



HIGH RESISTIVITY RFSI® WAFERS FOR SUPERIOR RF PERFORMANCE

High Resistivity wafers

Low loss substrate with $>7\text{k}\Omega\text{-cm}$ resistivity e.g. for RF IPD or Integrated RFFE / RFIC.

Engineered High Resistivity wafers

Extremely low-loss substrate with $>7\text{k}\Omega\text{-cm}$ resistivity and trap-rich layer. Suitable e.g. for RF filters, capping.

UF-RFSi® wafers

Engineered low-loss substrate with $>7\text{k}\Omega\text{-cm}$ resistivity, trap-rich layer and ultra Flat geometries e.g. for high-performance SAW.

Engineered Ultra High Resistivity wafers

Close-to-zero-loss substrate with $>10\text{ k}\Omega\text{-cm}$ resistivity and trap-rich layer. Suitable for demanding RF devices.

RF GaN Substrate wafers

Standard to extra thick $\langle 111 \rangle$ wafers with advanced stress management e.g. for RF GaN devices and RF switches.

High Resistivity BSOI wafers

Bonded SOI or suspended cavity C-SOI® low loss structures per Customer design, e.g. for RF switches, filters and BAW resonators.

Superior RF Performance and Lower Total Cost of Ownership

- Volume production for leading RF device manufacturers since 2015.
- Wafers with superior performance in 2nd harmonics, insertion losses, IMD3 and Q-values.
- Available wafer sizes 150 and 200 mm.

DOPANT	ORIENTATION	THICKNESS	RESISTIVITY	OXYGEN CONTENT (ASTM F121-83)
Boron	$\langle 100 \rangle, \langle 111 \rangle$	380 – $\geq 1,150\ \mu\text{m}$	$>5,000\ \Omega\text{-cm}$ $>10,000\ \Omega\text{-cm}$	$<10\ \text{ppma, MCz}$ $<5\ \text{ppma, A-MCz}^\circledast$
Phosphorus	$\langle 100 \rangle$	380 – $\geq 1,150\ \mu\text{m}$	$>5,000\ \Omega\text{-cm}$ $>7,000\ \Omega\text{-cm}$	$<10\ \text{ppma, MCz}$ $<5\ \text{ppma, A-MCz}^\circledast$