

EtchTemp



Wireless SensorWafer™
Etch Process Monitoring

EtchTemp



ETCHTEMP SENSOR WAFER FOR ETCH PROCESS MONITORING NEEDS

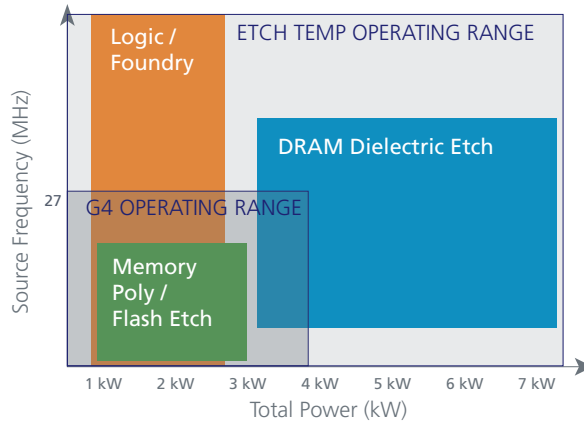
Today's etch engineer faces many challenges; smaller process windows make chamber matching more difficult, and higher RF power recipes make it harder to achieve Cpk (process capability) goals. Thus it has become increasingly more important for engineers to have a reliable means for capturing critical etch process temperature data at the wafer level.

The EtchTemp Sensor Wafer's unique ability to withstand high RF power stress without structural damage, coupled with its highly accurate measurement of plasma etch temperatures, will now grant engineers access to previously unavailable data thus gaining information on the dynamic response to diverse recipe steps as well as chamber-to-chamber variations.

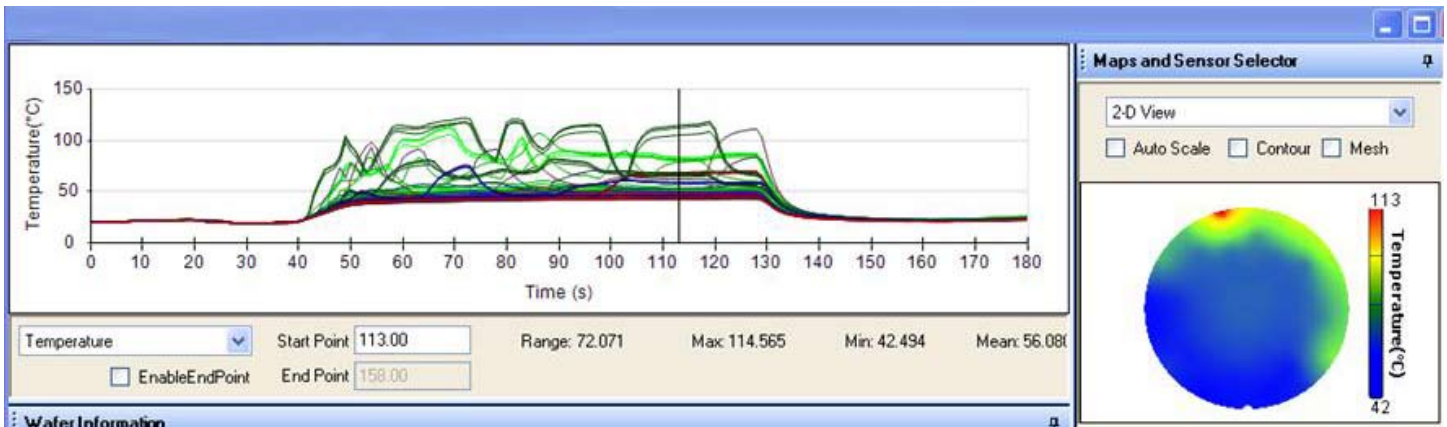
APPLICATIONS

- Tool and chamber matching
- PM qualification
- ESC lifetime optimization
- Process visualization and development
- Tool installation and start up
- Troubleshooting

TAKE A REAL LOOK INSIDE THE ETCH PROCESS



EtchTemp performs in a wider operating range as compared to previous generation wireless etch wafers.

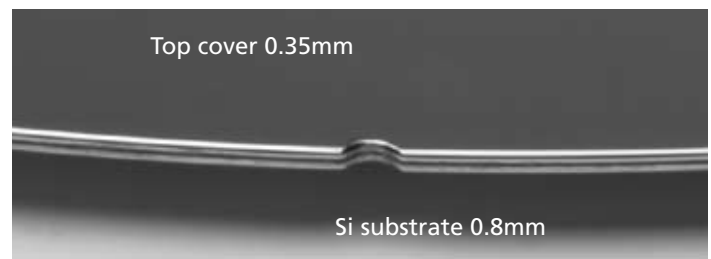


The edge rich sensor layout of the EtchTemp wafer and PlasmaSuite analysis software detects an ESC performance issue.

Wireless SensorWafer™

ETCHTEMP SENSORWAFER FEATURES

- Edge rich sensor layout provides increased wafer edge resolution
- Advanced shielding allows up to 7kW dual source RF power recipes
- Thin profile silicon cover format resolves tool clearance issues
- Superior manufacturing processes result in increased reliability and durability



The EtchTemp SensorWafer achieves its zero profile planar design by recessing all the electronics, batteries, and sensors into the substrate of a production grade wafer, then affixing a protective cover of approximately half thickness.

SPECIFICATIONS

Operating Range	20-140°C
Accuracy	+/- 0.2°C
Sensor-to-Sensor Precision	<0.25°C
Sensor Quantity	65

Thickness	<1.2mm total height
Recording Time	12 minutes @ 1Hz
Warranty	6 months

POWERFUL AND EASY TO USE

With the EtchTemp SensorWafer you get a system that is both powerful and easy to use. When paired with the integrated FOUNDRY Base Station, you are able to manage all SensorWafer operations and data collection duties while deploying the wafer robotically using standard wafer handling equipment. Our powerful PlasmaSuite software package provides full analytic capabilities, allowing you to identify and diagnose drifting chambers in production, as well as assist in process development and characterization.



KLA-TENCOR SERVICE and SUPPORT

Customer service is an integral part of KLA-Tencor's portfolio that enables our customers to accelerate yield. Our vast customer service organization collaborates with worldwide customers to achieve the required productivity and performance at the lowest cost. K-T Services includes comprehensive contracts, time and materials, spares, asset management, customer training and yield consulting.

KLA-Tencor Corporation
1 Technology Drive
Milpitas, CA 95035
phone 408.875.3000
www.kla-tencor.com