

M1250-T260L-0.45 (830-1064nm) Acousto-Optic Modulator



0419

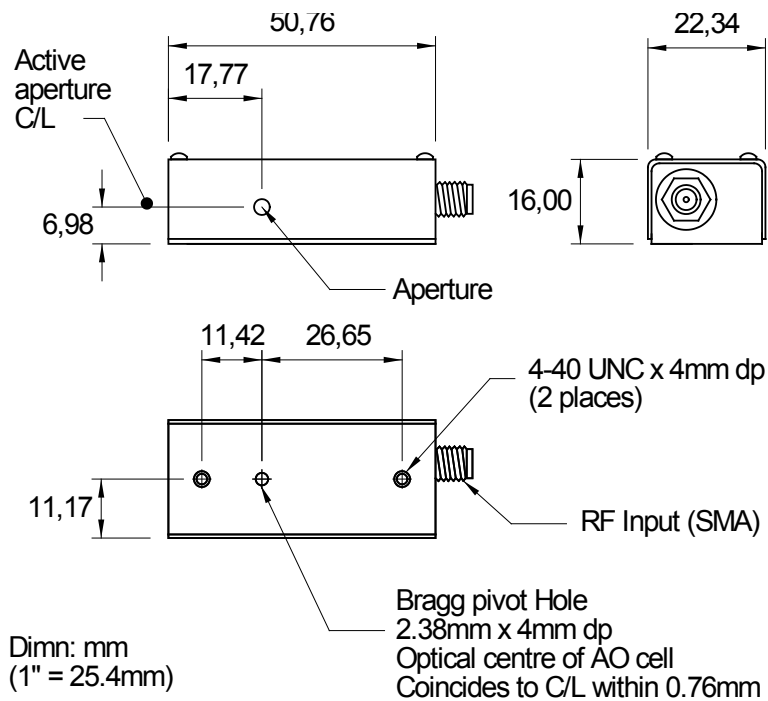
APPLICATIONS

- Modulator
- Low Resolution Deflector
- Frequency Shifter

RF DRIVERS

Digital modulation	526C-2
Analog modulation	536C-2
Dual modulation	556F-2
Tuneable with modulation	630C-250 / iSPA-SF1-w

OUTLINE DRAWING



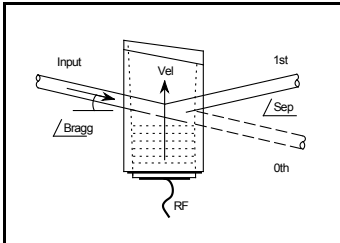
Option:

Metric fixing holes, M3-0.5 thread: add suffix -M

Mount device to heat conducting surface

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
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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
Interaction Medium:	Tellurium Dioxide (TeO ₂)
Acoustic Velocity:	4.2mm/μs
Active Aperture:	0.45mm
Centre Frequency (CF):	260MHz
RF Bandwidth (minimum):	50MHz (+/- 25MHz)
Input Impedance:	50Ω Nominal
VSWR:	<1.5:1 @ 260MHz
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)

PERFORMANCE vs. WAVELENGTH

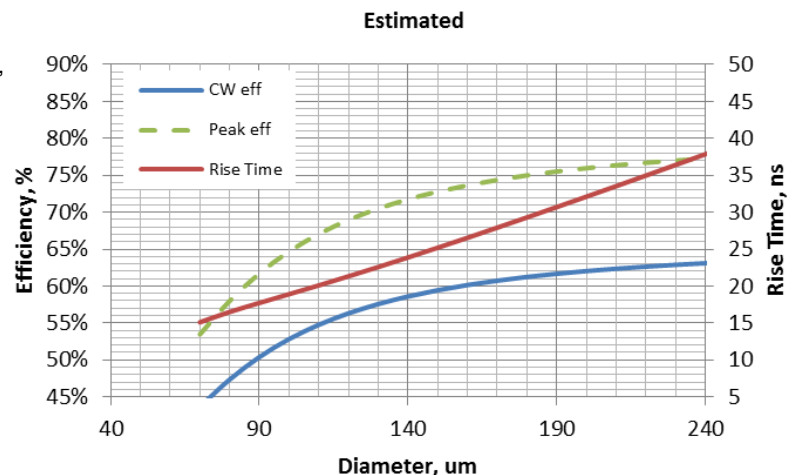
Wavelength:	854 nm	900 nm	1064 nm
Peak RF Drive Power, (Maximum average or CW = 1.3W).	2.7W	3.1W	4.2W
Bragg angle:	26.3 mrad	27.8 mrad	32.9 mrad
Beam Separation:	52.5 mrad	55.6 mrad	65.8 mrad
Static Insertion Loss:	< 3%	< 3%	< 3%

PERFORMANCE vs. BEAM DIAMETER at 900nm

Peak efficiency applies to duty cycled operation,

Maximum average (or CW) RF power = 1.3W

For $1/e^2$ beam diameters >200μm,
rise time = 155nsec/mm



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