

HASO³ WSR

Exceptionally wide spectral range combined with high accuracy!

HASO WSR (Wide Spectral Range) is the latest addition to our award winning HASO product family. Available in two configurations, 32 x 40 and 58 x 74 microlenses, they combine the standard functionalities that customers have come to rely on, including absolute measurement, wide dynamic range, unequalled accuracy and insensitivity to vibration, with the capacity to measurement wavefronts across an exceptionally wide spectral band, even with monochromatic light.



Our proprietary Dynamic Spot Tracking™ and Auto Spot Finder™ features combined with the exceptional optical quality of our refractive microlenses in our patented Rotated Square™ configuration provide superior accuracy and eliminate crossing spots, without compromising dynamic range. Even more, Imagine Optic's proprietary calibration technology enables you to obtain absolute measurements every time, without the need for a reference beam, and our patented sensor design allows you to measure phase and intensity independently and in real-time. When coupled with our HASO v3 software package, you can perform both zonal and modal wavefront reconstruction; calculate the PSF, MTF and Strehl ratio; visualize the spot diagram; and obtain the M² parameter.

HASO WSR is ideally suited for applications including laser beam characterization (particularly adapted for frequency doubling), optical system metrology over a large spectral band, measuring the effects of chromatic aberrations and aligning laser optics.

If you would like more information on our products, please visit our website www.imagine-optic.com, call +33 (0)1 64 86 15 60, or e-mail us at contact@imagine-optic.com.

	HASO3-32	HASO3-58
Aperture dimension	4.9 x 6.1mm ²	8.9 x 11.3
Refractive microlens technology	Rotated square	Rotated square
Sub-apertures dedicated for analysis	32 x 40	58 x 74
Tilt dynamic range	>±3° (520λ)	
Focus dynamic range - minimum local radius of curvature	20 mm	15mm
Focus dynamic range - maximum n.a.	> 0.1	
Repeatability (rms)	< λ/200	
Wavefront measurement accuracy in relative mode (rms) ¹	λ/150	
Wavefront measurement accuracy in absolute mode (rms) ²	λ/100	
Tilt measurement accuracy (rms)	3 μrad	1 μrad
Focus measurement accuracy (rms)	10-3 m-1	5.10-4 m-1
Spatial resolution	~160 μm	
Working wavelength range	350 - 1100 nm	
Calibrated wavelength range	400 - 800 nm or 532 - 1064 nm	
Interface	FireWire	FireWire and CameraLink
Maximum acquisition frequency	50 Hz	7Hz FireWire, 16Hz
Processing frequency (CPU 3Ghz, 512 Mb RAM)	20 Hz	10 Hz
Working temperature	15 - 30° C	
Dimension / weight	75 x 62 x 68 mm / 510 g	70 x 55 x 60 mm / 258 g (camera) 1.1 Kg (controller)
Power supply	12 V / 6 W	
(1) Difference between the real wavefront and a reference wavefront obtained in similar conditions (10 λ of shift maximum). (2) Wavefront as seen by the wavefront sensor. Performance kept on the whole spectral range.		



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