

RTP Pockels Cells



DESCRIPTION

RTP (RbTiOPO_4) pockets cells, also known as rubidium titanium phosphate oxide pockets cells, are a comprehensive and excellent pockets cells device, which is widely used in laser technology fields such as electro-optical modulation, pulse shaping, and laser internal cavity Q. RTP pockets cells has higher electro-optical performance, possesses a large electro-optical coefficient, high threshold of light injury resistance, excellent chemical stability, high resistivity, and low Compared with other electro-optical materials, RTP (rubidium titanium oxide phosphate) pockets cells have many advantages: no moisture absorption, low switching voltage, good extinction ratio, no piezoelectric and thermoelectric effects, and can be used in the field of RTP Q-switch or RTP pulse selector.

FEATURES

- High resistivity
- High extinction ratio
- Low half-wave voltage
- High resistance to photodamage threshold
- High switching frequency
- High threshold for crystal damage
- Very low ringing effect
- No deliquescence, low dielectric constant

APPLICATIONS

- Pulse Selector
- Amplitude modulator
- High frequency Q-modulated lasers
- Laser power/phase modulation
- Laser distance measurement, LIDAR

PHYSICAL CHARACTERISTICS

Scope of work	500-3000nm
Transmittance	>98.5%
Extinction ratio	30dB
Extinction rate	<4°
Standard permeability enhancement film	R<0.1% @1064nm
Damage Threshold	600MW/cm ² 10ns 10Hz @1064nm



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PHYSICAL CHARACTERISTICS

1064nm transmission rate	>98.5%	
Available Aperture	3,4,5,6,7,8,9,10,11,12mm	
1064nm half-wave voltage	1000V(3×3×10+10)	
Extinction ratio	>23dB	
Acceptance angle	>1°	
Damage Threshold	>600MW/cm ² 10ns @1064nm	
Stability performance temperature range	-50°C ~ +70°C	
1064nm static half-wave voltage	4x4x20mm:	1600V
	6x6x20mm:	2400V
	9x9x20mm:	3600V
Electro-optical constants	$r_{33}=38.5\text{pm/V}$	Y-cut
	$r_{33}=35\text{pm/V}$	
	$r_{23}=12.5\text{pm/V}$	X-cut
	$r_{13}=10.6\text{pm/V}$	

STRUCTURE

