

# Black Lithium Niobate Wafer

## ( LiNbO<sub>3</sub> Optical Grade)

When different types of ions are mixed into the LiNbO<sub>3</sub> 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:LiNbO<sub>3</sub>) 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

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

Please contact us for customer specific requirements and questions