

# M1407-SF80L-0.5

## Acousto-Optic Modulator

PRELIMINARY



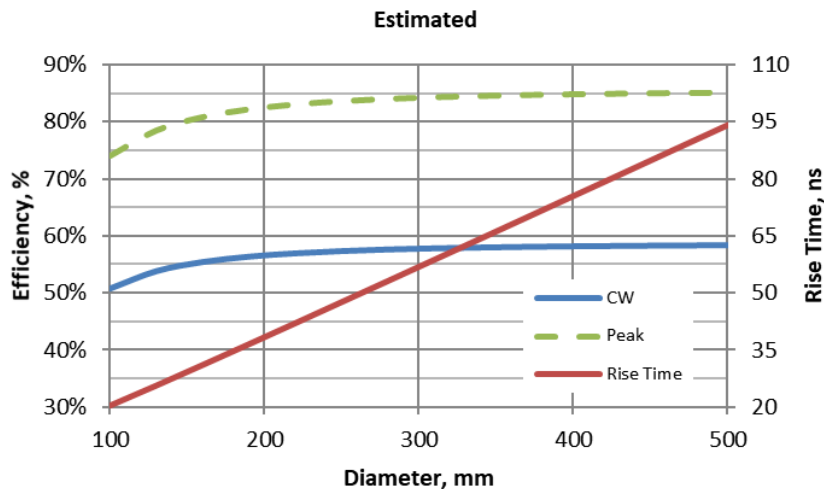
5019

The M1407 is low dispersion Glass AOM designed primarily for Ti:Sapphire laser applications. This model offers a good compromise between diffraction efficiency and pulse stretching characteristics. It should be noted that the high RF drive power dissipation resulting from CW operation in the NIR will cause some output beam drift. An alternative model is the M1133-aQ80-1 which is more suited to variable duty cycle and CW operation.

### SPECIFICATIONS

Interaction Material:	SF57
Optical path length:	11mm
Refractive Index:	1.8
Standard Operating Wavelengths:	450nm - 900nm
Polarization:	Vertical preferred
Acoustic Velocity:	3411 m/s
Active Aperture:	0.5 mm
Centre Frequency:	80 MHz
RF Bandwidth:	30 MHz
RF Driver Power:	<b>1W MAX</b>
Input Impedance:	50 ohms (nominal)
VSWR:	< 1.5:1 @ 80 MHz
DC. Contrast Ratio:	> 1000:1 min (2000:1 typical)
Reflectivity per surface:	< 1%
Static Insertion Loss:	≤ 5.0%

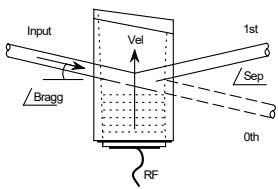
### PERFORMANCE at 633nm



See below

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
 ISOMET CORP, 10342 Battlevue 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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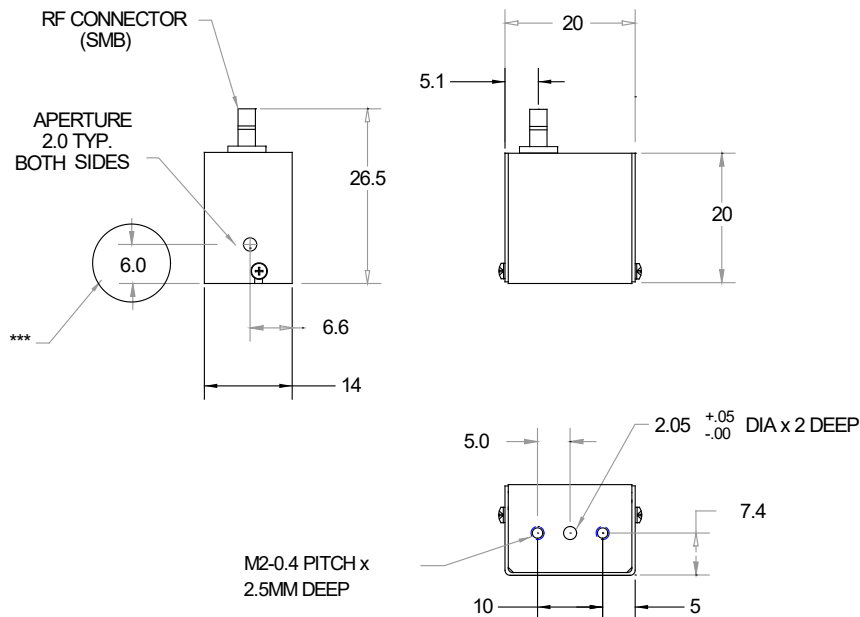
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	450nm	633nm	830nm
Saturation RF Power (Peak):	1.4W	2.7W	4.6W
Separation Angle @ 80 MHz:	10.6mrad	14.9mrad	19.5mrad
Bragg Angle @ 80MHz:	5.3mrad	7.4mrad	9.7mrad

**For maximum average RF Drive power of 1.0W**

CW Diffraction Efficiency:	>75%	>55%	>35%
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### OUTLINE DRAWING



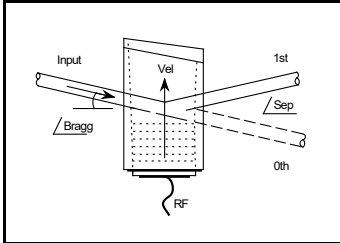
**Mount device to heat conducting surface**

### RF DRIVE ELECTRONICS

Dual modulation: 552F-2

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