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: 50 MHz
- RF Bandwidth: 20 MHz
- Input Impedance: 50 ohms (nominal)
- VSWR: < 1.5:1 @ 50 MHz
- DC. Contrast Ratio: > 1000:1 min (2000:1 typical)
- Static Insertion Loss: < 3.0%

**PERFORMANCE**

- Estimated Pulse Stretching:
  - 780nm: 700nm: 130 / 70 fsec, 700nm: 130 / 70 fsec
  - 830nm: 800nm: 130 / 70 fsec, 800nm: 130 / 70 fsec
  - 1064nm: 900nm: 130 / 70 fsec, 900nm: 130 / 70 fsec
  - 1000nm: 1000nm: 130 / 70 fsec, 1000nm: 130 / 70 fsec

- Saturation RF Power (typ.):
  - 780nm: 3.0W
  - 830nm: 3.5W
  - 1064nm: 6.0W

- Separation Angle @ 50 MHz:
  - 780nm: 11.43mrad
  - 830nm: 12.19mrad
  - 1064nm: 15.6mrad

- Bragg Angle @ 50MHz:
  - 780nm: 5.69mrad
  - 830nm: 6.06mrad
  - 1064nm: 7.80mrad

- Diffraction Efficiency:
  - 780nm: >80%
  - 830nm: >80%
  - 1064nm: >50%
M1137-SF50L-1.5
Acousto-Optic Modulator

OUTLINE DRAWING

SMA CONNECTOR

Option –M, metric mounting threads, M3
Mount device to heat conducting surface

RF DRIVE ELECTRONICS

Digital modulation: 521C-4-50
Analog modulation: 531C-4-50
Tuneable with modulation 630A-40 (VCO), iSPA-SF1-a (DDS)
Dual modulation: 551F-4-50