MicroSense® CSW1
Wafer Measurement System
Geometry Metrology for 150mm and 200mm Wafers

Automatic, non-contact measurement of filmed, patterned and bare wafers -150mm & 200mm diameter

The MicroSense CSW1 measurement system provides full wafer, high speed geometry measurement of semiconductor wafers using non-contact capacitance sensors with nanometer level thickness resolution. The system measures the thickness, flatness, bow and warp of the wafer in compliance with SEMI standards. Designed for maximum versatility, the system can measure 150mm and 200mm diameter wafers. Over 120,000 data are measured on each wafer to generate high resolution wafer maps.

Key Attributes

- The system automatically calibrates before and after each wafer is measured for best repeatability
- Wafers are loaded into the system, then automatically positioned during measurement by a precision direct drive air bearing X-Y stage
- MicroSense UltraMap measurement software provides a complete range of SEMI standard wafer thickness/flatness/shape measurements, including local and global flatness
- Both 2D and 3D wafers maps are provided

Wafer thickness, wafer shape and full wafer stress, based on full wafer mapping

Nanometer resolution capacitance sensors