

# ZH400UST

## Superb for signage

- 20,000 hours maintenance-free laser light source at full brightness\*\*
- Dust resistant Independently tested, IP5X certification for total reliability
- 4000 lumens 1080p ultra short throw projector
- Versatile installation Portrait and downward projection





### ZH400UST

The ZH400UST is powered by long-lasting, low maintenance DuraCore laser light source. The lamp-less and filter-free design vastly reduces running costs for a low total cost of ownership.

Weighing only 5.6kg, this projector can be mounted just centimetres away from a wall or surface and can project an image size of over 100 inches (254cm).

Supporting 24/7 operation and versatile orientation, the ZH400UST is a flexible, powerful and bright ultra short throw projector which makes for a superb signage solution where space or accessibility can be limited, such as shop windows or retail displays.

#### **DuraCore**

Industry leading lifetime is achieved using Optoma's DuraCore technology. Implementing advanced laser diode cooling techniques and an innovative dust resistant design. 20,000 hours provides a staggering 13 years of normal use\*1 or 2.2 years if run continuously 24/7.



\*16 hours per day, 250 days per year

#### Museums, exhibitions and visitor centres

Eye-catching content and bright lifelike images guarantee to engage and capture the interest of an audience at any visitor or entertainment venue. The lightweight and dynamic ZH400UST satisfies the requirements for a dependable signage solution. Supporting portrait mode, rear and downward projection, this UST projector offers complete flexibility for any professional installation.

#### Retail displays and digital signage

The ultra-high 100,000:1 contrast ratio ensures no detail is lost which is key for punchy corporate presentations, retail signage and projection mapping where every detail matters. The 4000 lumen light source delivers exceptional consistent brightness, rendering vibrant images, even in high levels of ambient light. Large images with a diagonal measurement of 100 inches (254cm) can be accomplished from a throw distance of just 31cm.

#### Classrooms

The DuraCore laser light engine replaces the traditional lamp based projector removing the need for replacement lamps, maintaining low running costs. Unlike lamp based projectors, the DuraCore laser supports instant power on/off. The efficiency of the laser helps the projector run more quietly with lower energy consumption and heat dissipation.

#### **Control Rooms**

High resolution and high contrast make this model suitable for installation in control rooms where fine lines and small text must demonstrate pixel perfect precision.

#### Simulators

Industrial grade simulators for aircraft, track cars and commercial vehicles demand ultra-high resolution projectors capable of maintaining high consistent brightness levels. Simulators can now be implemented using fewer projectors, reducing overall complexity in terms of hardware. Thanks to the native 1920 x 1080 resolution, even complex, computer generated images can be displayed with remarkable clarity.

#### **Engineering and Design**

CAD environments, architecture and 3D modelling all require projected images with absolute clarity and accuracy. The projector is fully 3D compatible, and can be used in conjunction with active shutter glasses to generate convincing 3D visuals.

#### Ultra short throw lens

High quality UST lens delivers large images from a short projection distance. Presenter dazzle and image shadows are avoided.



#### **Exemplary service**

A huge range of service centres across Europe and extensive warranty and servicing packages.



#### Bright, detailed rich in colour images

4000 lumens, Full HD 1080p, 100,000:1 contrast ratio. Wide coverage of Rec. 709 colour gamut.



#### **Dual HDMI inputs**

Project crystal clear images using either of the twin HDMI inputs. HDMI V1.4a is supported, including MHL on one of the inputs. Computer and HD video sources are supported, while separate audio cables are no longer required.



#### Image quality

Image quality is of paramount importance for every installation product in the ProScene range. The ZH400UST delivers deep rich and colourful images whilst maintaining an exceptional high level of consistent brightness that will captivate and engage any audience.

ProScene uses DLP® technology for its image quality and unmatched reliability. The reflective nature of DLP® micro-mirror technology provides highly efficient bright images with great contrast whilst maintaining precise colour accuracy and natural, real-world colour reproduction. For demanding professional applications, the proven reliability of DLP® technology makes it the obvious choice.

#### **Projector security**

The projector features a Kensington Lock slot to deter theft, while password protection prevents unauthorised use.

#### Dust resistant optical engine

The ZH400UST has been independently tested and certified with an IP5X dust resistance rating. Outstanding resistance to dust in combination with exceptional brightness ensures industry leading durability; paramount for 24/7 maintenance free operation in challenging environments; the dust resistance was tested by an independent



laboratory in accordance with IEC standard 60529 and was certified with an IP5X rating. The dust resistant filter-free design prevents dust and dirt from affecting the system, ensuring optimal image quality with minimal maintenance.

#### **Perfect projection**

Misaligned images can be quickly adjusted with vertical keystone correction.



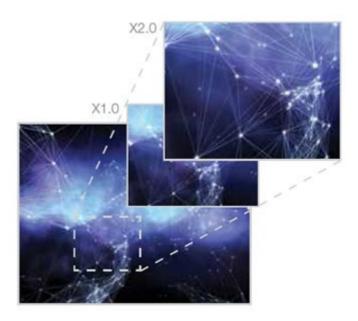
#### Audio capabilities

The powerful built in 10W loudspeaker can be used in conjunction with a microphone, to capture the attention of the audience. Expensive additional audio hardware and cabling can therefore be eliminated in smaller meeting rooms.

For larger installations, audio inputs from a computer or video source can also be handled, allowing the projector to act as an audio switcher and volume controller, alongside an external audio amplifier and speakers.

#### Enlarge your images

The digital zoom feature can be used to increase the magnification of a particular area, allowing explanation of the projected image in more detail.



Versatile Installation

Images can be projected in portrait mode, where the projector is operated on its side, to produce a tall, thin image. This is perfect for digital signage applications, particularly in retail premises.



#### Total cost of ownership

The total cost of ownership of a projector is not in the purchase cost but in expensive maintenance and service. ProScene projectors require very little maintenance; have no user serviceable parts inside and no filters that require periodic replacement. The result is low cost, predictable service cycles, enabling planned down time to be minimised.

#### Enhanced colour gamut

Superb colour accuracy and powerful colour performance is achieved because of the wide coverage of Rec. 709 colour gamut typically associated with DLP® technology.

#### System integration and control

Multiple projectors can be monitored over the LAN and can also send an email alert via Crestron RoomView in the event of an error or a lamp failure. Projector status can be monitored via a web browser, while Extron IP Link, AMX Device Discovery and PJ-Link protocols offer remote management of most functions across a network, keeping you in control wherever you are.



Global monitoring of all AV devices



Email alerts and instant notifications - help desk requests, service reminders, device failure or theft

Track projector light source usage



Event scheduling

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Download Crestron RoomView® Express for free at <u>www.crestron.com/getroomview</u>

#### Ultimate control

Cut up to 30% from your energy bills using 24-hour automated power scheduling to ensure that projectors power off when not in use.

#### **Specification**

Display Technology	1 x 0.65" DLP® chip
Resolution	1080p 1920 x 1080
Brightness <sup>1</sup> (Bright Mode)	4000 ANSI lumens
Contrast	100,000:1
Typical lamp life <sup>2</sup> Bright	20,000 hours to 50% brightness** ** Full brightness "normal" (100% power) mode, temperature 25°C (hrs)
Throw Ratio	0.25:1
Zoom Type	1.0x fixed
I/O Connectors	2x HDMI V1.4a, 2x VGA, 2x 3.5mm Audio, VGA-out, 3.5mm Audio out, RJ45, RS232, 12v Trigger, Mini USB (service),
	Multimedia player
Speaker	10W
Audio	10W
Keystone Correction	±15° V
Weight (kg)	5.6
Dimensions (W x D x H) (mm)	382 x 310 x 124mm
Aspect Ratio	16:9 native, 16:10 / 4:3 compatible
Offset	120% ± 4%
Projection Screen Size	2.2 - 2.59m (87" - 102") diagonal 16:9
Computer Compatibility	UXGA, SXGA, WXGA, HD, XGA, SVGA, VGA, Mac
Video Compatibility	PAL (B, D, G, H, I, M, N, 576i/p), NTSC (M, 4.43/3.58 MHz, 480i/p), SECAM (B, D, G, K, K1, L) HD (1080i, 720p)
3D Support	The 3D features of Optoma projectors can only be used with compatible 3D content. Typical applications include use with 3D educational or 3D design and modelling systems. 3D television broadcast systems, (SKY in the UK), Blu-ray 3D <sup>™</sup> and 3D games from the Sony® PS3 and Microsoft® Xbox 360 are now supported as part of the HDMI v1.4a specification.
3D Compatibility	Side-by-Side:1080i50 / 60, 720p50 / 60 Frame-pack: 1080p24, 720p50 / 60 Over-Under: 1080p24, 720p50 / 60
Horizontal Scan Rate	15.3 - 91.1kHz
Vertical Scan Rate	24 - 85Hz (120Hz for 3D)
Displayable Colours	1.07 billion
Noise Level (Eco mode)	30/ 35dB (Eco/ Bright mode)
Power Supply	100 - 240V, 50 - 60Hz
Power Consumption	Full : 350W±15% @110VAC Full : 330W±15% @220VAC ECO : 245W±15% @110VAC ECO : 225W±15% @220VAC
Lamp Type	Laser phosphor
Operating Conditions	5°C - 40°C, 90% max humidity, 3000m max altitude
Security	Security bar, Kensington lock, Password protection
Remote Control	Yes
Standard Accessories	AC mains power cable, VGA cable, USB cable, Quick start guide, User manual (CD)
Optional Accessories	Wall mounting bracket, WPS Wireless adaptor
Optional Wireless	Yes
360' Operation	No - Downward projection only
Portrait Mode	Yes (lens at bottom only)
Warranty	3 Years
RoHS	Compliant
Projection method	Front, rear, ceiling mount, table top, downward, portrait
Features	1080p resolution, ultra short throw, DuraCore laser
Warranty	5 years/12.000hrs (light source) 3 years/12.000hrs (projector)



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<sup>1</sup>Brightness and lifetime dependent on settings and environmental conditions

<sup>2</sup>Typical lamp life achieved through testing. Will vary according to operational use and environmental conditions

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