

Innovative rear-projection Cube Series
with durable and eco-friendly LED illumination



Digital DLP® rear-projection Cube

**DISCOVER YOUR
GREEN SIDE**

DLP® rear-projection Cubes with LED Illumination for Video Walls

DLP® technology based rear-projection cubes are a first choice for professional display systems of today and tomorrow. This leading solution for the assembly of video walls is still the only technology which is absolutely invulnerable against negative image effects caused by static display content and at the same time provides the possibility to create "seamless" video walls. Combined with its outstanding colour and brightness behaviour these make it the ideal solution for large screen systems in sophisticated applications. With the new LED technology based projection engine, eyevis even wiped away the technology's only disadvantage caused by the limited life-time of the lamps used for illumination.

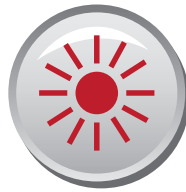
eyevis' new LED cubes use single LEDs for every primary colour with an estimated life-time of more than 55,000 hours (more than six years in continuous operation). The lack of colour wheels and other moving parts does not only allow for longer service intervals, it also results in better environmental behaviour of the cubes compared with lamp based systems.

All other components of the cube are of highest quality "made in Germany" and designed for reliable and continuous operation.

Unlike projection engines using LED clusters for illumination which create a visible grid in the resulting image, the newly developed flat light emitting diodes used in eyevis projection engines enable an unseparated image representation. The specially developed Colour-Rescue-Control technology allows the display of the complete information contained in the image even in the improbable event of a failure of an LED. The innovative heat-pipe cooling systems guarantees that the system keeps within its recommended operating conditions even in warmer environmental conditions.

The devices from eyevis' new EC-LED cube series are available in different sizes and resolutions. Besides native HD-resolution (1,920 x 1,080 px), XGA (1,024 x 768 px) and SXGA+ (1,400 x 1,050 px), this new technology is also available in WUXGA resolution (1,920 x 1,200 px) in 16:10 image format.

The advantages at a glance:



PROVEN QUALITY

-) Ready for 24/7 operation
-) Minimal gaps between individual cubes in a video wall
-) Perfect viewing angle
-) Latest DLP® technology
-) Rugged design for professional use
-) Modular system architecture, same spares for the complete EC Cube series

OUTSTANDING IMAGE QUALITY

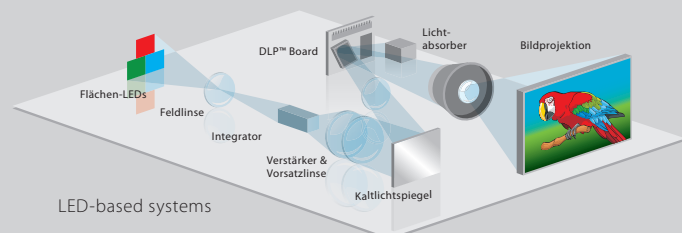
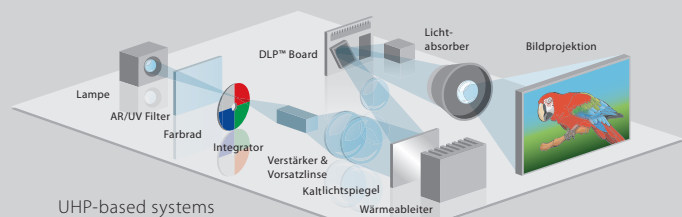
-) Best brightness and contrast
-) Brilliant colours
-) Highest colour uniformity
-) Best image quality in any lighting condition
-) Improved black levels
-) 1.8 times more colours than with lamp-based systems

LOW-MAINTENANCE SYSTEM

-) 55,000 hrs expected life-time of the LEDs.
-) Fast and intuitive setup of the system
-) Comprehensive status information of the system available
-) Optional automatic Multi-Cube Colour-Brightness-Adjustment
-) Completely dust-proof housing

Comparison: Optical Light Path in UHP-based Systems vs. LED Systems

-) LED systems have a shorter light path
-) LED systems need less optical components to create a precise light path (no UV filters, no colour wheel)
-) LED systems have a higher RGB frequency
-) No diffusing light in the projection engine



Reliability and Stability

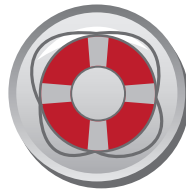
In applications like command and control rooms, which are operated 24 hours on 365 days a year, it is very important to have a perfectly reliable system, especially if important information is displayed which should be available at any time. More than 15 years experience with DLP® based large screen technology, make eyevis a leading manufacturer in the fields of professional projection systems. Our comprehensive knowledge of this technique results in many integrated features to increase the redundancy of the systems – reliable technology “made in Germany”.

-) Established DLP® technology adapted to innovative high-end LED illumination
-) Short-circuit-proof power supplies
-) The system is based on three individual channels for R, G & B LEDs, i.e. if one LED fails, the others are not affected and remain in operation. A picture is still displayed on the cubes.
-) Separate control channels for each primary colour
-) Resilience through 3-channel concept of power supplies, LED driver and LEDs
-) Innovative active power reduction: in the improbable event of a failure of the cooling system or if the ambient temperature exceeds tolerable values, the system automatically reduces the power of the LEDs, but the content remains visible.



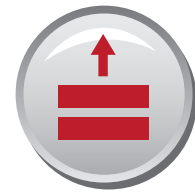
) ECO-FRIENDLY CONCEPT

-) Mercury-free illumination
-) Complies with ISO 14001 – Environmental Management Standard
-) Low power consumption
-) Extraordinary long operating time
-) No environmental pollution thanks to low consumption of resources



) COLOUR-RESCUE-CONTROL

-) Special operation mode which compensates defect LED modules
-) Monochromatic display of the content
-) Displayed information remains visible until the defect LED is replaced
-) Colour replacement can be defined according to the customers image content and background colour



) OPTIONAL FEATURES

-) Scaler board max. 2x DVI, 2x RGB, 1x YC, 2x FBAS, 1x YUV (Component)
-) Front-access option incl. motorized geometrical adjustment with remote control or PS2
-) Automatic Multi-cube colour-brightness adjustment
-) Network board
-) Special solutions: rail basement, anti-vibration basement ...

Colour Alignment

ACT Auto-Colour-Tracking

eyevis' new LED technology offers long lasting colour stability and enhanced colour adjustment possibilities. The newly developed Multi-Cube Colour-Brightness Adjustment option is a tool which allows fully automatic adjustment and alignment of all cubes in a combined video wall. As a result, re-adjustments can be performed more easily and in shorter time.

-) Brightness adjustment is performed directly with the LEDs themselves – Advantage: the dynamic range of the displayed image is not affected, hence a stable image quality is guaranteed.
-) With several cubes in a combined video wall the measurement is done in every cube separately. The values of the individual cubes are automatically aligned with reference to the values measured in the “weakest” cube of the video wall. This allows constant brightness and colours over the entire wall.
-) LED segment adjustment for colour temperature can be set to predefined values (3,200 K / 6,500 K / 9,500 K), or to freely adjustable values in user-mode.

Advantages of eyevis LED Technology

-) Use of flat surface LEDs for homogeneous illumination of the DMD™ chips guarantees stable brightness and colours over the complete life-time of the system
-) More efficient and comprehensive adjustment possibilities
-) No use of LED clusters (illumination modules using a matrix of LEDs)
-) No hotspots on the screen
-) No extensive optical combination necessary as with cluster LEDs
-) Less power consumption and minor thermal load than cluster systems
-) Less complex adjustment since fewer components are involved than in cluster systems

Heat Pipe Cooling System

-) Highly dynamic – fast and efficient heat dissipation
-) Maintenance-free, requires no replenishment of liquids etc.
-) No danger through leaking liquids
-) Cooling system can be operated in any position and even in vibrating environments
-) Permanent control of the LED temperature: 3-channel control, temperature sensor is positioned directly on the LED
-) Innovative active power reduction: in the improbable event of a failure of the cooling system or if the ambient temperature exceeds tolerable values, the system automatically reduces the power of the LEDs. The cubes remain operating and a picture is still visible.

Technical Specifications

Type:	EC-50-LSXT+ , eyevisCube 50" with LED illumination and native SXGA+ resolution
Description:	Digital 50" DLP®-rear-projection unit, stackable and addible, for data and video representation
Resolution:	1,400 x 1,050 Pixel (SXGA+)
Brightness:	typ. 370 cd/m ² (max. 410 cd/m ²)
Image Size (WxH):	1,000 x 750 mm
Dimensions (WxHxD):	1,000 x 980 x 620 mm
Weight:	ca. 90 kg

Type:	EC-70-LSXT+ , eyevisCube 70" with LED illumination and native SXGA+ resolution
Description:	Digital 70" DLP®-rear-projection unit, stackable and addible, for data and video representation
Resolution:	1,400 x 1,050 Pixel (SXGA+) / Chip: DMD-Chip SXGA+ / LVDS 0.95"
Brightness:	typ. 164 cd/m ² (max. 205 cd/m ²)
Image Size (WxH):	1,400 x 1,050 mm (ca. 70" screen diagonal)
Dimensions (WxHxD):	1,400 x 1270 x 750 mm
Weight:	ca. 105 kg

Type:	EC-60-LHD , eyevisCube 60" with LED illumination and native full HD resolution
Description:	Digital 60" DLP®-rear-projection unit, stackable and addible, for data and video representation
Resolution:	1,920 x 1,080 Pixel (full HD) / Chip: DMD-Chip Texas Instruments DDP3021
Brightness:	typ. 217 cd/m ² (max. 279 cd/m ²)
Image Size (WxH):	1,344 x 756 mm (= 1540 mm diagonal = 60,6")
Dimensions (WxHxD):	1,344 x 956 x 820 mm
Weight:	ca. 90 kg

Type:	EC-67-LHD , eyevisCube 67" with LED illumination and native full HD resolution
Description:	Digital 67" DLP®-rear-projection unit, stackable and addible, for data and video representation
Resolution:	1,920 x 1,080 Pixel (full HD) / Chip: DMD-Chip Texas Instruments DDP3021
Brightness:	typ. 186 cd/m ² (max. 279 cd/m ²)
Image Size (WxH):	1,460 x 821 mm (ca. 67" diagonal)
Dimensions (WxHxD):	1,460 x 1,055 x 850 mm
Weight:	ca. 95 kg

) eyevis LED cubes are available in more sizes and resolutions on request.

Contrast Ratio:	1,500:1
Brightness Uniformity:	≥ 95%
Input:	1 DVI
Projection Screen:	Seamless CrossPrism Screen, viewing angle horizontal & vertical 180°
Frame:	0,3 mm
Power Consumption:	250 Watt at 110/235 V
Lamp Life-Time:	55,000 hrs (in recommended operating conditions)
Software:	eyevisCubeManager

ENVIRONMENTAL:

Operating Conditions:	recommended 15 – 25 °C; 5 – 35 °C; for Seamless Screen 18 – 25 °C; Storing: 0 – 50 °C
Humidity:	0 % – 80 % noncondensing
Altitude:	0 – 3,000 m
Noise Level:	≤ 36 dB

OPTIONS:

Scaler Board (internal split controller up to 10 x 10 Matrix, with 2x DVI, 2x RGB, 2x Video)
Multi-Cube Color-Brightness Adjustment
Network Board
Service and Maintenance Contracts

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) CONTACT



eyevis GmbH
 Hundschleestr. 23
 72766 Reutlingen
 Deutschland

Tel.: +49 (0) 7121 43303-0
 Fax: +49 (0) 7121 43303-22
 Web: www.eyevis.de
 E-Mail: info@eyevis.de

