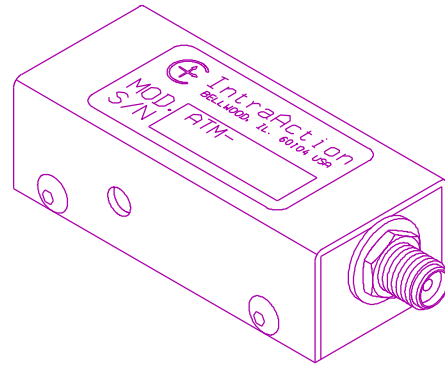


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**MODEL ATM SERIES
ACOUSTO-OPTIC MODULATOR**

- INTENSITY MODULATION
- FAST MODULATION CAPABILITY
- OPTICAL FREQUENCY SHIFTING
- BEAM DEFLECTION
- LOW DRIVE POWER
- HIGH RELIABILITY



SPECIFICATIONS

Optical Wavelength Range ¹	440 nm to 700 nm
Acousto-optic Material	Tellurium Dioxide (TeO ₂)
Sound Velocity	4260 m/sec (longitudinal)
Input Impedance	50 ohms
Input VSWR	<1.3:1 at center frequency
Static Optical Insertion Loss	4 percent
Size (less SMA connector)	2.00 D X 0.63 H X 0.9 W inches 5.08 D X 1.60 H X 2.28 W cm

MODEL	<u>ATM-80A1</u>	<u>ATM-125B1</u>	<u>ATM-200C1</u>
Center Frequency	80 MHz	125 MHz	200 MHz
Active Aperture Height	1 mm	0.6 mm	0.3 mm
Beam Separation (633 nm)	11.9 mrad	18.6 mrad	29.7 mrad
Diffraction Efficiency	85 percent	80 percent	70 percent
RF Drive Power ² (633 nm) (514 nm)	700 milliwatts 500 milliwatts	800 milliwatts 550 milliwatts	900 milliwatts 600 milliwatts
Optical Rise Time (beam diameter)	31 nsec (0.2 mm) 77 nsec (0.5 mm)	20 nsec (0.13 mm) 38 nsec (0.25 mm)	9.2 nsec (0.06 mm) 15.5 nsec (0.1 mm)
Modulation Frequency (-3 db)	15.8 MHz (0.2 mm) 6.3 MHz (0.5 mm)	24.5 MHz (0.13 mm) 12.8 MHz (0.25 mm)	50 MHz (0.06 mm) 30 MHz (0.1 mm)

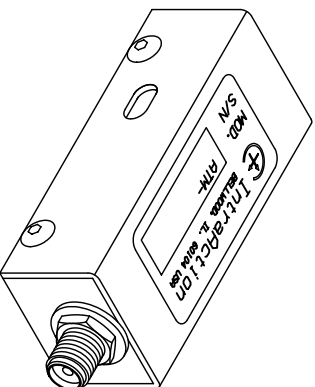
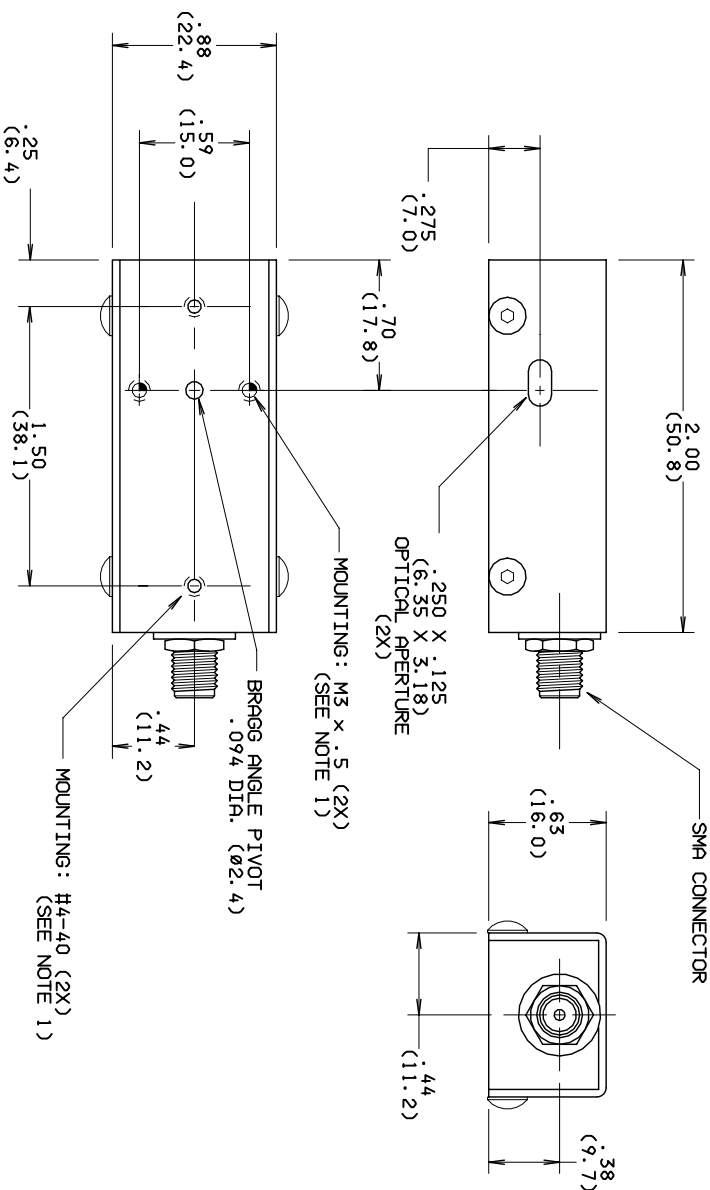
¹ Specifications vary with optical wavelength.

² Drive electronics Model ME-801/ME-1251/ME-2001 analog input, ME-801T/ME-1251T/ME-2001T digital input. OEM drivers also available.


ENG210B

REVISIONS		
ISSUE	DESCRIPTION	APPD./DATE
A	ORIGINAL GJK 02-23-93	BW
A	ADDED METRIC MOUNTING. MFI 01-22-03	JL 01-22-03

ALL REVISIONS TO THIS DRAWING
MUST BE MADE ON THE CAD SYSTEM



- NOTES:
1. MOUNTING SCREW DEPTH MUST NOT EXCEED 0.13 (3.3 mm) INCHES MAX.

UNLESS OTHERWISE SPECIFIED TOLERANCES AND DIMENSIONS ARE IN INCHES		APPROVED DATE	Interaction Corp. 3719 WARREN AVE. BELLWOOD, IL 60104		PHONE (708) 547-6644
LINER : .XX ± .010	CHECKED DATE	JL 02-23-93			
ANGULAR ± / DIAMETERS ± / LIMITS APPLY BEFORE FINISHING DO NOT SCALE THIS PRINT	DRAWN DATE	JL 02-23-93			
MATERIAL	GJK	02-23-93	TITLE		
FINISH			ATM-SERIES MODULATOR		
MFG. INSTR.	FSCM NO.	B	DWG. NO.	ATM-SERIES	
D. C. INSTR.	SCALE	UNIT WEIGHT	SHEET	1 OF	1