

# OPT-1

## Acousto-Optic Bragg Cell



0414

A long time aperture Acousto-optic Bragg Cell for Optical Signal Processing Applications

### OPERATING PARAMETERS

*Operating Wavelength:	633nm
$\tau\Delta f$ :	1500
Centre Frequency:	45MHz
3dB Bandwidth:	30MHz
Active Aperture:	4mmH x 31mmL
Time Aperture:	50 $\mu$ s
Interaction Medium:	TeO <sub>2</sub> - Shear (110)
Acoustic Velocity:	.617mm/ $\mu$ s
Diffraction Efficiency:	> 50% at 0.5 Watts RF Power
Input Impedance:	50 $\Omega$
Input VSWR:	$\leq$ 2:1 across RF Bandwidth
Electrode Profile:	Apodized to minimise acoustic walkoff
Optical Surface Flatness:	$\lambda/10$ or better
Optical Reflectivity:	$\leq$ .5%/Surface
RF Power (Maximum):	1.2 Watts

\*Models are available for use at any wavelength within the range 442nm-850nm, but certain operating parameters differ, depending on the wavelength selected.

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

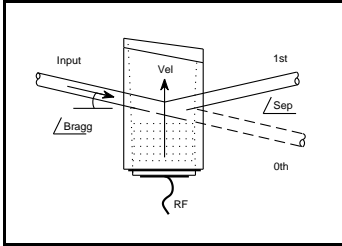
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**

**In-house: Crystal Growth,  
Optical Polishing,  
A/R coating, Vacuum Bonding**



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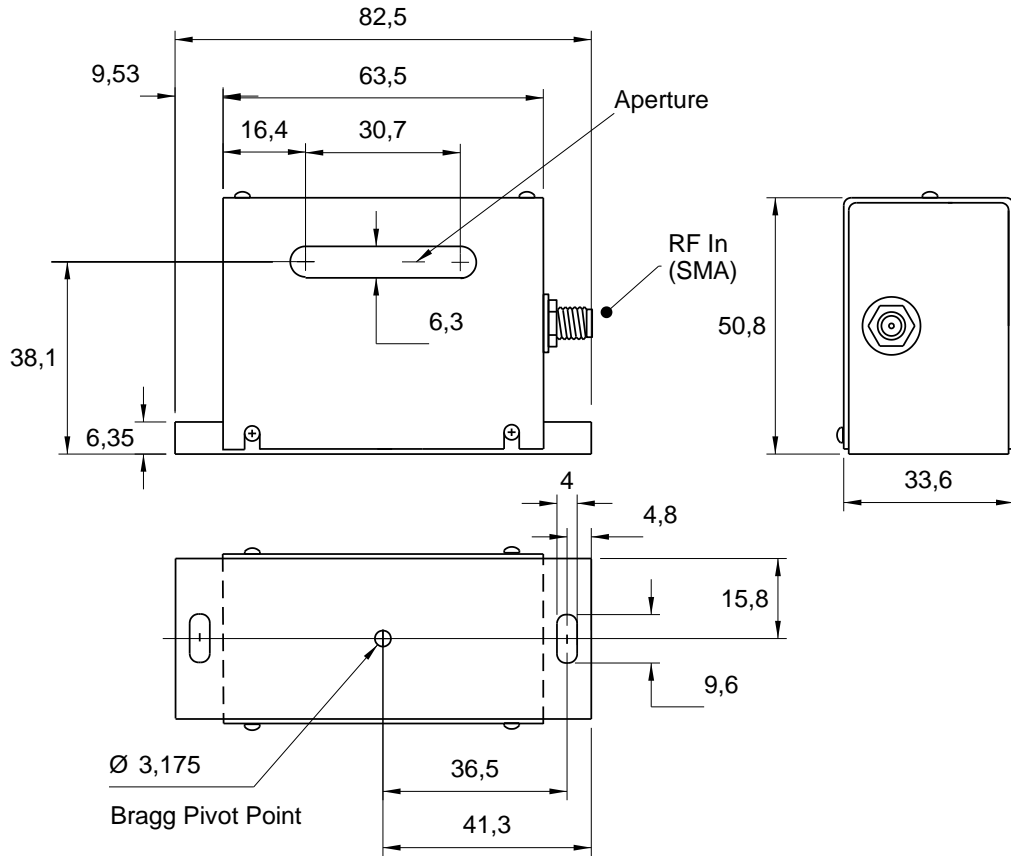
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### OUTLINE DRAWING

Dim'n: mm



### RECOMMENDED DRIVERS

521C-45 (Digital Modulation)  
531C-45 (Analog modulation)

620C-40 (VCO driver with digital Modulation)  
630C-40 (VCO driver with analog Modulation)  
iSPA-SF1 (Synthesizer/amplifier with modulation)

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