HASO 126

Wavefront sensor
The Big guys

VIS or BROADBAND version
Large pupil
Alignment-free

OIC compatible

imagine optic

HASO 126

The HASO 126 Shack-Hartmann wavefront sensors provide high-resolution combined with a large pupil for unmatched precision and versatility.

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

Compatible with the Optical Engineer Companion modular system: easily combine the accessories you need.

APPLICATIONS

Successfully used in the most demanding applications in optical metrology, microscopy, and laser diagnostics, the HASO 126 perform multiple functions:

+ Quantify the aberrations of optical systems
+ Align the system to ensure that it performs at its best
+ Predict the optical system's performance in terms of focusing capability (PSF) or imaging quality (MTF)
+ Quantify the effects of temperature and gravity on system performance
+ Verify that the optics comply with specifications
+ Directly measure the optical system's wavelength dependency
+ Pilot a wavefront corrector to change the system's aberrations
+ Check whether the optical mount overly distorts the optics

FEATURES

+ Easy setup on any beam size thanks to the large 13.8 x 10.2 mm^2 pupil
+ Direct wavefront acquisition of converging and diverging F/5 beams with an accuracy of λ/100 RMS, including astigmatism and high-order aberrations
+ Beam collimation with an accuracy better than 300 m radius of curvature
+ Control and adjustment of axial laser beam deviation better than 3 µrad RMS

SPECIFICATIONS*

OPERATING SPECS

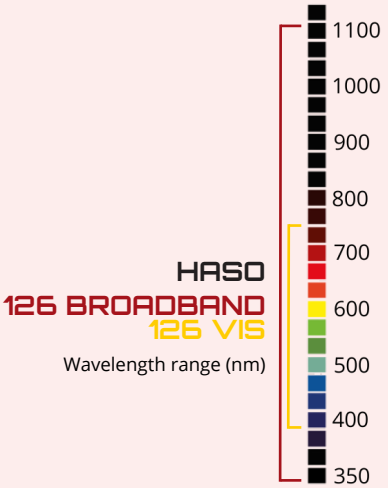
Aperture dimension	13.8 x 10.2 mm²
Number of microlenses	170 x 126
Maximum acquisition frequency	30 Hz (USB 3.0) or 8 Hz (with GigE converter)
126 BROADBAND calibrated wavelength range	350 - 1100 nm
126 VIS calibrated wavelength range	400 -750 nm
Minimum power	0.15 nW
External trigger	TTL signal
Operating system	Windows 10 & 11

OPTICAL SPECS

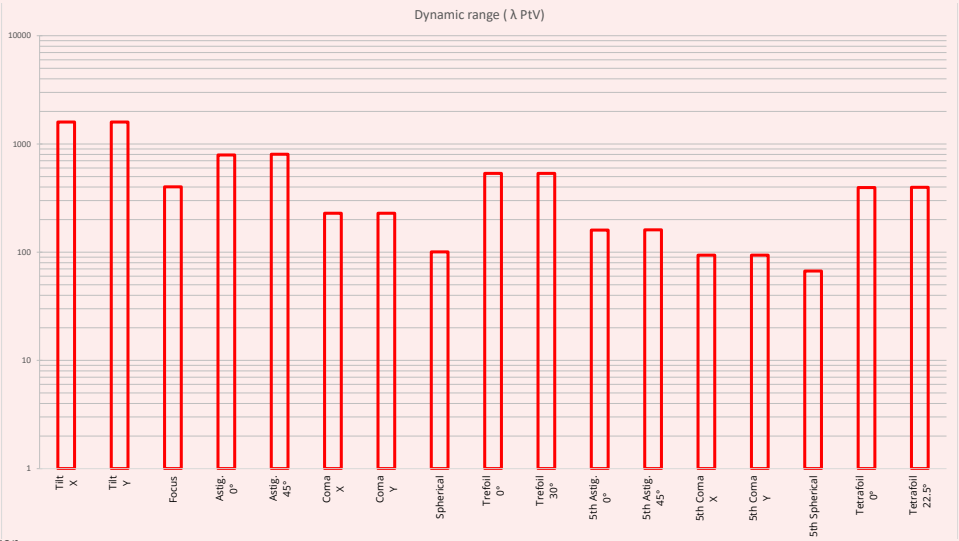
Repeatability	< λ/200 RMS
Absolute wavefront measurement accuracy	
• λ between 350-600 nm	≤ 6 nm RMS
• λ between 600-1100 nm	~ λ/100 RMS
Spatial sampling	~ 80 µm
Local radius of curvature dynamic range	± 0.010 m to ± ∞

MISC

Dimensions (Height x Width x Length)	47 x 62 x 60 mm³ (USB 3.0)
Weight for USB version	185 g
Working temperature	15 - 30 °C
Interface	USB 3.0 or optional GigE converter
Power consumption	3.6 W

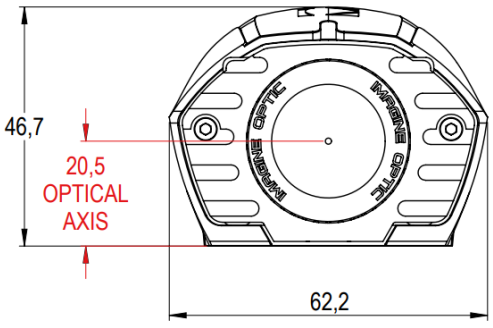


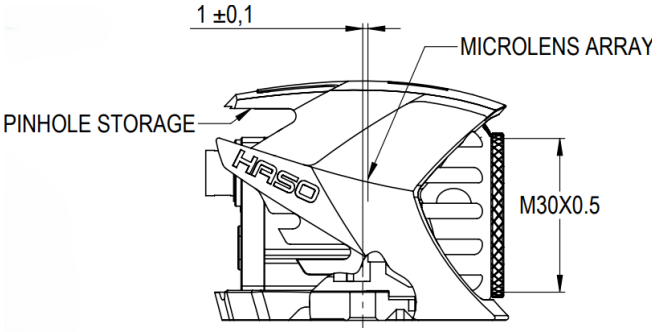
HASO 126
Dynamic range at λ = 635 nm



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

DIMENSIONS** (mm)





**USB 3.0 model

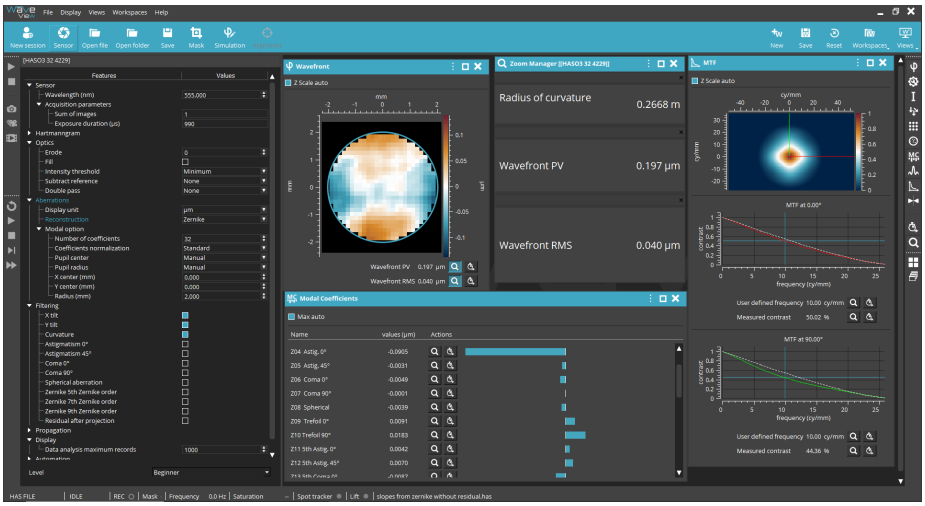
SOFTWARE

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

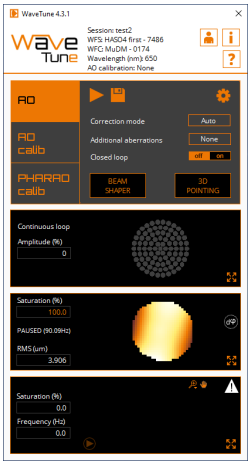


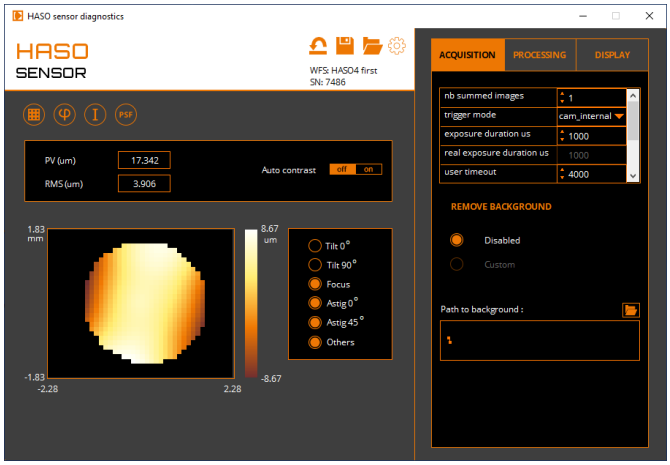
WAVETUNE™
Adaptive Optics Software

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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