

Polytec GmbH

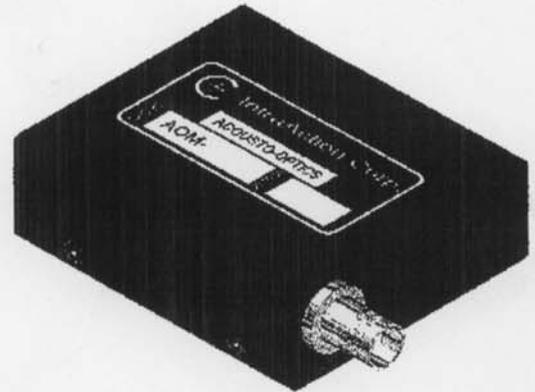
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**MODEL AOM-AF1 SERIES
ACOUSTO-OPTIC MODULATOR / FREQUENCY SHIFTER**

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



SPECIFICATIONS

Optical Wavelength Range	440 to 700 nm
Acousto-optic Material	Dense Flint Glass
Acoustic Velocity	3630 m/sec
Active Aperture Height ¹	2 mm
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 diameter) 265 nsec (1.5 mm 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

	<u>AOM-602AF1</u>	<u>AOM-802AF1</u>	<u>AOM-1002AF1</u>
Center Frequency ² (CF)	60 MHz	80 MHz	100 MHz
Optical Frequency Shift Range	±(50 to 70)MHz	±(65 to 95)MHz	±(85 to 115)MHz
Diffraction Efficiency	90 Percent	90 Percent	85 Percent
Drive Power ³	2 Watts (633 nm)	2 Watts (633 nm)	2 Watts (633 nm)
Beam Separation	9.6 mrad (633 nm)	12.8 mrad (633 nm)	17.3 mrad (633 nm)

¹ Other active aperture heights available.

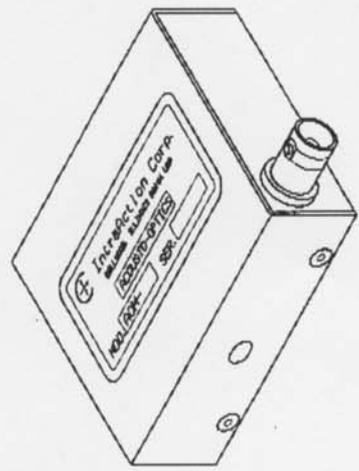
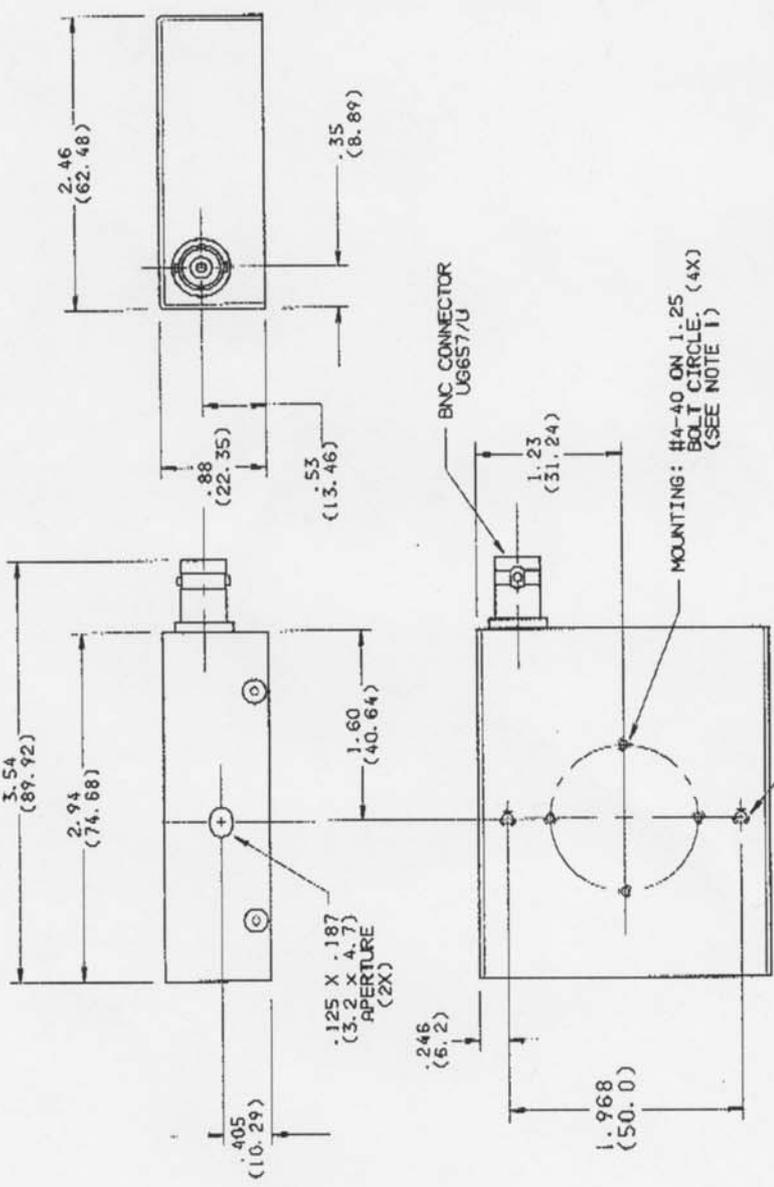
² Other center frequencies available.

³ A complete line of analog, digital, dual frequency, OEM, and laboratory drive electronics are available.

ENG210B

REVISIONS		APPD./DATE
ISSUE	DESCRIPTION	
A	ORIGINAL RM 05-20-99	JL
	ADDED METRIC MOUNTING MFI 01-20-03	

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



APPROVED DATE	INTRACTION CORP. 3719 WARREN AVE. BELLWOOD, IL 60104 PHONE (708) 547-6644
CHECKED DATE	TITLE
DRAWN DATE RM 05-20-99	AOM SERIES MODULATOR
FINISH	FSC# NO.
MATERIAL	DWG. NO. B AOM OUTLINE A
MFG. INSTR. D.C. INSTR.	SCALE
	UNIT WEIGHT
	SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED TOLERANCES AND DIMENSIONS ARE IN INCHES
 LINEAR : .XX ± .010
 ANGULAR : / DIMETERS ± /
 .XXX ± .005
 LIMITS APPLY BEFORE FINISHING
 DO NOT SCALE THIS PRINT

NOTES:
 1. MOUNTING SCREW DEPTH MUST NOT EXCEED 0.20 (5.08 mm) INCHES MAX.