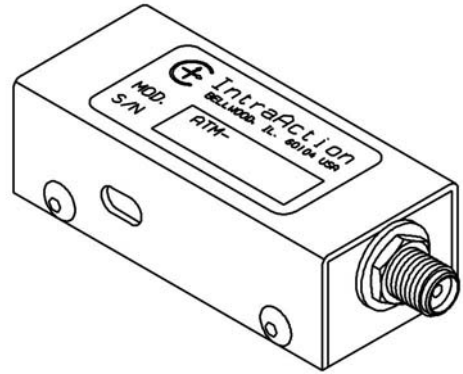


# MODEL ATM-A1/A2 SERIES ACOUSTO-OPTIC FREQUENCY SHIFTER

- WIDE CENTRE FREQUENCY CHOICE
- USER SPECIFIED CENTER FREQUENCY<sup>1</sup>
- WIDE FREQUENCY SHIFTING RANGE
- HIGH DIFFRACTION EFFICIENCY
- BEAM DEFLECTION
- LOW DRIVE POWER
- HIGH RELIABILITY



SPECIFICATIONS		
Range of Center Frequency Choice <sup>1</sup> (F)	80 MHz - 350 MHz	
Frequency Shifting Bandwidth	50% of center frequency	
Acousto-optic Material	Tellurium Dioxide (TeO <sub>2</sub> )	
Active Aperture Height	1 mm	
Sound Velocity (V)	4260 m/sec (longitudinal)	
Beam Separation	$(\lambda \times F) / V$	
Optical Rise Time	151 ns/mm beam diameter	
Static Optical Insertion Loss	<4%	
Input Impedance	50 ohms	
Input VSWR	<1.5:1 at center frequency	
Size (less SMA connector)	2.00 L x 0.63 H x 0.9 W inches	
	5.08 L x 1.60 H x 2.28 W cm	
MODEL	ATM-A1 SERIES	ATM-A2 SERIES <sup>8</sup>
Optical Wavelength Range <sup>2</sup> (?)	440 nm - 700 nm	700 nm - 1100 nm
Diffraction Efficiency <sup>3</sup>	85% (80 MHz)	80% (80 MHz)
	70% (350 MHz)	65% (350 MHz)
RF Drive Power <sup>3,4</sup>	1 Watt (633 nm)	1.5 Watts (780 nm)
Example: (90 MHz center frequency)	ATM-90IA1	ATM-90IA2
Example: (270 MHz center frequency)	ATM-270IA1	ATM-270IA2

<sup>1</sup> Choose center frequency to match application.

<sup>2</sup> Specifications vary with optical wavelength.

<sup>3</sup> RF drive power required varies as the square of the optical wavelength.

<sup>4</sup> A complete line of drive electronics is available. See VFE series, ME series, and DE series drivers. OEM drivers also available.