

M1205-P80L-1, -2 (830-1064nm) Acousto-Optic Modulator



0419

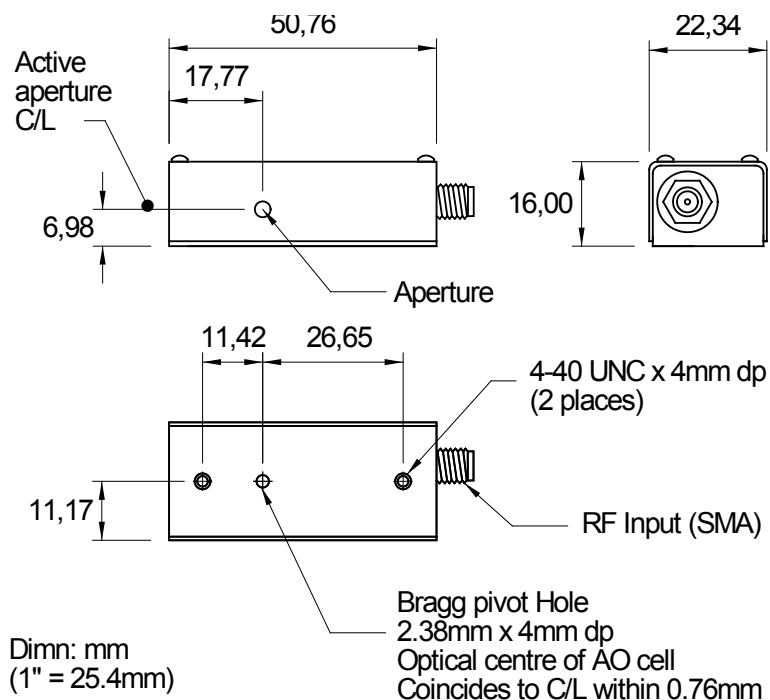
APPLICATIONS

- Modulator
- Low Resolution Deflector
- Frequency Shifter

RF DRIVERS

Digital modulation	522C-2
Analog modulation	532C-2
Dual modulation	552F-2
Tuneable with modulation	630C-80 / iSPA-SF1-w

OUTLINE DRAWING



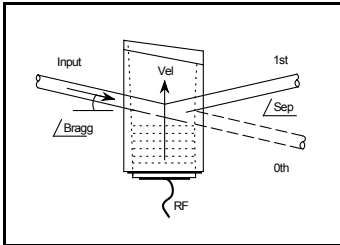
Option:

Metric fixing holes, M3-0.5 thread: add suffix -M

Mount device to heat conducting surface

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
 Tel: (703) 321 8301 Fax: (703) 321 8546
 E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

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



M1205-P80L-1, -2 (830-1064nm)

Acousto-Optic Modulator



0419

SPECIFICATIONS

A/R Operating Wavelengths: 830-1064nm
 Interaction Medium: Lead Molybdate (PbMoO₄)
 Acoustic Velocity: 3.63mm/μs

Model:	M1205-P80L-1	M1205-P80L-2
Active Aperture:	1.0mm	2.0mm
RF Bandwidth (minimum):	30MHz (+/- 15MHz)	40MHz (+/- 20MHz)
Centre Frequency (CF):	80MHz	
Input Impedance:	50Ω Nominal	
VSWR:	<1.5:1 @ 80MHz	
DC Contrast Ratio:	>1000:1 min (>2000:1 typical)	
Maximum CW or average RF drive power:	2W	

PERFORMANCE vs. WAVELENGTH

Wavelength:		850nm	975 nm	1064nm
RF Drive Power*:	M1205-P80L-1	1.3W	1.8W	2.2W
	M1205-P80L-2	2.2W	3.2W	3.8W
Bragg angle:		9.4 mrad	10.7 mrad	11.7 mrad
Beam Separation:		18.7 mrad	21.5 mrad	23.5 mrad
Static Insertion Loss:		< 3%	< 3%	< 3%

* Equals the maximum peak RF power for duty cycled operation , if the stated value exceeds 2W

PERFORMANCE vs. BEAM DIAMETER at 975nm

Beam Diameter:		0.8mm	0.4mm
Rise Time:		140ns	72ns
Modulation Bandwidth @ MTF of 0.5:		2.5 MHz	4.8 MHz
Typical CW deflection Efficiency at CF	M1205-P80L-1	>85%	>80%
RF drive power limited to 2W (CW) :	M1205-P80L-2	>70%	>67%

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
 Tel: (703) 321 8301 Fax: (703) 321 8546
 E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

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