

Lithium Tantalate Wafers

Product Description:

Lithium Tantalate is one of the most versatile materials. LiTaO₃ has numerous applications including electro-optical modulators, pyroelectric detectors, optical waveguide and SAW substrates and piezoelectric transducers due to unique electro-optical, pyroelectric, piezoelectric and acoustic properties, a wide transparency range, and a high optical damage threshold combined with good chemical and mechanical stability.



Figure 1: Lithium Tantalate wafers

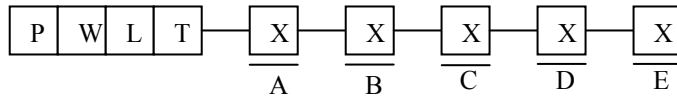
Specifications:

Orientation	X-Axis, Y-Axis, Z-Axis, Y-Axis 36° Rotated, Y-Axis 42° Rotated
Orientation Tolerance	±0.2°
Diameter	2 inches, 3 inches, 5 inches
Thickness	500±15µm, 1000±20µm
Primary flat length	16.0±0.8mm, 22.0±1.0 mm, 32.5±1.5 mm
Primary flat Orientation Tolerance	± 0.2°
TTV	≤15µm; ≤30µm
BOW	≤15µm; ≤30µm
Front Surface	10/5
Back Surface	Fine ground or polished (10/5)
Chamfer	<0.3mm, 45± 5°

Applications:

1. Electro-optical modulators
2. Wavefront distortion
3. Integrated optical devices
4. Acoustic Transducers
5. Acousto-optical filters

Ordering Information:



A	Orientation	1=X-Axis
		2=Y-Axis
		3=Z-Axis
		4=Y-Axis 36° Rotated
		5=Y-Axis 42° Rotated
		0= Customized orientation
B	Diameter	1=2 inch
		2=3 inch
		3=5 inch
		0= Customized diameter
C	Thickness	1=500µm
		2=1000µm
		0= Customized thickness
D	Primary Flat Orientation	1= Normal to Z-axis
		2= Normal to X-axis
		0 = Customized Flat Orientation
E	Primary flat length	1=16mm
		2=22mm
		3=32.5mm
		0= Customized flat length