

# M1431-aQ80-9



## High Power Pulsed Acousto-Optic Modulator (PRELIMINARY)

1021

High power modulator designed for duty cycle operation.  
Suitable for use with pulsed NIR sub-psec lasers operating at 100+KHz

### SPECIFICATIONS

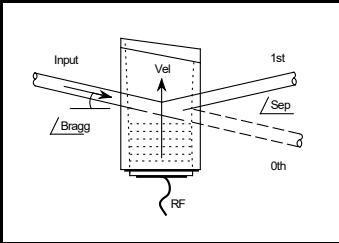
Operating Wavelength:	1030nm or 1064nm, as specified
Interaction Material:	Quartz
Optical path Length:	20mm
Centre Frequency (fc):	80MHz
RF Bandwidth:	10MHz minimum
Diffraction Efficiency:	>85% at fc
Input Impedance:	50Ω(Nominal)
Input VSWR:	<1.5:1 @ 80MHz
Active Aperture:	9mm max
Optical Insertion Loss:	<3% (<2% typical)
Reflectivity:	<0.5%/Surface
DC Contrast Ratio:	>1000:1 min (2000:1 typical)
Laser Polarization:	Vertical, Perpendicular to scan
Water Cooling (Min):	2L/minute @ 25deg C

### PERFORMANCE vs. WAVELENGTH

Wavelength:	1030nm
Beam diameter:	7mm
Maximum peak optical power:	10GW
Maximum average optical power:	500W average
Peak RF drive power:	120W
Maximum RF Power Dissipation:	20W average
Bragg Angle:	7.2mrad
Separation Angle (at fc):	14.4mrad

**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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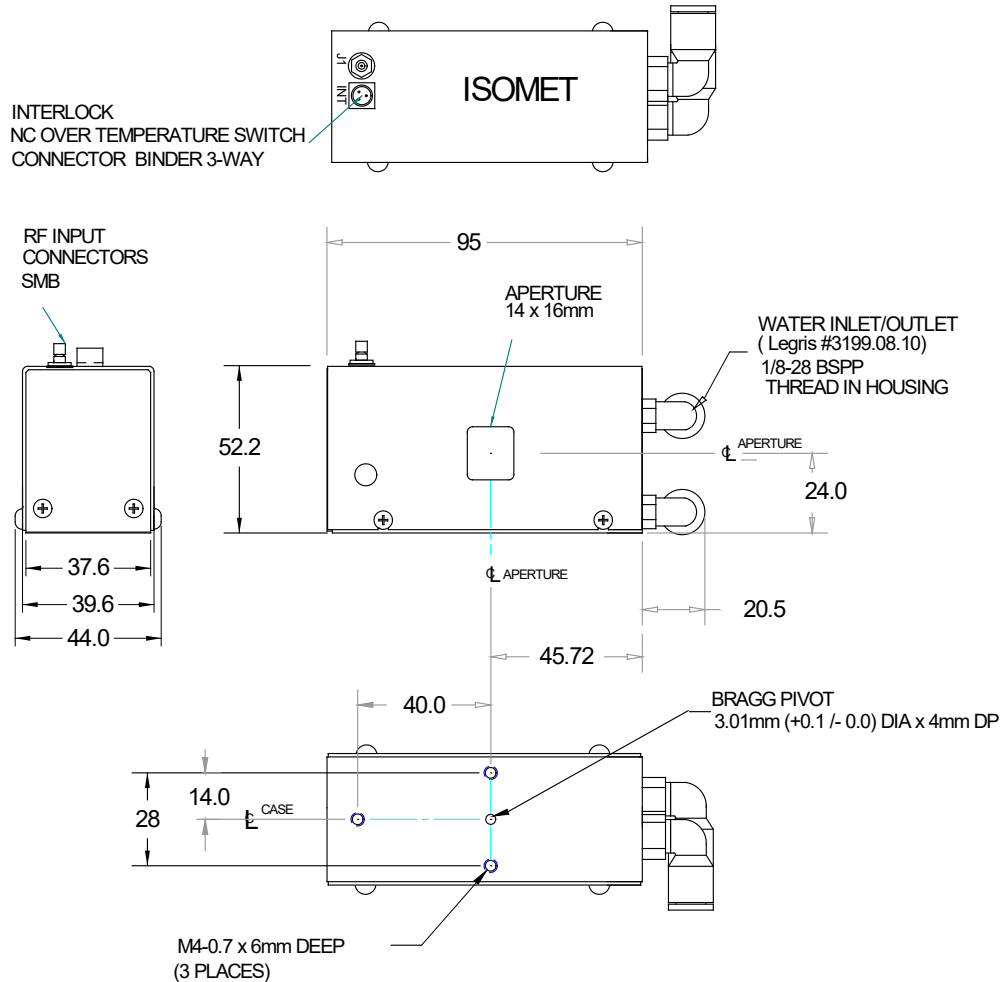
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### OUTLINE DRAWING

Dim'n: mm



Water cooled case parts are Aluminium.

Refer application note AN1906 regarding Coolant Specification

### DRIVERS

RFA681 driver/amplifier  
RFA080-1-120 amplifier only

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