

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



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 μm . In combination with the translation stage a highly accurate 3D raster can be recorded.

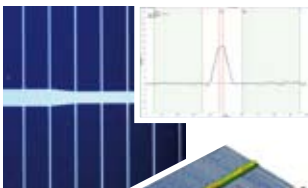
SOFTWARE

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

3D metallization measurement on solar cells



APPLICATIONS

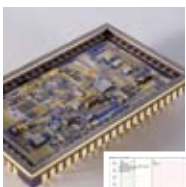
Typical applications are the analysis and quality control of printing processes, such as thick-film measurement on a variety of substrate materials, epoxy-film, dots or other printed and dispensed features. Geometry measurement of highly contoured objects like solder bumps, micro-lenses, and MEMS devices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

TECHNOLOGY

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

Thick-film height on hybrid circuits



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