The Christie Mirage Series offers the first purpose-built stereoscopic line of projectors that are the most installed 3D projectors in the world. The series ranges from 2800 to 17,500 ANSI lumens for active stereoscopic images from a single projector. Mirage SXGA+ models and the new HD versions are designed specifically for use in a variety of 3D applications for all types of immersive environments including cubes or CAVE systems and curved or flat screen powerwalls.

The S+, 3-chip, 3D projectors provide four brightness options making them the brightest active-stereo DLP® product on the market. The Christie Mirage HD Series sets a new benchmark in stereographic projection as the first and only full (1920 x 1080p) HD active stereo solution – utilized in a single projector or multi-projector array.

Taking advantage of the proven 10-bit processing that has been used in our 2K resolution products, the Christie Mirage HD projectors continue to exceed expectations in image quality and reproduction. High bandwidth supports the additional functionality of Picture-in-Picture with simultaneous multi-source stereo and/or mono viewing in foreground, background or both windows.

The Christie Mirage HD Series enables a new level of compatibility with computers and infrastructures. Due to unique Christie image processing, the Christie Mirage HD Series can project up to a full 120 Hz HD active stereo without requiring super bandwidth DVI or analog infrastructure. Solutions range from cost-efficient single projector systems up to high-end solutions, with high resolution, complex applications and multiple systems.
The Christie Mirage Series features the widest source compatibility and has built-in Ethernet networking for full compatibility with ChristieNET™.

Why choose Christie DLP® products?
- Superior image quality
- Exceptional brightness
- Natural life-like color
- Unrivalled reliability
- Utmost versatility

Display technology

Featuring high-quality DLP® technology, the Christie Mirage Series is highly reliable, delivers high brightness and unsurpassed color, brightness uniformity and control capabilities. As well, this proven digital technology is 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. 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+ series feature 220MHz bandwidth that supports a 3D refresh rate of 115Hz at SXGA+ and 120Hz at SXGA. Unique to the HD 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 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.

Serviceability

Operation and maintenance of the Christie Mirage Series is easy as well. Quick internal access with 1/4-turn screws, a quick-change ballast, a removable image processing module, field-alignable DMDs and a cleanable 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.

Standard accessories
- IR keypad (w/batteries)
- Line cord
- Stereo sync harness
- User manual

Optional accessories
- Fixed and zoom lenses available with throw ratios from 0.67:1 to 7.3:1
- 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
The Christie Mirage Series provides installation flexibility and compatibility with virtually any data, video and HDTV source in use today – from VGA to QXGA.

- 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

A suite of optional, specifically-designed lenses includes both fixed and zoom lenses ranging from 0.67:1 to 7.3:1 and features a durable lens mount with motorized horizontal and vertical offset. With quick lens insertion, the Christie Mirage Series is easy to work with.

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.

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.
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. This first of five phases includes an active stereo curved screen display for audiences up to 20, featuring Christie Mirage S+4Ks and Silicon Graphics, Inc. (SGI) visualization and computing ingenuity. 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.

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.
When Christie first announced their Mirage S+4K projector, VR specialists Virtalis became an early adopter, recommending it to the British Geological Survey. A Christie Mirage S+4K is rear projected with a 0.73:1 lens on a 3.1m x 2.3m screen as part of an integrated StereoWorks 3D visualization system at the British Geological Survey’s headquarters in Keyworth, Nottingham, UK.

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 internal hardware 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 an unlimited and arbitrary number of grid lines, 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. The dark interval is the time between left and right frames when the projector is showing black.

Stereo sync harness

Simplifying projector set-up for the end-user, the stereo sync harness can provide projector control of the phase of the output through the menu. This purpose-built function for active stereo projection supports emitters and enables left/right inversion.

Competitive advantages

• Higher resolution – SXGA+ 1400 x 1050 or full HD 1920 x 1080
• Twice the contrast (1600-2000:1)
• Internal scaling of stereo signals
• Internal warping and enhanced edge-blending module option with Christie Twist™
• Built in ChristieNET™ for networking and control
• First and only full HD 1920 x 1080 3D projectors
• Mirage S+ series supports up to 120Hz active stereo
• Through unique image processing, Mirage HD series projects up to 120 Hz active HD stereo without requiring ultra-high bandwidth
• Stereo video capable with optional HD-SDI input module on Mirage HD Series

Image warping and enhanced edge-blending
**Digital Color Management (DCM™)**

The Christie Matrix Series comes standard with a specially designed optical system with a very tight ± 5nm tolerance for primary colors, making multi-channel adjustments between multiple projectors easy to accomplish.

**Color Temperature Control (CTC™)**

Provides the flexibility to adjust color temperature with a range from 3200K – 9300K.

**Custom Gamma Adjustment (CGA™)**

Offers full control of gamma curves, as well as white, black and grey levels to ensure digitally accurate colors and greyscale tracking.

**Comprehensive Color Adjustment (CCA™)**

Provides individual RGB color matching for multi-channel applications to eliminate color variations across multiple screens for uniform, color-matched projector arrays.

**Super CR™ contrast ratio**

With the internal variable contrast aperture, contrast ratios range from 1500-5000:1 for vivid, dynamic image reproduction and low black levels for accurate night-scenery mode.

**Spatial Light Image Construction (SLIC™)**

The Christie Matrix Series manufacturing ensures high-quality convergence and registration between red, green and blue DMDs.

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### Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>SXGA+ (1400 x 1050) – 3-chip, 0.95&quot; DMD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mirage S+3K</td>
</tr>
<tr>
<td>Brightness</td>
<td>3000 ANSI</td>
</tr>
<tr>
<td>Weight</td>
<td>75lb (34kg)</td>
</tr>
<tr>
<td>Shipping weight</td>
<td>120lb (54.4kg)</td>
</tr>
<tr>
<td>Size (LxWxH)</td>
<td>22.3 x 26.0 x 12.3&quot; (566 x 660 x 313mm)</td>
</tr>
<tr>
<td>Lamp type</td>
<td>500W CERMAX Xenon</td>
</tr>
<tr>
<td>Lamp life</td>
<td>1500 hrs (typical)</td>
</tr>
<tr>
<td>Power VAC</td>
<td>100-240 VAC @ 50/60Hz</td>
</tr>
<tr>
<td>Power consumption</td>
<td>1000W max</td>
</tr>
<tr>
<td>Thermal dissipation</td>
<td>3412 BTU/hr</td>
</tr>
<tr>
<td>Operating current</td>
<td>10A @ 100 VAC, 5A @ 200 VAC</td>
</tr>
</tbody>
</table>

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

![Comprehensive Color Adjustment (CCA™)](image)

![Lamp Power Management (LPM™)](image)

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![Diagram](image)
<table>
<thead>
<tr>
<th>Mirage HD3</th>
<th>Mirage HD6</th>
<th>Mirage HD8</th>
<th>Mirage HD12</th>
<th>Mirage HD18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2900 ANSI</td>
<td>6000 ANSI @ 200-240 VAC</td>
<td>8000 ANSI</td>
<td>12,000 ANSI</td>
<td>17,500 ANSI</td>
</tr>
<tr>
<td>450:1 ANSI</td>
<td>450:1 ANSI</td>
<td>450:1 ANSI</td>
<td>450:1 ANSI</td>
<td>450:1 ANSI</td>
</tr>
<tr>
<td>75lb (34kg)</td>
<td>75lb (34kg)</td>
<td>80lb (36.3kg)</td>
<td>140lb (63.5kg)</td>
<td>160lb (72.6kg)</td>
</tr>
<tr>
<td>120lb (54.4kg)</td>
<td>120lb (54.4kg)</td>
<td>125lb (56.7kg)</td>
<td>165lb (74.8kg)</td>
<td>230lb (104.3kg)</td>
</tr>
<tr>
<td>22.3 x 26.0 x 12.3&quot; (566 x 660 x 313mm)</td>
<td>22.3 x 26.0 x 12.3&quot; (566 x 660 x 313mm)</td>
<td>32.1 x 24.9 x 15.1&quot; (815 x 631 x 384mm)</td>
<td>32.1 x 24.9 x 15.1&quot; (815 x 631 x 384mm)</td>
<td>32.1 x 24.9 x 15.1&quot; (815 x 631 x 384mm)</td>
</tr>
<tr>
<td>500W CERMAX Xenon</td>
<td>1.0kW CERMAX Xenon</td>
<td>2.0kW Xenon</td>
<td>3.0kW Xenon</td>
<td>3.0kW Xenon</td>
</tr>
<tr>
<td>1500 hrs (typical)</td>
<td>1500 hrs (typical)</td>
<td>750 hrs (typical)</td>
<td>750 hrs (typical)</td>
<td>750 hrs (typical)</td>
</tr>
<tr>
<td>100-240 VAC @ 50/60Hz</td>
<td>100-240 VAC @ 50/60Hz</td>
<td>200-240 VAC @ 50/60Hz</td>
<td>200-240 VAC @ 50/60Hz</td>
<td>200-240 VAC @ 50/60Hz</td>
</tr>
<tr>
<td>1000W max</td>
<td>1600W max</td>
<td>2000W max</td>
<td>3000W max</td>
<td>4800W max</td>
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<tr>
<td>3412 BTU/hr</td>
<td>5460 BTU/hr</td>
<td>6825 BTU/hr</td>
<td>10,236 BTU/hr</td>
<td>16,390 BTU/hr</td>
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<tr>
<td>10A @ 100 VAC</td>
<td>12A @ 100 VAC</td>
<td>10A @ 200 VAC</td>
<td>15A @ 200 VAC</td>
<td>24A @ 200 VAC</td>
</tr>
<tr>
<td>5A @ 200 VAC</td>
<td>8A @ 200 VAC</td>
<td>240VAC</td>
<td>240VAC</td>
<td>240VAC</td>
</tr>
<tr>
<td>Lamp Power Management (LPM™)</td>
<td></td>
<td></td>
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<tr>
<td>Provides users with the ability to adjust power to the lamps for a consistent and uniform brightness, to monitor and manage the lamp operation in the display. Brightness adjustments can be made from center to edge across the image up to 100% uniformity.</td>
<td></td>
<td></td>
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<tr>
<td>Lenses</td>
<td></td>
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<tr>
<td>Available on all projectors. Fixed and zoom ranging from 0.67:1 to 7.3:1.</td>
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</tbody>
</table>

**Regulatory approvals (applicable to all projectors)**

These products conform to the following regulations related to product safety, environmental requirements and electromagnetic compatibility (EMC):

- FCC Part 15, Subpart B Class A
- CISPR22/EN55022
- CISPR24/EN55024
- UL 60950-1 first edition
- CAN/CSA-C22.2 No 60950-1-03 first edition
- IEC60950-1:2001
- CCC*
- 2002/95/EC RoHS

* Christie Mirage HD18 pending.

Christie has designed and installed a custom, fully immersive Christie TotalVIEW™ CAVE at the renowned Discovery World in Milwaukee at Pier Wisconsin, that offers an “interactive glimpse into the future” to educate and entertain. Dubbed by Discovery World as Human Interactive Virtual Education (HIVE), the immersive 3D environment allows visitors a “near-real” experience of life around them by placing them in the middle of virtual, three-dimensional worlds that are breathtakingly lifelike, and provide for an interactive and educational “3D walk-through” of the museum’s latest and most innovative concepts.