

## Q1133-aQxxL-H AO Q-SWITCH



1106

The Q1133-aQxxL series are longitudinal (compressional) mode Quartz, conduction cooled acousto-optic Q-switches designed for use with polarized DPSS Nd:YLF and Nd:YAG lasers. These devices exhibit very low insertion loss and high damage threshold. All Isomet AO Q-switches benefit from the company's unparalleled experience in OEM manufacturing, with all key processes maintained in-house. These include optical fabrication, A/R coating and proven high power transducer bonding technology.

### Specifications

Acoustic Frequency:	40.68, 68 or 80.0MHz		
Interaction Material:	Quartz		
Wavelength:	1047nm to 1064nm		
A/R Coating:	< 0.3% / surface		
Active Aperture, H:	1.0, 1.5, 2.0 mm *		
Clear Aperture:	4.5mm		
Acoustic Mode:	Longitudinal		
Rise/Fall time:	114nsec / mm beam waist		
Polarization:	Linear		
Transmission:	> 99.5% (single pass)		
Cavity Insertion Loss:	10% max, <5% typical		
Damage Threshold:	> 500MW/cm <sup>2</sup>		
RF power	Up to 10W (aperture dependent)		
	<u>H=1.0mm</u>	<u>H=1.5mm</u>	<u>H=2.0mm</u>
RF power	6W	9W	10W
Diffraction Efficiency:	>85%	>80%	>75%
Cooling:	Conduction		
Input Impedance:	50 Ohms		
VSWR:	< 1.2:1		

Model Selection:

	<u>Freq</u>		<u>Active Aperture</u>	
Q1133 - aQ	<b>xx</b>	L -	<b>H</b>	
40.68MHz	<b>40</b>		<b>1.0</b>	1.0mm
68.0MHz	<b>68</b>		<b>1.5</b>	1.5mm
80.0MHz	<b>80</b>		<b>2.0</b>	2.0mm

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

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

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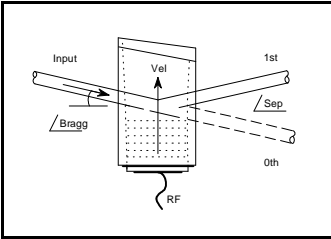
E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**

**In-house: Crystal Growth,**

**Optical Polishing,**

**A/R coating, Vacuum Bonding**

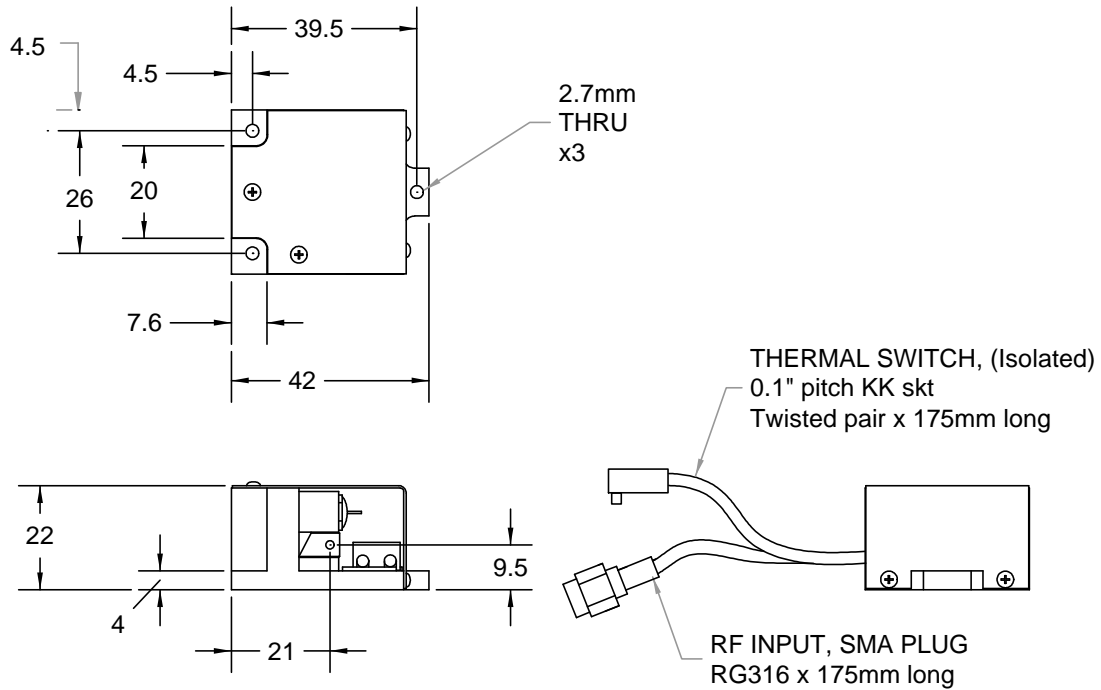


# Q1133-aQxxL-H AO Q-SWITCH



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## Outline Drawing



Dimensions: mm

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

## Recommended Drive Electronics

RF Driver with Waveform Generation  
RF Driver with Basic Modulation control

AQS1010-FC-x  
RFA910-FC-x

\* Please contact Isomet for alternative apertures.

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