

# EH415

# A compact and versatile package

- High resolution for stunning clarity
- Full HD 1080p 4200 lumens
- Ultimate Control Full support for Crestron, Extron, AMX, PJ-Link and Telnet LAN commands
- Installation flexibility Vertical lens shift and 1.5x zoom

















#### **EH415**

Full HD 1080p clarity combined with vertical lens shift and amazing colours, make the compact Optoma EH415 projector an ideal candidate for both desktop and installation use.

Full support for Crestron Roomview, Telnet, Extron IP Link, AMX dynamic device discovery and PJ-Link protocols, allow almost all aspects of the EH415 to be controlled across a network, keeping you in control, wherever you are.

The environmentally friendly EH415 has energy saving features including Eco+ lamp power management, <0.5W standby mode and auto power off, saving you both time and money. Our unique Optoma Colour Guarantee ensures hassle-free. long-lasting projection.

#### 3D Technology

Using the inherent speed of DLP® technology, Optoma Full 3D projectors can output video and images at an astonishing rate of 120Hz, allowing you to show full screen, full colour, stereoscopic 3D. The 3D effect is generated by splitting this signal into two standard video streams, one for each eye. Using DLP® Link™ technology, the 3D glasses synchronise with the image on screen to filter each stream to the correct eye. Your brain then combines the two streams to make them jump into life.

The EH415 supports multiple 3D formats from various devices such as PC, Blu-ray  $3D^{TM}$ , Sony® PS3, Microsoft® Xbox 360 or 3D TV broadcast systems.



### **Image quality**

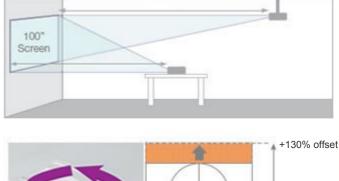
A Full HD projector with 1920x1080 pixels has more than twice the resolution of an HD-Ready display. Fully compatible with HDTV broadcasts and high definition media, the EH415 is able to display un-scaled 1080p signals in their original form for use where exceptional clarity and detail are essential.



#### Easy installation - 1.5x zoom and lens shift

The EH415 can project a 100" diagonal image from any distance between 3.08m and 4.63m. The Lens Shift system can be used to adjust the vertical position of the projected image within the range detailed in the diagrams below.

When replacing existing projectors, the 1.5x zoom and Lens Shift systems greatly increase your installation flexibility.





#### **DICOM simulation mode**

Designed specifically for larger meeting rooms and lecture theatres, the EH415 includes a special DICOMsim mode that has been specially tuned for viewing greyscale images, perfect for viewing X-rays and scans during medical training.\*



\*The EH415 is not suitable for use in medical diagnosis.

#### Clear, focused Images

DarkChip3™ from Texas Instruments, combined with Eco+ dynamic lamp technology produce a stunning 12,000:1 contrast ratio for pin sharp graphics and crystal clear text. Crisper whites, ultra-rich blacks makes images come alive and text easier to read - ideal for business and education presentations.

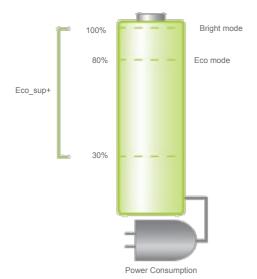




12,000:1 Contrast Ratio

#### Eco<sup>+</sup> mode

Saving energy, saves money! Eco<sup>+</sup> technology reduces the power consumption to as little as 30%. This intelligent feature also has a positive effect on the lamp life, increasing it up to 70% while lowering the total cost of ownership and reducing maintenance\*.



Dynamically adjusts the brightness and power consumption





Bright scene ~ 100% Power consumption

Dark scene ~ 30% Power consumption

### System integration and control

Using the free Crestron Roomview software, multiple EH415 can be monitored over LAN and also provide the user with an email message alert in case an error occurs or a lamp fails. Cut up to 30% from your energy bills using 24-hour automated power scheduling to ensure that projectors power off when not in use.

The web browser interface and full support for Extron's IP Link, AMX dynamic device discovery and PJ-Link protocols, allow almost all aspects of the EH415 to be controlled across a network, reducing installation costs and keeping you in control, wherever you are. While RS-232 connectivity ensures legacy support for existing control systems.





Global monitoring of all AV devices

Track projector lamp life





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

**Event Scheduling** 

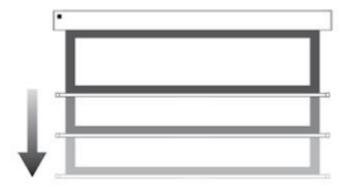




Download Crestron RoomView® Express software from: www.crestron.com/getroomview

#### +12v Trigger

Power on both your projector and screen at the touch of a single button. For ultimate convenience, connect an Optoma electric screen directly to your EH415.



For more info on Optoma screens, please visit www.optomaeurope.com

#### Easy lamp replacement

In applications requiring smooth continuous operation, minimising service time is essential. The EH415 lamp can quickly be replaced without the need to remove the projector from where it is installed.

#### **Extra features**

**Direct & Signal Power ON** -Start up time can be significantly reduced if standby mode is bypassed, eliminating the need to use the 'Power' button on the remote control or the projector keypad.



**Direct Power ON**switches the projector on when the power cable is inserted into an active power outlet.



**Signal Power On**switches the projector on when an active VGA source is connected to the unit.



**Key pad lock** –once enabled prevents unauthorised adjustments ensuring the projector can only be controlled via the remote control.



Logo capture -customise your start up screen



Easy to use remote with laser pointer, mouse control and 1.2kg direct source selection

#### **ECO AV mute**

Stay in control of your presentation with the Eco AV mute feature. Direct your audience's attention away from the screen by blanking the image when no longer needed. This also instantly reduces the power consumption to 30%, further prolonging the life of your lamp.





Eco AV mute off 100% Power consumption

Eco AV mute on 30% Power consumption

#### Auto power off

There may be instances when the projector is left running when not in use. To help save energy if the projector is left running and no source is detected, the "Auto Power Off" feature automatically turns off the projector after a set period of time.

# **Environmentally friendly**

To achieve the maximum 6500hrs<sup>2</sup> lamp life, the projector should be operating in Eco+ mode and the auto power off feature should be enabled to automatically switch off the projector if it is accidentally left on. Enabling the <0.5W standby mode ensures the minimum energy consumption when the projector is not switched on.



We know that improving our products is the best way to reduce our impact on the environment. That's why at Optoma, we design our products to have a long usable life, use fewer materials, ship with the minimum packaging and be free of all possible toxic substances. Naturally, energy efficiency and being recyclable are built in at the design stage. With each new product, we strive towards minimising our environmental impact. For full details of Optoma Project Green please visit our website.

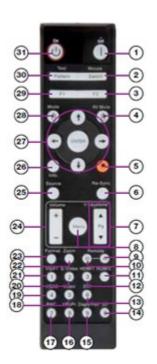
# **EH415 Specification**

Display Technology	Single 0.65" DarkChip 3 1080p DLP® Technology by Texas Instruments			
Native Resolution	1080p 1920 x 1080			
Brightness <sup>1</sup> (Bright Mode)	4200 ANSI Lumens			
Contrast	12,000:1			
Noise Level (Eco mode)	32dB			
Weight (kg)	3.4			
I/O Connectors	HDMI, DisplayPort, 2x VGA (RGB/YPbPr), S-Video, Composite, 2 x Audio In (RCA/3.5mm), Audio Out 3.5mm, VGA Out, RJ45, RS232, 12V trigger, USB service			
Maximum Resolution	Full HD 1920 x 1080			
Computer Compatibility	UXGA, SXGA+, HD, WXGA, XGA, SVGA			
Video Compatibility	PAL SECAM 576i/p, NTSC 480i/p, HD 720p/1080i/1080p			
Displayable Colours	1.07 Billion			
Projection Lens	F/2.42~2.97; f=20.77~31.05mm, 1.5x Manual Zoom			
Throw Ratio	1.39 - 2.09:1, Offset: 115%~130%			
Projection Screen Size	0.76 - 7.62m (30" - 300") Diagonal 16:9			
Projection Distance	1.2 - 10m			
Zoom Type	1.5x Manual			
Aspect Ratio	16:9 Native, 4:3 Compatible			
Offset	115% ~ 130%			
Horizontal Scan Rate	15 - 91kHz			
Vertical Scan Rate	24 - 120Hz			
Lamp Type	280W			
Lamp Life <sup>2</sup> Eco+/Eco/Bright	7000/4000/3000 (hrs)			
Keystone Correction	± 40° Vertical			
Dimensions (W x D x H) (mm)	286 x 266 x 124 (inc. feet)			
Power Supply	100-240V, 50-60Hz			
Power Consumption	290W Bright mode / 250W Eco mode (<0.5W Standby)			
Uniformity	85%			
Security	Kensington lock, password protection			
Standard Accessories	Carry bag, lens cap, AC power cord, VGA cable, remote control, 2x AA batteries, quick start card, CD user manual			
Optional Accessories	DLP® Link™ 3D glasses, wireless, ceiling mount			
RoHS	Compliant			
Lens Shift	+15% Vertical			
3D Support	Full 3D - 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 TV broadcast systems, (SKY in the UK), Blu-ray 3D™ and 3D			
	games from the Sony® PS3 or 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			
Speaker (Watts)	10			
Warranty	2			
On Screen Display	19 Languages: English, German, French, Italian, Spanish, Portuguese, Polish, Dutch, Russian, Finnish, Swedish, Greek, Norwegian/Danish, Hungarian, Czech, Arabic, Turkish, Farsi, Romanian			
Colour Guarantee <sup>3</sup>	5 Years			
Optional Wireless	Yes			

# **Easy To Use Remote**

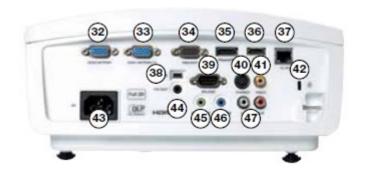
#### **EH415 Remote Control**

- 1. Power Off
- 2. Mouse
- 3. Function 2 (assignable)
- **4.** AV Mute / right mouse button
- 5. Laser
- 6. Re-Sync
- 7. Page Up/Down
- 8. Menu
- 9. Remote code All
- **10.** Remote code 01~99
- **11.** HDMI 2
- **12.** HDMI 1
- **13.** DVI
- 14. 3D Mode
- 15. DisplayPort
- 16. Component Video
- **17.** BNC
- 18. Composite Video
- **19.** VGA 2
- 20. S-Video
- **21.** VGA 2
- **22.** Zoom
- 23. Format (aspect ratio)
- 24. Volume Up/Down
- 25. Source
- 26. Information Panel
- 27. Four Directional Select Keys
- **28.** Display mode / left mouse button
- 29. Function 1 (assignable)
- 30. Test Pattern
- 31. Power On



#### **EH415 Connections**

- **32.** VGA 2
- **33.** VGA 1
- 34. VGA Out
- 35. DisplayPort
- **36.** HDMI
- **37.** RJ45
- 38. USB Remote Mouse
- 39. RS-232C
- 40. S-Video
- 41. Composite Video
- **42.** Kensington™ Lock
- 43. Power
- 44. +12V Trigger (3.5mm)
- 45. Audio Out
- 46. Audio In (VGA 1 and 2)
- 47. Audio In (S-Video and Composite)



EH415 Distance Table					
Image diagonal (inch)	Image width (m)	Image height (m)	Min throw distance (m)	Max throw distance (m)	
50	1.11	0.62	1.54	2.31	
60	1.33	0.75	1.85	2.78	
70	1.55	0.87	2.15	3.24	
80	1.77	1.00	2.46	3.70	
100	2.21	1.25	3.08	4.63	
120	2.66	1.49	3.69	5.55	
200	4.43	2.49	6.15	9.25	
250	5.53	3.11	7.69	11.57	
300	6.64	3.74	9.23	13.88	



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<sup>1</sup>Brightness and lamp lifetime will vary depending on the selected projector mode, environmental conditions and usage. As is common with all lamp based projectors, brightness will decrease over the lamp lifetime. <sup>2</sup>Typical lamp life achieved through testing and will vary according to operational use and environmental conditions. <sup>3</sup>Optoma guarantees that in normal use, Optoma DLP® colour quality will be indistinguishable from when new. Exclusions: (a) Guarantee is voided if the projector is subject to damage through misuse. (b) Guarantee may be void in industrial or commercial entertainment environments where dust or smoke is excessive (c) Guarantee will not apply if lamp brightness is below 50% due to wear or if the projector is not working due to other faults. (d) Over time worn lamps within all projector types will show a slight colour variance. Copyright © 2013, Optoma Europe Ltd. All other product names and company names used herein are for identification purposes only and may be trademarks or registered trademarks of their respective owners. Errors and omissions excepted, all specifications are subject to change without notice. DLP®, BrilliantColor™ and the DLP logo are registered trademarks of Texas Instruments. All images of products are for representation purposes only. Whilst every care is taken to provide accurate images of our products, actual products may differ slightly. Some product images may have been digitally altered by us to add an Optoma logo to the front panel. Optoma reserves the right to amend or alter actual product, product specifications or product images without notice. Some images may be simulated.

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