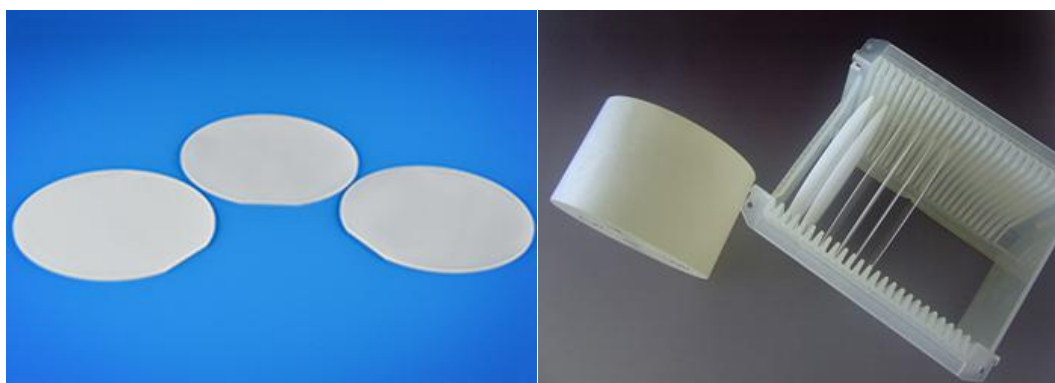


Optical grade LiNbO₃ wafers

The **Optical grade LiNbO₃ wafers/crystals/substrates** are offered, advanced facilities are equipped for crystals growing, wafer cutting, lapping, polishing and checking. The LiNbO₃ wafers are used in:

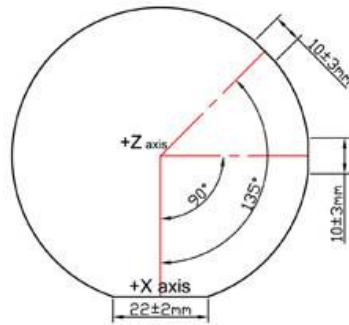
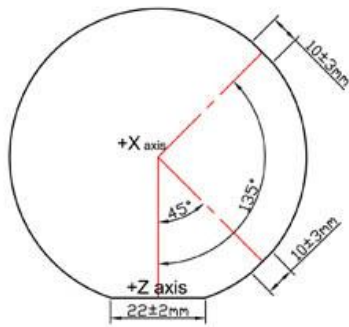
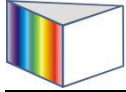
- **Polarizers for Optic Isolators;**
- **Integrated Waveguide Photonics;**
- **EO Waveguide Phase Modulators**
- **EO Waveguide Amplitude Modulators**
- **Quasi-phase Matching for SHG and OPO**



Optical grade LiNbO₃ wafers of X-cut and Z-cut

Orientation	X-cut $\pm 0.2^\circ$	Z-cut $\pm 0.2^\circ$
Diameter	76.2mm ± 0.3 mm 100.0mm ± 0.3 mm	76.2mm ± 0.3 mm 100.0mm ± 0.3 mm
Orientation Flat(OF)	22mm ± 2 mm 32mm ± 2 mm Perpendicular to X $\pm 0.2^\circ$	22mm ± 2 mm 32mm ± 2 mm Perpendicular to X $\pm 0.2^\circ$
Second Refer Flat(RF)	Cw225 $^\circ \pm 0.5^\circ$ from OF Cw315 $^\circ \pm 0.5^\circ$ from OF	Cw225 $^\circ \pm 0.5^\circ$ from OF Cw270 $^\circ \pm 0.5^\circ$ from OF
Thickness	500 μ m $\pm 5 \mu$ m 1000 μ m $\pm 5 \mu$ m	500 μ m $\pm 5 \mu$ m 1000 μ m $\pm 5 \mu$ m
Surface quality	Double sides polished S/D 20/10	Double sides polished S/D 20/10
TTV	$\leq 10 \mu$ m	
WARP	$\leq 50 \mu$ m	
Curie Temperature	1142 $^\circ$ C $\pm 0.7^\circ$ C	
Refractive Index	n ₀ =2.2878 ± 0.0002 n _e =2.2033 ± 0.0002 prism coupler method @632.8nm	
Edge Beveling	Edge rounding	

Note: The other size or type of LiNbO substrates or wafers are available upon customer's request.



Notes:

1. Material
Optical grade LiNbO₃
2. Curie Temperature
1142±3 °C
3. Orientation
 - 2.1 Wafer surface direction :±0.2°
 - 2.2 Flats
 - 2.2.1 Primary flat: ±0.2° length: 22±2mm
 - 2.2.2 Secondary flat and third flat see the left length: 10±3mm
4. Edge
No chips greater than 0.5mm
5. Thickness
1.0±0.02mm
6. Diameter
76.2±0.3mm
7. Surface
Double side polished, no pits or scratches inspected using unaided eye with reflected light.

Drawing		Product	Optical-Grade LN Wafer
Approved		Spec	
Date	04/13/15		
Sheet	1 of 1		