

# D1208-XY-G50-3

## IR Dual Axis AO Deflector (Preliminary)



0415

### SPECIFICATIONS

Standard A/R Spectral Range:	9.4 $\mu$ m or 10.6 $\mu$ m "V" coat (9 -11 $\mu$ m option available)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ $\mu$ s
Centre Frequency (fc):	50MHz
RF Bandwidth ( $\Delta$ f):	20MHz
Input Impedance:	50 $\Omega$
Input VSWR:	< 1.5:1 at 50MHz
Optical Insertion Loss:	< 5% per axis
Reflectivity (average across range):	< 0.7%/Surface
Laser Polarization:	Linear Horizontal, Parallel to scan axis
Optical Power (Maximum):	50 Watts per axis
Active Aperture:	3 mmH x 3 mL
Water Cooling (minimum):	2 litre/minute at < 20 $^{\circ}$ C

### TYPICAL PERFORMANCE

<b><u>Input beam diameter:</u></b>	<b><u>3mm</u></b>
Optical access time:	0.35 $\mu$ s
Diffraction Efficiency:	> 80%
Optical Power:	50 Watts *
<b><u>Wavelength:</u></b>	<b><u>10.6<math>\mu</math>m</u></b>
RF Drive Power:	< 65W per axis
Bragg Angle (mrad):	48.2
Separation Angle (mrad):	96.4
Scan Angle (mrad):	38.5

\* For higher powers please contact Isomet

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

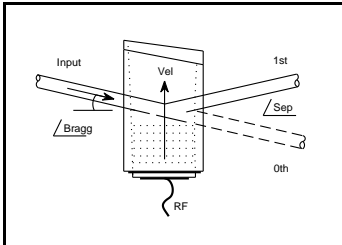
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**Quality Assured.**

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



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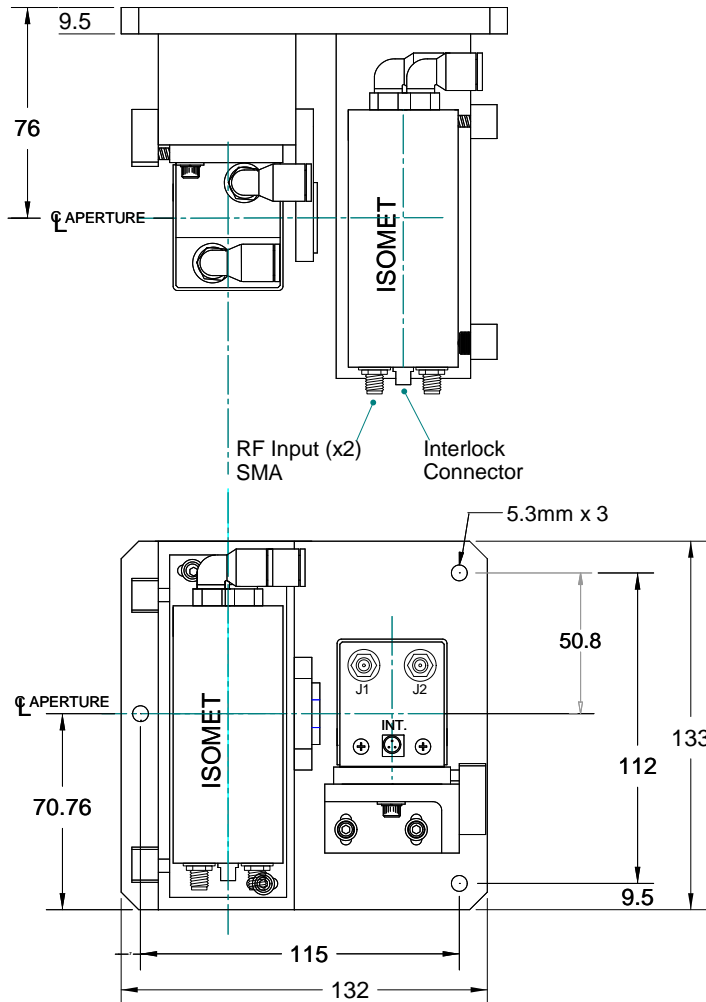
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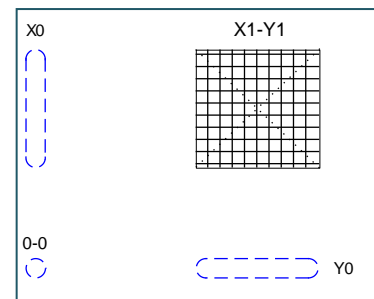
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### OUTLINE DRAWING

Dimensions:mm



### Output Beams



Due to RF drive power dissipation, the D1208 requires water-cooling to prevent thermal runaway (>2L/min at < 20degC). The integral NC thermal interlock switch opens at 32 deg C. The water cooled case parts are aluminium. It is strongly recommended that a corrosion inhibitor is added to the cooling system.

### DRIVERS

Modulator Driver/Amplifier

RFA331-2 per axis

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