



Crystal Material Data Sheet

QZ&LN< SAW Wafer



Customer's Approval Certificate	
Complies with Directive 2002/95/EC (RoHS)	
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Checked & Approval by:	Date:

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Our abundance experience at growing and mass production for SAW grade Lithium Niobate /Lithium Tantalate ,Single Quartz and their substrates. We are equipped with advanced facilities at Crystal growing/ wafer lapping/ wafer polishing and Wafer checking, all finished products are passed at Testing of curie Temp and QC inspection. of Electronic components.

Specifications for SAW filters application

Material		3"/4"/5"/6" LN wafers		3"/4" LT wafers		3"/4"/5"/6" QZ wafers	
Curie Temperature	°C	1142		605		573	
Cutting Angle	Deg.	X/Y/Z/Y36/Y41/Y64/Y128 etc		X/Y/Z/Y36/Y42/Y48/X112 etc		AT36/ST42.75/X/Y/Z etc	
Diameter/size	mm	3"/76.2	4"/100	5"/125	6"/150		
Tol(±)	mm	0.25	0.5	0.5	0.5		
Thickness	mm	0.10mm or more	0.18mm or more	0.30mm or more	0.50mm or more		
Primary reference flat	mm	22mm or customized	32.5mm or customized	42.5mm or customized	57.5mm or customized		
LTV (5mmx5mm)	µm	< 2	< 2	< 2	< 2		
TTV	µm	< 8	< 10	< 15	< 20		
Bow	µm	±20	±25	±40	±40		
Warp	µm	≤ 30	≤ 40	≤ 50	≤ 50		
PLTV	%	≥90%(5mm*5mm)	≥90%(5mm*5mm)	≥90%(5mm*5mm)	≥90%(5mm*5mm)		
Orientation Flat		All available					
Surface Type		Single Side Polished /Double Sides Polished					
Polished side Ra	nm	≤1					
Back Side Criteria	µm	General is 0.2-0.5 or as customized					
Edge Rounding	mm	Compliant with SEMI M1.2 Standard/refer to IEC62276					
Optical doped		Fe/Zn/MgO etc for optical grade LN< wafers					
Appearance		Contamination,				None	
		Particles $\phi > 0.3 \mu m$				≤ 30	
		Saw Marks, striations				None	

	Scratch	None
	Cracks, crowsfeet, saw marks, stains	None