

M1136B-FS80L-H

UV Acousto-Optic Modulator



0419

The M1136B-FS80L-H is optimised for operation with UV lasers in the 330-399nm wavelength range. This model is available with 1.0, 2.0mm or 3.0mm active aperture heights, exhibits high efficiency and is convection cooled.

SPECIFICATIONS

Interaction Medium:	Fused Silica
Acoustic Velocity:	5.960mm/μs
Operating Wavelength:	325-399 nm (as specified by A/R)
Center Frequency, f_c :	80 MHz
RF Bandwidth, Δf :	> 10 MHz
Diffraction Efficiency:	> 80%
Input Impedance:	50Ω (Nominal)
Input VSWR:	<1.5:1 @ 80MHz
Active Aperture H:	Specify H=1 for 1.0mm, H=2 for 2.0mm, H=3 for 3.0mm
Optical Insertion Loss:	<5%
Reflectivity:	<0.5%/Surface
DC Contrast Ratio:	>1000:1 (>2000:1 Typical)
Laser Polarization:	Vertical, Perpendicular to Base
Peak Optical Power Density:	250MW/cm ²

PERFORMANCE vs. WAVELENGTH

Wavelength (nm):	325	355	363	399
RF Drive Power (Watts) **:	3.0	3.5	3.8	4.3
Bragg Angle (mrad):	2.18	2.38	2.44	2.68
Separation Angle at f_c (mrad):	4.36	4.77	4.89	5.36

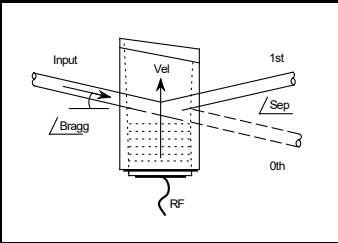
ESTIMATED PERFORMANCE vs. BEAM DIAMETER at 355nm

Beam Diameter (mm):	3.0	1.0	0.5
Risetime (nsec):	320	108	55
Video Bandwidth (MHz):	1	3	6
Diffraction efficiency (Typical):	86%	85%	83%

** RF power listed for 3mm active aperture.
 For the 2mm version, scale by 2/3
 For the 1mm version, scale by 1/3

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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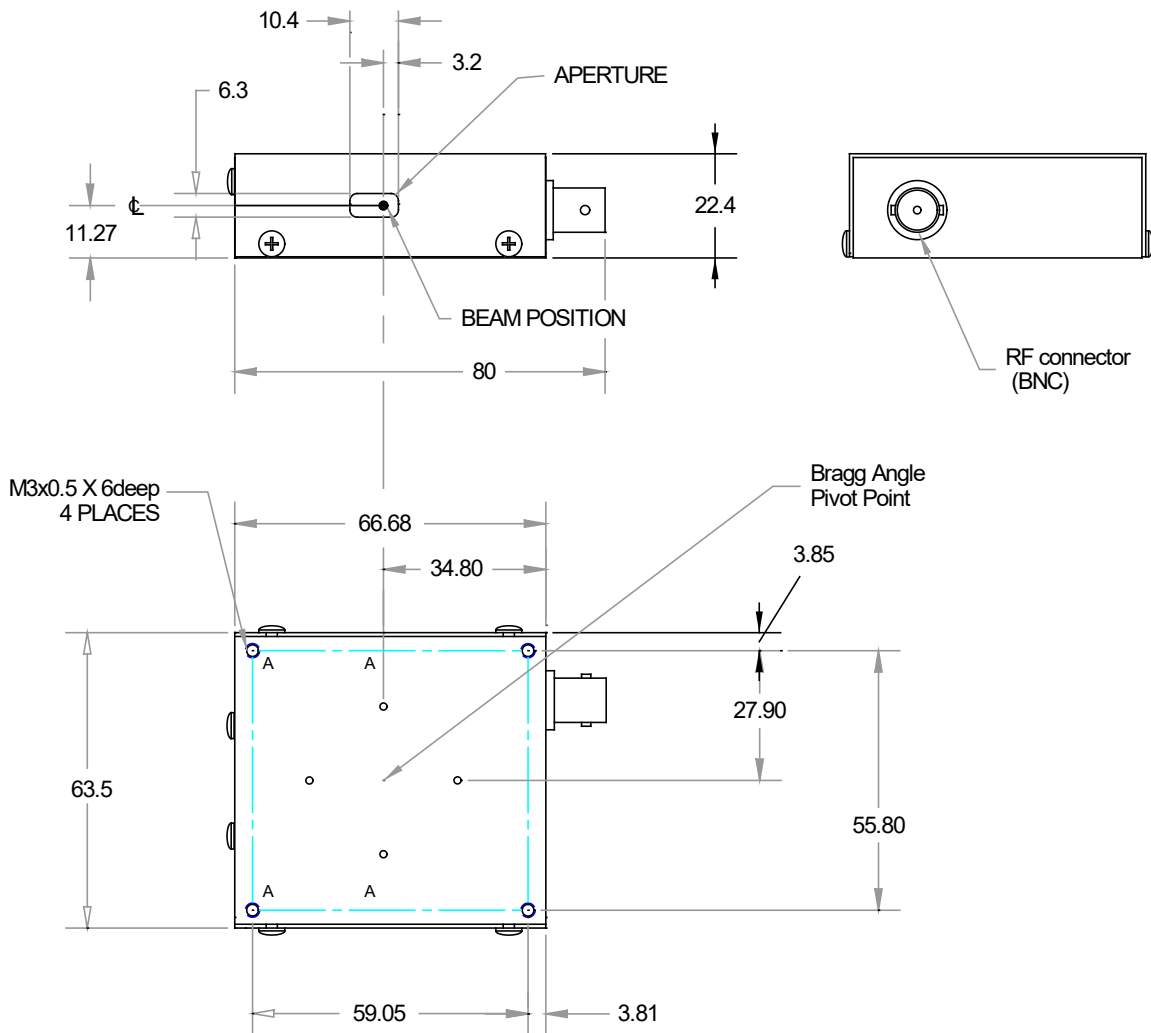
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Suggested Drive Electronics

<u>Freq' Source</u>	<u>Amplitude control</u>	<u>Digital (On:Off)</u>	<u>Analog (Proportional)</u>	<u>Dual</u>
Fixed frequency		522C-4	532C-4	552F-4
VCO, tuneable		620A-4-80	630A-4-80	
Programmable Synthesizer			iSPA-SF1-a	

OUTLINE DRAWING

Dim'n : mm



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