

# M1448-G190L-1.2



## MIR Frequency Shifter / Modulator

(PRELIMINARY)

4723

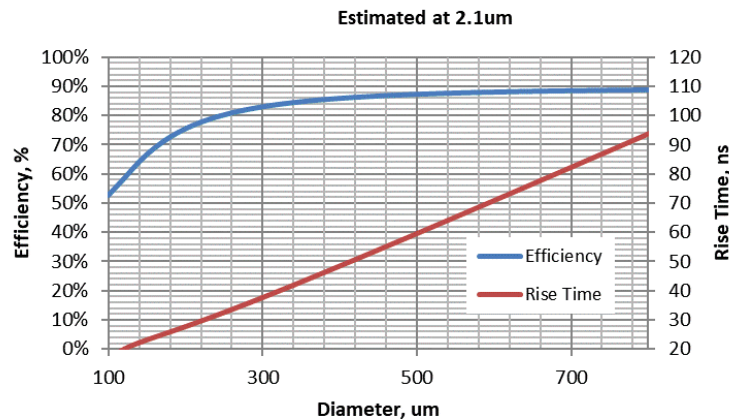
A high frequency mid-IR AO modulator / frequency shifter.

### SPECIFICATIONS

Operating Wavelengths:	2.05um (FS1448-G190L-1.2-N6) 2.5 - 5um (FS1448-G190L-1.2-FB )
Center Frequency, $f_c$ :	190 MHz
RF Bandwidth, $\Delta f$ :	70 MHz
Diffraction Efficiency:	> 80% peak, (duty cycled RF drive)
Input Impedance:	50 $\Omega$ (nominal)
Input VSWR:	<1.5:1 @ 190MHz
Active Aperture:	1.2 mm high
Optical Insertion Loss:	< 3%
Reflectivity:	0.5%/surface, mid-band.
DC Contrast Ratio:	> 1000:1 min, 2000:1 typical
Laser Polarization:	Horizontal, parallel to base
Max recommended RF power:	10W (CW or average)
Cooling:	Conduction. MUST be mounted to a heatsink

### PERFORMANCE vs. WAVELENGTH

Wavelength (nm):	2.05um	2.5um	5um
Peak RF Drive Power (Watts):	2.3	3	13
Bragg Angle at $f_c$ (mrad):	36.1	40.9	81.8
Separation Angle at $f_c$ (mrad):	72.2	81.8	163.6
CW Efficiency (Max CW 10W):	~85%	~85%	~75%



**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

ISOMET CORP, 10342 Battleview Parkway, Manassas, VA 20109, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

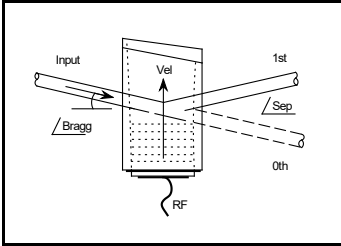
E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**

**In-house: Crystal Growth,**

**Optical Polishing,**

**A/R coating, Vacuum Bonding**



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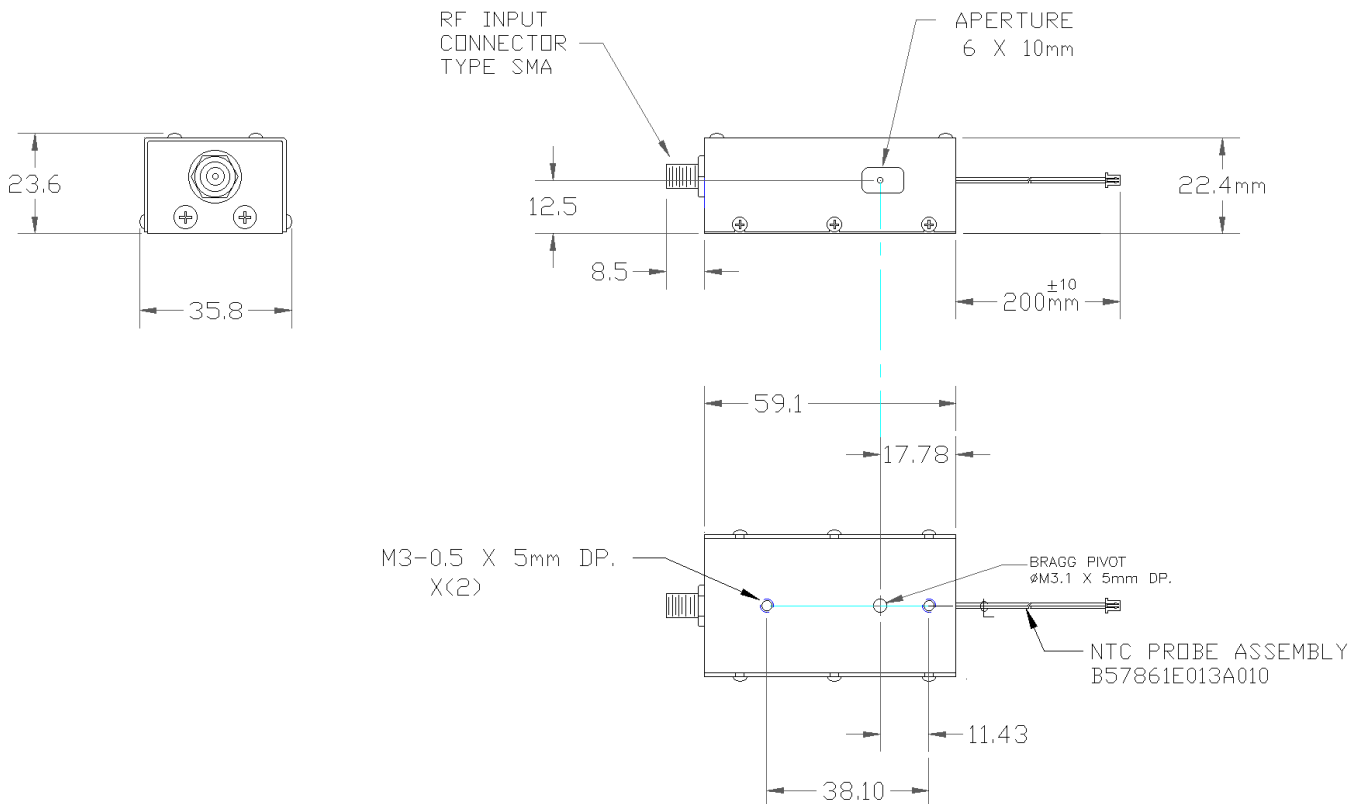
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### RF Drive Electronics

Synthesizer Driver / Amp: iMS2-HF with AF0-200T-1-3 (3W) or AJ0-200T-10 (>10W)

### OUTLINE DRAWING

Dim'n: mm



Always mount to a heatsink.

#### Options:

-NT 10K NTC thermistor (probe assembly)

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