

ZH421

Compact 4,600lm Full HD Laser Business Projector



The Optoma ZH421 is a 4,600-lumen Full HD 1080p laser projector engineered for 24/7 reliability in business or education spaces. This compact, maintenance-free laser solution features a 30,000-hour lifespan, 1.3x optical zoom, smart control, and centralized IT management via Optoma Management Suite (OMS™) to support sustainable and efficient operation.

4,600-lumen brightness – Clear projection for spaces with ambient light

- 30,000h laser life – DuraCore laser ensures long-term reliability and low TCO
- 1.3x optical zoom & geometric correction for versatile mounting
- Sustainable design – 50% recycled metal and PCR materials
- Optoma Management Suite (OMS™) – Enables centralized monitoring and control across multiple devices



Specification

Display

Technology	DLP®
Resolution	1080p Full HD (1920x1080)
Brightness	4,600 Lumens
Contrast ratio	300,000:1
Contrast ratio (Dynamic)	2,000,000:1
Native aspect ratio	16:9
Aspect ratio - compatible	4:3, 16:9, 16:10, Full, Squeeze, Native
Keystone correction - horizontal	+/-30°
Keystone correction - vertical	+/-30°
Horizontal scan rate	15~135 KHz
Vertical scan rate	24~120 Hz
Uniformity	75%
Screen size	30"~300"



Light source

Light source type	Laser
Light source life	30,000 hours (Eco mode)

Optical

Throw ratio	1.13:1 ~ 1.47:1
Projection distance	1m~ 10m (mechanism travel)
Zoom	1.3 x
Zoom type	Manual
Focal length	16.90mm~21.60mm
Native offset	116% +/-5%

Connectivity

Connections- Inputs	HDMI 2.0 x 2 VGA In x 1 Audio 3.5mm x 1
Connections - Outputs	USB-A 2.0 x 2 3D Sync Out x 1 Audio 3.5mm x 1
Connections - Control	RJ45 x 1 RS232 x 1 12V Trigger x 1

Specification

General

Noise level (min)	29 dB(A)
Noise level (max)	31 dB(A)
PC compatibility	VGA,SVGA,XGA,720p,WXGA,SXGA,SXGA+,UXGA,1080p,WUXGA
2D compatibility	NTSC,PAL,SECAM,SDTV,HDTV,UHD
3D compatibility	Supports all HDMI 1.4a mandatory 3D formats (Frame pack, side-by-side, top-bottom) and up converts frame rate from 60Hz to 120Hz or 24Hz to 144Hz
Security	Security bar, Kensington Lock, Password protected interface
OSD / display languages	27 languages: Arabic, Czech, Danish, Dutch, English, Farsi, Finnish, French, German, Greek, Hungarian, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Simplified Chinese, Spanish, Swedish, Thai, Traditional Chinese, Turkish, Vietnamese
24/7 operation	Yes
360° operation	Yes
Operating conditions	Max Temperature(operating): 0 ~ 40°C; Tolerance +/- 2°C, Max Altitude(operating): 10,000 ft., for 0°C~30°C, Max humidity(operating): 80% RH, non-condensing
Remote control	Business remote control
Speaker count & Watts per speaker	1 x 15W
Input lag	4K/ 60Hz: 16.7 ms 1080P/ 60Hz: 16.7 ms 1080P/ 120Hz: 8.6 ms
In the box	AC power cord Remote control Quick start user manual

Networking

LAN control	Yes
24/7 operation	Yes
360° operation	Yes

Power

Power supply	AC 100 ~ 240 V, 50 ~ 60 Hz
Power consumption (standby)	≤0.5 W
Power consumption (eco mode)	120 W@110VAC 118 W@220VAC
Power consumption (bright mode)	170 W @110VAC 168 W @220VAC

Specification

Weight and dimensions

Dimensions (W x D x H)	W/o feet: 216 x 274 x 108.5mm (10.8 x 8.5 x 4.3 inches) With feet: 216 x 274 x 114mm (10.8 x 8.5 x 4.5 inches)
Gross weight	4.3 kg / 9.5 lbs
Net weight	2.9 Kg / 6.4 lbs