Part Number	Customer

Category		Parameter	Specification	Measurement Method
OverallWafer	1.0	Diameter	150.00 +/- 0.20 mm	
	2.0	Overall Thickness	392.00 +/- 10.00 um	ADE
	3.0	Bow	0.00 +/- 100.00 um	ADE to ASTM F534, 20% HIC/100%
	4.0	Warp	<100.00um	ADE to ASTM F657, 20% HIC/100%
	5.0	Total Thickness Variation (TTV)	<3.00um	ADE
	6.0	Primary Flat Length	57.50 +/- 2.50 mm	Wafer vendor
	7.0	Secondary Flat Orientation	None	Wafer Vendor
	8.0	Back Surface Edge Exclusion for metrology	<5.00mm	
	9.0	Back Surface Quality	Polished, no oxide	Guaranteed by process
	10.0	Back side Scratches	<50 mm total length	Visual Inspection
	11.0	Back side Haze	None	Visual Inspection
	12.0	Back side Particles	<20 (>0.3um diameter)	Guaranteed by process
	13.0	Back side Other Surface Defects	None	Visual Inspection
	14.0	Backside Laser Marking Type	Single density 5X9 dot matrix per character. SEMI M13 for notched wafers.	Guaranteed by process
BuriedOxide	17.0	Oxide Type	Thermal Oxide	Guaranteed by process
	18.0	Oxide Thickness	5,000.00 +/- 250.00 A	Nanospec centre point, 4%
	19.0	Oxide formed on	Handle Wafer	Guaranteed by process
DeviceSilicon	20.0	Device Growth Method	CZ	Wafer Vendor
	21.0	Device Doping Type	P	Wafer Vendor
	22.0	Device Dopant	Boron	Wafer Vendor
	23.0	Device Orientation	<100> +/- 0.5 deg	Wafer Vendor
	24.0	Device Resistivity	0.007 - 0.015 Ohm-cm	Wafer Vendor
	25.0	Oxygen Concentration	9 - 16 ppma	Wafer Vendor ASTM F121-83
	26.0	Carbon Concentration	<1 ppma	Process capability of wafer vendor
	27.0	Dislocation Etch Pit Density	<100 / cm2	Preferential etching (Wright) where necessary
	29.0	Raw Material	Prime Silicon	Wafer Vendor
	30.0	Edge Exclusion for Metrology	<6.00mm	
	31.0	Nominal Thickness	12.00 +/- 1.00 um	Filmetrics, 100% 9-Pt,
	32.0	Device Flat Orientation	<110> +/- 0.50 deg	Wafer Vendor
	33.0	Distance to device silicon edge from wafer edge	Edge removal 1.4 +/- 0.5mm	Microscope inspection 5 points. HIC
	34.0	Edge Removal Angle	45 +/- 15deg.	Guaranteed by process

Part Number	Customer

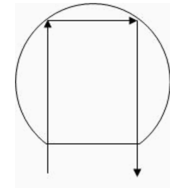
Category		Parameter	Specification	Measurement Method
DeviceSilicon	38.0	Surface	Polished	Guaranteed by process
	39.0	Scratches	None	Visual inspection
	40.0	Haze	None	Visual inspection
	41.0	LPD Count	<20 (>0.3um diameter)	Optical scanner
	42.0	Other Surface Defects	None	Visual inspection
HandleSilicon	44.0	Handle Growth Method	CZ	Wafer Vendor
	45.0	Handle Doping Type	P	Wafer Vendor
	46.0	Handle Dopant	Boron	Wafer Vendor
	47.0	Handle Orientation	<100> +/- 0.5 deg	Wafer Vendor
	48.0	Handle Resistivity	0.007 - 0.015 Ohm-cm	Wafer Vendor
	49.0	Handle Oxygen Concentration	9 - 16 ppma ASTM F121-83	Wafer Vendor
	50.0	Handle Carbon Concentration	<1.0 ppma	Wafer Vendor
	51.0	Handle Silicon Dislocation Etch Pit Density	<100 / cm2	Preferential etching (Wright) where necessary
	52.0	Handle Silicon Other Crystal Defects	None	Preferential etching (Wright) where necessary
	53.0	Handle Silicon Raw Material	Prime Silicon	
	54.0	Handle Thickness	380.00 +/- 9.00 um	ADE, 100%
	55.0	Handle Primary Flat Orientation	<110> +/- 0.5deg	Wafer Vendor

Part Number	Customer

Category	Parameter	Specification	Measurement Method
Shipping Details	Wafer per box :	Max 25	
	Packaging :	Taped Polypropylene Wafer Box Empak, Ultrapak, 150.00mm Antistatic Double Bagging	
	Lot Shipment Data	Device Thickness Bow / Warp Data Handle and SOI Thickness	

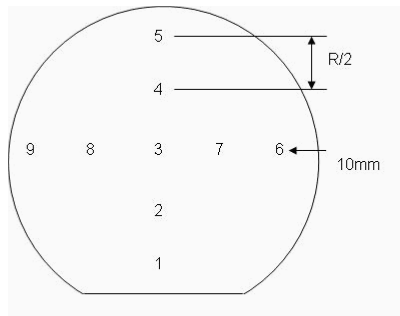
Explanatory Notes

1. Microscope inspection performed using microscope scan as below. 5x objective.



2. All bright light inspections performed exclude all wafer area outside the edge exclusion defined in Overall Wafer, Edge Exclusion. High intensity bright lamp inspection as per ASTM F523.

3. 9 point measurement are as shown in the diagram below:



Additional Information