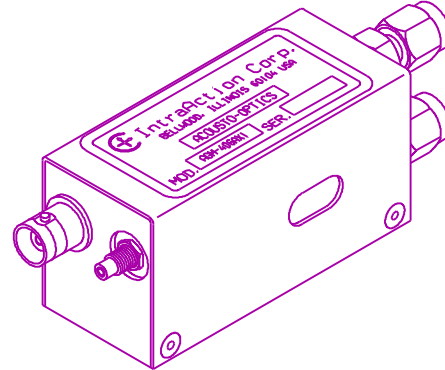


**MODEL AGM-40 SERIES
IR ACOUSTO-OPTIC MODULATOR/FREQUENCY SHIFTER**

- Intensity Modulation
- Optical Frequency Shifting
- Laser Beam Deflection
- High Reliability



SPECIFICATIONS

| | |
|----------------------------------|--|
| Acousto-optic Material | Optical Single Crystal Geranium |
| Acoustic Velocity | 5.5 mm / μ sec |
| RF Center Frequency ¹ | 40 MHz |
| Optical Frequency Shift Range | " (30 to 50) MHz |
| RF Input Impedance | 50 ohms |
| Optical Insertion Loss | <7 percent |
| Optical Power Capability | 25 watts full aperture |
| Laser Polarization | Parallel to Base |
| Water Cooling | 250 ml / min, 20 degrees C |
| RF Connector | BNC |
| Size (less connectors) | 2.95 L x 1.2 H x 1.3 W inches 7.50 L x 3.1 H x 3.3 W cm |

| MODEL | <u>AGM-402A1</u> | <u>AGM-406A1</u> | <u>AGM-402A3</u> | <u>AGM-406A3</u> |
|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Optical Wavelength ² | 10.6 μ m | 10.6 μ m | 3.39 μ m | 3.39 μ m |
| Active Aperture Height | 2 mm | 6 mm | 2 mm | 6 mm |
| Optical Rise Time (diameter) | 116 nsec (1 mm) | 582 nsec (5 mm) | 116 nsec (1 mm) | 582 nsec (5mm) |
| Modulation -3 dB Bandwidth | 4.1 MHz (1 mm) | 825 KHz (5 mm) | 4.1 MHz (1 mm) | 825 KHz (5 mm) |
| Beam Separation | 77 mrad | 77 mrad | 24.7 mrad | 24.7 mrad |
| Bragg Angle | 38.5 mrad | 38.5 mrad | 12.3 mrad | 12.3 mrad |
| Diffraction Efficiency | 70 percent | 50 percent | 70 percent | 70 percent |
| RF Drive Power ³ | 20 watts | 25 watts | 2 watts | 6 watts |

¹ Other frequencies available

² Narrow and broadband A/R coatings in the range of 2.2 μ m to 12 μ m are available.

³ Laboratory and OEM drive electronics available.

NOTE: Operating specifications change with optical wavelength.