

ZH451ST

High Brightness Golf Sim and Corporate Short Throw 1080p Full HD Laser Projector



The ZH451ST is Optoma's most compact Full HD 1080p DuraCore laser projector to date.

Built for immersive simulator bays and conference rooms with tight installation spaces, the ZH451ST's short-throw design lets you place it just feet from the wall — keeping spaces open and presentations impact-ready. RS232 control and a built-in speaker round out a setup that's as practical as it is powerful.



Powered by DuraCore laser technology, it delivers 4,200 lumens* of vivid, consistent image performance for up to 30,000 hours of maintenance-free, mercury-free operation. An external power supply further enhances reliability and energy efficiency.

Specification



Display/image

Display technology	DLP®
Resolution	1080p Full HD (1920x1080)
Brightness	4,200 lumens*
Contrast ratio	300,000:1
Native aspect ratio	16:9
Aspect ratio - compatible	4:3,16:9,16:10
Keystone correction - horizontal	+/-15°
Keystone correction - vertical	+/-15°
Displayable colors (millions)	1073.4
Horizontal scan rate	15 ~ 135Khz
Vertical scan rate	24 ~ 120Hz
Uniformity	75%
Screen size	36" ~ 300" diagonal

Lamp info

Light source type	Laser
LASER life	30,000 hours

Optical

Throw ratio	0.496:1
Projection distance	70.8" - 102.6"
Zoom type	Fixed
Focal length (mm)	7.51
Native offset	116% +/-5%

Connectivity

Connections	2x HDMI 2.0 1x VGA-In 2x USB-A (Power / BT Adapter) Audio-in / Audio-out RJ-45 12V Trigger 3D Sync RS-232
Input lag	1080p60 ~ 16.7ms 1080p120 ~ 8.4ms 4K60 ~ 16.7ms

Specification

General

Noise level (min)	29dB
Noise level (max)	36dB
PC compatibility	FHD, UXGA, SXGA, WXGA, HD, XGA, SVGA, VGA, Mac NTSC M/J, 3.58MHz, 4.43MHz PAL B/D/G/H/I/M/N, 4,43MHz SECAM
2D compatibility	B/D/G/K/K1/L, 4.25/4.4MHz 480i/p, 576i/p, 720p(50/60Hz), 1080i(50/60Hz), 1080p(50/60Hz)
3D compatibility	Yes (DLP 3D; PC frame sequential 120Hz 3D, Blu-ray DVD 3D)ver-Under: 1080p24, 720p50 / 60
3D	Full 3D
Security	Security bar, Kensington Lock, Password protected interface
OSD / display languages	25 languages: Arabic, Czech, Danish, Dutch, English, Farsi, Finnish, French, German, Greek, Hungarian, Indonesian, Italian, Japanese, Norwegian, Polish, Portuguese, Romanian, Russian, Chinese (simplified), Spanish, Swedish, Chinese (traditional), Turkish, Vietnamese
24/7 operation	Yes
360° operation	Yes
Operating conditions	0°C ~ 40°C, Max. Humidity 80%, Max. Altitude 2,500m
IP rating	IP6X
Remote control	Card style
Speaker count	1
Watts per speaker	15W
In the box	AC power cord Remote control CR2025 battery Quick Start Guide

Power

Power supply	External power supply, 100V ~ 240V, 50-60Hz
Power consumption (standby)	
Power consumption (min)	118W
Power consumption (max)	170

Weight and dimensions

Dimensions (W x D x H)	10.79" x 8.5" x 4.49"
Gross weight	9.92 lbs
Net weight	6.61 lbs
UPC	796435 44 838 7

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