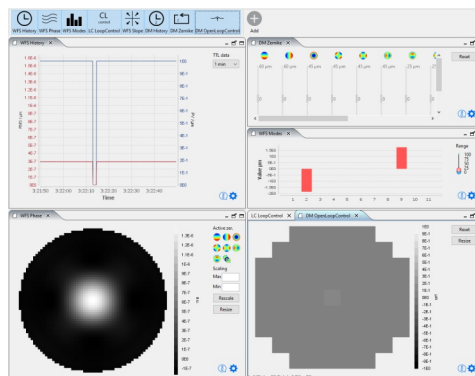


ALPAO AO KIT is an AO system composed of an **ALPAO DM**, an **ALPAO SH-WFS** and **ACE** software or **ACE fast** Real Time Computer. It offers over 100 configurations. These components are designed to work together and a system level test will be offered.



Key features

KIT FOR EVERY APPLICATIONS

Athmospheric correction,
ophthalmology, microscopy...

CUSTOMIZE YOUR OWN KIT

Select your DM, WFS and
software over more
than 100 choices

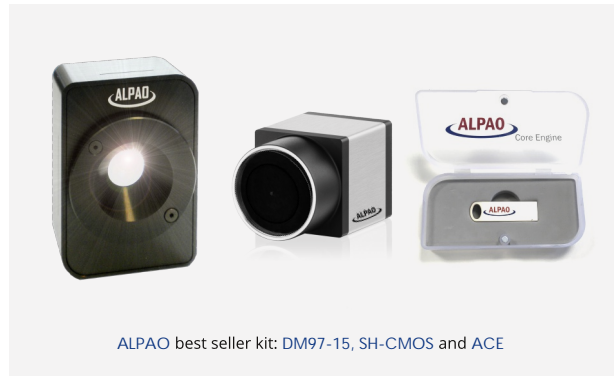
COST EFFICIENT

Get a tested system for the
price of the components

KIT FOR EVERY APPLICATION

ALPAO kits allow to choose from over 100 possible configurations. Pick up the right one depending on the performances you need: complexity and speed of your aberrations, spectral range and number of photons available.

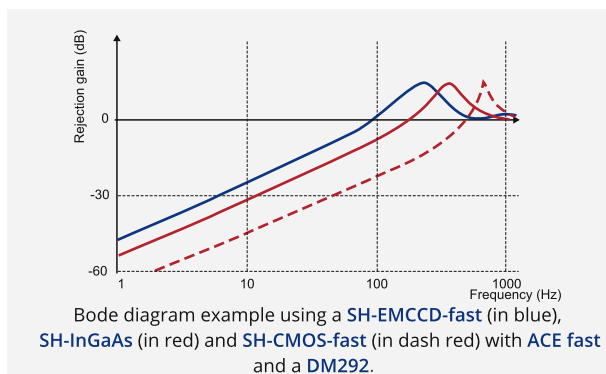
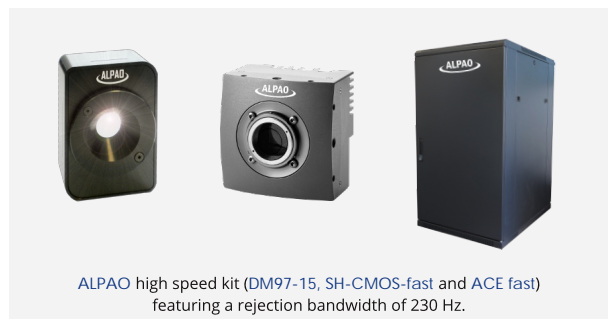
ALPAO DM97-15 associated with SH-CMOS WFS and ACE is an excellent cost-efficient kit. It performs at a few tens Hertz correction ability up to ~60 Zernike order. Because of ACE flexibility, you will easily implement it into your experiment and override your aberrations.



SPEED & SENSITIVITY PERFORMANCES

Choose the correct ALPAO kit depending on your application:

- the shape of your aberrations drives the number of actuators,
- the temporal fluctuation of your aberrations and the number of photons available drive the WFS and RTC choice.



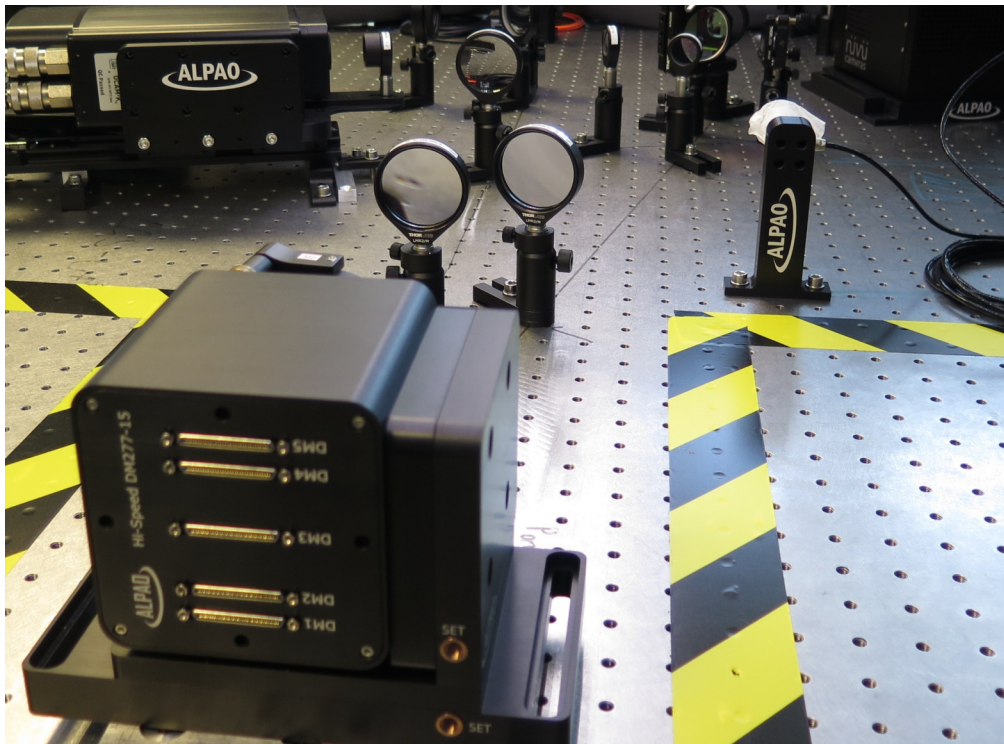
		SENSITIVITY & SPEED				
DM	WFS	Photons for SNR=1 (ph./fr/sub-aperture)		Rejection bandwidth with ACE (Hz)	Rejection bandwidth ACE fast (Hz)	Spectral range
DM820 or lower	SH-CMOS	100	3	5	VIS	
DM468 or lower	SH-CMOS-fast	1000	35	230	VIS	
DM468 or lower	SH-EMCCD	3	19	25	VIS	
DM69	SH-EMCCD-fast	3	-69	35	VIS	
DM97			-97	35		
DM292		-292	4	35		
DM468		-468		35		
DM69	SH-InGaAs	1500	-69	35	NIR	
DM97			-97	35		
DM292		-292	300	35		
DM468		-468		35		

MORE INFORMATION

- www.alpao.com
- contact@alpao.fr
- +33 476 890 965

Ask for advanced simulations!

ALPAO Adaptive Optics System (AOS) are tailor-made systems for your applications and needs. They are based on more than twelve years of experience in AO systems for many applications.



Key features

READY-TO-USE

All components included
and assembled

CUSTOMER-FOCUSED

Dedicated to your application
and based on years of
experience

FAST

Close the AO loop
at up to 5kHz with a rejection
bandwidth up to 230Hz

PLUG AND PLAY AO SYSTEM FOR MICROSCOPY

Correction of the optical aberrations (from sample, index mismatch and microscope) becomes straight forward with the **ALPAO** plug-and-play AO system for microscopy. A typical system includes:

- **ALPAO DM97-15, SH-CMOS WFS** and **ACE**
- an embedded calibration unit
- an embedded pupil imaging camera

ALPAO plug-and-play systems for microscopy are available for most applications. It includes:

- Multi-photon microscopy
- Confocal microscopy
- PALM and STORM
- Fluorescence microscopy



Example of an **ALPAO** plug-and-play AO system for microscopy

Based on a robust standard design, **ALPAO** is able to provide a system perfectly matching to your microscope at a very competitive price.

Contact us for one-to-one guidance and technical support.

STATE-OF-THE-ART SYSTEM FOR LGS ATMOSPHERIC COMPENSATION

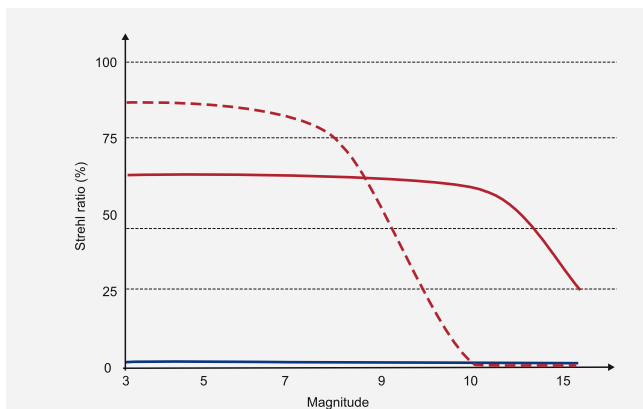
ALPAO can provide state-of-the-art AO systems for atmospheric turbulence compensation. Natural Guide Star (NGS) or Laser Guide Star (LGS) configuration can be provided.

Such systems typically include:

- **ALPAO DM**
- **ALPAO fast WFS**
- **ALPAO ACE fast** (RTC)
- a calibration unit
- a Tip-Tilt Mirror (TTM)
- an object Tip-Tilt sensor
- a Focus Stage Control (FCS) for the LGS
- a LGS-TT
- the science camera or instrument
- a storage device

Typical applications are:

- Astronomy
- Debris and satellite imaging
- Free Space Optical (FSO) communication
- Laser precompensation of atmospheric aberrations



Example of Strehl ratio without AO (in blue), with LGS (in red) and with NGS (in dash red)
With $D/r_0 = 8$ and a **DM292, ACE fast, SH-EMCCD-fast-292**

MORE INFORMATION

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