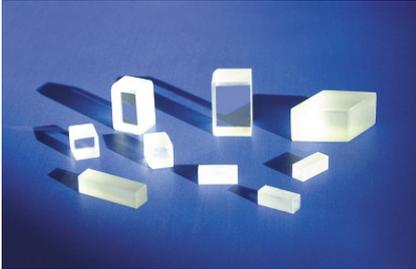




# DKDP&KDP



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## DKDP

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### Details:

Potassium Dihydrogen Phosphate (KDP) and Potassium Dideuterium Phosphate (KD\*P ) are among the most widely-used commercial NLO materials. They are commonly used for doubling, tripling and quadrupling of Nd:YAG laser at the room temperature. In addition, they are also excellent electro-optic A-STARwith high electro-optic coefficients, widely used as electro-optical modulators, Q-switches, and Pockels Cells, etc.

- Good UV transmission
- High optical damage threshold
- High birefringence High nonlinear coefficients

### Application:

- Second, third, and fourth harmonic generation of Nd:lasers.
- Frequency doubling of dyer laser
- High power laser frequency conversion materials
- Shutter for high speed photography
- Electro-optical modulator and Q switches

KD*P Single A-STAR— Standard			
Designation	Operation	Input	Output
53.7°	SHG (II)	1064 nm	532 nm
59.5°	THG (II)	1064 nm + 532 nm	355 nm
86°	FHG (I) angle tune	532 nm	266nm
90°	FHG (I) temp. tune	532 nm	266 nm

<b>KD*P Specifications</b>	
Wavefront distortion:	less than $1/8 @ 633\text{nm}$
Dimension tolerance:	$(W \pm 0.1\text{mm}) \times (H \pm 0.1\text{mm}) \times (L + 0.2\text{mm}/-0.1\text{mm})$
Clear aperture:	> 90% central area
Flatness:	$1/8 @ 633\text{nm}$
Scratch/Dig code:	10/5 to MIL-O-13830A
Parallelism:	better than 20 arc seconds
Perpendicularity:	5 arc minutes
Angle tolerance:	$Dq < \pm 0.3^\circ$ , $Df < \pm 0.3^\circ$
Quality Warranty Period:	one year under proper use

**Note:**

1. KDP, KD\*P&LiIO<sub>3</sub> is highly hygroscopic and the coating can not be available. Please keep it in a dry environment, and sealed housing is recommended.

2.KD\*P & KDP are among the most widely-used commercial NLO materials, characterized by good UV transmission, high damage threshold, and high birefringence, though their NLO coefficients are relatively low.Because their polished surfaces are easy subject to moisture, the user recommends a dry condition (<50%) and the sealed housing for preservation.

Note: The LiIO<sub>3</sub> A-STARis available too.

Contact Info

🏠 Bldg.24#, Jinshan Juyuanzhou Industrial Park,Cangshan  
Dist.,Fuzhou,China,350002

☎ +86-591-88194625

☎ +86-18650050680

☎ +86-591-88194635

✉ [sales@astarphotonics.com](mailto:sales@astarphotonics.com)