

OverView mP50



Every OVERVIEW mP50 projection cube is a complete rear projection system. Multiple projection cubes can be combined horizontally and vertically to form a display wall of any size. Based on 3-panel Poly-Silicon projection technology, it features captivating brilliance with respect to colors and outstanding accuracy even for small characters. The incorporated 30-Bit color management adjusts all cubes in colors, brightness and contrast to achieve a homogeneous screen. The projector is designed for 24/7 operation.

50" Poly-Silicon rear projection system

Perfect solution for all fields of application

- accurate sharp shapes for data and splendid colors for video
- the screens are selected upon the environmental conditions of the installation site and the operational requirements

Color management for a homogeneous display

- white, red, green and blue can be tuned individually
- Barco's CAST (Color Adjustment Service Tool) enables automatic and fast color adjustment
- controlled operational costs with optional lamp leasing program

Carefully designed optics

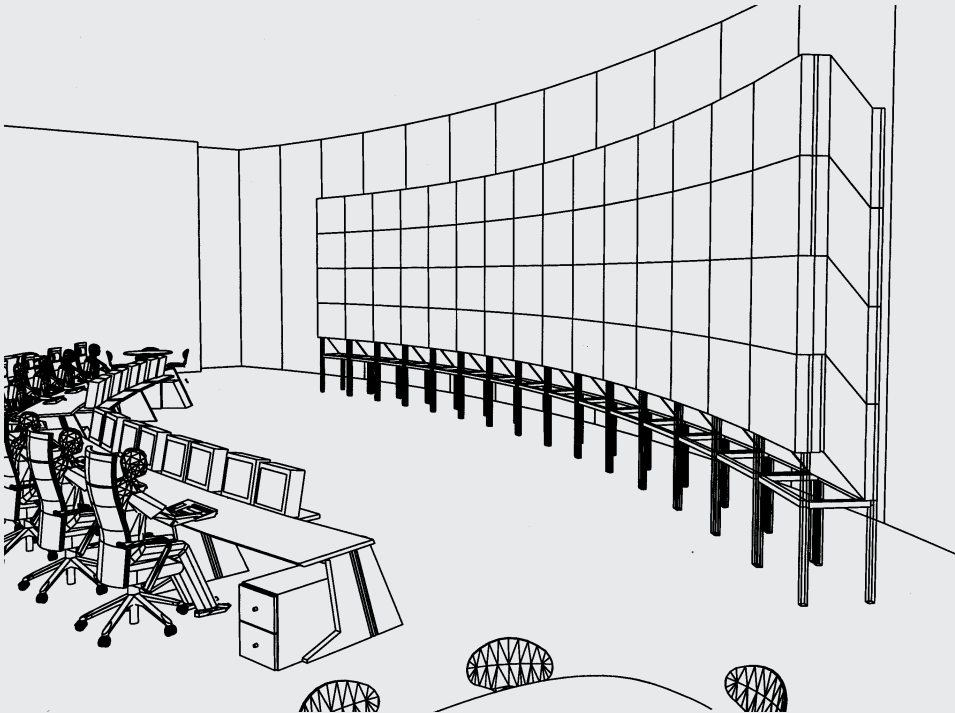
- the encapsulated ventilation and the strictly modular setup of the electrical and optical components guarantee highest reliability
- the lamp module is replaceable within a few seconds without re-adjustment
- easy maintenance
- Barco's e-maintenance enables internet based maintenance of the projection engines

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Modular rear projection system

Due to the modular design display walls of any size can be realized. Since each projection cube contains its own projection engine, any extension of the display wall does not affect brightness and contrast.



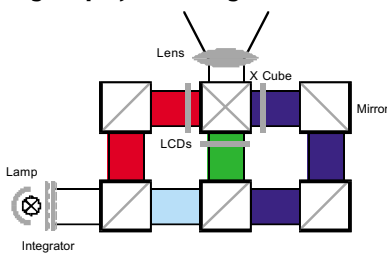
Projection engine

Principle of 3-panel Poly-Silicon projection engines

The white light from the lamp is dispersed into a red, a green, and a blue ray through dichroic mirrors. Every ray illuminates its own, monochrome LCD with the corresponding color information of the image to be projected.

The LCD panels are firmly attached to a cubical prism, the X-Cube. This prism system reunites the three rays again so that the image is projected with a single objective.

Digital projection engine



The digital projection engine has XGA resolution (4:3 aspect ratio). Each LCD panel has a total of 786,432 pixels (XGA 1024x768).

The optical components used, excel in high brightness and contrast.

The optimally adjusted high-performance lens system guarantees a distortion free and sharp image.

The 30-Bit color management for optimal color tuning is the key to achieve a homogeneous display of any size.

The projection engine can be RS232 remote-controlled and is connected to the graphical controllers through a PanelLink™ interface.

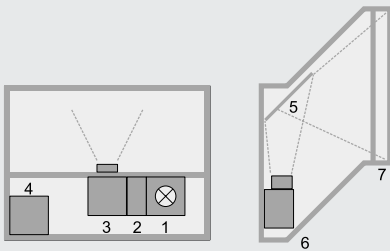
Color adjustment

Imaging devices have native color deviations. Therefore projection engines incorporated in large display walls can be adjusted so that the entire display wall features a homogeneous color and brightness distribution.

For the quick and automatic color adjustment, Barco has developed CAST, the Color Adjustment Service Tool. With CAST, the tristimulus values of every imaging device are measured. Based on the measured values, a shared and common value range is determined and the projection engines are adjusted to this range.

Design of OverVIEW mP50

Each projection cube consists of the following components:



- 1 lamp module
- 2 illumination unit
- 3 projection unit
- 4 power supply
- 5 deflection mirror
- 6 darkbox
- 7 screen module

Optics, electronics and mechanics are highly reliable and durable for 24/7 operation. The system is designed for easy replacement of consumables and spare parts.

Principle of rear projection

The major advantage of rear projection is the high contrast ratio provided even at daylight. This results from the fact that the impact of ambient light is nearly eliminated by design.

A highly efficient lamp with long operation time provides white light. The light is paralleled by an integrator lens system thus providing optimally equal light distribution for the image processor.

The image processor generates a picture which is projected onto the screen. The darkbox prevents daylight from shining on the back of the screen.

Screen

The screen consists of a Fresnel lens and a front element.

Fresnel lens

The Fresnel lens deflects the light coming from the projection lens system such that it falls perpendicularly onto the front element screen. Fresnel elements provide the evenness of image brightness.

Front element

The front element screen guarantees that the light is distributed horizontally and vertically, while maintaining a high contrast.

Surface

The surface of the screen minimizes the direct reflection of the light of the surrounding. This also contributes to the high contrast of the screen.

Control unit

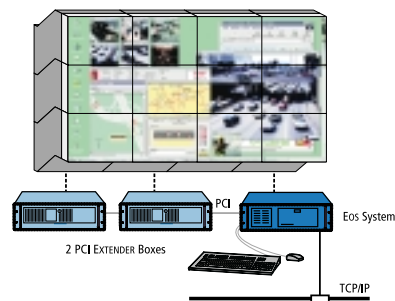
Graphical controllers

Barco provides multiple alternatives to control a display wall. The kind of control unit is selected according customer requirements and fields of applications. The used cards and implemented functionalities are especially designed to meet virtually any demand.

The graphical controllers can be operated by Barco's sophisticated wall management software.

Eos

OverVIEW mP50 display walls integrate with the existing network environment and video sources via Barco's graphical control units of the Eos family.



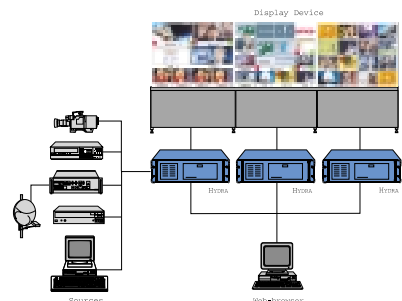
Eos is available both as X-Terminal or as Windows NT®/2000 work-station. To display analog video and RGB sources a set of expansion cards is available to digitize analog data and display them in freely movable windows on the display wall.

Visu^{plus}

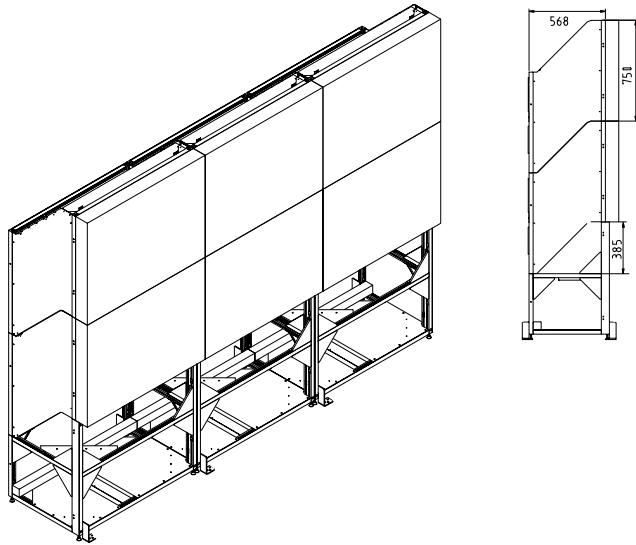
The video insertion unit VisuPlus offers the possibility of integrating video and RGB information into the windows of a large display wall.

Hydra

Barco's HYDRA gives unique possibilities to control up to 30 analog or digital inputs on one single display, simultaneously. It is operated via a standard web browser.



Technical specifications OverView mP50



Dimensions projection cube

Width	1,000 mm	39.37 in.
Height	750 mm	29.53 in.
Depth	568 mm	22.36 in.
Weight	45 kg	99 lbs
distributed over 4 adjustable feet		

Standard support

Height	875 mm	29.53 in.
Depth	598 mm	23.54 in.
Weight	26 kg	58 lbs

Setup

OverView mP50 cubes can be joined in rows and columns in a linear or curved set up. The individual projection cubes are connected via connection kits. The angle of the connection kits as well as the height of the support can be customized according to the specific requirements.

Digital projection engine

- 3-panel Poly-Silicon LCD, resolution 1024x768 pixels (XGA), 4:3
- colors 16.7 millions
- color management 30 bit/pixel
- lamp 100 W, operation time 8000 h (average), integrated in a pre-adjusted lamp module, no re-adjustment after replacement
- luminous flux 600 lumens
- brightness uniformity > 95%
- contrast 250:1
- power supply 95-230 VAC ± 10%, 50-60 Hz
- power consumption 140 W

Operating conditions

- operating temperature 0°C - 40°C | 30-105°F
- humidity max. 80%, non condensing

Screens

The screens are seamless, the distance of pixels between adjacent screens is about 0.8 mm. The screens are selected upon the operational requirements and have nearly all around visibility.

HVA screen

Screen diagonal: 50"
 Width: 1000 mm | 39.37 in.
 Height: 750 mm | 29.53 in.
 Depth: 96.5 mm | 2.77 in.
 Weight: 9 kg | 20 lbs
 Luminance: 250 cd/m² | 75 fTL

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