



Part Number :		Date:	20 July 2004
Customer:		STD:	Y
Customer Specification/ Reference:			

Category	Parameter	Specification	Measurement Method
<i>Overall</i>			
<i>Wafer</i>			
1.1	Diameter	100mm +/- 0.5	Wafer Vendor
1.2	Primary Flat Orientation	{110} +/- 1°	Wafer Vendor
1.3	Primary Flat Length	32.5mm +/- 2.5	Wafer Vendor
1.4	Secondary Flat Orientation	None	
1.5	Thickness	528µm +/- 25	Guaranteed by Process
1.6	Total Thickness Variation(TTV)	< 5 µm	Guaranteed by Process
1.7	Bow	< 60 µm	ADE to ASTM F534, 20%
1.8	Warp	< 60 µm	ADE to ASTM F657, 20%
1.9	Edge Chips	0	Bright Light, 100% ¹
1.10	Edge Exclusion	5mm	
<i>Handle</i>			
<i>Silicon</i>			
2.1	Growth Method	CZ	Wafer Vendor
2.2	Orientation	{111} off 2.5 +/- 0.5°	Wafer Vendor
2.3	Oxygen Concentration	<1 E 18 cm ⁻³	Wafer Vendor
2.4	Carbon Concentration	<1 E 15 cm ⁻³	Wafer Vendor
2.3	Thickness	350µm +/- 5µm	ADE, 100%
2.4	Doping type	N	Wafer Vendor
2.5	Dopant	Arsenic	Wafer Vendor
2.6	Resistivity	0.001-0.004 ohm-cm	Wafer Vendor
2.7	Backside Finish	Lapped & Etched	Guaranteed by Process

Category	Parameter	Specification	Measurement Method
<i>Device</i>			
<i>Silicon</i>			
4.1	Growth Method	FZ	Wafer Vendor
4.2	Orientation	{111} off 3.5+/- 0.5°	Wafer Vendor
4.3	Nominal Thickness	178 µm	FTIR / ADE, 100%
4.4	Thickness Variation	+/-2.5µm	FTIR 9-Pt ² 100% ADE, 100% Centre point
4.5	Distance to device silicon		
	edge from wafer edge	<5mm	Typical by process
4.6	Doping Type	N	Wafer Vendor
4.7	Dopant	Phosphorous	Wafer Vendor
4.8	Resistivity	5000-14000 ohm-cm	Wafer Vendor
4.9	Voids	None	SAM, Bright Light, 100% ¹
4.10	Scratches	<25mm total length	Bright Light, 100% ¹
4.11	Haze	None	Bright Light, 100% ¹

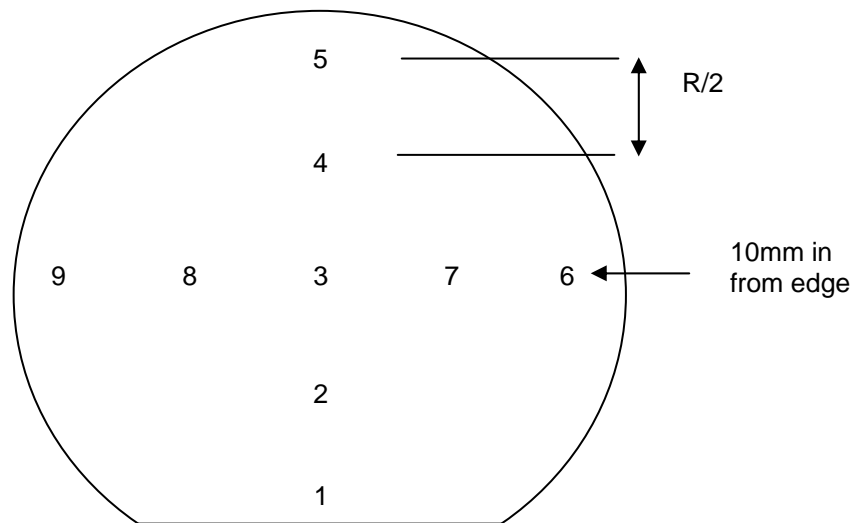
Shipping Details

Wafers per box	25 maximum
Packaging	Taped Polypropylene Wafer Box Empak, Ultrapak, 100mm Antistatic Double Bagging
Lot Shipment Data :	Device Silicon Thickness

Explanatory Notes

1. All bright light inspections performed exclude all wafer area outside the edge exclusion defined in 1.10. High intensity bright lamp inspection as per ASTM F523.

2. 9-point measurement positions.



Approvals:	Quality:	Engineering:
	Marketing:	TRB:

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