

D1384-aQ170-7



High Power Acousto-Optic Deflector (NUV)

0923

The D1384-aQ170 is high speed, high efficiency AO deflector developed specifically for industrial UV laser applications. Also available in a dual axis X-Y configuration.

- Material Processing
- Drilling
- Surface texturing
- Micro machining

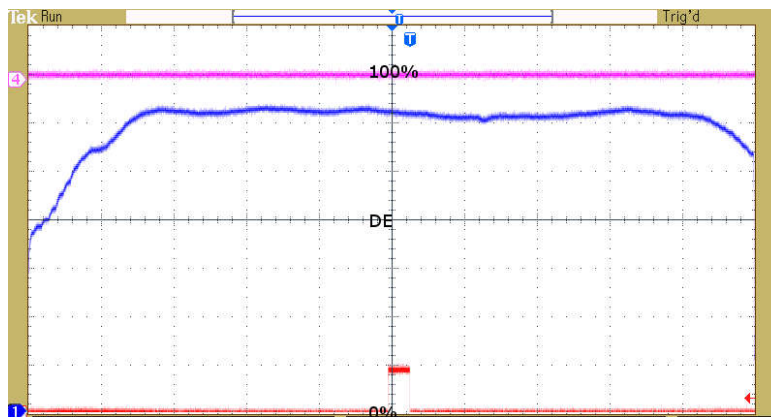
SPECIFICATIONS

Operating Wavelength:	343nm or 355nm, as specified.
Centre Frequency (fc):	170MHz (+/- 5% for best scan response)
RF Bandwidth:	>80MHz
Diffraction Efficiency:	>80% at fc
3dB Sweep Bandwidth:	70MHz minimum, 80MHz typical.
Input Impedance:	50Ω(Nominal)
Input VSWR:	<1.5:1 @ 170MHz
Active Aperture:	7mm max, optimal for 5mm beam
Optical Insertion Loss:	<3% (<2% typical)
Reflectivity:	<0.5%/Surface
DC Contrast Ratio:	>1000:1 min (2000:1 typical)
Laser Polarization:	Vertical, Perpendicular to scan
Water Cooling (Min):	2L/minute @ 25deg C

PERFORMANCE vs. WAVELENGTH

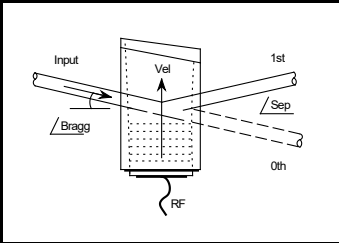
Wavelength:	<u>343nm</u>	<u>355nm</u>
Total RF Drive Power:	~18.0W	~20.0W
Bragg Angle:	5.1mrad	5.3mrad
Separation Angle (at fc):	10.2mrad	10.6mrad
Scan Angle ($\Delta f = 70\text{MHz}$):	4.2mrad	4.4mrad
Resolution:	Up to 60 <u>resolvable</u> spots >1000 non-resolvable points	

Typical 80MHz Sweep Response



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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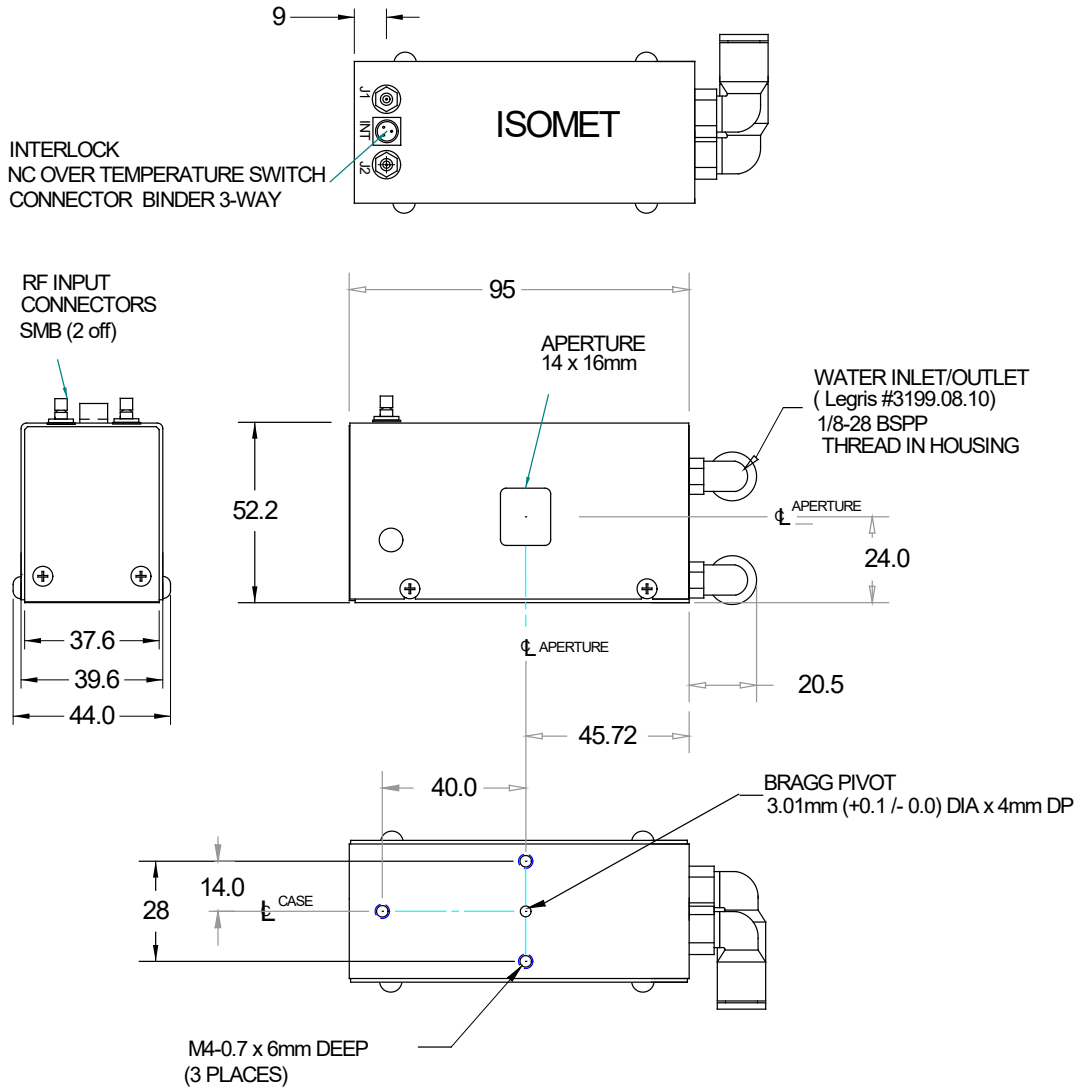


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OUTLINE DRAWING

Dim'n: mm



Water cooled case parts are Aluminium.

Refer application note AN1906 regarding Coolant Specification

DRIVERS

iMS4-P programmable synthesizer + RFA0170-2-15 amplifier

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