

# OAD1444-XY-T60S-9

## Dual Axis AO Deflector

Off-Axis



0423

The OAD1444-XY offers high throughput efficiency over a wide scan angle in the NIR wavelength range. This dual axis deflector consists of two AO deflector crystals mounted orthogonally in one assembly, each with independent angle adjustment. There is no requirement for input or intervening optics between the crystals.

### SPECIFICATIONS

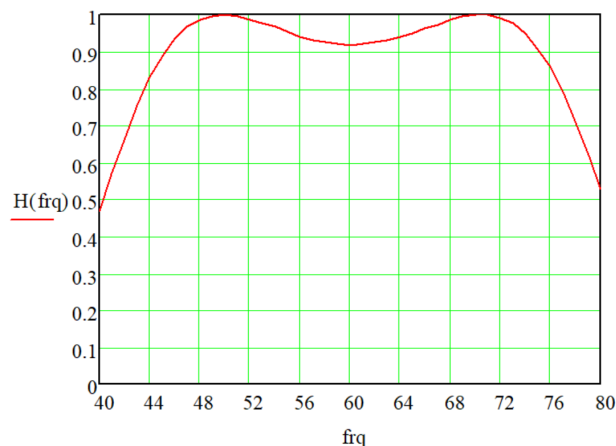
A/R Wavelength:	900-1100nm
Optimum operation range:	1064nm
Interaction Material:	TeO <sub>2</sub> (off-axis shear)
Acoustic Velocity:	691m/s
Center Frequency (f <sub>c</sub> ):	60MHz nominal (wavelength dependent)
RF Bandwidth:	40MHz
Diffraction Bandwidth (to -0.5dB points):	>25MHz, 30MHz typical
Scan Angle/Axis (1064nm, 30MHz):	2.6°
Separation Angle (1064nm, 60MHz):	5.2°

Input polarization (required):	Linear, horizontal w.r.t. base
Output polarization:	Linear, horizontal w.r.t. base
Active Aperture:	9mm x 9mm
Max RF Power:	4.0W/axis (nominal)
Input impedance:	50 ohm

Access Time (9mm beam):	13.2usec
Resolution (9mm beam)	395 x 395 <u>resolvable</u> spots
(Non-resolvable spots limited by RF driver frequency resolution)	

Efficiency across scan	80% (typ'), >60% per axis
Throughput efficiency	>35% total

### Relative Diffraction Response vs Frequency (per axis)



(+/- 5MHz for best scan)

#### ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

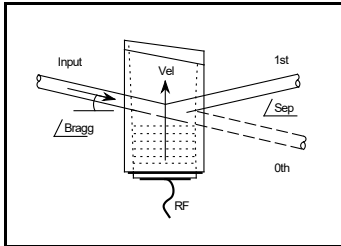
ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

#### Quality Assured.

In-house: Crystal Growth,  
Optical Polishing,  
A/R coating, Vacuum Bonding



# OAD1444-XY-T60S-9

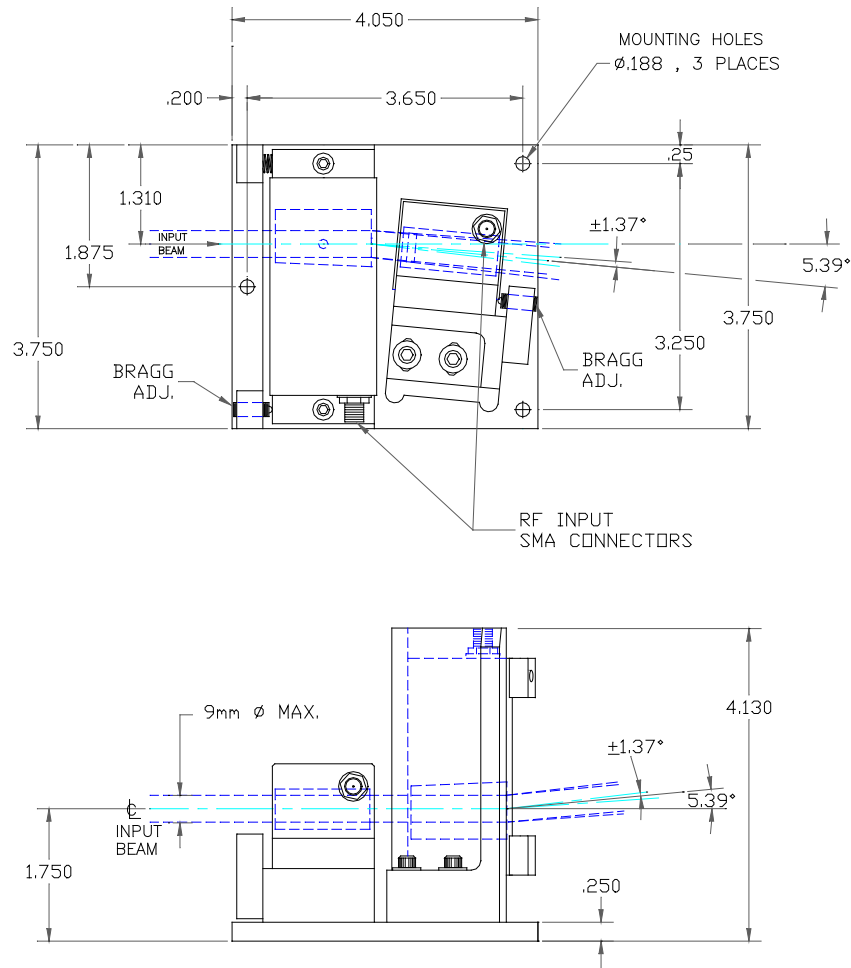


## Dual Axis AO Deflector

Off-Axis

0423

### OUTLINE DRAWING



(Angles for guidance only. Values depend on model variant, wavelength and centre frequency used)

### Recommended Drive Electronics

iMS4 Frequency Synthesizer plus 2x AF0-60T-4 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](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**

**In-house: Crystal Growth,**

**Optical Polishing,**

**A/R coating, Vacuum Bonding**