of the system while system runs
- 100% sealed off optical engine, preventing dust contamination
- Fast Ethernet communication allowing redundant projection access for direct control and configuration
- Barco's Lamp-Lease Program allowing to efficiently control operational costs

Flexibility

- Designed to form video walls of any size, in a linear or curved setup
- Requires minimal installation depth
- Innovative modular concept for easier build up and design

Integrated system

- Barco Wall Control Manager software with central graphical overview of the video wall
- Integrating individual projection modules into a single display

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Features of the OV-513 projection modules

Sense⁶

Sense⁶ brings wall uniformity to a next level.

Not only does Sense⁶ increase color and brightness uniformity in the corners of each single projection module, Barco's innovative Sense⁶ technology also keeps all projection modules equal over time and across the entire video wall.

By integrating a patented brightness and color sensor, the video wall's color and brightness is continuously measured and communicated between projection modules. Sense⁶ automatically matches the brightness of full white, full black and all gray levels in between, as well as the colors of all projection modules. The I-lamp recalibrates the color sensor for long-time stability.

Sense⁶ operates unnoticed in the background and requires no operator intervention whatsoever. For instance, Sense⁶ will work during automatic lamp change without special operator actions. The intended video wall content remains unchanged at all times. No special screen calibration patterns are needed.

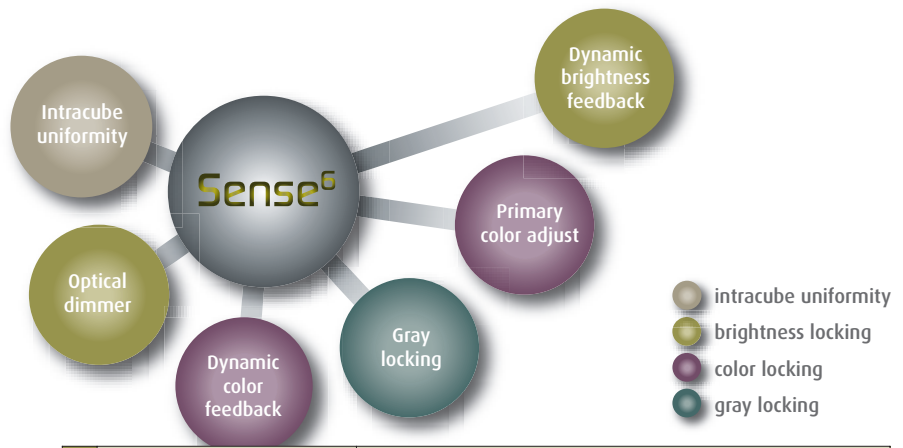


50" OV-513		HVA	HVM	HVX
	Power	Luminance (cd/m ² fTL) ⁽¹⁾		
	120 W	270 79	540 159	1340 394
	132 W	300 88	595 175	1470 432
	180 W	405 119	n.a.	n.a.
	Seam size screen mullion	0 mm		
	interscreen gap	< 0.8 mm ⁽²⁾		
	Humidity conditions	Up to 80% non condensing		
	Temperature conditions	10°C-40°C 50°F-105°F		
	Storing conditions	0°C-40°C 32°F-105°F		

⁽¹⁾ @ 6500 K, values are approx 50% @ 3200 K

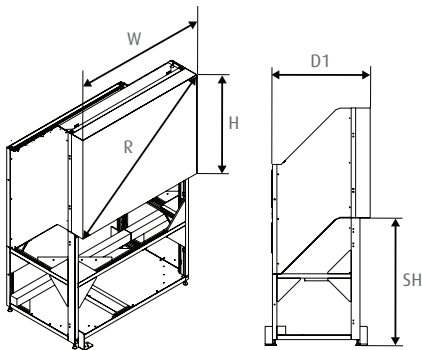
⁽²⁾ @ 25°C, 50% RH

Screens	Screen type	Brightness	Viewing angle	Full viewing angle	Half gain angle (h. v.)	1/5 gain angle (h. v.)
	HVA	Normal	Excellent	180°	±35° ±35°	~ ±65° ±65°
	HVM	Medium	Wide	180°	±35° ±27°	~ ±45° ±41°
	HVX	High	Medium	160°	±35° ±10°	~ ±45° ±17°



ΔE^* is a parameter which incorporates color and brightness differences into one unit. Additionally, ΔE^* takes into account the adaptation level of the human eye to brightness and color.

Sense ⁶ (Optional)	
Color shift between projection modules over time	Shift in ΔE^* over time < 3 (with color lock)
On-screen brightness uniformity	Very high brightness and color uniformity
ANSI 9 brightness min.	97%
ANSI 13 brightness typ.	95%
Projector color/brightness uniformity	
ΔE^* intercube typ.	< 6
ΔE^* intracube typ.	< 3
Brightness locking	Makes brightness of all projection modules equal at all times without operator intervention
	High Dynamic Range (HDR) by optical dimming preserves contrast, independent of brightness level or lamp life
	Active dynamic brightness sensor feedback technology measures brightness and serves as input to the optical dimmer
Color locking	Makes color of all projection modules equal at all times without operator intervention
	Primary Color Adjust is a color algorithm that adjusts color to a common color target in red, green, blue and white
	Active dynamic color sensor feedback technology collects color information from all projection modules. The True Color Sensor measures the complete spectrum rather than just red, green and blue and is based upon the standard spectral function according to CIE 1931.
Gray locking	Makes gray levels equal across projection modules



OV-513	
Width W	1000 mm 39.4"
Height H	800 mm 31.5"
Diagonal R	50" nominal
Full depth D1	715 mm 28.1"
Aspect ratio	5:4
Standard height SH	875, 1000, 1200 mm 34.5", 39.4", 47.2"
Min screen height SH	455 mm 17.9"
Weight/module	68.5 kg 151 lbs

Technical specifications OV-513

Display capabilities	Resolution	SXGA 1280 x 1024 TruePixel		
	Absolute resolution	33 dpi		
	Luminous flux @ 6500 K @ 132 W	875		
	Dynamic contrast	5100:1		
	Color	100% EBU		
	White point	6500 K, natural lighting (¹)		
	DMD chip	0.95" LVDS ±12° DarkChip3, BrilliantColor™		
	Pixel accuracy	PixelTrue display, shows each pixel true to the input pixels without scaling or smoothing effects		
	MTBF of DMD	typ. 650,000 hours		
	Life-time of DMD	typ. > 100,000 hours		
Imaging device	Image retention	no image retention or burn-in		
	Lamps	Choice between 120 W, 132 W and 180 W		
	Lamp life (²)	120 W	132 W	180 W
		10,000 hrs	6,000 hrs	6,000 hrs
	Lamp redundancy	Cold standby or hot standby with redundant power supply Automatic lamp switch by autosensing lamp failure		
	Lamp replacement	Defect lamp can be hot-swapped without image loss		
	Lamp switch	Dynamic feedback of brightness and color readjusts video wall to equal performance		
	Switching time	< 1.5 seconds		
	I-lamp	Intelligent lamp carries a.o. lamp life information & spectrum		
	Color wheel, rotation speed & lifetime	Color wheel cartridge with MTTR < 5 minutes		
Color wheel		3x speed for better image representation		
		Air bearing with rating of 50,000 hours		

Power	AC input voltage	100-240 VAC, 60-50 Hz		
	Power (W)	120 W	132 W	180 W
	Cold standby	< 250	< 275	< 335
	Hot standby	< 390	< 430	< 550
	Heat dissipation (BTU/h)	120 W	132 W	180 W
	Cold standby	< 850	< 900	< 1145
	Hot standby	< 1325	< 1375	< 1875
	Signal input/output	1 x DVI-D in/out, 1 x Dual-link DVI-D in/out		
	Pixel clock	162 MHz 270 MHz (³)		
	Input frequency	Multi sync 30-75 Hz		
Signal	Genlock range	Genlock in 49-61 Hz range		
	Supported input resolutions	VGA, SVGA, XGA, SXGA, SXGA+, UXGA, 1080p, dual XGA, triple XGA (³), quad XGA (³), dual SXGA+ (³)		
	Cropping	Possible		
	Scaling (optional)	up- and down scaling		
	Barco Wall Control Manager	Graphical representation of video wall on operator PC		
		Integrates separate projection modules into a single display, allowing a.o. Sense⁶		
		Client – server architecture provides central video wall logic with multiple access from multiple sites		
		Health status in the blink of an eye and support for trouble shooting		
		Configuration of different settings		
		Wall control by the operator		
Communications		Multiple access levels		
	Direct ethernet access	Projection module settings and control through standard ethernet browser		
		Easy and fast firmware upgrade over ethernet		
	Autodiagnosics	Projector self test		
	Integration to third party equipment	External video wall control from different devices through SOAP based API		

(¹) Special 3200 K option for backdrop • (²) Lamp manufacturer specs @ IEC 61947-1 test conditions
(³) On second input

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Barco is an ISO 9001 registered company. The information and data given are typical for the equipment described. However any individual item is subject to change without any notice. The latest version of this product sheet can be found on www.barco.com
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