

# OAD1343-XY-75

## Dual Axis AO Deflector

Off-Axis



0915

The OAD1343-XY offers high throughput efficiency over a wide scan angle in the NIR wavelength range. This dual axis deflector consists of two AO crystals mounted orthogonally in one assembly, each with independent angle adjustment. There is no requirement for input or intervening optics between the crystals.

### SPECIFICATIONS

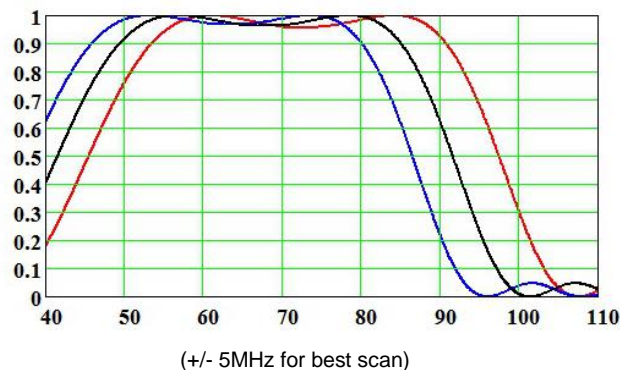
A/R wavelength:	700-900nm
Optimum operating range:	730-820nm
Interaction Material:	TeO <sub>2</sub> (off-axis shear)
Acoustic Velocity:	667m/s
Center Frequency (f <sub>c</sub> ):	60 -75MHz (wavelength dependent)
RF Bandwidth:	45MHz
Diffraction Bandwidth (to -0.5dB points):	>25MHz, 30MHz typical
Scan Angle/Axis (780nm, 30MHz):	2.0°
Separation Angle (780nm, 75MHz):	5.0°

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:	2.5W/axis (nominal)
Input impedance:	50 ohm

Access Time (9mm beam):	13.5usec
Resolution (9mm beam)	400 x 400 resolvable 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)



820 ———  
 780 ———  
 730 ———

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

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**Quality Assured.**

**In-house: Crystal Growth,**

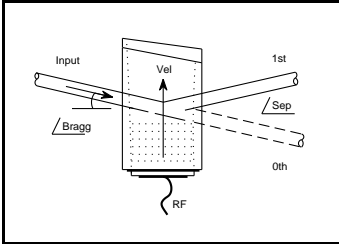
**Optical Polishing,**

**A/R coating, Vacuum Bonding**

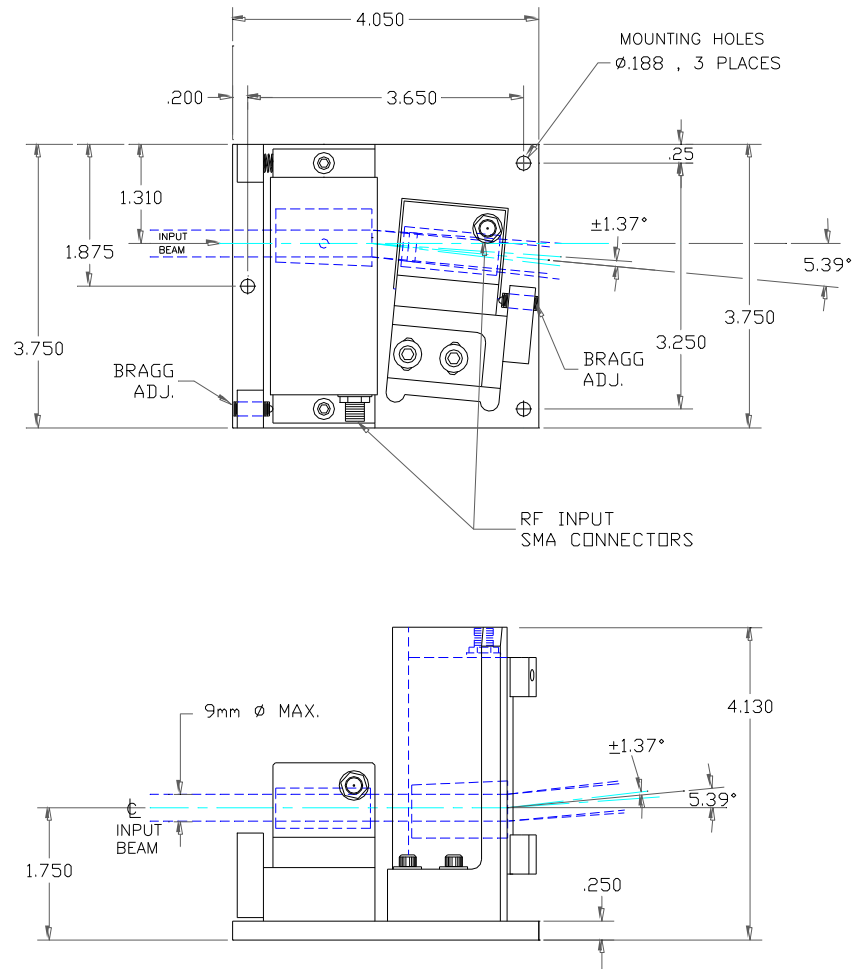
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### OUTLINE DRAWING



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

### Recommended Drive Electronics

1 x iMS4 Frequency Synthesizer and 2 x 502C-3 Amplifier  
or  
2 x 620C/630A-80 Variable Frequency Driver

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