

# AOLF615-1082

## Acousto-Optic Line Filter

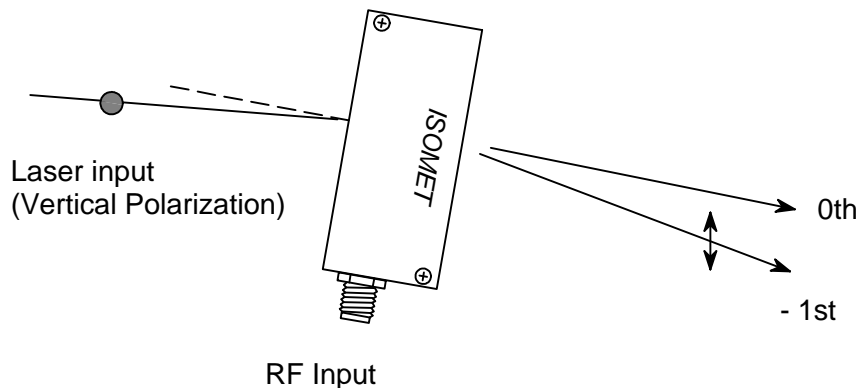


0508

**SOLID STATE**

**FAST ACCESS TIME**

**MINIMAL CHROMATIC DEFLECTION**



The AOLF range of acousto-optic devices are solid-state optical filters, designed for use with laser sources. The wavelength of the diffracted light is selected according to the frequency of the RF drive signal. Isomet-grown tellurium dioxide ( $\text{TeO}_2$ ), which has been oriented for off-axis mode operation, is utilised as the interaction material. Fast access times and fine spectral bandwidths make these filters ideal for selecting discrete lines from a multi-line laser sources.

For **vertical** input polarization, the crystal geometry is designed to minimize chromatic beam deflection of the -1st output.

Suitable drive electronics include the Isomet iDDS-1SE frequency synthesizer plus 502C-L amplifier

Fibre Coupling Option available (see FOA1065)

**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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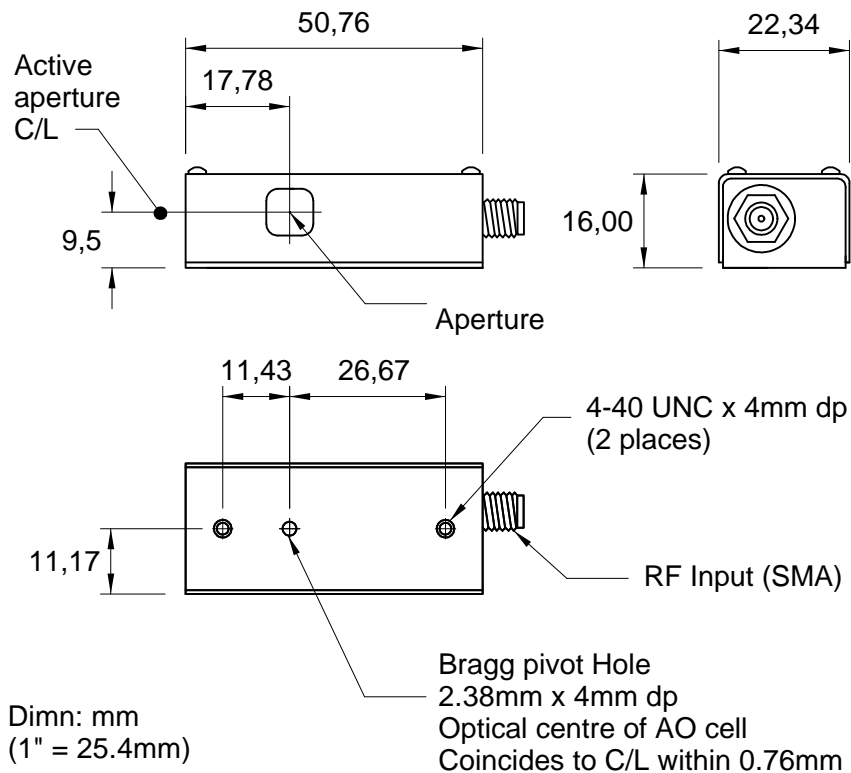


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### Specifications

|                         |                          |
|-------------------------|--------------------------|
| Aperture                | 2.5mm x 2.5mm            |
| Incidence Angle         | 5° nominal               |
| Switching speed         | < 1usec per mm beam dia. |
| Static insertion loss   | < 5%                     |
| Diffraction efficiency  | > 90% / line             |
| Separation Angle (mrad) | 89.2 mrad                |
| Chromatic co-linearity  | < +/- 0.15mrad           |

|                     |            |            |            |            |
|---------------------|------------|------------|------------|------------|
| Wavelength (nm)     | <b>457</b> | <b>488</b> | <b>515</b> | <b>647</b> |
| Frequency (MHz)     | 105.5      | 96         | 89         | 66         |
| Bandwidth (nm)      | 2.5        | 3          | 3.7        | 7          |
| RF Drive Power (mW) | <100       | <120       | <150       | <200       |



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