Part Number	Customer

Category		Parameter	Specification	Measurement Method
OverallWafer	1.0	Diameter	150.00 +/- 0.50 mm	
	2.0	Primary Flat Orientation	{110}+/-1 degree	Wafer Vendor
	3.0	Primary Flat Length	57.50 +/- 2.50 mm	Wafer Vendor
	4.0	Secondary Flat Orientation	None	
	5.0	Overall Thickness	532.00 +/- 13.00 µm	ADE, 100%
	6.0	Total Thickness Variation (TTV)	<5.00µm	Guaranteed by Process
	7.0	Bow	<60.00µm	ADE to ASTM F534, 20%
	8.0	Warp	<60.00µm	ADE to ASTM F657, 20%
	9.0	Edge Chips	0	Bright Light, 100%
	10.0	Edge Exclusion	6mm	
	10.1	LPDs > 0.3um	<=30	LPD particle count
	10.2	Wafer Oxygen concentration	<18 ppma	Typical by wafer vendor
	10.3	Radial Resistivity Gradient	<=10%	Typical by wafer vendor
	10.5	Silicon Dislocation Etch Pit Density	<= 100 cm-2	Typical by wafer vendor
HandleSilicon	11.0	Handle Growth Method	CZ	Wafer Vendor
	12.0	Handle Orientation	{100} +/- 1 degree	Wafer Vendor
	13.0	Handle Thickness	500.00 +/- 10.00 µm	ADE, 100%
	14.0	Handle Doping Type	N	Wafer Vendor
	15.0	Handle Dopant	Phosphorous or Arsenic	Wafer Vendor
	16.0	Handle Resistivity	1 ~ 10 Ohmcm	Wafer Vendor
	17.0	Backside Finish	Polished with oxide, laser mark, and light handling marks	Guaranteed by Process
BuriedOxide	18.0	Oxide Type	Thermal	
	19.0	Oxide Thickness	10,000.00 +/- 500.00 A	Nanospec centre point, 4%
	20.0	Oxide formed on	Handle and / or Device Wafer	
DeviceSilicon	21.0	Device Growth Method	CZ	Wafer Vendor
	22.0	Device Orientation	{100} +/- 1 degree	Wafer Vendor
	23.0	Nominal Thickness	27.00 +/- 1.00 µm	FTIR, 100% 9-Pt (note3)
	24.0	Distance to device silicon edge from wafer edge	<= 2.0mm	Typical by Process
	25.0	Device Doping Type	N	Wafer Vendor
	26.0	Device Dopant	Phosphorous or Arsenic	Wafer Vendor
	27.0	Device Resistivity	1 ~ 10 Ohmcm	Wafer Vendor
BuriedOxide2	28.0	Oxide 2 Type	Thermal	
	29.0	Oxide 2 Thickness	10,000.00 +/- 500.00 A	Nanospec centre point measurement, 4%
	30.0	Oxide 2 formed on	Device 2 wafer	Guaranteed by Process

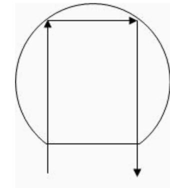
Part Number	Customer

Category		Parameter	Specification	Measurement Method
DeviceSilicon2	31.0	Device 2 Growth Method	CZ	Wafer Vendor
	32.0	Device 2 Orientation	{100} +/- 0.5 degree	Wafer Vendor
	33.0	Device 2 Nominal Thickness	3.00 +/- 1.00 um	FTIR, 100% 9-point measurement (see note 3)
	34.0	Distance to Device 2 edge from wafer edge	< = 3mm	Guaranteed by Process
	35.0	Device 2 DopingType	N	Wafer Vendor
	36.0	Device 2 Dopant	Phosphorous or Arsenic	Wafer Vendor
	37.0	Device 2 Resistivity	1 ~ 10 Ohmcm	Wafer Vendor
DeviceSilicon	38.0	Voids	none	Wafer Vendor
	39.0	Scratches	0	Bright Light, 100% (note 2)
	40.0	Haze	none	Bright Light, 100% (note 2)

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	

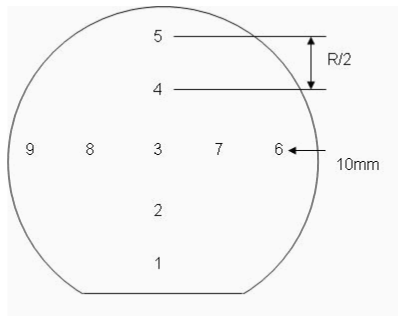
Explanatory Notes

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