IntraAction Corp.

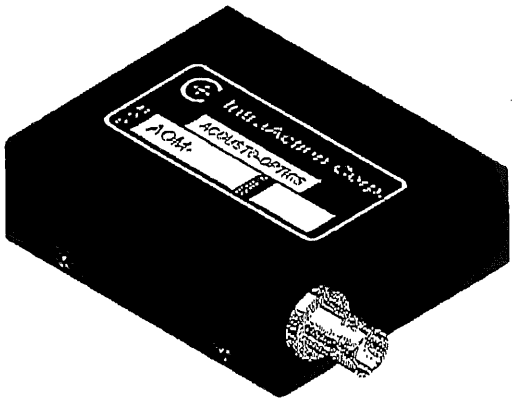
QUALITY PRODUCTS FOR LASER TECHNOLOGY

MODULATOR

3719 Warren Avenue · Bellwood, IL 60104 · 708 547-6644 · Fax 708 547-0687 · iac@intraaction.com

MODEL AOM-40AF SERIES
ACOUSTO-OPTIC MODULATOR/FREQUENCY SHIFTER

-INTENSITY MODULATION
-OPTICAL FREQUENCY SHIFTING
-LASER BEAM DEFLECTION
-HIGH OPTICAL POWER CAPABILITY
-HIGH RELIABILITY
-EXCELLENT TEMPERATURE STABILITY



SPECIFICATIONS

Acoustic Center Frequency[1]	40 MHz
Optical Frequency Shift Range	±(30 to 50) MHz
Acousto-optic Material	Dense Flint Glass
Acoustic Velocity	3630 m/sec
Modulation Bandwidth (-3db)	2.7 MHz (1.0 mm beam diameter) 1.8 MHz (1.5 mm beam diameter)
Optical Rise Time	177 nsec (1.0 mm beam diameter) 265 nsec (1.5 mm beam diameter)
Static Optical Insertion Loss	2 Percent (633nm)
Optical Polarization	Any
RF Input Impedance	50 Ohms (VSWR < 1.25:1 at CF)
RF Connector	BNC
Size (less connector)	0.88 H x 2.94 D x 2.46 W inches 22.4 H x 74.7 D x 62.5 W mm

MODEL	AOM-402AF1	AOM-405AF1	AOM-402AF3	AOM-402AF4
Optical Wavelength Range	440-700 nm	440-700 nm	700-1100 nm	1064 nm
Active Aperture Height[2]	2 mm	5 mm	2 mm	2 mm
Diffraction Efficiency	90 Percent	90 percent	90 Percent	85 Percent
Drive Power[3]	1.8 Watts (633 nm)	4.5 watts (633 nm)	3 Watts (780 nm)	5 Watts
Beam Separation	6.9 mrad (633 nm)	6.9 mrad (633 nm)	8.6 mrad (780 nm)	11.7 mrad

[1] Other center frequencies available.
[2] Other active aperture heights available.
[3] A complete line of analog, digital, dual frequency, OEM, and laboratory drive electronics are available.

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FREQUENCY SHIFTER

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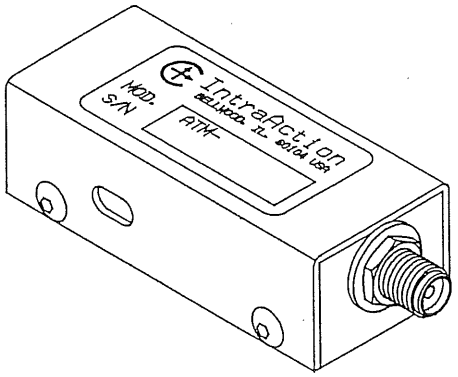
MODEL ATM-A1/A2 SERIES
ACOUSTO-OPTIC FREQUENCY SHIFTER

- WIDE CENTER FREQUENCY CHOICE
- USER SPECIFIED CENTER FREQUENCY[1]
- 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 Shifting Bandwidth	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	(λ x 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
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
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)	ATM-901A1	ATM-901A2
(270 MHz center frequency)	ATM-2701A1	ATM-2701A2

[1] Choose center 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 is available. See VFE series, ME series, and DE series drivers. OEM drivers also available.

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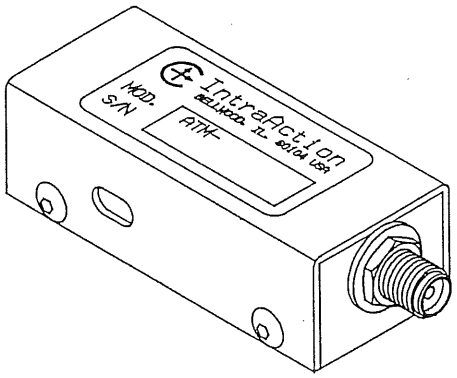

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