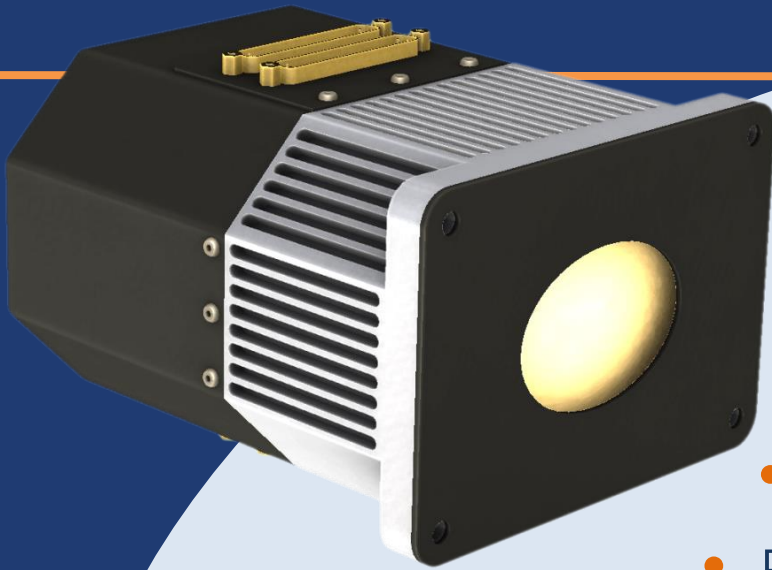


MDIR

Deformable Mirror dedicated to InfraRed Laser

MD-IR mirrors use μ AME-ST* actuators for wave-front correction: the optical surface keeps its shape even when the system is unpowered, no footprint (due to actuator I/F) on the optical surface.

μ AME-ST*: Micro Strength Actuator patented by ISP System



- Up to Zernike order 3 correction
- Excellent linearity (> 99%)
- Low hysteresis (< 0.1%)
- High long-term stability unpowered
- Excellent resistance to electromagnetic disturbance
- No print-through effect on the optical surface
- Optical surface shape is maintained unpowered
- Easy maintenance, actuators and optical surface are exchangeable

Features

Working pupil : elliptical 40 x 57 mm

Coating Gold (R > 98% @ $\lambda = 10 \mu\text{m}$)

Conduction cooling 2W

25 actuators

Zernike ordre 3 (piston not included)

Size W 150 x H 110 x D 180 (excluding connectors)

Weight 5kg



Custom deformable mirror on request : contact@isp-system.fr

Deformable Mirror dedicated to InfraRed Laser

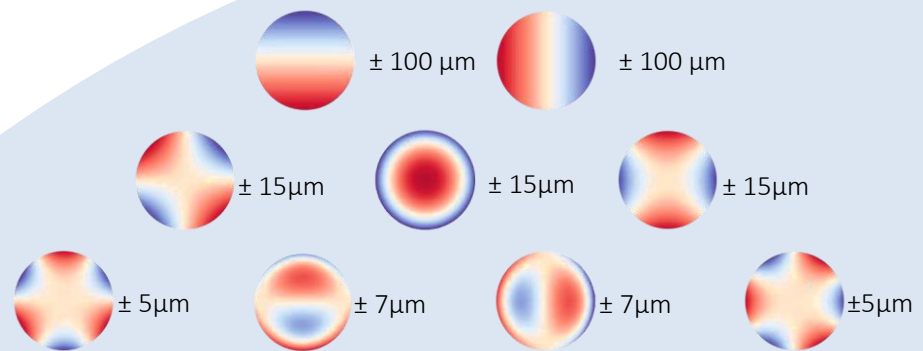
Feedback loop

In the frame of the LASQUA consortium, Phasics and ISP System advise you for setting up your feedback loop based on a wave-front analyzer.



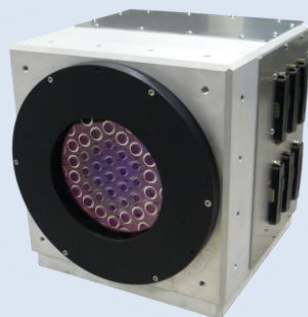
LASQUA proposes adapted and customizable solutions for intense laser facilities. These solutions have shown their efficiency and their stability on many laser facilities worldwide.

Dynamique de correction Peak to Valley (PtV Optique) des modes de Zernike



PtV dynamics are related to an elliptical 40x57 mm² aperture. Depending on the modes, the rms residual wave-front errors represent between 0.1% and 1% of the correction.

Custom solutions



Thanks to its experience and skills, ISP System offers services to design custom solutions in order to fit your needs.

The main customizable features are:

- Active or passive cooling
- Number of actuators
- Zernike modes dynamics and order achievable
- Aperture size and angle of incidence, from 0° to 45°
- Optical surface coating (wavelength, damage threshold, reflectivity...)