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)

HDR Upscale
Upscales WXGA, 720p, 1080p, 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%)

Keystone
±40°

Uniformity
80%

Offset
100%

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

Throw Ratio
1.21 - 1.69 (with tolerance ±5%)

Projection Distance
2.9" - 34.99"

Image Size
3400x2160 60Hz (YUV 4:4:4) (8bit, 10bit, 12bit), YUV 4:2:2 (8bit, 10bit, 12bit), YUV 4:2:0 (8bit, 10bit, 12bit)

3840x2160 60Hz (YUV 4:4:4) (8bit, 10bit, 12bit), YUV 4:2:2 (8bit, 10bit, 12bit)

Color Depth
3840x2160 @60Hz YUV 4:4:4 (8bit, 10bit, 12bit), YUV 4:2:2 (8bit, 10bit, 12bit), YUV 4:2:0 (8bit, 10bit, 12bit)

10bit, 12bit), YUV 4:2:0 (8bit, 10bit, 12bit)

Maximum Resolution
4K UHD 2160p, WUXGA, HDTV 1080p, UXGA, SXGA, WXGA+

Brightness
2,400 ANSI lumens

Contrast Ratio
285W max (Eco+ mode), 259W typical (Bright mode), 317W typical (Bright mode), 348W max (Bright mode)

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

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

Offset
100%

Input Connectors
S/ PDIF out (2 channels)

Audio passthrough from HDMI to 3.5mm audio out and optical passthrough (3.5mm), audio-out, S/PDIF out (optical), USB 2.0 (service port), USB 3.0 (service port), HDMI 2.0 (w/ HDCP 2.2, MHL 2.1), HDMI 1.4a, VGA-in, audio-in, KXGA, WUXGA, WXGA+

Power Consumption
317W typical (Bright mode), 285W max (Bright mode), 259W typical (Eco+ mode)

High Altitude
Operate @ altitude mode when projector is used with manual switch to high altitude mode @ 5000 feet & above

Color Wheel
RGBRGB 6 Segment color wheel

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

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

Picture Modes: Normal, Bright, Detail, Film HDR (High Dynamic Range)

HDR10 compatible (REC.2020)

Picture Modes: Normal, Bright, Detail, Film HDR (High Dynamic Range)

HDR10 compatible (REC.2020)

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

Warranty
1 Year limited parts and labor warranty on the projector, 90 days lamp warranty

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: OCM815W, OCM818W-RU

Remote: BR-3003B

Lamp: BL-FP240E

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

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10bit, 12bit), YUV 4:2:0 (8bit, 10bit, 12bit)

Maximum Resolution
4K UHD 2160p, WUXGA, HDTV 1080p, UXGA, SXGA, WXGA+, WXGA (768x768), WXGA, HDTV (720p), XGA, SVGA, VGA, PC and Mac compatible

Brightness
2,400 ANSI lumens

Contrast Ratio
285W max (Eco+ mode), 259W typical (Bright mode), 317W typical (Bright mode), 348W max (Bright mode)

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

Power Consumption
317W typical (Bright mode), 285W max (Bright mode), 259W typical (Eco+ mode)

High Altitude
Operate @ altitude mode when projector is used with manual switch to high altitude mode @ 5000 feet & above (using OSD).

COMPATIBILITY SPECIFICATIONS

Computer Compatibility
4K UHD 2160p, UXGA, HDTV 1080p, UGXGA, 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), 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 PSA Pro (4K UHD media streaming and 4K UHD HDR gaming only)

3D Compatibility†

Vertical Scan Rate
24Hz to 120Hz

Horizontal Scan Rate
31.000 to 135.000KHz

User Controls
Yes

I/O Connection Ports
HDMI 1, HDMI 2, USB Power Out 1, USB Service Only 2, Kensington™ Lock

Loop Through (Audio)
Audio passsthrough from HDMI to 3.5mm audio out and optical 5/12 output (channels)

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: OCM815W, OCM818W-RU

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