The Q1137-SFxxL series are conduction cooled, high efficiency acousto-optic Q-switches designed for use with polarized DPSS Nd:YLF and Nd:YAG lasers. These devices exhibit 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.

**Preliminary Specifications**

- **Acoustic Frequency:** 40.68 or 80.0MHz
- **Interaction Material:** Dense Flint
- **Wavelength:** 1047nm to 1064nm
- **A/R Coating:** < 0.5% / surface
- **Active Aperture, H:** 1.0, 1.5 mm *
- **Clear Aperture:** 3mm
- **Acoustic Mode:** Longitudinal (compressional)
- **Rise/Fall time:** 191nsec / mm beam waist
- **Polarization:** Linear
- **Transmission:** > 99.5% (single pass)
- **Cavity Insertion Loss:** 10% max, <5% typical
- **Damage Threshold:** > 300MW/cm²
- **RF power:** Up to 6W
- **Diffraction Efficiency:**
  - H=1mm: >70%
  - H=1.5mm: >55%
  - RF = 3W: >70%
  - RF = 4W: >80%
  - RF = 5W: >85%
- **Cooling:** Conduction
- **Input Impedance:** 50 Ohms
- **VSWR:** < 1.2:1

**Model Selection:**

<table>
<thead>
<tr>
<th>Freq</th>
<th>Active Aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.68MHz</td>
<td>H=1mm</td>
</tr>
<tr>
<td>80.0MHz</td>
<td>H=1.5mm</td>
</tr>
<tr>
<td>40 W</td>
<td>1.0</td>
</tr>
<tr>
<td>80 W</td>
<td>1.5</td>
</tr>
</tbody>
</table>

* Please contact Isomet for alternative apertures.
Ensure adequate heaksinking through mounting surface, especially at higher RF powers.

Recommended Drive Electronics

RF Driver with Waveform Generation  AQS1010-FC-x
RF Driver with Basic Modulation control  531C-6 / 532C-6