

D1340-XY-aQ120-5

UV Dual Axis AO Deflector



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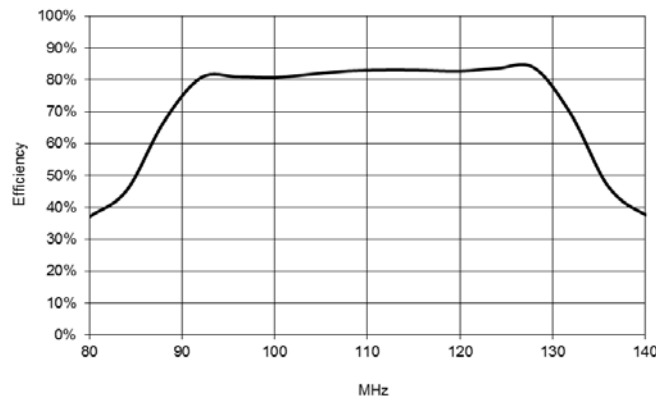
The D1340-XY offers high speed dual axis scanning at 355nm. This deflector consists of two AO deflectors mounted orthogonally in one assembly, with independent fine thread Bragg angle adjustment. A half wave plate is included to rotate the input polarization between AO deflectors. Applications include:

- Material Processing
- Drilling
- Surface texturing
- Micro machining

SPECIFICATIONS (TYPICAL)

Operating Wavelength:	355 nm (standard)*
Interaction Material:	Quartz
Active Aperture: H=5	5mmH x 5mmW
Centre Frequency ($x=fc$):	120MHz
Sweep Bandwidth:	35MHz minimum, 40MHz typical
Diffraction Efficiency (DE) at fc :	> 85%, 90% typical per axis
Diffraction Efficiency across scan:	> 75%, 80% typical per axis
RF Power for max' DE	< 10 Watts total per axis
Static Insertion Loss:	< 4% per axis
Bragg Angle 355nm:	3.7 mrad
Separation Angle at fc :	7.5 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. @ < 23°C
<u>Deflector Performance:</u>	5 x 5mm beam
Total XY Diffraction Efficiency	> 60% across 35MHz scan
Access Time:	0.9µsec
Resolution:	35 x 35 <u>resolvable</u> spots >1000 x 1000 non-resolvable points (driver dependent)

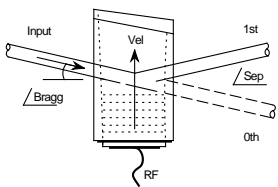
ESTIMATED SCAN RESPONSE per AXIS



* Optional designs are available for other wavelengths

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



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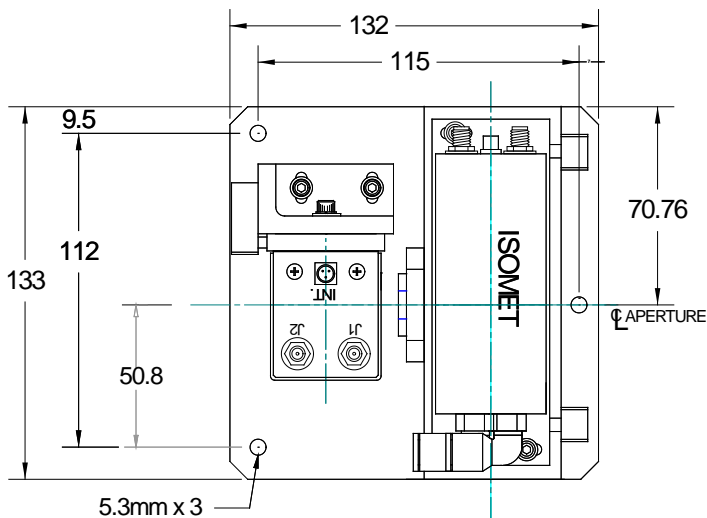
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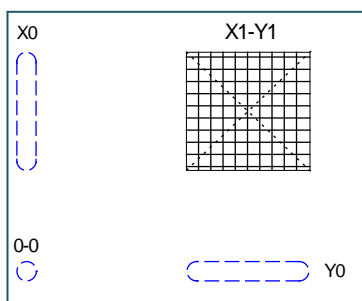
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OUTLINE DRAWING

Dim'n:mm



Output Beams

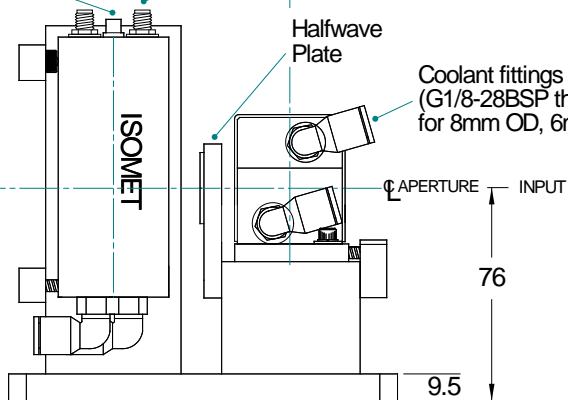


Interlock Connector
Binder 719, 3way

RF Input (x2 per)
SMA

Halfwave
Plate

Coolant fittings (x2 per)
(G1/8-28BSP thread)
for 8mm OD, 6mm ID tube



Refer application note AN1606 regarding Coolant Specification

DRIVERS

iMS4-L (or -P) programmable synthesizer + RFA0120-4-15 amplifier

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