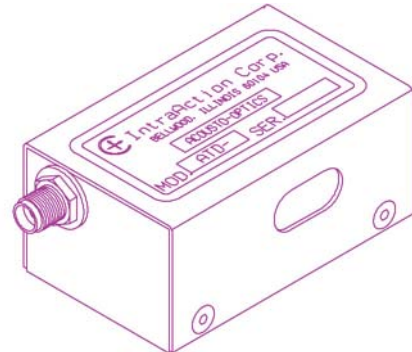


# MODEL ATD-80 SERIES SLOW SHEAR MODE DEFLECTOR

- 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%	
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	
MODEL	ATD-805AA I	ATD-805RA I
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 μs / mm beam width	1.51 μs / 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.