IntraAction Corp.
QUALITY PRODUCTS FOR LASER TECHNOLOGY

Polytec

DEFLECTOR

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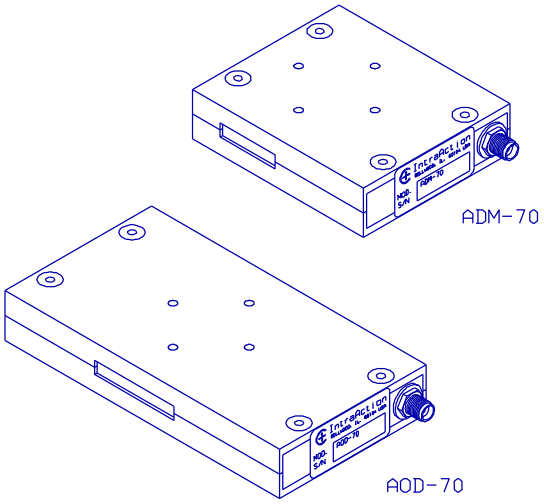
AOD-70 ACOUSTO-OPTIC DEFLECTOR
ADM-70 ACOUSTO-OPTIC DEFLECTOR-MODULATOR

- Laser Beam Deflection
- Intensity Modulation
- Multiple Beam Generation
- Flat Optical Scan Response
- Acoustic Phased-array Design[1]
- Optical Signal Processing
- Optical Frequency Shifting
- High Reliability



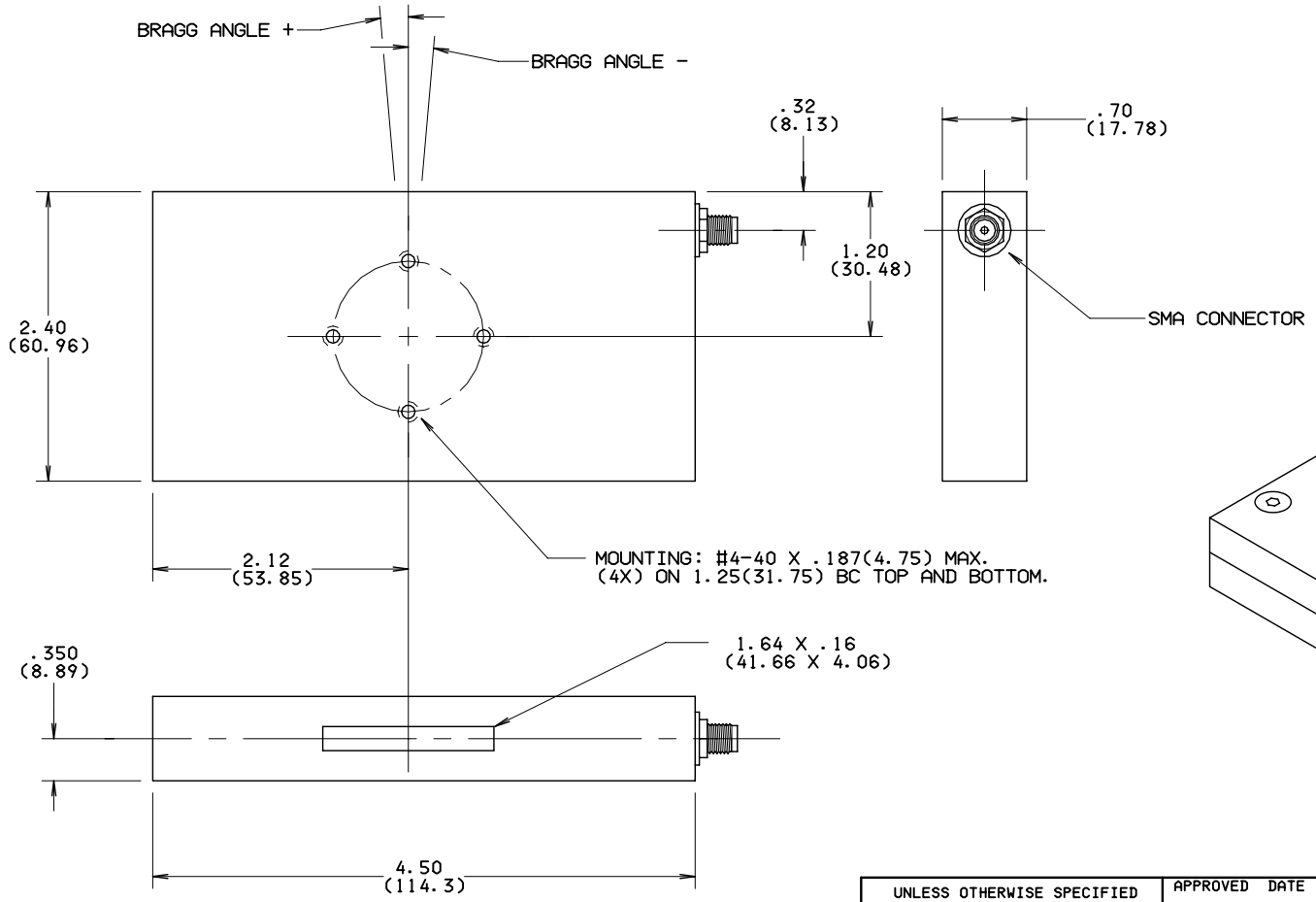
SPECIFICATIONS

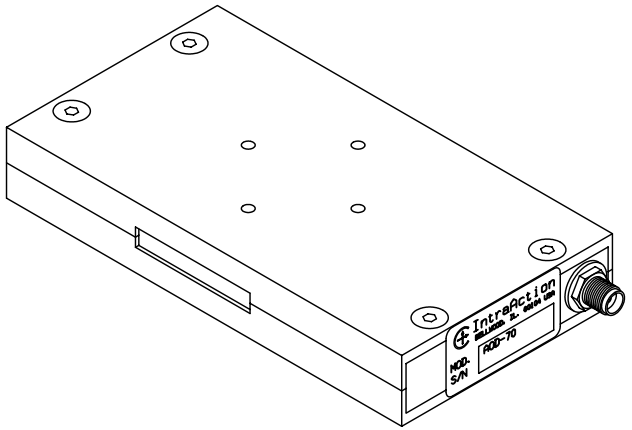
Design Optical Wavelength[2]	633 nm
Acousto-optic Material	Dense Flint Glass
Diffraction Efficiency (center of scan)	80 percent
Diffraction Efficiency (edges of scan)	60 percent
Center Frequency	70 MHz
Deflection Bandwidth	40 MHz
Beam Separation	11.4 mrad (70 MHz)
Deflection Range	6.5 mrad
RF Drive Power[3] (nominal)	2.5 watts
Input Impedance (nominal)	50 ohms
Optical Polarization	any

MODEL	**ADM-70**	**AOD-70**
Time-Bandwidth Product(resolution)[4]	200(spots)	400(spots)
Access Time (full aperture width)	5 :sec	10 :sec
Active Aperture Height	2 mm	2 mm
Active Aperture Width	20 mm	40 mm
Size (less connector)	2.8 L x 0.7 H x 2.4 W inches 7.1 L x 1.8 H x 6.1 W cm	4.5 L x 0.7 H x 2.4 W inches 11.5 L x 1.8 H x 6.1 W cm

[1] These deflectors incorporate and acoustic phased-array beam steering design to produce a relatively flat first order diffraction efficiency across the deflection bandwidth. Because of this design feature, the deflectors require a single RF power amplifier to drive the multiple transducer array.
[2] Useful at other wavelengths with modified specifications.
[3] A complete line of VCO, synthesized, laboratory, and OEM drive electronics are available.
[4] This is resolution as defined by the Rayleigh criterion for a uniformly illuminated optical beam.

ENG210B





REVISIONS		
ISSUE	DESCRIPTION	APPD/DATE
	ORIGINAL GJK 04-23-92	JL
A	ADDED mm IN DIMENSION. RM 05-21-99	
	ALL REVISIONS TO THIS DRAWING MUST BE MADE ON THE CAD SYSTEM	

UNLESS OTHERWISE SPECIFIED TOLERANCES AND DIMENSIONS ARE IN INCHES

LINEAR : ±.010 (XX.): mm

ANGULAR ± / DIAMETERS ±.010

LIMITS APPLY BEFORE FINISHING
DO NOT SCALE THIS PRINT

MATERIAL

MFG. INSTR.

Q.C. INSTR.

APPROVED DATE	JL 04-23-92
CHECKED DATE	JL 04-23-92
DRAWN DATE	GJK 04-23-92
FINISH	

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TITLE

AOD-70 OUTLINE

FSCM NO.	SIZE	DWG. NO.	ISSUE
	B	AOD-70	A

SCALE ——— UNIT WEIGHT SHEET 1 OF 1