

HD91



LED Home Cinema Projector





## LED Home Cinema projector

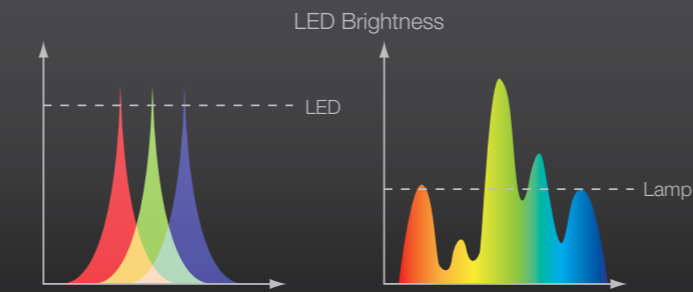
### Superior Performance

Created for discerning viewers the HD91 sets a new standard for colour performance with consistent, breath-taking, perfectly balanced colours from the first time, every time and for years to come. Whether you just fancy a relaxed movie night or immersing yourself in adrenaline-pumping 3D, the HD91 is the perfect choice for recreating the big-screen experience.

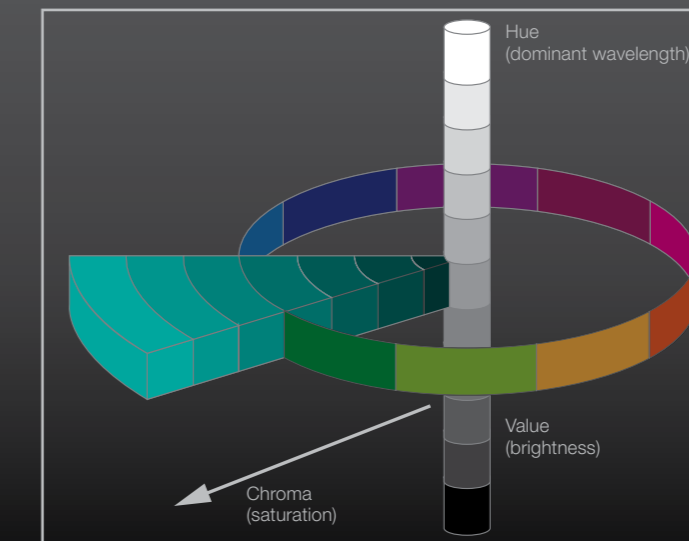
### Optoma LED technology

Powered by 3 x LEDs, the HD91 delivers enhanced image quality with a wide colour gamut, superior colour saturation and outstanding brightness using separate Red, Blue and Green LEDs to produce intense yet accurate colours. Advanced switching of these LEDs provides increased image stability that rivals the performance of 3 chip DLP projectors.

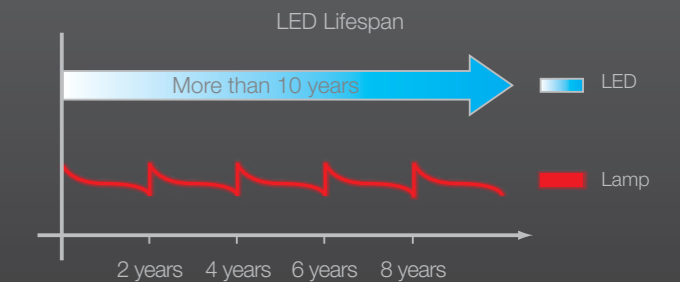
Performance is nothing without consistency. Unlike traditional lamp technology the LED illumination in the HD91 provides consistent brightness and colour performance, so maintaining its out-of-the-box image quality throughout its lifetime and saving you from costly calibrations.



The benefits don't stop there. In many situations the perceived brightness of the HD91 LED projector can be up to twice the brightness of an equivalent lamp-based projector. Utilising this phenomenon, known as the Helmholtz-Kohlrausch (HK) effect, the HD91 produces vividly intense colours. This enhanced brightness perception enables the HD91 to comfortably render screen sizes far higher than its ANSI brightness specifications would suggest. This allows the HD91 to handle low levels of ambient light with less impact on image quality than lamp based systems.



Finally, the lamp-less LED illumination engine that powers the HD91 does not require the inconvenience and cost of frequent lamp changes to maintain its optimal performance. It also doesn't need lengthy warm-up and cool down cycles before and after every viewing due to its almost instant start up and shut down times.

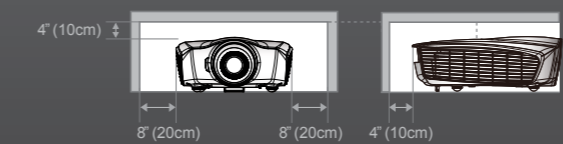




## Easy Installation

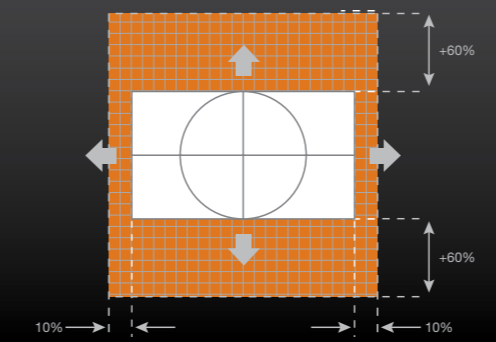
### Flexible Placement

The efficiency of the LED powered HD91 produces less heat so less cooling is required, resulting in near silent operation. Therefore, the HD91 can be installed closer to walls or ceilings or even built into a small enclosure offering previously unexplored installation options. The light weight 7kg and compact size of the HD91 simplifies any installation.



### Lens shift

The combination of Lens Shift and a wide 1.9x zoom range enables a wider range of projector placement possibilities. This remarkable combination makes it easier to position the projector in your viewing room and allows a wider range of screen size options.



## Next Generation



### PureMotion

The HD91 Incorporates the next generation of our frame-interpolation processing - PureMotion4. In its lowest setting, PureMotion4 retains the "dream like" quality of film while maximising the detail of every frame – whereas the highest setting virtually eliminates motion Blur; perfect for fast-paced sports, where absolute fluidity is essential. Whether you are watching in 2D or 3D, Puremotion4 gives you silky smooth performance.



With



Without



With



Without



With



Without

### UltraDetail

UltraDetail uses sophisticated motion adaptive edge enhancement algorithms to ensure that all the information contained in an image is faithfully reproduced on the screen giving a stunning crystal clear, pin sharp picture.

### PureColor

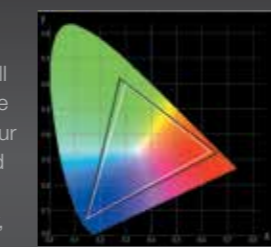
PureColor provides vivid, perfectly balanced colour with impeccable colour uniformity for vibrant natural looking images. Deep Color makes it possible for the HD91 to reproduce billions of colours ensuring smooth tonal transitions and subtle graduations between hues.



## Additional Features

### CMS+

Get perfectly calibrated picture quality most fitting to the physical setting of your room. The HD91 comes equipped with a full colour management system, giving you the flexibility to choose between 5 preset colour gamuts (Native, Adobe, DLP-C, HDTV and SMPTE-C), 6 colour temperatures (D50, D65, D83, D93 and Native) or alternatively, fine tune intensity and x/y co-ordinates of primary and secondary colours for ultimate calibration precision.



### HDMI Link

Control HDMI CEC compatible devices. HDMI Link allows you to turn on/off the HD91 and multiple source device with one remote.

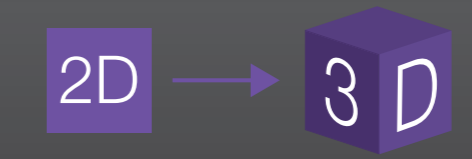


### 24p

Most movies are shot at 24 frames per second. To preserve the purity of the original image the HD91 can accept High Definition sources at 24 frames per second and so to display movies exactly as the director intended.

### 2D-3D conversion

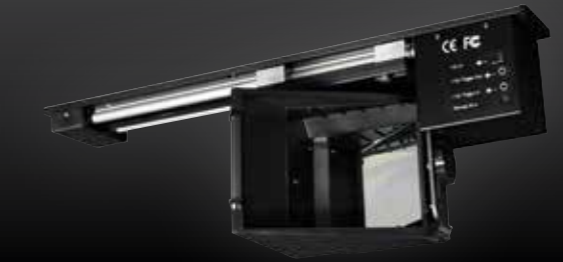
See more in 3D with the built in 2D to 3D converter. You can now enjoy the big game, your favourite TV shows, and movies in stunning 3D to ensure you get the most out of your experience. Dedicated 2D to 3D technology converts 2D movies and shows into 3D, making even familiar content more thrillingly immersive than ever before.



### Anamorphic Lens

The HD91 allows you to connect an anamorphic lens so you can enjoy cinemscope 2.35:1 movies using the full 1080p resolution of your projector. Using this fully automated solution allows you to view both 16:9 and superwide content without seeing black bars at the top and bottom of your screen.

[www.panamorph.com](http://www.panamorph.com)



### 3D Glasses

For that seamless 3D experience, use our ultra-high performance ZF2100 wireless 3D glasses. Developed in parallel with our "Full 3D" projectors, the ZF2100 system & glasses are optimised to provide you with higher contrast & brighter images than ever before, while eliminating tedious issues with emitter placement, limited range and potential interference commonly experienced when using Infra-red.

Fully rechargeable, our ZF2100 glasses give you the peace of mind that comes with knowing both installing and using them will be hassle free.



# DLP® Technology – The greatest 3D home cinema experience!



### Full 3D

Create the most vivid & compelling 3D experience available anywhere. Unlike competing technologies, DLP from Texas instruments uses millions of tiny mirrors to maximise the available light output and high contrast while the inherit speed completely eliminates crosstalk.



### Why use a projector for 3D?

It is a widely accepted fact that the bigger the image, the greater the 3D effect - for the best results it is essential to fill your field of vision, without having to be too close to the screen. Even a huge 50" TV can only create a window on the 3D world, whereas the immersion & excitement created by a massive 150" projection screen makes you feel like you are part of the action!



### 3D Movies:

Now that all the latest 3D movies have arrived on Blu-ray 3D™ you can enjoy the same jaw-dropping 3D cinema experience at home, now in fantastic 1080p Full High definition.

### 3D Sports:

Couldn't get tickets for the big match? - The HD91 brings the big picture home like never before. With more matches broadcast in 3D every season, you'll never miss the great moments in sporting history and you can re-live them time after time as though you were actually there.



### 3D Gaming:

Set your sights on the HD91 for the greatest 3D gaming experience. With an impeccable response time you can line-up the perfect shot while sniper-rounds whizz past you; watch burning ships zoom off into the distance; dodge axe-wielding zombies lurching out of the screen – the possibilities are endless.

Combine this with active-motion gaming for the closest thing to your very own virtual reality suite.



# HD91

## HD91 Specifications Highlights

Resolution	Full HD Native 1080p (1920 x1080)
Brightness <sup>1</sup>	1000 ANSI Lumens
Dynamic Contrast	500,000:1
Audible Noise	23dB
Throw Ratio	1.5 - 2.89:1
Zoom	1.9x
Projection Distance	1.5 – 10m
Image Size	0.76 - 7.67m (30" - 300") Diagonal 16:9
Lens Shift	Vertical: +/- 60%, Horizontal: +/-10%
Keystone	±30° Vertical
Lamp Life <sup>2</sup>	20,000 Hours
Connections	Inputs
	Output
	Control
2D Compatibility	NTSC M/J, 3.58MHz, 4.43MHz PAL B/D/G/H/I/M/N, 4.43MHz SECAM B/D/G/K/K1/L, 4.25/4.4MHz 480i/p, 576i/p, 720p(50/60Hz), 1080i(50/60Hz), 1080p(50/60Hz)
3D Compatibility	Side-by-Side:1080i50 / 60, 720p50 / 60 Frame-pack: 1080p24, 720p50 / 60 Over-Under: 1080p24, 720p50 / 60
3D Viewing	Requires ZF2100 system & glasses
Dimensions	345 x 443 x 161.5mm
Weight	7kg
Warranty	Warranty may vary by country. Please see or ask your local supplier for details
Part Number	95.8SF01GC0E
EAN Number	5060059048571
In the box	Lens Cover, AC Power Cord, Back-lit IR Remote Control with Batteries, Quick Start Card, Warranty Card



## HD91 Connections

- 1 HDMI 1 (1.4a 3D)
- 2 HDMI 2 (1.4a 3D)
- 3 VGA
- 4 Component
- 5 Video
- 6 USB Service
- 7 RS232
- 8 +12V Trigger
- 9 +12V Trigger
- 10 3D Sync
- 11 USB Power
- 12 Power
- 13 Kensington™ Lock

Diagonal Image Size (Inch)	Image width (m)	Image Height (m)	Distance	
			Min (m)	Max (m)
70	1.55	0.87	2.32	4.48
80	1.77	1.00	2.66	5.12
90	1.99	1.12	2.99	5.76
100	2.21	1.25	3.32	6.40
120	2.66	1.49	3.98	7.68
150	3.32	1.87	4.98	9.60

## Optoma Accessories

### Projector Mounts

OCM818W  
OCM818B  
OCM815B  
OCM815W



Universal ceiling mount with/without extension pole (adjustable height 290mm-810mm/140 mm) available in black and white.

### Screens



Optoma screens use the highest grade of screen fabrics to reflect the truest, most vivid and dynamic images. Please visit [www.optoma.eu](http://www.optoma.eu)



We know that improving our products is the best way to reduce our impact on the environment. That's why at Optoma, we design our products to have a long usable life, use fewer materials, ship with the minimum packaging and be free of all possible toxic substances. Naturally, energy efficiency and being recyclable are built in at the design stage. With each new product, we strive towards minimising our environmental impact. For full details of Optoma Project Green please visit our website.

For full specifications please visit the website at: [www.optoma.eu](http://www.optoma.eu)



Optoma Europe Limited 42 Caxton Way, Watford Business Park, Watford, Hertfordshire. WD18 8QZ  
Tel: +44 (0) 1923 691800 Fax: +44 (0) 1923 691888  
[www.optoma.eu](http://www.optoma.eu)

**HDMI™**  
HIGH DEFINITION MULTIMEDIA INTERFACE  
V1.3 with DeepColor



<sup>1</sup>Brightness will vary depending on selected projector mode, environmental conditions and usage. <sup>2</sup>Lamp lifetime will vary depending on selected projector mode, environmental conditions and usage. For more information please visit our website. DLP®, and the DLP logo are registered trademarks of Texas Instruments. All other product names and company names used herein are for identifications purposes only and may be trademarks or registered trademarks of their respective owners. All images of products are for representation purposes only. Whilst every care is taken to provide accurate images of our products, actual products may differ slightly. Some product images may have been digitally altered by us to add an Optoma logo to the front panel. Optoma reserves the right to amend or alter actual product or product images without notice. Some images may have been simulated. Errors and omissions excepted, all specifications are subject to change without notice. Copyright © 2013, Optoma Europe Ltd.