# Superior AO Technology

**Solving Today's Most Demanding Optical Problems** 







A closed loop adaptive optics system known as Clarifi<sup>™</sup> senses your beam conditions and adjusts the optical wavefront to produce a perfect focus. Clarifi<sup>™</sup> comes complete with two versions. The first uses a Hartmann wavefront sensor to measure the beam errors and sends the corrections to the deformable mirror for adjustment. When correction speed is not an issue, the second version watches the beam focus in a closed loop and searches for the best mirror figure to optimize performance.

Clarifi™ is perfect for those situations where thermal or optical distortions spoil the far field. Applications include free-space communications, coupling into small core fibers, and peaking the focus for maximum beam intensity on the target. Clarifi™ provides a low cost, effective solution to many laser and imaging problems.

AgilOptics will contract with customers to integrate Clarifi™ into their particular optical system and provide the technical link between problem and solution. You no longer need to fear the technical aspects of adaptive optics in order to apply it to your optical system!

**Starting at \$15,000** 





# Sharpen Your Foci With AgilOptics' Deformable Mirrors & Drivers



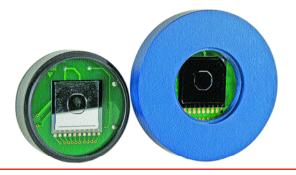
#### Unifi™

Unifi™ Deformable Mirror System is the next generation of AgilOptics' powerful adaptive optics systems. Unifi™ is a complete unit consisting of an AgilOptics' deformable mirror and a D64USB high voltage driver. Communicatin with a Unifi™ DMS is done via USB 2.0. To control Unifi, either of AgilOptics' software packages, Clarifi™ or HVDD, may be used. Unifi™ operates on a single 5V wall block using less than 2.5W of energy. Even though the package is small and low-power, the output on the mirror face can achieve a bandwidth of 4kHz.



# Simpli™

Simpli<sup>™</sup> a re self-contained deformable mirrors for simple, less demanding OEM applications where a fixed pattern, variable shape is desired. The design uses a standard 16mm mirror with 37 actuators reinforæd with our patented ASD (anti-snapdown protection) technology, and includes an integrated high-voltage driver. A single, externally controlled, high voltage source integrated onto the back of the mirror allows the user to continually adjust the mirror profile for the pre-wired shape. Prime power to the mirror can be as basic as a standard 9 volt battery.



# Ophthi™

The Ophthi™ mirrors are designed for ophthalmology applications. Uses a 10mm deformable mirror with 8 channels and anti-snapdown protection.



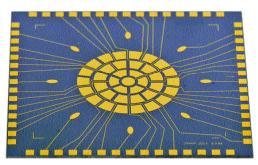
### Multi™

The Multi™ are membrane deformable mirrors in a clean, rugged package. Available in 16mm, 25mm, 30mm and 50mm sizes with 37 to 61 hexagonal actuators, or custom designed for your specific requirements. Anti-Snapdown is standard!



# Mini-Cass<sup>™</sup>

The Mini-Cass™ telescope is a patented beam expander with a deformable mirror built-in. Designed to take a fiber or point source imput, expand it to a 50mm beam and controllably adjust the beam's wavefront to perfect the focus, precision adjust the beam's pointing, and even pre-correct for atmospheric propagation errors.



AgilOptics' products are based on state-of-the-art deformable mirror technology. Designed for those who want to do their own experimentation; AgilOptics' mirrors come in a variety of sizes from 10mm to 50mm diameter with 8 to 61 actuators. All mirrors are manufactured with our patented ASD (anti-snapdown) technology. This innovative ASD technology assures rugged perf o rmance of our mirrors, as well as providing extended throw without the fear of destruction. Our drivers are produced to be used exclusively with AgilOptics' deformable mirrors and feature either parallel port or

USB compatibility with most PC's, laptops, or specialized micro p rocessors.

Our Clarifi™ is a closed loop adaptive optics system which produces a perfect focus time after time.



#### **D400-USB**™

The newest driver created by our engineering wizards uses high voltage amplifier modules to control over 400 actuators at voltages up to 300v. Specially designed to work with our HVDD or Clarifi™ software, the USB interface makes operation easy with most PC's, laptops, or specialized microprocessors.



#### **D8DI-USB**<sup>™</sup>

The D8DI-USB is a state-of-the-art high voltage driver specifically designed for the 8 channel Ophthi™ mirrors. Its compact design and USB interface integrates an output range from 0-200v with a 3-db bandwidth of 20kHz. This driver is completely powered by the standard USB bus.



### D40DI™ & D32AX Series™

Specifically designed for AgilOptics' electrostatic deformable mirrors. DI models drive 32 or 40 actuators up to 4kHz. AX models stack in units of 32 channels, from 32 to 1024 channels. Provides a parallel port interface between your PC and MEMS devices. Specified for 200v at 1kHz.



#### Fast, Adaptive, Agile

Up to now, most optics have been symmetric and rigid. Today you can take complete control with fast, adaptive, agile mirrors from AgilOptics.



For technical specifications on AgilOptics' products, visit www.agiloptics.com



The Unifi™ Deformable Mirror System is the next generation of AgilOptics' powerful adaptive optics systems. Unifi™ is a complete unit with a deformable mirror and a D64USB high-voltage driver. Communication with a Unifi™ DMS is done via USB 2.0. To control a Unifi™ unit, either of AgilOptics' software packages, Clarifi™ or HVDD, may be used. Operating Unifi™ requires only a few simple steps. Simply install the unit into your optical system, then plug in the USB cable and power supply. A 4" Thorlabs optical mount is included with the system. The powerful Unifi™ system operates on a single 5V wall block using less than 2.5W of energy. Unifi™ is a compact package using low-power, but the output on the mirror face can achieve a bandwidth of 4 kHz.

#### **Features:**





# Clarifi™ & Unifi™

The Clarifi™ closed loop adaptive optics system can now be provided with the Unifi™ integrated deformable mirror & driver. Unifi™ is available in 16, 25, 30, or 50mm mirror sizes and USB controlled drivers with up to 512 channels. AgilOptics' mirrors are available in a wide range of optical coatings for operation at most laser wavelengths, and feature our patented ASD (Anti-Snapdown) technology.

Fast, Adaptive, Agile



For complete technical specifications on Clarifi™ & Unifi™, and all other AgilOptics' products, visit www.agiloptics.com



(Complete Unifi™ package with integrated D64USB driver)

