

Black Lithium Niobate Wafer

(LiNbO₃ Optical Grade)

When different types of ions are mixed into the LiNbO₃ crystal, it exhibits various special properties, making it suitable for applications such as optical waveguide amplifiers, frequency-doubling converters, and optical storage media.

For example, in high-power laser applications, magnesium oxide-doped crystals (MgO:LiNbO₃) are used. They have a higher Laser Damage Threshold. At the same time, the doping has no effect on the optical properties of the crystal.

We can provide doped LN wafers: Er:LN, MgO:LN and Fe:LN with customized doping dose.

Product Parameters

Material	3" 4" 6" LN wafer (Optical grade)
Orientation	X & Z
Surface finish	single or double side polish (DLP/SLP/SSP/DSP all available)
Thickness	0.18/0.25/0.35/0.50/1.00 mm
TTV	<1~5µm
BOW	± (25µm ~40um)
Warp	<= 35µm
LTV (5mmx5mm)	<1.5 um
PLTV(<0.5um)	≥98% (5mm*5mm) with 2mm edge excluded
Curie Temp	1142°C±3°C
Edge	Compl't with SEMI M1.2@with GC800#. regular at C typed
Orientation flats	available, per request
Doped with	Er:LN, MgO:LN, Fe:LN, Er:MgO:LN
Polished side Ra	Roughness Ra<=5A
Back Side Criteria	Roughness Ra:0.5-1.0µm GC#1000
Edge Rounding	Compliant with SEMI M1.2 Standard/refer to IEC62276
Cracks, saw marks, stains	None
Single Domain	Completed Polarization/Reduced

Please contact us for customer specific requirements and questions