

D1319-XY-T220L-2



Acousto-Optic Deflector

(PRELIMINARY)

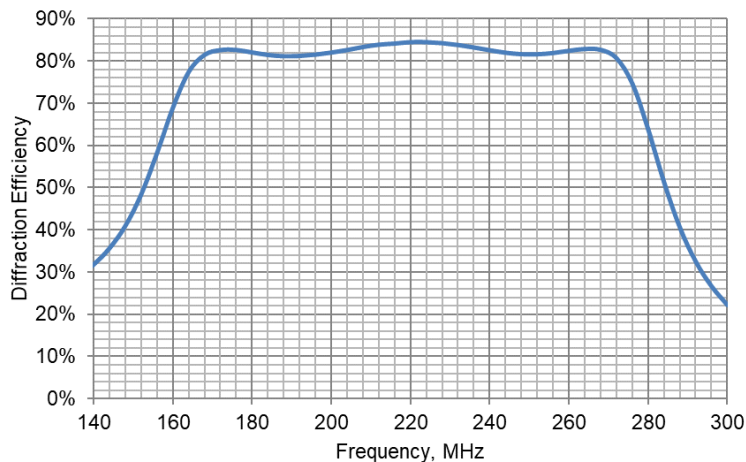
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The D1319-XY is an AO deflector designed for operation in the deep blue spectrum. The deflector incorporates two section acoustic beam steering to produce an efficient uniform scan response. Applications include high speed, multi-point or continuous beam scanning.

SPECIFICATIONS

Operating A/R Wavelengths:	390-440 nm
Optical Power:	5 Watts **
Interaction Medium:	Tellurium Dioxide (TeO ₂)
Acoustic Velocity:	4.2mm/μs
Centre Frequency (Fc):	220MHz (+/- 5% for best BW)
RF Bandwidth (BW):	>85MHz, 100MHz typical
Input Impedance / VSWR:	50Ω Nominal / <1.7:1 @ Fc
RF Power:	< 1.5 Watts total per axis.
Clear Aperture:	3mm
Active Aperture Height:	2mm
Static Insertion Loss / Reflectivity:	<3% / <0.5%/surface at 0.4μm
Laser Polarization:	Any
Bragg Angle:	10.6 mrad at 405nm
Separation Angle at Fc	21.2 mrad at 405nm
Typical Scan Angle:	9.6 mrad at 405nm
<u>Deflector Performance:</u>	Using 2 x 2mm beam
Total XY Efficiency	~55% across 85MHz scan
Access Time:	0.47μsec
Resolution:	40 x 40 <u>resolvable</u> spots >1000 x 1000 non-resolvable points

ESTIMATED SCAN PERFORMANCE at 405nm per axis *

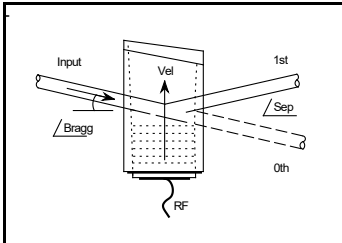


* Single mode input

** For higher powers please contact Isomet

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Quality Assured.
 In-house: Crystal Growth,
 Optical Polishing,
 A/R coating, Vacuum Bonding



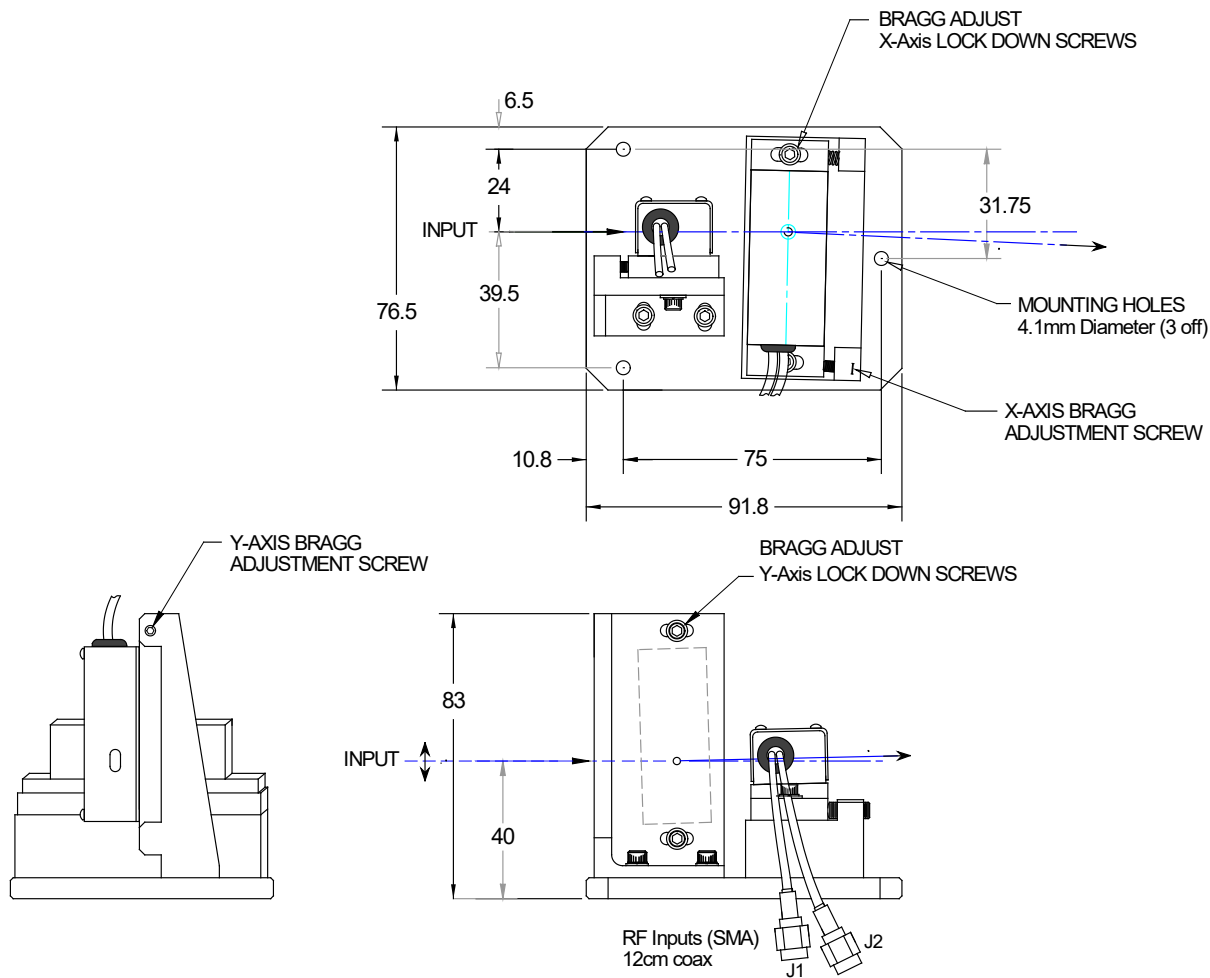
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OUTLINE DRAWING



RF DRIVERS

Synthesiser based: iMS4-L (or -P) with 4x AF0-200T-1-3 amplifiers.

External freq' source: 2x 505-2BS splitter/delay/amplifier module.

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