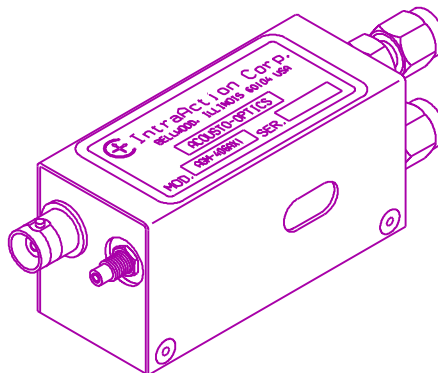


## MODEL AGM-40 SERIES IR ACOUSTO-OPTIC MODULATOR/FREQUENCY SHIFTER

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



### SPECIFICATIONS

Acousto-optic Material	Optical Single Crystal Geranium
Acoustic Velocity	5.5 mm / $\mu$ sec
RF Center Frequency <sup>1</sup>	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

<b>MODEL</b>	<b><u>AGM-402A1</u></b>	<b><u>AGM-406A1</u></b>	<b><u>AGM-402A3</u></b>	<b><u>AGM-406A3</u></b>
Optical Wavelength <sup>2</sup>	10.6 $\mu$ m	10.6 $\mu$ m	3.39 $\mu$ m	3.39 $\mu$ 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 <sup>3</sup>	20 watts	25 watts	2 watts	6 watts

<sup>1</sup> Other frequencies available

<sup>2</sup> Narrow and broadband A/R coatings in the range of 2.2  $\mu$ m to 12  $\mu$ m are available.

<sup>3</sup> Laboratory and OEM drive electronics available.

NOTE: Operating specifications change with optical wavelength.