

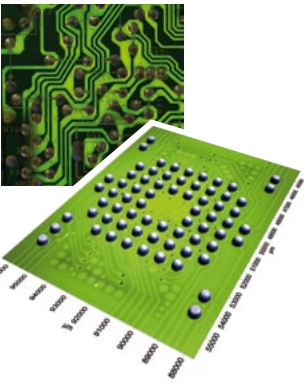
PRODUCT

# cyberSCAN CT 100

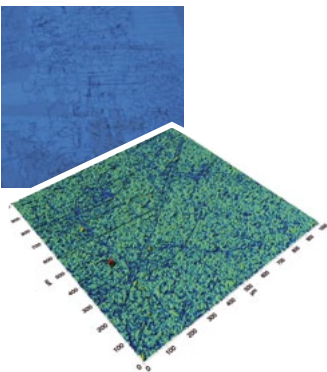
- HIGH-RESOLUTION AND HIGH-SPEED 3D SCANNING SYSTEM
- 150 MM SCANNING AREA
- USER FRIENDLY CONCEPT
- SOPHISTICATED ANALYSIS AND AUTOMATION SOFTWARE



Coplanarity of BGA components

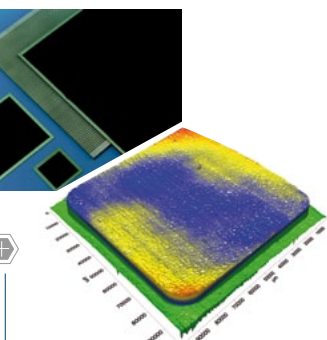


Roughness on solar wafer



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

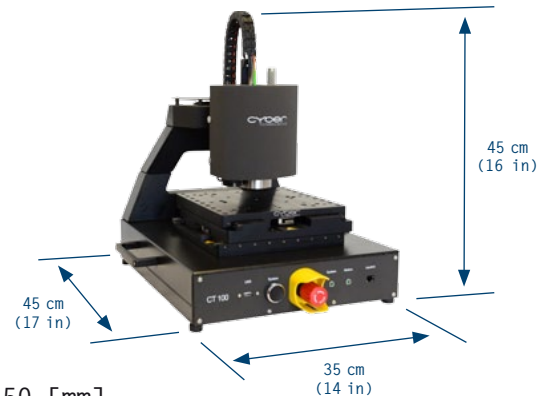
- Fast and accurate magnetic linear stage
- Measurement speed: 2 kHz (4 kHz)
- 150 mm travel in x- and y-direction, lateral resolution 0.05  $\mu\text{m}$
- 2D profiles and 3D topographical maps
- Large scanning area, up to the maximum travel of 150 mm at maximum x-, y-, z-resolution
- Laser confocal 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