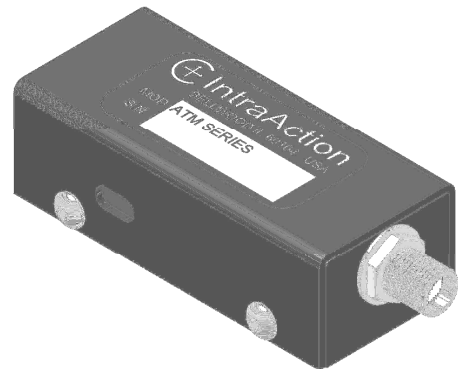


MODEL ATM-A1/A2 SERIES ACOUSTO-OPTIC FREQUENCY SHIFTER

- WIDE CENTER FREQUENCY CHOICE
- USER SPECIFIED CENTER FREQUENCY¹
- WIDE FREQUENCY SHIFTING RANGE
- HIGH DIFFRACTION EFFICIENCY
- BEAM DEFLECTION
- LOW DRIVE POWER
- HIGH RELIABILITY



SPECIFICATIONS

Range of Center Frequency Choice ¹ (F)	80 MHz - 350 MHz
Frequency Shift Bandwidth ⁵	50 percent of center frequency
Acousto-optic Material	Tellurium Dioxide (TeO ₂)
Active Aperture Height	1 mm
Sound Velocity (V)	4260 m/sec (longitudinal)
Beam Separation	$(\lambda \times F) / V$
Optical Rise Time	151 nsec/mm beam diameter
Static Optical Insertion Loss	<4 percent
Input Impedance	50 ohms
Input VSWR	<1.5:1 at center frequency
Input Connector	SMA
Size (less SMA connector)	0.63 H x 2.00 D x 0.9 W inches 16.0 H x 50.8 D x 22.9 W mm

MODEL

	<u>ATM-A1 Series</u>	<u>ATM-A2 Series</u>
Optical Wavelength Range ² (λ)	440 nm - 700 nm	700 nm - 1100 nm
Diffraction Efficiency ³	85 percent (80 MHz) 70 percent (350 MHz)	80 percent (80 MHz) 60 percent (350 MHz)
RF Drive Power ^{3,4}	1 watt (633 nm)	1.5 watts (780 nm)
Examples: (90 MHz center frequency) (270 MHz center frequency)	ATM-901A1 ATM-2701A1	ATM-901A2 ATM-2701A2

¹ Choose center RF frequency to match application.

² Specifications vary with optical wavelength.

³ RF drive power required varies as the square of the optical wavelength.

⁴ A complete line of drive electronics are available. See VFE series, ME series, and DE series drivers. OEM drivers also available.

⁵ Depending on optical wavelength, RF frequency, and RF frequency deviation, the Bragg angle condition may need to be readjusted.