



High Resistivity SSP and DSP Wafers

- Optimized for RF filter and device needs
- Enabling even close to zero substrate-induced losses and nonlinearities
- Enabling minimal 2nd harmonic and IMD3 values



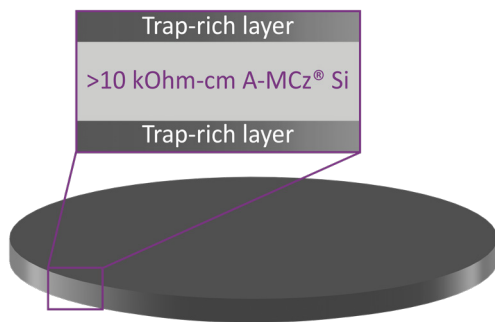
GENERAL WAFER SPECIFICATIONS

Growth method:	MCz, A-MCz®
Crystal orientation:	<100>, <111>
Diameter:	150 mm, 200 mm
Dopant:	Phosphorus, Boron
Resistivity:	Up to >10 kOhm-cm
Oxygen:	Typically ≤5 ppma or ≤10 ppma (ASTM F121-83)
SSP wafer thickness (etched backside):	150 mm: 400 to 1,150 µm 200 mm: 550 to 1,150 µm*
DSP wafer thickness (polished backside):	150 mm: 380 to >1,150 µm 200 mm: 380 to 1,150 µm*
Trap-rich layer:	Purely silicon-based, no foreign materials

*Other thicknesses possible with certain limitations



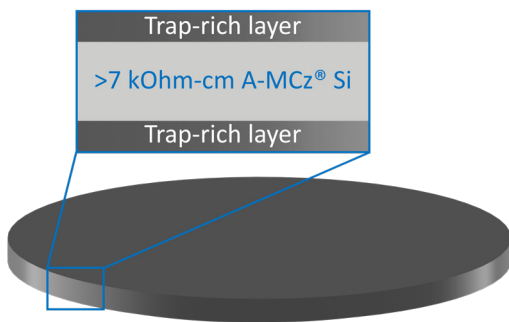
High Resistivity SSP and DSP Wafers



Engineered Ultra High Resistivity wafers

- Optimized A-MCz® silicon wafer with low O_i and >10 kOhm-cm resistivity
- Trap-rich layer and doping process taken to extremes
- Best technical performance: close to zero substrate-induced losses and nonlinearities
- Available in 200 mm

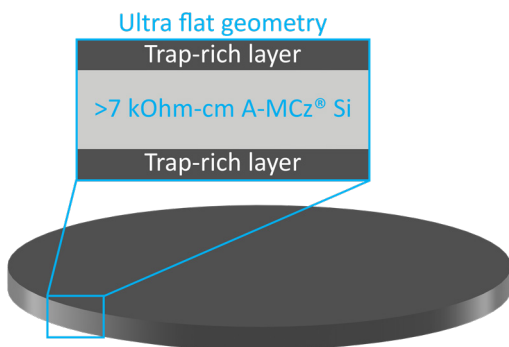
> Premium solution for RF filters



Engineered High Resistivity wafers

- Optimized A-MCz® silicon wafer with low O_i , up to >7 kOhm-cm resistivity and trap-rich layer
- Superior RF performance and very low losses
- Available in 150-200 mm

> For RF filter and IPD devices



UF-RFSi® wafers

- Optimized A-MCz® silicon wafer with low O_i and up to >7 kOhm-cm resistivity
- Trap-rich layer and Ultra Flat geometries with very low TTV + non-circular symmetry variation
- Enabling superior RF performance and challenging active layer geometries
- Available in 150-200 mm
- Also available in Ultra High Resistivity version

> For Thin Film SAW