

D1312XY-T80L-6-TC



Acousto-Optic Modulator

Preliminary Data

0826

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

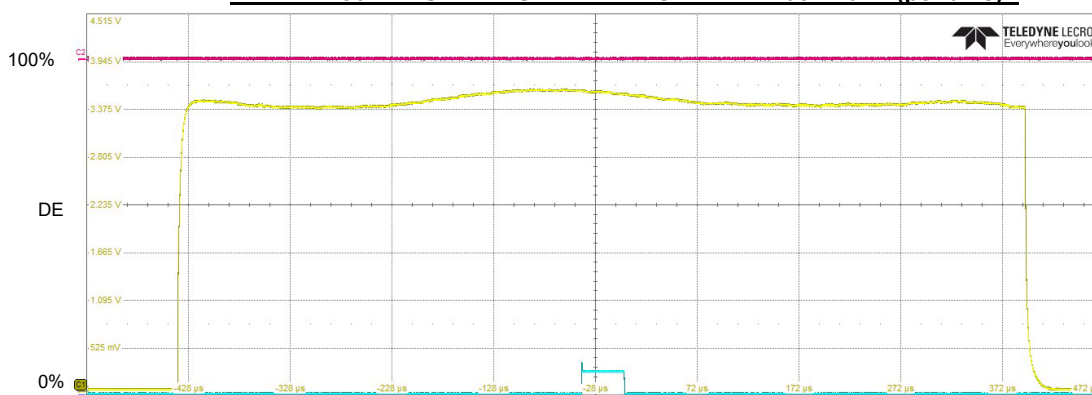
SPECIFICATIONS

Spectral Range:	0.36 > 1.5 μ m
Standard A/R Wavelengths:	1.1 μ m
Optical Power:	500 Watts **
Interaction Medium:	Tellurium Dioxide (TeO ₂)
Acoustic Velocity:	4.2mm/ μ s
Centre Frequency (Fc):	80MHz +/-10% for optimum scan efficiency.
RF Bandwidth:	30MHz
Input Impedance:	50 Ω nominal
VSWR:	<1.5:1 @ Fc
Clear Aperture:	8x8mm
Active Aperture Height:	6x6mm
Static Insertion Loss	<5% at 1.1 μ m
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Any
RF Power (total per axis):	8 Watts nominal
Bragg Angle at 80MHz/1.1 μ m:	10.2mrad
Separation angle at 80MHz/1.1 μ m	20.4mrad
Typical Scan Angle:	7.7mrad

Deflector performance using 5 x 5 mm beam

Dual axis XY efficiency *:	~65% across 30MHz scan
Access Time:	1.2 μ sec
Resolution:	35 x 35 <u>resolvable</u> spots, >1000 x 1000 non-resolvable points

TYPICAL 30MHz SWEEP 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

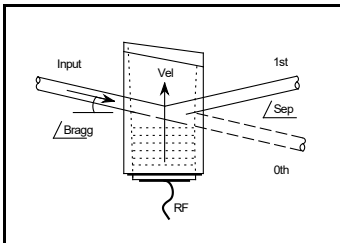
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Quality Assured.

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



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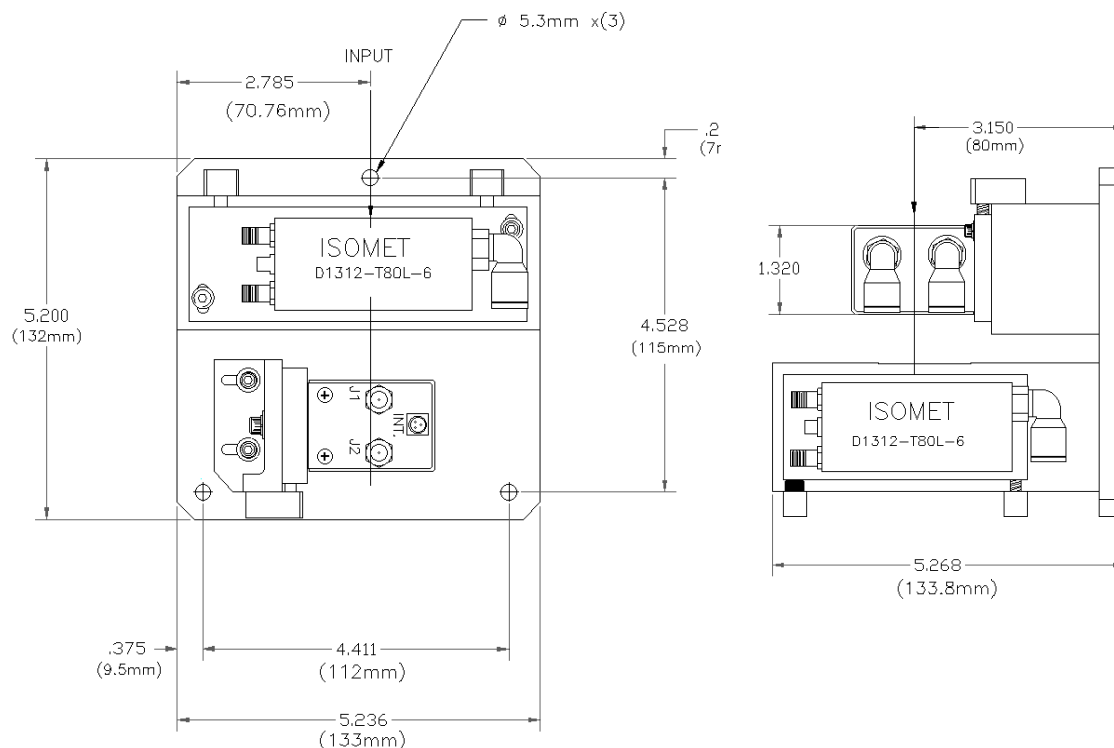
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OUTLINE DRAWING



Cooling: Water cooled. All wet surfaces Tellurium copper.

Recommended Driver Options

VCO based: RFA3110-4BS per axis

Synthesizer based: iMS4-P plus AF0-80T-4 (4off) amplifiers

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