

The Multi-DM: A versatile, robust deformable mirror system for advanced wavefront control

The popular and versatile Multi-DM offers sophisticated aberration compensation in an easy-to-use package. With 140 precisely controlled elements and low inter-actuator coupling, this system is ideal for a broad range of applications including microscopy, retinal imaging, and laser beam shaping. The high speed, high precision drive electronics are easily controlled via USB interface. The DM is available in both continuous and segmented surfaces for adaptive optics or spatial light modulator applications. The DMs are capable of up to 5.5 μm stroke, 20 kHz frame rate, have sub-nm step size, and zero hysteresis.



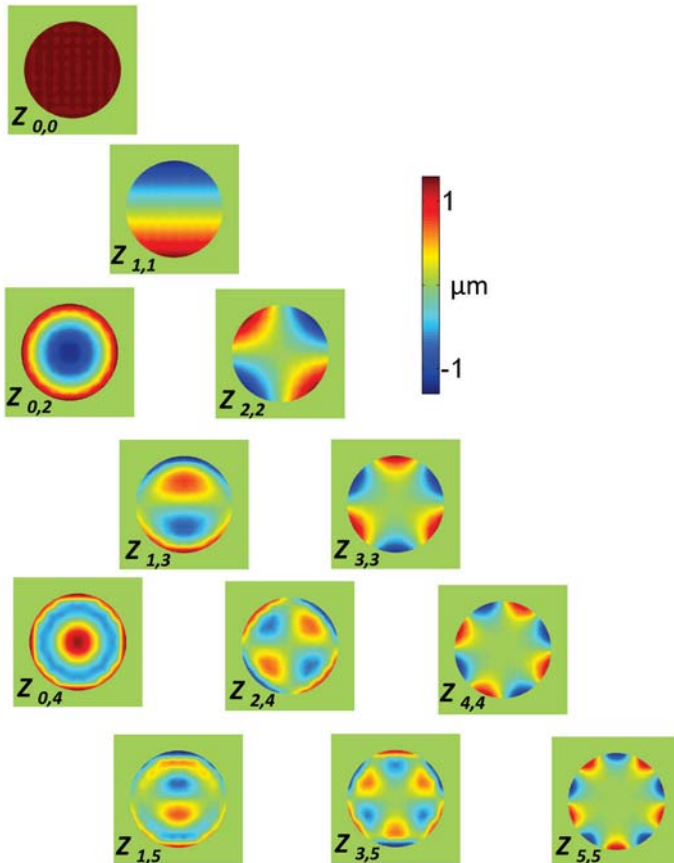
DM Specifications

- 140 actuators (12x12 array without 4 corners)
- Coating: Aluminum or Gold
- Protective window with 400-1100nm, 1550nm or 550-2500nm AR coating
- Zero hysteresis
- Sub-nm average step size
- Fill Factor >99% (DM), 98% (SLM)
- Surface Finish: <20nm RMS

Driver Specifications

- USB 2.0 Interface
- 100-240V AC Input
- 14 bit step resolution
- Frame Rate: 8 kHz with 34 kHz burst
- Dimensions: 9" x 7" x 2.5"

High Order Aberration Correction



Measured Zernikes - 140 actuators with low inter-actuator coupling create high order Zernike modes

DM Selection Chart

Stroke	1.5 μm	3.5 μm	5.5 μm
Aperture	3.3 mm	4.4 mm	4.95 mm
Pitch	300 μm	400 μm	450 μm
Approx. Mechanical Response Time (10%-90%)	<20 μs	<100 μs	<500 μs
Approx. Interactuator Coupling (+/- 5%)	15%	13%	22%
SLM Coupling	0%		

Complete System Pricing

Includes Mirror, Driver and Operational Software

Continuous DM

- 1.5 μm : \$15,000
- 3.5 μm : \$17,500
- 5.5 μm : Contact us

MEMS SLM

- 1.5 μm : Contact us