

# Bright 4K UHD Smart Projector

## UHD51ALV



### Voice assistant-compatible projector for lights-on viewing



- Works with Amazon Alexa and Google Assistant
- 4K UHD, bright 3,000 lumens and RGBWRGBW color wheel
- HDR10 support for brighter whites, deeper black levels and vivid colors
- 4K video playback with the integrated USB media player
- Dynamic Black delivers 500,000:1 contrast ratio for exceptional black levels
- HDMI 2.0 with HDCP 2.2 connectivity ensures compatibility with 4K UHD video sources
- Vertical lens shift and 1.3x zoom for easy install

TRUE 4K 4K ULTRA HD™



HDMI™  
HIGH DEFINITION MULTIMEDIA INTERFACE

HDCP 2.2



Enjoy lights-on viewing and taking control via voice commands with the 4K UHD, 3,000 lumen Optoma UHD51ALV. Compatibility with Amazon Echo and Google Assistant devices enables easy integration into smart homes regardless of the preferred voice assistant.

Use voice commands to power the projector on and off, change volume, change input source and control the USB media player. Additionally, the UHD51ALV utilizes the latest Texas Instruments™ 4K UHD DLP chipset capable of displaying 8.3-million simultaneous distinct pixels at screen sizes 140 inches and higher.

A pair of HDMI 2.0 inputs with HDCP 2.2 support, HDR compatibility and wide color gamut ensure 4K device compatibility, rich lifelike color and contrast for immersive experiences. A 1.3x optical zoom and 15% vertical lens shift provide installation flexibility.

### CONNECTIVITY (May require optional accessories)



4K UHD Blu-ray Player



4K Game Console



4K Media Streaming



Computers

# Build a **smarter** home theater.



See it all.  
Control it all.  
Play it all.



## MEDIA PLAYER FEATURES

**USB Media Player Compatibility** **Videos:** 480p, 720p, 1080p, 1440p, 4K UHD, 4K UHD HDR  
**File formats:** MKV, MP4, M4V, AVI, H.264, HEVC, MOV, TS  
**Audio:** MP3, AAC, WAV, FLAC 16/24-bit  
**Images:** JPEG, BMP, GIF

**Video streaming** Web browser provides access to popular websites for video streaming

**PC-free Image Viewer and Document Viewer** Supports viewing of office documents (Word, Excel & PowerPoint), PDFs and images via USB storage devices  
Autoplay PDF / PowerPoint: 3, 5, 10, 15 & 20 second intervals

## SMARTPHONE FEATURES

**Multimedia Streaming** **Casting:** videos, images and music from Android, iOS, Windows and Mac OS X (requires EZCast app)

**Wireless Screen Mirror** Mirror Android, Windows & Mac OS X (requires EZCast app)

**Companion App** iOS (App Store) & Android (Play Store & Amazon Appstore)

## AMAZON ALEXA FEATURES

**Smart Home Skill**

**Commands:** power on/off, volume control (1-10), change input source, media player controls (play, stop, pause, next, previous, FF, REW, start over)

**Custom Skill**

**Commands:** change display mode, HDR picture mode, PureMotion setting

**Alexa AV Gear Region Support**

United States - English, Canada<sup>2</sup> - Canadian English

## GOOGLE ASSISTANT FEATURES

**Actions**

**Commands:** power on/off, volume control (1-10), change input source, media player controls (play, stop, pause, next, previous, FF, REW, start over), change display mode, HDR picture mode, PureMotion setting

**Region Support**

All regions - English only



<sup>2</sup>French language support arriving late 2018.

# 4K UHD Smart Projector - UHD51ALV

## OPTICAL/TECHNICAL SPECIFICATIONS

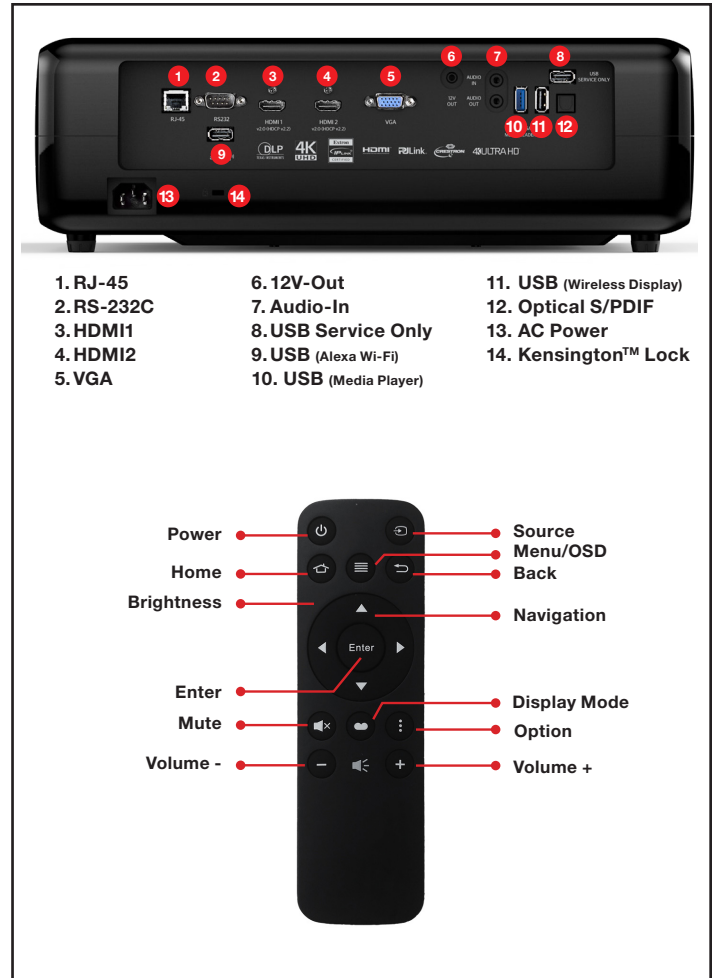
<b>Display Technology</b>	Single 0.47" 4K UHD DMD DLP® by Texas Instruments™
<b>Color Wheel</b>	RGBWRGBW 8 segment color wheel
<b>Native Resolution</b>	4K UHD 3840 x 2160 @ 60Hz with XPR Technology
<b>Maximum Resolution</b>	4K 4096 x 2160 @ 30Hz
<b>Brightness</b>	3,000 ANSI lumens
<b>Contrast Ratio</b>	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. 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 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 (3840 x 2160), 60 Hz
<b>Video Processing</b>	UltraDetail Technology enhances image quality by improving image depth and clarity
<b>Color Depth</b>	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) 3840 x 2160 @60Hz YUV 4:4:4 (8bit), YUV 4:2:2 (8bit), YUV 4:2:0 (8bit, 10bit, 12bit)
<b>Lamp Life</b>	4,000/10,000/15,000 (Bright/ECO/Dynamic)
<b>Projection Method</b>	Front, rear, ceiling mount, table top
<b>Vertical Lens Shift</b>	15% offset (with tolerance ±5%)
<b>Uniformity</b>	80%
<b>Offset</b>	100%
<b>Aspect Ratio</b>	16:9 (native), 4:3 and LBX compatible
<b>Throw Ratio</b>	1.21 - 1.59 (with tolerance +/- 5%)
<b>Projection Distance</b>	2.9' - 34.89'
<b>Image Size</b>	34.1" - 302.4 (34.1" to 140" optimal image size)
<b>Projection Lens</b>	F=2.5~ 3.26, f=20.91 ~ 32.62 mm manual focus
<b>Optical Zoom</b>	1.3x
<b>Digital Zoom</b>	0.8 - 2.0
<b>Audio</b>	2 x 5W speakers (stereo)
<b>Noise Level</b>	28/25dB (Bright/ECO)
<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>	317W typical (Bright mode), 348W max (Bright mode), 259W typical (Eco+ mode), 285W max (Eco+ mode)
<b>High Altitude</b>	Operating temp @ sea level to 10,000 feet = 23C (max); must manually switch to high altitude mode @ 5,000 feet & above (using OSD)

## COMPATIBILITY SPECIFICATIONS

<b>Computer Compatibility</b>	4K UHD 2160p, WUXGA, HDTV 1080p, UXGA, SXGA, WXGA+, WXGA (1280 x 800), 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>	Side-by-side: 1080i50 / 60, 720p50 / 60 Blu-ray 3D / Frame-pack: 1080p24, 720p50 / 60 Over-under: 1080p24, 720p50 / 60
<b>Scan Rate</b>	Vertical: 24Hz to 120Hz / horizontal: 31 to 135 KHz
<b>I/O Connection Ports</b>	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 (for Alexa Wi-Fi adapter), USB (media playback), USB, RJ-45, RS-232C, 12V trigger
<b>Loop Through (Audio)</b>	Audio passthrough from HDMI to 3.5mm audio out and optical S/PDIF out (2-channel PCM)

## PHYSICAL SPECIFICATIONS

<b>Security</b>	Kensington® lock port, password (OSD)
<b>Weight</b>	11.75 lbs.
<b>Dimensions (W x H x D)</b>	15.4" x 5.1" x 11.1"



### Warranty

2-year limited warranty, 90-days lamp

### What's in the Box

UHD51ALV, lens cap, AC power cord, HDMI cable, remote control, batteries for remote, WUSB Wi-Fi adapter (for Alexa Wi-Fi or wireless screen mirroring), multilingual CD-ROM, user's manual, quick start guide and warranty card

### Optional Accessories

Mount, 3D glasses and wireless USB adapter (for wireless screen mirroring or Alexa Wi-Fi replacement)

### Accessory Part Numbers

Lamp: BL-FP240E  
Remote: BR-3081B  
Mount: BM-5001U, OCM815B, OCM818B-RU  
Wireless adapter: WUSB  
3D DLP Link glasses: ZD302

UPC 796435 81 318 5

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\*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 us at Optoma.com for more information.

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