

# ZeGage

## 3D Optical Profiler

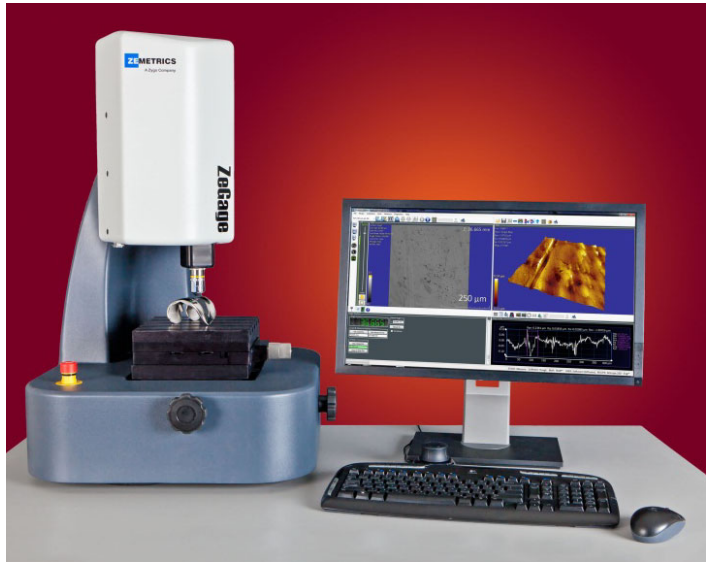
### SYSTEM

Part Number	6301-0310-01
Measurement Technique	Non-contact, three-dimensional, scanning white light interferometry
Scanner	Long range z-stage
Objectives	Infinite conjugate interferometric objectives: 2.5x, 5x, 10x, 20x, 50x Standard Working Distance 1x, 2x, 5x, 10x Long Working Distance Refer to the Objective Chart
Field of View	Objective dependent
Illuminator	Integrated long-life white-light LED with computer-controlled light level
Objective Mounting	Direct objective thread (standard) Quick mount single objective dovetail (option) Motorized or manual 4-objective turret (option)
Focus Assist	Software controlled through-the-lens focus assist
Measurement Array	1024 x 1024
Part Viewing	Software Integrated interactive live display
Z-Stage	100 mm travel; head may be mounted at either of 2 heights for optimal work volume
Stage Control	USB Control Puck with ergonomic thumb button control of stage speed and focus mode toggle
Safety	Emergency stop integrated in system base
Part Stage	Manual Tip/Tilt with $\pm 4^\circ$ tip/tilt Manual XY with 50 x 100 mm x/y travel Integrated T-Slot plate for fixture attachment
Computer	High-performance Dell PC with widescreen 1080P LCD and 64-bit Windows 7 Professional
System Software	ZeMaps™

### PHYSICAL

Dimensions (HWD)	System: 156 x 127 x 76 cm (61 x 50 x 30 in.) Workstation Table: 74 x 127 x 76 cm (29 x 50 x 30 in.) ZeGage: 82 x 53 x 53 cm (32 x 21 x 21 in.)
Weight	ZeGage: 54 kg (120 lb)

Specifications subject to change without prior notice.



### PERFORMANCE

Vertical Scan Range	$\leq 20$ mm (limited by objective working distance)
Surface Topography Repeatability	$< 3$ nm (per ISO/DIS 25178 Part 604, Annex D)
Optical Resolution	0.52 $\mu$ m to 9.50 $\mu$ m; objective dependent
Data Scan Rate	$\leq 23$ $\mu$ m/sec
Maximum Data Points	1,048,576
Step Height	Accuracy $\leq 1\%$ Repeatability $\leq 0.3\%$ @ $1\sigma$

### TEST PART CHARACTERISTICS

Material	Various surfaces: opaque, transparent, coated, uncoated, specular, nonspecular
Reflectivity	1-100% (typ)

### ENVIRONMENTAL REQUIREMENTS

Temperature	15 to 30°C (59 to 86°F)
Rate of Temperature Change	$< 1.0^\circ$ C (1.8°F) per 15 min
Humidity	5 to 95% relative, noncondensing
Vibration Isolation	Not required
Vibration Criterion	VC-C or better recommended

### UTILITY REQUIREMENTS

Input Voltage	100 to 240 VAC, 50/60 Hz
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E: info@lambdaphoto.co.uk

T: +44 (0)1582 764334

## ZE GAGE OBJECTIVE CHART

Power	Type	WD (mm)	FOV (mm)	LatRes (um)	Sampling (um)	NA	Zygo P/N
1X	LWD	8.3	8.344 × 8.344	11.4	8.15	0.03	6300-0318-01
2X	LWD	20.5	4.172 × 4.172	6.21	4.07	0.055	6300-0245-01
2.5X	STD	10.3	3.337 × 3.337	4.55	3.26	0.075	6300-0592-01
5X	STD	9.3	1.669 × 1.669	2.63	1.63	0.13	6300-0593-01
5X	LWD	20.5	1.669 × 1.669	2.44	1.63	0.14	6300-0249-01
10X	STD	7.4	0.834 × 0.834	1.14	0.81	0.30	6300-0194-01
10X	LWD	18.8	0.834 × 0.834	1.22	0.81	0.28	6300-0263-01
20X	STD	4.7	0.417 × 0.417	0.854	0.407	0.40	6300-0595-01
50X	STD	3.4	0.167 × 0.167	0.621	0.163	0.55	6300-0597-01

### Distribution in the UK & Ireland

**Lambda**  
photometrics 

#### Lambda Photometrics Ltd

Lambda House, Batford Mill,  
Harpenden, Hertfordshire AL5 5BZ

**E:** [info@lambdaphoto.co.uk](mailto:info@lambdaphoto.co.uk)

**W:** [www.lambdaphoto.co.uk](http://www.lambdaphoto.co.uk)

**T:** +44 (0)1582 764334

**F:** +44 (0)1582 712084

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