

FS1402-T60S-2



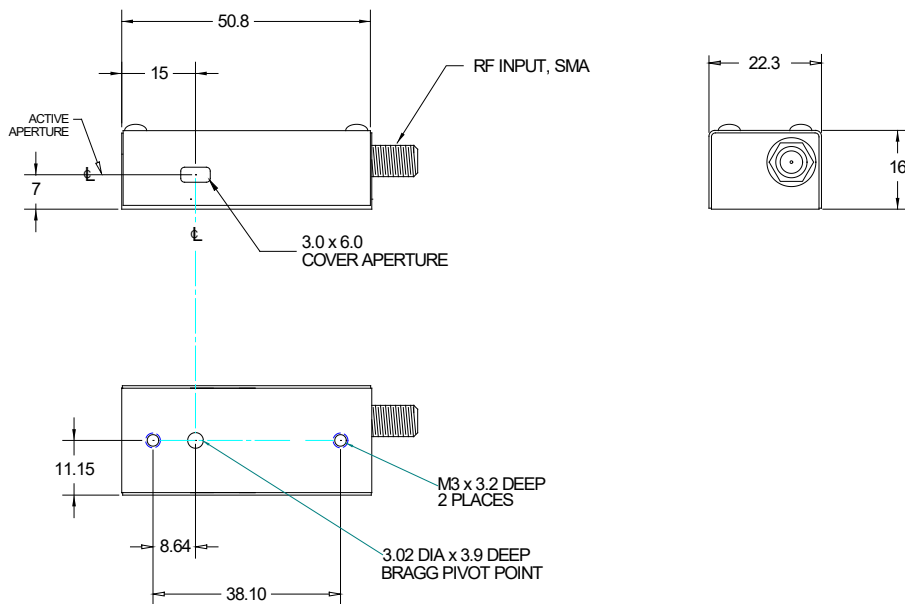
Acousto-Optic Frequency Shifter / Modulator

2221

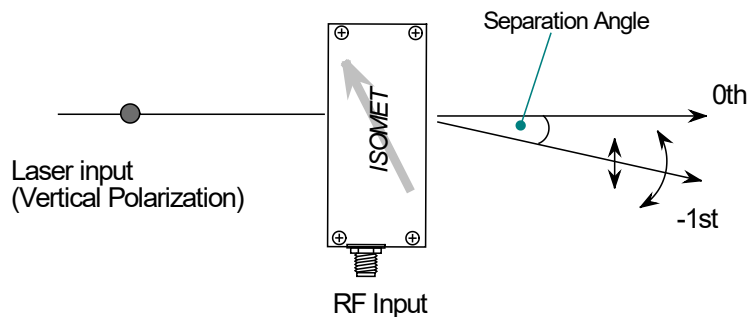
APPLICATIONS

- Modulator
- Frequency Shifter

OUTLINE DRAWING



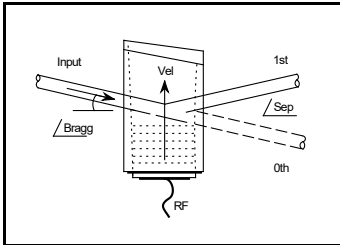
ORIENTATION



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



FS1402-T60S-2



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SPECIFICATIONS

A/R Wavelengths:	1550-1560nm
Operating Wavelength:	1555.7nm +/- 1nm
Interaction Medium:	TeO ₂ (Off-Axis Mode)
Input polarization:	Vertical w.r.t. diffraction axis
Acoustic Velocity:	0.775mm/μs
Active Aperture:	2mm H x 5mm L
Clear Aperture:	3mm H x 6mm L
Static Insertion Loss	<3% at 1555.7nm, 1.0% typical
Reflectivity/Surface:	< 0.2%, 0.15% typical

Centre Frequency (CF):	60MHz (downshift) <i>Contact Isomet for alternate frequencies up to 150MHz</i>
Diffraction Bandwidth (minimum):	1MHz (+/- 0.5MHz)
Input Impedance:	50Ω nominal
VSWR:	<1.2:1 @ 60MHz, typical 1.15:1
DC Contrast Ratio:	>1000:1 min, typical >2000:1

PERFORMANCE

Wavelength:	1555.7nm
Maximum CW optical power	15W in 1mm diameter.
RF drive power for saturation eff:	1.1W maximum.
Input angle:	0.0 degrees +/- 3deg relative to input face.
Beam Separation:	6.9 degrees +/- 0.3deg.

PERFORMANCE vs. BEAM DIAMETER at 1555.7nm

Beam Diameter:	1.0mm
Rise Time:	840ns
Modulation Bandwidth @ MTF of 0.5:	0.4 MHz
Saturation efficiency -1 st order:	80% minimum @ 800mW
RF power for 20% efficiency	< 150mW

RF DRIVERS

Digital / Analog modulation, 60dB On:Off	552F-60-L / -2
Programmable Synthesizer with modulation	iSPA-SF1

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