

900 – 1700nm Acousto-Optic Tunable Filter

TF1300-800-16-11-NO1A

AO Tunable Filter for NIR imaging spectroscopy.

Combining top grade Tellurium Dioxide with high quality optical finishing and in-house anti-reflection coatings, this large aperture AOTF can deliver diffraction limited imaging performance.

High speed, random access ('band sequential' rather than 'push broom') enables the potential for real-time video rate imaging.

Patented side lobe suppression technology provides excellent out of band suppression.

Use in conjunction with our frequency synthesised driver, enables independent control of frequency, amplitude and phase of up to sixteen channels, allowing active pass band resolution and profile control, or the creating of multiple separate passbands.

Gooch & Housego's AOTF capability is extensive. By combining our scientific knowledge, modelling capability and engineering expertise with our renowned manufacturing skill and high quality, our products are aimed at the most discerning customers, in the most demanding applications.

In addition to the standard product shown, custom configurations are available for specialised applications. These include alternative mechanical design, wavelength range, aperture & resolution. We also offer temperature stabilisation or compensation options.

Please contact the sales team for further information.

Key Features:

- 900 – 1700nm
- Large aperture / high étendue
- High speed, random access
- Adaptable resolution
- Solid state technology
- Patented out of band suppression
- Custom configurations available

Application examples:

- Hyperspectral / Multispectral Imaging
- Biomedical
- Environmental
- Pharmaceutical
- Food & agriculture
- Security

General Specifications

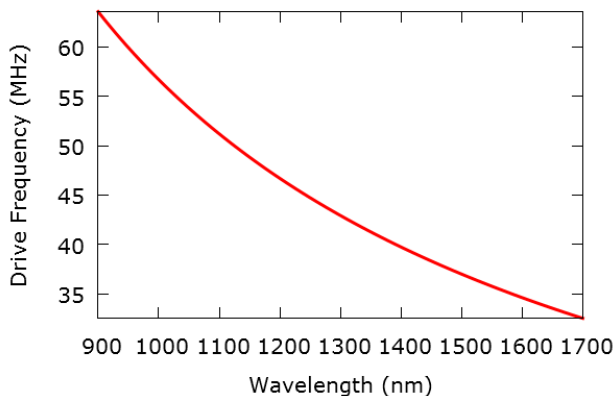
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|-----------------------------------------|-------------------------------------------|
| Interaction material: | Tellurium Dioxide (Anisotropic) |
| Wavelength range: | 900 - 1700nm |
| Frequency Range: | 30 – 65MHz |
| Resolution (FWHM): | ~16nm at 1300nm |
| Active aperture: | 11 x 12mm |
| Polarisation: | Polarisation sensitive |
| Incident polarisation: | Linear, vertical with respect to base |
| Polarisation of diffracted order: | Linear, orthogonal to input (90° rotated) |
| Pointing stability of diffracted order: | < ± 0.01° typical |
| Field Of View: | ± 2° |
| Beam separation: | ≥ 4.5° |
| RF input impedance: | 50Ω |
| Transmission: | > 95% |
| Diffraction efficiency: | > 90% (> 95% typical) |
| Maximum RF Power: | 5W |
| Cooling: | Conduction through base |

Ordering Code

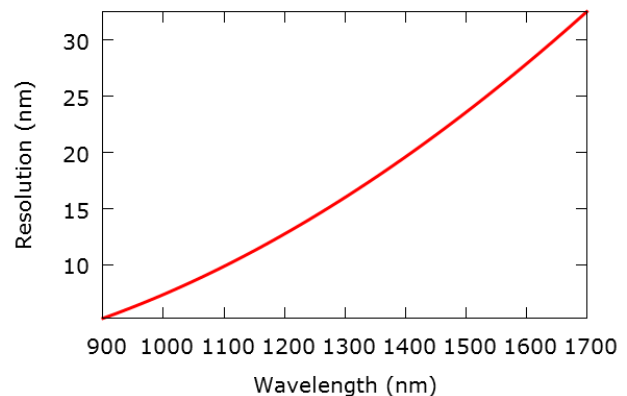
Explanation: TF1300-900-8-11-NO1A (AO Tunable Filter, centre wavelength 1300nm, 800nm operating range, 16nm resolution, 11.0mm active aperture, NO1 housing, side lobe suppression).

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Tuning Relation



Line Width



Mechanical Data

