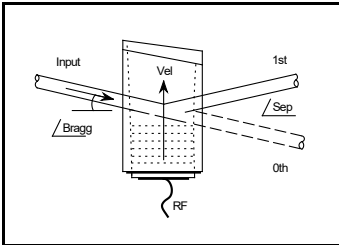


D110-T70S-6

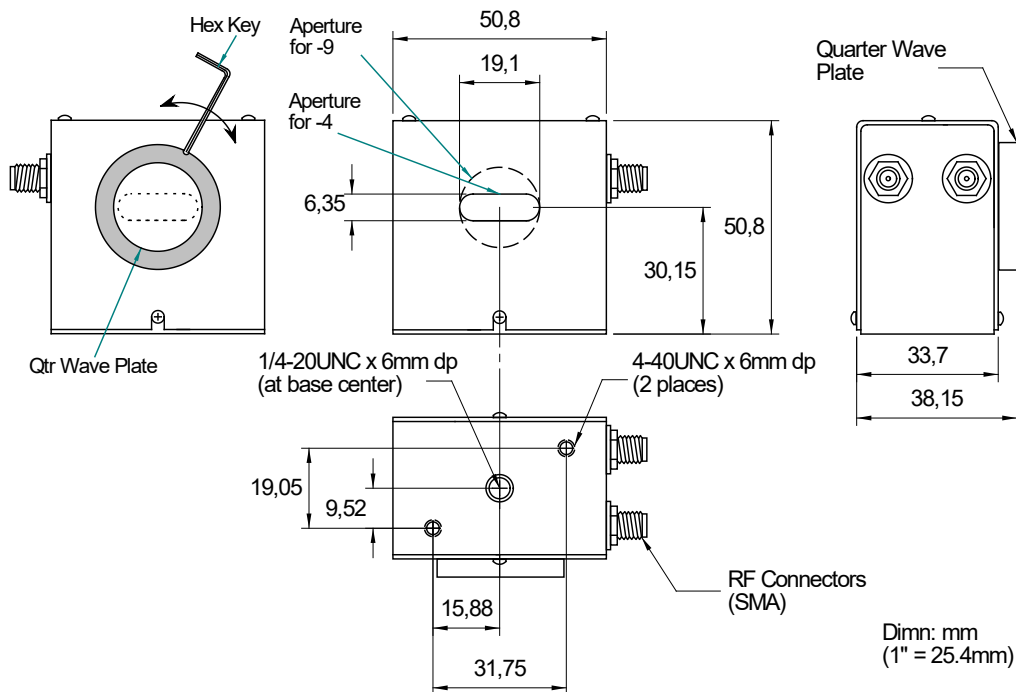
Acousto-Optic Deflector

1 μ m



The D110-T70S provides high speed laser beam scanning. This model is optimized for a specific operating wavelength at 1 μ m. The D110-T70S may be operated in raster (linear), random access and vector scanning modes from the same RF drive electronics. The Isomet deflector-driver combination is designed to maintain the Bragg relationship over the specified RF frequency bandwidth. This results in a uniform diffracted beam intensity across the full scan angle.

OUTLINE DRAWING



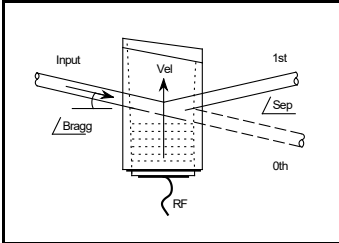
(Formerly model LS110-)
 'Aperture for -9' cover dimensions apply to this model

RF DRIVE ELECTRONICS

- 1 off iMS4-L (or -P) quad output synthesizer
- plus -
- 2 off AF0-80T-1-2 amplifiers

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



D110-T70S-6

Acousto-Optic Deflector

1um



4421

SPECIFICATIONS

D110-	-T70S-6		
Wavelength (specify)**	1064nm		
Centre Freq. (nominal)	70MHz		
RF Bandwidth, Δf	35MHz		
Scan Angle/Axis	3.5°		
Separation Angle	6.9°		
Total RF driver power	MAX average or CW drive power limit = 3W		
D110-T70S-6	Peak pulse drive power 5.2W Average / CW limit 3.0W		
Aperture	<u>Active Aperture:</u>	<u>Access Time:</u>	
D110-T70S-6	6.2mm(H) x 6.2mm(W)	10 μs	
Resolution, N*	N = maximum number of <u>resolvable</u> spots (angles), beam width dependent		
D110-T70S-6	N=350, 6.2mm beam		

Input Laser Polarization:	Linear. (Quarter wave plate included)
Output Laser Polarization:	Circular (Nominal)
Interaction Material:	TeO ₂ (Slow Shear)
Acoustic Velocity:	0.617mm/μs
RF Input Impedance:	50Ω Nominal
CW Diffraction Efficiency:	50% across scan (>55% typical)
Peak Diffraction Efficiency:	65% across scan (>70% typical), duty cycled operation
Insertion loss:	< 5%
Optical power:	10W CW, full aperture

* Theoretical Rayleigh resolution for a uniformly illuminated aperture.
Incremental / non-resolvable spots defined by the drive frequency resolution.

** Please specify with order. Call for other operating wavelengths.
See model D110-T100S for >488nm.
See model D110-T120S for <488nm.

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