

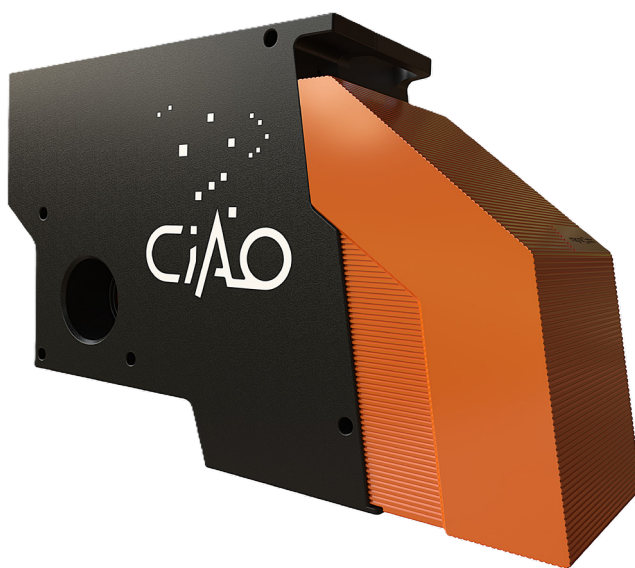


CIAO SWIR

**Improve your
optical link capability**

Adaptive Optics platform
Small, simple & robust

Up to 3.5kHz closed loop
Simply interfaced to all telescopes
From 1 μm to 1.7 μm wavelength



Preliminary
Datasheet

imagine
 optic

CIAO is a compact innovative adaptive optics add-on that enhances your optical link data rate.

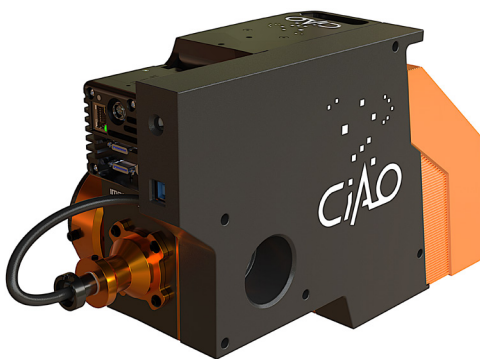
We customize for our users, so please contact us to discuss how CIAO could benefit your application !

APPLICATIONS

- + Downlink satellite communication (SatCom)
- + Horizontal path free space optics (FSO) communication
- + Quantum key distribution
- + Fast adaptive optics in SWIR
- + Daytime or nighttime operation
- + Atmosphere characterization in SWIR

FEATURES

- + Includes 12x12 microlenses high performance HASO SWIR FAST wavefront sensor optimized for SWIR & high speed
- + Corrects up to 40 modes thanks to piezo-electric deformable mirror
- + Facilitates access to beam-splitter allowing to choose one adapted to your needs (dichroic function or split ratio)
- + Integrates a source, making calibration & auto-check easier
- + Is optimized for f/10 telescopes, but customization available for any f#
- + Includes a high dynamic tip-tilt corrector to compensate large pointing errors
- + Integrates an optimized fiber injector
- + Works with dedicated software that includes autocalibration and one button to start AO
- + Has a negligible impact on polarization
- + Optional user filter holder
- + 0° or 90° installation



SPECIFICATIONS*

CIAO SWIR

HASO wavefront sensor nb of microlenses
 HASO accuracy
 HASO repeatability @1550nm @4000ph/microlens
 Spectral range
 Deformable mirror
 Max closed loop frequency
 BeamSplitter
 Closed loop average delay
 Internal source
 Switch from telescope to internal source
 Rejection bandwidth cut-off frequency
 Output f#
 Dimension
 Weight
 Cable length to PC

12x12
 15nm RMS
 30nm RMS
 1-1.7 μm
 40 piezo actuators
 3.5kHz
 50-50 (other split ratio or dichroic available)
 0.5 ms
 1550 nm
 motorized
 $\geq 85\text{Hz}$
 f/3.7 or fiber holder
 315x315x127mm³
 3kg
 2m (extenders available, optional)

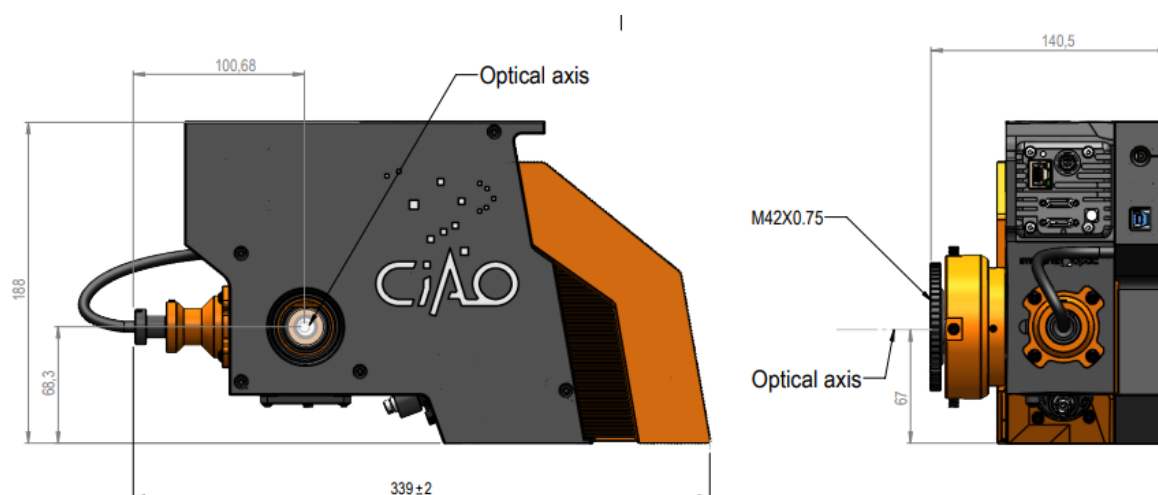
Compatible telescopes

Diameter
 Input f#
 Mechanical interface
 Pointing accuracy

from 200mm to 1m
 f/9 to f/12 (other f# available with custom)
 T2 (M42x0.75mm)
 $\pm 1\text{arcmin}$

*Subject to changes without further notice

DIMENSIONS (mm)



SOFTWARE

WAVESKY

Wavesky was made with a RunTime approach, meaning it has no GUI. When connected via TCP-IP, you can setup the server, drive the loop and make diagnostics.

It includes C++ and Python client examples and runs under Win10 and Win11 environment.



CONTACT US

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