

PRODUCT

# cyberSCAN VANTAGE 50

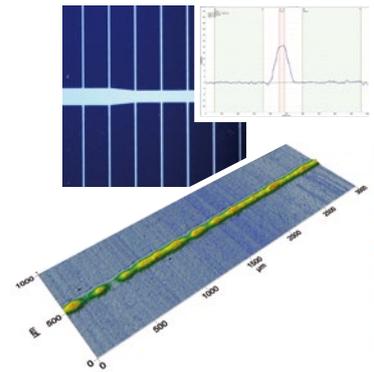
- COST-EFFECTIVE PROFILOMETER AND 3D SCANNING SOLUTION
- INTEGRATED MOTION SYSTEM WITH 50 MM TRAVEL
- USER FRIENDLY CONCEPT
- SOPHISTICATED ANALYSIS AND AUTOMATION SOFTWARE



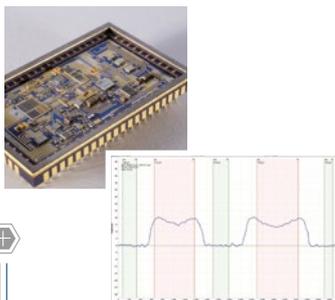
Depth of laser scribing



3D metallization measurement on solar cells



Thick-film height on hybrid circuits



## OVERVIEW

The cyberSCAN VANTAGE 50 is a compact, non-contact profiling system for fast scanning of any part or surface. The system combines a laser sensor, a base unit with an integrated translation stage and a PC or a laptop for data analysis. The sensor scans over the object and produces a high-resolution height profile. The confocal laser sensor can also produce a scan line with the width of 1.1 mm and a lateral resolution of 2  $\mu\text{m}$ . In combination with the translation stage a highly accurate 3D raster can be recorded.

## APPLICATIONS

Typical applications are the analysis and quality control of printing processes, such as thick-film measurement on a variety of substrate materials, epoxy-film, dots or other printed and dispensed features. Geometry measurement of highly contoured objects like solder bumps, micro-lenses, and MEMS devices are popular applications for a VANTAGE 50 system.

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

## 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

- Integrated y-stage with sensor mount
- 50 mm travel in y- direction, lateral resolution 0.05  $\mu\text{m}$
- Laser confocal or triangulation sensors
- Resolution down to 0.01  $\mu\text{m}$ , measurement range up to 8 mm
- 3D Line-scan capabilities (laser confocal sensor) with 1.1 mm width and 2  $\mu\text{m}$  lateral resolution
- Integrated on-axis camera, visible laser spot inside the camera field of view

## SYSTEM INCLUDES

- cyberSCAN VANTAGE 50 base unit with manual z- and motorized y-stage
- One sensor of choice (see sensor specifications)
- External system controller unit with USB interface (LT sensor)
- 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 2D analyses
- On-axis camera for laser triangulation sensor including LED illumination
- Granite base
- Additional sensors
- Traceable calibration tools and certification targets



## SPECIFICATIONS

### DIMENSIONS (L X W X H)

430 x 220 x 245 [mm]  
(16.9 x 8.7 x 9.6 [in])

### WEIGHT

10.5 kg (23 lbs)

### SYSTEM CONTROLLER (FOR CONFOCAL LASER SENSOR)

Includes Sensor Controller and 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)

### THROAT DEPTH (BASE TO LASER SPOT)

70-121 mm (2.75-4.75 [in])

### TRAVEL LIMITS IN Y (MOTORIZED)

50.8 mm (2 in)

### MINIMUM STEPSIZE

1 µm

### TRAVEL LIMIT IN Z (MANUAL)

50 mm (2 in) (adjustable level to 80 mm)

### MINIMUM X STEP SIZE (LT SERIES)

2 µm

### TRAVEL LIMIT IN X (LT SERIES)

1.1 mm

### GRANITE BASE WEIGHT

50 kg (110 lbs)

### GRANITE BASE SIZE

600 x 400 [mm] (23.6 x 15.7 [in])

### AVAILABLE SENSORS

Confocal Laser Sensors  
Laser Triangulation Sensors