4K UHD Home Theater Projector
UHD50

Bring the cinematic 4K UHD experience home with the Optoma UHD50

4K UHD and bright 2,400 lumens with RGBRGB color wheel

HDR technology with HDR10 and DCI-P3 wide color gamut support for brighter whites, deeper black-levels and vivid color

Dynamic Black delivers 500,000:1 contrast ratio for exceptional black levels

HDMI 2.0 and HDCP 2.2 technologies ensure compatibility with 4K UHD video sources for amazing details, clarity and vibrant colors

4K UHD HDR gaming ready with the latest consoles and gaming PCs

Vertical lens-shift and 1.3x zoom for easy and flexible installation

Transform your living room into a high-quality home cinema with the affordable Optoma UHD50 4K UHD home theater projector. Its high 4K UHD resolution, 2,400 lumens of brightness, wide color gamut support and up to 500,000:1 contrast ratio combined with HDR compatibility delivers amazing detail, clarity and vibrant colors that bring your favorite Hollywood blockbusters and games to life.

The latest Texas Instruments 4K UHD DLP chipset with high-performance DMD and XPR video processing technology forms the heart of the Optoma UHD50 and meets the CTA’s definition of 4K Ultra HD. This innovative fast-switching technology displays 8.3-million simultaneous distinct pixels at screen sizes up to 140-inches for immersive home cinematic experiences.

A pair of HDMI 2.0 inputs with HDCP 2.2 support ensures the Optoma UHD50 works with the latest 4K UHD video playback devices and game consoles with HDR at 60 Hz refresh rates for unmatched eye-candy and smoothness. A 1.3x optical zoom and 15% vertical lens shift provide installation flexibility.
4K UHD HOME THEATER PROJECTOR - UHD50

OPTICAL/TECHNICAL SPECIFICATIONS

Display Technology  Single 0.47" 4K UHD DMD DLP® Technology by Texas Instruments™

Color Wheel  RGBRGB 6 Segment color wheel

Native Resolution  4K UHD 3840x2160 @ 60Hz with XPR Technology

Maximum Resolution  4K 4096x2160 @ 60Hz

Brightness  2,400 ANSI lumens

Contrast Ratio  Up to 500,000:1 with Dynamic Black

Color Gamut Support  REC.709 color gamut provides rich accurate color based on the HDTV broadcast specification and used with all non-HDR content. DCI-P3 wide color gamut is the equivalent to color in the CIE 1931 color space, resulting in vivid colors

HDR (High Dynamic Range)  HDR10 compatible (REC.2020)

Picture Modes: Normal, Bright, Detail, Film

HDR SIM (simulate HDR effect with non-HDR content)

4K UHD Upscale  Upscales WXGA, 720p, 1080p, WXGA, 1440p resolutions and frame rates up to 4K UHD (3840x2160), 60 Hz

Video Processing  UltraDetail Technology enhances image quality by improving image depth and clarity

Lamp Life and Type*  4000/10,000/15,000 (Bright/ECO/Dynamic)

Projection Method  Front, rear, ceiling mount, table top

Vertical Lens Shift  15% offset (with tolerance +/- 5%)

Uniformity  80%

Offset  100%

Aspect Ratio  16:9 (native), 4:3 and LBX compatible

Throw Ratio  1.21 - 1.59 (with tolerance +/- 5%)

Projection Distance  2.9’ - 34.89’

Image Size  34.1” - 302.4 (34.1” to 140” optimal image size)

Contrast Ratio  Up to 500,000:1 with Dynamic Black

Brightness  2,400 ANSI lumens

Power On

User 1, 2, 3

Brightness

Mute

DB

Source

Menu

HDMI 1, HDMI 2

VGA1

VGA2

YPbPr

Video

Power On

User 1, 2, 3

Contrast

Mode

Aspect Ratio

3D

Sleep Timer

Volume +

Re-sync

Enter

Volume -

11. Kensington™ Lock

Power Off

Remote Control

Full function home remote control

Operating Temperature  41~104°F (5~40°C), 85% max humidity

Power Supply  AC input 100–240V, 50–60Hz, auto-switching

Power Consumption  413W typical (Bright mode), 385W max (Bright mode), 317W typical (Bright/ECO/Dynamic), 348W max (Bright mode), 259W (Bright mode), 285W max (Eco+ mode)

High Altitude  Operating temp @ sea level to 10000 feet = 23C (max); must manually switch to high altitude mode @ 5000 feet & above (using OSD)

HIGH DOWN

HORIZONTAL

OFFSET

3000

15%

5%

4000

5000

6000

7000

8000

9000

10000

11.75lbs.

Weight

Dimensions (W x H x D)  15.4” x 11.1” x 5.1”

Security  Kensington® lock port, password (OSD)

What's in the Box  UHD50, lens cap, AC power cord, HDMI cable, remote control, batteries for remote, multilingual CD-ROM, user’s manual, quick start guide and warranty card

Optional Accessories

Mount

Accessory Part Numbers

Mount: BM-5001U, OCM815W, OCM818W-RU

Remote: BR-3003B

Lamp: BL-FP240E

1-year limited warranty, 90-days on lamp

Warranty

11

9

7

5

3

1

2

6

8

10

12

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COMPATIBILITY SPECIFICATIONS

Computer Compatibility  4K UHD 2160p, WUXGA, HDTV 1080p, UXGA, SXGA, WXGA+, WXGA (1366x768), WXGA, HDTV (720p), XGA, SVGA, VGA, PC and Mac compatible

Video Compatibility  4K UHD 2160p (24/50/60Hz), 1080p (24/50/60Hz), 1080i (50/60Hz), 720p (50/60Hz), 480i/p, 576i/p

HDR Source Compatibility  Ultra HD Blu-Ray player, 4K UHD streaming media device (Roku 4K Ultra, Xbox One S / One X Ultra HD Blu-ray, 4K media streaming & HDR gaming) and PS4 Pro (4K UHD media streaming and 4K UHD gaming only)

Vertical Scan Rate  24Hz to 120Hz

Horizontal Scan Rate  31,000 to 135,000kHz

User Controls  Yes

I/O Connection Ports  2xHDMI 2.0 (w/ HDCP 2.2, MHL 2.1), VGA-in, audio-in (3.5mm), audio-out, S/PDIF out (optical), USB 2.0 (service port), USB power, RJ-45, RS-232C, 12V Trigger

Loop Through (Audio)  Audio passthrough from HDMI to 3.5mm audio out and optical 5V S/PDIF out (2 channels)

PHYSICAL SPECIFICATIONS

Security  Kensington® lock port, password (OSD)

Weight  11.75lbs.

Dimensions (W x H x D)  15.4” x 11.1” x 5.1”

*Light source life is dependent upon many factors, including brightness mode, display mode, usage, environmental conditions and more. Light source brightness can decrease over time.

**3D content can be viewed with DLP Link active shutter 3D glasses when projector is used with a compatible 3D player. Please visit www.OptomaUSA.com for more information.

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