



# 400 – 700nm Acousto-Optic Tunable Filter

TF550-300-4-6-GH57A

AO Tunable Filter for 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:**

Wavelength 400 – 700nm
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



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## **General Specifications**

Interaction material: Tellurium Dioxide (Anisotropic)

Wavelength range: 400 - 700nm
Frequency range: 53 - 117MHz
Resolution (FWHM): ~4nm at 550nm

Active aperture: 6mm

Incident polarisation:

Linear, vertical with respect to base
Polarisation of diffracted order:

Linear, orthogonal to input (90° rotated)

Pointing stability of diffracted order:  $< \pm 0.01^{\circ}$  typical

Field Of View:  $\pm 2^{\circ}$  Beam separation:  $> 3^{\circ}$  Transmission: > 95%

Diffraction efficiency: > 90% (95% typical)

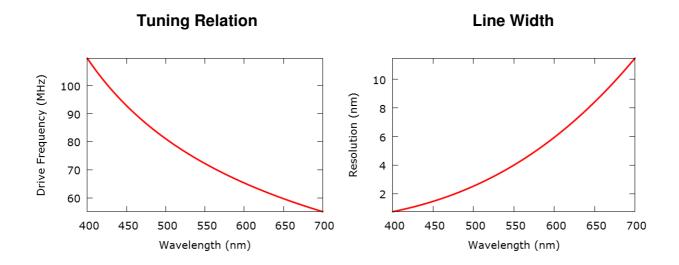
RF input impedance:  $50\Omega$ 

RF drive power: < 200mW / channel
Cooling: Conduction through base

## **Ordering Code**

**Explanation: TF550-300-4-6-GH57A** (AO Tuneable Filter – centre wavelength 550nm – 300nm operating range - 4nm resolution - 6.0mm active aperture – GH57 housing, with side lobe suppression).

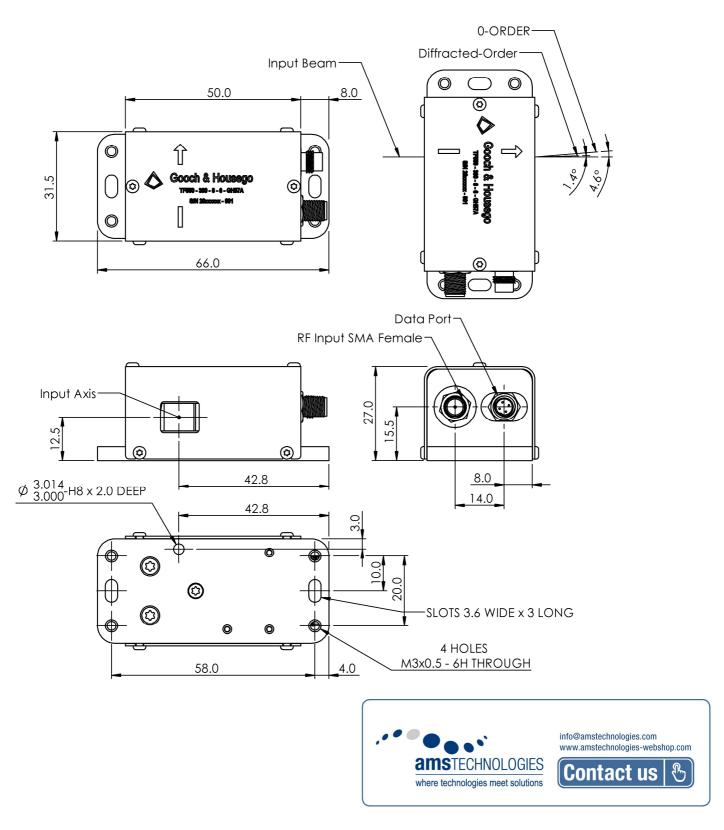




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