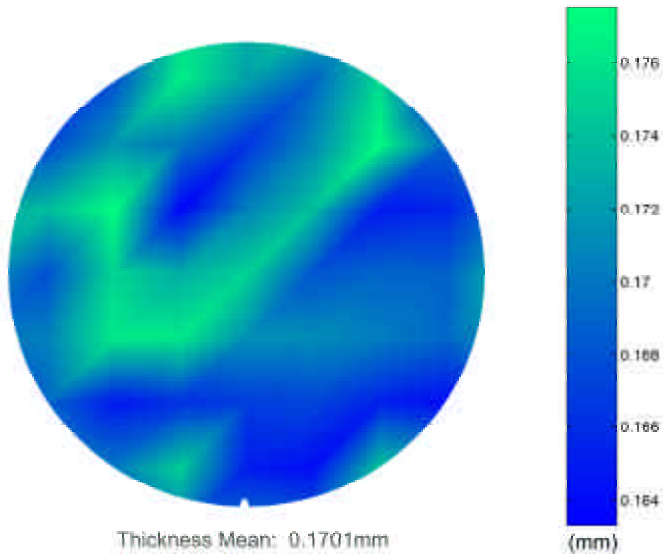




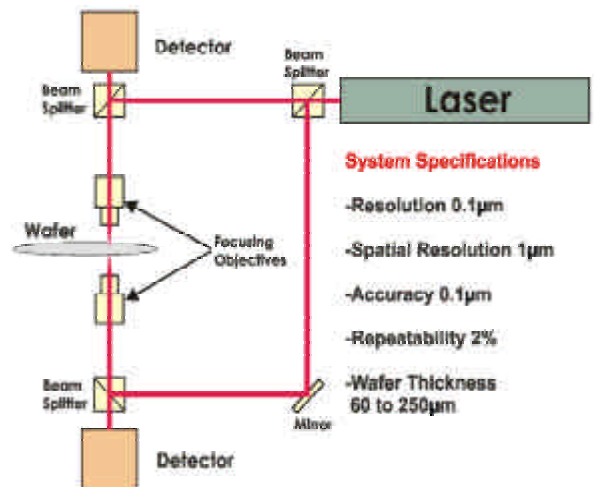
**Using the MPT1000 Non-Contact Thickness Measuring System**



The MPT1000 is Chapman Instruments' latest non-contact system, providing wafer thickness measurements. Specially designed for final backgrind wafers, it can be used as a production tool for in-line quality inspection, a research and development tool for establishing standards, and compiling data for enhancing productivity. The MPT1000 utilizes a sophisticated non-contact measurement technology with a focused laser spot on the wafer surfaces. Users can measure structured taped wafers after backgrind or dicing. The powerful, user-friendly, Windows® based operational software can be programmed to provide automated wafer thickness maps, execute a series of measurements, or report the data off-line for further analysis. Password security and event viewer/error logging are standard with Chapman software. Robotic handling for both 200 mm and 300 mm wafers is available as an option.

**MPT1000 Features and Benefits:**

- Non-contact, providing non-destructive measurements to finished wafers
- 0.1 μm thickness resolution, providing thickness uniformity and Q/C control
- 1 μm laser spot size on both top and bottom wafer surfaces, providing the ability to distinguish between small features, e.g. bumped wafers
- Optical Measurement System, providing accurate wafer thickness measurements independent of material properties, especially useful for patterned wafers, GaAs and other wafer types
- Nomarski Viewing System, provides high definition examination of small features on the wafer surface
- Measurement at any location, provides thickness uniformity information
- Measurement through tape on a patterned wafer, provides direct feedback for production wafers, no need to use a separate test wafer. Provides cost reduction by eliminating a test wafer procedure.
- Measurement on backgrind wafers, or after dicing, provides flexibility for measurements at different steps
- Automated Focusing, provides automatic measurements for a variety of wafer types and thicknesses without other special setup
- Customized measurement sequences with multiple scans implemented with a single keystroke
- Optional robotic handling



*A schematic showing the concept of the Chapman non-contact wafer thickness measurement system. The dual system provides a small focused beam on both top and bottom wafer surfaces.*