The M1134-FS80L is optimised for operation with UV lasers in the 330-360nm wavelength range. This model features a 3.0mm active aperture, exhibits high efficiency, and is convection cooled.

**SPECIFICATIONS**

- **Interaction Medium:** Fused Silica
- **Acoustic Velocity:** 5.960mm/µs
- **Operating Wavelength:** 325-364 nm (singly or combined)
- **Center Frequency, fc:** 80 MHz
- **RF Bandwidth, Δf:** > 20 MHz
- **Diffraction Efficiency:** > 80%
- **Input Impedance:** 50Ω (Nominal)
- **Input VSWR:** <1.5:1 @ 80MHz
- **Active Aperture:** 3.0mm
- **Optical Insertion Loss:** <3%
- **Reflectivity:** <0.5%/Surface
- **DC Contrast Ratio:** >1000:1 (>2000:1 Typical)
- **Laser Polarization:** Vertical, Perpendicular to Base
- **Peak Optical Power Density:** 250MW/cm²
- **Outline Dimensions:** (See Reverse Side)

**PERFORMANCE vs. WAVELENGTH**

<table>
<thead>
<tr>
<th>Wavelength (nm)</th>
<th>325</th>
<th>355</th>
<th>363</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Drive Power (Watts)</td>
<td>3.0</td>
<td>3.5</td>
<td>3.8</td>
</tr>
<tr>
<td>Bragg Angle (mrad)</td>
<td>2.18</td>
<td>2.38</td>
<td>2.44</td>
</tr>
<tr>
<td>Separation Angle at fc (mrad)</td>
<td>4.36</td>
<td>4.77</td>
<td>4.89</td>
</tr>
</tbody>
</table>

**ESTIMATED PERFORMANCE vs. BEAM DIAMETER at 355nm**

<table>
<thead>
<tr>
<th>Beam Diameter (mm)</th>
<th>3.0</th>
<th>1.0</th>
<th>0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risetime (nsec)</td>
<td>320</td>
<td>108</td>
<td>55</td>
</tr>
<tr>
<td>Video Bandwidth (MHz)</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Diffraction efficiency (Typical)</td>
<td>86%</td>
<td>85%</td>
<td>83%</td>
</tr>
</tbody>
</table>
M1134-FS80L-3
UV Acousto-Optic Modulator

DRIVERS
Digital Modulation: 522C-4
Analog Modulation: 532C-4

OUTLINE DRAWING
Dim'n : mm

RF CONNECTOR
TYPE SMA

ACTIVE
APERTURE C/L

MOUNTING HOLES
M3 X 0.5, 4 PLACES
X 4 DEEP

CLEAR APERTURE
4x4MM

3mm dia.x 4 DEEP
BRAGG PIVOT

31.75
15.87
10.15

24.2

15.87
31.75

50

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
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Optical Polishing,
A/R coating, Vacuum Bonding