



# 1500 – 3000nm Acousto-Optic Tunable Filter

TF2250-1500-12-7-GH61A

AO Tunable Filter for NIR spectroscopic applications.

High speed, random access, solid state technology is making AOTF based spectrometers an ideal for on line process control applications.

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.

Use in conjunction with our frequency synthesised driver (DDS) enables active wavelength / temperature stabilisation.

Multichannel RF drivers allowing active pass band resolution and profile control are also available – please enquire.

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

In addition to the standard product shown, custom configurations are available for specialised applications. These include alternative mechanical design, wavelength range, aperture & resolution.

Please contact us for further information.

### **Key Features:**

- □ 1500 − 3000nm
- ☐ High speed, random access
- Adaptable resolution
- Solid state technology
- Patented out of band suppression
- Custom configurations available

### Application examples:

- Pharmaceutical
- Environmental
- Biomedical
- ☐ Food & drink
- Agriculture
- Chemical



## **General Specifications**

Interaction material: Tellurium Dioxide (Anisotropic)

 $\begin{array}{lll} \text{Wavelength range:} & 1500 - 3000 \text{nm} \\ \text{Frequency range:} & 33 - 67 \text{MHz} \\ \text{Resolution (FWHM):} & \sim 12 \text{nm at } 2250 \text{nm} \\ \text{Active aperture:} & 7 \text{mm x } 7 \text{mm} \end{array}$ 

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:  $< \pm 0.01 \degree \text{typical}$ 

Field Of View:  $\pm 3^{\circ}$ Beam separation:  $> 6^{\circ}$ RF input impedance:  $50\Omega$ Transmission: > 95%Diffraction efficiency: > 90%RF drive power:  $< 5\cdot 0W$ 

Cooling: Conduction through base Recommended RF Driver: 64040-150-10MDFS-16X1

### **Ordering Code**

**Explanation: TF2250-1500-9-7-GH61A** (AO Tuneable Filter – centre wavelength 2250nm – 1500nm operating range - 12nm resolution - 7.0mm active aperture – GH61 housing, with side lobe suppression).

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