

1208-6-(4)M

IR Acousto-Optic Modulator



1106

SPECIFICATIONS

A/R Spectral Range:	2.5 μ m – 5.5 μ m
Operating Wavelength:	3 - 5 μ m (others on request)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ μ s
Centre Frequency (fc):	50MHz
RF Bandwidth (Δ f):	20MHz
Input Impedance:	50 Ω
Input VSWR:	< 1.5:1 at 50MHz
Optical Insertion Loss:	< 4%
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Linear Horizontal, Parallel to Base
Optical Power (Maximum):	200 Watts (full aperture)
Active Aperture:	6 mmH x 14 mmL
Water Cooling (minimum):	1 litre/minute at < 20°C
Outline Dimensions:	(See reverse)

TYPICAL PERFORMANCE

<u>Input beam diameter:</u>	<u>3mm</u>	<u>6mm</u>
Optical access time:	0.35 μ s	0.70 μ s
Diffraction Efficiency:	> 80%	> 80%
Optical Power:	100 Watts *	200 Watts
<u>Wavelength:</u>	<u>3μm</u>	<u>5μm</u>
RF Drive Power:	< 9W	< 25W
Bragg Angle (mrad):	13.6	22.7
Separation Angle (mrad):	27.2	45.4

* For higher powers please contact Isomet

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

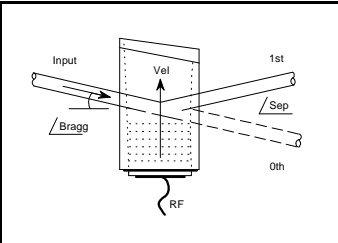
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Quality Assured.

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



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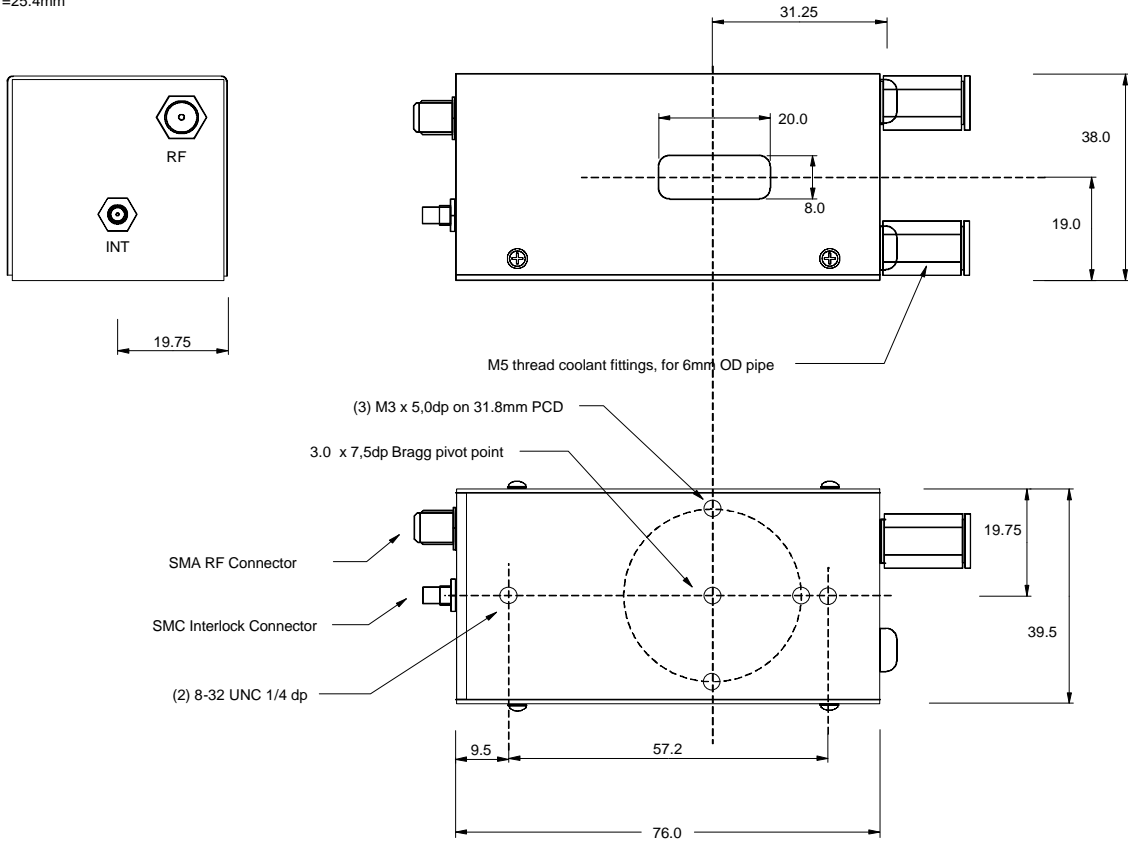
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OUTLINE DRAWING

Dimensions: mm unless otherwise indicated
(1"=25.4mm)



Due to RF drive power dissipation, the 1208-6 requires water-cooling to prevent thermal runaway (>1L/min at < 20degC). The integral NC thermal interlock switch opens at 32 deg C.

The water cooled case parts are aluminium. It is recommended that a corrosion inhibitor such as 'Copal' by Fernox is added to the cooling system.

DRIVERS

Modulator Driver/Amplifier

RFA151

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