

Lightning 45 1080p 3D

30,000 ANSI Lumens | Contrast Ratio: 2,000:1 | Part No:112-906



Colour System:	DMD Specification:
3-chip DLP®	1920 x 1080 pixels native. Fast transit pixels for smooth greyscale and improved contrast.
Display Type:	Aspect Ratio:
3 x 0.95" DarkChip™ DMD™	16x9
	Fill Factor
	87%

Key Features

Standard Inputs (1-8): Front End Video Capabilities

Video & Graphics Processing

- High bandwidth digital & analog receiver with 10 bit A-D.
- Automatic detection of interlaced video and implementation of 3:2 or 2:2 extraction as appropriate, with pixel based, motion adaptive interpolation and auto cadence correction.
- Displayed image frame locked to input with as low as 1 frame total latency.
- 24p and 1080p native display.
- Image enhancement for MPEG, Mosquito noise & color transients in composite sources.

Geometry Correction

- Cornerstone, Vertical & Horizontal Keystone, Pincushion & Barrel, and Image Rotation.
- Non-linear Warp adjustment by moving points on an interpolated grid.

Edge Blending

- Semi-automated multi projector tiling
- Correction for non-active pixels at the edge of the display.

Super Image Clarity

- Geometry correction and Edge Blending implemented in single stage process, retaining maximum image resolution.

Picture in Picture

- Two sources can be displayed either one within the other (PIP), or side by side, with original aspect ratios maintained.

ColorMax™

- Accurate matching of projectors in tiled or blended applications.
- User selection and storage of primary and secondary color targets.

High Bandwidth Inputs (9-11): Bypassing Front End for Minimal Latency

- Pixel mapped to the display.
- Dual Link DVI accepts frame rates up to 160Hz with latency as low as 1 frame.
- HDMI 1.4 for Side by Side, Frame Packing & Top Bottom formats.
- Dual Flash Processing can be used to multiply the displayed frame rate for 3D sources (example 144Hz display).
- FastFrame™ Smear Reduction.
- Dual Pipe processing: two sources in parallel for left and right eyes.
- Synchronisation of active glasses or polarising switcher.

Projector Controller Software

- Intuitive user interface for network control
- Simultaneous control of user-defined groups of projectors
- At-a-glance monitoring of projector status

Source Compatibility:

3GSDI is SMPTE 292M, SMPTE 259M-C and SMPTE 424M compliant.

HDMI and DVI include Deep Color™ processing up to 36 bit.

DVI inputs are HDMI compatible.

Digital Audio Extraction via SPDIF for HDMI sources.

Graphics standards up to 1920 x 1200 at 60Hz via DVI or VGA.

Component Video (SD and HD) via YPrPb, RGB or RGBS.

S-Video (PAL, NTSC & SECAM)

Composite Video (PAL, NTSC & SECAM)

High Bandwidth, Pixel Mapped Path:

Dual DVI accepts graphics standards up to 1920 x 1200 at 120Hz.

HDMI 1.4 including 3D Standards

Dual Pipe (2 x DVI)

Inputs/Outputs

Video & Computer			Communication & Control		
Type	Connector	Qty	Type	Connector	Qty
DVI-D / DVI-A	DVI-I	1	3D Sync Out	BNC	1
HDMI 1.3	HDMI	1	3D Sync In	BNC	1
3G-SDI	BNC	1	LAN	RJ45	1
VGA / Analog RGB	15-pin D-Sub	1	RS232	9-pin D Sub	1
Component Video	4 x BNC	1	Wired Remote In	3.5mm Stereo Jack	1
S-Video	4-pin Mini DIN	1	Wired Remote Out	3.5mm Stereo Jack	1
Composite Video	RCA	1	Update Port	RJ45	1
Composite Video	BNC	1	Service Port	USB Type B	1
High Bandwidth Ports					
Main - Dual Link DVI-D	DVI-I	1			
Sub - HDMI 1.4	DVI-I	1			
Audio					
SPDIF Digital Output	RCA	1			

3D Formats Supported

Frame Packing
Dual Pipe
Frame Sequential
Side By Side (half)
Top and Bottom

HDTV Formats Supported

1080p (23.98Hz, 24Hz, 25Hz, 29.97Hz, 30Hz, 50Hz, 59.94Hz, 60Hz), 1080i (50Hz, 59.94Hz, 60Hz), 1080sf (23.98Hz, 24Hz), 720p (50Hz, 59.94Hz, 60Hz)

Computer Compatibility

Up to 1920 x 1200

Bandwidth

170 MHz on analog RGB
165 Megapixels per second on HDMI and DVI
297 Megapixels per second on Dual Link DVI

Remote Control

Addressable IR remote control, wireless and wired with loop-through.
On-Board invertable keypad

Automation Control

RS232
LAN

Colour Temperature

User selectable from 3200 to 9000K

Lamp Type

Proprietary 3.6kW xenon arc, bubble. Hypercooled lamp module with directional flow reflector mask and radial heat exchanger. Digital hour meter

Typical Lamp Life

500 hours

Lenses

Lens	Part No.	Focus Range	Lens Shift
0.67:1 fixed HB	105-607	1.1m - 10m	Vert: 0.176 (U) 0.176 (D) frame, Hor: 0.063 (L) 0.063 (R) frame
1.12:1 fixed HB	105-608	3m - 15m	Vert: 0.685 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
1.12:1 (short) fixed HB	105-609	1.2m - 2m	Vert: 0.685 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
1.16 - 1.49:1 zoom HB	109-236	3m - 15m	Vert: 0.509 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
1.39 - 1.87:1 zoom HB	105-610	4m - 24m	Vert: 0.685 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
1.87 - 2.56:1 zoom HB	105-611	4m - 24m	Vert: 0.685 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
2.56 - 4.16:1 zoom HB	105-612	9.1m - 45m	Vert: 0.685 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
4.16 - 6.96:1 zoom HB	105-613	12m - 80m	Vert: 0.685 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
6.92 - 10.36:1 zoom HB	109-235	12m - 80m	Vert: 0.685 (U) 0.5 (D) frame, Hor: 0.188 (L) 0.188 (R) frame
1.50 - 2.17:1 zoom HB	114-143	5m - 25m	Vert: 0.319 (U) 0.319 (D) frame, Hor: 0.119 (L) 0.119 (R) frame
1.72 - 2.71:1 zoom HB	114-144	5m - 25m	Vert: 0.319 (U) 0.319 (D) frame, Hor: 0.119 (L) 0.119 (R) frame
2.15 - 3.36:1 zoom HB	114-145	5m - 25m	Vert: 0.319 (U) 0.319 (D) frame, Hor: 0.119 (L) 0.119 (R) frame

Lens Mount

Motorised and programmable shift, zoom and focus. Intelligent Lens Memory with 5 user-definable preset positions.

Mechanical Mounting

Front/Rear Table
Front/Rear Ceiling
Adjustable Front/Rear Feet
Rugged, staging tolerant chassis with integrated handles.
Includes RapidRig™ frame with integrated pitch, roll and yaw adjustments.

Orientation

Table Top or Inverted: Yes
Pointing Up: Yes
Pointing Down: Yes
Roll (Portrait): +/-10° from horizontal

Power Requirements

200-240 VAC, 50/60Hz single phase

Power Consumption

4600W

Thermal Dissipation

15696 BTU/Hour

Fan Noise

Less than 59dBa

Operating/Storage Temperature

Operating: 0 to 35C (32 to 95F)
Storage: -10 to 50C (14 to 122F)

Operating Humidity

20 to 80% non-condensing

Weight (Chassis Only)

113 kg
249.1 lb

Dimensions

L: 111.6 cm W: 73.6 cm H: 54.5 cm
L: 43.9 in W: 29.0 in H: 21.5 in

Safety & EMC Regulations

CE, FCC Class A, CCC

*Dimensions included for reference only and are subject to change. Please download the full set of CAD files for this

display for more accurate information.

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<http://www.digitalprojection.co.uk/digital-products/images/lightning45-cad.jpg>

Downloads

[PDF CAD Drawings](#)

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