**Icemos Technology Ltd** **Product Specification** **1000.273405** Issue Date 09 April 2015 12:29:1

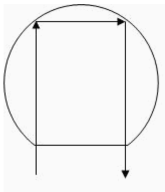
Part Number Customer

| Category | | Parameter | Specification | Measurement Method |
|---|---|---|---|---|
| OverallWafer | 1.0 | Diameter | 100.00 +/- 0.50 mm | WaferVendor |
| | 2.0 | Primary Flat Orientation | <110> +/- 1 degree | Wafer Vendor |
| | 3.0 | Primary Flat Length | 32.50 +/- 2.50 mm | Wafer Vendor |
| | 4.0 | Secondary Flat Orientation | none/semi | Wafer Vendor |
| | 5.0 | Overall Thickness | 399.00 +/- 6.00 um | Guaranteed by Process |
| | 6.0 | Total Thickness Variation (TTV) | <5.00um | Guaranteed by Process |
| | 7.0 | Bow | <40.00um | Guaranteed by Process |
| | 8.0 | Warp | <40.00um | Guaranteed by Process |
| | 9.0 | Edge Exclusion | 5 mm | Guaranteed by Process |
| | 10.0 | Silicon Supplier | Topsil - handle and device silicon. Cannot be changed without customer approval. | Confirmed Wafer Vendor |
| HandleSilicon | 11.0 | Handle Growth Method | FZ | Wafer Vendor |
| | 12.0 | Handle Orientation | <100> +/- 1.0 degree | Wafer Vendor |
| | 13.0 | Handle Thickness | 385.00 +/- 5.00 um | Guaranteed by Process |
| | 14.0 | Handle Doping Type | N | Wafer Vendor |
| | 15.0 | Handle Dopant | Phosphorous | Wafer Vendor |
| | 16.0 | Handle Resistivity | 1-2 Ohmcm | Wafer Vendor |
| | 17.0 | Backside Finish | Polished with no oxide and lasermark | Wafer Vendor |
| DeviceSilicon | 18.0 | Device Growth Method | FZ | Wafer Vendor |
| | 19.0 | Device Orientation | <100> +/- 0.5 degree | Wafer Vendor |
| | 20.0 | Carbon Concentration | <2E16 atoms/cm3 | Wafer Vendor |
| | 21.0 | Oxygen Concentration | <2E16 atoms/cm3 | Wafer Vendor |
| | 22.0 | Nominal Thickness | 14.00 +/- 1.00 um | ADE Single Point, 100% |
| | 23.0 | Distance to device silicon edge from wafer edge | <= 2mm | Guaranteed by Process |
| | 24.0 | Device Doping Type | N | Guaranteed by Process |
| | 25.0 | Device Dopant | Phosphorous | Guaranteed by Process |
| | 26.0 | Device Resistivity | 500-700 Ohmcm | Wafer Vendor |
| | 27.0 | Buried Layer Implant | Energy = 40keV, Dose = 1e14, Species = Phosphorous | Implant Vendor |
| | 28.0 | Voids | none | Guaranteed by Process, SAM inspection |
| | 29.0 | Haze | none | Guaranteed by Process, Bright LIght inspection |
| | 30.0 | Scratches | none | Guaranteed by Process, Bright LIght inspection |

| Category | Parameter | Specification | Measurement Method |
|---|---|---|---|
| Shipping Details | Wafer per box : | Max 25 | |
| | Packaging : | Taped Polypropylene Wafer Box<br>Empak, Ultrapak, 100.00mm<br>Antistatic Double Bagging | |
| | Lot Shipment Data | Device Thickness<br>Bow / Warp Data<br>Handle and SOI Thickness | |

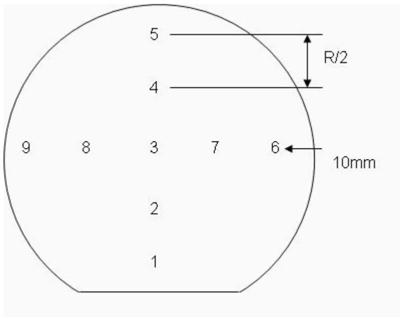
Explanatory Notes

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