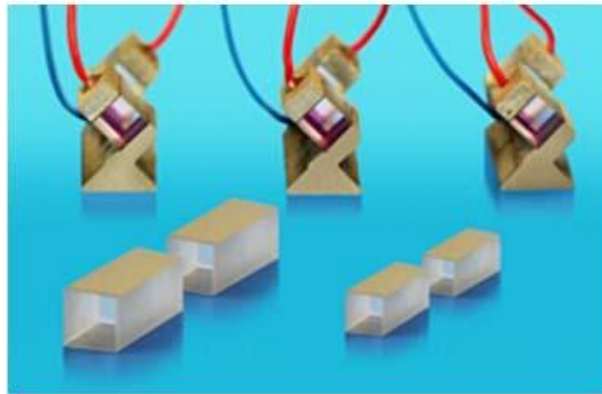


HGTR-KTP crystals for EO applications

Gray track damage is a serious damage to which conventional flux-grown KTP crystal is susceptible, the hydrothermal-grown KTP has high damage threshold and high ability to anti gray track (damage threshold: $\geq 2\text{GW}/\text{cm}^2$ (@1064nm, TEM00, 10ns, 10Hz)), and furthermore it has a high resistivity, which makes it suitable for making electro-optic devices with excellent properties. Hangzhou Shalom EO provides a variety of HGTR KTP crystals used in the pockels cells.



SPECIFICATIONS

Specifications of HGTR-KTP crystals	
Materials	HGTR-KTP crystals
Dimension tolerance	$(W\pm 0.1\text{mm})\times(H\pm 0.1\text{mm})\times(L+0.5/-0.1\text{mm})$
Size range	Aperture: $\sim 10\times 10\text{mm}$; Length: $\sim 15\text{mm}$
Clear aperture	central 90% or the diameter
Scattering of crystals	No visible scattering paths or centers when inspected by a 50mW green Laser
Flatness	less than $\lambda/8$ @ 633nm
Transmitting wavefront distortion	less than $\lambda/8$ @ 633nm
Chamfer	$\leq 0.2\text{mm}\times 45^\circ$
Chip	$\leq 0.1\text{mm}$
Surface Quality	better than 10/5 S/D (MIL-PRF-13830B)
Parallelism	≤ 20 arc seconds
Perpendicularity	≤ 5 arc minutes
Angle tolerance	$\leq 0.25^\circ$
Coating	AR/AR@1064nm on both end surfaces
Quality Warranty Period	one year under proper use

Modules or types

Specifications of standard HGTR-KTP EO crystals	
Materials	HGTR-KTP crystals
Aperture range	From 2x2mm to 10x10mm
Coating	AR/AR; R<0.2%@1064nm
Damage Threshold	>600MW/cm ² @1064nm, 10nS
Wavefront distortion@1064nm	<Lambda/8
Transmission	>98.5%
Extinction ratio	>20dB

1) HGTR-KTP crystals modules with X-cut

Modules	Descriptions
SHKTP-EO310X	Pair of 3x3x10mm; 1/4 wave voltage=1200V
SHKTP-EO410X	Pair of 4x4x10mm; 1/4 wave voltage=1600V
SHKTP-EO510X	Pair of 5x5x10mm; 1/4 wave voltage=2000V
SHKTP-EO610X	Pair of 6x6x10mm; 1/4 wave voltage=2300V
SHKTP-EO710X	Pair of 7x7x10mm; 1/4 wave voltage=2800V
SHKTP-EO810X	Pair of 8x8x10mm; 1/4 wave voltage=3100V
SHKTP-EO910X	Pair of 9x9x10mm; 1/4 wave voltage=3500V

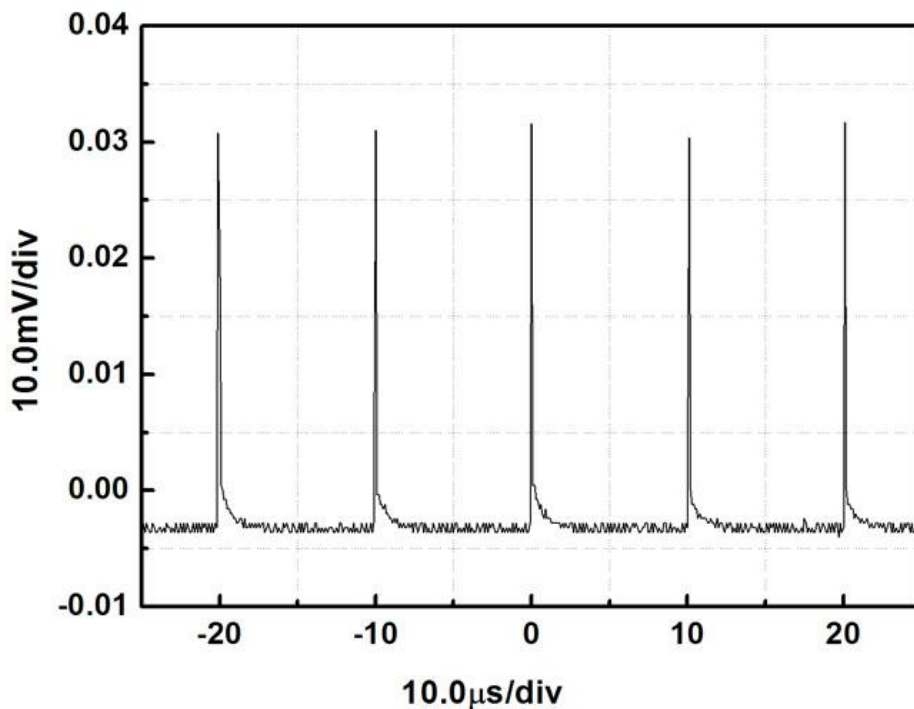
If you need the crystals of other size, please contact with us.

2) HGTR-KTP crystals modules with Y-cut

Modules	Descriptions
SHKTP-EO310Y	Pair of 3x3x10mm; 1/4 wave voltage=1000V
SHKTP-EO410Y	Pair of 4x4x10mm; 1/4 wave voltage=1300V
SHKTP-EO510Y	Pair of 5x5x10mm; 1/4 wave voltage=1600V
SHKTP-EO610Y	Pair of 6x6x10mm; 1/4 wave voltage=1900V
SHKTP-EO710Y	Pair of 7x7x10mm; 1/4 wave voltage=2200V
SHKTP-EO810Y	Pair of 8x8x10mm; 1/4 wave voltage=2500V
SHKTP-EO910Y	Pair of 9x9x10mm; 1/4 wave voltage=2800V

If you need the crystals of other size, please contact with us.

3) KTP Q-switch working at 100KHz



Features

Features:

- Low insertion loss
- Low quarter-wave voltage
- High repetition rate
- Wide optical bandwidth
- High damaging threshold
- No piezo-electric ringing

Applications:

- Q-switches
- Pulse picking
- EO modulators