

mirao™ 52-e

mirao 52-e is the latest addition to this award winning product line. mirao offers professionals unprecedented wavefront shaping abilities and features including:

- $\pm 50 \mu\text{m}$ stroke (tilt p/v)
- 15mm pupil with 52 actuators
- exceptional optical quality (10 nm rms)
- surprising precision (20 nm rms)
- virtually no hysteresis (<2%)
- near perfect linearity (>95%)
- USB2 connectivity

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mirao™ 52-e

mirao 52-e is a unique wavefront shaping technology that combines unparalleled wavefront shaping abilities and precision with low power consumption and USB2 connectivity to meet the needs of today's most demanding applications.

mirao is a unique technology that overcomes many of the barriers that limited deformable mirror performance in the past. By using electromagnetic energy to deform the mirror's surface up to $\pm 50 \mu\text{m}$ (tilt p/v), it outperforms other commercially available mirrors in applications where severe aberrations need to be corrected. Even up to the Zernike 6th order with extreme precision.

In addition to its excellent optical quality, high linearity and lack of hysteresis, the fact that mirao functions with almost any beam wavelength and intensity makes it ideal for a wide range of applications. mirao 52-e's new, ultra-compact electronic unit connects to your PC via a stand USB2 port, and offers improved temporal performance and stability. What's more, we've added a trigger output to facilitate synchronization with other devices via a TTL signal.

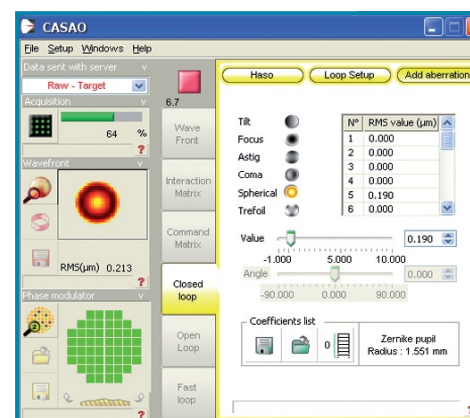
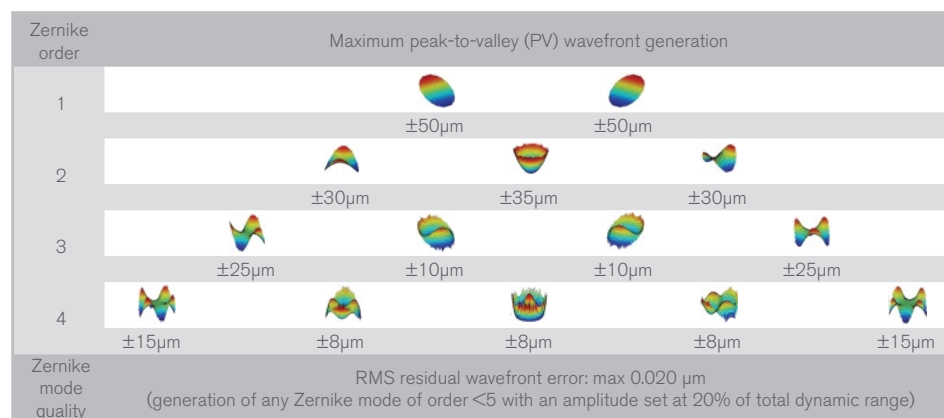
The other major enhancement to the mirao 52-e is an all-new Application Programming Interface (API) that was painstakingly developed to provide easy access to mirao's powerful wavefront correction abilities. The API includes a complete, timesaving collection of high-level functions so that users can quickly develop feature-rich applications without having to rewrite driver libraries on their own. Thanks to its strict compliance to the ANSI C standards, the API library can be used in a large number of development environments.

To learn more, contact Imagine Optic at +33 (0)1 64 86 15 60 or visit www.imagine-optic.com.



Number of actuators	52
Maximum generated wavefront (PV)	$\pm 50 \mu\text{m}$
Surface quality (rms active flat)	10 nm
Integrated tip/tilt correction	yes
Spatial frequency correction	Zernike orders up to 6
Effective diameter	15 mm
Linearity	>95%
Hysteresis	<2%
Actuator input voltage	$\pm 1\text{V}$ maximum ¹
Coatings	protected silver
Power consumption	50W max
Dimensions / weight	64 x 64 x 23 mm / 490g ²

1) Total sum of applied voltages not to exceed 25V. 2) Mirror unit only.



Get more out of mirao with CASAO

CASAO™ is a unique application for open or closed-loops that is perfectly adapted to mirao and Imagine Optic's HASO family of wavefront sensors. It seamlessly combines wavefront measurement and correction features with extensive instrument diagnostic to provide users with an ergonomic adaptive optics PC workspace.