




HASO

LIFT 680

Wavefront sensor
The Best-in-class

Ultra-high spatial resolution
High accuracy
Alignment-free



 compatible



HASO LIFT 680 +

For the HASO LIFT 680, Imagine Optic has merged the reliability and accuracy of a Shack-Hartmann wavefront sensor with the ultra-high resolution of LIFT.

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 LIFT 680 performs multiple functions :

- + Characterize complex optics, including meta-surface and freeform optics
- + Quantify laser impact (LIDT)
- + Perform surface characterization on high and middle frequencies mirrors
- + Predict the performance of optical systems in terms of focusing capability or imaging quality
- + Quantify the effects of temperature and gravity on system performance
- + Drive a wavefront corrector to correct for system aberrations

FEATURES

HASO LIFT 680 enables you to perform multiple functions by combining :

- + Ultra-high spatial resolution of 680 x 504, allowing characterization over several hundreds of Zernike polynomials
- + Accuracy of $\lambda/100$ RMS permitting small defects detection
- + Dynamic range superior to 1000λ for direct wavefront acquisition of converging and diverging beams



SPECIFICATIONS*

OPERATING SPECS

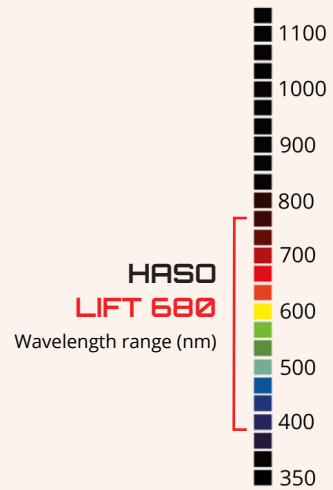
Aperture dimension	13.8 x 10.2 mm ²
Phase points resolution	680 x 504
Number of microlenses	170 x 126
Maximum acquisition frequency	30 Hz (USB 3.0) or 8 Hz (GigE)
Calibrated wavelength range	400 - 750 nm
Minimum power	0.7 nW
External trigger	TTL signal
Operating system	Windows 10

OPTICAL SPECS

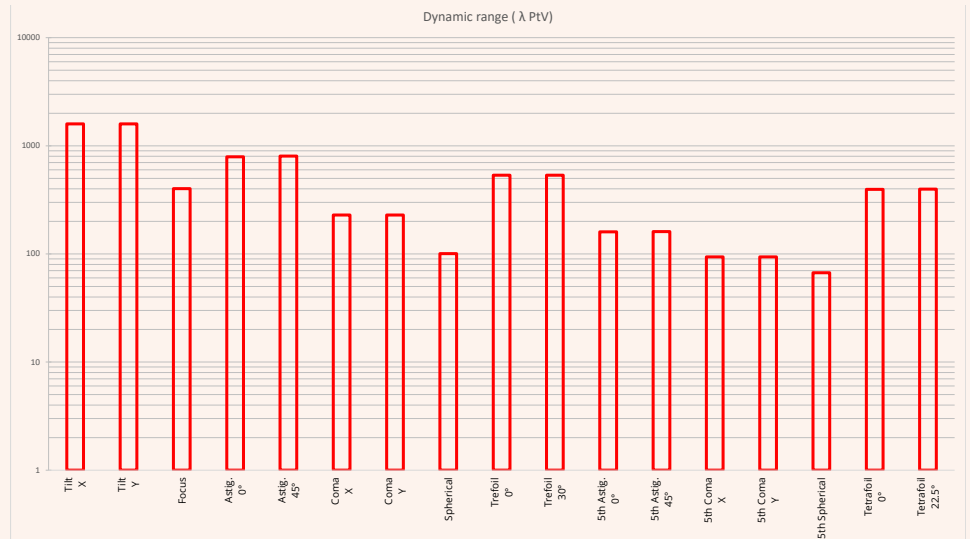
Repeatability	< $\lambda/200$ RMS
Absolute wavefront measurement accuracy	$\lambda/100$ or 6 nm RMS
Spatial sampling	~ 20 μ m
Tilt dynamic range	> $\pm 3^\circ$
Focus dynamic range	± 0.004 m to $\pm \infty$

MISC

Dimension (Height x Width x Length)	47 x 62 x 60 mm ³ (USB 3.0)
Weight for USB version	200 g
Working temperature	15 - 30 °C
Interface	USB 3.0 or GigE
Power consumption	3.6 W

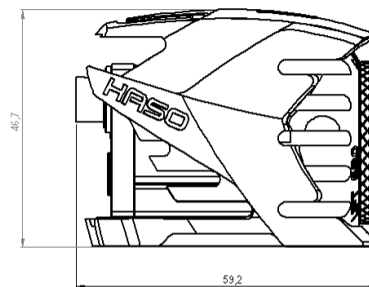
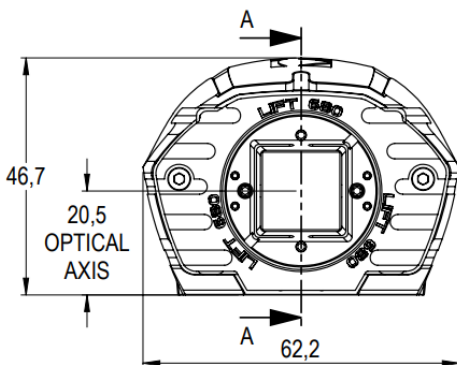


HASO LIFT 680
Dynamic range at $\lambda = 635$ nm



*Subject to changes without further notice

DIMENSIONS (mm)**



**USB 3.0 model

SOFTWARE

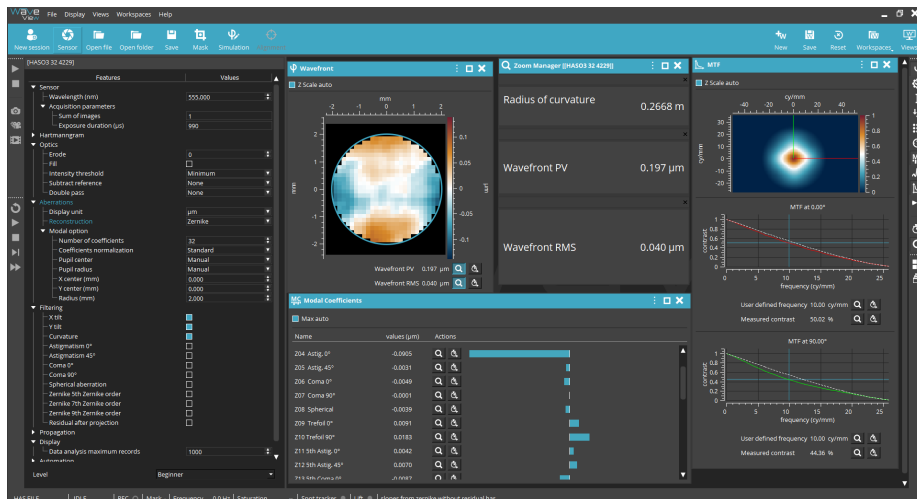
WAVEVIEW™ Metrology Software

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



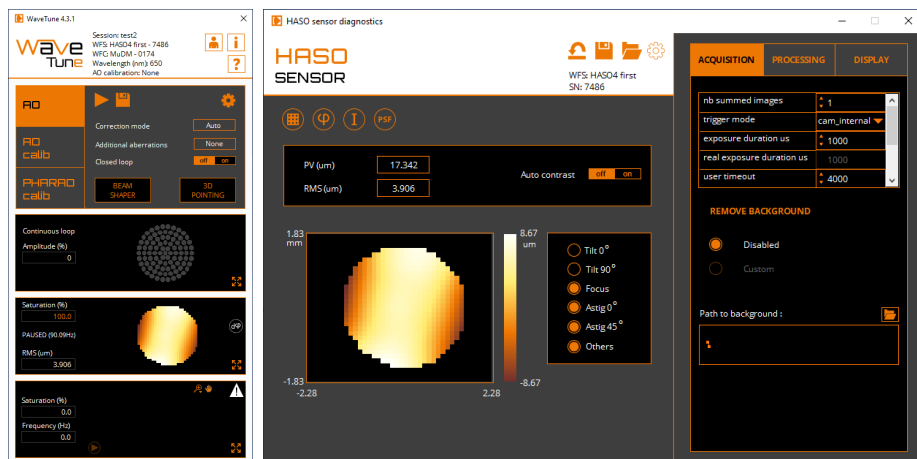
WAVETUNE™ Adaptive Optics Software

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



CONTACT US

Imagine Optic Headquarters
18, rue Charles de Gaulle
91400 ORSAY · France
Phone +33 (0)1 64 86 15 60
sales@imagine-optic.com
www.imagine-optic.com

