

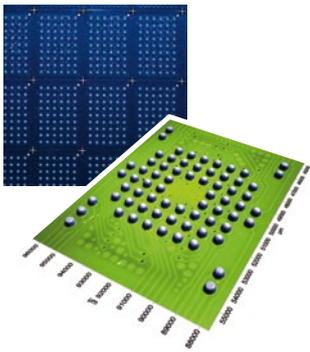
PRODUCT

# cyberSCAN VANTAGE 2

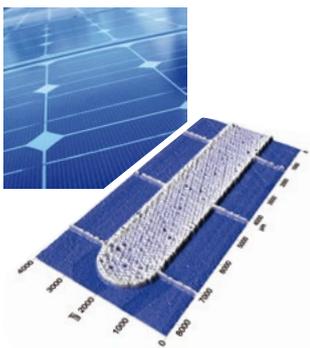
- 3D SCANNING SYSTEM
- CONFOCAL WHITE LIGHT SENSOR
- SOPHISTICATED AUTOMATION AND ANALYSIS SOFTWARE



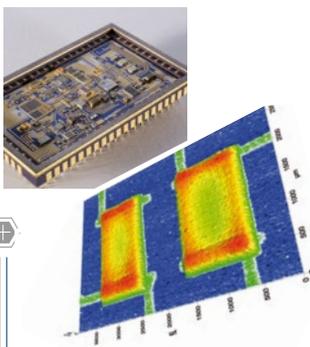
Coplanarity of BGA components



3D metallization measurement on solar cells



Thick-film height on hybrid circuits



## OVERVIEW

The cyberSCAN VANTAGE 2 is a non-contact surface metrology system. It combines high resolution confocal sensor technology with a x- and y-translation stage. The system can measure large areas up to 200 mm with maximum x-, y-, z-resolution. All electronic components are integrated into a robust housing, no cables or external controllers are required. The system is connected with a single USB cable to PC or workstation. The proprietary and user friendly cyberTECHNOLOGIES Software offers sophisticated surface metrology analyses and automated measurement routines.

## APPLICATIONS

Typical applications for the cyberSCAN VANTAGE 2 are the analysis and quality control of printing processes, such as thickfilm measurement on ceramic or any other substrates, PV solar cells, 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, MEMS devices, as well as flatness and coplanarity analysis are other popular applications.

- Printed products, systems or devices
- Device packaging, BGA bump height
- MEMS
- Solar and fuel cell elements
- Soft and transparent materials or coatings
- Medical devices
- Ceramics and plastics

## SOFTWARE

The proprietary cyberTECHNOLOGIES Software package SCAN SUITE combines system control, data collection and data analysis in one user friendly interface. Comprehensive profile, 3D and roughness analyses conforming even to the latest DIN ISO 25187 are included. The Software can handle up to 100 million data points and takes advantage of the powerful Windows 7 64-bit platform.

An outstanding feature is the ASCAN Software. No programming skills are required to create even complex programs in a few minutes:

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

## TECHNOLOGY

- Chromatic confocal sensors
- Resolution down to 3 nm, measurement range up to 10 mm
- Lateral resolution 1  $\mu$ m
- x-/y - stage with magnetic linear drives
- 200 mm travel in x- and y-direction

## SYSTEM INCLUDES

- cyberSCAN VANTAGE 2 base unit with manual z- and motorized x- and y-stage
- One sensor of choice
- Camera and illumination with live video window and calibrated crosshair
- State-of-the art PC with installed Windows 7 64-bit and cyberTECHNOLOGIES SCAN SUITE license

## OPTIONS

- Mono-chromatic confocal sensor for solar applications and measurement on anti-reflective coatings
- ASCAN Software
- Calibration and certification targets
- Motorized z-axis with autofocus function



## SPECIFICATIONS

DIMENSIONS  
(L X W X H)

760 x 530 x 475 [mm]  
(30 x 21 x 19 [in])

WEIGHT

80 kg (176 lbs)

SYSTEM CONTROLLER

PC (inquire about actual configuration)  
running Windows 7 64-bit

POWER REQUIREMENTS

100-240 V AC, 50-60 Hz, 2.0 amps (240V),  
5amps (100V)

OPERATING TEMPERATURE

20°-30° C (68-86 F)

MEASUREMENT SURFACE SIZE

305 x 305 [mm]  
(12 x 12 [in])

LINEAR ENCODER RESOLUTION

0.05 µm (2 µin)

MINIMUM LATERAL RESOLUTION

1 micron

TRAVEL LIMITS IN X AND Y  
(MOTORIZED)

203 x 203 [mm]  
(8 x 8 [in])

TRAVEL LIMIT IN Z (MANUAL)

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

MAXIMUM LOAD ON PLATFORM

6.8 kg

THROAT DEPTH / THROAT CLEARANCE

330 / 250 [mm] (13 / 10 [in])

AVAILABLE SENSORS

Chromatic Confocal Sensors (CHR)  
Blue Laser Confocal Sensor (LT-9510)  
DRS-500