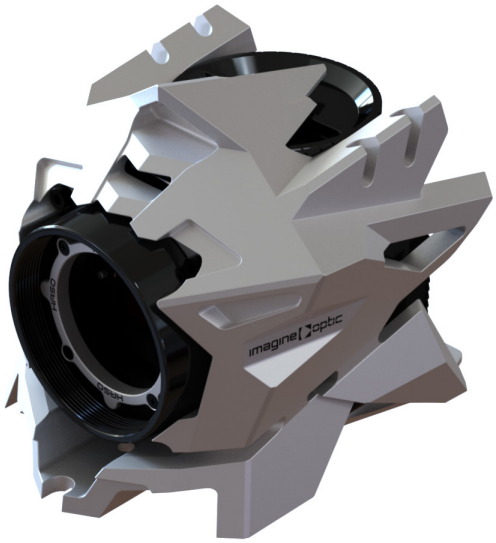
HASO LP

Wavefront sensor
The ciclop

Large analysis pupil
High accuracy
Alignment-free



imagine optic

HASO LP

With the HASO LP, Imagine Optic is extending its portfolio with a large pupil sensor, bringing convenience to the testing of large beams.

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

APPLICATIONS

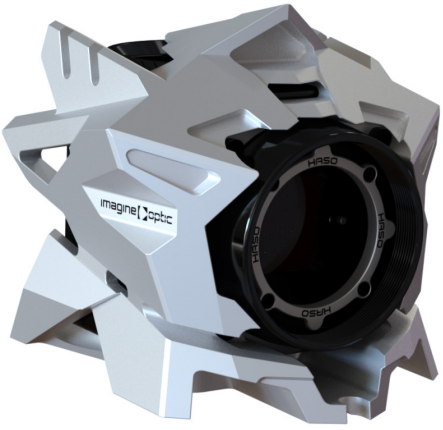
The HASO LP is the perfect tool for direct characterization of relatively large optical beams without the need for relay optics to adapt the beam to the metrology tool. It is easier, faster to implement and more accurate: no more added optics means no more added aberrations and no need for specific setup calibration.

+ Laser beam testing, accurate laser collimation
+ Laser optical alignment and optimization to allow optimal M2-parameter values
+ Characterization of optics, lens, protective windows, mirror with transmitted wavefront error (TWE) and surface shape in reflection (SFE) using the same wavefront sensor and over a large spectral bandwidth
+ Production QC, specifications check of purchased optics prior to integration
+ Alignment of optical systems, based on live aberration information

FEATURES

HASO LP packs :

+ 22 mm large analysis pupil for direct wavefront characterization without relay optics or beam conditioning
+ Accuracy of λ/100 RMS permitting small defects detection
+ Dynamic range superior to 1000 λ for direct wavefront acquisition of converging and diverging beams



SPECIFICATIONS*

OPERATING SPECS

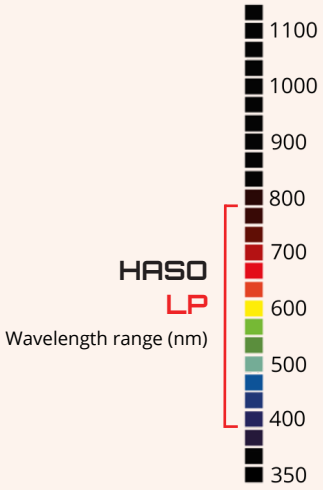
Aperture dimension	22 x 22 mm²
Number of microlenses	128 x 128
Maximum acquisition frequency	10 Hz (10GigE)
Calibrated wavelength range	400 - 800 nm
Minimum power	0.7 nW
External trigger	TTL signal
Operating system	Windows 11 & 10

OPTICAL SPECS

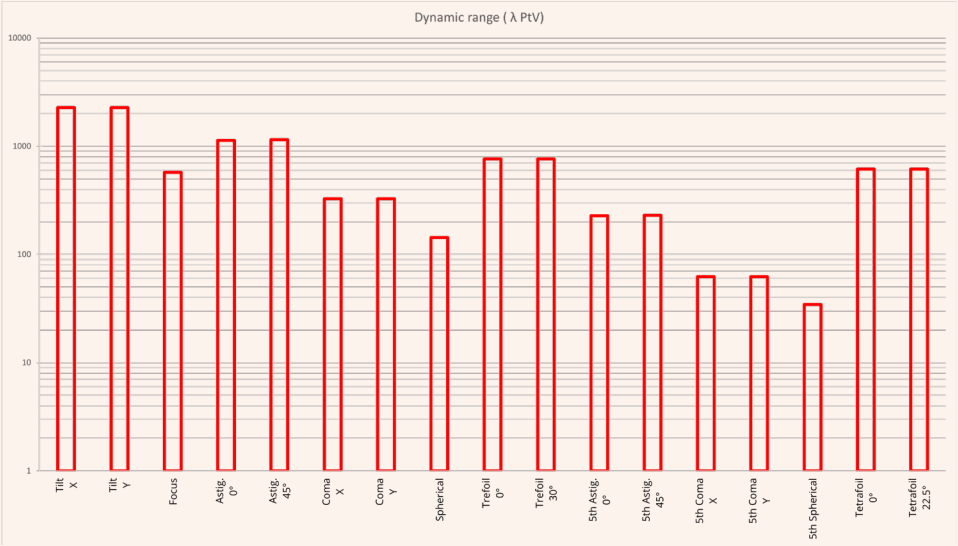
Repeatability	< λ/200 RMS
Absolute wavefront measurement accuracy	λ/100 or 6 nm RMS
Spatial sampling	~ 170 µm
Tilt dynamic range	> ± 3°
Focus dynamic range	± 0.02 m to ± ∞
Beam aperture (f-number)	> 5

MISC

Dimension (Height x Width x Length)	100.7 x 104.5 x 121 mm³
Weight for USB version	800 g
Working temperature	15 - 30 °C
Interface	10GigE
Power consumption	14 W (dep. on operating mode)

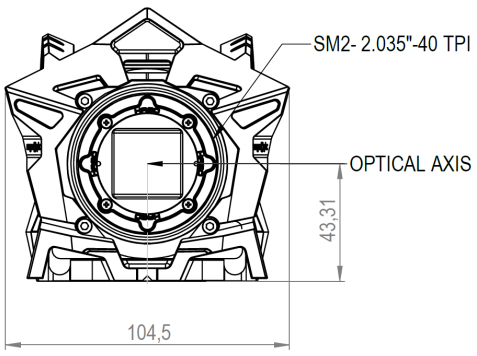


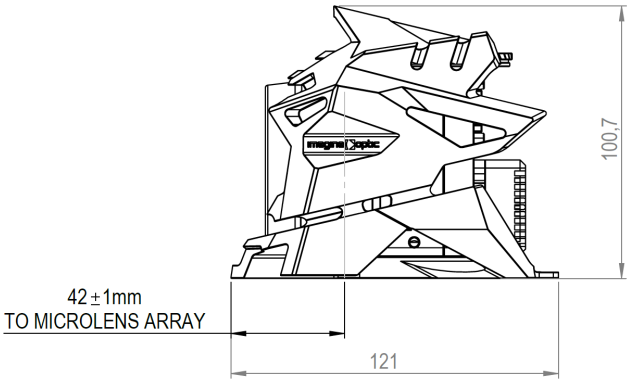
HASO LP
Dynamic range at λ = 635 nm



*Subject to changes without further notice

DIMENSIONS (mm)





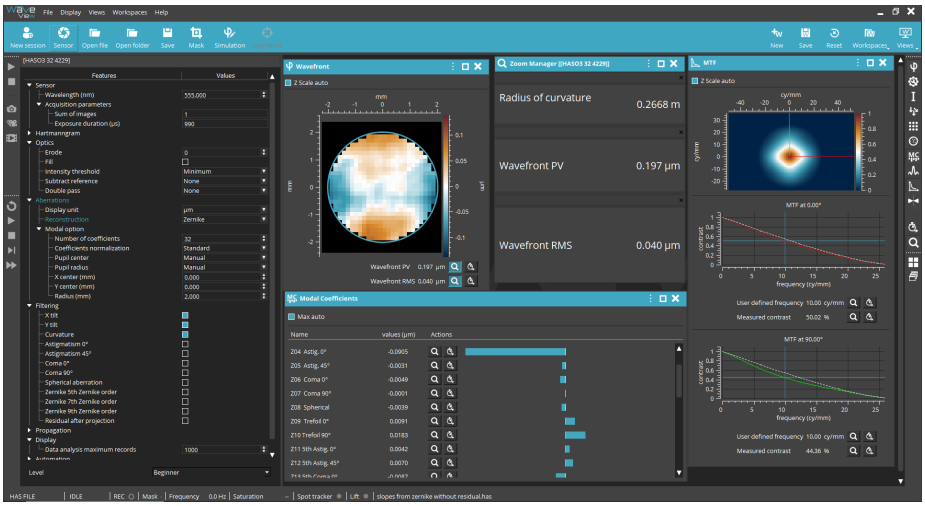
SOFTWARE

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 and Strehl ratio
+ Optional SDK in C/C++, LabVIEW and Python

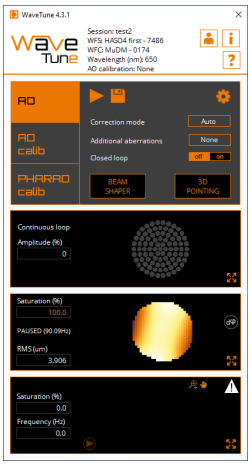


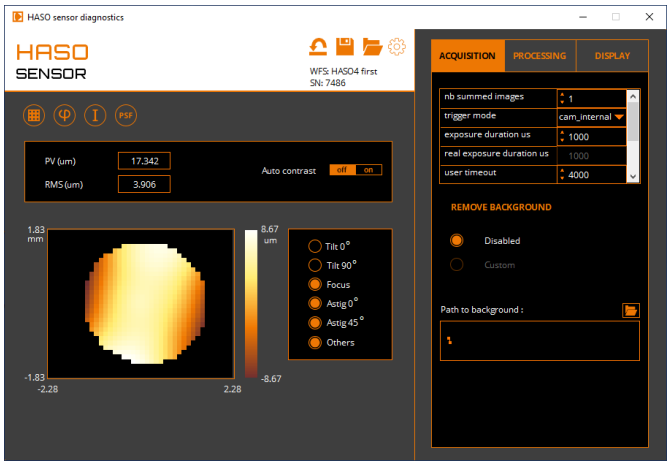
WAVETUNE™
Adaptive Optics Software

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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