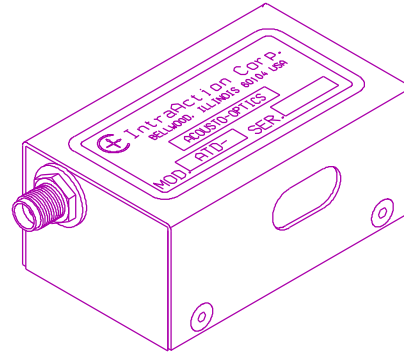


# DEFLECTOR

**POLYTEC GmbH** Büro Berlin Schwarzschildstraße 1 D - 12489 Berlin GERMANY  
 Tel: +49 (30) 63 92 51 40 Fax: +49 (30) 63 92 51 41 wl@polytec.de www.polytec.de

## MODEL ATD-80 SERIES SLOW SHEAR MODE DEFLECTOR

- LASER BEAM SCANNING
- OPTICAL SIGNAL PROCESSING
- RANDOM ACCESS DEFLECTION
- LOW DRIVE POWER
- RELIABLE



### SPECIFICATIONS

Optical Wavelength Range	488 - 680 nm
Acousto-optic Material	Tellurium Dioxide (TeO <sub>2</sub> )
Operating Mode	Slow shear, off axis
Center Frequency	80 MHz
RF Bandwidth	50 MHz
Diffraction Efficiency	80% (minimum at center frequency)
Intensity Variation	<1 dB
Active Aperture <sup>1</sup>	5 H x 13 W mm
Input Optical Polarization	Linear, parallel to mount surface
Output Optical Polarization	Linear, perpendicular to mount surface
Static Optical Insertion Loss	5 percent
RF Drive Power <sup>2</sup>	1 Watt (514 nm)
Input Impedance	50 Ohms (nominal)
VSWR	<2.5:1
RF Connector	SMA
Size (less connector)	2.63 D X 1.00 H X 1.42 W inches 6.68 D X 5.08 H X 3.61 W cm

<b>MODEL</b>	<b><u>ATD-805AA1</u></b>	<b><u>ATD-805RA1</u></b>
Optical Wavelength	514 nm	633 nm
Beam Separation (80 MHz)	64.2 mrad	76.3 mrad
Deflection Angle	40.1 mrad	47.7 mrad
Acoustic Velocity	640 m / sec	663 m / sec
Access Time	1.56 : sec / mm beam width	1.51 : sec / mm beam width
Time-Bandwidth Product	78 / mm beam width	75 / mm beam width

<sup>1</sup> Other active aperture sizes are available.

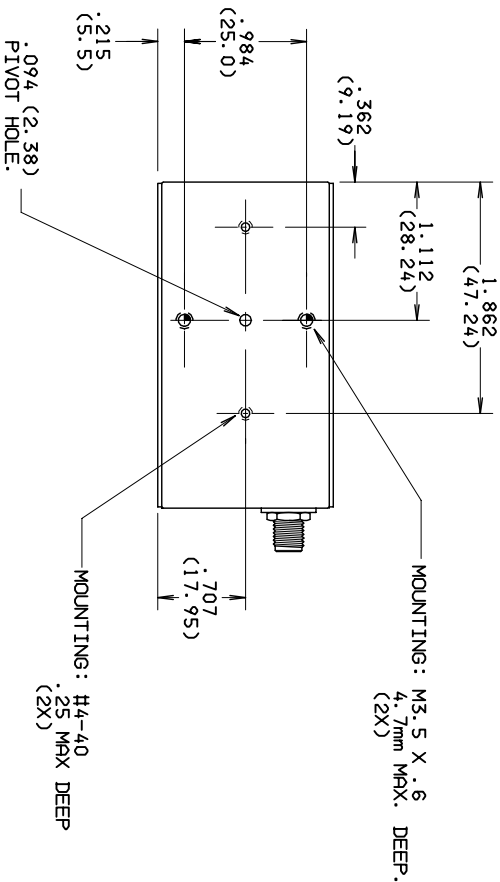
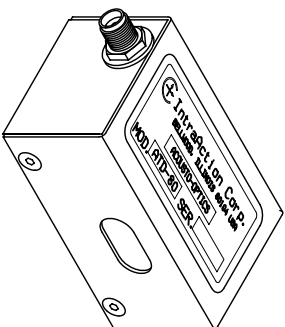
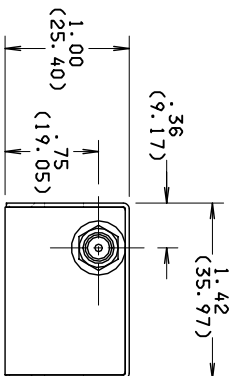
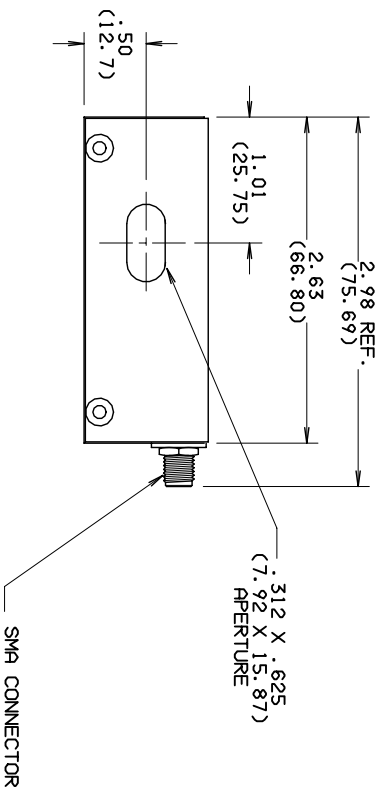
<sup>2</sup> A complete line of frequency synthesized and VCO deflector drivers and RF power amplifiers are available.

Note: The DTD Series of 2-axis deflectors are also available.

ENG210B

REVISIONS		
ISSUE	DESCRIPTION	APPD./DATE
ORIGINAL	RM 08-26-99	JL
A	MOVED METRIC MOUNTING MF1 01-24-03	JL

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



UNLESS OTHERWISE SPECIFIED TOLERANCES AND DIMENSIONS ARE IN INCHES		APPROVED DATE	 Interaction Corp. 3719 WARREN AVE. BELLWOOD, IL 60104 PHONE (708) 547-6644
LINEAR : .XX ± .010 (XX) mm ANGULAR ± DIAMETERS ± .005 LIMITS APPLY BEFORE FINISHING DO NOT SCALE THIS PRINT		CHECKED DATE JL 08-26-99	
MATERIAL		DRAWN DATE RM 08-26-99	TITLE ATD-80 SERIES DEFLECTOR
MFG. INSTR. D. C. INSTR.		FINISH	FSCM NO.
			DMG. NO. B ATD-80 OUTLINE A
		SCALE 1:1	UNIT WEIGHT
			SHEET 1 OF 1