

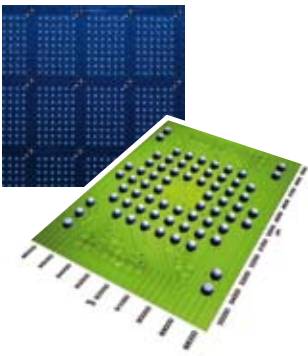
PRODUCT

cyberSCAN VANTAGE

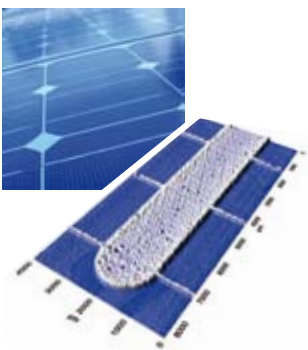
- COMPACT BENCHTOP DESIGN
- LARGE 200 MM X 200 MM SCANNING AREA
- USER FRIENDLY CONCEPT
- SOPHISTICATED ANALYSIS AND AUTOMATION SOFTWARE



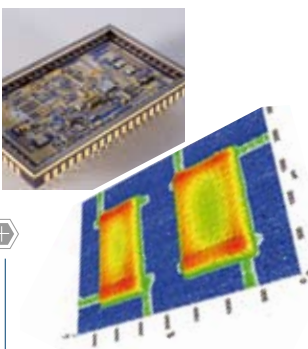
Coplanarity of BGA components



3D metallization measurement on solar cells



Thick-film height on hybrid circuits



OVERVIEW

The cyberSCAN VANTAGE is a laser based non-contact inspection system. It combines high resolution sensor technology with x- and y-translation stages for surface scanning. The system can measure large areas up to 200 mm with maximum x-, y-, z-resolution. All electronic components are integrated into a robust cast metal housing, no cables or external controllers are required. 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 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.

- Printed products, systems or devices
- Device packaging, BGA bump height
- Printed circuits
- MEMS
- Solar and fuel cell elements
- Soft and transparent materials or coatings
- 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 format
- Barcode or user field input
- Step & Repeat function

TECHNOLOGY

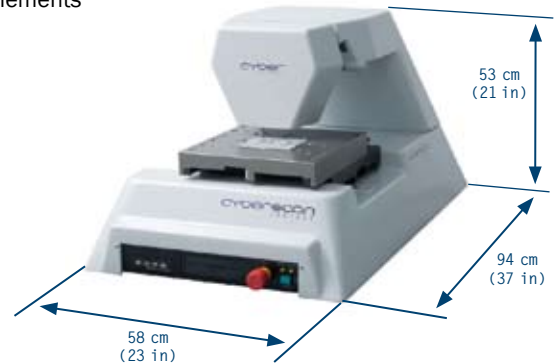
- State-of-the art linear drives with piezo ceramic motors
- 200 mm travel in x- and y-direction, lateral resolution 0.1 μm
- 2D profiles and 3D topographical maps
- Large scanning areas, up to the maximum travel of 200 mm at maximum x-, y-, z-resolution
- Various sensor types with different working principles
- Resolution down to 0.01 μm , measurement range up to 8 mm
- Integrated on-axis camera, visible laser spot inside the camera field of view

SYSTEM INCLUDES

- cyberSCAN VANTAGE base unit with manual z- and motorized x- and y-stage
- One sensor of choice (see sensor specifications) with integrated coaxial video camera
- Integrated system controller
- 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
- Additional sensors with integrated coaxial camera
- Optimized sensor for solar cell applications
- Traceable calibration tools and certification targets
- Vacuum chucks (porous ceramics)
- Floor stand with granite base and vibration isolation elements



SPECIFICATIONS

DIMENSIONS
(L X W X H)

940 x 580 x 530 [mm]
(37 x 23 x 21 [in])

WEIGHT

71 kg (156 lbs)

SYSTEM CONTROLLER

Industrial integrated PC
(inquire about current specifications)

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

305 x 305 [mm]
12 x 12 [in]

LINEAR ENCODER RESOLUTION

0.1 µm
4 µin

MINIMUM LATERAL RESOLUTION

1 micron

TRAVEL LIMITS IN X AND Y
(MOTORIZED)

200 x 200 [mm]
8 x 8 [in]

TRAVEL LIMIT IN Z (MANUAL)

115 mm
4.5 in
(adjustable height levels and micrometer fine adjustment)

MAXIMUM LOAD ON PLATFORM

6.8 kg

THROAT DEPTH / THROAT CLEARANCE

330 / 250 [mm] (13 / 9.84 [in])

AVAILABLE SENSORS

Confocal Laser Sensors
Laser Triangulation Sensors