

# FS1118-P80L-2

## Acousto-Optic Frequency Shifter



3021

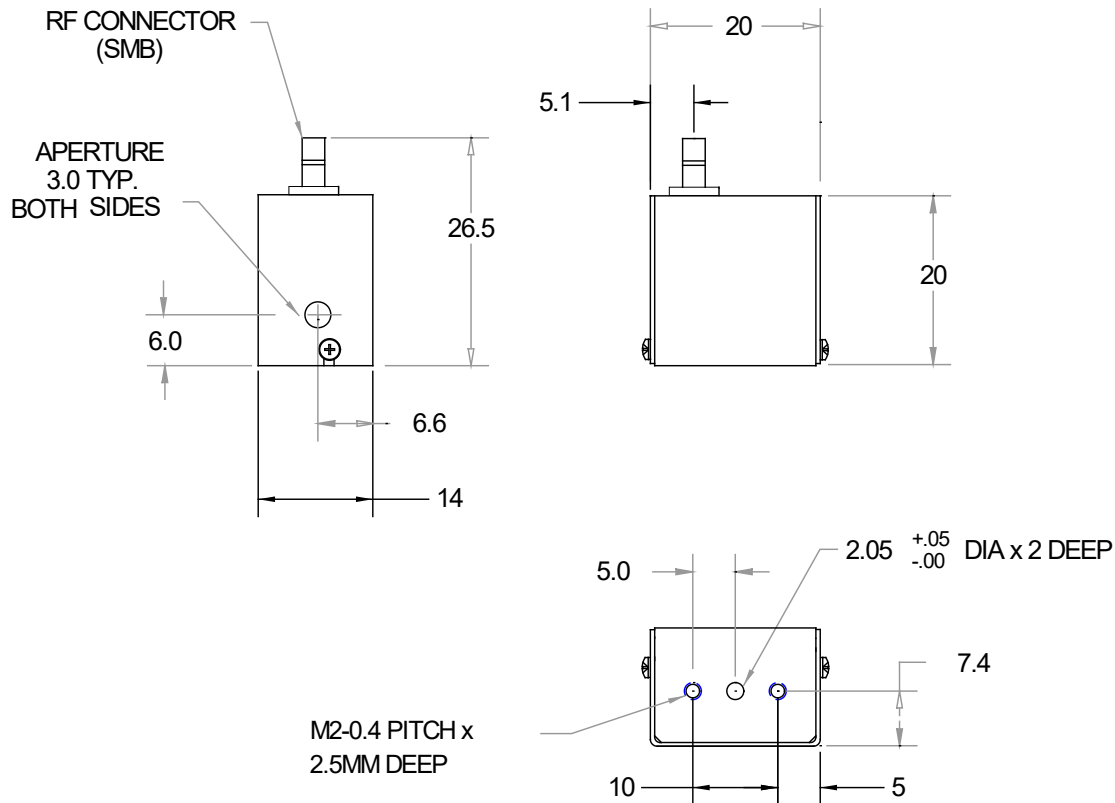
### APPLICATIONS

- Compact Modulator
- Frequency Shifter

### RF Drive Electronics

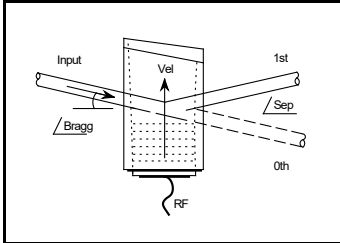
Digital modulation	522F-L / -2, 822F-L
Analog modulation	532F-L / -2, 832F-L
Tuneable with modulation	630C-80, iSPA-SF1-w

### OUTLINE DRAWING



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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### SPECIFICATIONS

Standard A/R Wavelengths:	532nm, 500-700nm (Please specify) 633nm, 633-830nm
Interaction Material:	Lead Molybdate (PbMoO <sub>4</sub> )
Acoustic Velocity:	3.63mm/μs
Active Aperture:	2mm
Polarization:	Any
Center Frequency:	80MHz
RF Bandwidth:	10MHz
Input Impedance:	~50Ω
VSWR:	<1.5:1 @ 80MHz
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)

### PERFORMANCE vs. WAVELENGTH

Wavelength:	532nm	633nm	780nm	830nm
RF Drive Power:	0.6W	1.0W	1.0W max	1.0W max
Diffraction Efficiency:	>85%	>85%	>80%	>75%
Bragg angle:	5.9mrad	7.0mrad	8.6mrad	9.1mrad
Beam Separation:	11.7mrad	13.9mrad	17.2mrad	18.3mrad
Static Insertion Loss:	< 3%	< 3%	< 3%	< 3%

### PERFORMANCE vs. BEAM DIAMETER at 633nm

Beam Diameter:	<b>0.8mm</b>	<b>0.4mm</b>
Rise Time:	122ns	62ns
Modulation Bandwidth @ MTF of 0.5:	2.9 MHz	5.6 MHz
Typical Diffraction Efficiency:	>85%	>83%

*Note: Mount device to heat conducting surface*

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