SERIES S34 – S35 · LN & LT WAFERS

Lithium niobate and lithium tantalate wafers



Congruent $LiNbO_3$ and $LiTaO_3$ in the standard acoustic and optical cuts. Acoustic-grade wafers are single-side polished with a lapped back; optical-grade wafers and chips are double-side polished.

- Black (chemically reduced) wafers resist pyroelectric charging
- MgO-doped (5 mol %) LN for high optical-damage resistance and PPLN
- Acoustic grade: SSP · optical grade: DSP
- Other cuts (e.g. 42° Y-X LT) on request

CUT GUIDE

Cut	Wave type	Velocity (m/s)	K^2 (%)	Typical use
$LiNbO_3$ 128° Y-X	Rayleigh SAW	≈ 3980	≈ 5.5	SAW filters, acoustofluidics, delay lines
$LiNbO_3$ Y-Z	Rayleigh SAW	≈ 3490	≈ 4.5	Wideband SAW, sensors
$LiNbO_3$ 64° Y-X	Leaky SAW	≈ 4740	≈ 11	Wideband RF filters
$LiNbO_3$ 41° Y-X	Leaky SAW	≈ 4790	≈ 17	Very wideband RF filters
$LiTaO_3$ 36° Y-X	Leaky SAW	≈ 4210	≈ 4.7	RF filters for mobile bands
$LiTaO_3$ X-112° Y	Rayleigh SAW	≈ 3290	≈ 0.75	Temperature-stable SAW, IF filters
X-cut · Z-cut	—	—	—	Electro-optic modulators, waveguides, PPLN, pyroelectrics

ACOUSTIC (SAW) GRADE · SINGLE-SIDE POLISHED

Ref. No.	Cut	Wafer	Thickness	Price
S3401	$LiNbO_3$ 128° Y-X	3"	0.35 mm	On request
S3402	$LiNbO_3$ 128° Y-X	3"	0.5 mm	On request
S3403	$LiNbO_3$ 128° Y-X	4"	0.35 mm	On request
S3404	$LiNbO_3$ 128° Y-X	4"	0.5 mm	On request
S3405	$LiNbO_3$ 128° Y-X	6"	0.35 mm	On request
S3406	$LiNbO_3$ 128° Y-X	6"	0.5 mm	On request
S3407	$LiNbO_3$ Y-Z	3"	0.35 mm	On request
S3408	$LiNbO_3$ Y-Z	3"	0.5 mm	On request
S3409	$LiNbO_3$ Y-Z	4"	0.35 mm	On request
S3410	$LiNbO_3$ Y-Z	4"	0.5 mm	On request
S3411	$LiNbO_3$ Y-Z	6"	0.35 mm	On request
S3412	$LiNbO_3$ Y-Z	6"	0.5 mm	On request
S3413	$LiNbO_3$ 64° Y-X	3"	0.35 mm	On request
S3414	$LiNbO_3$ 64° Y-X	3"	0.5 mm	On request
S3415	$LiNbO_3$ 64° Y-X	4"	0.35 mm	On request
S3416	$LiNbO_3$ 64° Y-X	4"	0.5 mm	On request
S3417	$LiNbO_3$ 64° Y-X	6"	0.35 mm	On request

Ref. No.	Cut	Wafer	Thickness	Price
S3418	$LiNbO_3$ 64° Y-X	6"	0.5 mm	On request
S3419	$LiNbO_3$ 41° Y-X	3"	0.35 mm	On request
S3420	$LiNbO_3$ 41° Y-X	3"	0.5 mm	On request
S3421	$LiNbO_3$ 41° Y-X	4"	0.35 mm	On request
S3422	$LiNbO_3$ 41° Y-X	4"	0.5 mm	On request
S3423	$LiNbO_3$ 41° Y-X	6"	0.35 mm	On request
S3424	$LiNbO_3$ 41° Y-X	6"	0.5 mm	On request
S3425	$LiTaO_3$ 36° Y-X	3"	0.35 mm	On request
S3426	$LiTaO_3$ 36° Y-X	3"	0.5 mm	On request
S3427	$LiTaO_3$ 36° Y-X	4"	0.35 mm	On request
S3428	$LiTaO_3$ 36° Y-X	4"	0.5 mm	On request
S3429	$LiTaO_3$ 36° Y-X	6"	0.35 mm	On request
S3430	$LiTaO_3$ 36° Y-X	6"	0.5 mm	On request
S3431	$LiTaO_3$ X-112° Y	3"	0.35 mm	On request
S3432	$LiTaO_3$ X-112° Y	3"	0.5 mm	On request
S3433	$LiTaO_3$ X-112° Y	4"	0.35 mm	On request
S3434	$LiTaO_3$ X-112° Y	4"	0.5 mm	On request
S3435	$LiTaO_3$ X-112° Y	6"	0.35 mm	On request
S3436	$LiTaO_3$ X-112° Y	6"	0.5 mm	On request
S3437	Black $LiNbO_3$ 128° Y-X	4"	0.35 mm	On request
S3438	Black $LiNbO_3$ 128° Y-X	4"	0.5 mm	On request
S3439	Black $LiNbO_3$ 128° Y-X	6"	0.35 mm	On request
S3440	Black $LiNbO_3$ 128° Y-X	6"	0.5 mm	On request
S3441	Black $LiTaO_3$ 36° Y-X	4"	0.35 mm	On request
S3442	Black $LiTaO_3$ 36° Y-X	4"	0.5 mm	On request
S3443	Black $LiTaO_3$ 36° Y-X	6"	0.35 mm	On request
S3444	Black $LiTaO_3$ 36° Y-X	6"	0.5 mm	On request

OPTICAL GRADE · DOUBLE-SIDE POLISHED

Ref. No.	Cut	Format	Price
S3501	$LiNbO_3$ X-cut	3" wafer × 0.5 mm	On request
S3502	$LiNbO_3$ X-cut	4" wafer × 0.5 mm	On request
S3503	$LiNbO_3$ X-cut	4" wafer × 1.0 mm	On request
S3504	$LiNbO_3$ X-cut	10 × 10 × 0.5 mm chip	On request
S3505	$LiNbO_3$ X-cut	10 × 10 × 1.0 mm chip	On request
S3506	$LiNbO_3$ Z-cut	3" wafer × 0.5 mm	On request
S3507	$LiNbO_3$ Z-cut	4" wafer × 0.5 mm	On request
S3508	$LiNbO_3$ Z-cut	4" wafer × 1.0 mm	On request
S3509	$LiNbO_3$ Z-cut	10 × 10 × 0.5 mm chip	On request
S3510	$LiNbO_3$ Z-cut	10 × 10 × 1.0 mm chip	On request
S3511	MgO:$LiNbO_3$ X-cut	3" wafer × 0.5 mm	On request
S3512	MgO:$LiNbO_3$ X-cut	4" wafer × 0.5 mm	On request
S3513	MgO:$LiNbO_3$ X-cut	4" wafer × 1.0 mm	On request

Ref. No.	Cut	Format	Price
S3514	MgO:$LiNbO_3$ X-cut	10 × 10 × 0.5 mm chip	On request
S3515	MgO:$LiNbO_3$ X-cut	10 × 10 × 1.0 mm chip	On request
S3516	MgO:$LiNbO_3$ Z-cut	3" wafer × 0.5 mm	On request
S3517	MgO:$LiNbO_3$ Z-cut	4" wafer × 0.5 mm	On request
S3518	MgO:$LiNbO_3$ Z-cut	4" wafer × 1.0 mm	On request
S3519	MgO:$LiNbO_3$ Z-cut	10 × 10 × 0.5 mm chip	On request
S3520	MgO:$LiNbO_3$ Z-cut	10 × 10 × 1.0 mm chip	On request
S3521	$LiTaO_3$ Z-cut	3" wafer × 0.5 mm	On request
S3522	$LiTaO_3$ Z-cut	4" wafer × 0.5 mm	On request
S3523	$LiTaO_3$ Z-cut	4" wafer × 1.0 mm	On request
S3524	$LiTaO_3$ Z-cut	10 × 10 × 0.5 mm chip	On request
S3525	$LiTaO_3$ Z-cut	10 × 10 × 1.0 mm chip	On request

Velocities and electromechanical coupling (K^2) are approximate free-surface values for guidance.

Specifications are typical values; every lot ships with a Certificate of Conformance, and measured data are available on request. Prices on request.