

The Mini-DM: An economical solution for wavefront correction. The Mini-DM is ideal for laboratory-scale adaptive optics and low order 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.

Adaptive Optics

Advanced wavefront control with MEMS deformable mirrors produces higher contrast, higher resolution imaging. Wavefront shaping is achieved by correcting aberrations caused by optical limitations, atmospheric turbulence, and tissue non-uniformities. 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, 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

- 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

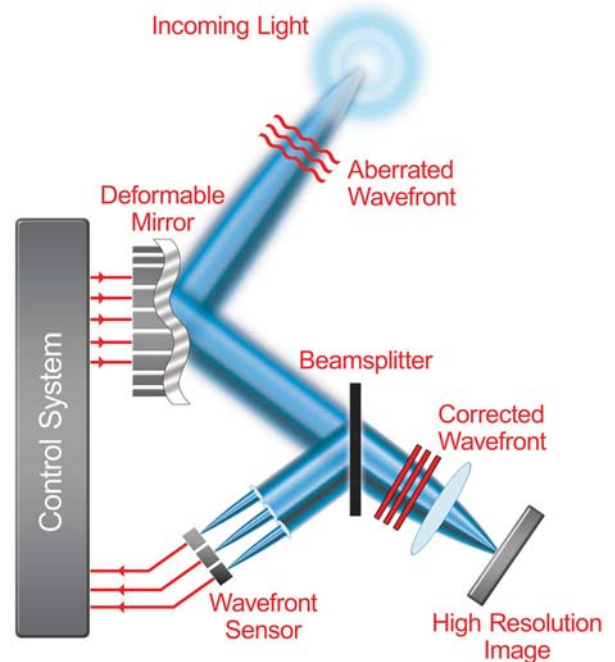
Includes Mirror, Driver and Operational Software

Continuous DM

- 1.5 μm : \$5,000
- 3.5 μm : \$7,500
- 5.5 μm : \$12,500

MEMS SLM

- 1.5 μm : \$12,500



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%		