

## Crystals Series

### YVO<sub>4</sub> Beam Displacer

The yttrium orthovanadate (YVO<sub>4</sub>) is a positive uniaxial crystal grown with Czochralski method. It has good temperature stability and physical and mechanical properties and is ideal for optical polarizing components because of its wide transparency range and large birefringence.

**Specifications:**

Dimension Tolerance:  $\pm 0.05x \pm 0.05x + 0.0/-0.1$ mm

Optical Axis Orientation:  $\pm 0.5^\circ$

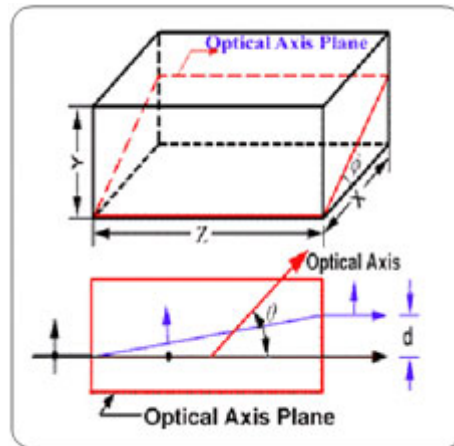
Parallelism: <15 arc sec

Perpendicularity: <10 arc min

Flatness:  $1/4 @ 632.8$  nm

Surface Quality: 10/5

AR-coating:  $R < 0.2\% @ 1550$  nm  $\pm 30$ nm



P/N	Crystal	Size	$\theta$	$\Phi$	d	AR@
BRD3070	YVO <sub>4</sub>	2.6x2.6x7mm	45°	0°	0.70mm	1550nm
BRD3100	YVO <sub>4</sub>	2.6x2.6x10mm	45°	0°	1.00mm	1550nm
BRD3120	YVO <sub>4</sub>	2.6x2.6x12mm	45°	0°	1.20mm	1550nm
BRD3150	YVO <sub>4</sub>	2.6x2.6x15mm	45°	0°	1.50mm	1550nm
BRD3075	YVO <sub>4</sub>	2.6x2.6x7mm	45°	45°	0.70mm	1550nm
BRD3105	YVO <sub>4</sub>	2.6x2.6x10mm	45°	45°	1.00mm	1550nm
BRD3125	YVO <sub>4</sub>	2.6x2.6x12mm	45°	45°	1.20mm	1550nm
BRD3155	YVO <sub>4</sub>	2.6x2.6x15mm	45°	45°	1.50mm	1550nm

### YVO<sub>4</sub> Wedge

**Specification:**

Aperture : 1.0x1.0mm<sup>2</sup> to 2x2mm<sup>2</sup>

Dimension Tolerance :  $\pm 0.05$ mm

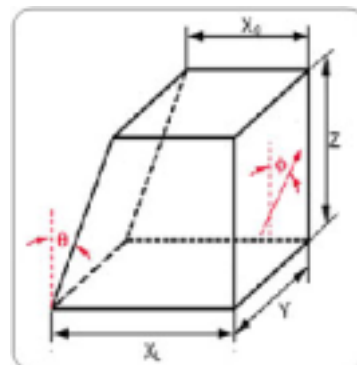
Wedge Angle Tolerance :  $\pm 15\%$

Optical Axis Orientation :  $\pm 0.5^\circ$

Flatness :  $1/4 @ 632.8$  nm

Surface Quality : 10/5

AR-Coating :  $R < 0.2\% @ \lambda \pm 30$ nm,  $\lambda$  is the center of the wavelength



P/N	Crystal	X	Y	Z	$\theta$	$\Phi$	AR@
BRW3055	YVO <sub>4</sub>	X <sub>L</sub> =0.5mm	1.4mm	1.4mm	5°	22.5°	1550nm
BRW3095	YVO <sub>4</sub>	X <sub>L</sub> =0.5mm	1.4mm	1.4mm	9°	22.5°	1550nm
BRW3053	YVO <sub>4</sub>	X <sub>L</sub> =0.5mm	1.4mm	1.4mm	5°	22.5°	1310nm
BRW3093	YVO <sub>4</sub>	X <sub>L</sub> =0.5mm	1.4mm	1.4mm	9°	22.5°	1310nm

### LiNbO<sub>3</sub> Wedge

LiNbO<sub>3</sub> crystal is one of the most important crystals that is used in many different kinds of applications and is also a birefringence crystal. Although its birefringence is much smaller than YVO<sub>4</sub>, it is still widely used in fiber optic isolators now because its lower price. UltiQuest crystal provide wedges and compensators made from optical grade LiNbO<sub>3</sub> material.

#### Specifications:

Aperture : 1.0x1.0mm<sup>2</sup> to 2x2mm<sup>2</sup>

Dimension Tolerance :  $\pm 0.05$ mm

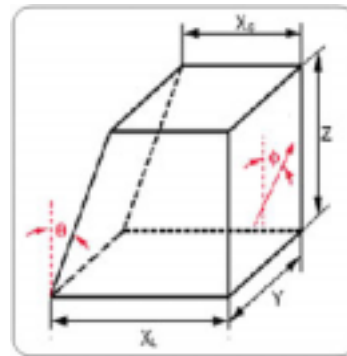
Wedge Angle Tolerance :  $\pm 15\%$

Optical Axis Orientation :  $\pm 0.5^\circ$

Flatness :  $\lambda/4$  @ 632.8 nm

Surface Quality : 10/5

AR-Coating : R<0.2% @  $\lambda \pm 30$ nm,  $\lambda$  is the center of the wavelength



P/N	Crystal	X <sub>L</sub>	Y	Z	$\theta$	$\Phi$	AR@
BRW2135	LiNbO <sub>3</sub>	0.5mm	1.25mm	1.25mm	13°	22.5°	1550nm
BRW2155	LiNbO <sub>3</sub>	0.5mm	1.25mm	1.25mm	15°	22.5°	1550nm
BRW2133	LiNbO <sub>3</sub>	0.5mm	1.25mm	1.25mm	13°	22.5°	1310nm
BRW2153	LiNbO <sub>3</sub>	0.5mm	1.25mm	1.25mm	15°	22.5°	1310nm