

# M1099-T80L-3(M)

## Acousto-Optic Modulator



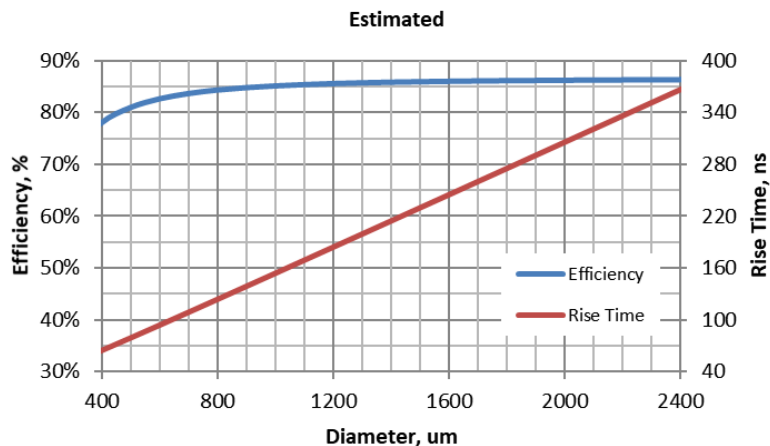
0419

Compact AO Modulator designed for High Power NIR Fibre and DPSS laser applications.  
AOM is supplied with a removable water cooled base plate.

### SPECIFICATIONS

Spectral Range:	0.36 > 1.5μm
Standard A/R Wavelengths:	0.7-0.9μm or 1.064μm *
Optical Power:	100 Watts CW *
Interaction Medium:	Tellurium Dioxide (TeO <sub>2</sub> )
Acoustic Velocity:	4.2mm/μs
Centre Frequency (Fc):	80MHz
RF Bandwidth:	30MHz
Input Impedance:	50Ω Nominal
VSWR:	<1.5:1 @ Fc
Clear Aperture:	6.5mm
Active Aperture Height:	3mm
Static Insertion Loss	<3% at 1.1um
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Any / vertical preferred *
Static Contrast Ratio:	>1000:1 min (>2000:1 typical)

### TYPICAL PERFORMANCE at 1.1um \*



	<b>780nm</b>	<b>840nm</b>	<b>1064nm</b>
RF Power (nominal):	1.9 W	2.2 W	3.5 W
Bragg Angle:	7.4 mrad	8.0 mrad	10.5 mrad
Separation Angle:	14.9 mrad	16.0 mrad	21.0 mrad

\* see foot notes

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

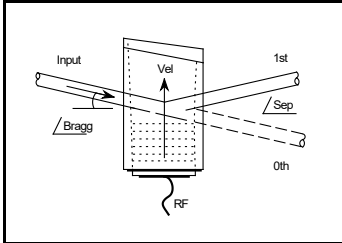
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**Quality Assured.**

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



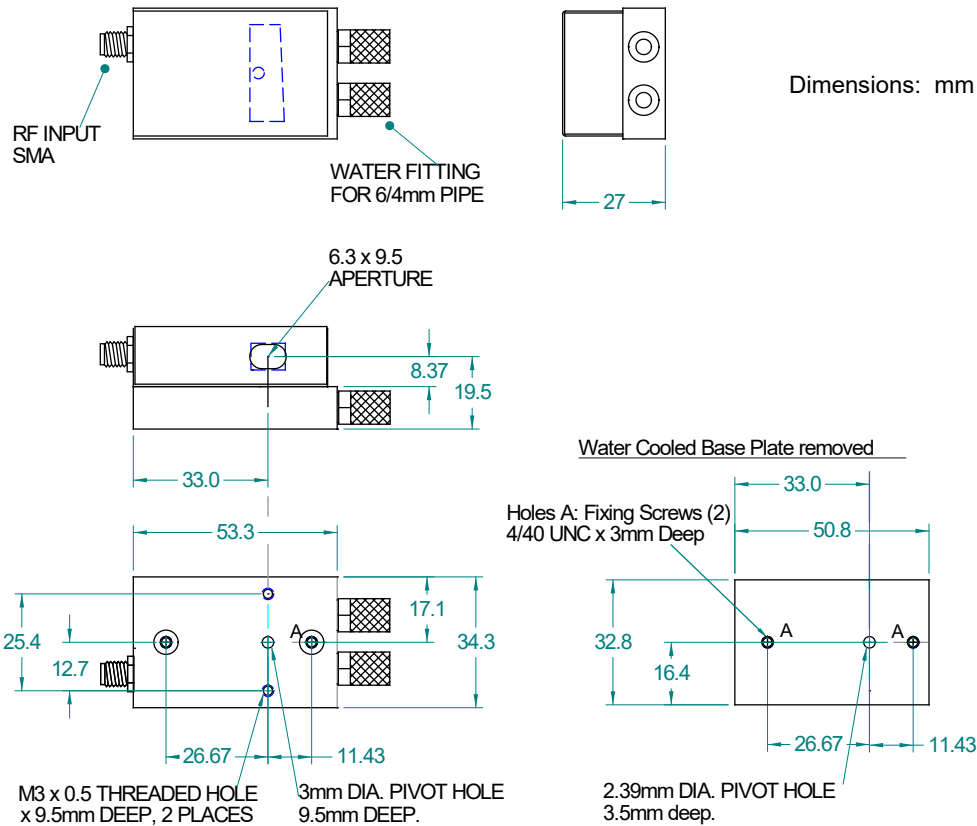
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### OUTLINE DRAWING



Suffix -M: M3 metric fixing threads standard.

**Mount device to heat conducting surface or to supplied water cooled base plate**

### 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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