

# **KTP OPO** Crystals

KTP OPO (Optical Parametric Oscillator) is the most efficient material for converting 1064 nm wavelength laser to 1572 nm ("eye safe") and other wavelengths.

## Advantages

- Aperture up to 40x40 mm<sup>2</sup>
- Length up to 40 mm
- Available in Regular, Monolithic (Single and Double pass with Mirror coating), Plano-Plano and Confocal OPO configurations
- NCPM for eye-safe signal (1572 nm) No Walk-Off
- Efficiency of Monolithic OPO is 20-30% higher than a typical OPO
- Divergence of Laser with Confocal OPO is lower than Plano-Plano OPO
- Walk-Off Compensating design (WOC) available at 2.1μm

# **Common Applications**

- Laser Range Finders (LRF)
- Laser designators
- LIDAR, space and other civil applications

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#### Typical Specifications for OPO 1064 to 1570 nm

Aperture	Up to 40x40 mm <sup>2</sup>
Orientation	$\Theta = 90^{\circ}$ $\Psi = 0^{\circ}$
Absorption coefficient	α < 50 ppm cm <sup>-1</sup> at 1064 nm
Length	Up to 40 mm along X axis
Flatness	λ/10 @633nm
Optical wedge (polarization along Y axis)	10 arc sec.
Perpendicularity	10 arc min.
scratch/dig	10/5
AR coatings	dual band R < 0.2 %
Wave front distortion control	λ/4@633 nm
Guaranteed damage threshold	600 MW/cm <sup>2</sup> (with coating) at 1064 nm, for 10 ns pulses

Raicol Crystals, founded in 1995, is a global leader in nonlinear and EO crystal growth, fabrication, and assembly. Raicol offers a unique set of benefits to its customers:

- 50 years of experience in crystal growth
- Global pioneers of RTP, HGTR KTP, and PPKTP crystal growth and assembly
- A one-stop-shop, from crystal growth through to coating and EO cell assembly
- Mass production and small R&D volume capabilities
- Fast delivery times
- Unmatched crystal quality