



# EC-LHD-2004

FULL-HD 50/60/70-INCH DLP® REAR-PROJECTION CUBES WITH LED PROJECTION ENGINE



## ) PRODUCT DESCRIPTION

The devices from eyevis' latest **EC-LHD-2004 Series** are modular rear-projection cubes with **screen diagonals of 50 inch (ca. 127 cm) 60 inch (ca. 152 cm) and 70 inch (ca. 177 cm) and Full-HD resolution (1920 × 1080 Pixel) and high brightness LED illumination.**

The new cubes from our 2004 series represent the cutting edge of technology in the fields of LED-lit rear-projection cubes. The enhanced brightness levels of the cubes open a wide range of new possibilities for the devices, as well as numerous advantages for existing fields of application.

The integrated Automatic Colour Tracking (ACT) guarantees a uniform representation of brightness and colours over all cubes in a video wall. The automated tool constantly measures colours and brightness through internal sensors and readjusts all projectors to common values to achieve uniform image display in multi-cube applications.

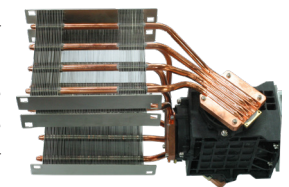
In order to reduce the number of parts inside the devices, we simplified the product design for the 2004 series through the integration of all interior components in a single-module housing. The proven characteristics of the high-quality eyevis DLP cubes regarding image quality, brightness, mechanical robustness and thin bezel were also retained in the EC-2004 series.

The new cubes come with stackable housing which enables the installation of video walls without additional mounting structures. The modular design of the cubes thereby allows for a fast and uncomplicated setup.

## ) INNOVATIVE COMPONENTS

### HEATPIPE COOLING SYSTEM

The EC-2004 Series continues to rely on our innovative heatpipe cooling system, which has proven its reliable and highly effective function in thousands of cubes in diverse operating conditions. In addition to that, our heatpipes require absolutely no servicing and contain no toxic liquids.



### PROJECTION-UNIT IN SINGLE-MODULE DESIGN

All electric, optical and electronic components as well as the cooling system are integrated completely into a closed projection unit including a network interface and colour control (ACT-internal). This unit can be inserted into or removed from the cube housing in a few simple steps. This speeds the setup and reduces the downtime during maintenance. Through an optional inputbox the cubes from the 2004 series can be equipped with additional connectors for inputs and outputs, and an internal matrix controller.



Inputbox for EC-2004 (optional)



EC-2004 Projection-unit

## ) THE ADVANTAGES AT A GLANCE

### DURABILITY

- Durable and constant picture quality on all Cubes
- Modular, highly available display concept for 24/7 operation
- Low service and maintenance costs

### COLOUR-RESCUE-CONTROL

- Special operating mode for compensation of defective LED modules
- Image information is retained even with one or two defective LEDs
- Colour exchange according to the customer's desired picture content

### OUTSTANDING IMAGE QUALITY

- High contrast and best brightness
- Colour uniformity and wide viewing angle
- Best visibility in any lighting condition

### INTEGRATED OPTIMISING OPTIONS

- Perfect system adjustment with eyeDESIGN Setup software
- Fast and easy parameter setting
- Optional Multi-Cube Auto-Colour-Tracking (ACT)

### PRECISION SCREEN CONCEPT

- Different screen options available to suit any requirements
- Minimum gaps between cubes thanks to clipping method
- Very easy and fast installation

### AVAILABILITY AND RELIABILITY

- Extremely long lifetime of the LED lights
- Qualitative high value components
- Highly efficient maintenance-free heatpipe cooling



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### TECHNICAL SPECIFICATIONS

Series:	EC-LHD-2004								
Diagonal:	50-inch			60-inch			70-inch		
Type:	EC-50-LHD-2004			EC-60-LHD-2004			EC-70-LHD-2004		
Description:	Digital DLP®-rear-projection unit with Cluster-LED illumination, stackable and addible, for data and video representation. Prepared for operation with optional input box for extended input options and internal matrix scaler.								
Resolution:	1.920 x 1.080 Pixel (Full HD / 16:9 / 1080p)								
Supported Refresh Rates:	48 to 64 Hz								
Brightness <sup>1</sup> in cd/m <sup>2</sup> :	HB Screen:	ISE Screen:	WVF Screen:	HB Screen:	ISE Screen:	WVF Screen:	HB Screen:	ISE Screen:	WVF Screen:
Full Brightness (typ.):	1690	685	975	1150	505	720	1050	380	545
Normal Operation (max.):	1450	580	825	990	390	560	810	295	425
Eco Mode:	1130	455	645	775	310	440	635	235	330
Contrast Ratio:	1500:1 (typ. / static contrast) / up to 10.000:1 (active LED control)								
Brightness Uniformity:	≥95% (SUR25)			≥95% (SUR25)			≥95% (SUR25)		
Input:	1 x DVI-D (Optional with inputbox -> In: Video, Y/C, DVI-I (digital/analogue), HDMI, DisplayPort, RS232 / Out: DisplayPort [Loop-through for signals up to 4K@30Hz] RS232)								
Projection Screen:	Standard screen: Improved Screen Element (ISE-Screen) or Wide View FEL Screen (WVF) / other screens on request (e.g. CrossPrism Screen, BlackBead Screen)								
Half Gain Angle:	ISE Screen -> H: 36° / V: 34°   WVF Screen -> H: 38° / V: 21°								
Median LED Lifetime:	≥60,000 hrs (under normal environmental conditions on 60% brightness) / (≥80,000h based on 50% brightness / ≥100,000h on 30% brightness; i.e. additional 15,000 to 40,000 hrs depending on the amount of power reduction / L70B50 manufacturer information)								
Colour Management:	Internal ACT - Auto-Colour Tracking, automatic adjustment/alignment of brightness and colours for all projectors in a video wall								
Software:	eyeDESIGN Software								

### MECHANICAL

Image Size (WxH):	1100x618 mm (Ø ~50"/~127cm)	1344 x 756 mm (Ø ~60"/~152cm)	1550x872 mm (Ø ~70"/~177cm)
Dimensions (WxHxD):	1100 x 798 x 730 mm	1344 x 956 x 820 mm	1550 x 1132 x 833 mm
Screen Gap:	0.3 mm	0.3 mm	0.3 mm
Weight: (incl. housing, projector & screen)	ca. 75 kg	ca. 85 kg	ca. 100 kg
Ingress Protection:	IP 50	IP 50	IP 50

### ELECTRICAL

Power Consumption*:	Full Brightness:	Normal:	Eco:	Full Brightness:	Normal:	Eco:	Full Brightness:	Normal:	Eco:
	375 W (max.)	250 W (typ.)	185 W	375 W (max.)	250 W (typ.)	185 W	375 W (max.)	250 W (typ.)	185 W
Input Voltage:	100V – 240V AC, 50/60 Hz								

### ENVIRONMENTAL

Temperature Conditions:	10-40° C / Recommended 15 - 25 °C / for seamless screens: 18 - 25 °C / Storage: 0 - 50 °C
Humidity:	0% - 80 % not condensing
Altitude:	0 - 3000 m
Noise Level:	≤ 36 dB
Heat Dissipation:	1279 BTU/h @Full Brightness   853 BTU/h @Normal Operation   631 BTU/h @Eco Mode

### ORDERING INFORMATION

EC-2004 Series DLP® Cubes:	25273 -> EC-50-LHD-ISE-2004 (50° Cube, Full HD, ISE screen) 25274 -> EC-50-LHD-WVF-2004 (50° Cube, Full HD, WVF screen)	25275 -> EC-60-LHD-ISE-2004 (60° Cube, Full HD, ISE screen) 25276 -> EC-60-LHD-WVF-2004 (60° Cube, Full HD, WVF screen)	25277 -> EC-70-LHD-ISE-2004 (70° Cube, Full HD, ISE screen) 25278 -> EC-70-LHD-WVF-2004 (70° Cube, Full HD, WVF screen)
Input Box (Option):	23979 -> EC-INPUTBOX-V2 (Input Box for eyevis 1004/2004 Series DLP® Rear-Projection Cubes)		

### OPTIONS

- Different screen versions to suit the requirements of different fields of application (viewing angles, brightness uniformity, etc.)
- Inputbox with inputs for Video, Y/C, DVI-I (digital/analogue), HDMI, DisplayPort, RS232 / Outputs for DisplayPort, RS232 / internal Matrix-Scaler up to 10 x 10
- Service and Maintenance Contracts
- Different Basement Options: Standard Basement, Basements on Wheels, Basements on Rails, Anti-Vibration Basements

<sup>1</sup> Full Brightness Mode -> full LED brightness with calibrated colours / Normal Operation Mode -> approx. 70% of LED brightness with calibrated colours



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