

# 1209-7BS-986

## 250W IR Acousto-Optic Deflector



1106

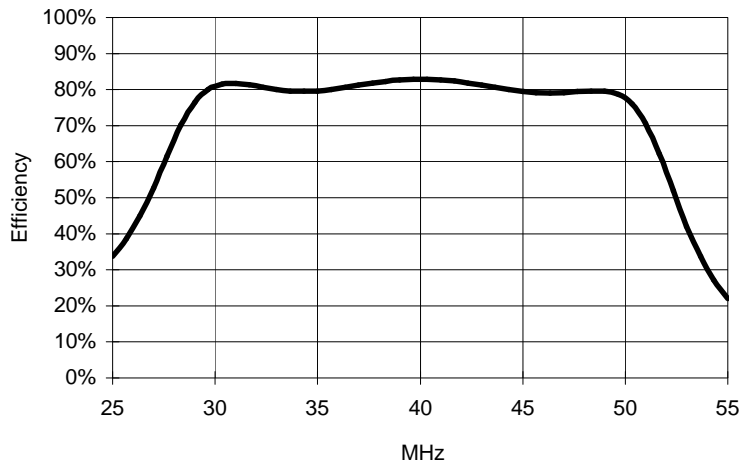
### SPECIFICATIONS

|                             |  |
|-----------------------------|--|
| 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:     | < 7%   |
| Reflectivity:               | < 0.5%/Surface                                       |
| Laser Polarization:         | Linear Horizontal, Parallel to Base                  |
| Active Aperture:            | 7 mmH x 14 mmL, standard<br>5 mmH x 14 mmL, optional |
| Water Cooling (minimum):    | 1L/minute at 20°C                                    |
| Outline Dimensions:         | (See reverse)  |

### TYPICAL PERFORMANCE

|                              |  |              |
|------------------------------|--|--------------|
| Input beam Size:             | 7mm circular   | 14mmL x 5mmH |
| Resolution (Maximum):        | 25   | 50           |
| Frequency access time:       | 1.3 $\mu$ s  | 2.54 $\mu$ s |
| Diffraction Efficiency:      | > 75% across scan minimum<br>> 80% across scan typical |              |
| Optical Power (Maximum):     | 250 Watts  |              |
| RF Power per channel:        | 40 Watts (Nominal)                                     |              |
| Bragg Angle:                 | 38.5mrad   |              |
| Separation Angle at fc:      | 77.1mrad   |              |
| Scan Angle $\Delta$ f=20MHz: | 38.5mrad   |              |

Typical Response 1209-7BS , 10.6 $\mu$ m



**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

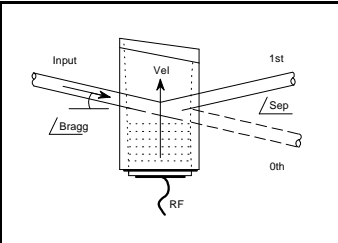
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**

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



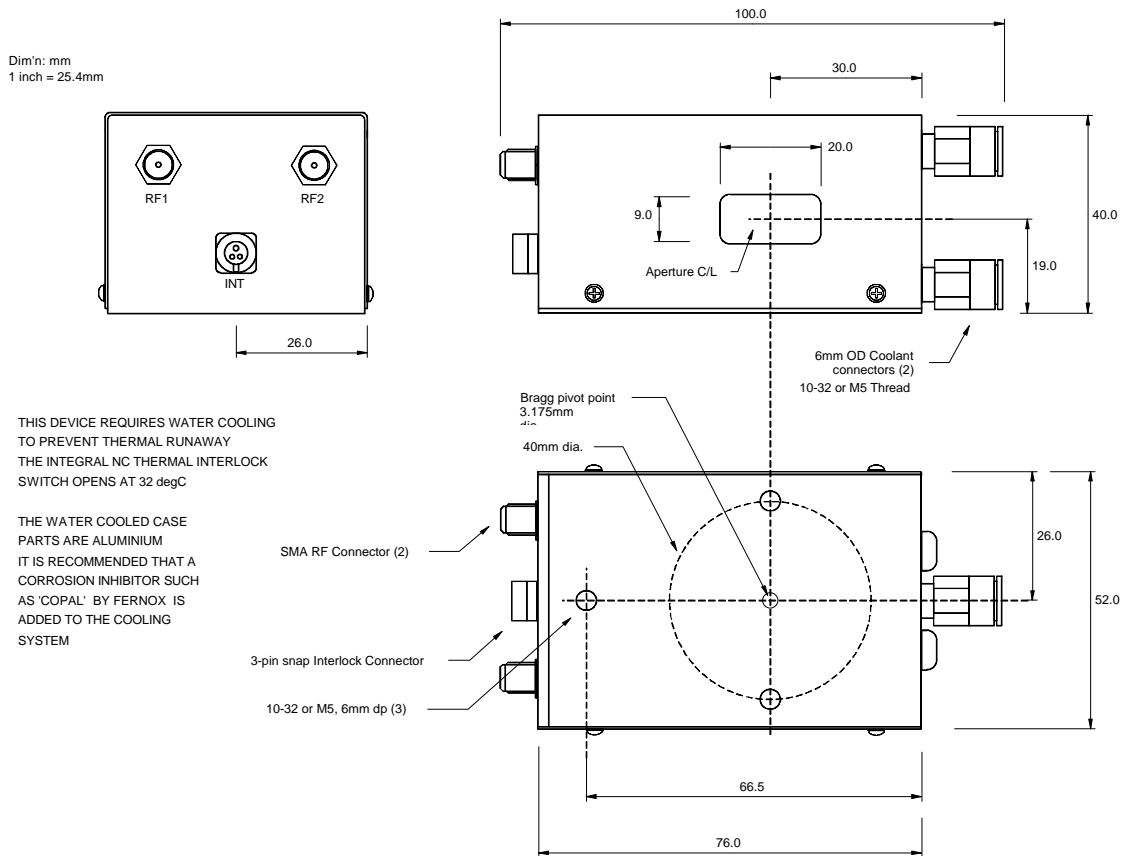
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### OUTLINE DRAWING



### DRIVERS

Deflector Driver/Amplifier

RFA331/2

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