



Manufacturers of flat, large area, high technology products such as photovoltaic, LCD & plasma panels, are faced with a series of increasingly challenging tasks when performing detailed inspection of their products. Often, system-critical features such as micro circuits, interconnects, pixels, micro defects and other microscopic features, present a number of unique inspection challenges, requiring well optimised illumination, flexible magnification, as well as precision positioning control of the object itself.

Total Inspection

SectorInspector has been developed by Opto Sonderbedarf and -4H- JENA engineering specifically to address these needs, enabling flexible, high resolution variable magnification inspection of microscopic features on large, planar samples.

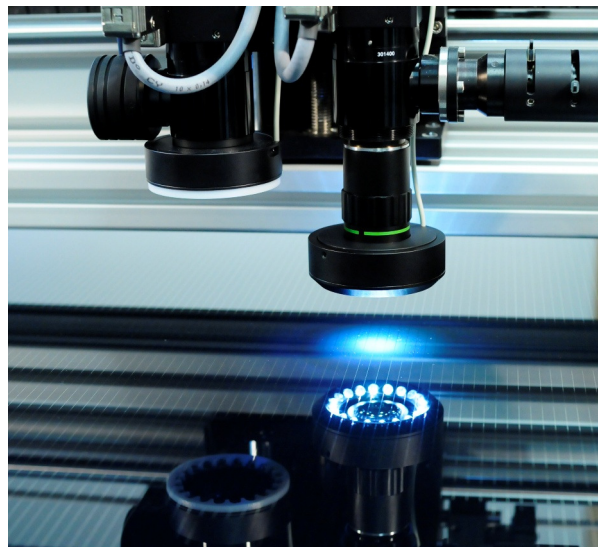
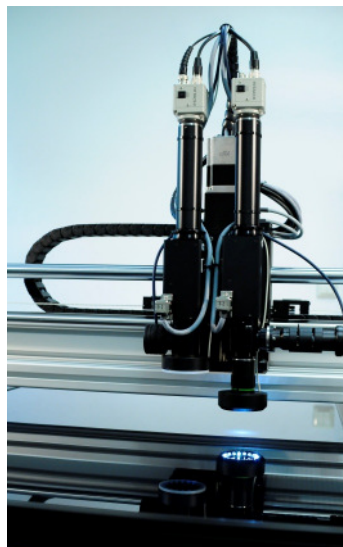
Fully Integrated

SectorInspector's seamless integration of highly advanced optomechanics coupled with its unique, easy to use imaging & metrology software provides you with an invaluable tool in your inspection process. SectorInspector gives you the capability to capture, analyse, and quantify the highest quality images of your most challenging microscopic features on your largest area samples.

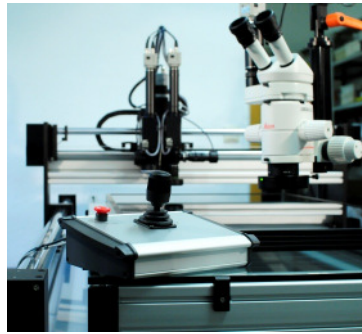
Optical Excellence

SectorInspector is designed to offer you maximum imaging flexibility. With its unique twin video microscope imaging head offering two different range sets of high magnifications, along with the inclusion of a 'go anywhere' gantry mounted precision stereomicroscope with video, a truly comprehensive optical suite, incorporating the very latest imaging technology is now right at your fingertips.

In order to illuminate the most challenging features on the largest samples, SectorInspector incorporates as standard, a series of advanced illumination systems, including LED based brightfield and darkfield, and for maximum imaging capability, the benefit of a transmitted large area backlight.

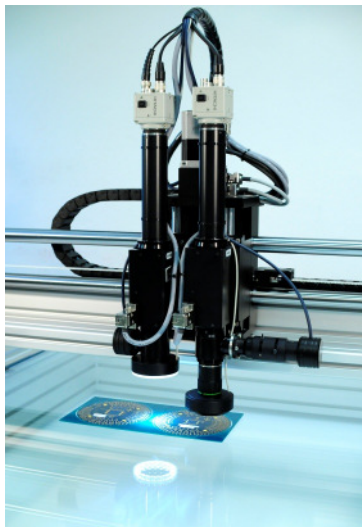


Opto and -4H- JENA engineering always find the right system for your needs. As the designer and manufacturer of the SectorInspector, we are able to customise our system to whatever configuration you may require!



Positioning System

- Standard configuration accommodates samples with dimensions up to 1200mm x 640mm x 35mm. Custom sizing available on request
- Twin microscope imaging head with twin video-zoom microscopes offering 2 different sets of magnification range, for close up and super close up magnification
- Switching Microscopes causes an automatically position offset adjustment
- Joystick & PC controlled precision motorised X/Y mechanism for imaging head positioning



Zoom Microscope 1 (Low Magnification Range)

- Fields of view from 12.2 x 9.1mm to 0.98 x 0.74mm, 18x–228x Zoom
- Motorised with stepper motors (PC & joystick controlled)
- Programmable LED ring light
- 89mm working distance (auto finding when microscope is selected)
- Video camera

Zoom Microscope 2 (High Magnification Range)

- Fields of view from Ø0.9mm to 0.09 x 0.07mm, 248x–2480x Zoom
- Motorised with stepper motors (PC & joystick controlled)
- Coaxial LED Köhler illumination
- 31mm working distance (auto finding when microscope is selected)
- Video camera



"Go Anywhere" Stereo Microscope

- Floor and gantry mounted Leica MZ7.5 Stereo-microscope with video camera
- Field of View Ø33mm to Ø4.2mm
- 81mm working distance
- LED ring light
- Fine & coarse focus
- Positionable to any orientation or position over sample area



User Interface

- Programming and control of illumination, camera and positioning of the twin microscopes
- Measurement and documentation
- Programming of automatic test runs covering the whole sample area