The AOLF range of acousto-optic tuneable (line) filters are specifically 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 (TeO₂), 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 electronics include the Isomet iSPA-MF4 frequency synthesizer / power amplifier.

Fibre coupling option is available.
AOLF615-1082
Acousto-Optic Line Filter

Specifications

- Aperture: 2.0mm x 2.0mm
- 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

<table>
<thead>
<tr>
<th>Wavelength (nm)</th>
<th>457</th>
<th>488</th>
<th>515</th>
<th>647</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (MHz)</td>
<td>105.5</td>
<td>96</td>
<td>89</td>
<td>66</td>
</tr>
<tr>
<td>Bandwidth (nm)</td>
<td>2.5</td>
<td>3</td>
<td>3.7</td>
<td>7</td>
</tr>
<tr>
<td>RF Drive Power (mW)</td>
<td>&lt;100</td>
<td>&lt;120</td>
<td>&lt;150</td>
<td>&lt;200</td>
</tr>
</tbody>
</table>

Option –M: metric mounting screws M3

Dimensions (mm)

- Active aperture C/L: 50.76
- 17.78
- 9.56
- 11.43
- 26.67
- 11.17

- Aperture: 2.38mm x 4mm dp
- Bragg pivot Hole: 2.38mm x 4mm dp
- Optical centre of AO cell: Coincides to C/L within 0.76mm
- 4-40 UNC x 4mm dp (2 places)
- RF Input (SMA)

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
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Quality Assured.  In-house: Crystal Growth, Optical Polishing, A/R coating, Vacuum Bonding