

D1422XY-T85L-4

Acousto-Optic Modulator



0821

Dual axis AO Deflector designed for High Power Fibre and DPSS, NIR lasers. Each deflector incorporates two section acoustic beam steering to improve scan uniformity. Mount includes fine thread Bragg adjusters for both X and Y axes. Applications include high speed, sequential multi-point scanning or fast sweep operation.

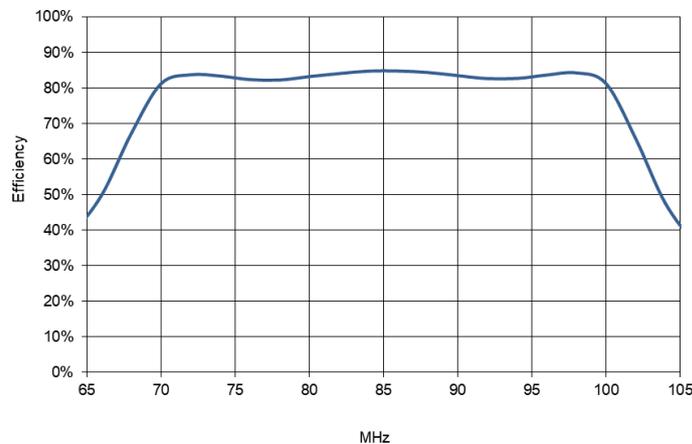
SPECIFICATIONS

Spectral Range:	0.36 > 1.5 μ m
Standard A/R Wavelengths:	1.064 μ m
Optical Power:	200 Watts **
Interaction Medium:	Tellurium Dioxide (TeO ₂)
Acoustic Velocity:	4.2mm/ μ s
Centre Frequency (Fc):	85MHz +/- 5MHz for optimum scan efficiency.
RF Bandwidth:	30MHz
Input Impedance:	50 Ω Nominal
VSWR:	<1.5:1 @ Fc
Clear Aperture:	6.5mm
Active Aperture Height:	4mm
Static Insertion Loss	<3% at 1.064 μ m
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Any
RF Power (total):	<7 Watts per axis
Bragg Angle :	10.8 mrad
Separation angle at 85MHz/1.064 μ m	21.5 mrad
Typical Scan Angle:	7.6 mrad

Deflector Performance using 3 x 3 mm beam

Dual axis XY efficiency:	~65% across 30MHz scan
Access Time:	0.7 μ sec
Resolution:	20 x 20 <u>resolvable</u> spots, >1000 x 1000 non-resolvable points

TYPICAL SCAN PERFORMANCE at 1.1 μ m (per axis) *

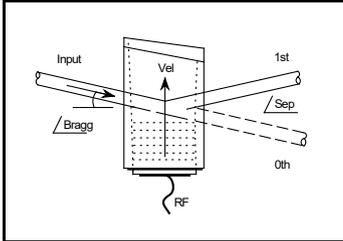


* Single mode input

** For higher powers please contact Isomet

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
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Quality Assured.
 In-house: Crystal Growth,
 Optical Polishing,
 A/R coating, Vacuum Bonding



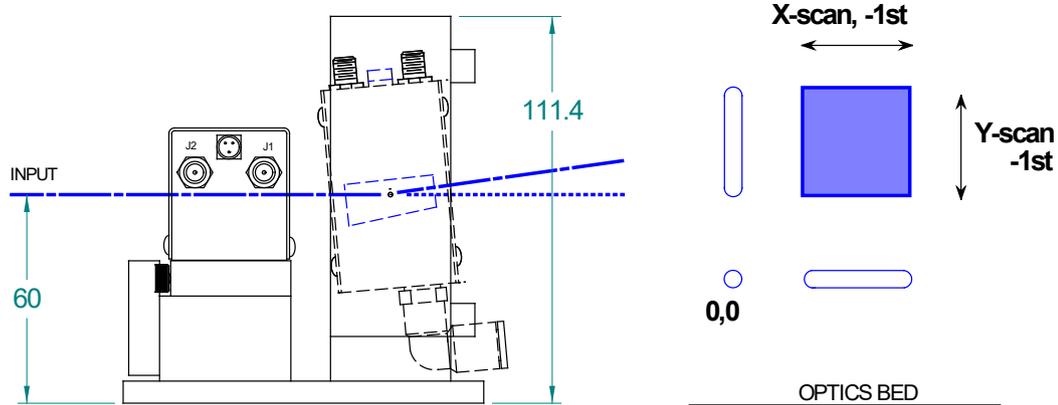
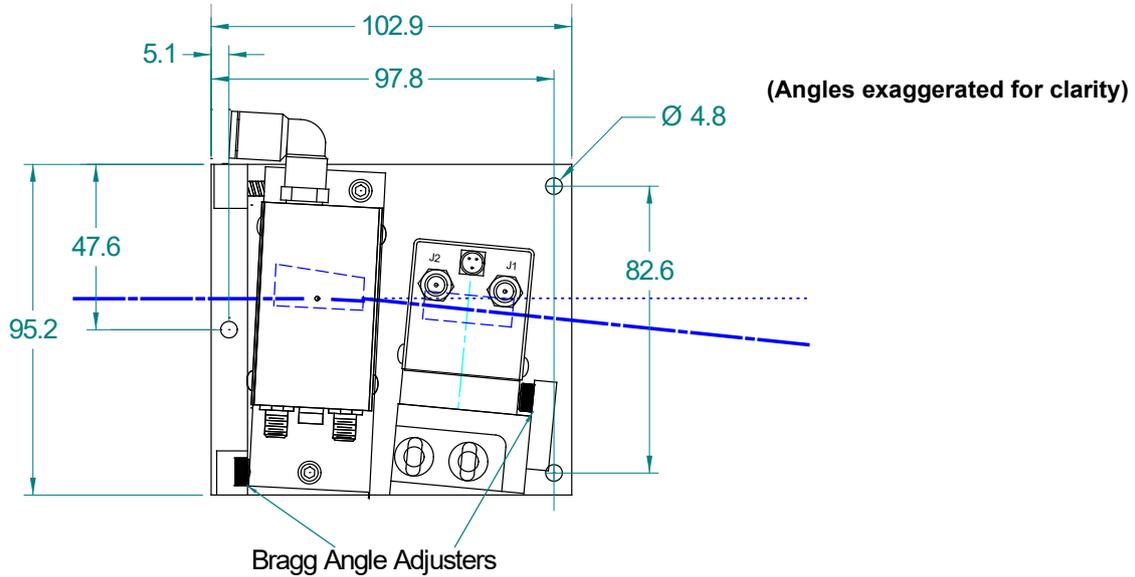
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OUTLINE DRAWING



Cooling: Water cooled. All wet surfaces Tellurium copper.

Recommended Driver Options

VCO based: 2off RFA3085-2-4 (one per axis)

or

Synthesizer based: 1off IMS4-P plus 4off AF0-85T-4 amplifiers on AFM mount

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