

# M1362-aQ110-6

## NIR Acousto-Optic Modulator



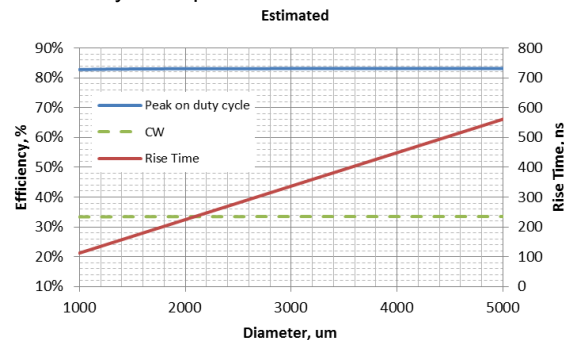
0419

Short optical path length Quartz AOM design for pulsed laser, low duty cycle applications

### SPECIFICATIONS

Operating Wavelength:	800nm +/-10nm
Interaction Material:	Quartz
Centre Frequency (fc):	110MHz
RF Bandwidth:	> 10MHz
Input Impedance:	50Ω (nominal)
Input VSWR:	<1.5:1 @ 110MHz
Active Aperture, H:	6mm
Clear aperture	16mm
Optical path length:	13mm
Optical Insertion Loss:	<3% (2% typical)
Reflectivity:	<0.5%/Surface

Diffraction Efficiency and optical rise time vs. beam diameter



DC Contrast Ratio:	>1000:1 min (2000:1 typical)
Laser Polarization:	Vertical, Perpendicular to diffraction axis
Water Cooling (Min):	2L/minute @ 25deg C

### PERFORMANCE vs. WAVELENGTH

Wavelength:	800nm
<b>Maximum CW or average RF Drive Power</b>	25W
Maximum peak RF Drive Power	100W
Bragg Angle:	7.72mrad
Separation Angle (at fc):	15.44mrad

### RF DRIVE ELECTRONICS

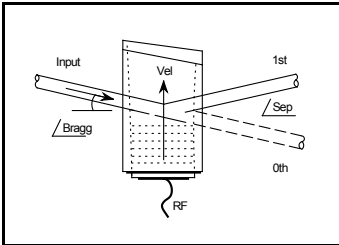
Fixed frequency RFA2110-100 (water cooled)  
Tunable frequency iMS4-L synthesizer plus RFA0110-1-100 amplifier

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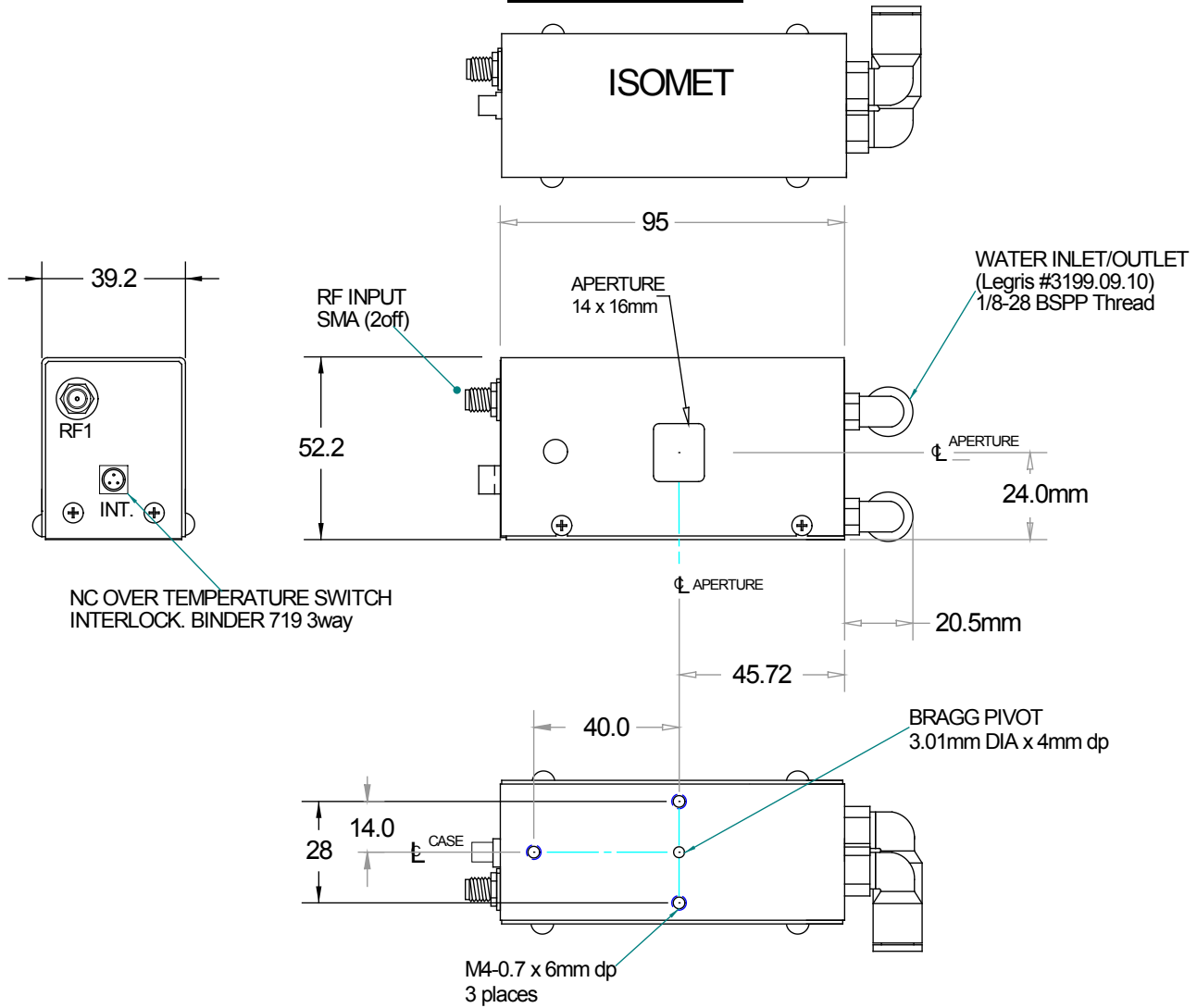
**Quality Assured.**  
In-house: Crystal Growth,  
Optical Polishing,  
A/R coating, Vacuum Bonding

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### OUTLINE DRAWING

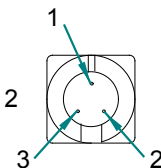


NC OVER TEMPERATURE SWITCH INTERLOCK. BINDER 719 3way

Water cooled case parts are made from Aluminium.  
Copper alternative is available as an option

**Coolant Specification**  
Refer application note AN1606

Interlock Connector: 3-pin Snap  
Normally Closed Contacts : Pins 1 , 2  
Not connected : Pin 3



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