

HIGH ACCURACY RTD WAFER

Thermoway's RTD wafer is designed for processes requiring high precision temperature measurements such as semiconductor photoresist track systems, wafer probers, and many other types of semiconductor fabrication equipment.

With high measurement accuracy and stability result from the careful design integration, the RTD sensors, bonding and encapsulation materials and the four-wire resistance measurement method are the key intergrated elements. The operating temperature range is -80°C ~ 300°C.



Features

- Temperature Range : -80°C to 300°C
- Number of Sensors : 1 to 160 points
- Calibration Service
- Software and Analysis System

Applications

- Measuring and recording wafer temperature of the process cycle: loading, heat-up, steady state, cool-down, and unloading.
- Improving wafer temperature control and uniformity, maintaining narrower process temperature windows.
- Managing production processes that have tight thermal performance specifications or providing inputs to SPC systems.
- Optimizing wafer processes during hardware or process development.
- Testing and benchmarking wafer fab equipment during final qualification, fab start-up, and requalification of repaired or upgraded systems.

Specifications

Temperature Range:	-80°C to 300°C
Wafer Size:	6", 8", 12"
Element Type:	Thin Film Platinum
Element Resistance:	100Ω, 1000 Ω nominal at 0°C
Resistance Alpha Value:	0.00385
Max. Measurement Current:	200 μA
Accuracy with Calibration Correction:	±0.1°C absolute accuracy, ±0.03°C sensor to sensor accuracy Also available in customized high accuracy ±0.05°C @ 0°C
Resolution:	0.01°C
Type of Connection:	3-Wire or 4-wire resistance measurement with common current source return
Lead Materials:	Polyimide coated copper
Cable Construction:	Polyimide film flat cable section transitioning to a silicon rubber round flex cable.
Connection:	D-type, high density, sub-miniature with 68 pins.