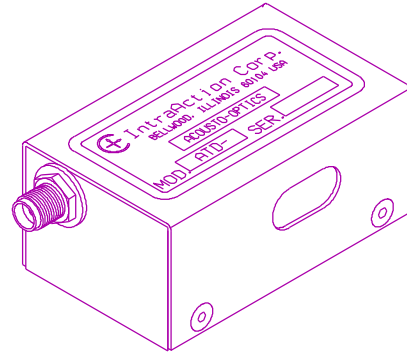


**MODEL ATD-80 SERIES  
SLOW SHEAR MODE DEFLECTOR**

- 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.