Nominiert für den productronica innovation award 2017

Combining SPI and AOI results
Easy diagnosis and full traceability
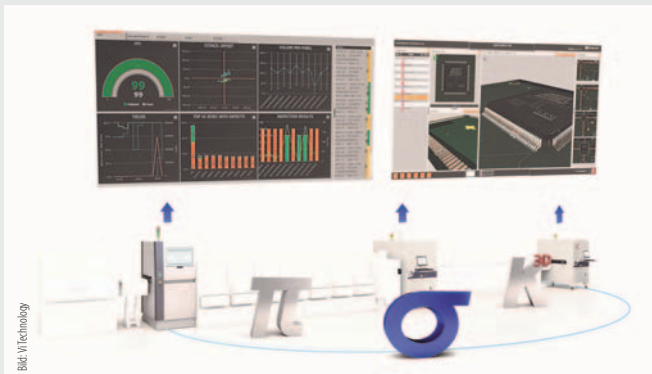
Bild: Vi Technology

Vi Technology's process improvement software, Sigma Link, coupled with two high performance systems from the PI Series (3D SPI) and K Series (3D SPI) product families, drives PCBA process control in new ways.

The web-based software suite for automated optical inspection is structured around four modules (more to come): Import, Review, Feedforward, Analysis. Test coverage is enhanced by combining SPI and AOI results at a post-reflow diagnostic review station. Correlation of measurements allows to better define tolerances to optimize process control. For Smart Factories, Sigma Link is the essential element to combine all inspection data and transform them into valuable information for the users. This real-time interface ensures full traceability and enables interlocking of machines to automate SMT lines while improving yields. Built around a unified SPI and AOI database, a correlation of inspection data and images, the Software provides in-line monitoring, easy diagnosis of the entire PCB assembly process and full traceability of data and images.

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➤ hall A2, booth 421

Automatic line widths measurement
## Under two seconds per point

Orbotech's 2D Metrology enables automatic measurement of conductor line widths and pad shapes within the existing AOI process, overcoming current measurement limitations and costs.

This enables applications like 5G, smart devices and autonomous vehicles which require tight impedance control on more transmission lines supporting 10X higher data volume and processing speed. The tool allows automatic top & bottom measurements with an accuracy level of ±2 µm and within less than two seconds per measured point. This product ensures accurate and repeatable measurement of both line top and bottom widths, with fast sampling rate and enhanced traceability, in addition to advanced reporting tools.

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Free of charge PCB testing tool
Correction before hardware

XJTAG has developed a testing tool in collaboration with PCB EDA vendors Altium, Cadence, Mentor Graphics and Zuken. The result is DFT-Assistant,

Bild: XJTAG
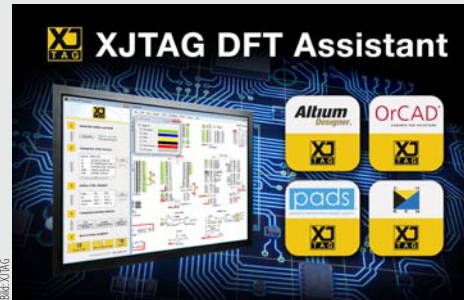
enabling early correction of 'Design For Test' errors before any hardware is produced. Engineers can for the first time proactively validate test access and correct JTAG problems at the design stage, helping to prevent costly re-spins and project delays. The tool provides a level of automation in checking that the chain(s) are connected and terminated correctly. DFT Assistant is composed of two elements: Chain Checker and Access Viewer. Chain Checker identifies errors in a JTAG scan chain, reporting them to the developer. Access Viewer overlays the boundary scan access onto the schematic diagram, allowing users to see which components are accessible using boundary scan, and where test coverage can be extended. DFT Assistant is free of charge.

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3D AXI and 3D AOI within one machine
Three PCBs simultaneously

The X7056-II is Viscom's new 3D AXI system with expanded inspection depth, outstanding image quality, and extremely fast handling. The new board handling solution xFast Flow makes the system ideal for production lines that require high throughput despite extensive inspection of hidden solder joints. Up to three PCBs can be processed simultaneously

Bild: Viscom

and the time for board infeed and outfeed is reduced to less than four seconds. For an optimum configuration, high-performance flat panel detectors (FPD) are available in different sizes, e.g., with an xy-table for planar CT. Inspection depth and throughput are adaptable to meet individual requirements. 2D, 2.5D and 3D inspection can be combined to run in succession for ultimate coverage. Furthermore, the company developed state-of-the-art planar CT software algorithms, which allow highly accurate three-dimensional digital reconstructions of inspected objects. Investment can be reduced by effectively optimizing 3D AXI and 3D AOI within just one machine.

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