

# OPT-1-100

## Acousto-Optic Bragg Cell



0414

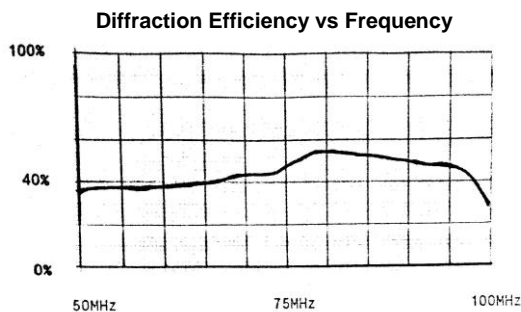
A very long time aperture Acousto-optic Bragg Cell for Optical Signal Processing Applications

### OPERATING PARAMETERS

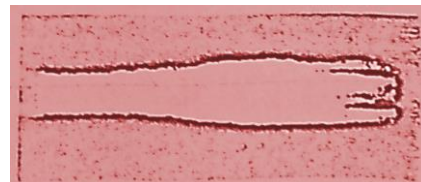
*Operating Wavelength:	633nm
$\tau\Delta f$ :	5000
Centre Frequency, $f_c$ :	75MHz
3dB Bandwidth:	50MHz
Active Aperture:	4mmH x 62mmL
Time Aperture:	100 $\mu$ s
Interaction Medium:	TeO <sub>2</sub> - Shear (110)
Acoustic Velocity:	0.617mm/ $\mu$ s
Diffraction Efficiency:	> 50% at $f_c$
Input Impedance:	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:	$\leq$ 0.5%/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.

### TYPICAL PERFORMANCE DATA, 633nm



**Schlieren Image of acoustic column (Transducer on left, 70mm aperture)**



**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

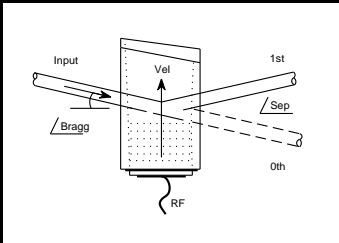
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

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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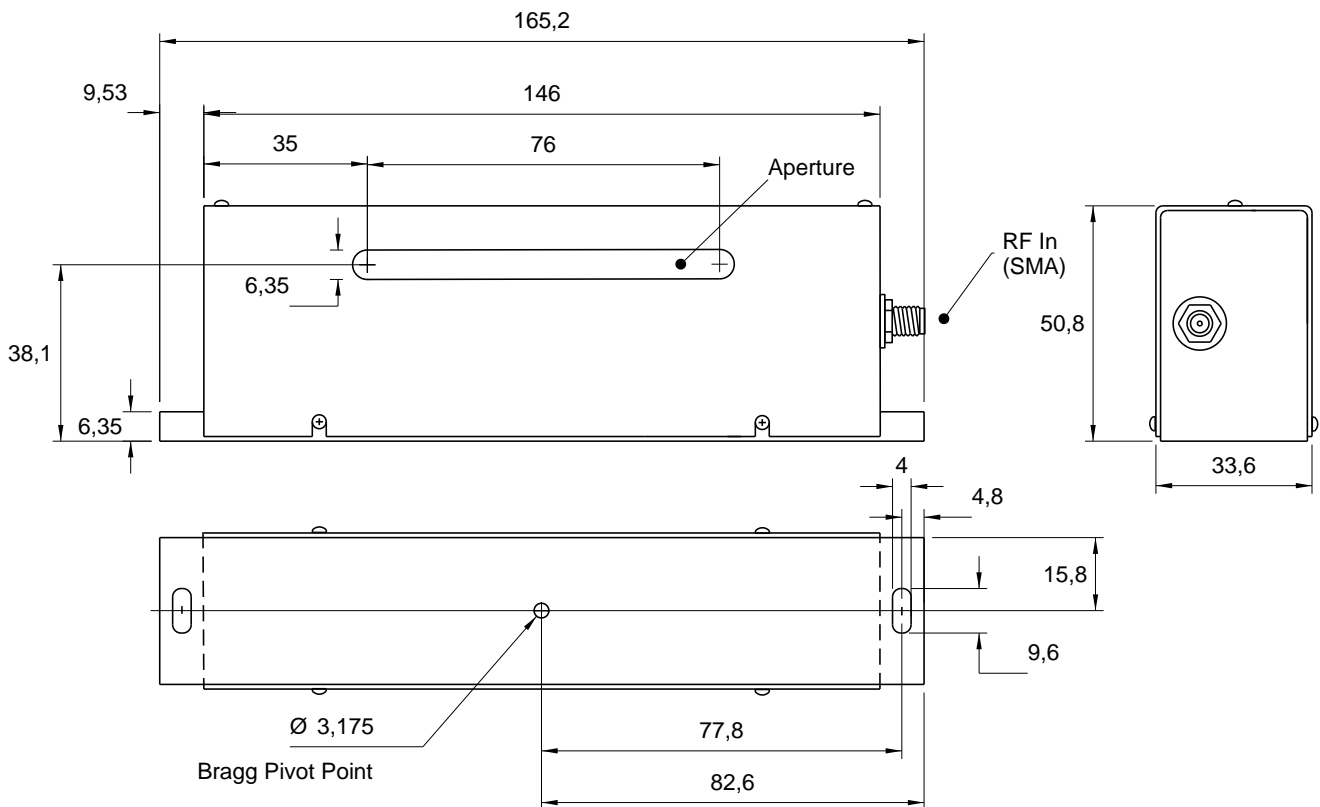
### RECOMMENDED DRIVERS

522C-75 (Digital Modulation)  
532C-75 (Analog modulation)

620C-80 (VCO driver with digital Modulation)  
630C-80 (VCO driver with analog Modulation)  
iSPA-SF1 (Synthesizer/amplifier with modulation)

### OUTLINE DRAWING

Dim'n: mm



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