

M1418-aQ150L-1

Acousto-Optic Low GVD Modulator

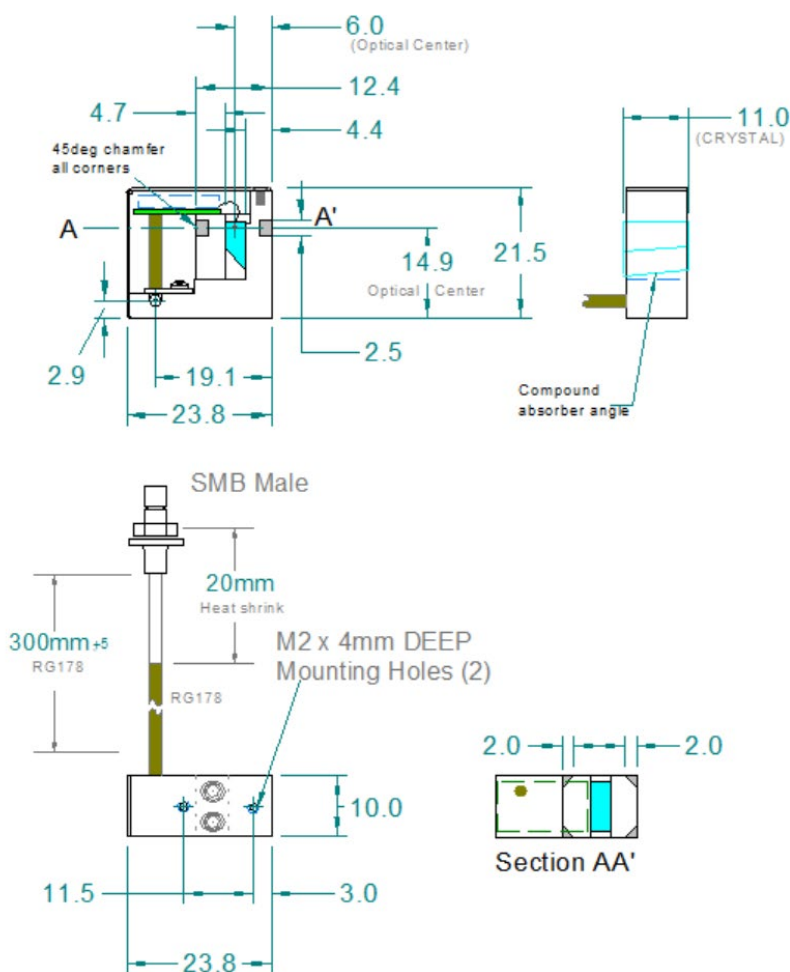


0125

APPLICATIONS

- Compact Modulator
- Frequency Shifter

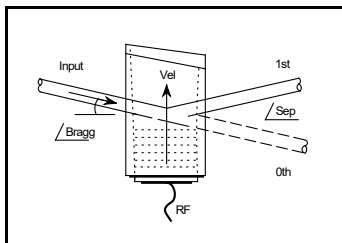
OUTLINE DRAWING



Note: 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



M1418-aQ150L-1

Acousto-Optic Low GVD Modulator



0125

SPECIFICATIONS

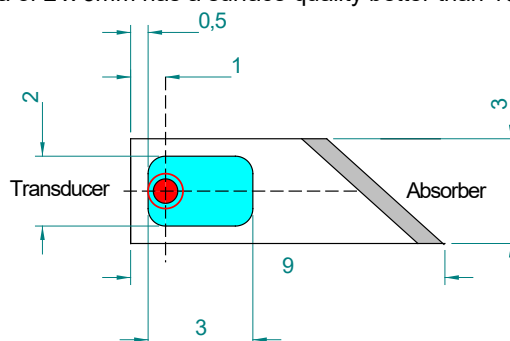
A/R Operating Wavelengths:	470-800nm
Interaction Medium:	Quartz, 11mm optical path length
Input polarization:	Vertical
Acoustic Velocity:	5.7mm/ μ s
Active Aperture:	1.0mm
Clear Aperture **:	3.0mm
Static Insertion Loss	<3% at 633nm, 1.5% typical
Reflectivity/Surface:	< 1.0%

Centre Frequency (CF):	150MHz
RF Bandwidth (minimum):	10MHz (+/- 5MHz)
Input Impedance:	50 Ω nominal
VSWR:	<1.2:1 @ 150MHz, typical 1.13:1
DC Contrast Ratio:	>1000:1 min, typical >2000:1

RF DRIVERS

Digital / Analog modulation, >50dB On:Off 554F-4

* Of which an area of 2 x 3mm has a surface quality better than 10-5 Scratch/Dig



Red dot indicates the input beam at the minimum recommended distance of 1mm from the transducer

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

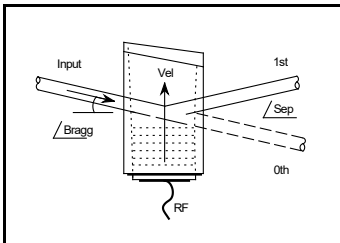
ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.

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



M1418-aQ150L-1

Acousto-Optic Low GVD Modulator



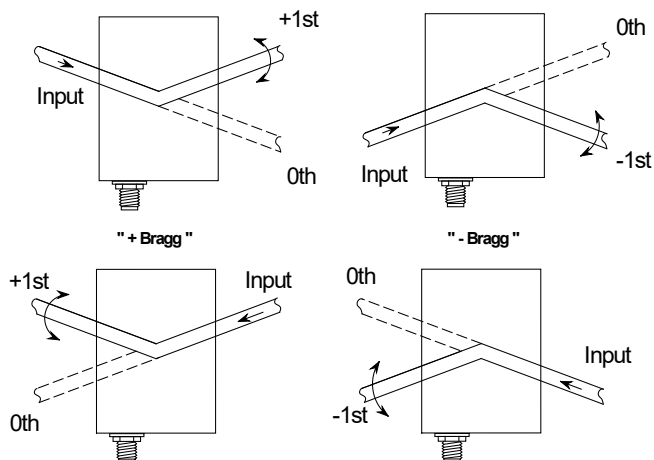
0125

PERFORMANCE vs. WAVELENGTH

AR Wavelength:	500nm	633nm	800nm
Peak RF drive power	12W	19W	31W
Max CW drive Power:	2W	2W	2W
Peak efficiency (duty cycle for <2W avg')	90%	90%	90%
Typical CW efficiency for 2W drive	30%	20%	12%
Bragg angle:	6.6mrad	8.3mrad	10.5mrad
Beam Separation:	13.2mrad	16.7mrad	21mrad

PERFORMANCE vs. BEAM DIAMETER at 633nm, V-pol

Beam Diameter:	0.7mm	0.5mm
Rise Time:	107ns	77ns
Modulation Bandwidth @ MTF of 0.5:	3 MHz	4.5 MHz



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