

# M1067-T200L

## OEM Mini Acousto-Optic Modulator

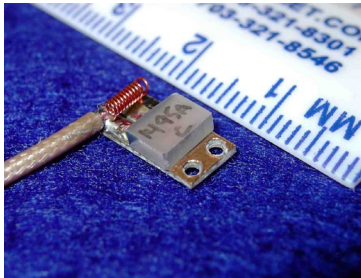


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### APPLICATION

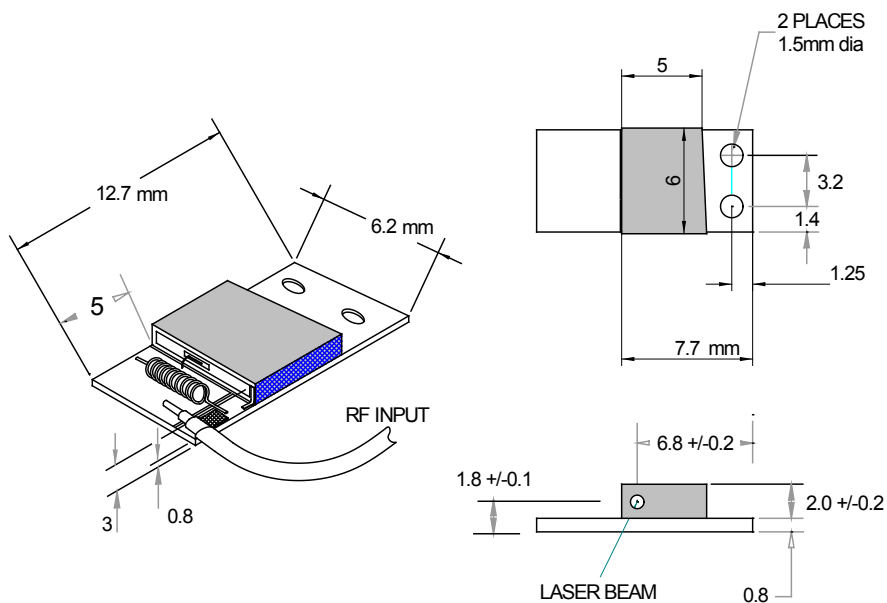
- Wideband Miniature AOM Modulator for use in Laser Projection Systems

### SPECIFICATIONS



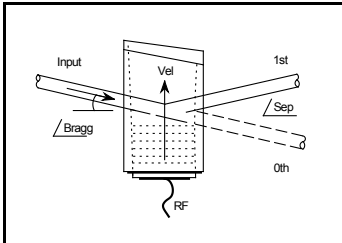
Spectral Range:	0.442-> 1.5 $\mu$ m
Standard A/R Wavelengths:	532nm
Interaction Medium:	Tellurium Dioxide (TeO <sub>2</sub> )
Acoustic Velocity:	4.2mm/ $\mu$ s
Active Aperture:	0.2mm
Centre Frequency:	200MHz
RF Bandwidth:	50MHz
RF Input Impedance:	50 $\Omega$ Nominal
DC Contrast Ratio:	>1000:1 min (2000:1 typical)

### OUTLINE



**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
 ISOMET CORP, 10342 Battleview Parkway, Manassas, VA 20109, USA.  
 Tel: (703) 321 8301 Fax: (703) 321 8546  
 E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**  
 In-house: Crystal Growth,  
 Optical Polishing,  
 A/R coating, Vacuum Bonding



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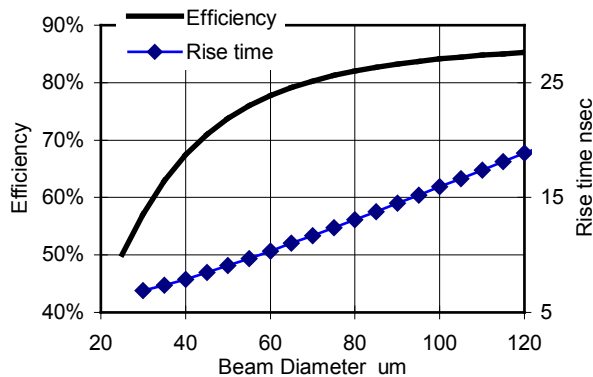
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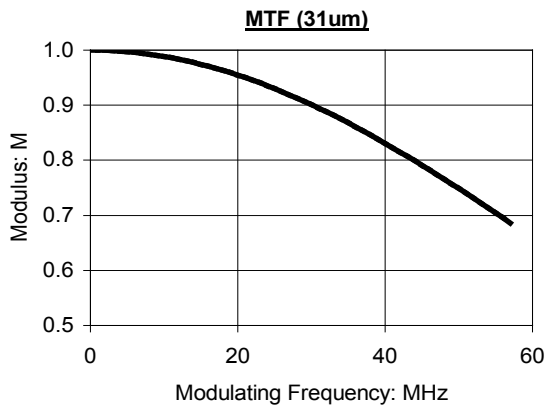
### Typical Data

#### PERFORMANCE vs. BEAM DIA. at 532nm



#### PERFORMANCE vs. WAVELENGTH

Operating Wavelength (nm) 532  
 RF Drive Power (W): <0.3  
 Input Bragg Angle (mrad): 12.7  
 0<sup>th</sup>-1<sup>st</sup> Order Beam Separation (mrad): 25.3  
 Static Insertion Loss (%): <3



#### DYNAMIC CONTRAST RATIO

Maximum modulation bandwidth (50MHz) dynamic contrast ratio (CR) is obtained with a focussed beam diameter of 31µm. The typical MTF (depth of modulation) curve for the M1067 is shown at left. For larger beam diameters, the abscissa scales linearly. The value of M from the curve may be used to determine the sine wave contrast ratio at a particular modulating frequency according to the relation:

$$CR = 1 + M/1 - M$$

For digital, on-off modulation, the CR will be greater than the value calculated from the above equation.

### Recommended Driver

535C-L

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