The M1088-FS110L is optimised for operation with UV lasers in the 330-360nm wavelength range. This model features a 3.5 mm 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:** 110 MHz
- **RF Bandwidth, ∆f:** > 20 MHz
- **Diffraction Efficiency:** > 80%
- **Input Impedance:** 50Ω (Nominal)
- **Input VSWR:** <1.5:1 @ 110MHz
- **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>5.0</td>
<td>6.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Bragg Angle (mrad)</td>
<td>3.0</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Separation Angle at fc (mrad)</td>
<td>6.0</td>
<td>6.6</td>
<td>6.7</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Beam Diameter (mm)</th>
<th>3.0</th>
<th>1.7</th>
<th>0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risetime (nsec)</td>
<td>320</td>
<td>182</td>
<td>55</td>
</tr>
<tr>
<td>Video Bandwidth (MHz)</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Diffraction efficiency (typ)</td>
<td>85%</td>
<td>83%</td>
<td>80%</td>
</tr>
</tbody>
</table>
M1088(M)-FS110L-3.5
UV Acousto-Optic Modulator
(PRELIMINARY DATA SHEET)

DRivers
Digital Modulation: 523C-6
Analog Modulation: 533C-6

OUTLINE DRAWING
Dim'n : mm

APERTURE

RF connector (BNC)

Bragg Angle
Pivot Point

Include the suffix (M) to the model number for M3 metric mounting holes

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.
Tel: (703) 321 8301   Fax: (703) 321 8546
E-mail: ISOMET@ISOMET.COM   Web Page: WWW.ISOMET.COM

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