

Wafers for Surface Acoustic Wave (SAW) Devices

3" LiNbO₃ (LN) Wafers

Commodity	Czochralski ("CZ") grown Lithium Niobate (single crystal, congruent)		
Orientation	64° rotated Y-cut ± 0.25°	127.86° rot. Y-cut ± 0.25°	Y-cut ± 0.25°
Diameter	76.2mm ± 0.3mm	76.2mm ± 0.3mm	76.2mm ± 0.3mm
Orientation Flat	22mm ± 2mm perpendicular to X ± 0.25°	22mm ± 2mm perpendicular to X ± 0.25°	22mm ± 2mm perpendicular to Z ± 0.25°
Thickness	350µm ± 30µm 500µm ± 30µm	350µm ± 30µm 500µm ± 30µm	350µm ± 30µm 500µm ± 30µm
Propagating Surface	"+" - side, Ra ≤ 7 Å	"+" - side, Ra ≤ 7 Å	"+" - side, Ra ≤ 7 Å
Wafer Backside	GC#1000 lapped & etched 0.2µm ≤ Ra ≤ 0.5µm	GC#1000 lapped & etched 0.2µm ≤ Ra ≤ 0.5µm	GC#1000 lapped & etched 0.2µm ≤ Ra ≤ 0.5µm
TTV	≤ 10µm		
LTV	≤ 1.5µm within an area of 5mm x 5mm		
PLTV	≥ 95% (3mm from edge excluded)		
Bow	-25µm ≤ bow ≤ +25µm		
Warp	≤ 50µm		
Curie Temperature	1142°C ± 2°C		

Other specifications are available on request.

Orientations of LiNbO₃ Wafers

