

Mirage Series



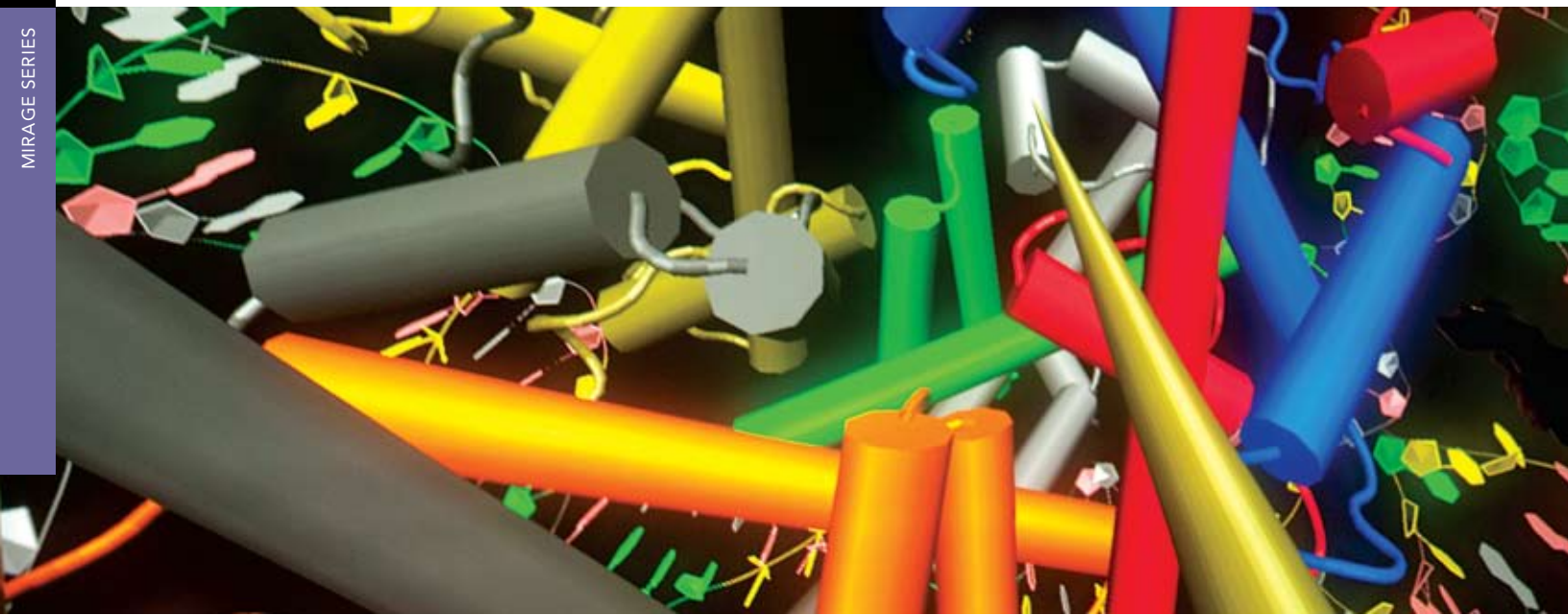
World's most installed 3D projector

The Christie Mirage Series 3-chip DLP® Xenon projectors offer the broadest range of 3-chip 3D active stereo projection in either a single projector or a multi-projector array. As the first purpose-built stereoscopic projectors, this series represents the most installed 3D projectors in the world. Brightness ranges from 2900 to 20,000 ANSI lumens. SXGA+, HD and the latest WUXGA models are designed specifically for use in a variety of 3D applications for all types of immersive environments, including cubes or CAVE™-like systems and curved or flat screen power walls.

The options in resolution provide an increase field of view and an optimal aspect ratio for greater choice and installation flexibility for visualization displays. Offering even more pixels with WUXGA (1920 x 1200) resolution and active stereo from a single projector, the Christie Mirage Series 3-chip DLP® Xenon projectors are simple to set up and easy to use.

The Mirage Series features 3D active stereo projection up to 120Hz and ranges from cost-efficient single projection systems to high end solutions encompassing high resolution, complex applications and arrayed solutions. Christie – more pixels, more projectors, more reality.

CHRISTIE®



- ▲ Christie's 3D immersive technology at Weill Cornell Medical College, New York, NY enables visionary breakthroughs in biomedical research. A researcher interacts with a model of a DNA strand wrapped around a histone protein. Mutations in the histone "tails" have been implicated as having a role in the creation of cancerous cells.

Why choose Christie DLP® products?

Display technology

Featuring high-quality DLP® technology, the Christie Mirage Series is highly reliable, delivers high brightness, unsurpassed color, brightness uniformity and control capabilities. This proven digital technology is also low maintenance with greater than 650,000 hours Mean Time Between Failure (MTBF).

Image quality

The Christie Mirage Series projectors are illuminated by Xenon lamps, which are best suited for the full, natural spectrum color of light. They deliver superior image quality and the ability to color-match multiple projectors for extremely bright, color-rich, uniform images – whether multiple projectors on a single screen, or multiple screen displays.

Image processing

With 10-bit image processing, the Christie Mirage Series offers high bandwidth signal processing. The S+ models feature 220MHz bandwidth that supports a 3D refresh rate of 115Hz at SXGA+ and 120Hz at SXGA. Unique to the HD and WUXGA series, refresh rates are processed up to 120Hz with full 1920 x 1080 resolution. 3D content can be supplied to the projector over single link DVI-D, analog and/or optional HD-SDI connections. The Mirage HD and WU models support Picture-in-Picture functionality with simultaneous multi-sources stereo and/or mono viewing in foreground, background, or both windows.

Ease of use

A user-friendly Graphic User Interface (GUI) makes operation and set-up of the entire Christie Mirage Series uncomplicated. The GUI enables full and easy control of the projector. Multiple control options let the user choose what's best for their application – built-in, IR and wired remote keypad; RS-422 or RS-232 control; or through ChristieNET™ via the Ethernet port. Motorized lens functions provide power focus, zoom, horizontal and vertical offset – all at the touch of a button. Auto set-up recognizes sources and sets correct brightness, contrast and position.

Inputs

The Christie Mirage Series provides installation flexibility and compatibility with most data, video and HDTV sources in use today.

RGBHV/YPbPr via 5 BNC
DVI-I for digital/analog/RGB/YPbPr (HDCP)
One composite video, one S-video
Two optional slots for analog/digital modules
Three RS-232 ports and one RS-422 port
On-board ChristieNET connectivity (RJ45)
Built-in backlit keypad and IR remote control

Serviceability

Operation and maintenance of the Christie Mirage Series is easy as well. Quick internal access with 1/4-turn screws, a quick-change lamp, a removable image processing module, field-alignable DMDs and a sealed optical engine, puts full control in the hands of the user. Replacement lamp costs are low and Christie offers the best warranties on the market.



- ▲ Three Mirage Series projectors are at the core of the South Australian Virtual Reality Center 3D visualization system. The center is used mainly for oil and gas applications as well as research.



- ▲ From 500W to 3.0W, the Christie Mirage Series features user-replaceable Xenon lamp modules with adjustable lamp power for lower brightness. The stable color temperature over the course of the lamp life and the power range provides the best lamp technology for color matching across multiple screens.



- ▲ The Christie Mirage Series features an extremely high contrast ratio of 1600-2000:1 full field; 450-600:1 ANSI. With the motorized IRIS, users can adjust for high contrast ratio and better black levels, for any given application.



- ▲ A suite of optional, specifically-designed lenses includes both fixed and zoom lenses for SX+ and HD/WUXGA ranging from 0.67:1 to 7.5-11.2:1 and features a durable lens mount with motorized horizontal and vertical offset. With quick lens insertion, the Christie Mirage Series is easy to use.

Standard accessories

IR keypad (w/batteries)

Line cord

Stereo sync harness

Optional accessories

Fixed and zoom lenses available with throw ratios from 0.67:1 to 7.5-11.2:1

Christie Twist™ image warping module with enhanced edge-blending

Wired remote control and RS-422 two way controller

Ethernet, RS-232, RS-422 cables

Service manual

KoRE™ 10-bit librarian

Lens adapter (for competitive lens)

Remote IR sensor

Christie Twist™ – total image control

Christie Twist™ is a dedicated, purpose-built hardware and software solution that enables full image warping and advanced edge-blending through the control of a powerful and easy-to-use Graphic User Interface. Users can expertly control seamless, multiple edge-blended, curved images. Images can be warped to fit virtually any projection surface – flat, curved or spherical screens – with perfect pixel-to-pixel alignment.

The optional internal module is integrated into the 10-bit image processing module. Latency is typically as low as 10-20 lines. Once the warping and blending grids are set for multiple projectors, the properties will be stored on the projectors and on the external PC. Multiple blend and warp properties can be stored on the projectors – providing easy access and immediate recall of settings.

As an additional optional software upgrade, Christie Twist™ Pro is a single license that supports an unlimited number of projectors per array and up to 31 points on a grid, up to and beyond a 10' x 10' grid. Christie Twist Pro features advanced edge-blending, with rotate and flip capabilities, a gradient preview of edge-blends and a brightness uniformity controller.

Brightness uniformity control

Adjusts center-to-edge brightness uniformity across the image – with the Christie Mirage Series you can achieve up to 90% uniformity.

Dark Interval Adjustment (DIA™)

DIA™ gives the user a mechanism to tune the projector's interaction with the LCD shutter glasses to achieve the optimum image with a minimum of color artifacts or cross-talk between left and right eye images.



Competitive advantages

- Higher resolution – SXGA+ (1400 x 1050), HD (1920 x 1080) or WUXGA (1920 x 1200)
- Internal scaling of stereo signals
- Internal warping and enhanced edge-blending module option with Christie Twist
- Built in ChristieNET™ for networking and control
- First active stereo HD and WU projectors
- Mirage S+ series supports up to 120Hz active stereo
- Mirage HD and WUXGA series projects up to 120Hz active stereo without requiring ultra-high bandwidth
- Stereo video capable with optional HD-SDI input module on Mirage HD and WUXGA series



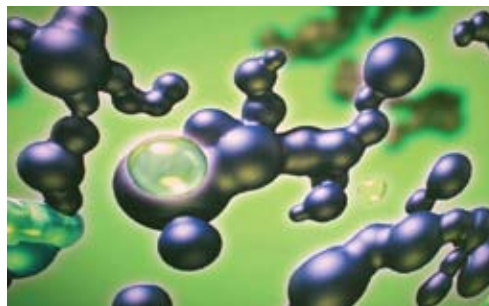


- ▶ Louisiana Immersive Technologies Enterprise (LITE) – a joint effort of the State of Louisiana, the Lafayette Economic Development Authority (LEDA) and the University of Lafayette. The 61,000 square foot complex enables users to collaborate and interact in real-time with even the most complete computer graphics models. One of five displays featuring Christie advanced visualization display technology, LITE has gone through recent technology upgrades. Pictured here, the Flex Room utilizes two blended Christie Mirage WU7 projectors with a Christie Spyder X20. LITE involves partnerships between government, universities and industry for basic research, application development, testing and validation, product development and commercial production, along with delivery of visualization technologies and super-computer modeling.

- ▼ Direct key access to the most-used major functions and auto set-up of sources with correct brightness, contrast and position means operation and set-up of the Christie Mirage Series are intuitive.



- ▲ Marathon's headquarters in Houston, TX houses their Visionarium – a collaborative, multi-discipline immersive environment set up for a maximum of 50 people that allows participants to view data on a 27ft x 8ft curved screen powered by two Christie Mirage HD6 projectors and a Vista Spyder. This is the first large-scale system for oil and gas exploration in the country that combines the power of Christie Mirage high definition DLP® projectors and the Vista Spyder in an interactive immersive environment.



- ▲ Christie Twist is a powerful, easy-to-use tool to manage arrayed projectors that allows users to display virtually any image, anywhere. This tool allows for pixels to be mapped to any projection surface with proper geometry and perfect pixel-to-pixel alignment. Christie Twist provides the enhanced warping and expert blending required for arrayed projectors to operate as a single, uniform display.

Standard 3D inputs

Source	Input signal type	DVI	SX+RGB	SDI	DVI	WU/HD RGB	SDI
Data/Graphics	native 3D input	• Range 96-120Hz (48-60Hz per eye, >165MPixels < 330MPixels)					
		• Range 96-120Hz (48-60Hz per eye, <165MPixels)					
	frame-doubled 3D <165MPixel	• Range 48-60Hz (24-30Hz per eye) doubled to 96-120Hz					

		Mirage S+6K	Mirage S+12K	Mirage S+16K	Mirage S+20K	Mirage HD3	Mirage HD6
Image	brightness (±10%)	• 6500 ANSI lumens @ 200-240 VAC 5500 ANSI lumens @ 100-120 VAC	• 12,000 ANSI lumens	• 16,000 ANSI lumens	• 20,000 ANSI lumens	• 2900 ANSI lumens	• 6600 ANSI lumens @ 200-240 VAC 5600 ANSI lumens @ 100-120 VAC
	contrast	• 1600-2000:1 full field • 450-600:1 ANSI (motorized iris to adjust for high contrast)					
	uniformity	• 90% brightness uniformity					
Display technology	type	• 3-chip DLP®, 0.95" DMD					
	native resolution	• SXGA+ (1400 x 1040)				• HD (1920 x 1080)	
	frame delay	• Less than one frame					
Lamp	type	• 1.0kW Cermax® Xenon	• 2.0kW Xenon Bubble	• 2.4kW Xenon Bubble	• 3.0kW Xenon Bubble	• 500W Cermax® Xenon	• 1.0kW Cermax® Xenon
	typical life	• 1500 hrs	• 750 hrs	• 750 hrs	• 750 hrs	• 1500 hrs	• 1500 hrs
Input		• Two RS-232 ports, one RS-422 port and one GPIO port					
	signals	• Provides installation flexibility and compatibility with virtually any data, video and HDTV source in use today – from VGA to QXGA					
	pixel clock	• 220MHz					
	scan rates	• 115Hz at SXGA+ and 120Hz at SXGA				• Up to 60Hz with full 1920 x 1080 HD resolution	
Inputs, control & networking	inputs	• RGBHV/YpbPr via 5 BNC • DVI-I for digital/analog/RGB/YpbPr (HDCP) • Composite video, S-video • Two optional slots for analog/digital modules					
	optional	• Dual SD/HD-SDI input module • DVI input module					
Lenses	fixed	• SX+ 0.73:1, 1.25:1 Long Focal, 1.25:1 Short Focal • HD/WU 0.67:1, 1.1:1 Long Focal, 1.1:1 Short Focal					
	zoom	• SX+1.25-1.6:1, 1.5-2.0:1, 2.0-2.8:1, 2.6-4.4:1, 4.4-7.5:1, 7.5-11.2:1 • HD/WU 1.16-1.49:1, 1.4-1.8:1, 1.8-2.6:1, 2.6-4.1:1v, 4.1-6.9:1					
	offsets	• See specifications of each lens on website					
Accessories	standard	• IR keypad (w/batteries) • Line cord • Stereo sync harness					
	optional	• Fixed and zoom lenses available with throw ratios from 0.67:1 to 7.5-11.2:1 • Christie Twist™ image warping module with enhanced edge-blending • Wired remote control and RS-422 two way controller					
Optical system		• 3-chip DLP®					
Enhanced feature sets		• LiteLOC™ • Comprehensive Color adjustment (CCA™) • Optional Christie Twist™ image warping and edge-blending • Intelligent Lens Systems (ILS™) for zoom, focus, horizontal and vertical offset for all lenses					
Power requirements (dual lamp mode)	operating voltage	• 100-240 VAC 50/60 Hz		• 200-240 VAC 50/60 Hz		• 100-240 VAC 50/60 Hz	
	operating current	• 10.4A	• 12A	• 16A	• 20A	• 10A	• 10.4A
	dissipation	• 5460 BTU/hr	• 10,236 BTU/hr	• 13,648 BTU/hr	• 17,070 BTU/hr	• 3412 BTU/hr	• 5460 BTU/hr
Dimensions	body dimensions	• 22.3 x 26.0 x 12.3" (566 x 660 x 313 mm)		• 32.1 x 24.05 x 15.1" (815 x 631 x 384 mm)		• 22.3 x 26.0 x 12.3" (566 x 660 x 313 mm)	
	weight	• 75lb (34kg)	• 140lb (64kg)		• 160lb (73kg)	• 75lb (34kg)	
	shipping weight	• 120lb (54.4kg)	• 165lb (75kg)		• 230lb (104kg)	• 120lb (54.4kg)	
Operating environment		• Temperature 40-104°F (5-40°C) • Humidity: 20-80% non-condensing					
Regulatory approvals/markings		• Directives (EC) 2002/95/EC (RoHS); 2002/96/EC (WEEE); Regulation (EC) No. 1907/2006 (REACH) • CAN/CSA C22.2 No. 60950-1 • Certifications marks (check with Christie for latest update): cULus (Canada & US), CE (EU), CCC (China), GoST-R (Russia), KC/KCC (Korea),					
Limited warranty		• 3 years parts and labor (including light engine) • Contact an authorized Christie representative for full details of our limited warranty					

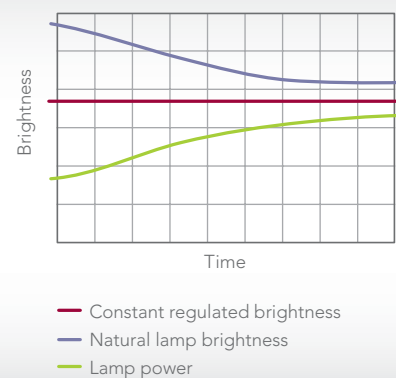
Performance specifications are typical and are subject to change.

¹ Some models still pending CCC approvals – contact your Christie sales representative.

Comprehensive Color Adjustment (CCA™)



Lamp Power Management (LPM™)



- ▲ The Christie Mirage Series offers unique features that provide the ultimate control and stunning image quality.

Mirage HD12	Mirage HD18	Mirage WU3	Mirage WU7	Mirage WU12	Mirage WU18
• 12,000 ANSI lumens	• 18,000 ANSI lumens	• 3000 ANSI lumens	• 6600 ANSI lumens @ 200-240 VAC 5600 ANSI lumens @ 100-120 VAC	• 12,000 ANSI lumens	• 18,000 ANSI lumens
• 3-chip DLP®, 0.96" DMD • WUXGA (1920 x 1200)					
• 2.0kW Xenon Bubble	• 3.0kW Xenon Bubble	• 500W Cermax® Xenon	• 1.0kW Cermax® Xenon	• 2.0kW Xenon Bubble	• 3.0kW Xenon Bubble
• 750 hrs	• 750 hrs	• 1500 hrs	• 1500 hrs	• 750 hrs	• 750 hrs
• Up to 60Hz with full 1920 x 1200 WUXGA resolution					
• Two RS-232 ports, one RS-422 port and one GPIO port • On-board ChristieNET™ • Built-in backlit keypad and IR remote • RGB 400 Active loop through • RGB 400 Buffered amplifier					
• 6.9-10.4:1 • 6.9-10.4:1 HD • 2.6-4.1:1 HD Zoom Lens • 4.1-6.9:1 HD Zoom Lens • Lens 7.5-11.2:1 SX+/6.9-10.4 HD					
• Ethernet, RS-232, RS-422 cables • Service manual • KoRE™ 10-bit librarian • Lens adapter (for competitive lens) • Remote IR sensor					
• Auto set-up • Digital keystone correction • Manual or dynamic iris • Menus in five languages • 99 channel memories					
• 200-240 VAC 50/60 Hz		• 100-240 VAC 50/60 Hz		• 200-240 VAC 50/60 Hz	
• 12A	• 20A	• 10A	• 10.4A	• 12A	• 20A
• 10,236 BTU/hr	• 16,390 BTU/hr	• 3412 BTU/hr	• 5460 BTU/hr	• 10,236 BTU/hr	• 16,390 BTU/hr
• 32.1 x 2405 x 15.1" (815 x 631 x 384 mm)		• 22.3 x 26.0 x 12.3" (566 x 660 x 313 mm)		• 32.1 x 2405 x 15.1" (815 x 631 x 384 mm)	
• 140lb (64kg)	• 160lb (73kg)	• 75lb (34kg)		• 140lb (64kg)	• 160lb (73kg)
• 165lb (75kg)	• 230lb (104kg)	• 120lb (54.4kg)		• 165lb (75kg)	• 230lb (104kg)
• UL 60950-1 • IEC 60950-1 • FCC, Part 15, Subpart B, Class A • EN55022/CISPR22 Class A • EN55024/CISPR24 PSE (Japan), C-Tick (Australia & New Zealand)					

- ▲ Christie DS+, HD and Roadster upgrade kits.

Build to order

Several of our models will be available on a build to order basis. For details, please contact your Christie sales representative.

For full product specifications, please visit our website: christiedigital.com



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ISO 9001



ISO 14001



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