

# LS55-V

## Acousto-Optic Deflector

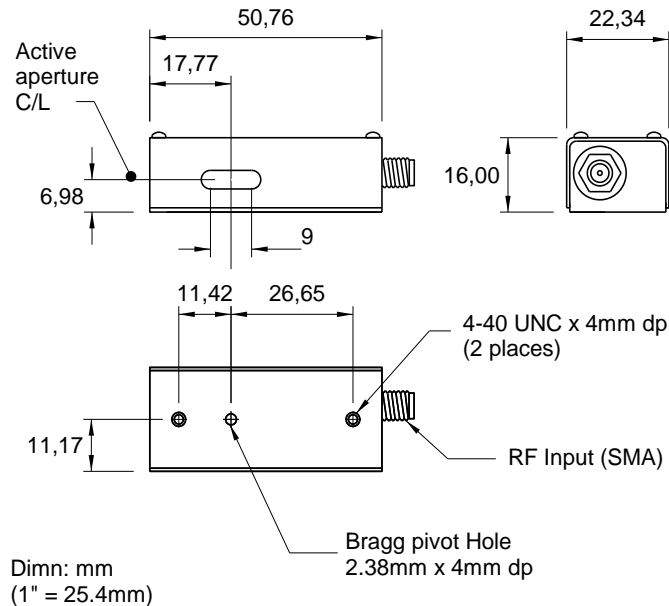
### SPECIFICATIONS

Operating Wavelength:	488nm to 633nm
Interaction Material:	TeO <sub>2</sub> (Slow Shear Mode)
Active Aperture:	2mm H x 7mm L
Centre Frequency (f <sub>c</sub> ):	80MHz
RF Bandwidth (Δf):	40MHz
Input Impedance:	50Ω (Nominal)
VSWR:	< 1.5 : 1 @ 80 MHz
Access Time (τ):	11.3μs
τΔf Resolution:	450 Spots
Laser Polarization:	RH Circular (Preferred) / Linear

### PERFORMANCE vs. WAVELENGTH

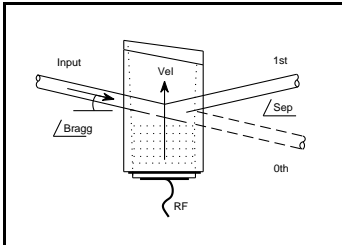
Wavelength (nm):	488	515	532	633
RF Drive Power (Watts):	<0.5	<1.0	<1.0	<1.0
Bragg Angle (mrad @ 80MHz):	31.6	33.3	34.4	41.1
Beam Separation (mrad) @ 80 MHz:	63.2	66.6	68.8	82.0
Scan Angle (Degrees):	1.8°	1.91°	1.97°	2.35°
Diffraction Efficiency (% @ 80MHz):	≥80.0	≥80.0	≥80.0	≥80.0

### OUTLINE DRAWING



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



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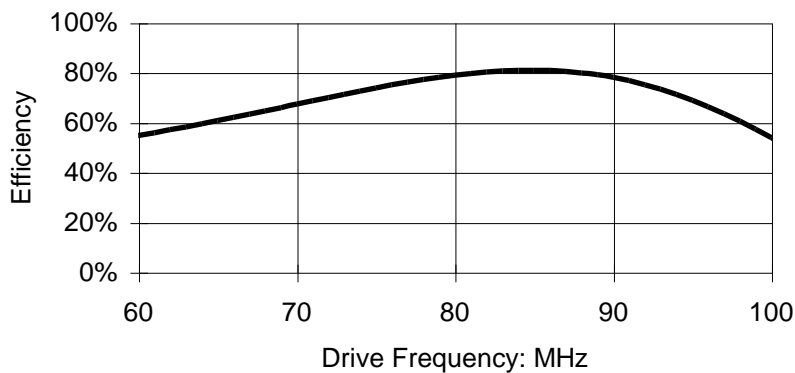
1106

### Recommended Driver

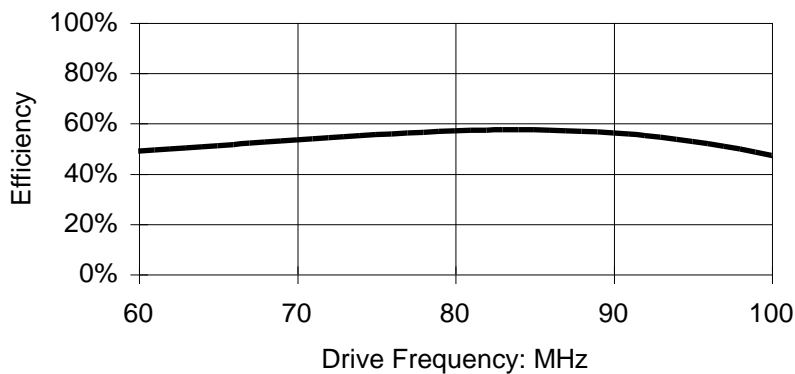
620C-80 (VARIABLE FREQUENCY & DIGITAL MOD'N)  
 630C-80 (VARIABLE FREQUENCY & ANALOG MOD'N)

### Typical First Order Diffraction Efficiency vs. Frequency Response

**R.H. Circular Polarization**  
 ( $\lambda/4$  waveplate not provided)



**Linear Polarization**



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