

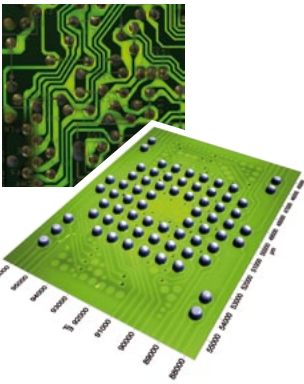
PRODUCT

# cyberSCAN CT 100

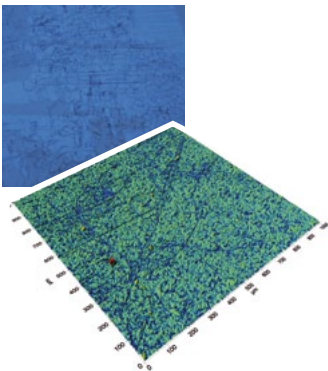
- HIGH-RESOLUTION AND HIGH-SPEED 3D SCANNING SYSTEM
- 150 MM SCANNING AREA
- USER FRIENDLY CONCEPT
- SOPHISTICATED ANALYSIS AND AUTOMATION SOFTWARE



Coplanarity of BGA components

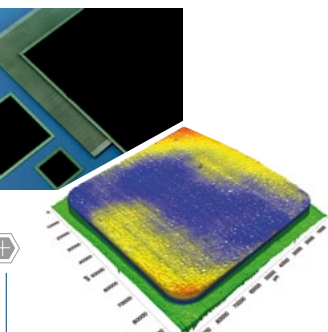


Roughness on solar wafer



Solid Oxid Fuel Cell (SOFC)

By courtesy of: Forschungszentrum Jülich



## OVERVIEW

The cyberSCAN CT 100 is a compact high resolution non-contact profilometer. The main components of the system are a laser or a white light sensor and a x-, y-motion system on a granite platform. Especially the chromatic white light sensors combine high accuracy and high measurement speed. The sensors are available with a resolution down to 3 nm and a measurement range up to 25 mm. The system can scan a maximum area of 150 mm x 150 mm. The proprietary and userfriendly cyberTECHNOLOGIES Software offers sophisticated surface metrology analyses and automated measurement routines.

## APPLICATIONS

Typical applications are the analysis and quality control of printing processes, such as thick-film measurement on a variety of substrate materials, volume measurement of paste depots, epoxy-films, 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.

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

## 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 formats
- Barcode or user field input
- Step & Repeat function

## TECHNOLOGY

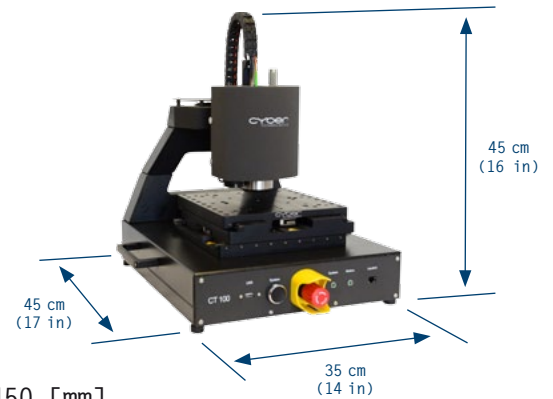
- Fast and accurate magnetic linear stage
- Measurement speed: 2 kHz (4 kHz)
- 150 mm travel in x- and y-direction, lateral resolution 0.05 µm
- 2D profiles and 3D topographical maps
- Large scanning area, up to the maximum travel of 150 mm at maximum x-, y-, z-resolution
- Laser confocal and chromatic white light sensors
- Resolution down to 3 nm, measurement range up to 25 mm
- Optional high resolution camera

## SYSTEM INCLUDES

- CT 100 base unit with manual z- and motorized x- and y-stage
- One sensor of choice (see sensor specifications)
- High resolution off-axis camera including LED illumination
- External system controller with USB interface
- PC Workstation (current version)
- Factory installed Windows 7 64-bit 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
- High speed sensor controller (4 kHz)
- Additional sensors
- Traceable calibration tools and certification targets
- Vacuum chucks (porous ceramics)



## SPECIFICATIONS

**DIMENSIONS**  
(L X W X H)

450 x 350 x 450 [mm]  
(17 x 14 x 16 [in])

**WEIGHT**

44 kg (97 lbs)

**SYSTEM CONTROLLER**

Includes Motion Control, Sensor Controller (2 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**

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

**OPERATING TEMPERATURE**

20°-30° C (68-86 F)

**MEASUREMENT SURFACE SIZE**

230 x 230 [mm]  
9 x 9 [in]

**LINEAR ENCODER RESOLUTION**

0.05 µm  
2 µin

**MINIMUM LATERAL RESOLUTION**

1 micron

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

150 x 150 [mm]  
6 x 6 [in]

**TRAVEL LIMIT IN Z (MANUAL)**

40 mm  
4 in  
(adjustable height levels and micrometer fine adjustment)

**MAXIMUM LOAD ON PLATFORM**

10 kg

**AVAILABLE SENSORS**

Confocal White Light Sensors  
Confocal Laser Sensors

