

# M1212-aQ175-1



## Acousto-Optic Modulator

for use with UV LASERS

0421

### SPECIFICATIONS

A/R Operating Wavelength*:	248nm, 355nm, 325-364nm
Material:	Quartz
Acoustic velocity:	5.7mm/usec
Center Frequency:	175 MHz
RF Bandwidth	40 MHz
Diffraction Efficiency:	> 85%
Input Impedance:	50Ω(Nominal)
Input VSWR:	< 1.5:1 @ 175MHz
Active Aperture:	1.0mm
Optical Insertion Loss:	< 5%
Reflectivity:	< 0.5%/Surface
DC Contrast Ratio:	>1000:1 min (2000:1 typical)
Laser Polarization:	Vertical, Perpendicular to Base
Outline Dimensions:	(See Reverse Side)

### PERFORMANCE vs. WAVELENGTH

Wavelength (nm):	248	325	355	363
RF Drive Power (Watts):	1.4	2.4	2.0	3.0
Bragg Angle (mrad):	3.8	5.0	5.5	5.6
Separation Angle (mrad):	7.6	10.0	10.9	11.1

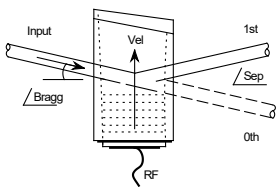
### PERFORMANCE vs. BEAM DIAMETER at 355nm

Beam Diameter (mm):	1.0	0.25	0.15
Risetime (nsec):	112	30	20
Video Bandwidth (MHz):	3	12	18
Diffraction efficiency (typ %): for 2.5W RF driver power	85	80	75

(\* other UV wavelengths on request)

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
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**Quality Assured.**  
**In-house: Crystal Growth,**  
**Optical Polishing,**  
**A/R coating, Vacuum Bonding**



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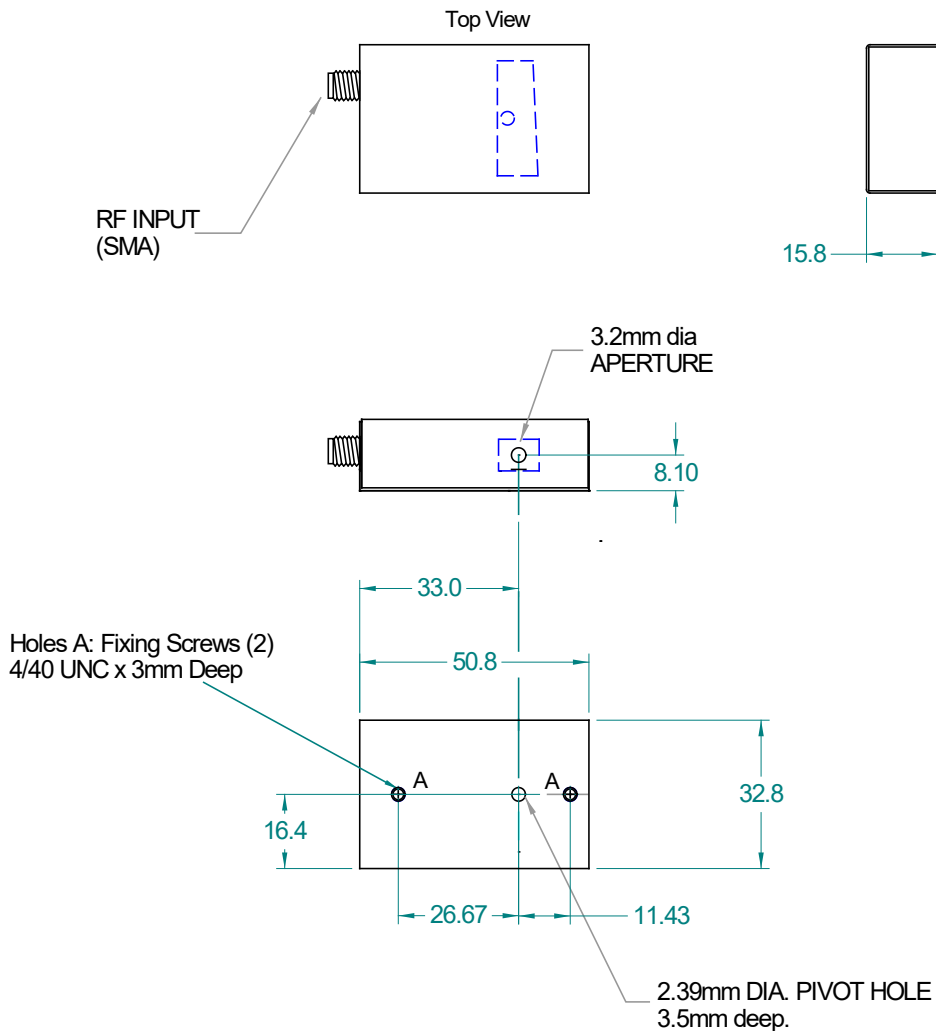


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### OUTLINE DRAWING



### Suggested RF Drive Electronics:

Dual modulation  
Tuneable with modulation

554F-4-175  
iMS4-L (-P) plus AF0-150T-4

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