ScanCAD INTERNATIONAL

Simplifying Complex Technology

ScanINSPECT VPI™ for PCB Assembly Operations

Cut Down SMT Line Scrap – Detect Stencil and PCB Issues

Identify PCB Variances and Errors

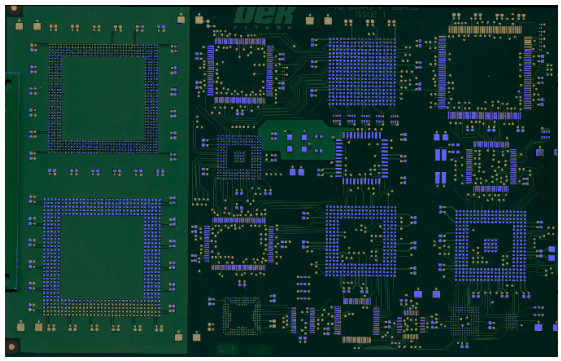
PCBs don't always align perfectly with the original Gerber or ODB++ data, and variations can occur between batches or across different suppliers. ScanINSPECT VPI identifies tolerances and deviations early, before they lead to issues.

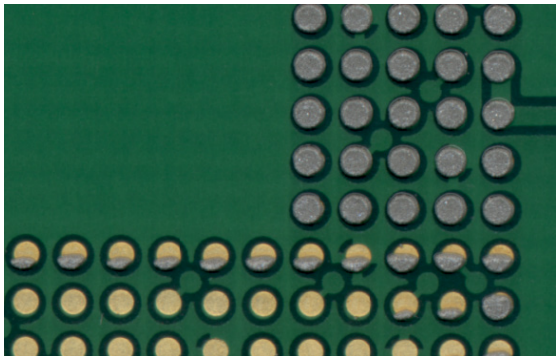
Align Stencil and Pick-and-Place Data with the PCB

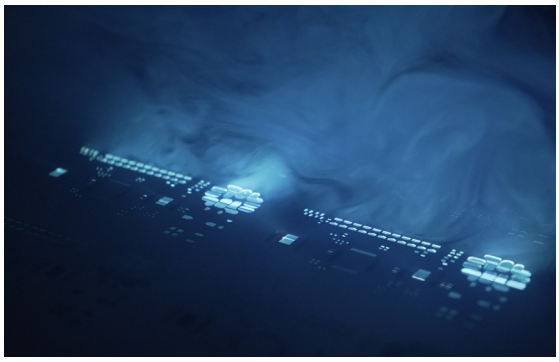
Even a flawless stencil can fall short if the PCB has inconsistencies. ScanINSPECT VPI can automatically generate a custom stencil file and pick-and-place data tailored to the actual PCB, compensating for any deviations to ensure solder paste and components land precisely on the pad, not beside it.

Inspect Stencils – Detect Fabrication Errors

ScanINSPECT VPI inspects incoming stencils before they enter production, identifying fabrication or CAM errors early to prevent costly downtime. It also monitors stencil wear, stretching, and aperture clogging throughout its lifespan, helping to catch preventable printing issues and improve production quality.







"The integration of ScanINSPECT VPI resulted in at least 30% reduction in prototyping errors, 40% fewer line shutdowns and 20% preproduction cost reduction."

- Leading EMS Company

How does ScanINSPECT VPI work?

ScanINSPECT VPI is a highly advanced, fully integrated optical inspection and programming workstation designed for thorough examination of both SMT stencils and PCBs. It detects flaws and mismatches early, ensuring they are caught before reaching the production line.

Its high-resolution imaging technology paired with intelligent software can detect board fabrication variances, out of spec PCB batches and incorrectly manufactured stencils. It also automatically creates stencil patterns and SMT assembly programs for pick-and-place systems that truly match the physical PCBs and compensate for any fabrication tolerances.

Easy Operation

The ScanINSPECT VPI features an intuitive user interface that enables straightforward and efficient operation in any PCB assembly environment. All images and inspection data are stored for full traceability and ISO compliance, with inspection reports generated effortlessly.

Combining Multiple Data Sources

The ability of ScanINSPECT VPI to combine multiple sources of data makes it particularly powerful. The system is capable of aggregating direct scan images of PCBs and SMT stencils with imported X-ray, CT scan, or SEM images* for a comprehensive and in-depth analysis of the entire build.

SYSTEM FEATURES

Inspection

- Incoming inspection of SMT stencils
- Inspect PCB from batch to batch and from fabricator to fabricator.
- Ongoing inspection of stencils to detect wear, clogging and other quality issues

Data Import

- X-Ray, CT scan, SEM images*
- Gerber, ODB++, IPC-2581

*Requires purchase of optional software module.

Data Creation

- Create custom Gerber, ODB++ stencil files based on specific PCBs
- Create CNC data for solder pallets, frames, fixtures and carriers
- Create custom SMT assembly programs for pick-and-place systems.
- Create digital records and inspection reports to support quality assurance

Specifications

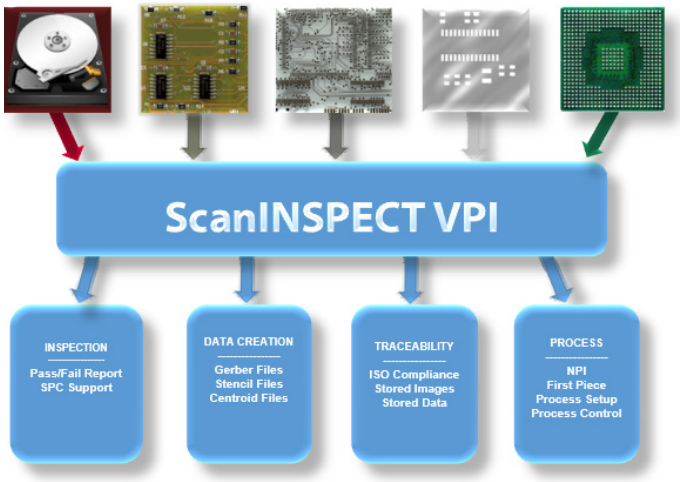
ScanINSPECT VPI is a compact stand-alone workstation with fully integrated computer hardware and scanner with both reflective and transmissive lighting hardware.

High-Resolution Color Flatbed Scanner

Resolution: 4,800 dpi
Scan Area: 11.7" x 16.5" (297 mm x 419 mm)
Unlimited Work Area for parts larger than 12" x 17"
Calibrated Accuracy: ± 0.0010" (± 0.0254 mm)

Operating Conditions

Power Requirements: 110 V / 230V, 50-60 Hz, 200 W
Ambient Temperature, Humidity: 63 – 78F (17 - 25C), 10–80% (no condensation)



"We wouldn't be able to run with the top two complexity customers we have today without ScanCAD," stated the Executive Director of Technology. "For high-complexity projects, it's not an option anymore, it's a necessity."

Learn more about ScanCAD's broad array of services and products: www.scancad.com

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26437 Conifer Road, Conifer, Colorado 80433, USA
+1.303.697.8888 | info@scancad.com | www.scancad.com