

FS1118-T80L-1

Acousto-Optic Modulator



4920

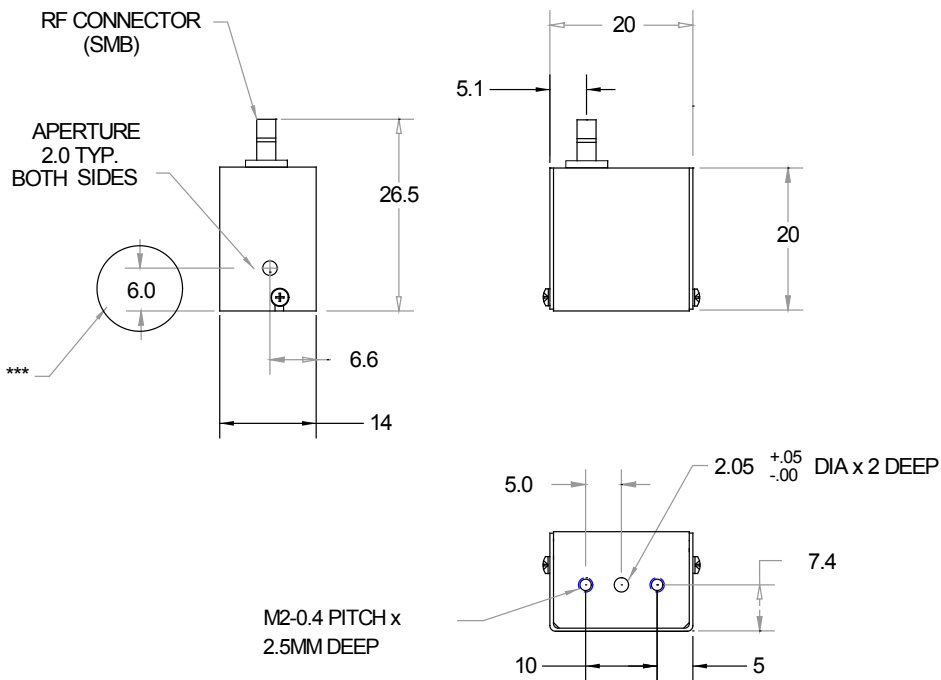
APPLICATIONS

- Compact Modulator
- Frequency Shifter

RF Drive Electronics

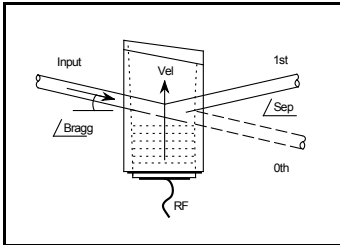
Digital modulation	522C-L / -2, 822C-L
Analog modulation	532C-L / -2, 832C-L
Tuneable with modulation	630C-80, iSPA-SF1-w

OUTLINE DRAWING



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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SPECIFICATIONS

A/R Operating Wavelengths:	500-650nm or 633-830nm, please specify
Interaction Medium:	Tellurium Dioxide (TeO ₂)
Acoustic Velocity:	4.2mm/μs
Active Aperture:	1.0mm
Polarization:	Any, vertical preferred
Centre Frequency (CF):	80MHz
RF Bandwidth (minimum):	20MHz (+/- 10MHz)
Input Impedance:	50Ω Nominal
VSWR:	<1.5:1 @ 80MHz
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)

PERFORMANCE vs. WAVELENGTH

Wavelength:	532nm	633nm	780 nm	830nm
RF Drive Power:	0.5W	0.6W	0.9W	1.0W
Bragg angle:	5.1mrad	6.0 mrad	7.4 mrad	7.9 mrad
Beam Separation:	10.2mrad	12.0 mrad	14.8 mrad	15.8 mrad
Static Insertion Loss:	< 3%	< 3%	< 3%	< 3%

PERFORMANCE vs. BEAM DIAMETER at 780nm

Beam Diameter:	0.8mm	0.4mm
Rise Time:	122ns	62ns
Modulation Bandwidth @ MTF of 0.5:	2.9 MHz	5.6 MHz
Typical Deflection Efficiency at CF:	>85%	>83%

Note: Mount device to heat conducting surface

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