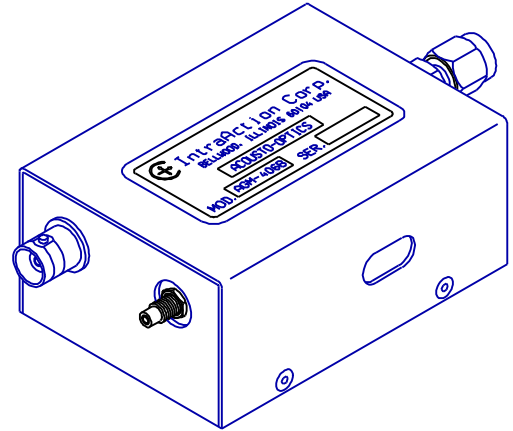




**MODEL AGM-406B1**  
**IR ACOUSTO-OPTIC MODULATOR / FREQUENCY SHIFTER**

- INTENSITY MODULATION
- OPTICAL FREQUENCY SHIFTING
- OPTICAL ISOLATION
- LASER BEAM DEFLECTION
- HIGH RELIABILITY
- HIGH OPTICAL POWER CAPABILITY



**SPECIFICATIONS**

Optical Wavelength <sup>1</sup>	10.6 μm
Acousto-optic Material	Optical Single Crystal Germanium
Acoustic Velocity	5.5 mm/μsec
Center RF Frequency <sup>2</sup>	40 MHz
RF Bandwidth	20 MHz
Optical Frequency Shift Range	± (30 MHz to 50 MHz)
Beam Separation	77 mrad (40 MHz)
Bragg Angle	38.5 mrad (40 MHz)
Diffraction Efficiency	85 percent
RF Drive Power <sup>3</sup>	30 watts
Active Aperture Height	6 mm
Modulation Bandwidth (-3db)	750 KHz (5.5 mm diameter)
Optical Rise Time	117 nsec / mm beam diameter
RF Input Impedance	50 ohms
Optical Insertion Loss	<12 percent
Optical Power Capability	100 watts full aperture
Optical Polarization	Parallel to mounting surface
Water Cooling	500 ml / min at 20°C
Thermal Interlock Switch	NC opens at 45°C
Size (less connectors)	2.97 D x 1.50 H x 2.42 W inches 75.4 D x 38.1 H x 61.5 W mm

<sup>1</sup> Other wavelengths and ranges from 2.5-11.5 μm available. Note: Specifications change with optical wavelength.

<sup>2</sup> Other frequencies available.

<sup>3</sup> A complete line of drive electronics are available. Model GE-4030 analog input, GE-4030T digital input. OEM drivers are available.