





## 6inch 500nm c-cut SiCOI SPEC



 4H HPSI (P) SIC 500nm

 Al2O3 1-20nm

 SiO2 3000nm

 Si 675um

### Transfer SIC Layer

No.	Item	Specification	Remark
1	Poly type	4H	
2	Type	HPSI	
3	Resistivity	$\geq 1E8 \text{ohm.cm}$	
4	Orientation	<0001>	
5	off Orientation	$0 \pm 0.25^\circ$	
6	SiC Thickness (21 Pts)	$500 \pm 100 \text{nm}$	Edge exclusion 12mm
7	Frontside finish	C -face CMP	
8	Frontside Rms-C	$\leq 0.5 \text{nm}$ ( $5 \mu\text{m} * 5 \mu\text{m}$ )	Edge exclusion 5mm

### Modified Layer

1	Material	Al2O3	
2	Thickness	1-20 nm	Process Guarantee

### Oxide Layer

1	Oxide thickness	$3000 \pm 5\% \text{ nm}$	Edge exclusion 5mm
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### Handle SI Substrate

No.	Item	Specification	Remark
1	Growth Method	CZ	
2	Orientation	<100>	
3	Resistivity	1-100ohm.cm	
4	Dopant	P/B	
5	Si Thickness	$675 \pm 25 \mu\text{m}$	
6	Primary flat	<110> $\pm 1.0$	
7	Primary flat length	$47.5 \pm 2 \text{ mm}$	

### Overall Wafer Characteristics

1	Diameter	$150 \pm 0.2 \text{ mm}$	
2	TTV	$\leq 5 \mu\text{m}$	Edge exclusion 5mm
3	Bow	$\pm 50 \mu\text{m}$	Edge exclusion 5mm
4	Warp	$\leq 50 \mu\text{m}$	Edge exclusion 5mm
5	Thickness	$676 \pm 25 \mu\text{m}$	Edge exclusion 5mm
6	Scratches (visual inspection)	None	
7	Crack (visual inspection)	None	

### Visual Defect of Backside

1	Laser Mark	Backside	
2	Backside finish	Etched with Oxide	