

M1377-aQ80L-1, -2 (NIR) High Power AO Modulator



0520

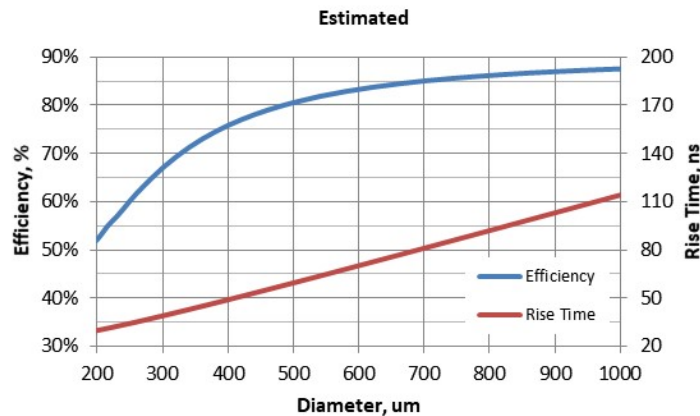
The M1377-aQ80L series are longitudinal mode, conduction cooled acousto-optic modulators designed for use with polarized DPSS Nd:YLF and Nd:YAG SHG lasers. These devices exhibit very low insertion loss and high damage threshold.

Specifications

| | |
|-----------------------------------|-------------------------|
| Acoustic Frequency f_c : | 80.0MHz |
| RF bandwidth: | 10.0MHz |
| Interaction Material: | Quartz |
| Acoustic Velocity : | 5700 m/s |
| Std A/R Coating Options: | 700-900nm, 1064nm |
| Reflectivity: | < 0.5% / surface |
| Polarization: | Linear, vertical |
| Transmission: | > 99.5% |
| Damage Threshold: | > 500MW/cm ² |
| Active Aperture, (H): | for -1 1.0mm |
| | for -2 2.0mm |
| Clear Aperture: | 4.5mm |
| Acoustic Mode: | Longitudinal |
| Maximum average (or CW) RF power: | 15W. |
| Input Impedance / VSWR: | 50 Ohms / < 1.2:1 |

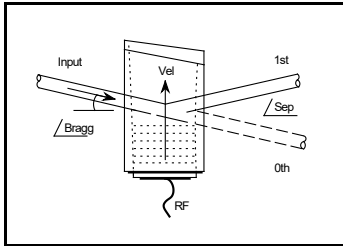
| Wavelength | 700nm | | 800nm | | 1064nm | |
|------------------------|----------|------|-----------|------|-----------|--------|
| Bragg Angle | 4.9 mrad | | 5.6 mrad | | 7.5 mrad | |
| Separation Angle | 9.8 mrad | | 11.2 mrad | | 14.9 mrad | |
| Active Aperture, H | 1mm | 2mm | 1mm | 2mm | 1mm | 2mm |
| RF power | 5W | 10W | 6W | 12W | 11W | 22W |
| Diffraction Efficiency | >85% | >85% | >85% | >85% | >85% | >75% * |

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



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

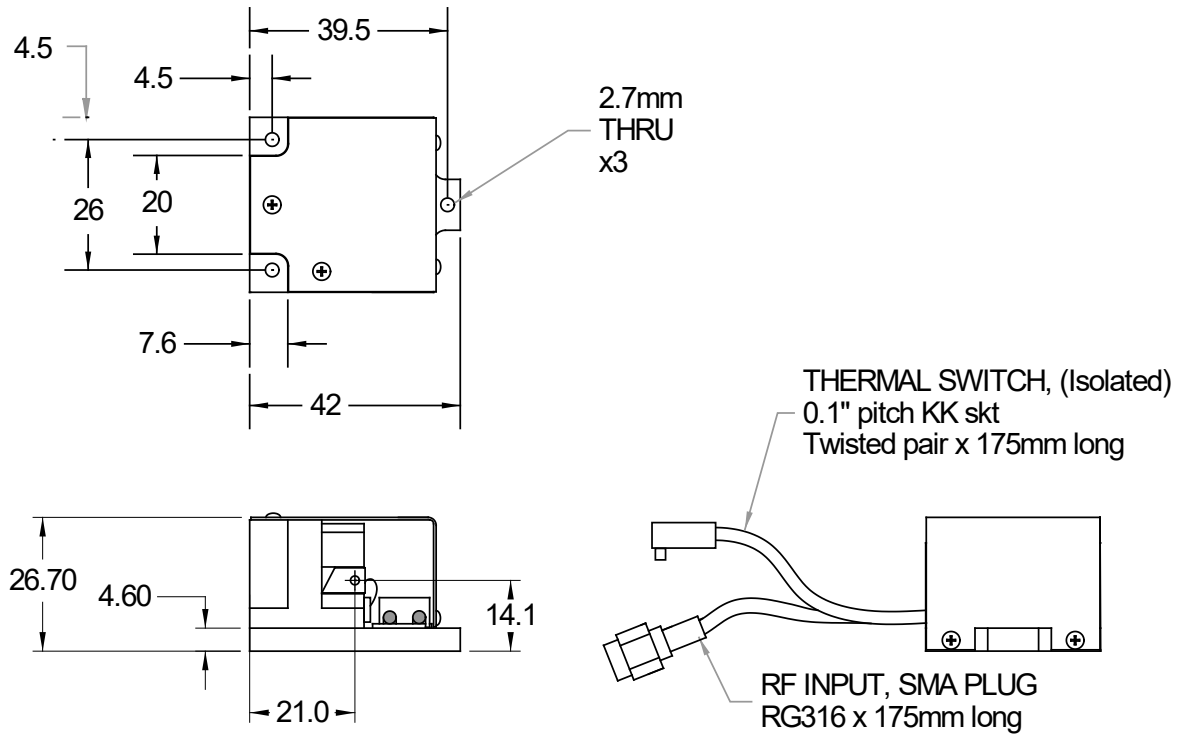


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Outline Drawing



Conduction Cooled

Dimensions: mm

Ensure adequate heatsinking through mounting surface

Must not exceed 40degC

Optional Thermal Interlock switch shown. Opens at 50degC.

Recommended Drive Electronics

| | |
|-----------------------|--------------------|
| Dual Modulation, 7W: | 552F-7 |
| Dual Modulation, 10W: | RFJ080-1-15 or -25 |

Note: not all RF drivers use of the AOM thermal interlock

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