

D110-T120S-4

Acousto-Optic Deflector

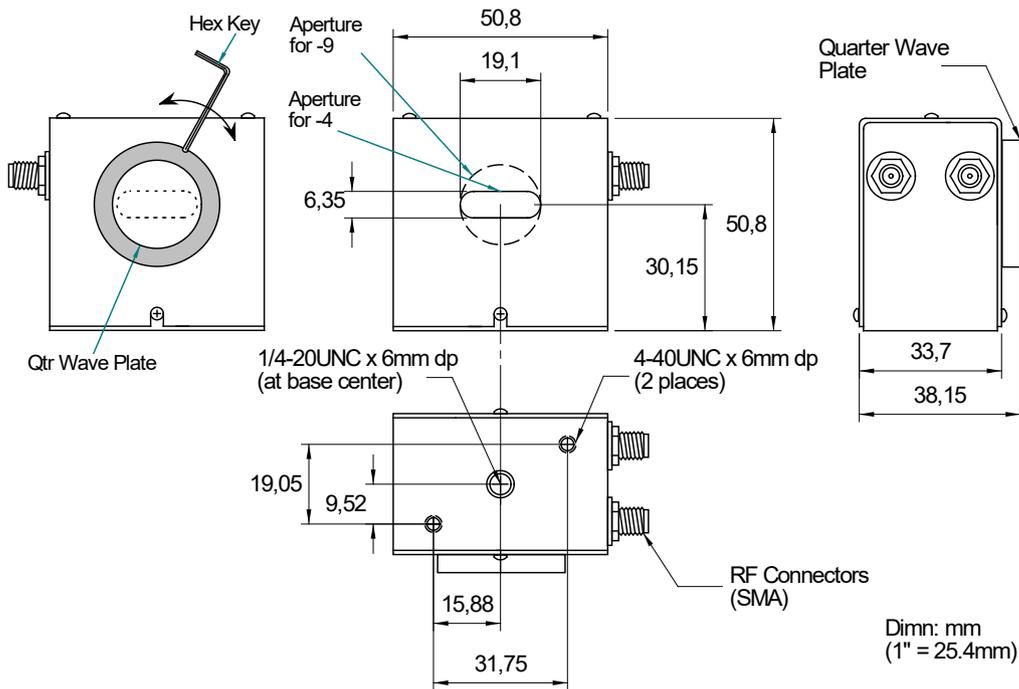
Blue wavelengths



4421

The D110-T120S provides high speed laser beam scanning and each model is optimized for a specific operating wavelengths in the deeper blue spectrum. The D110-T120S 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



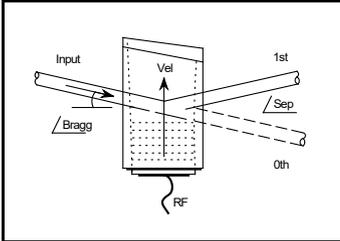
(Formerly model LS110-)

RF DRIVE ELECTRONICS

- 1 off iMS4-L (or -P) quad output synthesizer
- plus -
- 2 off AG0-120T-1-1 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
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Quality Assured.
 In-house: Crystal Growth,
 Optical Polishing,
 A/R coating, Vacuum Bonding



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SPECIFICATIONS

	D110-	-T120S-4	T120S-4	T120S-4
Wavelength (specify)**:		442nm	457nm	476nm
Centre Freq. (nominal)		120MHz	120MHz	120MHz
RF Bandwidth Δf:		50MHz	50MHz	50MHz
Scan Angle:		2.0°	2.1°	2.2°
Separation Angle :		4.9°	5.1°	5.3°
Total RF driver power:	MAX average or CW drive power limit = 3W			
	D110-T120S-4	0.7W	0.8W	0.9W
Aperture***:		<u>Active Aperture:</u>		<u>Access Time:</u>
	D110-T120S-4	4mm(H) x 14mm(W)		22.7μs
Resolution N*:	N = maximum number of <u>resolvable</u> spots (angles), beam width dependent			
	D110-T120S-4	N=1100, 14mm width 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
Insertion loss:	< 5%
Diffraction Efficiency:	70% across scan (>75% typical)
Optical power:	10W CW, full aperture

* Theoretical Rayleigh resolution with a uniformly illuminated aperture.
Incremental / non-resolvable spots are limited by the drive frequency resolution.

** Please specify with order. Call for other operating wavelengths.
See model D110-T100S for >488nm.
See model D110-T50S / T70S for NIR.

*** See model D110-T120S-9, for increased aperture height (9mm) but reduced max' resolution, N=750

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