

# D1393-T75S-8 (450nm)

## Acousto-Optic Deflector

(Preliminary)



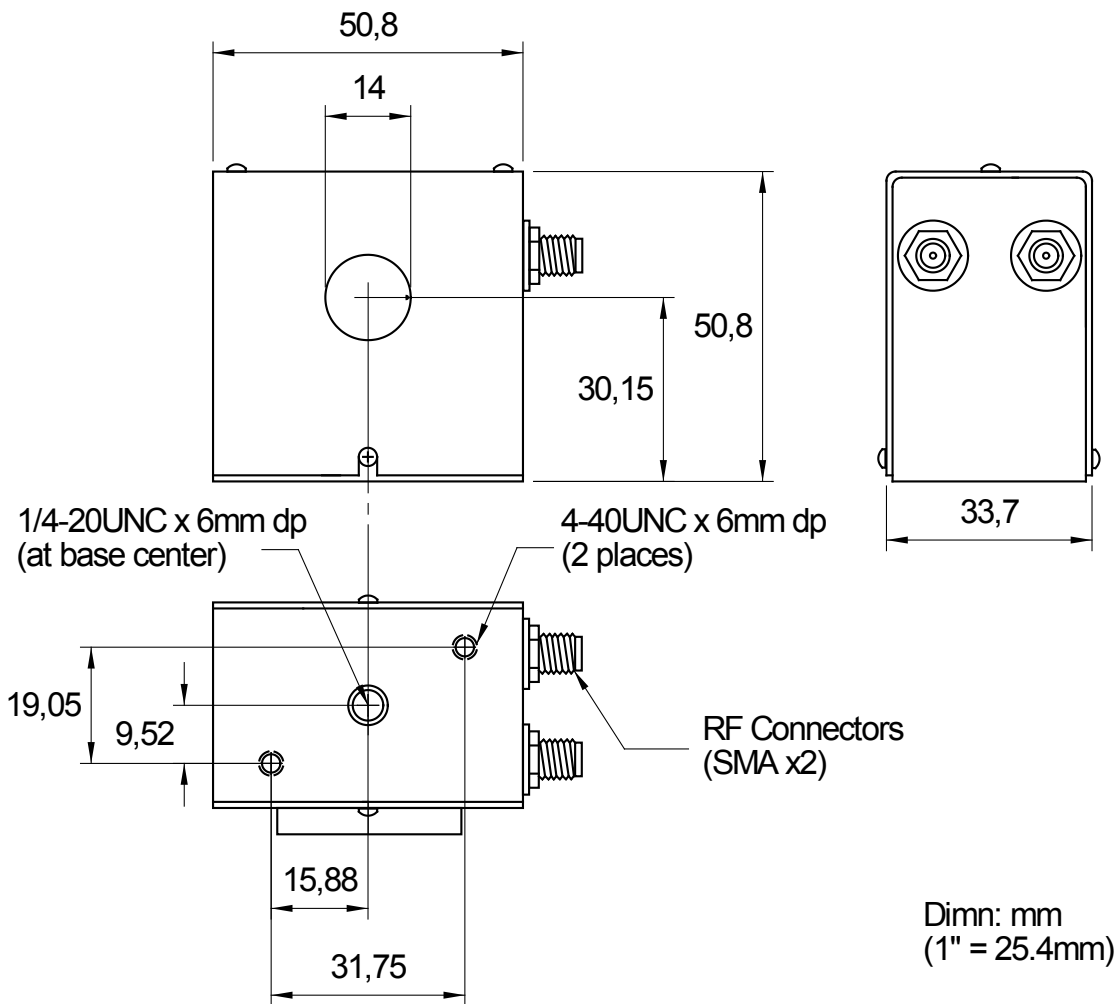
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### APPLICATIONS

Large aperture AO modulator/deflector for use at 400-500nm

Short optical path to accommodate femto second applications (~ 50fs)

Input Bragg angle should be adjusted to optimize performance at each wavelength of operation

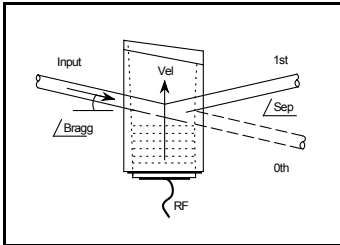


### RF DRIVE ELECTRONICS

iMS4-L (-P) Synthesizer plus RF amp 502C-2

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 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.  
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Quality Assured.  
 In-house: Crystal Growth,  
 Optical Polishing,  
 A/R coating, Vacuum Bonding



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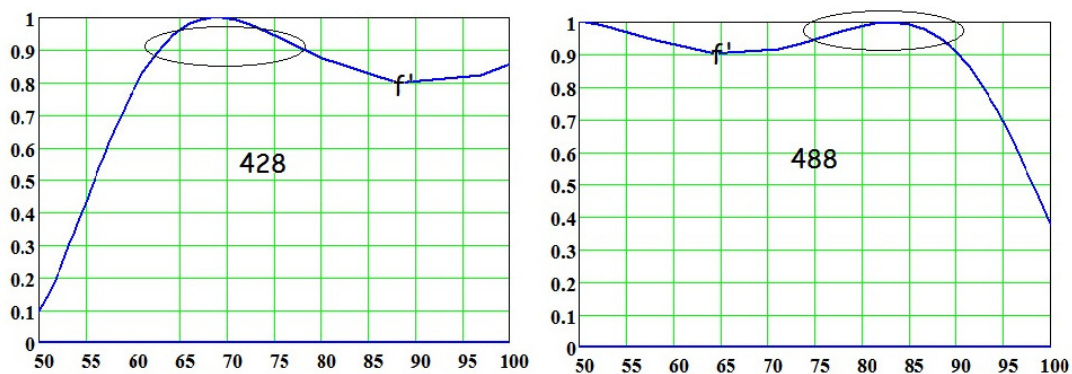
### SPECIFICATIONS

Active Aperture (H):	8mm
Access Time (t):	10 $\mu$ s
Interaction Material:	TeO <sub>2</sub> (Slow Shear)
Optical path length:	8mm
Acoustic Velocity:	0.617mm/ $\mu$ s
Centre Frequency (Fc):	75MHz
RF bandwidth:	50MHz
A/R wavelength	400-500nm
Operating wavelength	428-488nm
Input Polarization:	Circular
Frequency scan range	+/- 7MHz per wavelength
Input Bragg angle:	52-60mrad (wavelength/center freq dependent)
Typical Output Separation angle:	63.3mrad, (488nm,80MHz)
RF Input Impedance:	50 $\Omega$ Nominal
RF Drive Power:	< 1W

### PERFORMANCE for 5mm beam, 488nm, 14MHz sweep

Transit time:	8.1usec
Resolution:	110
Scan angle:	11mrad
Efficiency:	> 50% across scan

Theoretical, normalized scan responses for circularly polarized input light



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