

# ZH451ST

## Compact 4,200lm Short Throw Full HD Laser Business Projector

---



The Optoma ZH451ST short throw projector delivers 4,200 lumens of brilliant Full HD 1080p visuals in a compact short-throw design, enabling large, shadow-free projections even in limited spaces. Engineered for 24/7 reliability, it offers a low-maintenance, energy-efficient laser solution with centralized IT management and smart control for corporate, education, or commercial uses.

4,200-lumen brightness – Clear projection for spaces with ambient light

- 30,000h laser life – DuraCore laser ensures long-term reliability and low TCO
- Sustainable design – 50% recycled metal and PCR materials
- Optoma Management Suite (OMS) – Enables centralized IT monitoring and control across multiple networked devices



# Specification

---

## Display

Technology	DLP®
Resolution	1080p Full HD (1920x1080)
Brightness	4,200 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	+/-15°
Keystone correction - vertical	+/-15°
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	0.496
Projection distance	1m~ 10m (mechanism travel)
Focal length	7.51mm
Native offset	116% +/-5%

---

## Connectivity

Connections- Inputs	HDMI 2.0 x2 VGA In x1 Audio 3.5mm x1
Connections - Outputs	USB-A 2.0 x2 3D sync out x1 Audio 3.5mm x1
Connections - Control	RJ45 x1 RS232 x1 12V Trigger x1

# Specification

---

## General

<b>Noise level (min)</b>	29 dB(A)
<b>Noise level (max)</b>	31 dB(A)
<b>PC compatibility</b>	VGA,SVGA,XGA,720p,WXGA,SXGA,SXGA+,UXGA,1080p,WUXGA
<b>2D compatibility</b>	NTSC,PAL,SECAM,SDTV,HDTV,UHD
<b>3D compatibility</b>	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
<b>Security</b>	Security bar, Kensington Lock, Password protected interface
<b>OSD / display languages</b>	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
<b>24/7 operation</b>	Yes
<b>360° operation</b>	Yes
<b>Operating conditions</b>	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
<b>Remote control</b>	Business remote control
<b>Speaker count &amp; Watts per speaker</b>	1 x 15W
<b>Input lag</b>	4K/ 60Hz: 16.7 ms 1080P/ 60Hz: 16.7 ms 1080P/ 120Hz: 8.6 ms
<b>In the box</b>	AC power cord Remote control Quick start user manual

---

## Networking

<b>LAN control</b>	Yes
<b>24/7 operation</b>	Yes
<b>360° operation</b>	Yes

---

## Power

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

# Specification

---

## Weight and dimensions

<b>Dimensions (W x D x H)</b>	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)
<b>Gross weight</b>	4.5 kg / 9.9 lbs
<b>Net weight</b>	3.0 Kg / 6.6 lbs