

**PRELIMINARY DATA**

# ODXY1441-T95S-3

## Acousto-Optic Deflector

Off-Axis



5022

The ODXY1441 dual axis deflector offers high diffraction efficiency over a wide scan angle at 532nm. Specific input beam polarization and orientation are required for correct operation. The crystal faces are polished to provide nominal colinear operation (Centre of XY scan colinear with input beam path).

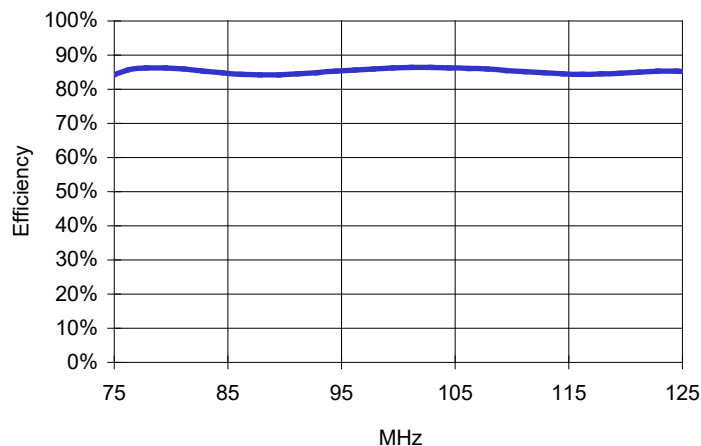
### SPECIFICATIONS

Operating Wavelength:	532nm
Interaction Material:	TeO <sub>2</sub> (Off-Axis Mode)
Active Aperture:	3.5mm H x 3.5mm L
Centre Frequency (f <sub>c</sub> ):	100MHz (+/- 10% for best efficiency across Δf.)
RF Bandwidth (Δf):	50MHz
Input Impedance:	50Ω (Nominal)
VSWR:	< 2.5 : 1 across Δf
Access Time (τ):	5.3μs
τΔf Resolution:	> 256 x 256 resolvable Spots
Input Laser Polarization:	Linear, Vertical

### PERFORMANCE

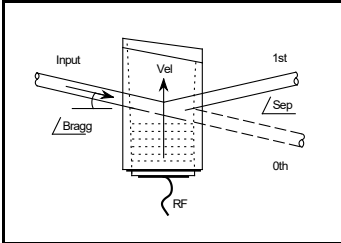
Wavelength:	532nm
RF Drive Power:	<0.6W per axis
Bragg Angle @ 100MHz:	5.3° (Nominal)
Beam Separation @ 100 MHz:	4.6°
Scan Angle:	2.3° x 2.3°
Diffraction Efficiency, X-Y:	≥ 60%

### TYPICAL DIFFRACTION EFFICIENCY RESPONSE PER AXIS



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



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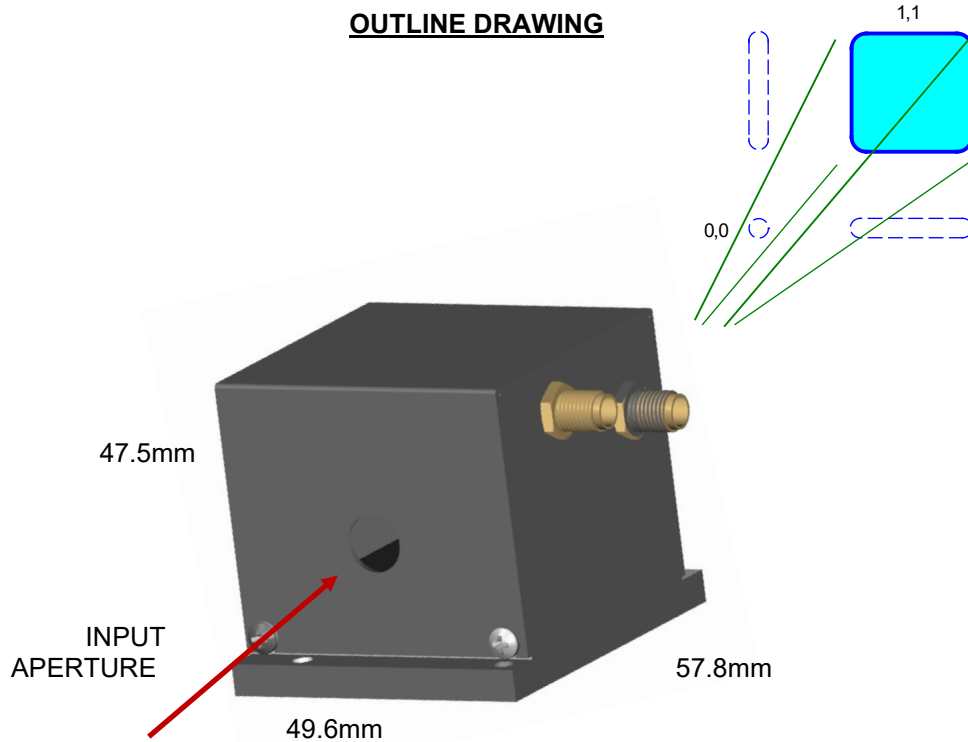
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### OUTLINE DRAWING



Input to Y-axis then X-axis  
Input beam axis 23mm above mounting surface

### RECOMMENDED DRIVERS

iMS4-L (-P) synthesizer plus AG0-100T-1 amplifiers (x2)

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