Full HD
1080P



HD80

THEME SCENE



Studio grade image quality

Transforming your living space with images comparable to film screening rooms, the ThemeScene® HD80 is a stylish home cinema projector with state-of-the-art projection technology. Full HD 1080p capabilities propel it into the high-end of innovative image quality, ensuring maximum entertainment.

Full HD 1080p technology

The ThemeScene® HD80 home cinema projector delivers the kind of picture quality associated with the best digital cinema performance around the world. With a digital HDMI or DVI signal you can create a true digital projection system that produces a spectacular High Definition cinematic experience in your own home. Thanks to a masterly collaboration of Full HD 1080p, DLP® technology from Texas Instrument and ThemeScene® colour and optical technology, the HD80 produces a stunning 10,000:1 contrast ratio for unrivalled light and shade detail. An exceptional quality seven-segment, six-speed colour wheel provides deep, balanced colour. This unprecedented combination ensures natural, real looking images with crystal clarity. The ThemeScene® HD80 gives more than twice as much detail as a 720p projector.

Pure colour, unprecedented detail

Commanding over two million individual pixels, luminance and vibrant colours blend fluidly with the ThemeScene® HD80. At the heart of the projector is the latest 1080p DLP® technology. A pure 10-bit signal path and processing architecture combine with an advanced colour wheel featuring NDG (Neutral Density Green) technology. NDG increases the visual colour resolution, creating a higher quality image that dramatically reduces low-level dithering artefacts. The result is pure images with unprecedented detail, visuals that draw you into the screen.

Professional cinema standard brightness

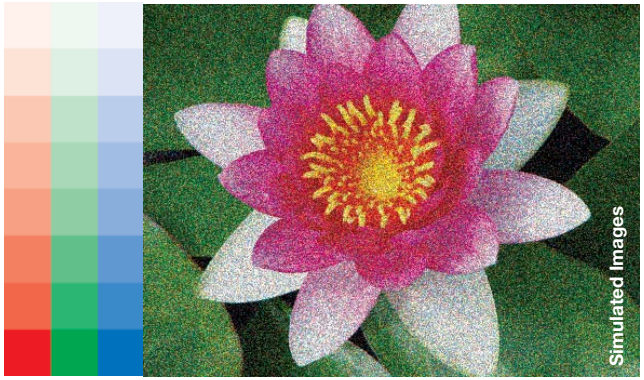
1300 video-optimised lumens surrender stunningly brilliant, professional cinema-standard brightness on a screen of up to 3.5m wide (108” diagonal)*.

Instant viewing

Advanced image optimisation, extensive connectivity and powerful under-the-hood processing combine with a simple intuitive menu system to ensure that obtaining the best possible image quality is simple.

* Calculated with the Society of Motion Picture and Television Engineers recommendations of a minimum image brightness of 16 Foot Lamberts. Data used: 1300 Lumens flat white field, 16:9 screen with a gain of 1.0

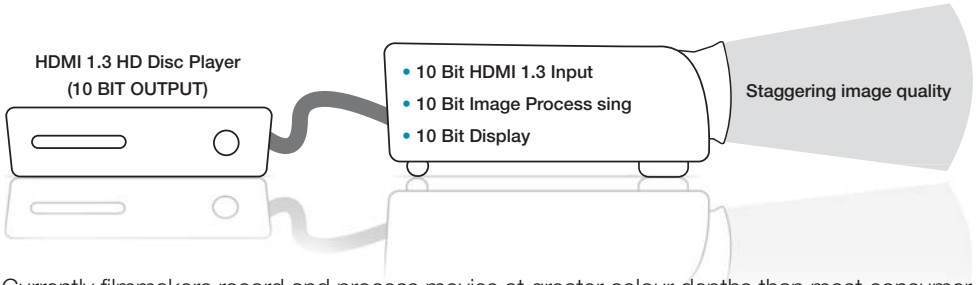
OLD 8 BIT PROCESSING



HD80 PURE 10 BIT PROCESSING



TRUE 10 BIT DIGITAL PROJECTION



Currently filmmakers record and process movies at greater colour depths than most consumer Home Cinema equipment can reproduce. Movie studios have had to reduce the colour depth of their films for home distribution so they are compatible with Home Cinema equipment. The pure 10 bit digital signal path of the HD80 paves the way for movie and gaming content to be displayed in a virtually lossless form producing a level of visual acuity and realism never seen before in the home

Deep Color™ HDMI 1.3

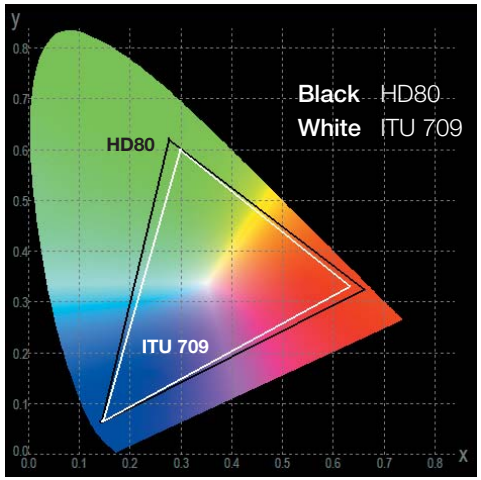
The latest 10 bit HDMI technology adds high definition colour to high definition images producing stunningly natural, vibrant colour.

- HDMI 1.3 supports 30-bit, (10 bits per channel RGB or YCbCr) colour depths, up from the old 24-bit depths in previous HDMI inputs - displays billions instead of millions of colours
- Eliminates on-screen colour banding, for smooth tonal transitions and subtle gradations between colours
- Increased contrast ratio – offering improved light and shade detail
- Enables better greyscale performance

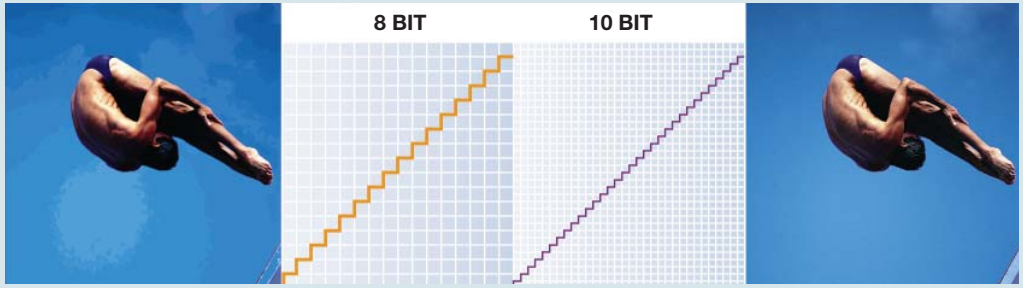
CIE colour gamut chart

Advanced ThemeScene® colour wheel technologies enable the HD80 to reproduce a colour gamut that exceeds the standard ITU 709 colour specifications. The result is brilliant, natural lifelike colours.

HD80 Color Performance



RICH COLOUR PROCESSING TECHNOLOGY



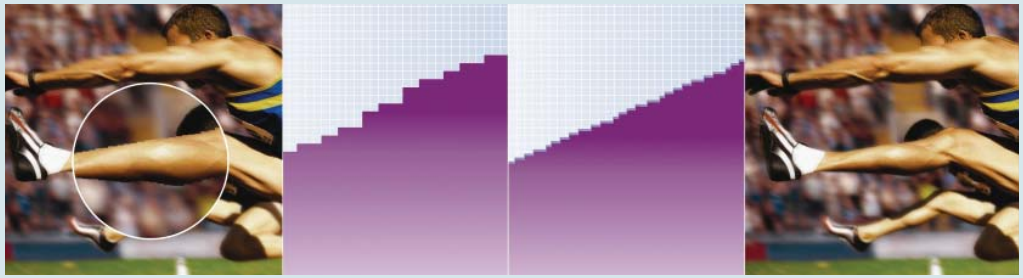
8 bit colour processing can result in un-natural looking images

10 bit DNX Rich Colour Processing technology increases the number of colours that can be displayed from 16 million to over 1 billion by offering 4 times the colour information for each pixel

For natural, rich looking colours

dnx pixelworks™

LAI TECHNOLOGY



Straight edges at low angles emphasise the pixel matrix and produce "jaggies"

Low angle edges are inherent in all pixelated displays. Primitive algorithms simply" paint" images by crudly placing pixels

DNX LAI technology looks at multiple video lines before applying a mix of anti-aliasing algorithms to optimise angles

DEINTERLACING



Traditional interlaced video sends the odd\ even fields separately for higher resolution with lower bandwidth

Still images and moving images need to be processed differently to avoid combing effect

DNX technology looks ahead several frames, projects the movement of objects, then applies different algorithms to still and moving objects

Technical Specifications

Highlights

Full HD Ready	Native 1080P, HDMI & DVI inputs
Display Technology	DLP®
Contrast	10,000:1
Audible Noise	27dB Standard mode, 29dB Bright mode
Brightness	1300 Video Optimised Lumens

Connections

Signal Type	Options	Input Connector
HDMI	3	2 x HDMI (V1.3 Deepcolor) 1x DVI-I with optional adaptor
Component (I\P)	2	1xRCA, 1xDVI-I with optional adaptor
SCART RGB	1	DVI-I via supplied adaptor
S-Video (Y/C)	1	3 Pin Mini DIN
Composite Video (CVBS)	1	RCA
DVI-D Computer	1	DVI-I
RGB Computer	1	DVI-I
RS-232	1	9 Pin D-Sub connector
Screen trigger	1	
Video Compatibility	PAL, SECAM (576i/p), NTSC (480i/p), HDTV (1080p, 1080i, 720p)	

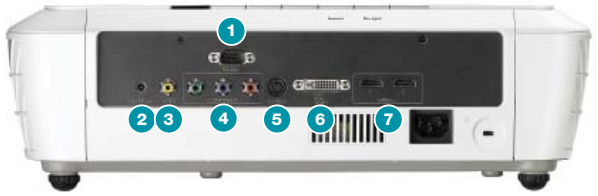
Display

Aspect Ratio	Widescreen 16:9 with support for and 4:3
Colour Wheel	6 x speed, 7 Segment ($RGBG_{ND}RGB$)
ANSI Contrast Ratio	518:1
Throw Ratio	1.85-2.22 (Projection Distance/Image Width) 1.2x Manual zoom
Projection Distance	1.5m – 12.5m
Image Size 16:9 Diagonal	0.76 - 7.62m (30.5-300")
Keystone Correction	Vertical
Projection Types	Front, Ceiling, Rear, Rear ceiling
Lamp Type	300 watt
Lamp Life	Standard mode 3000 hours*

General

Dimensions	411x311x116 (WxDxH)
Weight	4.5kg
Power Consumption	395W W Max, <14W standby
Operating Temperature	5-35°C Max, 80% Humidity
Warranty	Warranty may vary by country. Please see www.optoma.eu or ask your local supplier for details
Lamp Warranty	6 months or 1000 hours whichever is the sooner
Menu Languages	English, German, French, Italian, Spanish, Portuguese, Swedish, Dutch, Norwegian and Danish combined, Polish, Russian, Finnish, Greek
Supplied accessories	AC power cord, Component video cable, RS232 cable, SCART adapter, VGA to DVI adaptor for SCART input, VGA cable for SCART input, Remote control, Batteries for remote, Lens cap, User's guide
Optional accessories	Ceiling Mount Kit, HDMI to DVI adaptor
EAN Number	5060059041923

*Typical lamp life achieved through testing. Will vary according to operational use and environmental conditions





HD80 Projector I/O Ports

1. RS232 control
2. 12 volt screen trigger output
3. Composite video Input
4. Component video Input
5. S-video Input
6. DVI-I Input for: SCART RGB DVI-D VGA Component
7. 2 x HDMI (V1.3) Inputs

HD80 Remote Control

8. Brightness
9. Contrast
10. Image AI
11. Image gamma preset selection
12. IRIS Control
13. Bright Mode
14. Image Shift
15. Preset image modes selection
16. Overscan Control
17. Edge Masking Tool
18. Display aspect ratio selection
19. Input selection

HD80 Image size – throw distance

Projection Distance (m)	Horizontal Image Size (m)	Max. Diagonal Image Size (m)	Max. Diagonal Image Size (Inch)	Max. Image Offset (m)
2.00	0.90 - 1.08	1.24	49	0.22
3.00	1.35 - 1.62	1.86	73	0.33
4.00	1.80 - 2.16	2.48	98	0.44
5.00	2.25 - 2.70	3.10	122	0.55
6.00	2.70 - 3.24	3.72	146	0.66
7.00	3.15 - 3.78	4.34	171	0.77
8.00	3.60 - 4.32	4.96	195	0.87

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