

M1137-SF40L-1.5

Acousto-Optic Modulator



0408

The M1137 is low dispersion Glass AOM designed primarily for Ti:Sapphire laser applications. This model offers a practical compromise between aperture size, diffraction efficiency and pulse stretching characteristics.

SPECIFICATIONS

Interaction Material:	SF57
Optical path length:	24mm
Refractive Index:	1.8
Standard Operating Wavelengths:	700nm - 1064nm
Polarization:	Vertical preferred
Acoustic Velocity:	3411 m/s
Active Aperture:	1.5 mm
Centre Frequency:	40 MHz
RF Bandwidth:	20 MHz
Input Impedance:	50 ohms (Nominal)
VSWR:	< 1.5:1 @ 40 MHz
DC. Contrast Ratio:	> 1000:1 min (2000:1 typical)
Static Insertion Loss:	≤ 3.0%

Estimated Pulse Stretching

Wavelength nm	t input fsec	t output fsec
700	130 / 70	230 / 360
800	130 / 70	205 / 300
900	130 / 70	185 / 255
1000	130 / 70	170 / 215

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

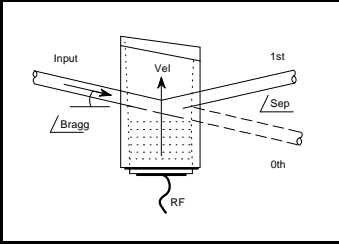
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Quality Assured.

In-house: Crystal Growth,
Optical Polishing,
A/R coating, Vacuum Bonding



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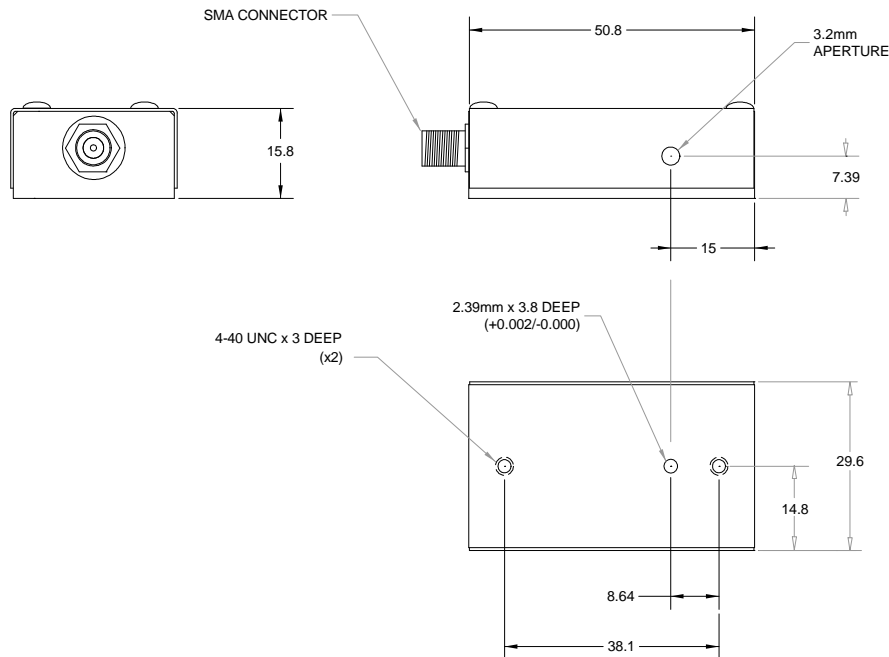
PERFORMANCE vs. WAVELENGTH

Wavelength:	780nm	830nm	1064nm
Saturation RF Power:	≤ 3.0W	≤ 3.5W	≤ 6.0W
Separation Angle @ 40 MHz:	9.15mrad	9.75mrad	12.5mrad
Bragg Angle @ 40MHz:	4.55mrad	4.85mrad	6.25mrad

(RF Drive 3.0W, Beam diameter 1mm)

Diffraction Efficiency:	>80%	>80%	>50%
Rise Time:	191ns	191ns	191ns

OUTLINE DRAWING



Ensure adequate heaksinking through the mounting surface, especially at higher RF powers.

DRIVERS

521C-4 (DIGITAL MODULATION)
531C-4 (ANALOG MODULATION)

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