

M1002-T110L-2

Acousto-Optic Modulator



0421

The Model M1002-T110L is designed primarily for use in applications requiring very high output good beam quality and high beam pointing stability e.g. holographic mastering.

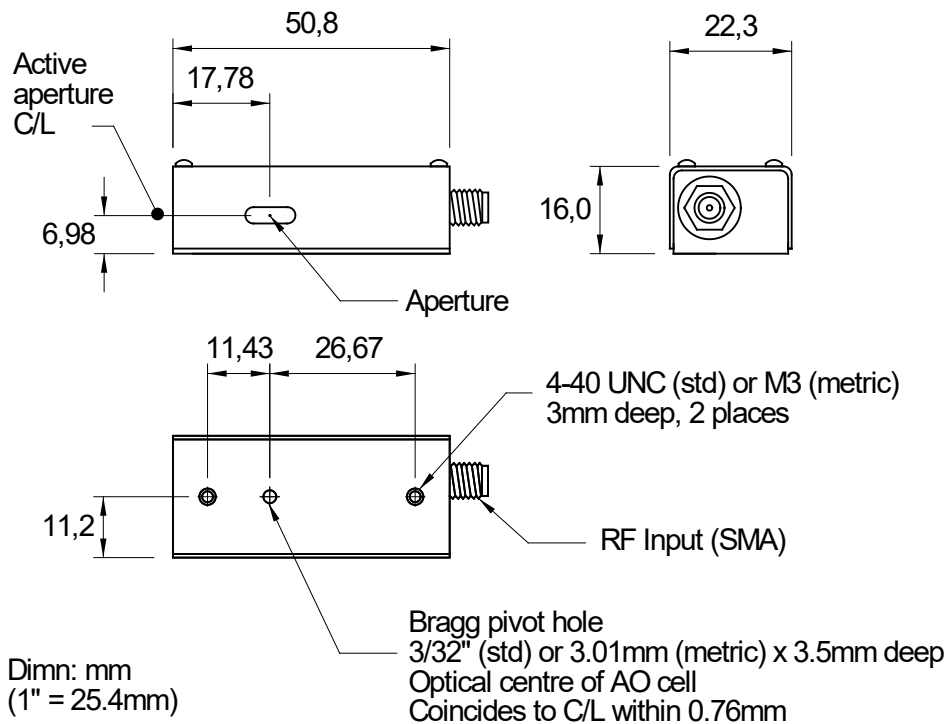
APPLICATIONS

- Intensity Modulator
- Moderate Resolution Deflector
- Frequency Shifter

RF Drive Electronics

Digital modulation	523C-L / -2, 823C-L
Analog modulation	533C-L / -2, 833C-L
Dual modulation	553F-L / -2
Tuneable with modulation	630C-110, iSPA-SF1-w

OUTLINE DRAWING

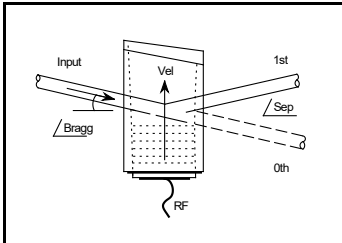


Option -M, metric mounting threads, M3

Note: Mount device to heat conducting surface

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
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Quality Assured.
 In-house: Crystal Growth,
 Optical Polishing,
 A/R coating, Vacuum Bonding



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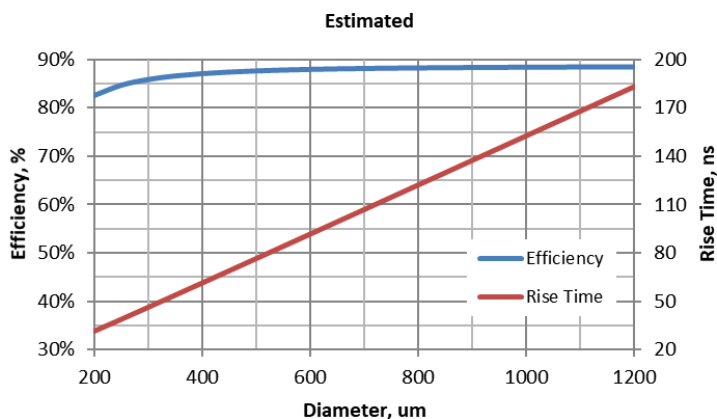
SPECIFICATIONS

Interaction Material:	TeO ₂ (Longitudinal Mode)
Standard Operating Wavelengths:	360-420nm, 442-488nm, 488-650nm
Polarization:	Vertical preferred
Acoustic Velocity:	4200 m/s
Active Aperture:	2mmH x 7mmW
Centre Frequency:	110 MHz
RF Bandwidth, dF:	50 MHz
Input Impedance:	50 ohms (Nominal)
VSWR:	< 1.5:1 @ 110 MHz
DC. Contrast Ratio:	> 1000:1 min (2000:1 typical)

PERFORMANCE vs. WAVELENGTH

Wavelength:	360nm	405nm	442nm	532nm
Static Insertion Loss:	<7.0%	<5.0%	<3.0%	<3.0%
RF Power (typ'):	0.35W	0.4W	0.5W	0.75W
Bragg Angle @ 110MHz:	4.7mrad	5.3mrad	5.8mrad	7.0mrad
Separation Angle @ 110 MHz:	9.4mrad	10.6mrad	11.6mrad	13.9mrad
Scan Angle, dF = 50 MHz:	4.3mrad	4.8mrad	5.3mrad	6.3mrad

PERFORMANCE vs. BEAM DIAMETER at 488nm



DEFLECTOR PERFORMANCE

Beam width	2mm	(7mm)
Resolvable spots*	24	80

* >1000 non-resolvable points (driver dependent)

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