

HASO HXR

Wavefront sensor The X

From 5 to 25 KeV
Live single-shot
High accuracy



Imagine Optic's HASO HXR wavefront sensor is the only device of its kind that offers extreme precision and live measurement for today's advanced scientific research.

APPLICATIONS

Successfully used in many demanding applications, the HASO HXR performs multiple functions.

With it you can :

- + Obtain live measurement of the optical quality of your beamline at strategic positions such as after the monochromator, after an optics or a sample
- + Characterize fluctuations of the position of a focal point
- + Automatically align focusing optics systems (such as a Kirkpatrick-Baez system or toroidal mirrors)
- + Control active optics to optimize the focal spot
- + Retrieve intensity and phase information instantaneously. The system is adapted to biological imaging (nanoparticles in tissues or organs of small animals)

FEATURES

- + Single-shot, live visualization of the wavefront (no post-processing required)
- + High accuracy wavefront characterization (better than $\lambda/10$ RMS)
- + Multiple calibration options available
- + Characterization doesn't require to access to the focal point
- + Compact device, easy to use



SPECIFICATIONS*

OPERATING SPECS

Aperture dimension	Up to 3 X 3 mm ²
Number of sub-apertures dedicated for analysis	Up to 150 x 150
Exposure time range	32 μ s - 2000s
Typical flux needed at 1s exposure	10 ¹¹ photon/s
Working photon energy (Wavelength range)	5-25 keV (50 pm – 250 pm)
Operating system	Windows 10

OPTICAL SPECS

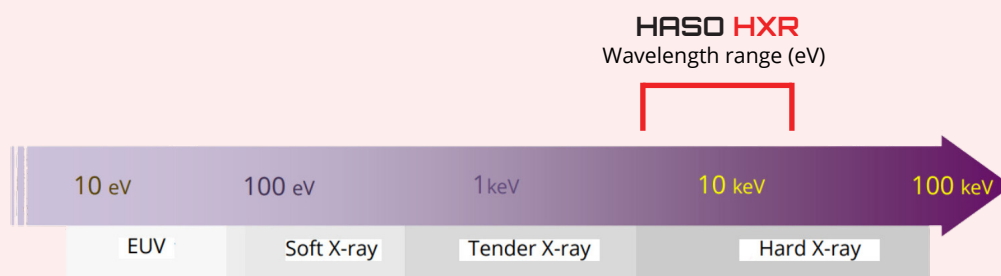
Repeatability	$\sim \lambda/15$ (@14 keV)
Absolute wavefront measurement accuracy	$\sim \lambda$ (@14 keV)
Spatial sampling	20 μ m
T. measurment sensitivity	80 nrad RMS
Maximum beam divergence	1.5 mrad

MISC

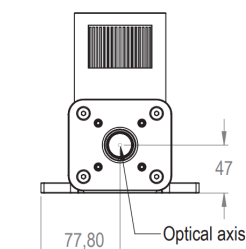
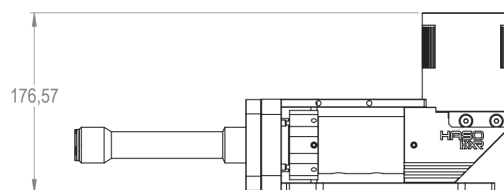
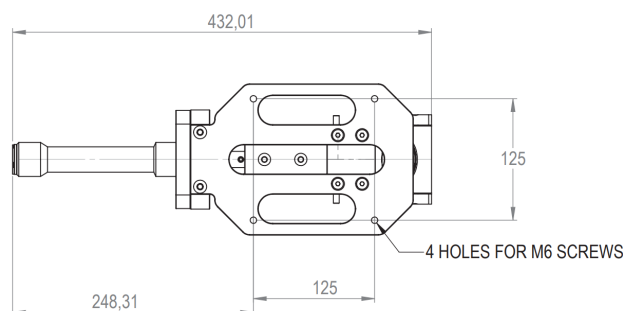
Dimensions (Height x Width x Length)	135 x 155 x 480 mm ³
Weight	4.5 Kg
Working temperature	15-30 °C
Interface	USB
Power consumption	12 VDC

*Subject to changes without further notice

/!\ Acquisition & processing frequencies depend on computer



DIMENSIONS (mm)



SOFTWARE

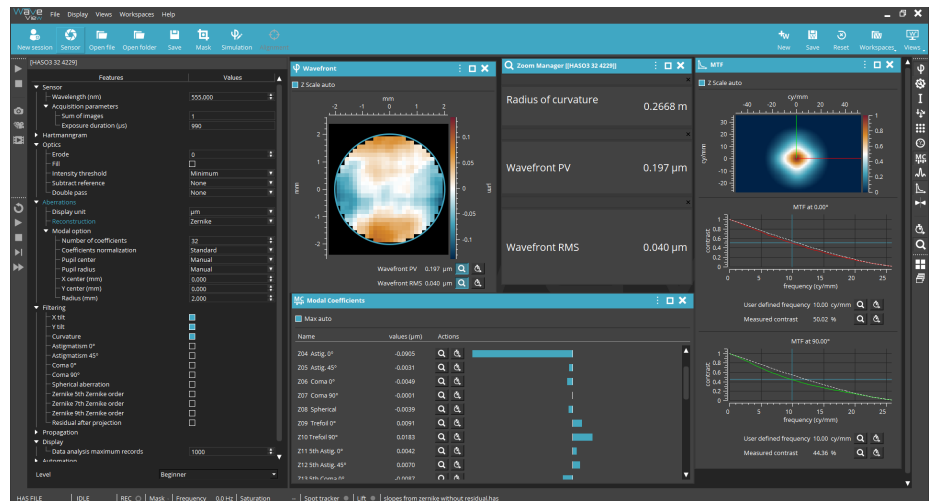
WAVEVIEW™ Metrology Software

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



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