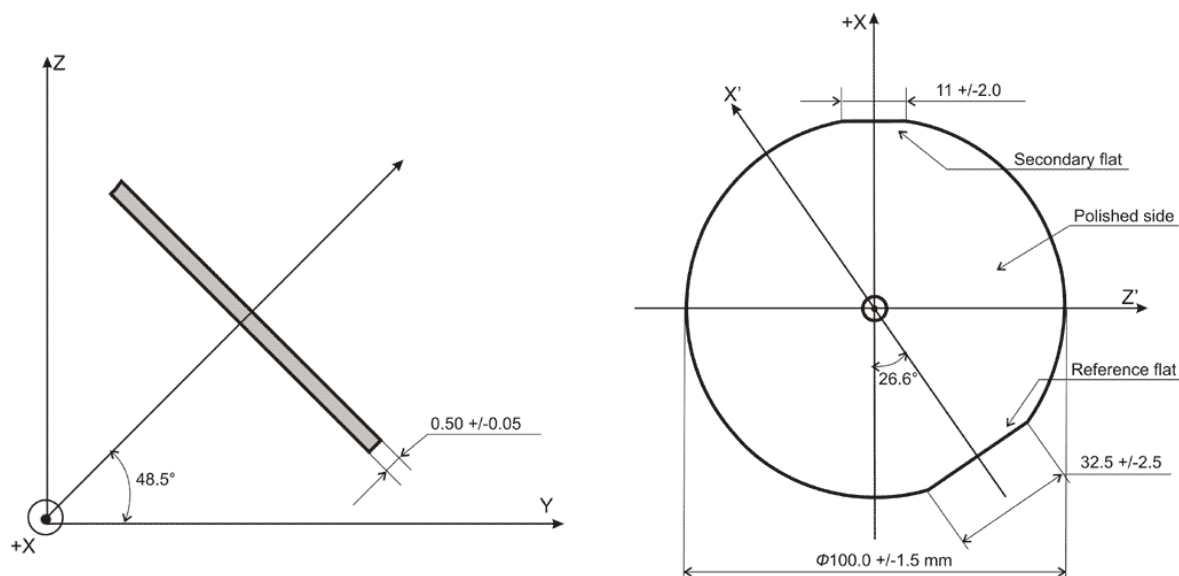


LGS SAW Wafer Diameter 100mm (4")



Material properties:

Formula:	$\text{La}_3\text{Ga}_5\text{SiO}_{14}$
Density:	5.74 g/cm ³
Space Group:	32
SAW velocity	$v_{\text{eff}} = 2736 \text{ m/s}$
Electromechanical coupling coefficient K^2 s	= 0,38
Temperature coefficients:	$a_1 = 0 \text{ K}^{-1}$, $a_2 = -6.8 \cdot 10^{-8} \text{ K}^{-2}$

Physical dimensions:

Diameter:	100.0 mm \pm 0.15 mm
Thickness:	0.50 mm \pm 0.05 mm
Orientation:	YXlt/48.5°/26.6°
Reference flat:	32.5 mm \pm 2.5 mm, perpendicular to X' axis $\pm 15^\circ$
Flatness (under vacuum)	< 10 mm
LTV	< 2.2 microns for the base 20 mm x 20mm
Bow (free wafer):	< 50 mm
Secondary flat :	11 mm \pm 2.0 mm
Usable working area:	wafer diameter minus 3 mm
Working area:	wafer diameter minus 3 mm;

Edge chipping:

No chipping inside the working area and on the primary flat.
Chipping can be accepted outside the working area if the width is less than 0.5 mm, cumulative length is less than 5 mm.

Polished face:

No dimples, cracks, unpolished areas, contaminants in working area under x 50 magnification. Scratches visible at x 50 magnification are allowed in working area, if their quantity is lower than 3 on one wafer and less than 20 in a lot of one hundred wafers.

Lapped backside face:

Roughness: $R_a > 0.2 \text{ microns}$