



ScanCAD

INTERNATIONAL

Simplifying Complex Technology

***Leading provider of cross-industry, multipurpose,
Automatic Optical Inspection, Measurement
and Data Creation systems***

TECHNOLOGY

- PC-based optical scanner systems
- High resolution color or B&W
- NIST certified calibration
- Reflective & Transmissive Lighting
- Unlimited part size
- Clean room compatible
- CT-Scan, X-Ray, XRT image import

APPLICATION AREAS

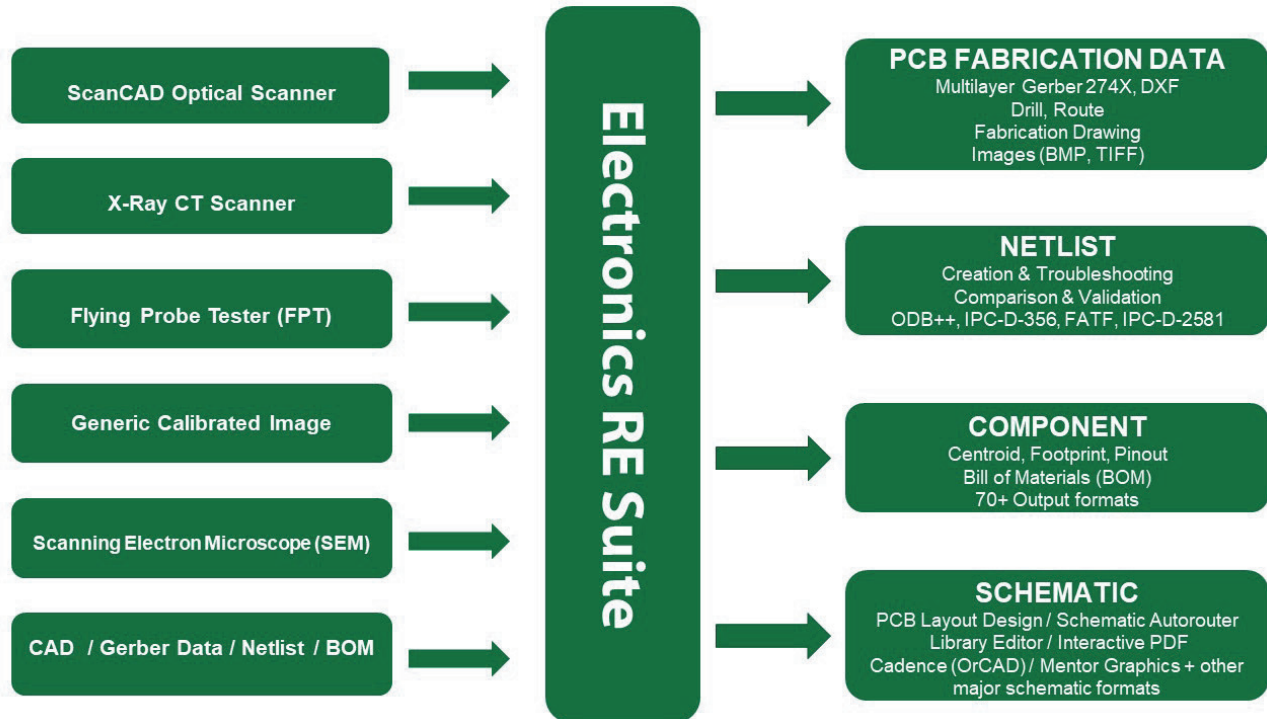
- Legacy PCB re-engineering
- Process control and setup
- New Product Introduction (NPI)
- Optical inspection & measurement
- CAD Data Creation from images
- Digital Twin Technology

BENEFITS

- **PROVEN**
- **ACCURATE**
- **TRACEABLE**
- **ECONOMICAL**
- **FLEXIBLE**
- **MULTIPURPOSE**
- **POWERFUL**
- **UPGRADABLE**
- **OFF-LINE & PORTABLE**
- **EASY TO USE**
- **ENVIRONMENTALLY FRIENDLY**

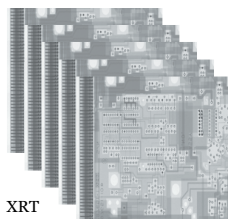
**3,000+ customers
in 50+ countries
for 30+ years**

Legacy PCB/PWB Re-Engineering



Gerber & Drill Data Creation

- From existing boards, artwork, etc.
- Automatic & manual vectorization
- Full Gerber Editor & CAM package
- Stitch capability for large parts



XRT

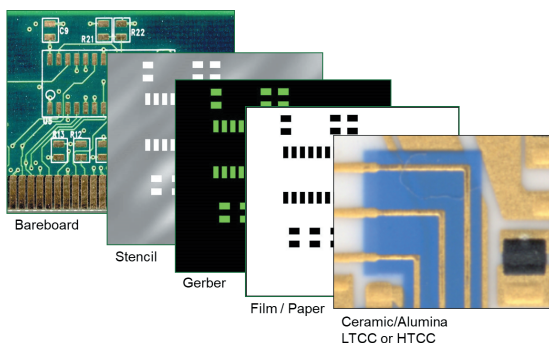
Non Destructive Techniques

- CT-Scan Image import, scale and overlay capability

Netlist Creation

- Industry standard formats

Data Sources



Data Validation & Verification

- Create FPT self learn, validation & verification data
- Compare Netlists (FPT vs. PCB RE Data)
- Integrated Design Rule Checks (DRC)

Schematic Generation

- PDF or Industry standard formats

BOM Generation

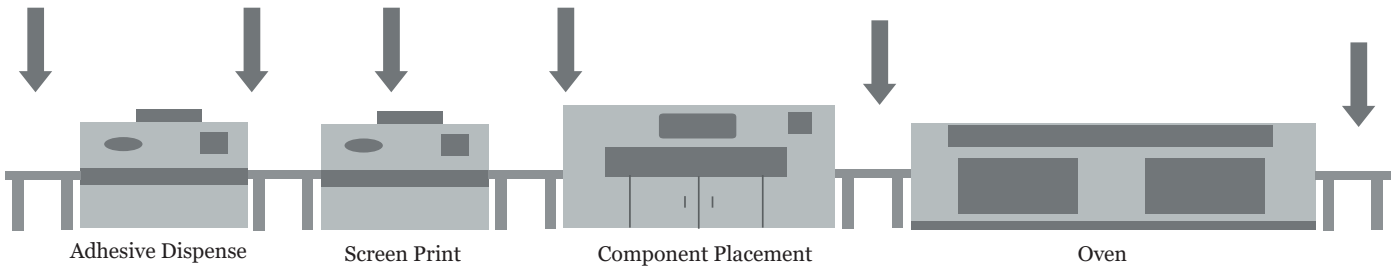
PCB Conformal Coating Removal and Delamination Tool

- Integrated Workstation
- Delaminate PCBs – Destroy dielectric without damage to copper
- Remove conformal coatings with ESD protection
- Fast, reliable, safe and easy to use in office environments



Process Control & Set Up

A fully integrated, stand-alone process control, measurement, inspection and programming workstation for use in setting up processes before the production floor or for performing inspection once a product is in production.



Process Setup, Changeover & New Product Introduction (NPI)

MANUFACTURABILITY	Check holes, slots, real estate, part interference and step & repeat.
COMPONENTS	Compare parts from multi-vendors including shape, color, size, markings, leads, etc. Detect counterfeit parts and foreign objects.
BARE BOARDS	FR4, Organic, Hybrid, LTCC, HTCC ceramic or flex substrates. Compare from multi-vendors. Inspect to Gerber or to the stencil/screen, photo tool or golden board.
STENCILS/SCREENS	Detect stretch, wear, missing, blocked or damaged apertures. Use for incoming inspection or in-production after cleaning.
GERBER CREATION	Create stencil Gerber data from scanned image of PCB when no Gerber exists or to make sure Gerber exactly matches PCB, thereby achieving up to a 43% reduction in solder defects per published study.
PASTE/ADHESIVE	Inspect paste, epoxy or adhesive to Gerber, stencil or golden part.
LOADED BOARDS	First Article Inspection of component location, rotation, package type, etc., to CAD data.
PROGRAMMING	Create assembly programs from either Gerber data, CAD data, and/or scanned images of PCBs, film, stencils, etc. Adjust placement data to exactly match PCB to significantly reduce tombstoning defects.
COMPONENT PROGRAMMING	Create component vision files from scanned images of standard components, odd-form components, trays, nozzles, etc.
LEAD/BALL INSPECTION	Detect bent, missing or damaged component leads or balls before component is placed on PCB. Inspected in a tray or as a single part.

**Catch problems BEFORE the production floor and
ELIMINATE SURPRISES!**

NIST Traceable Automatic Optical Inspection & Measurement Systems

Improve quality, minimize rework, eliminate scrap and lower costs!



Flat Part - Any Material

Compare laser-cut, drilled, stamped, chem-etch or electro-form parts to CAD data or golden parts.

Emulsion Mesh Screen

Check for lifted emulsion, pin holes, debris, wash out, exposure errors.

PhotoTool & Substrate

Inspect substrate, film, glass, chrome, diazo or other artwork versus CAD data for mouse bites, pin holes, scratches, debris. Create & edit CAD data from scanned images.

LTCC, HTCC, Hybrid

Identify excess and voids of screened/printed conductor, resistor and dielectric materials.

Ball & Bump Placement

Absence/presence/shorts inspection of ball or bump placement on circuit boards, wafers or substrates.

Adhesive, Epoxy, Solder Paste, Underfill

Confirm adhesive, epoxy or paste placement after dispensing or printing.

Inspect position, area, bridging/shorting, opens, debris, etc.

Wire Bond

Detect presence/absence of wire bonds, wires and die underfill, etc.

Extruded Part, Die, Tooling

Compare part cross section or profile to CAD data or golden part.

Hole & Profile

Inspect holes and outlines/profiles in all materials for defects including position, size, shape, etc.



Limitless Applications and Industries

*A flexible inspection, measurement and process control workstation
for use in a variety of industries such as:*

Electronics
Medical
PV Solar
Research
Aerospace
Defense
Communications

PCMI
Government
Automotive
Fuel Cell Manufacturing
Semiconductor
Film

University & Laboratories
Electric Utilities
Transportation
Security
Extruded, Stamped, Drilled
Punched Parts
Gaskets, Templates and More



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