

# Lithium Niobate Q-Switch Elements

## Product Description

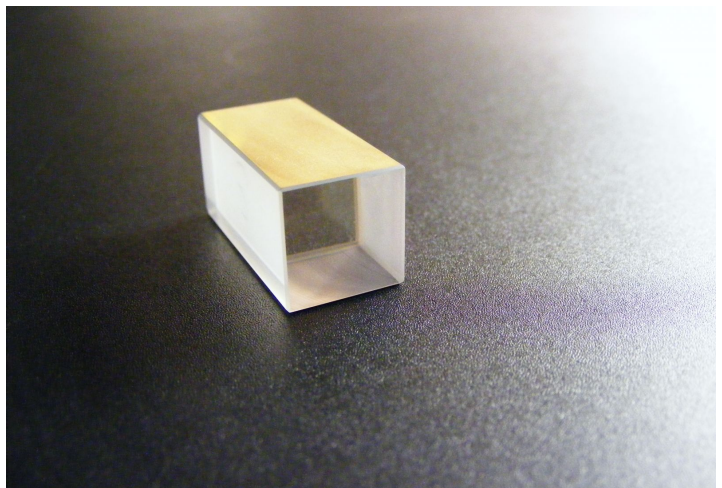
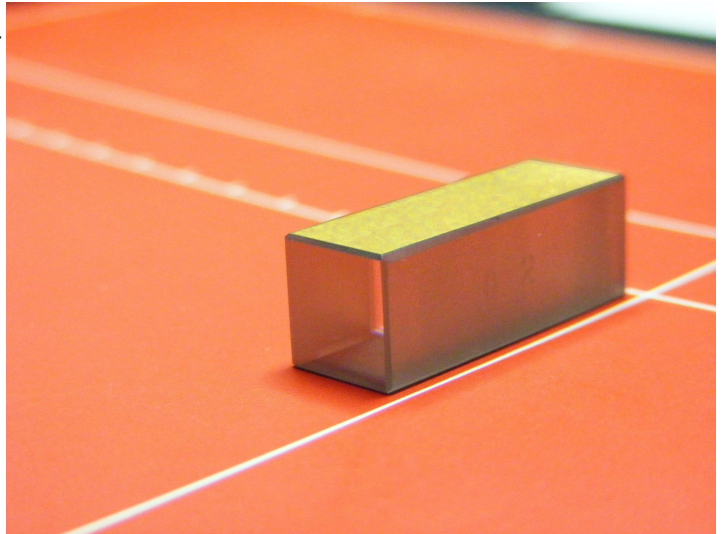
Deltronic Crystal's Lithium Niobate, with its combination of excellent optical transmission and high electro-optic coefficient, is an ideal choice for Pockels Cell Q-Switching. Crystals are grown, oriented and cut to provide z-axis optical propagation. Q-Switch elements are polished, electroded and anti-reflection coated, ready for laser cavity installation. Sizes and shapes can be tailored to meet custom device requirements.

## Applications

- Range Finders
- Target Designation
- YAG Q-Switched Lasers

## Features

- Low Wavefront Distortion
- High Extinction Ratio
- Low Transmission Loss
- Super-Polished Optical Faces
- Precise Crystal Orientation
- Low Reflectance AR Coatings
- High Damage Threshold



Specifications	
Length (Z-Axis)	±0.5mm or specify
Cross-Section: X-Axis / Y-Axis	±0.1mm / ±0.1mm
Chamfer, all edges	0.4mm at 45° or specify
Optical faces, normal to Z-Axis	Within 10 arc minutes or specify
Lateral faces, normal to X & Y Axis	Within 10 arc minutes
Typical Laser Damage Threshold	≥ 300MW/cm <sup>2</sup> at 1064nm
Optical Face	
Polish	10-5 scratch-dig
Flatness	λ/10 at 633nm
Parallel	within 10 arc seconds
Anti-reflection coatings	Reflectance ≤ 0.2%
Surface Finish, lateral faces	Fineground
Electrodes	Au/Cr on X-faces
Extinction Ratio at 1064nm (passive)	≥ 26 dB
Transmitted Wavefront Distortion	λ/8 or better