

# AOTF1421-7

## AO Tuneable Filter



0521

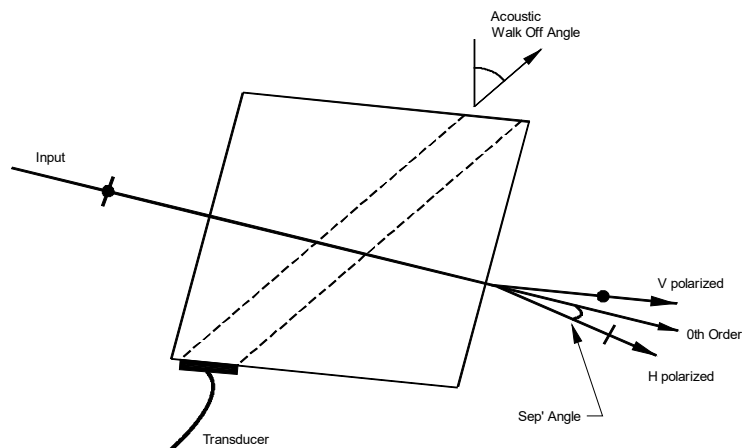
The AOTF1421 Acousto-Optic Tuneable Filter has been optimised for operation in the wavelength range of 2500 nm to 4000nm. The wavelength of the diffracted light is selected by application of a corresponding RF drive frequency. A thermal electric cooler (TEC) is fitted for applications requiring high temperature stability.

### SPECIFICATIONS

Interaction Material:	TeO <sub>2</sub> (s)
Aperture:	7mm x 7mm
Wavelength Range:	2500nm - 4000nm
Wave Number:	20/cm
Bandwidth *:	~ 12nm - 32nm
Acceptance Angle (V):	9.0° (nominal)
Acceptance Angle (H):	9.0° (nominal)
Input polarization:	Vertical
Output polarization:	Horizontal
Output:	Collinear with input
Separation Angle:	7.2°
Frequency:	24 - 39 MHz
Diffraction Efficiency:	>50% over filter range
RF Drive Power:	~ 5 Watts at 3um

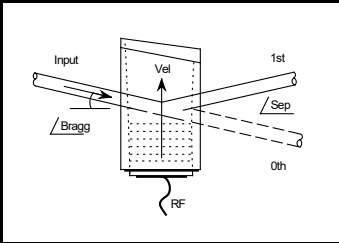
\* Bandwidth = Wave Number x wavelength<sup>2</sup>  
 ( e.g. in units of nanometres, BW = 20x10<sup>-7</sup> x 3000<sup>2</sup> = 18nm)

### Conceptual diagram



**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](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**



# AOTF1421-7

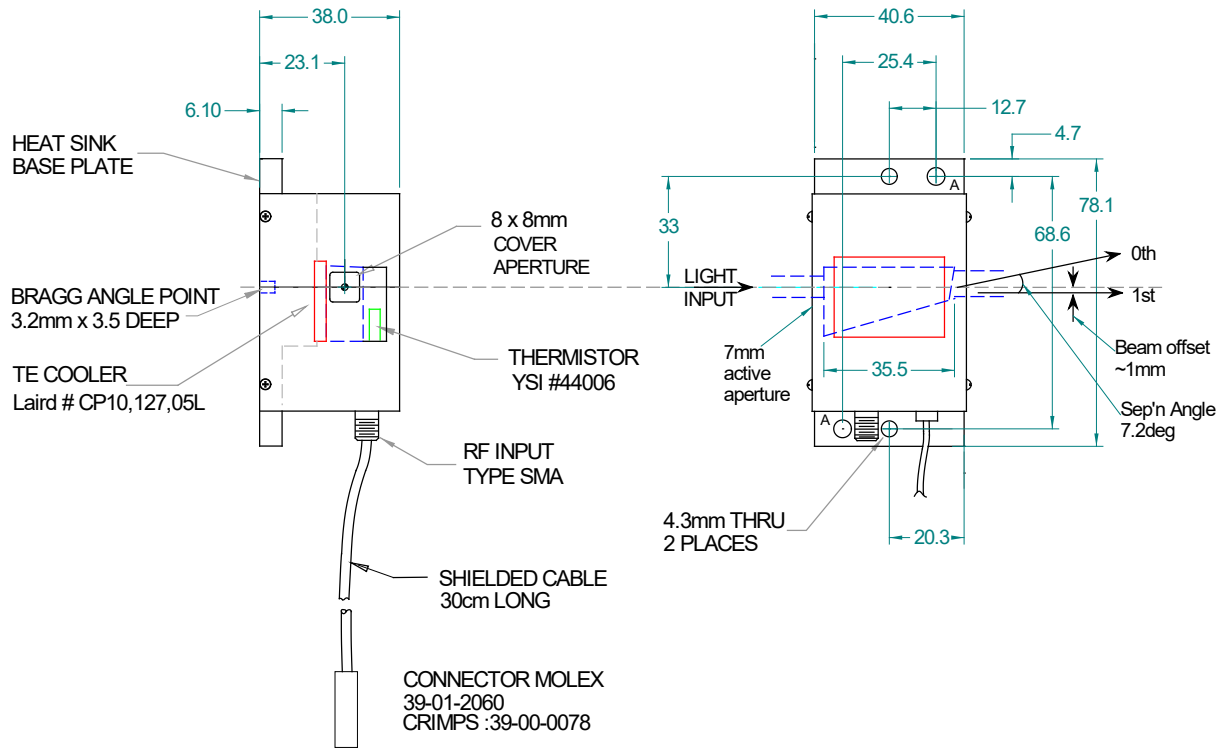
## AO Tuneable Filter



0521

### OUTLINE DRAWING

Dimensions: mm



### ELECTRONICS

Isomet IMS4-L synthesizer and AF0-30T-4 amplifier.

The TEC controller is not supplied.

**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](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