

Gooch & Housego



AO Frequency Shifter / Modulator

I-FS080-2C2G-3-LV1

Former model number: M080-2G-LV1

The LV1 is ideally suited for frequency shifting or slow modulation of linearly polarised Nd:YAG or Nd:YVO₄ lasers.

Rise-times down to 10µs are achievable, together with excellent diffraction efficiency at extremely low RF drive power, typically >95% at 0.5W RF.

The slow shear interaction also results in a very user friendly diffraction angle of 6.45deg.

In addition to the specifications indicated, we also offer alternative wavelengths, frequency shift, active aperture & integrated driver versions.

Key Features:

High efficiency Low drive power 1064nm 80MHz Custom configurations available

Applications:

Industrial:

- Vibrometry
- Process control
- Pulse picking or power control

Scientific:

Interferometry

General Specifications

Recommended beam diameter:

Interaction material: Tellurium Dioxide (TeO₂)
Acoustic mode: Anisotropic, slow shear

Wavelength: 1064nm

AR coating reflectivity: < 0.2% per surface

Transmission: > 99.5%
Frequency shift: 80MHz
VSWR: < 1.2:1
Active aperture: 2mm
Clear aperture: 4mm

Input polarisation: Linear, vertical with respect to housing base

1mm

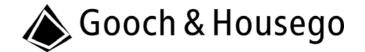
Polarisation alignment:

Output polarisation (1st order diffracted): Linear, horizontal (rotated by 90° to input)

Angle between zero and 1st order beams: 6.45°

Diffraction efficiency: > 90% (typically > 95%)

RF power: 0.5W



Ordering Code

Explanation: I-FS080-2C2G-3-LV1 (Frequency shifter, 80MHz, 2.0mm active aperture, compressional mode, tellurium dioxide, 1064nm, SMA female bulk head RF connector, LV1 housing.

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