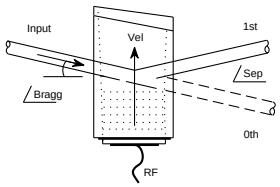


D1340-XY-aQ110-5

UV Dual Axis AO Deflector

(PRELIMINARY) ***0615***

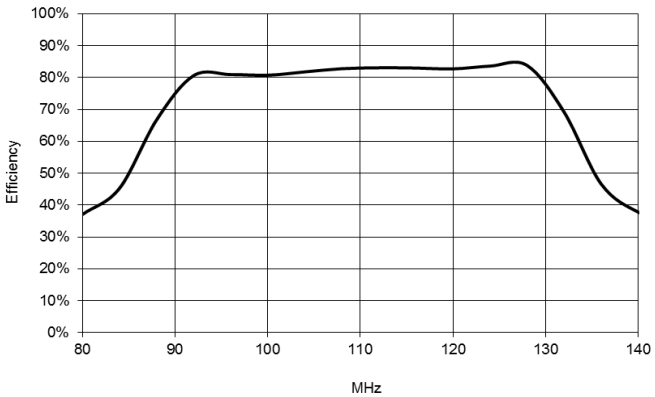
The D1340-XY offers high speed dual axis scanning at 355nm. This deflector consists of two AO deflectors mounted orthogonally in one assembly, with independent fine thread Bragg angle adjustment. A half wave plate is included to rotate the input polarization between AO deflectors. Applications include:

- Material Processing
- Drilling
- Surface texturing
- Micro machining

SPECFICATIONS (TYPICAL)

Operating Wavelength:	355 nm (standard)*
Interaction Material:	Quartz
Active Aperture: H=5	5mmH x 5mmW
Centre Frequency (x=fc):	110MHz
Sweep Bandwidth:	40MHz
Diffraction Efficiency (DE) at fc:	> 80%, 85% typical per axis
Diffraction Efficiency across scan:	> 70%, 75% typical per axis
RF Power for max' DE	< 10 Watts total per axis
Static Insertion Loss:	< 4% per axis
Bragg Angle 355nm:	3.4 mrad
Separation Angle at fc:	6.8 mrad
Scan Angle:	2.5 mrad (40MHz sweep).
Input Laser Polarization:	Linear, Vertical w.r.t. to X-axis
Water Cooling (Minimum):	> 2 Liter/Min. @ < 23ºC
Deflector Performance:	5 x 5mm beam
Total XY Diffraction Efficiency	> 55% across 40MHz scan
Access Time:	0.9μsec
Resolution:	35 x 35 resolvable spots >1000 x 1000 non-resolvable points (driver dependent)

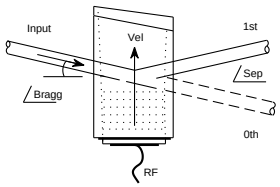
ESTIMATED SCAN RESPONSE per AXIS



* Optional designs are available for other wavelengths

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.
Tel: (703) 321 8301 Fax: (703) 321 8546
E-mail: ISOMET@ ISOMET.COM ***Web Page: WWW.ISOMET.COM***

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



D1340-XY-aQ110-5

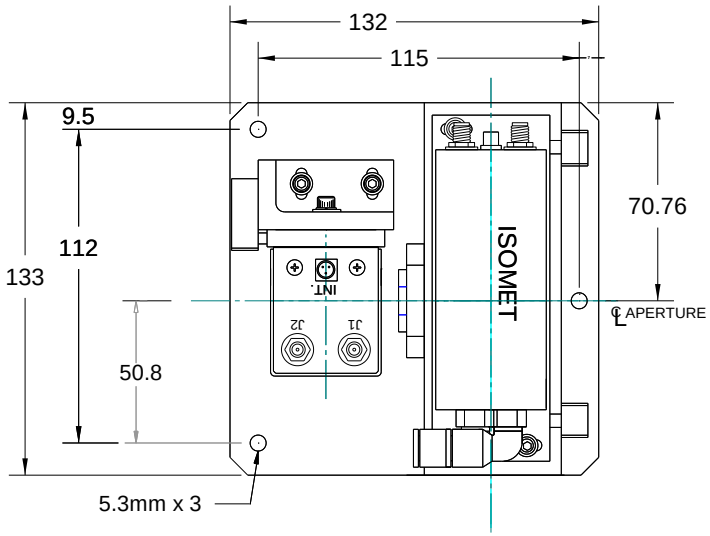
UV Dual Axis AO Deflector

(PRELIMINARY)

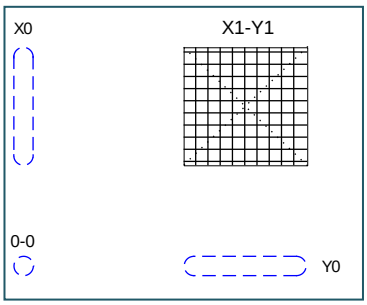
0615

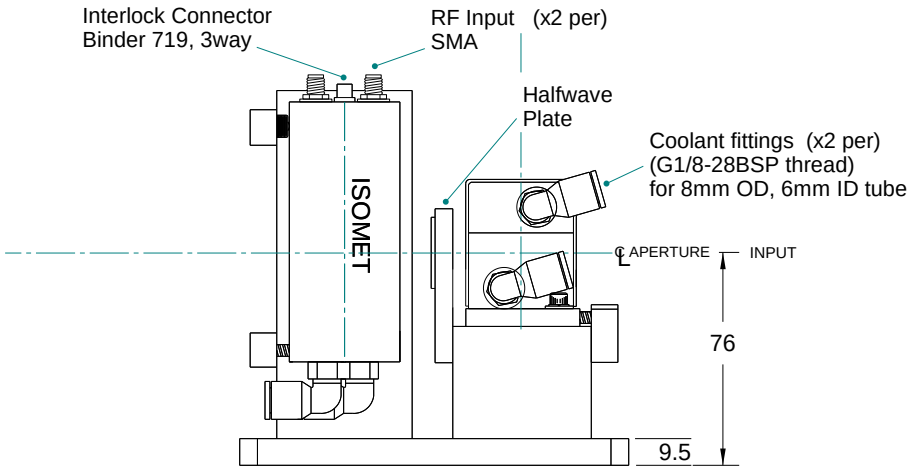
OUTLINE DRAWING

Dimensions:mm



Output Beams





Refer application note AN1206 regarding Coolant Specification

DRIVERS

VCO based:	Driver/Amplifier	RFA333-2 per axis
Synthesizer based:	iMS-4 programmable synthesizer + (2off) RFA0110-2 amplifiers	

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