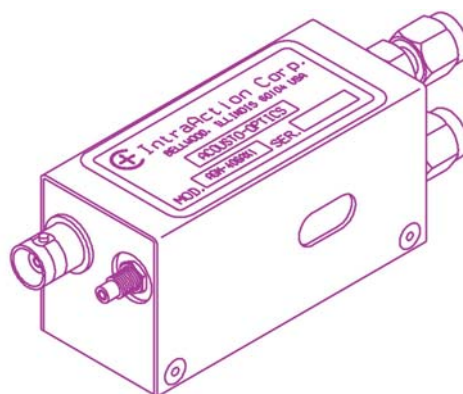


MODEL AGM-AI HIGH FREQUENCY SERIES IR ACOUSTO-OPTIC MODULATOR/FREQUENCY SHIFTER

- OPTICAL FREQUENCY SHIFTING
- INTENSITY MODULATION
- LASER BEAM DEFLECTION
- HIGH RELIABILITY



SPECIFICATIONS			
Spectral Wavelength ¹	10.6 μm		
Acousto-optic Material	Optical Single Crystal Geranium		
Acoustic Velocity	5.5 mm/ μsec		
Active Aperture Height	3 mm		
Modulation Bandwidth (-3db)	1.6 MHz (2.5 mm beam diameter)		
Optical Rise Time	290 ns (2.5 mm beam diameter)		
RF Input Impedance	50 ohms		
Optical Insertion Loss	<7%		
Optical Power Capability	25 Watts full aperture		
Laser Polarization	Linear, parallel to mounting surface		
Water Cooling	250 ml / min, 20°C		
Thermal Interlock Switch	NC, opens at 45°C		
Size (less connectors)	3.00 D x 1.50 H x 1.30 W inches		
	76.2 D x 3.81 H x 33.0 W mm		
MODEL	AGM-903AI	AGM-1003AI	AGM-1103AI
Center Frequency ²	90 MHz	100 MHz	110 MHz
Frequency Shift Range ²	$\pm(80 \text{ to } 100) \text{ MHz}$	$\pm(90 \text{ to } 110) \text{ MHz}$	$\pm(100 \text{ to } 120) \text{ MHz}$
Beam Separation	173 mrad (90 MHz)	192 mrad (100 MHz)	212 mrad (110 MHz)
Bragg Angle	86.7 mrad (90 MHz)	96 mrad (100 MHz)	106 mrad (110 MHz)
Diffraction Efficiency	60%	60%	50%
RF Drive Power	20 Watts	20 Watts	20 Watts

¹ Narrow and broadband A/R coatings in the range of 2.2 μm to 11 μm are available.

² Other frequencies available.

NOTE: Operating specifications change with optical wavelength.