

D1340-aQ110-5

Acousto-Optic Modulator/Deflector



0419

The D1340-aQ110 is high speed, high efficiency AO deflector developed specifically for industrial green laser applications including:

- Material Processing
- Drilling
- Surface texturing
- Micro machining

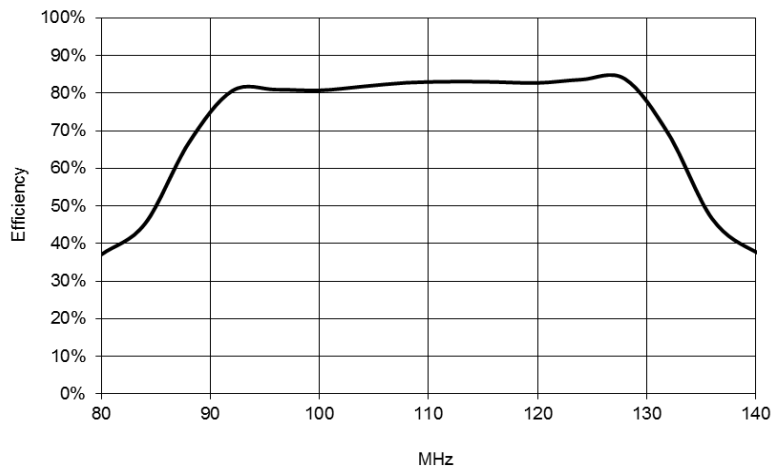
SPECIFICATIONS

Operating Wavelength:	515nm, 532nm
Centre Frequency (fc):	110MHz
RF Bandwidth:	35MHz minimum, 40MHz typical
Diffraction Efficiency:	>85% at fc
Input Impedance:	50Ω(Nominal)
Input VSWR:	<1.5:1 @ 110MHz
Active Aperture:	5mm
Optical Insertion Loss:	<3% (<2% typical)
Reflectivity:	<0.5%/Surface
DC Contrast Ratio:	>2500:1 min (5000:1 typical)
Laser Polarization:	Vertical, Perpendicular to scan
Water Cooling (Min):	2L/minute @ 25deg C

PERFORMANCE vs. WAVELENGTH

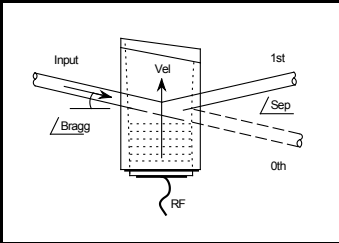
Wavelength:	515nm
RF Drive Power:	20.0W
Bragg Angle:	5mrad
Separation Angle (at fc):	10mrad
Scan Angle ($\Delta f = 34\text{MHz}$):	3.0mrad

ESTIMATED SCAN RESPONSE



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



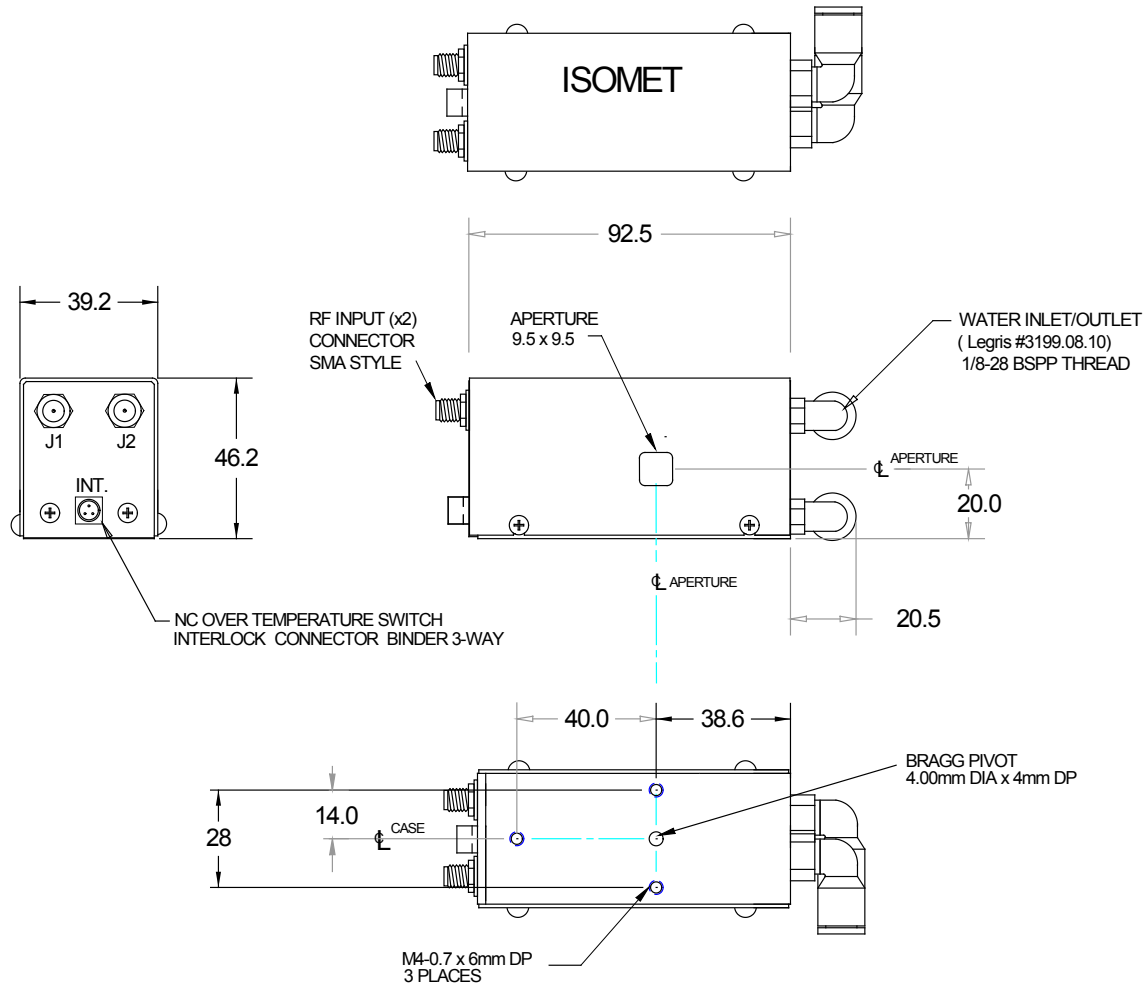
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OUTLINE DRAWING



Water cooled case parts are Aluminium.
 Refer application note AN1206 regarding Coolant Specification

DRIVERS

VCO based: Driver/Amplifier RFA333-2
 Synthesizer based: iMS4-L (or -P) programmable synthesizer + RFA0110-2-15 amplifier

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