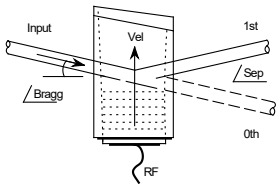


D110-T100S-9

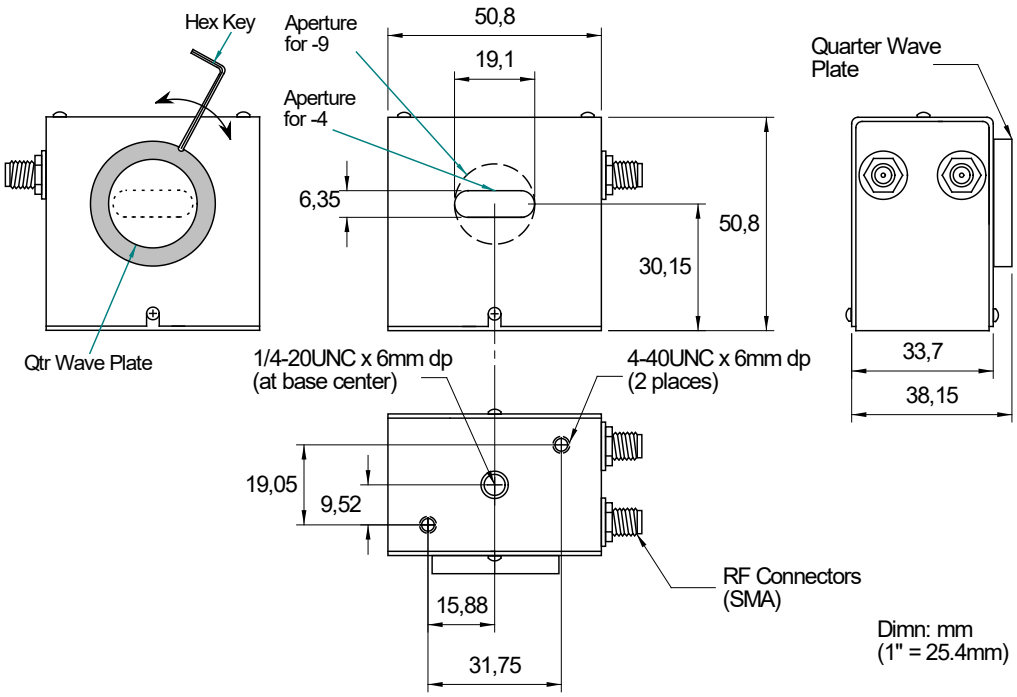
Acousto-Optic Deflector

Visible wavelengths

4421

The D110-T100S provides high speed laser beam scanning and each model is optimized for a specific operating wavelength in the visible spectrum. The D110-T100S 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



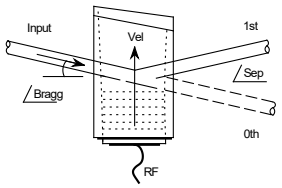
(Formerly model LS110-)

RF DRIVE ELECTRONICS

1 off iMS4-L (or –P) quad output synthesizer
- plus -
2 off AG0-100T-1-1 amplifiers

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
ISOMET CORP, 10342 Battleview 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-T100S-9

Acousto-Optic Deflector

Visible wavelengths

4421

SPECIFICATIONS

D110-	**T100S-9**	**T100S- 9**	**T100S-9**	**T100S-9**
Wavelength (specify)**:	**488nm**	**515nm**	**532nm**	**633nm**
Centre Freq. (nominal)	100MHz	100MHz	100MHz	100MHz
RF Bandwidth Δf:	50MHz	50MHz	50MHz	50MHz
Scan Angle:	2.3º	2.4º	2.5º	2.9º
Separation Angle :	4.5º	4.8º	4.9º	5.9º
Total RF driver power:	**MAX average or CW drive power limit = 3W**			
D110-T100S-**9**	1.9W	2.0W	2.0W	2.7W
Aperture:	Active Aperture:		Access Time:	
D110-T100S-**9**	9.3mm(H) x 9.3mm(W)		15 μs	
Resolution N*:	N = maximum number of resolvable spots (angles), beam width dependent			
D110-T100S-**9**	N=750, 9.3mm diameter 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 for a uniformly illuminated aperture.
Incremental / non-resolvable spots are limited by the drive frequency resolution.
See model D110-T100S-4, with 4mmH x 14mmW aperture and increased max' resolution, N=1100

** Please specify with order. Call for other operating wavelengths.
See models D110-T120S for <488nm.
See models D110-T50S / T70S for NIR.

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