

深紫外 光波面センサー

HASO DUV

Wavefront sensor
The Ultra

Deep Ultraviolet
High accuracy
Alignment-free



imagine
[+] optic



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HASO DUV DATASHEET 2509



**With the HASO DUV,
Imagine Optic is
extending its spectral
range of testing
in the UV and DUV.**

This generation of sensors features the SpotTracker™ technology. It provides absolute wavefront and tilt information, eliminating alignment requirements for faster and easier implementation.

APPLICATIONS

The HASO DUV is a factory-calibrated sensor for absolute measurements in the UV range and high accuracy wavefront sensing. Light and compact, it is easy to implement in any optical configuration and its live measurement makes it a perfect tool for alignment or adaptive optics.

- + Lithography, semiconductor manufacturing
- + Characterization of optics, objective, lens with transmitted wavefront error (TWE) and surface shape in reflection (SFE)
- + Laser fusion
- + Adaptive optics and closed-loop control
- + Excimer laser-based applications
- + Alignment and optimization of sources with optical path, based on live aberration information

FEATURES

HASO DUV packs :

- + Accuracy of $\lambda/100$ RMS permitting small defects detection
- + Dynamic range superior to 1000λ for direct wavefront acquisition of converging and diverging beams
- + Spectral range in the UV including 405nm for easy setting of the sensor.



SPECIFICATIONS*

OPERATING SPECS

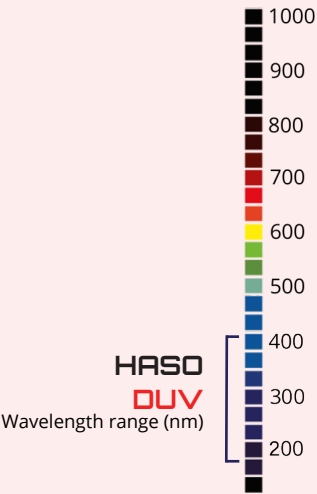
Aperture dimension	7.7 x 7.7 mm ²
Number of microlenses	86 x 86
Maximum acquisition frequency	25 Hz
Calibrated wavelength range	240-410 nm, 190-280 nm on demand
Minimum power	0.5 nW
External trigger	TTL signal
Operating system	Windows 11 & 10

OPTICAL SPECS

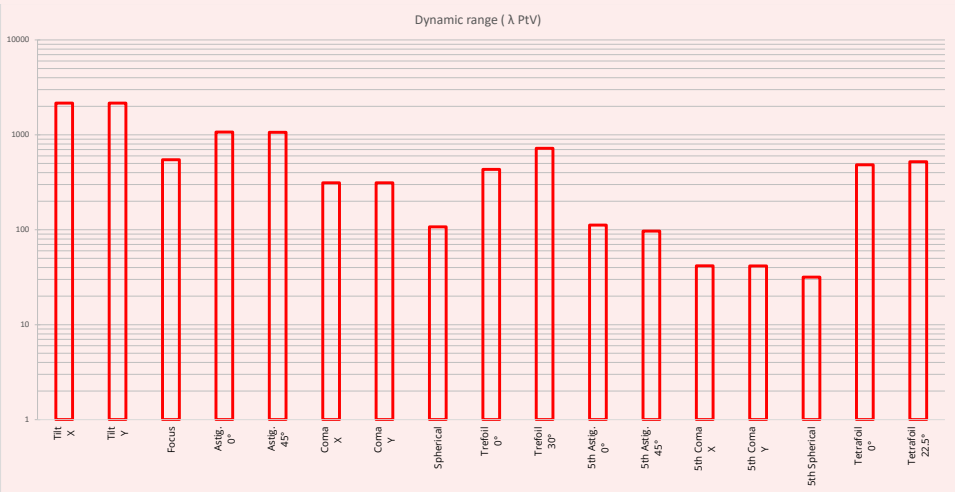
Repeatability	< 2 nm RMS
Absolute wavefront measurement accuracy	< 4 nm RMS
Spatial sampling	~ 90 µm
Local radius of curvature dynamic range	± 0.02 m to ± ∞
Beam aperture (f-number)	> 5

MISC

Dimension (Height x Width x Length)	45 x 46 x 48 mm ³
Weight	150 g
Working temperature	15 - 30 °C
Interface	USB3
Power consumption	4 W

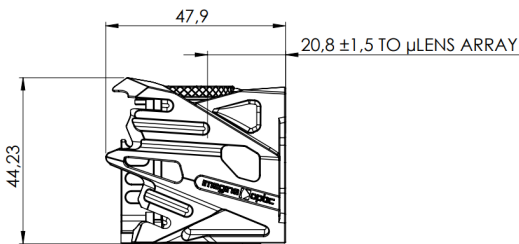
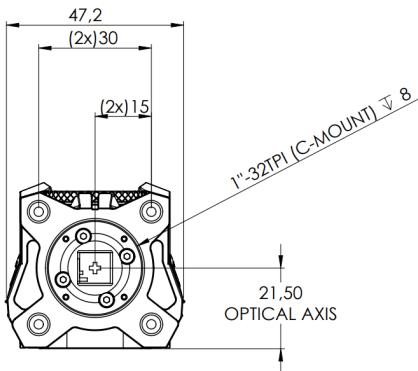


HASO DUV
Dynamic range at $\lambda = 350$ nm



*Subject to changes without further notice
Acquisition & processing frequencies depend on computer

DIMENSIONS (mm)



SOFTWARE

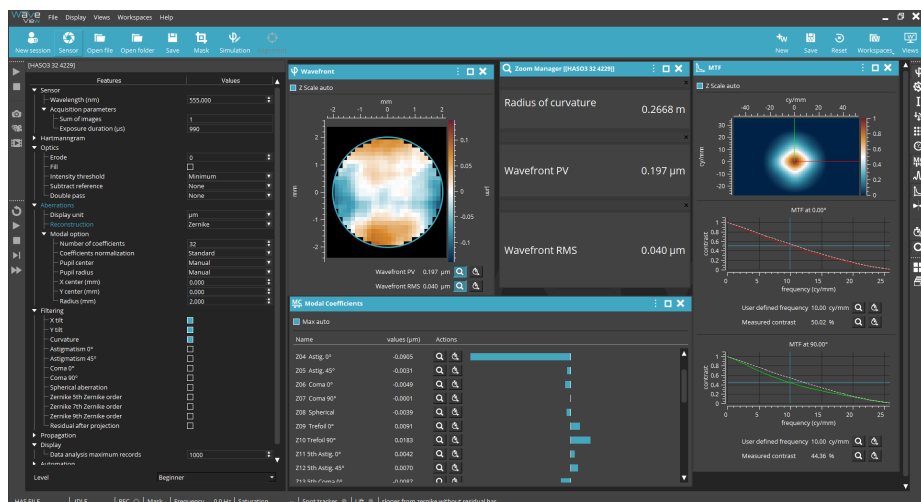
WAVEVIEW™ Metrology Software

WAVEVIEW™ is the most advanced wavefront measurement and analysis software.

It offers more than 150 features and tools optimized for a wide range of highly demanding applications.

Options :

- + Extensions for PSF, MTF, M², Advanced Zernike and Strehl ratio
- + Optional SDK in C/C++, LabVIEW and Python



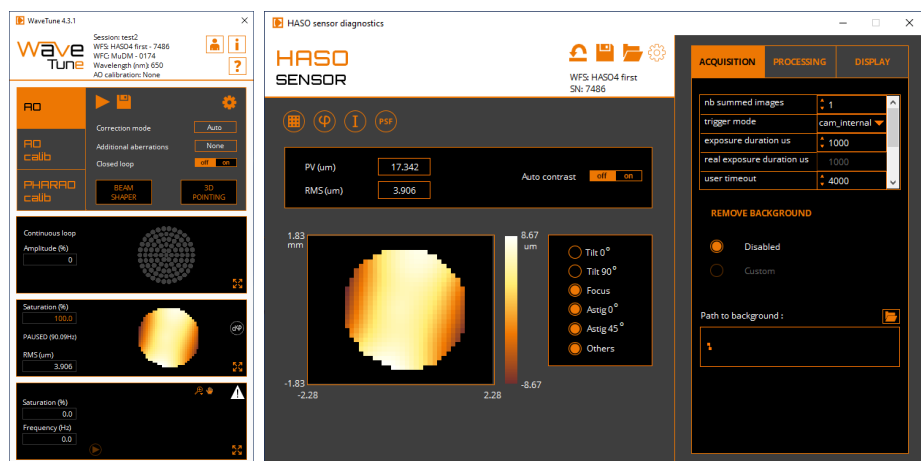
WAVETUNE™ Adaptive Optics Software

WAVETUNE™ is a unique software that seamlessly combines wavefront measurement and correction features with extensive instrument diagnostics.

It is perfectly adapted to our HASO wavefront sensors, ILAO STAR, MIRAO and mu-DM deformable mirrors, as well as to a wide range of active components.

Options :

- + Optional SDK in C/C++, LabVIEW and Python





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