

DLITE

**Digital Daylight
Display**

BARCO



D

BARCO has been a world leader in large screen visual solutions for well over 15 years. Building on its expertise in color critical video displays, BARCO has created an impressive array of groundbreaking large scale displays that redefine the leading edge of the Daylight Visualization market. By offering the best of its design, engineering and support capabilities to this new and fast growing market, BARCO is ideally suited to become your partner for any demanding high-brightness display application, indoors or out!

LITE

Brilliant Solutions for Outdoor Displays



Extreme Reliability

Self-contained, rugged waterproof display tiles. Certified IP 65 for all outdoor conditions. Software remote monitoring and 'Hot-Swapping' of tiles during performance to ensure maximum reliability and minimum time-to-repair.



True Color Reproduction

BARCO's proprietary SYSTEM COLOR SIGNATURE and TRUE COLOR REPRODUCTION technologies offer accurate color rendering throughout the lifetime of the display and self adjusting image uniformity across time.



Authentic Video Quality

BARCO's leading-edge technology implemented in the DLITE distributes the video signals for processing inside each individual tile. This delivers perfect video and graphics performance over the entire display regardless of size, shape or resolution.



Ultimate Viewing Angle & Brightness

"No Compromise" product development towards optimal picture quality from all viewing angles and under all ambient light conditions. The best LED components available worldwide provide BARCO with maximum direct brightness and a true 50% brightness at 120° horizontal and 60° vertical angles.



Flexibility through Modularity

The groundbreaking modular concept guarantees optimal flexibility and seamless pictures. State-of-the-art mechanical design allows servicing of the modules from the back as well as the front of the display. Built-in "intelligence" enables auto-configuration and hot-swapping of tiles without interrupting the performance of the display.



Low Cost of Ownership

Extreme reliability of components, lifetime color compatibility with future BARCO display tiles and a unique software upgrade path ensure optimal performance over time. Ultimate cost / resolution ratio is aided by implementation of BARCO's DUAL PIXEL TECHNOLOGY.



Ultra-High Resolution

BARCO's DUAL PIXEL TECHNOLOGY offers an addressable resolution of over 140 pixels per linear meter, doubling the perceived resolution compared to similar displays. Enhanced resolution allows for a smoother picture, shorter viewing distance and great performance.

The Reference in Image Quality



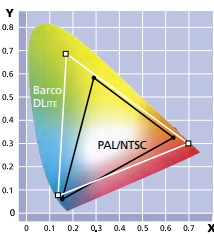
System Color Signature (x,y,Y)

The tiles feature built-in intelligence monitoring individual LED color signature, overall runtime and temperature thresholds. The gathered information is used to assure color uniformity across the entire screen and across time.

Authentic Color Tracking

BARCO's expertise in color processing delivers a uniquely extensive range of colors that can be adjusted to the usual PAL/NTSC standard, and beyond. User adjustable color temperatures add flexibility and functionality.

The color spectrum reproduced by BARCO's DLITE exceeds that of a PAL/NTSC video image.



BARCO's TCR technology
Color accuracy and consistency across the entire screen and across time.





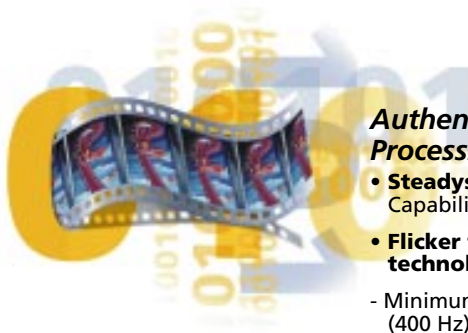
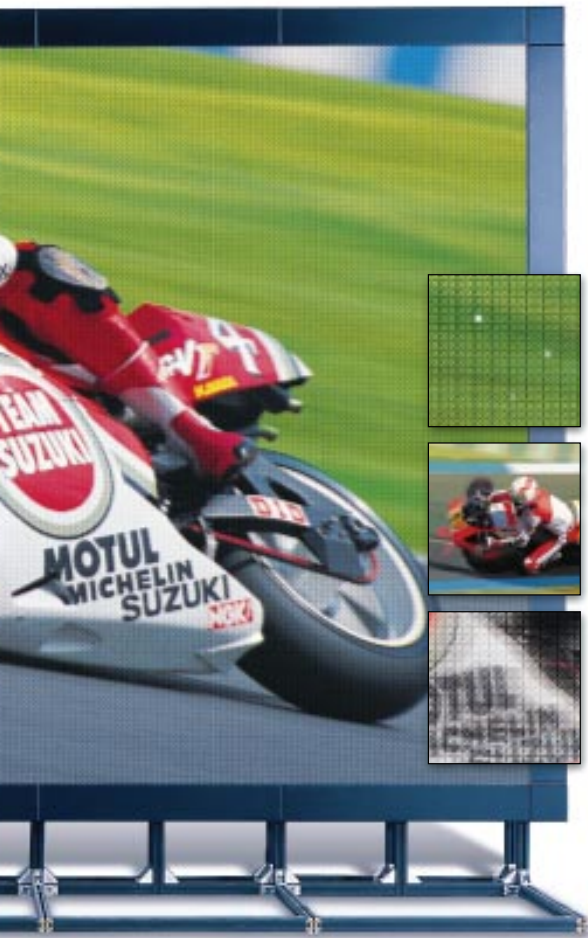
Day & Night

16-Bit Grayscale Processing

Dynamic color mapping allows the use of a 16-bit contrast level for each color and creates real blacks even when adjusting brightness, color and tint.



 Conventional Image
 BARCO's DLITE



Authentic Video Processing

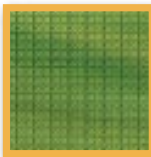
- **Steadysync™** Film Mode Capability

- **Flicker free image technology**

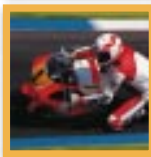
- Minimum Vertical refresh rate (400 Hz)

- Proprietary high-speed digital link (low EMI) 1.2 Gb/s

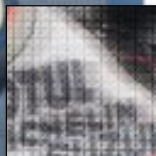
- **True Motion Reproduction Technology (TMR)**



Motion Compensated Plane Stabilization
For stable and color-accurate backgrounds



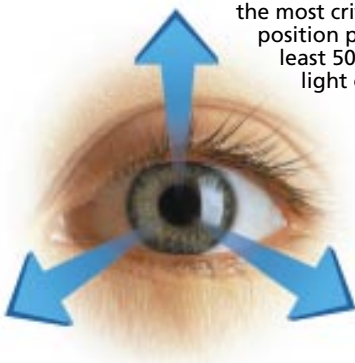
Cue-Flash Motion Compensation
For scenery changes without smearing



Pixel Based Motion Compensation
For fast moving items without motion blur

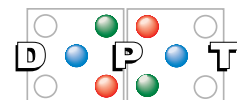
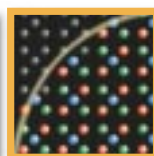
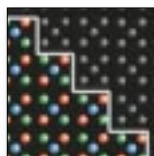
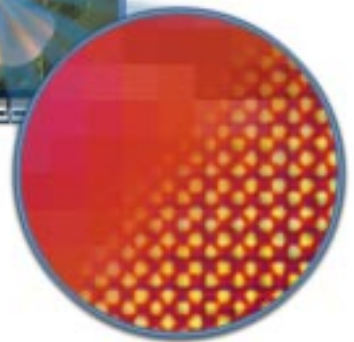
Viewing Angle

A wide viewing angle of up to 120° Horizontal and 60° Vertical guarantees optimal viewing conditions for all spectators. Within this angle even the most critical position perceive at least 50% of the light output.



Resolution

BARCO's unique proprietary DUAL PIXEL TECHNOLOGY enables addressing each cluster of 5 LED components as 2 discrete pixels. This greatly enhances the perceived resolution by visually doubling the physical resolution. Higher apparent resolution guarantees detailed images even for spectators close to the display.



Dual Pixel Technology

Reliable Flexibility through **Modularity**

Modular Concept

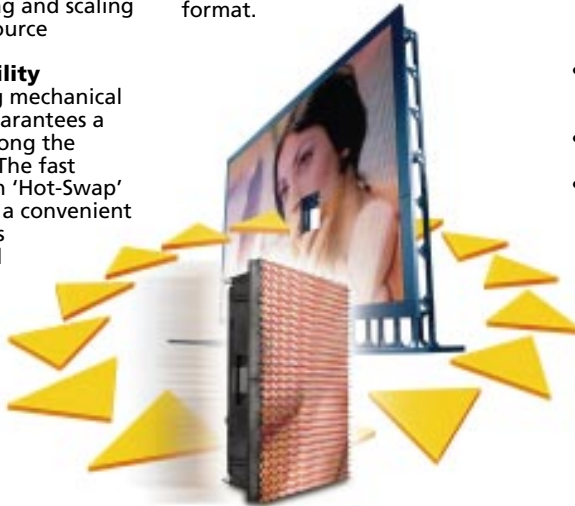
- Minimum setup and dismantling time
- Auto-configuration and auto-self-calibration
- 'Hot-Swap' display tiles
- Minimum Mean-Time-To-Repair ensures continuous display functionality and performance
- Pixel Map Processor technology for automatic sizing and scaling of any incoming source

Mechanical Flexibility

The groundbreaking mechanical design of the tile guarantees a seamless picture among the different elements. The fast modular system with 'Hot-Swap' tiles, equipped with a convenient snap system, enables easy installation and quick servicing. This makes it ideally suited for rental applications and advertising / mediatised events.

Modular Image Generation

Create a gigantic screen or a tailor-made image in whatever shape or size! The built-in intelligence allows the system to configure itself regardless of the shape and size. Video and PC graphics can come from a variety of sources without having to worry about scaling problems, including the popular 16 x 9 format.



High Reliability

- Ruggedized waterproof tiles and connectors
- Highest environmental compliance of tiles and connectors (IP 65 certified)
- Surface-mount electronic design minimizes defect possibility
- Redundant power supply and data link for continuous performance during 'Hot-Swap' of tiles
- Auto-diagnostics monitoring software for preventive operations
- Remote monitoring of display through PC connection
- One year limited warranty through over 50 BARCO technical centers worldwide



Back and Front Access

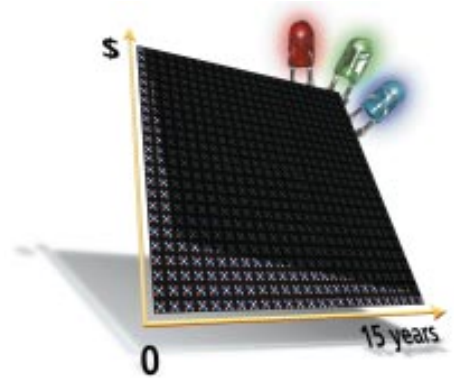
State-of-the-art mechanical design enables servicing of the modules from the back as well as from the front of the display. Unique flexibility for integration into highly demanding locations.





Low Cost of Ownership

- Lifetime color compatibility
- Low power consumption
- On-site software upgrade path
- Auto-diagnostic LED lifetime management system
- Ultimate resolution / cost ratio



BARCO's LED WALL DIGITIZER is the only external element to the display system. It processes all source signals for digital distribution to every DLITE display tile.



Waterproof hot-swap digital link and power connections.

Tailor-Made Solutions for Giant Displays

In-house Research, Development and Manufacturing

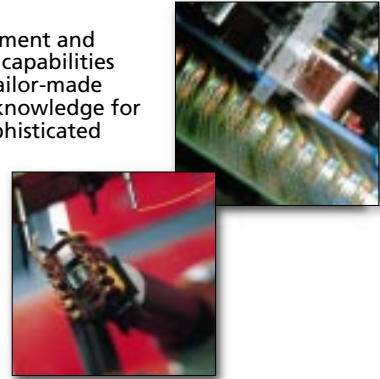
Engineering Leadership

BARCO's long history of leadership and the know-how it has acquired in the field of high-end display solutions and system integration are important assets for daylight display applications. BARCO's excellence is illustrated by reference projects in the Rugged and Industrial Displays markets, the Color-Critical Prepress and Medical Imaging markets, video broadcasting and processing, and the Static Billboard Printing markets.



Flexible Manufacturing

BARCO's in-house development and integrated manufacturing capabilities make it possible to offer tailor-made solutions. BARCO has the knowledge for software optimization, sophisticated mechanical integration and customized electronic design. BARCO's Specialized Subcontracting group further guarantees state-of-the-art components for all BARCO products.



Worldwide Distribution and Maintenance Network

BARCO's worldwide organization covers all 5 continents in over 55 locations, with nearly 5,000 associates. This enables BARCO to provide you with dedicated service during the implementation of your project and immediate response for all your maintenance needs.



ENGINEERING THE CONCEPT

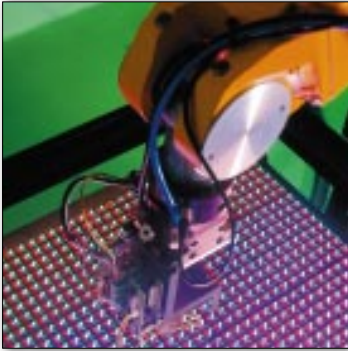
UNDERSTANDING THE CUSTOMER'S NEEDS



DEDICATED CUSTOMER DEMO



CUSTOMER EVALUATION AND ACCEPTANCE

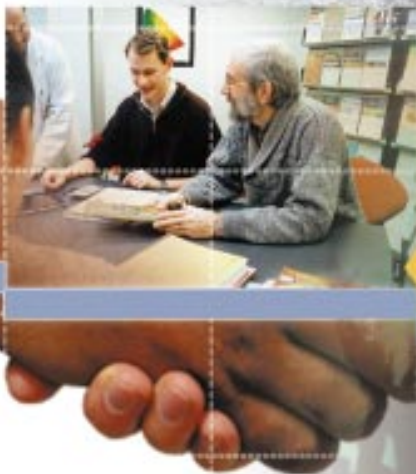


Total Quality

BARCO's integrated quality control approach leads to very high reliability. From initial design to final manufacturing, the quality of the product remains a primary focus. All components are handled with extreme precaution and are thoroughly tested. BARCO products are known for their compliance to environmental and industrial standards from the highest European and American standards organizations.



TOTAL INSTALLATION AND INTEGRATION



COMPREHENSIVE TRAINING ON SITE

Configurations for any Application



Model

LED Configuration

Visual Resolution
mm

Physical Resolution
mm

Viewing Angle
(minimum 50% brightness)
Horizontal
Vertical

Light Output
(at 6,500°K)
(Individual LED corrected, Wall calibrated)

Number of LED's
LED's / m²
LED's / ft²

Power Consumption
Watts / m²
Maximum (Full white specification)
Average (Video content, 20% white)

Watts / ft²
Maximum (Full white specification)
Average (Video content, 20% white)

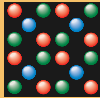
Weight
Weight / m²
Weight / ft²

A Set of LED Configurations

Each application will have specific requirements. One can choose for an optimized resolution, a maximum viewing angle or a more powerful light output. Next to the set of pre-tuned setups BARCO offers the resources and technology to design a tailor-made system.

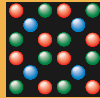


Rental & Staging • Sports Arenas • Point-of-Sales •

DLITE 7^{HR}

7 mm

14 mm

120°
60°6,500 Nit
5,000 Nit25,600
2,3791,750 W
350 W163 W
32 W65 kg
13 lbs.**DLITE 14^{HR}**

14 mm

14 mm

120°
60°7,000 Nit
5,500 Nit25,600
2,3792,200 W
450 W204 W
42 W65 kg
13 lbs.**DLITE 14**

14 mm

28 mm

120°
60°6,500 Nit
5,000 Nit6,400
5941,750 W
350 W163 W
32 W65 kg
13 lbs.**DLITE 28**

28 mm

28 mm

120°
60°7,000 Nit
5,500 Nit6,400
5942,200 W
450 W204 W
42 W65 kg
13 lbs.

Technical Specifications

Compatibility

- All video sources: (PAL, SECAM, NTSC 3.58, NTSC 4.43 in Composite, S-VHS, RGB, or Component format)
- All computer graphics up to SVGA (800 x 600) resolution
- All Macintosh computers (640 x 480) resolution
- SDI
- LVDS loop through data signal

Inputs

- Two Composite Video inputs on BNC connectors
- Two S-video inputs on 4 pin mini-DIN connectors, (may be reconfigured as Composite Video input)
- One Component Video input (R-Y, B-Y, Y, sync) on 4 x BNC connectors
- One RGBS or RGBB input on 4 x BNC connectors
- One SDI (Serial Digital Input)
- One LVDS input

Outputs

- LVDS data output
- Long/Short Distance digital link
- RGBS or RGBHV output on HD15 connector (monitor)
- RS 232 loop-through communication port on D9 male & female connectors
- RS 485 Phoenix connector for AX Link

Features

- 3 to 2 and 2 to 2 Pull Down (Motion Picture Processing: *Patented*)
- Time Based Correction
- Video Equalizing (3-Band)
- Dynamic Image Stabilization
- Digital Brightness/Saturation Control
- Scaler/Compressor
- Automatic RGB Matrix Selection (Digital Matrix (EBU, ANSI))
- Analytical Contrast Rendering (Stretch to SubBlack, Gamma (RGB))
- Luminance Tracking
- Dynamic Sample Weight Distribution

Size (Tile)

0.448m x 0.448m x 0.18m
17.6" x 17.6" x 7.1"

Screen Size

Unlimited

Weight

Net weight per module 13 kg / 28.7 lbs.

AC Power

DIGITIZER: Auto-ranging from 85 to 255 V AC

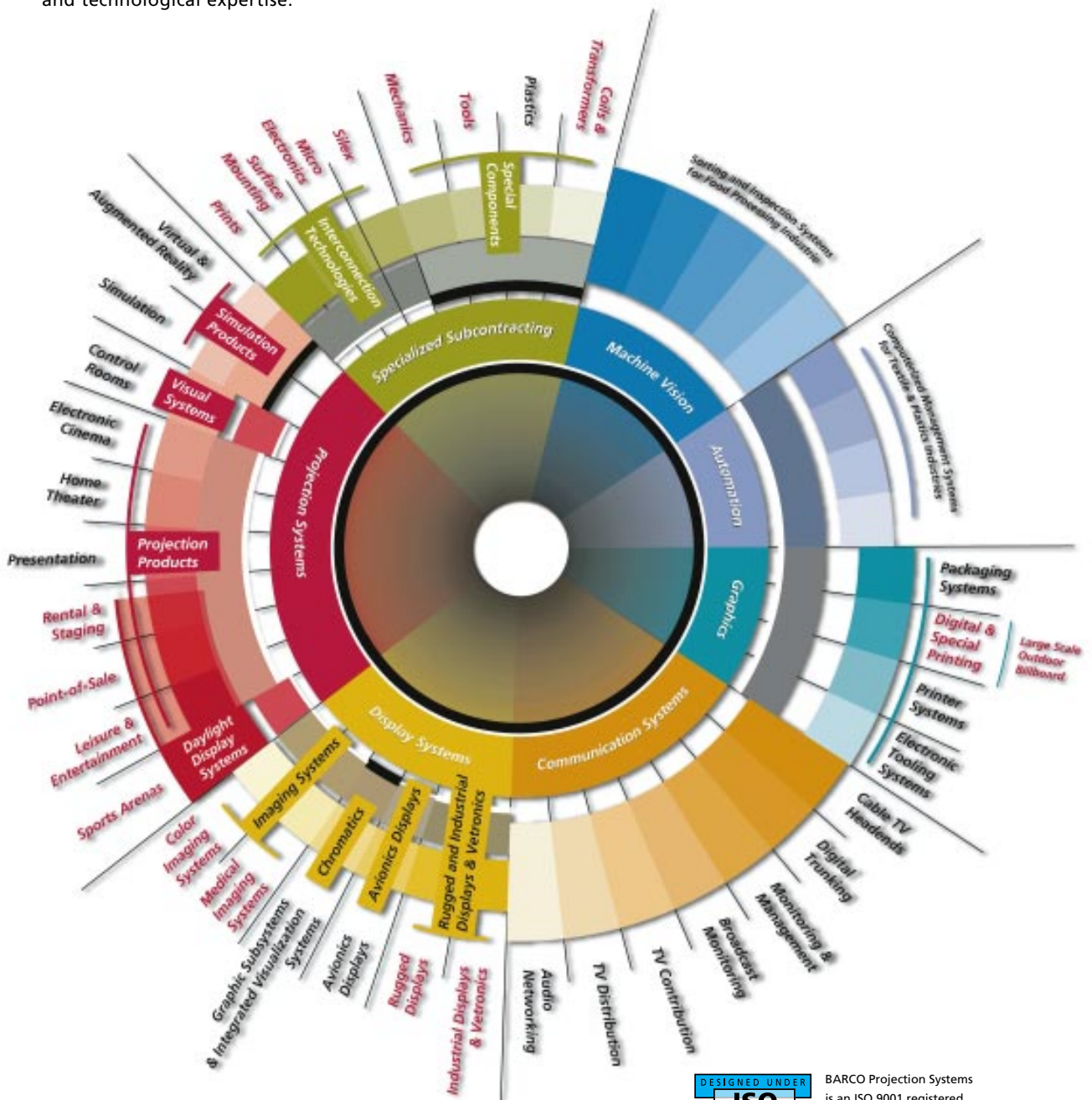
Environmental Compliance

IP 65 Standards

Cooling elements guarantee optimal temperature

Specifications valid for deliveries as of October 1, 1999

The BARCO Group employs almost 5000 people in over 55 locations worldwide and has a customer base in all 5 continents. Creating value by combining the strengths of its associates' market know-how and technological expertise.



BARCO Projection Systems 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.



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