NON-CONTACT
3D SURFACE METROLOGY
APPLICATIONS

THICK FILM
- The non-contact measurement technology checks the wet sample immediately after the print
- Automatic measurement routines create repeatable and user independent results

FLATNESS
- Accurate measurement of flatness even on large and highly contoured parts
- Effective methods for removing edges and defining target areas

SURFACE ROUGHNESS
- Non-destructive and fast roughness measurements
- All analyses are conforming to DIN ISO standards, tactile probe tip simulation software

THICKNESS
- Parallel scanning with up to 4 sensors
- Collect Top, Bottom and Thickness data, Average Thickness, Bow and Curvature, Total Thickness Variation, Parallel Intensity Masking

COPLANARITY
- Draw rectangle, round or polygon cursors to define base plane and measurement areas.
- 3D Height (avg., max. and min. height), Flatness and Warpage, Coplanarity

TRANSPARENT FILM AND COATINGS
- Accurate measurement of transparent deposits and films, including height, area and volume as well as length, width and position
- Effective technology for detecting different surface levels

SOLAR
- A blue laser sensor can collect data from texturized and coated solar cell surfaces
- Edge detection algorithms measure finger height and width
High-speed / High-resolution 3D scanning system
- Travel ranges from 100 mm to 600 mm
- Z-resolution down to 3 nm
- Measurement range up to 25 mm

Based on its sophisticated scan platform cyberTECHNOLOGIES offers customized solutions for special applications.

- Compact bench top system
- 100 mm travel
- Fast data acquisition

- High end profiling system
- Ultra accurate motion system
- Continuous autofocus with active z-axis
- 600 mm scanning area
- Gantry system with high accurate air bearings
- Flatness < 0.5 µm over 600 mm

- Large 315 mm scanning area
- Stable, vibration isolated platform
- Ideal for use in production

- Dual sided thickness measurement
- Measures thickness, TTV, bow and warp etc.
- Flexible use as standard profiling system
- 3 axis scanning system including rotary stage
- For round parts from 5 mm to 200 mm diameters
- Measures roundness, diameter, concentricity and roughness

- Integrated and compact design
- Large 200 mm scanning area
- 3D interferometer or CHR sensors

- Integrated solution for automated non-contact scanning directly in the production process
SENSORS

POINT SENSORS - 3D CONFOCAL MICROSCOPE
The 3D confocal microscope uses a rotating Nipkow Disk and offers 400 µm range and height resolution down to 1 nm.

PRODUCT LINE SENSORS – CONFOCAL WHITE LIGHT
The confocal line sensor scans even large samples with unmatched speed (384,000 data points/sec.). There are three different line widths available: 0.96 mm, 1.91 mm and 4.78 mm.

PRODUCT AREA SENSORS – 3D WHITE LIGHT INTERFEROMETER
The 3D white light interferometers are available with 3 measurement ranges: 100 µm, 250 µm and 400 µm. The resolution in z-direction is 0.1 nm.

PRODUCT POINT SENSORS – INTERFEROMETER FOR THICKNESS MEASUREMENT
A white light interferometer measures the thickness of transparent materials and films. It is based on the CHR controllers and can be combined with a CHR sensor head. Various infrared interferometers are available for measuring wafer thickness as well as glue and epoxy films.

PRODUCT POINT SENSORS – LASER CONFOCAL AND LASER TRIANGULATION
The confocal laser sensor uses a blue laser source and is ideally for measuring solar cells. The sensor is available on all systems. The DSR-500 is ideal for measuring thick-film on a variety of substrates. It is available for the VANTAGE 50.

AREA SENSORS – 3D WHITE LIGHT INTERFEROMETER
The 3D white light interferometers are available with 3 measurement ranges: 100 µm, 250 µm and 400 µm. The resolution in z-direction is 0.1 nm.

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SOFTWARE

SCAN SUITE is the software package for all cyberSCAN SYSTEMS and is based on the latest programming technologies. System control, data collection and analysis are combined in an operator friendly user interface.

SCAN CT HIGHLIGHTS

- Complete 2D profile and 3D surface analysis
- Profile and 3D roughness measurements according to DIN ISO EN Standards
- Comprehensive profile and surface compensations
- Advanced filter technologies
- Uni / bi-directional scanning
- Linear, circular and ellipsoidal scanning
- Simultaneous data collection of up to 4 sensors
- Dedicated user management
- Up to 200 million data points per raster
- Fast multithread technology

ASCAN HIGHLIGHTS

- Software tool for measuring 2D profiles and 3D raster automatically
- Easy to use, menu based software, no programming skills required
- 2D and 3D edge detection algorithms
- Clear good, bad and warning indication
- Built-in SPC Charts with reporting function
- Easy programming using tasks and templates
- Integrated database for tasks
- Offset and fiducial correction
- Table view for multiple results
- Flexible, user defined data output format
- Barcode or user field input
- Step & Repeat function
- Plug-Ins for customized software solutions
BECAUSE ACCURACY MATTERS

cyberTECHNOLOGIES is the leading supplier of high-resolution, non-contact 3D measurement systems for industrial and scientific applications. The heart of the system is a high resolution optical sensor either laser-based or with a white light source.

Our systems are widely used in a multitude of applications in microelectronics and other precision industries including thick film measurement, solar cell measurement, flatness measurement, coplanarity measurement, roughness measurement, stress measurement, TTV measurement and much more. Our 3D optical profilometer, along with our software package, provides accurate and dependable readings. Major international companies, as well as many small and medium sized companies, trust in cyberTECHNOLOGIES solutions. As a global player, cyberTECHNOLOGIES takes advantage of a worldwide network of qualified distributors and representatives.

MAKE INNOVATIVE SURFACE METROLOGY SYSTEMS TO MEASURE AND ENSURE QUALITY OF PRODUCTS AND PROCESSES.

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