

M1315-G40-H High Power AO Modulator



0813

APPLICATIONS

- Material Processing
- Via Hole Drilling
- Surface texturing
- Hole Perforation

FEATURES

- Low loss
- High Optical Power Capability
- All Solid-State
- High Optical Power

The M1315-G40 series are low loss single beam modulators optimized for duty cycled applications and designed to minimize thermal lensing and reduce beam degradation at high optical powers.

SPECIFICATIONS (TYPICAL)

Operating Wavelength:	9.4um or 10.6um (specify)*
Interaction Material:	Germanium
Active Aperture:	
H=6	6mm.H x 15mm.W
H=7	7mm.H x 15mm.W
H=8	8mm.H x 15mm.W
H=9	9mm.H x 15mm.W (9.4um only)
Centre Frequency (fc):	40MHz
RF Bandwidth:	10MHz
Design duty cycle	25%,
Maximum duty cycle	100% with caution
Diffraction Efficiency at fc:	> 85%, 90% typical
RF Power for Max. D/E	< 180 Watts peak total (-8)
Static Insertion Loss:	< 5%
Maximum Optical Power:	600 Watts, 7mm dia. Gaussian beam
Laser Polarization:	Linear, Horizontal
Water Cooling (Minimum):	> 2 Liter/Min. @ < 20°C
<u>Single Beam Performance at 10.6um</u>	
Bragg Angle at 10.6um:	38.5 mrad, nominal
Separation Angle at 10.6um:	77.1 mrad (40MHz)
Optical Rise Time	0.12usec / mm beam diameter
Diffraction Efficiency	> 85%, 90% typical
RF driver	RFA641-BR
<u>Single Beam Performance at 9.4um</u>	
Bragg Angle at 9.4um:	34.2 mrad, nominal
Separation Angle at 9.4um:	68.4 mrad (40MHz)
Optical Rise Time	0.12usec / mm beam diameter
Diffraction Efficiency	> 85%, 90% typical
RF driver	RFA641-BR
Options:	
-AL: Aluminium case parts (copper standard)	
* : other wavelengths in the 2.5µm - 11.2µm range.	

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

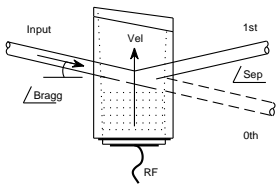
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Quality Assured.

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

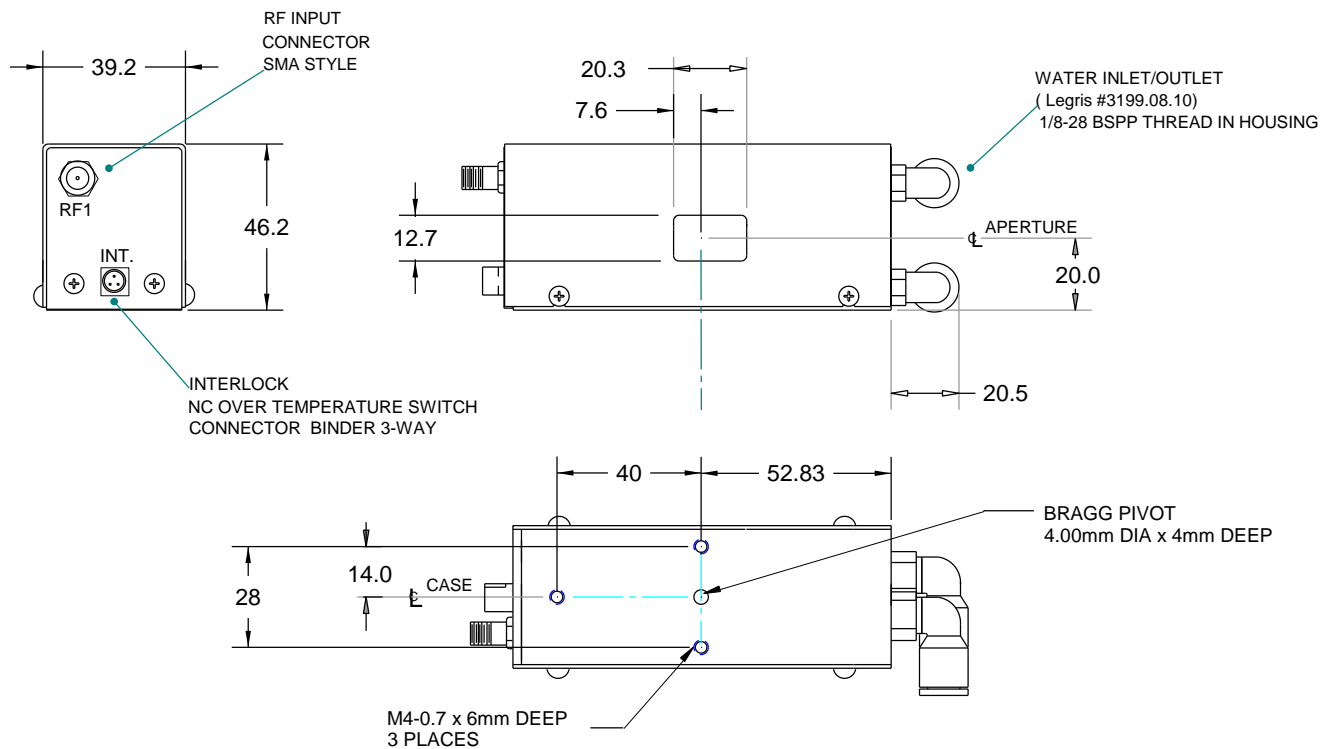
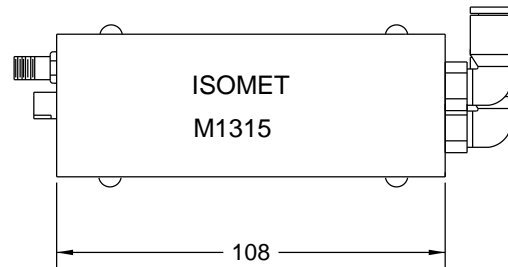


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OUTLINE DRAWING



Dimensions: mm

Case parts in contact with coolant are fabricated from Te-Copper

Refer application note AN0901 regarding Coolant Specification

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