



**Multi™ Units: 25-61 (25mm-61 actuators) and a 16-37**

Multi™ is our standard line of multi-actuator deformable mirrors and is normally available in four sizes: 16mm, 25mm, 30mm and 50mm diameter. Our mirrors are available with a wide range of coatings such as protected silver, gold, or standard aluminum with special coatings available upon request. The units are typically included in any of our complete systems such as Clarifi™, or in the Unifi™ (shown below) which integrates a driver with the mirror. Multi™s can be sold individually as *replacements* for damaged mirrors, but are normally sold in conjunction with a driver!



**AgilOptics Unifi™ Driver with 50mm Deformable Mirror**

**Deformable mirrors in our systems provide accurate wavefront control for applications such as:**

- Laser Beam Shaping
- High Power Testing: The membrane mirrors withstood up to 40kW/cm<sup>2</sup> continuous illumination for a maximum exposure of 60 seconds at 1064nm

**Deformable mirrors in our systems are recognized in the industry for:**

- Anti Snap-down Technology – “Snap-down” is defined as applying voltage such that it deflects the mirror with enough force that it physically touches the pad array below. Our mirrors have survived millions of snap-down cycles with no permanent adverse effects.
- >80% Active Aperture Area

**While standard sizes and coatings are kept in inventory, *custom* mirror diameters, actuator layouts, and coatings at affordable prices are our specialty!**

## 16mm Mirror Data

Parameter	Test Conditions	Min	Typical	Max	Units
Membrane Displacement			16	21.66	µm
Fundamental Frequency			4100		Hz
Actuator Voltage				500	V
Membrane Voltage				500	V
Minimum Focal Length			1	0.74	M
Flatness (633nm) RMS			λ/2		PV

## 25mm Mirror Data

Parameter	Test Conditions	Min	Typical	Max	Units
Membrane Displacement		14	18	30	µm
Fundamental Frequency		2700	3100	3500	Hz
Actuator Voltage				500	V
Membrane Voltage				500	V
Minimum Focal Length		2.79	2.17	1.3	M
Flatness (633nm) RMS	Central 80%		λ/2		PV

**30mm Mirror Data**

Parameter	Test Conditions	Min	Typical	Max	Units
Membrane Displacement		14	18	30	μm
Fundamental Frequency		2200	4100	2900	Hz
Actuator Voltage				500	V
Membrane Voltage				500	V
Minimum Focal Length		4.02	3.13	1.88	M
Flatness (633nm) RMS	Central 80%		λ/2		PV

**50mm Mirror Data**

Parameter	Test Conditions	Min	Typical	Max	Units
Membrane Displacement		28	33-48	55	μm
Fundamental Frequency		1400	1600	1800	Hz
Actuator Voltage		0		500	V
Membrane Voltage		0		500	V
Minimum Focal Length		5.58	4.73-3.25	2.84	M
Flatness (633nm) RMS	Central 80%		λ/2		PV