

The Mini-DM: An economical solution for wavefront correction. The compact and affordable Mini-DM is ideal for laboratory-scale adaptive optics and proof of concept wavefront control. Its mirror surface is controlled by 32 electrostatic actuators which are individually commanded to achieve a desired shape. 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. * 1.5 μm DM and SLM capable of 20 kHz.

Adaptive Optics

Advanced wavefront control with MEMS deformable mirrors produce higher contrast, higher resolution imaging. Wavefront shaping is achieved by correcting high-order aberrations caused by optical limitations, atmospheric turbulence, and tissue nonuniformities. BMC's MEMS deformable mirrors offer unsurpassed correction and control, dramatically improving imaging precision.

DM Specifications

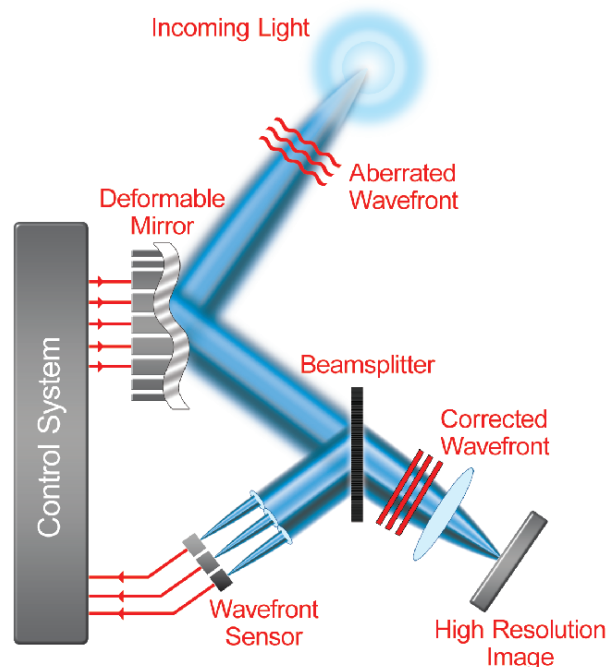
- 32 actuators (6x6 array without 4 corners)
- Coating: Aluminum or Gold
- Protective Window with 400-1100nm or 1550nm AR Coating
- Zero hystereses
- Sub-nm average step size
- Fill Factor >99% (DM), 98% (SLM)
- Surface Finish: <20nm RMS

Driver Specifications

- Completely Powered & Controlled by USB 2.0 Interface
- 14 bit step resolution
- Frame Rate: 8 kHz with 34 kHz burst
- Dimensions: 4" x 5.25" x 1.25"

Complete System Pricing

Includes Mirror, Driver, and Demo Software



DM Selection Chart

	1.5 μm	3.5 μm	5.5 μm
Stroke	1.5 μm	3.5 μm	5.5 μm
Aperture	1.5 mm	2.0 mm	2.25 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%		

