

M1250-T150L-0.5 (633-830nm) Acousto-Optic Modulator



1021

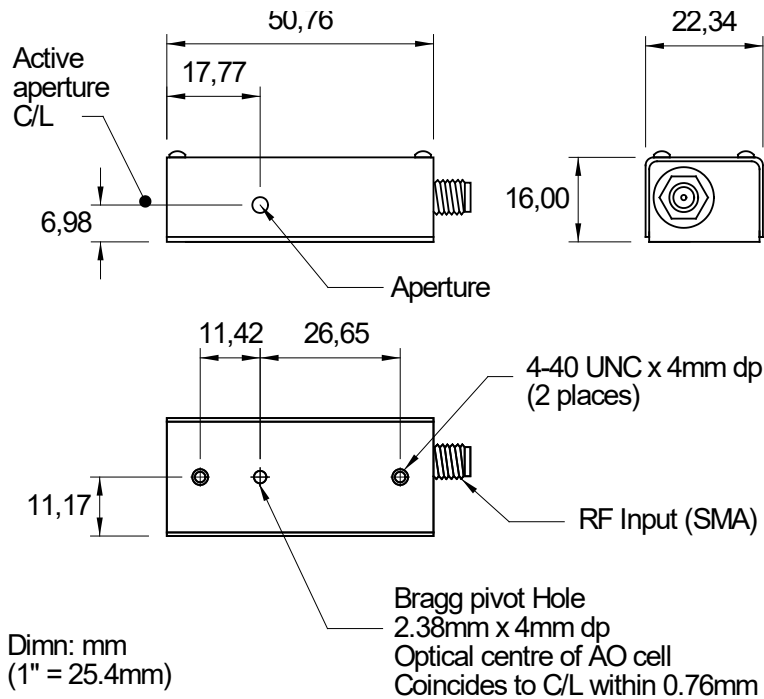
APPLICATIONS

- Modulator
- Low Resolution Deflector
- Frequency Shifter

RF DRIVERS

| | |
|--------------------------|------------------------|
| Digital modulation | 524C-2 |
| Analog modulation | 534C-2 |
| Dual modulation | 554F-2 |
| Tuneable with modulation | 630C-150 / iSK3-150T-1 |

OUTLINE DRAWING



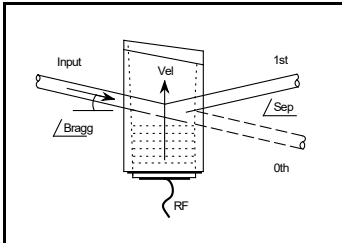
Option:

Metric fixing holes, M3-0.5 thread: add suffix -M, (M1250M-...)

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
 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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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: | 0.5mm |
| Centre Frequency (CF): | 150MHz |
| RF Bandwidth (minimum): | 70MHz (+/- 35MHz) |
| Input Impedance: | 50Ω Nominal |
| VSWR: | <1.5:1 @ 150MHz |
| DC Contrast Ratio: | >1000:1 min (>2000:1 typical) |

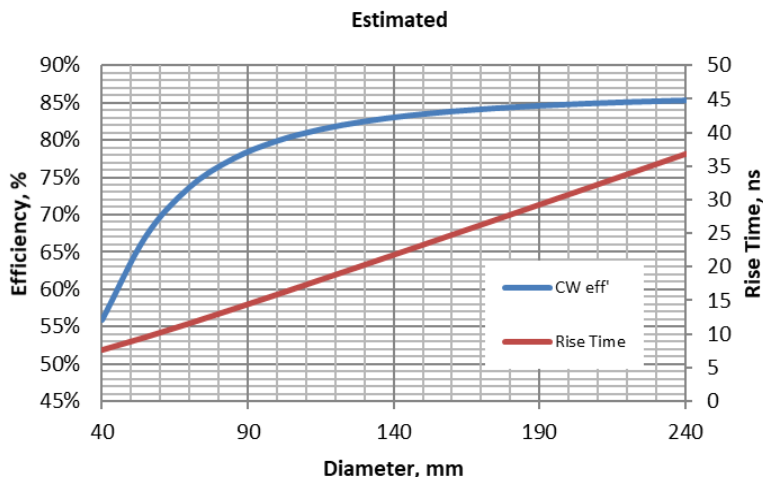
PERFORMANCE vs. WAVELENGTH

| Wavelength: | 670 nm | 780 nm | 830 nm |
|--|-----------|-----------|-----------|
| RF Drive Power: (Maximum average or CW = 1.6W). | 1.1W | 1.4W | 1.6W |
| Bragg angle: | 12.0 mrad | 13.9 mrad | 14.8 mrad |
| Beam Separation: | 24.0 mrad | 27.9 mrad | 29.6 mrad |
| Static Insertion Loss: | < 3% | < 3% | < 3% |

PERFORMANCE vs. BEAM DIAMETER at 780nm

Maximum average (or CW) RF power = 1.6W

For 1/e² beam diameters >200μm,
rise time = 155nsec/mm



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