

# M1080-T80L-1.5(M)

## NIR Acousto-Optic Modulator



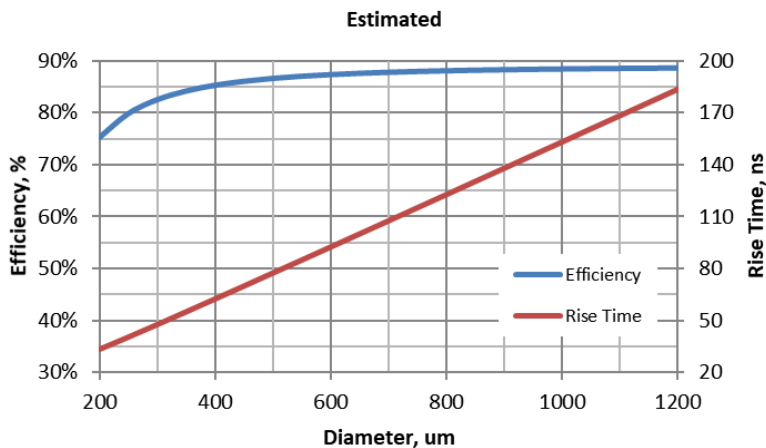
0419

Compact AO Modulator designed for medium to high power NIR Fibre and DPSS laser applications

### SPECIFICATIONS

Spectral Range:	0.36 - 1.5 $\mu$ m
Standard A/R Wavelengths:	0.7-0.9 $\mu$ m or 1.064 $\mu$ m *
Optical Power:	20 Watts *
Interaction Medium:	Tellurium Dioxide (TeO <sub>2</sub> )
Acoustic Velocity:	4.2mm/ $\mu$ s
Centre Frequency (fc):	80MHz
RF Bandwidth:	30MHz
Input Impedance:	50 $\Omega$ Nominal
VSWR:	<1.5:1 @ fc
Clear Aperture:	3.5mm
Active Aperture:	1.5mm
Static Insertion Loss	< 3%
Reflectivity:	< 0.5% / surface
Laser Polarization:	Any / vertical preferred *
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)

### TYPICAL PERFORMANCE \*

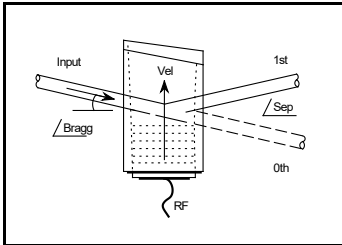


	<b>780nm</b>	<b>840nm</b>	<b>1064nm</b>
RF Power (nominal):	1.5 W	1.7 W	2.7 W
Bragg Angle:	7.4 mrad	8.0 mrad	10.1 mrad
Separation Angle:	14.9 mrad	16.0 mrad	20.2 mrad

\* see foot notes

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.  
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**Quality Assured.**  
**In-house: Crystal Growth,**  
**Optical Polishing,**  
**A/R coating, Vacuum Bonding**



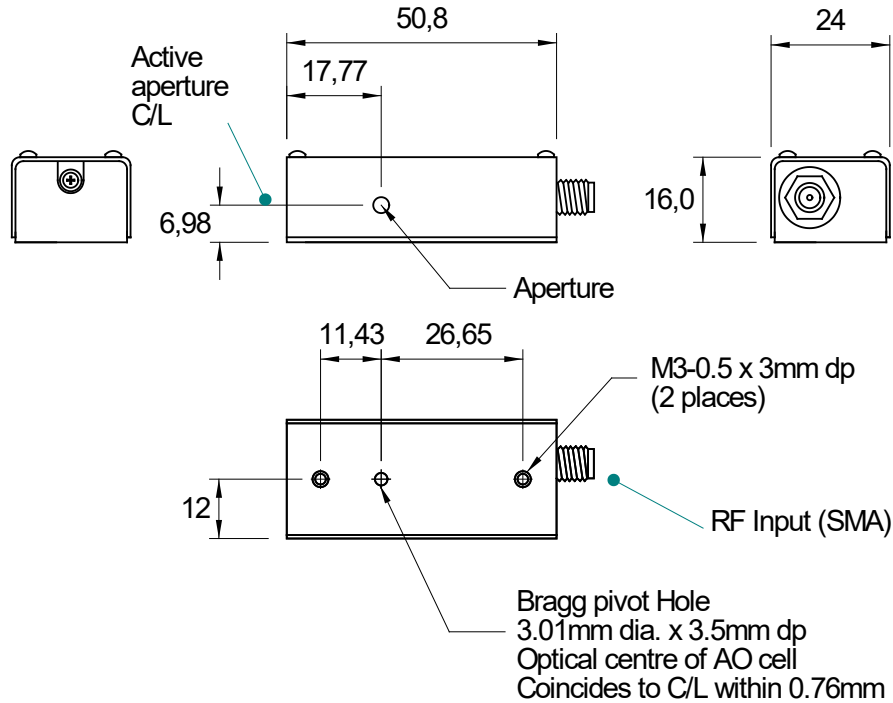
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### OUTLINE DRAWING



Suffix -M: M3 metric fixing threads standard.

**Mount device to heat conducting surface**

### RF DRIVE ELECTRONICS

Digital modulation: 522C-4

Analog modulation: 532C-4

Dual modulation: 552F-4

Tuneable with modulation 630A-80 (VCO), iSPA-SF1-b (DDS)

#### \* Notes:

- PLEASE SPECIFY OPERATING WAVELENGTH.
- For higher powers please contact Isomet.
- Approximately 5% efficiency difference between v-pol and h-pol for the same RF drive power.
- Estimated efficiency applies to single mode input.

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