

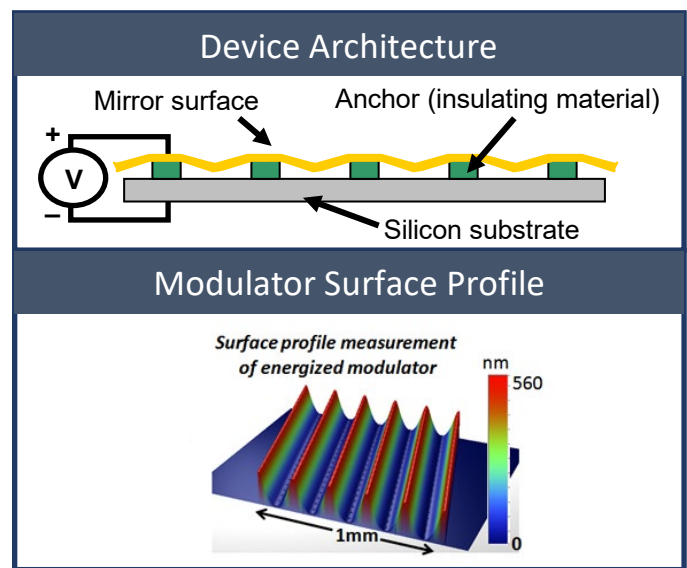
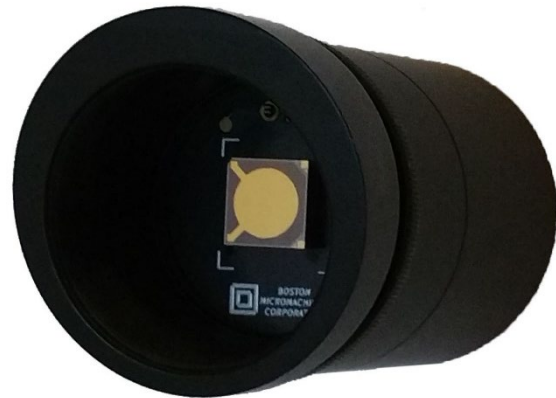
Features

- High throughput in the VIS to Mid IR
- No polarization effects
- Response times as low as 2.5 μ s

The MEMS Grating Modulator is a reflective diffraction grating with controllable groove depth which modulates intensity by switching between an unpowered flat mirror-state and a powered diffractive-state.

Each device is designed for optimal performance up to its maximum deflection over a range of wavelengths. To attain peak extinction, the user simply tunes the deflection at a given wavelength.

Modulators are designed to be operated using a well-conditioned high voltage source. Contact Boston Micromachines for more details or consult technical documentation for guidance



Device Specifications

	MGM-1100
Rise/fall time: 90%-10% (μ s)	<2.5
Rise/fall time: 97%-3% (μ s)	<4
Peak Extinction ratio (at 632 nm) * [†]	200:1
Optimal Wavelength Range (nm) * [†]	600-1100
Angle-of-Incidence for peak extinction (°)	<10 (lateral incident angle)
Max. Extinction Frequency Limit -3dB (kHz) [‡]	100
Active Aperture (mm) [†]	6.0
Total reflected wavefront error (P-V)	$\lambda/4$
Maximum operating voltage (V)	~200 (device dependent)
Maximum extinction voltage	Angle dependent above 10°
Protective window angle (°) [†]	10
Protective window size (inch) [†]	1
Protective window thickness (mm) [†]	5

* Devices measured using 632nm and 400-1100nm AR protective window

[‡] Maximum Extinction Frequency Limit is the frequency of the device above which the maximum extinction of the beam as noted on the data sheet is no longer attained.

[†] Custom Options available