

# M1135-T80L-3

## Acousto-Optic Modulator



0714

Compact AO Modulator designed for High Power NIR Fibre and DPSS laser applications

### SPECIFICATIONS

Spectral Range:	0.36 > 1.5 $\mu$ m
Standard A/R Wavelengths:	1.03 -1.1 $\mu$ m
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:	6.5mm
Active Aperture Height:	3mm
Static Insertion Loss	<3% at 1.1 $\mu$ m
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Any
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)
Cooling:	Water cooled. Copper case parts. Corrosion inhibitor strongly recommended Thermal interlock switch opens at 40degC

### TYPICAL PERFORMANCE at 1.1 $\mu$ m

Optical Power:	200 Watts CW **		
Beam Diameter (mm):	2.8	1.6	
Optical Rise Time (ns):	430	245	
Modulation Bandwidth (MHz) @ MTF = 0.5:	0.8	1.4	
Deflection Efficiency (% @ CF) * :	>85	>85	Polarization Perpendicular to Base
	>80	>80	Polarization Horizontal to Base
RF Power:	6 Watts nominal		
Bragg Angle:	10.5 mrad		
Separation Angle at fc :	21.0 mrad		

\* Single mode input

\*\* For higher powers please contact Isomet

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

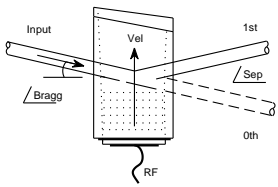
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**Quality Assured.**

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



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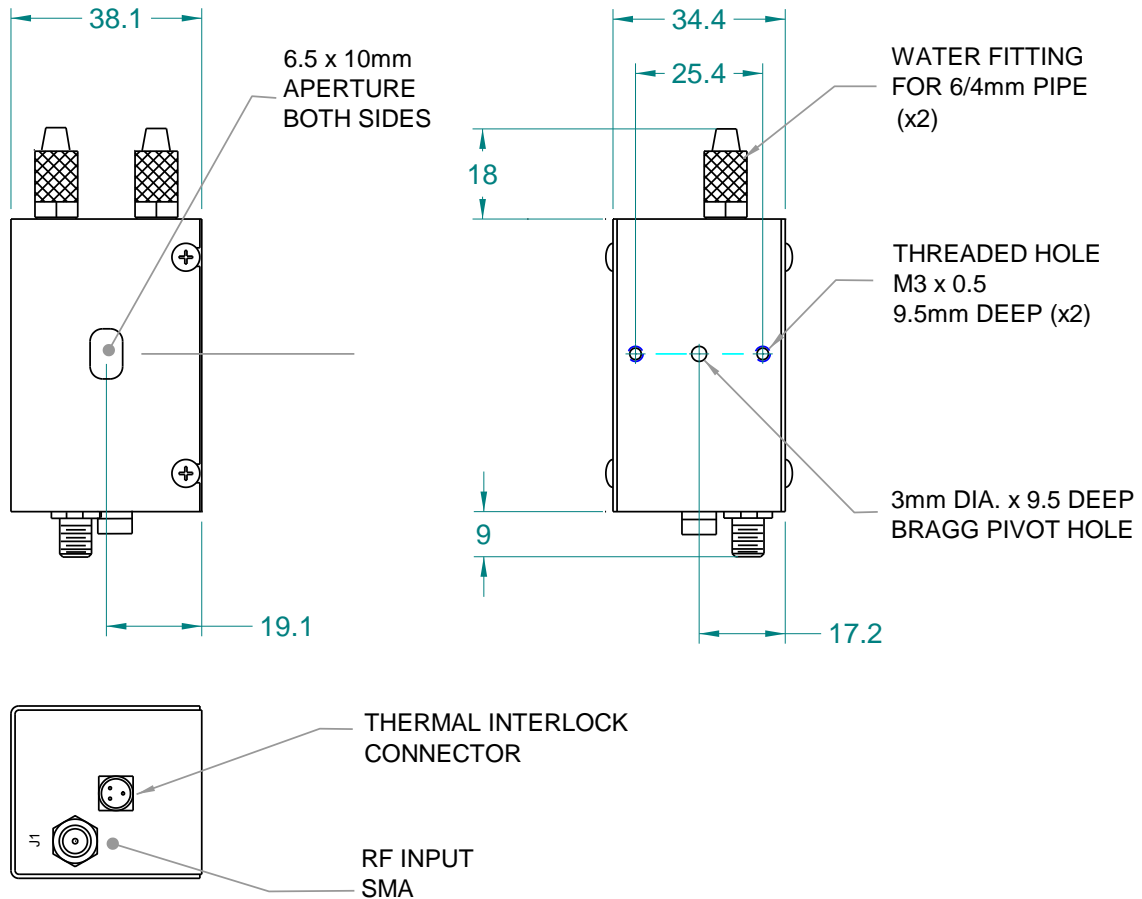
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### OUTLINE DRAWING

Dimensions: mm.



### Recommended Drivers

Model 522C-7 (Digital Modulation, conduction cooled)

Model 532C-7 (Analog Modulation, conduction cooled)

Model 752C-7 (Analog & Digital Modulation, conduction cooled)

Water cooled RF driver option (-W) available

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