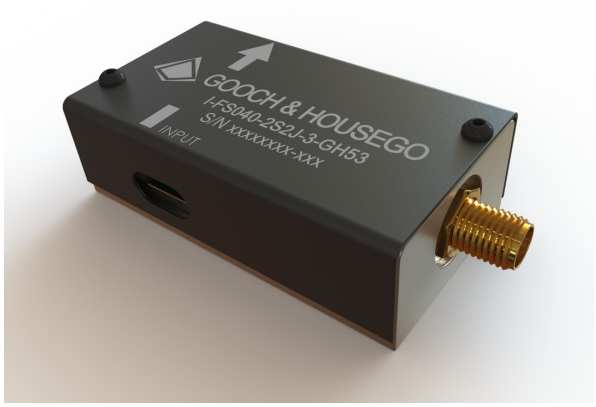
ENABLING PHOTONIC TECHNOLOGIES



40MHz, 1550nm AO Frequency Shifter

I-FS040-2S2J-3-GH53

A compact Acousto-Optic Frequency Shifter featuring low power 0.5W 40MHz supply requirement and high diffraction efficiency, this device is ideal for use in heterodyne interferometric systems, particularly laser Doppler velocimetry and has been designed to facilitate double pass configuration.

In addition to the specifications indicated, we also offer alternative wavelengths, RF frequencies, active apertures & a wide range of custom housing configurations. We also offer full custom design & manufacturing, enabling our customers to achieve the perfect solution.

Our scientists and engineers are available to assist in selecting the most appropriate Acousto-Optic device and RF driver for your application.

Please contact our sales team for further information.

Key Features:

- 40MHz
- 1550nm
- High efficiency
- Tellurium Dioxide

Applications:

- Industrial:
  - Laser Doppler Vibrometry
  - Laser Doppler Velocimetry
  - 3D laser scanning
  - LIDAR

Contact: sales@goochandhousego.com www.goochandhousego.com

General Specifications

Model No:	I-FS040-2S2J-3-GH53
Device:	AO Frequency Shifter
Frequency Shift:	40MHz; Up-Shift
Interaction Material:	Tellurium Dioxide
Acoustic Mode:	Slow Shear
Operational Wavelength:	1550nm
AR coating reflectivity:	< 0.3% per surface
Damage Threshold:	> 1MW/cm^2
Active Aperture:	2.0 x 4.0mm (H x W)
Clear Aperture:	3.0 x 5.0mm (min)
Recommended Beam Diameter:	1mm (well collimated)
Input Polarisation:	Linear – horizontal wrt base
Polarisation Alignment:	± 2°
Diffracted Beam Polarisation:	Linear – rotated by 90° wrt input
Diffraction Efficiency:	> 90%
Diffracted Beam Orientation:	~ 1.4° wrt input
Input Impedance:	50Ω
Separation angle (0-order to diffracted-order):	~ 5°
Rise-time (10-90%):	1.6µs/mm
RF Drive power:	0.5W typical (1.0W Max)
RF Connector:	SMA Female
Housing:	Refer to drawing

Ordering Code

Explanation: I-FS040-2S2J-3-GH53 (Frequency Shifter, 40MHz, 2.0mm active aperture, shear mode, Tellurium Dioxide, 1550nm, SMA male input, GH53 housing).

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