

# World's First 240 Hz Projector

## UHD50X



### Next-Level 1080p Gaming & 4K UHD Home Theater



- Bright 3,400 lumens with 500,000:1 contrast ratio for lights-on viewing**
- Ultra-fast 240 Hz refresh rate for unmatched 1080p gaming smoothness**
- Enhanced Gaming Mode delivers 16ms response time at 1080p, 240 Hz**
- 4K UHD (HDMI 2.0, HDCP 2.2) with HDR10 and HLG compatibility**
- Up to 15,000 hour lamp life reduces overall cost of ownership**
- Vertical lens shift with 1.3x zoom**



4K ULTRA HD™

2160P



HDMI™  
HIGH DEFINITION MULTIMEDIA INTERFACE

HDCP 2.2

WIDESCREEN  
16:9  
ENHANCED



Supercharge your huge-screen experience with the 3,400 lumens, 4K UHD Optoma UHD50X projector. Engineered for movies and gaming, the UHD50X delivers incredible details and vibrant colors that brings the cinematic experience home.

Gamers can take advantage of the ultra-fast 1080p 240 Hz refresh rate for blur-free visuals with outstanding smoothness. Combining the blur-busting refresh rate with Enhanced Gaming Mode results in 16ms response time, or 25ms at 4K UHD, for a competitive gaming advantage.

HDMI 2.0 with HDCP 2.2 support ensures connectivity to the latest 4K UHD devices while a 12V trigger enables control of motorized screens. Up to 15,000-hour lamp life delivers many years of use with minimal maintenance when using Dynamic mode.

### CONNECTIVITY (May require optional accessories)



4K UHD Blu-ray Player



4K Game Console



4K Media Streaming



Computers

## OPTICAL/TECHNICAL SPECIFICATIONS

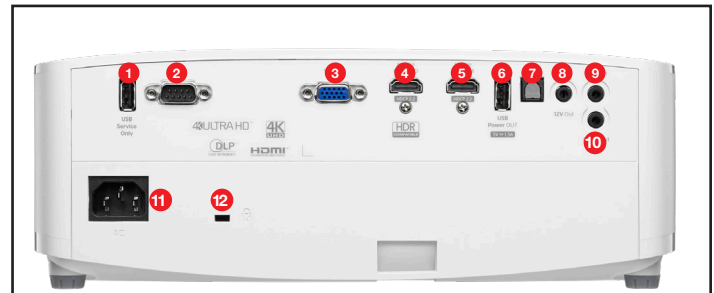
<b>Display Technology</b>	Texas Instruments™ 0.47" DMD
<b>Color Wheel</b>	RGBWRGBW 8 segment color wheel
<b>Native Resolution</b>	4K UHD (3840 x 2160) @ 60Hz with XPR Technology
<b>Maximum Resolution</b>	4K UHD (3840 x 2160) @ 60 Hz 1080p (1920 x 1080) @ 240 Hz
<b>Brightness</b>	3,400 ANSI lumens
<b>Contrast Ratio</b>	Up to 500,000:1 with Dynamic Black
<b>Color Gamut Support</b>	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
<b>HDR (High Dynamic Range)</b>	HDR10 & HLG compatible (REC.2020) Picture Modes: Normal, Bright, Detail, Film HDR SIM (simulate HDR effect with non-HDR content)
<b>4K UHD Upscale</b>	Upscales WXGA, 720p, 1080p, WUXGA, 1440p resolutions and frame rates up to 4K UHD (3840x2160), 60 Hz
<b>Video Processing</b>	UltraDetail Technology enhances image quality by improving image depth and clarity
<b>Color Depth</b>	4K UHD (3840 x 2160) @30Hz YUV 4:4:4 (8bit, 10bit, 12bit), YUV 4:2:2 (8bit, 10bit, 12bit), YUV 4:2:0 (8bit, 10bit, 12bit) 4K UHD (3840x2160) @60Hz YUV 4:4:4 (8bit), YUV 4:2:2 (8bit), YUV 4:2:0 (8bit, 10bit, 12bit)
<b>Input Response</b>	4K UHD (3840x 2160) @ 60 Hz: 25.8ms
<b>Enhanced Gaming Mode Enabled</b>	1080p (1920 x 1080) @ 60 Hz: 23.8ms 1080p (1920 x 1080) @ 120 Hz: 18.2ms 1080p (1920 x 1080) @ 240 Hz: 15.7ms
<b>Lamp Life and Type*</b>	4000/10,000/15,000 (Bright/ECO/Dynamic)
<b>Projection Method</b>	Front, rear, ceiling mount, table top
<b>Vertical Lens Shift</b>	10% offset (with tolerance ±5%)
<b>Keystone</b>	±40°
<b>Uniformity</b>	80%
<b>Offset</b>	105% ±5%
<b>Aspect Ratio</b>	16:9 (native), 4:3 and LBX compatible
<b>Throw Ratio</b>	1.21 - 1.59 (with tolerance ±3%)
<b>Projection Distance</b>	4' - 34.8' (without zoom)
<b>Image Size</b>	34.1" - 302.4
<b>Projection Lens</b>	F=1.94 ~ 2.23, f=12.81 ~ 16.74 mm manual focus
<b>Optical Zoom</b>	1.3x
<b>Digital Zoom</b>	0.8 - 2.0
<b>Audio</b>	5W speaker
<b>Noise Level</b>	26dB
<b>Remote Control</b>	Full function home remote control
<b>Operating Temperature</b>	41–104°F (5–40°C), 85% max humidity
<b>Power Supply</b>	AC input 100–240V, 50–60Hz, auto-switching
<b>Power Consumption</b>	315W typical (Bright), 347W max (Bright), 225W typical (ECO), 248W max (ECO)
<b>High Altitude</b>	Operating temp @ sea level to 10000 feet = 23C (max); must manually switch to high altitude mode @ 5000 feet & above (using OSD)

## COMPATIBILITY SPECIFICATIONS

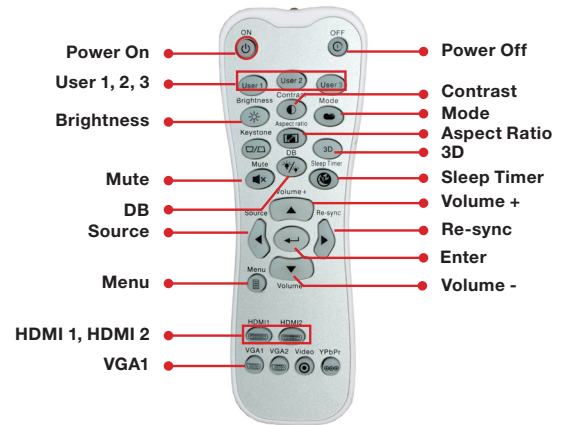
<b>Computer Compatibility</b>	4K UHD 2160p, WUXGA, HDTV 1080p, UXGA, SXGA, WXGA+, WXGA (1366x768), WXGA, HDTV (720p), XGA, SVGA, VGA, PC and Mac compatible
<b>Video Compatibility</b>	4K UHD 2160p (24/50/60Hz), 1080p (24/50/60Hz), 1080i (50/60Hz), 720p (50/60Hz), 480i/p, 576i/p
<b>HDR Source Compatibility</b>	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 HDR gaming only)
<b>3D Compatibility†</b>	Blu-ray 3D / Frame-pack: 1080p24, 720p50 / 60 (per eye) Sequential: 1080p24/30 (per eye)
<b>Vertical Scan Rate</b>	24Hz to 120Hz
<b>Horizontal Scan Rate</b>	31.000 to 135.000KHz
<b>User Controls</b>	Complete on-screen menu adjustment in 27 languages
<b>I/O Connection Ports</b>	HDMI 2.0 (w/ HDCP 2.2, MHL 2.1), HDMI 1.4a, VGA-in, audio-in (3.5mm), audio-out, S/PDIF out (optical), USB 2.0 (service port), USB power (5V, 1.5A), RS-232C, 12V Trigger
<b>Loop Through (Audio)</b>	Audio passthrough from HDMI to 3.5mm audio out and optical S/PDIF out (2 channels)

\*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 [Optoma.com](http://Optoma.com) for more information.



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|------------------|-------------------|----------------------|
| 1. USB (service) | 5. HDMI 1.4a      | 9. Audio-In          |
| 2. RS-232C       | 6. USB Power      | 10. Audio-Out        |
| 3. VGA           | 7. Audio-In       | 11. AC Power         |
| 4. HDMI 2.0      | 8. Optical S/PDIF | 12. Kensington™ Lock |



## PHYSICAL SPECIFICATIONS

<b>Security</b>	Kensington® lock port, password (OSD)
<b>Weight</b>	8.6lbs.
<b>Dimensions (W x H x D)</b>	12.4" x 4.6" x 10.6"

### Warranty

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

### What's in the Box

UHD50X, AC power cord, remote control, batteries for remote and quick start user manual

### Accessories

Lamp (replacement): BL-FP240E  
Remote (replacement): BR-3003B  
Universal mount: OCM815W, OCM818W-RU

UPC 796435 81 349 9

[Optoma.com](http://Optoma.com)



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