

# 1208-6-955M

## IR Acousto-Optic Modulator



1106

### SPECIFICATIONS

Spectral Range:	2.5 $\mu$ m - 11 $\mu$ m
Operating Wavelength:	10.6 $\mu$ m (others on request)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ $\mu$ s
Centre Frequency (fc):	40MHz
RF Bandwidth ( $\Delta$ f):	20MHz
Input Impedance:	50 $\Omega$
Input VSWR:	< 1.5:1 at 40MHz
Optical Insertion Loss:	< 6%
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):	1litre/minute at < 20°C
Outline Dimensions:	(See reverse)

### TYPICAL PERFORMANCE at 10.6 $\mu$ m

Input beam diameter:	3mm	6mm
Optical access time:	0.35 $\mu$ s	0.70 $\mu$ s
Diffraction Efficiency:	> 80%	> 80%
Optical Power *:	100 Watts	200 Watts
RF Power:	60 Watts nominal	
Bragg Angle:	38.5mrad	
Separation Angle at fc :	77.1mrad	

\* For higher powers please contact Isomet

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

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**Quality Assured.**

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



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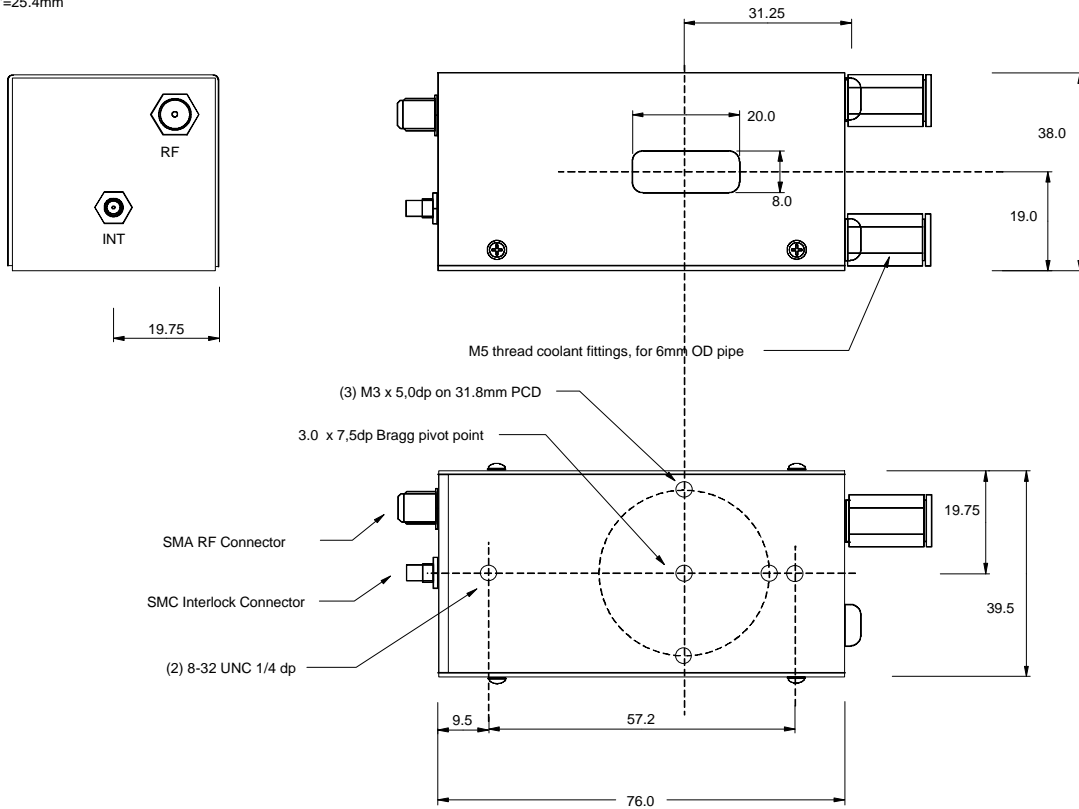
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### OUTLINE DRAWING

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



(Option: UNC mounting holes on request)

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**  
**Deflector Driver/Amplifier**

**RFA241**  
**RFA321**

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