

M1142-SF80L-0.5

Acousto-Optic Modulator



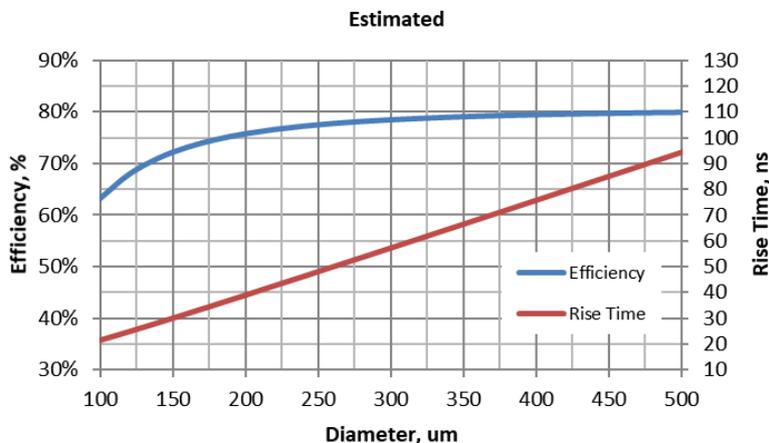
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The M1142 is low dispersion Glass AOM designed primarily for Ti:Sapphire laser applications. This model offers a good compromise between diffraction efficiency and pulse stretching characteristics. It should be noted that the high RF drive power dissipation 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:	700nm - 1064nm
Polarization:	Vertical preferred
Acoustic Velocity:	3411 m/s
Active Aperture:	0.5 mm
Centre Frequency:	80 MHz
RF Bandwidth:	30 MHz
Input Impedance:	50 ohms (nominal)
VSWR:	< 1.5:1 @ 80 MHz
DC. Contrast Ratio:	> 1000:1 min (2000:1 typical)
Static Insertion Loss:	≤ 3.0%

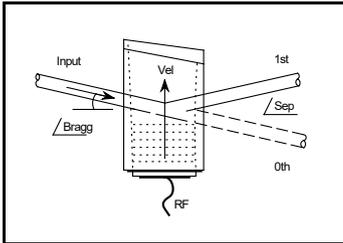
PERFORMANCE at 830nm



	780nm	830nm	1064nm
Saturation RF Power (typ):	3.0W	3.4W	5.6W
Separation Angle @ 80 MHz:	18.3mrad	19.5mrad	25.0mrad
Bragg Angle @ 80MHz:	9.1mrad	9.7mrad	12.5mrad
(For maximum average RF Drive power of 2.5W)			
Diffraction Efficiency:	>80%	>75%	>60%

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 Web Page: WWW.ISOMET.COM

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



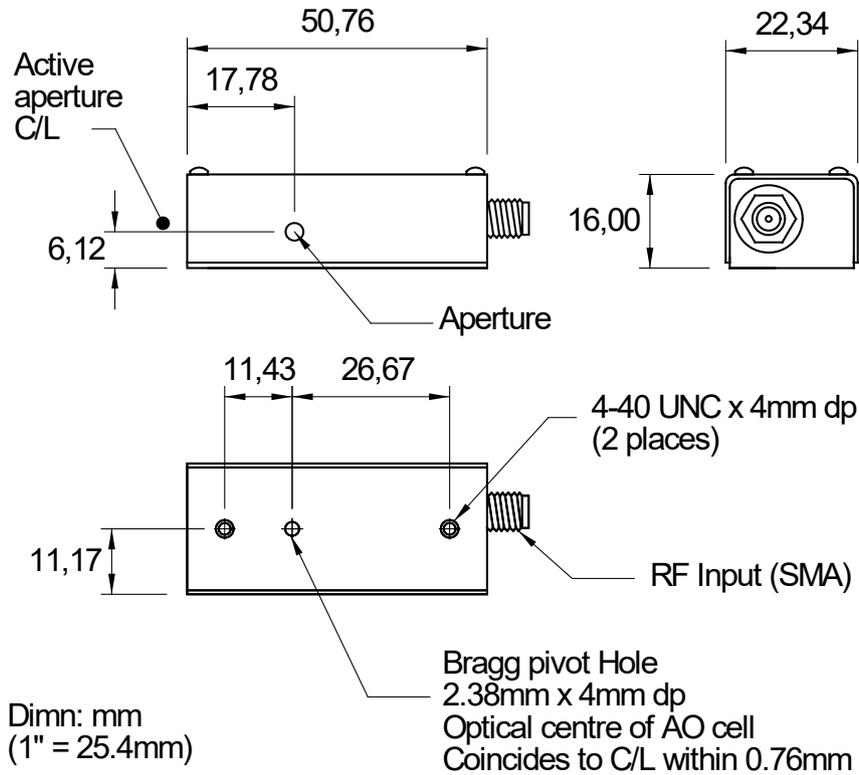
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OUTLINE DRAWING



Option -M, metric mounting threads, M3
Mount device to heat conducting surface

RF DRIVE ELECTRONICS

Digital modulation: 522C-4 Analog modulation: 532C-4
Tuneable with modulation 630A-80 (VCO), iSPA-SF1-b (DDS)

Dual modulation: 552F-4

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