

## Applications

Our customised Double SOI (DSOI) solutions are used in the following fields:

- SOI solutions for MEMS/MST
- Microfluidics/flow sensors
- RF MEMS
- MOEMs
- Optoelectronics
- Optical MEMS

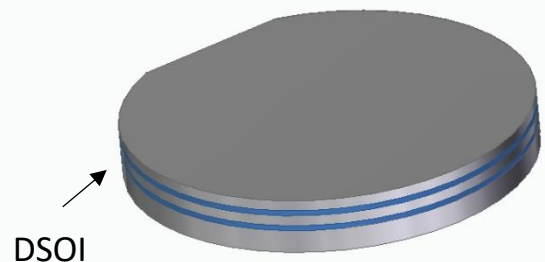
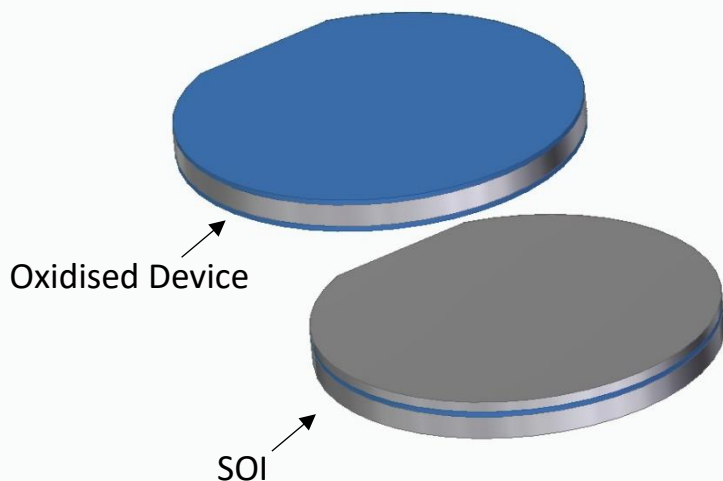
## End Markets:

- Telecommunications
- Medical
- Automotive
- Consumer
- Security

IceMOS Technology is a leading supplier of Double or Multi-Layer SOI for a large range of IC and MEMS applications. With over 20 years' experience in SOI manufacturing, we offer an impressive specification range, which is amongst the widest available in the market, ensuring that you receive the perfect DSOI solution for your application. We have extensive experience in SOI substrates, and our applications engineering expertise can help you select the best combination of parameters to aid your downstream processing of the DSOI engineered substrate.

With a flexible approach, IceMOS allows the customer to grow from R&D production (offering small lots) to volume production. Our experienced MEMS process engineers have experience in optical, inertial, and other MEMS fields. IceMOS Technology offer additional foundry processing for MEMS, trench isolation, buried cavity, layer release, etc.

By making continuous improvements to our processes in a Lean Six Sigma environment, IceMOS Technology offer world class product quality, competitive cost structure plus rapid turnaround makes IceMOS Technology your ideal DSOI partner.



## DSOI Specification

Parameter	Specification Range	
Wafer Diameter	100, 125, 150 mm	200 mm
<i>Handle Layer Specifications</i>		
Handle Thickness	200–1100 $\mu\text{m}$	450–1100 $\mu\text{m}$
Handle Thickness Tolerance	$\pm 5 \mu\text{m}$	
Stack Thickness	280–1150 $\mu\text{m}$	
Dopant Type	N or P	
Doping	N type: Phos, Red Phos, Sb & As P type: Boron	
Resistivity	$\leq 0.001 - \geq 10000 \Omega\text{-cm}$	
Growth Method	CZ, MCZ or FZ	
Crystal Orientation	$\langle 100 \rangle$ , $\langle 111 \rangle$ or $\langle 110 \rangle$	
Backside Finish	Lapped/Etched or Polished	
<i>Buried Oxide Specifications</i>		
Thermally Oxidised Buried Oxide Thickness	0.2 – 4.0 $\mu\text{m}$ grown on Handle, Device or both wafers	
<i>Device Layer Specifications (1<sup>st</sup> and 2<sup>nd</sup> Layer)</i>		
Device Layer Thickness	$\geq 1.5 \mu\text{m}$	$\geq 5 \mu\text{m}$
Tolerance	$\pm 0.5 \mu\text{m}$ and $\pm 1 \mu\text{m}$	$\pm 0.8 \mu\text{m}$ and $\pm 1.6 \mu\text{m}$
Dopant Type	N or P	
Doping	N type: Phos, Red Phos, Sb & As P type: Boron	
Resistivity	$\leq 0.001 - \geq 10000 \Omega\text{-cm}$	
Growth Method	CZ, MCZ or FZ	
Crystal Orientation	$\langle 100 \rangle$ , $\langle 111 \rangle$ or $\langle 110 \rangle$	
Buried Layer Implant	N type or P type	

The above is a standard IceMOS specification; however, we are always happy to work with our customers to engineer specific solutions. If you would like to discuss an alternative specification, please contact our sales team:  
[sales@icemostech.com](mailto:sales@icemostech.com)