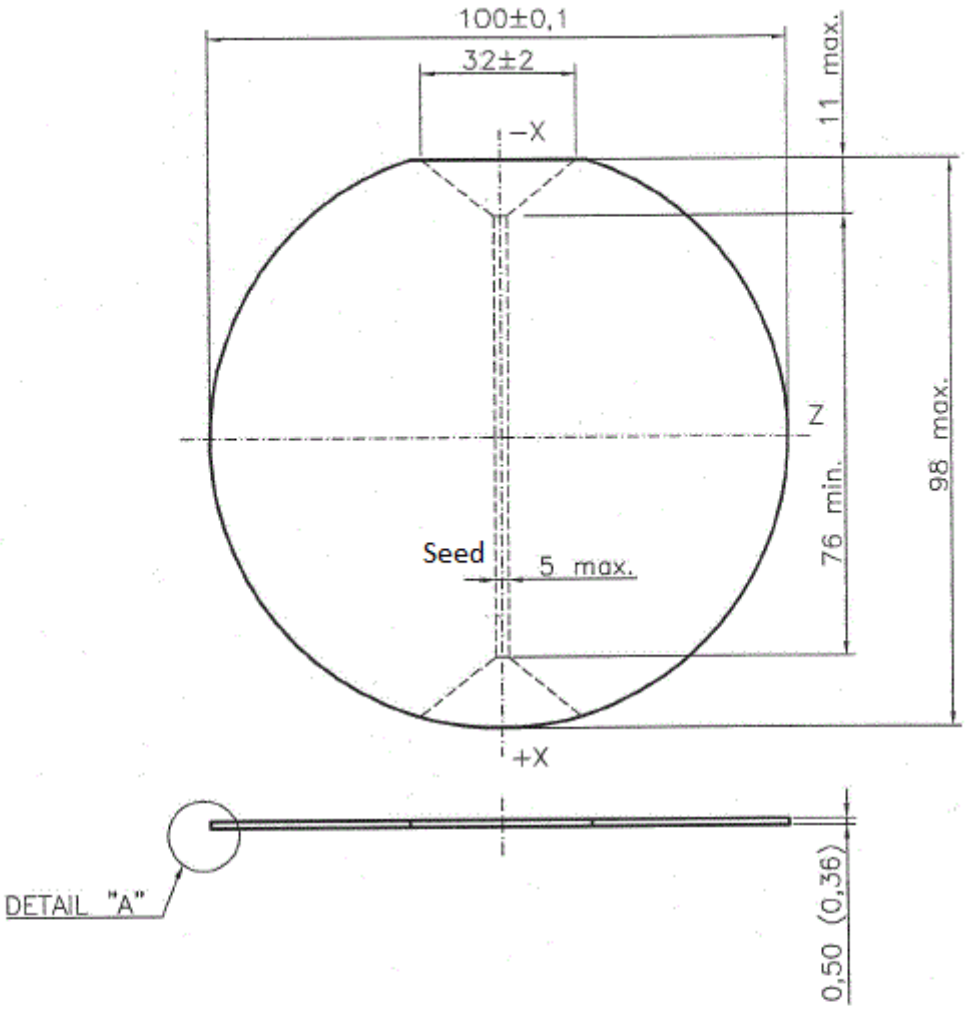
AXTAL ADVANCED XTAL PRODUCTS

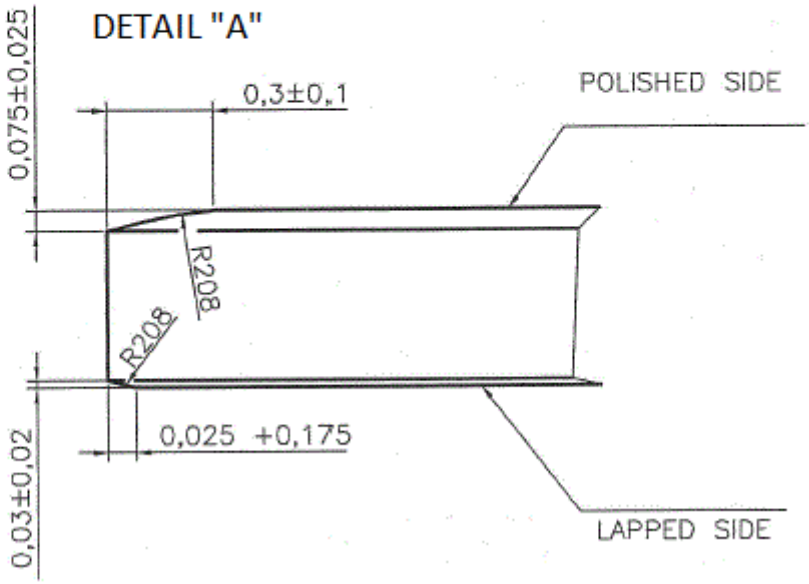
Specification	AXQW100-0.5-42.75-SSP	Rev.: 1	Date: 2014-06-24
Oscillator type :	Quartz Wafer 100 mm Diameter for SAW Application		

Parameter	min.	typ.	max.	Unit	Condition
Wafer diameter	99.9	100.0	100.1	mm	
Cut angle Theta		42.75° ± 5'			
Thickness	0.48	0.50	0.52	mm	
Reference flat	30	32	34	mm	
Orientation		-X axis			
Cut identification		3 slots			On reference flat
Bevel		0.3 x 0.075		mm	On polished side, see drawing
Surface finish					
Front side: polished with Ra			0.5	nm	AFM
Back side: fine lapped with Ra	0.2		0.5	µm	GC#2000
Flatness:					
Bow			40	µm	
LTV			5	µm	
TTV			7	µm	
Warp			50	µm	
Seed			5	mm	Centred along X-axis, see drawing. No holes
Quality		SAW grade			Note 1
Quartz material		Q> 1.8 million ID Grade II, RH ECD < 100 cm^{-2}			
Edge chips			0.5	mm	In radial direction, Note 2
Packing		Plastic bags			Note 3

Notes:

1. Terminology and test conditions are according to IEC standard IEC 60758 and IEC 62276
2. No chips in work area (2 mm from circumference)
3. Packing in shipper or wafer box on request


100±0,1
32±2
11 max.
-X
Z
98 max.
76 min.
Seed
5 max.
+X
DETAIL "A"
0,50 (0,36)


DETAIL "A"
0,075±0,025
0,3±0,1
POLISHED SIDE
R208
R208
0,025 +0,175
0,03±0,02
LAPPED SIDE