

# 1205C-1023

## Acousto-Optic Modulator for 1550nm

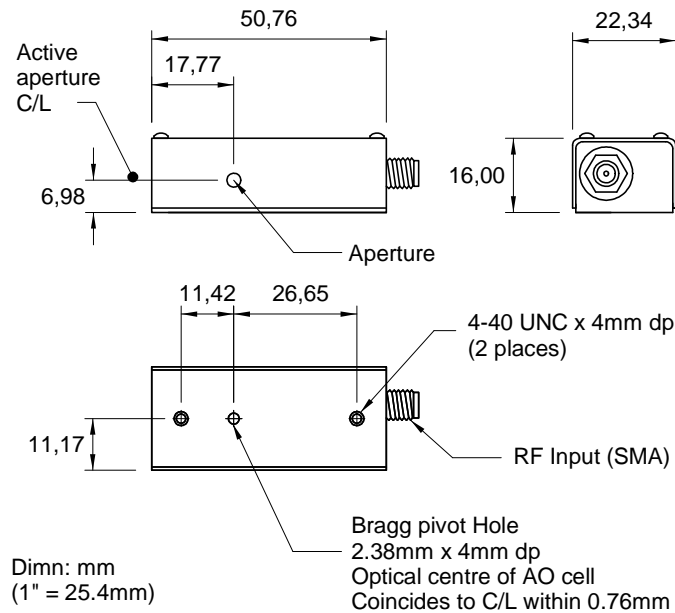


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### APPLICATION

The 1205C-1023 has been optimised for the best performance as an intensity modulator or frequency shifter in 1500nm-1600nm wavelength range.

### OUTLINE DRAWING



### RECOMMENDED DRIVERS

- 522C-L or -2 (Digital Modulation)
- 620C-80 (Variable Frequency & Digital Modulation)
- 532C-L or -2 (Analog Modulation)
- 630C-80 (Variable Frequency & Analog Modulation)

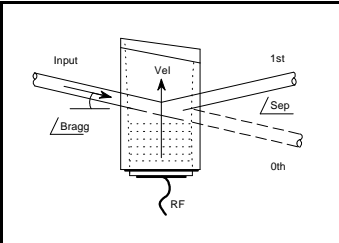
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Quality Assured.  
In-house: Crystal Growth,  
Optical Polishing,  
A/R coating, Vacuum Bonding



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### SPECIFICATIONS

Standard Operating Wavelengths:	1550nm
Interaction Medium:	Lead Molybdate (PbMoO <sub>4</sub> )
Acoustic Velocity:	3.63mm/μs
Active Aperture:	0.6mm
Centre Frequency (CF):	80MHz
RF Bandwidth:	30MHz
Input Impedance:	50Ω Nominal
VSWR:	<1.5:1 @ 80MHz
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)

### PERFORMANCE vs. WAVELENGTH

Wavelength (nm):	1550
RF Drive Power, 1205C-1:	1.8W maximum
Bragg angle (mrad):	17.1
Beam Separation (mrad):	34.2
Static Insertion Loss:	< 3% at 1550nm

### PERFORMANCE vs. BEAM DIAMETER

Beam Diameter (mm):	0.56	0.34
Rise Time (ns):	100	70
Modulation Bandwidth (MHz) @ MTF = 0.5:	3.5	5.0
Typical Deflection Efficiency (% at CF),		
1.2W drive power:	65	50
1.8W drive power:	75	65

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