

M1377-aQ41L-1.5, -2 High Power AO Modulator



0726

The M1377-aQ41L- series are longitudinal mode, conduction cooled acousto-optic modulator / Q-switch 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 f_c :	40.68MHz	
RF bandwidth:	10.0MHz	
Interaction Material:	Quartz	
A/R Coating:	1064nm	
Reflectivity:	< 0.5% / surface	
Active Aperture (-H) :	1.5, 2.0mm *	
Clear Aperture:	4.5mm	
Acoustic Mode:	Longitudinal	
Rise/Fall time:	114nsec / mm beam waist	
Polarization:	Linear, vertical	
Transmission:	> 99.5%	
Damage Threshold:	> 500MW/cm ²	
Maximum CW or average RF drive:	15W	
<u>Performance at:</u>	<u>1064nm</u>	
Bragg Angle (mrad):	3.8	
Separation Angle (mrad):	7.6	
Aperture -H	<u>1.5mm</u>	<u>2mm</u>
Peak RF power for max DE:	15W	20W
First Order Diffraction Efficiency, at max 15W average RF drive:	>80%	>75% **
<u>Beam Diameter (mm):</u>	<u>0.8</u>	<u>1.6</u>
Rise Time (ns):	90	180
Cooling:	Conduction	
Input Impedance:	50 Ohms	
VSWR:	< 1.2:1	

* Please contact Isomet for alternative apertures.

** For pulsed applications, peak efficiency >85% (90% typical) provided the RF drive power is duty cycled.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

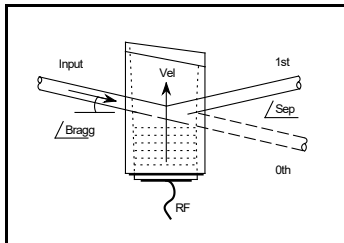
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Quality Assured.

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

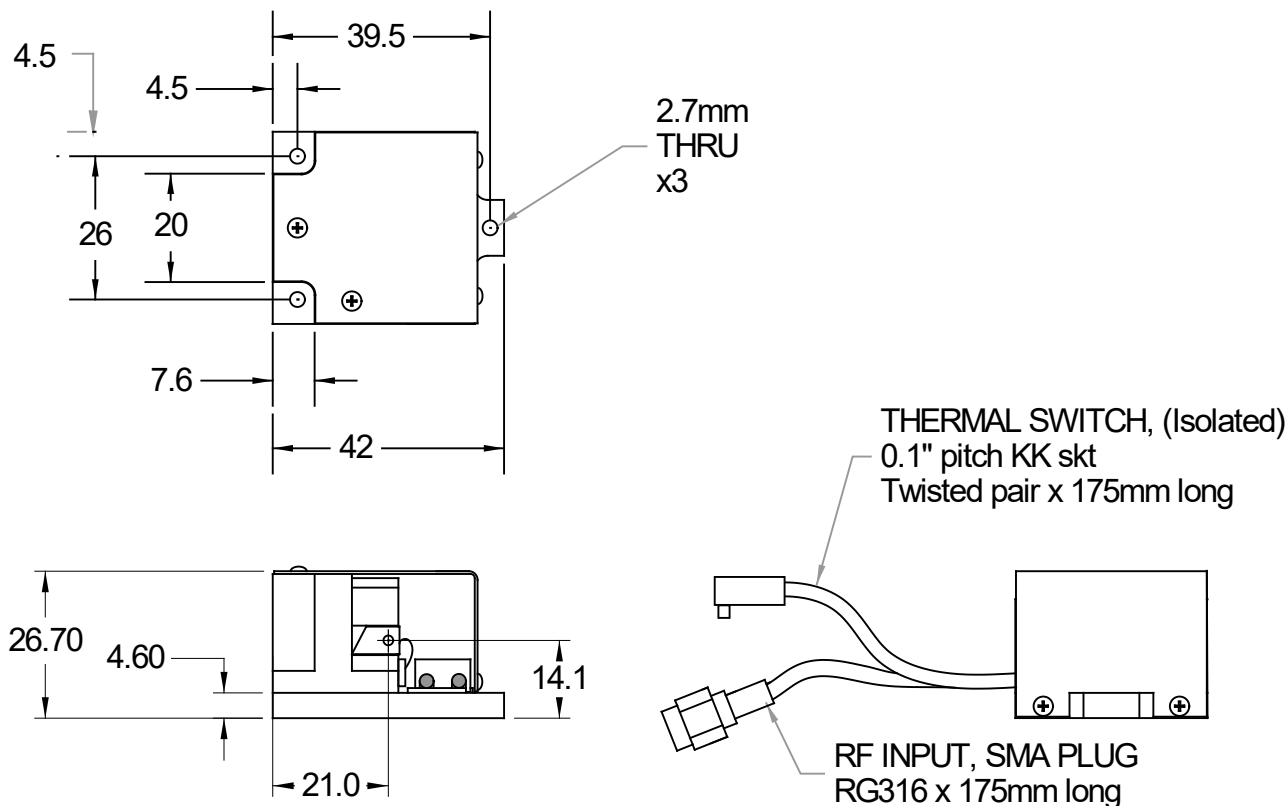


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Outline Drawing



Ensure adequate heatsinking through mounting surface

Must not exceed 40degC

Optional Thermal Interlock switch shown. Opens at 50degC.

Recommended Drive Electronics

Dual Modulation, 15W: RFJ041-1-15
Dual Modulation, 25W: RFJ041-1-25*

* For pulsed, duty cycled applications, where peak RF power exceeds CW rating of AO device.

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