

M1430-T350L-0.2 (633-830nm) Acousto-Optic Modulator



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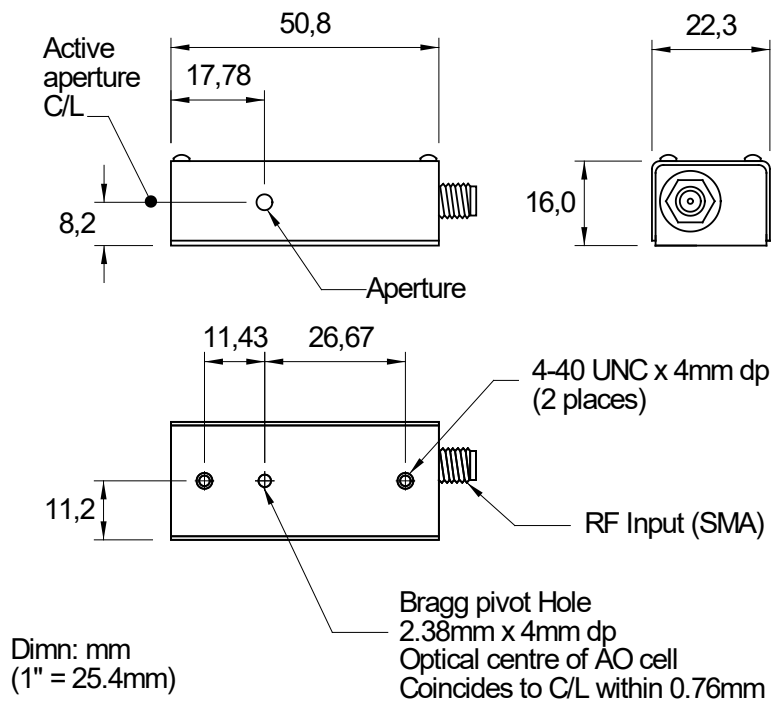
APPLICATIONS

- Intensity Modulator
- Low resolution Deflector
- Frequency Shifter

RF DRIVERS

Analog modulation	537C-2
Dual modulation	557F-2
Tuneable with modulation	630C-350

OUTLINE DRAWING

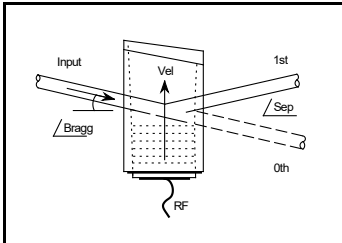


Option: M1430M-T350L-0.2, M3 metric mounting threads

Note: Mount device to heat conducting surface

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
 Tel: (703) 321 8301 Fax: (703) 321 8546
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Quality Assured.
 In-house: Crystal Growth,
 Optical Polishing,
 A/R coating, Vacuum Bonding



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Acousto-Optic Modulator



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SPECIFICATIONS

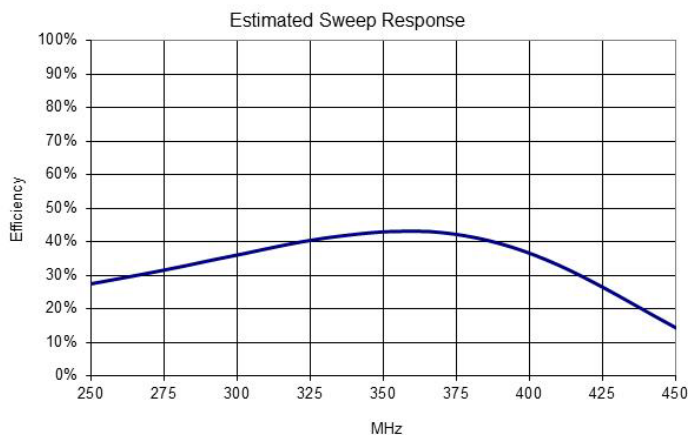
A/R Operating Wavelengths:	633-830nm
Input polarization:	Vertical preferred
Interaction Medium:	TeO ₂ (Longitudinal Mode)
Acoustic Velocity:	4.2mm/μs
Active Aperture:	0.2mm
Clear Aperture:	1 mm
Center Frequency:	350 MHz +/- 10% for best BW
RF Bandwidth (BW)	160MHz min, 200MHz typical
RF power limit	1.1W absolute maximum, average or CW
Input Impedance:	50Ω nominal
VSWR:	<1.5:1 @ 350MHz
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)

PERFORMANCE vs. WAVELENGTH

Wavelength:	633nm	780 nm	830nm
Bragg angle:	26.4mrad	32.5 mrad	34.6mrad
Beam Separation:	52.7mrad	65.0 mrad	69.2mrad
Static Insertion Loss:	< 3%	< 3%	< 3%
Peak RF Drive Power:	1.5W	2.3W	2.7W
Typical Deflection Efficiency, 150um beam			
Recommended 0.7W RF drive:	>70%	>45%	>40%
Max CW limit, 1.0W:	>75%	>60%	>55%

Sweep response

780nm
Bragg adjusted at 350MHz,
0.7W RF drive



PERFORMANCE vs. BEAM DIAMETER at 780nm, 0.7W RF drive

Input Beam Diameter:	120um	80um	50um
Rise time:	20ns	14ns	10ns
Efficiency	>45%	>45%	>40%

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