

M1133-aQ80L-H (NIR) High Power AO Modulator



0118

The M1133-aQ80L series are longitudinal mode, conduction cooled acousto-optic modulators designed for use with polarized DPSS Nd:YLF and Nd:YAG SHG lasers. These devices exhibit very low insertion loss and high damage threshold.

Specifications

Acoustic Frequency fc:		80.0MHz
RF bandwidth:		10.0MHz
Interaction Material:		Quartz
A/R Coating Options:		700-900nm,1064nm
Reflectivity:		< 0.5% / surface
Active Aperture, (-H):	H=1	1.0mm
	H=2	2.0mm
Clear Aperture:		4.5mm
Acoustic Mode:		Longitudinal
Rise/Fall time:		114nsec / mm beam waist
Maximum average (or CW) RF power :		10W.
Polarization:		Linear, vertical
Transmission:		> 99.5%
Damage Threshold:		> 500MW/cm ²

<u>Performance at:</u>		<u>700nm</u>	<u>800nm</u>	<u>1064nm</u>
Bragg Angle (mrad):		4.9	5.6	7.5
Separation Angle (mrad):		9.8	11.2	14.9
RF power for.....	H=1mm:	5W	6W	11W
	H=2mm:	10W	12W	22W
Diffraction Efficiency	H=1mm	>85%	>85%	>80%*
	H=2mm	>85%	>80%	>70%*

* For pulsed applications, peak efficiency >85% provided the RF drive power is duty cycled.

<u>Beam Diameter (mm):</u>	<u>0.4</u>	<u>0.8</u>
Rise Time (ns):	47	90
Typical Deflection Efficiency, 800nm	80%	87%
Cooling:	Conduction	
Input Impedance:	50 Ohms	
VSWR:	< 1.2:1	

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

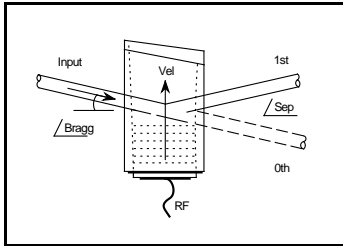
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

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

E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

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

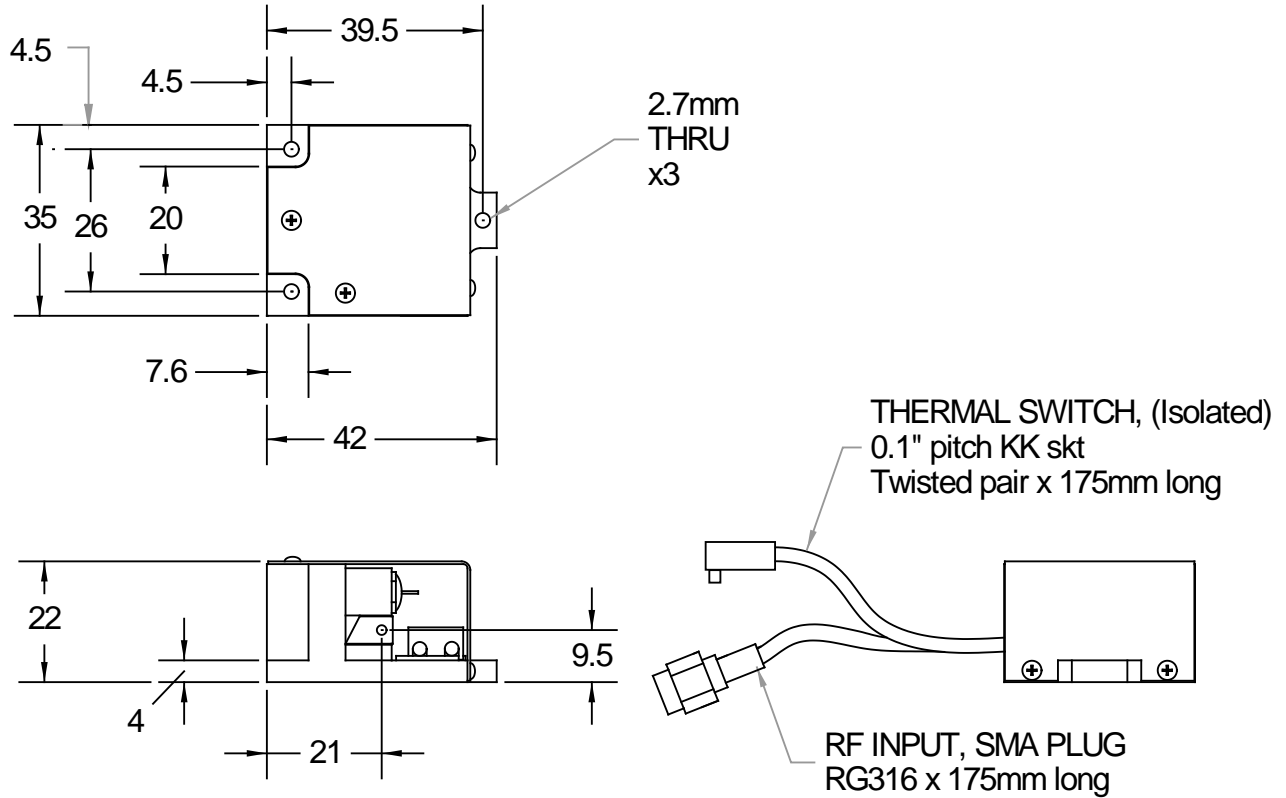


M1133-aQ80L-H (NIR) High Power AO Modulator



0118

Outline Drawing



Dimensions: mm

Ensure adequate heatsinking through mounting surface, especially at higher RF powers.

Must not exceed 40degC

Thermal Interlock switch opens at 50degC

Recommended Drive Electronics

Digital Modulation:	522C-7
Analog Modulation:	532C-7
Dual Modulation:	752C-7, RFA910-80, RFA920-80

Note: not all RF drivers use the AOM thermal interlock

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

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

E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

In-house: Crystal Growth,

Optical Polishing,

A/R coating, Vacuum Bonding