

D1370-aQ110-7



High Power Acousto-Optic Deflector (Preliminary Data)

0417

The D1370-aQ110 is high speed, high efficiency AO deflector developed specifically for industrial 515nm laser applications including:

- Material Processing
- Drilling
- Surface texturing
- Micro machining

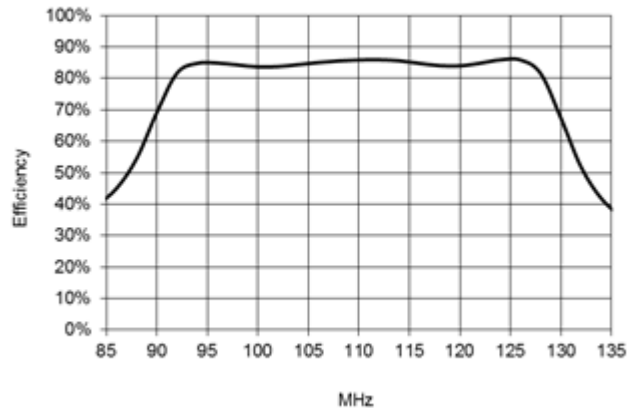
SPECIFICATIONS

Operating Wavelength:	515nm
Centre Frequency (fc):	110MHz (+/- 5% for best scan response)
RF Bandwidth:	30MHz minimum, 40MHz typical
Diffraction Efficiency:	>85% at fc
Input Impedance:	50Ω(Nominal)
Input VSWR:	<1.5:1 @ 110MHz
Active Aperture:	7mm, 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:	515nm
Total RF Drive Power:	~30.0W
Bragg Angle:	5.0mrad
Separation Angle (at fc):	9.9mrad
Scan Angle ($\Delta f = 30\text{MHz}$):	2.7mrad

ESTIMATED SCAN RESPONSE



ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

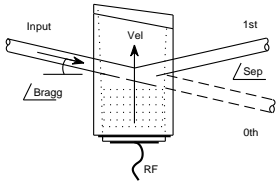
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Quality Assured.

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



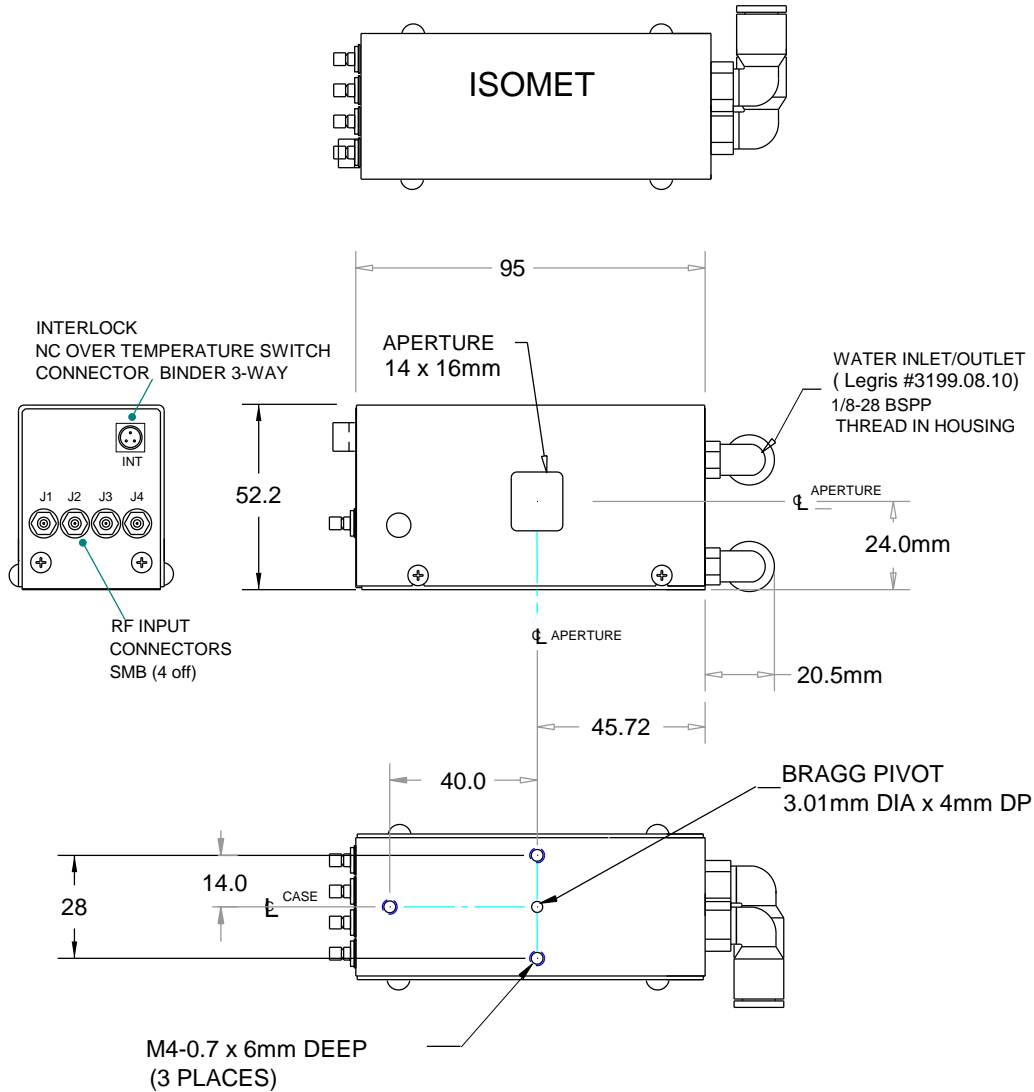
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OUTLINE DRAWING



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

DRIVERS

Synthesizer based: iMS4-L (or -P) programmable synthesizer + RFA0110-2X4-10 amplifier

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