

PRODUCT

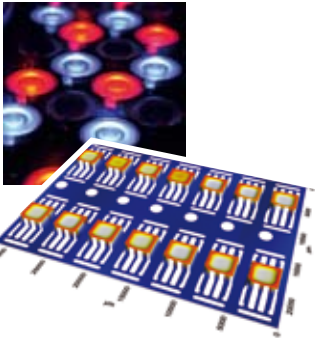
cyberSCAN

CT 300

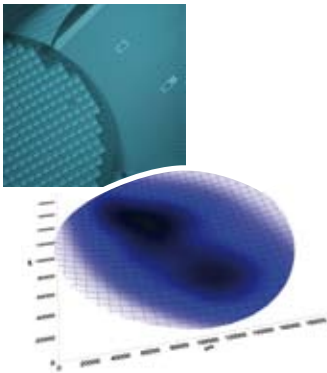
- FAST, PRECISE AND ACCURATE MEASUREMENT ON SMALL AND LARGE SAMPLES
- LARGE 300 MM x 300 MM SCANNING AREA
- USER FRIENDLY CONCEPT
- SOPHISTICATED ANALYSIS AND AUTOMATION SOFTWARE



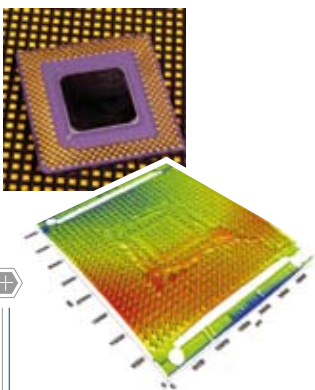
Geometry of LED devices



Flatness of a silicon wafer



Warpage of electronic components



OVERVIEW

The cyberSCAN CT 300 is a non-contact profilometer with a 300 mm x-, y-motion system. It can scan up to 12" wafers or other large substrates and parts. It is ideal for measuring flatness with submicron accuracy over the complete 300 mm travel. Using a chromatic white light sensor and a data rate of 4 kHz the inspection time is minimized. The sensors are available with a z-resolution down to 3 nm and a measurement range up to 25 mm. With our multi-sensor technology several sensor heads can be mounted simultaneously.

APPLICATIONS

Typical applications are the analysis and quality control of printing processes, such as for PV solar cells, incoming inspection of substrate materials, thick-film measurement on a variety of substrates, volume measurement of paste depots, epoxy-film, dots or other printed and dispensed features. Geometry and position measurement of highly contoured objects like solder bumps, micro-lenses, and MEMS devices, as well as flatness and coplanarity analysis are other popular applications. Since the CT 300 maintains high accuracy across the entire travel, larger parts such as wafers, PV panels, gaskets, or glass lenses are inspected fast and precisely.

- Printed products, systems or devices
- Device packaging
- Printed circuits
- MEMS
- Fuel cell elements
- Lenses, gaskets, larger mechanical parts
- Soft and transparent materials or coatings
- Medical devices
- Solar cells

SOFTWARE

The proprietary cyberTECHNOLOGIES, Windows-based software package SCAN SUITE combines system control, data collection and data analysis in a user friendly interface. Comprehensive profile, 3D and roughness analyses conforming to DIN ISO are included. The software can handle up to 10.000 x 10.000 data points in one scan.

An outstanding feature is the ASCAN Software:

- Automation of measurement routines
- Easy programming using tasks and templates
- Offset and fiducial correction
- Built-in SPC Charts with reporting function
- Flexible, user defined data output format
- Barcode or user field input
- Step & Repeat function

TECHNOLOGY

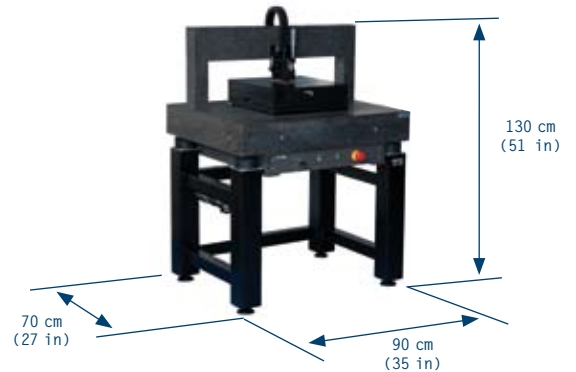
- Fast and accurate magnetic linear stage
- Measurement speed: 4 kHz (14 kHz optional)
- 300 mm travel in x- and y-direction, lateral resolution 0.05 µm, optional motorized z-axis
- 2D profiles and 3D topographical maps
- Large scanning area, up to the maximum travel of 300 mm at maximum x-, y-, z-resolution
- Laser confocal and chromatic white light sensors
- Resolution down to 3 nm, measurement range up to 25 mm
- On-axis camera or high resolution off-axis camera

SYSTEM INCLUDES

- CT 300 base unit with manual z- and motorized x- and y-stage
- One sensor of choice (see sensor specifications)
- Integrated system controller with USB interface
- PC Workstation (current version)
- Factory installed Windows XP and cyberTECHNOLOGIES SCAN SUITE license
- 22" widescreen monitor, keyboard, mouse
- Reference manuals and user guides

OPTIONS

- ASCAN Software for automation of measurement tasks and analyses, 2D and 3D, Step & Repeat
- Motorized z-axis
- High speed sensor and controller (14 kHz)
- Additional sensors
- Traceable calibration tools and certification targets
- Vacuum chucks (porous ceramics)



SPECIFICATIONS

DIMENSIONS
(L X W X H)

700 x 900 x 1300 [mm]
(27 x 35 x 51 [in])

WEIGHT

350 kg (770 lbs)

SYSTEM CONTROLLER

Includes Motion Control, Sensor Controller (4 kHz), Power Supplies, USB Interface to Workstation

WORKSTATION PC

Inquire about current specifications, 22" widescreen monitor

CONNECTIONS

Ethernet, DVD Drive, USB (front and back side), Parallel Port, Keyboard, Mouse, DVI and Analog Video Output

POWER REQUIREMENTS

100-240V AC, 50-60 Hz, 2 amps (240 V), 5 amps (100 V)

OPERATING TEMPERATURE

20°-30° C (68-86 F)

MEASUREMENT SURFACE SIZE

400 x 400 [mm] (14 x 14 [in])

LINEAR ENCODER RESOLUTION

0.05 µm (2 µin)

MINIMUM LATERAL RESOLUTION

1 micron

**TRAVEL LIMITS IN X AND Y
(MOTORIZED)**

308 x 308 [mm] (12 x 12 [in])

TRAVEL LIMIT IN Z (MANUAL)

50 mm (2 in)
(adjustable level to 100 mm)

MOTORIZED Z-AXIS

100 mm travel, 0.1 µm resolution

MAXIMUM LOAD ON PLATFORM

10 kg

AVAILABLE SENSORS

Confocal White Light Sensors
Confocal Laser Sensors
Laser Triangulations Sensors
Interferometers