PHOTONDYNAMICS™

SUPERIOR VISION 7550

HIGH-SPEED, COLOR AOI FOR PRINTED WIRING ASSEMBLIES

Fast setup

High Defect Coverage

Easy to use

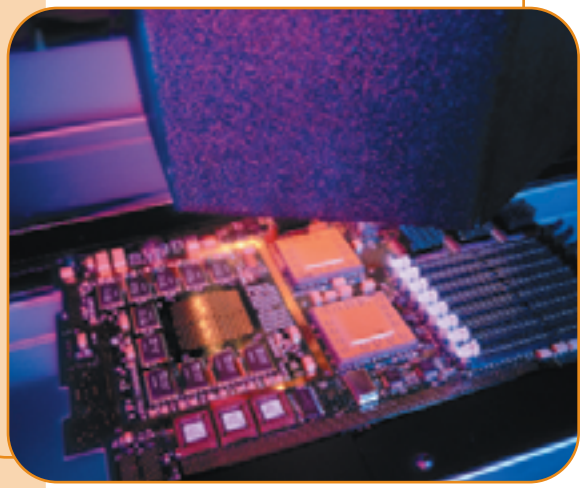
SUPERIOR VISION 7550

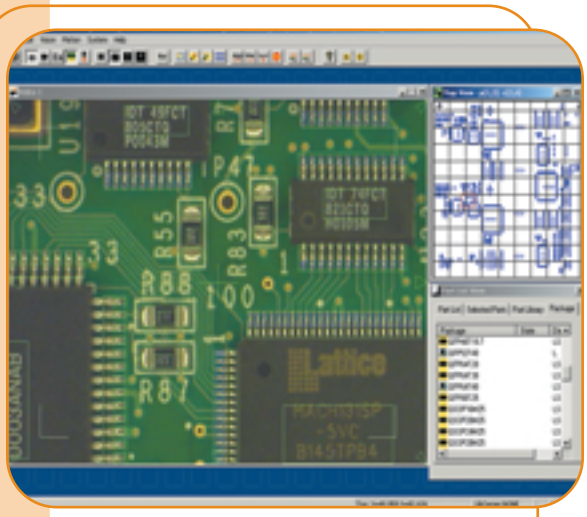
HIGH-SPEED, COLOR AOI FOR PRINTED WIRING ASSEMBLIES

INCREASED YIELD EDGE

With its ease of use and fast setup time, the Photon Dynamics Superior Vision (SV) 7550 automated optical inspection system delivers rapid defect detection, reduced rework and increased process quality — providing an increased yield edge critical to success in today's market.

High defect coverage





Package library makes programming easy

HIGH DEFECT COVERAGE

The SV-7550 quickly and accurately inspects printed wiring assemblies for presence, correct part, polarity, skew and solder defects, such as missing, insufficient or bridging defects — enabling users to detect more defects to improve quality, increase product throughput and achieve higher yields.

False calls are dramatically reduced through innovative technology advancements and automatic defect verification software, allowing the SV-7550 to support high-volume manufacturing lines at line speed while maintaining maximum defect detection and accuracy.

EASE OF USE

Recognized in the industry for its ease of use, the SV-7550 combines a user-friendly interface with a short learning curve — minimizing ramp-up time to maximum defect detection.

- Award-winning user interface is both fast and intuitive, allowing high-speed setup.
- Typical board programming time:
  - 30 minutes for components
  - 1 hour for complete component, lead, solder
- Programming can be performed by line operators — no need for advanced engineering skills.
- Part library simplifies training.
- Configurable for all line positions — paste, pre-/post-reflow, final assembly.

PHOTONDYNAMICS™

ANSWERING MANUFACTURING CHALLENGES

The SV-7550 responds to the increasingly difficult challenges in the electronics manufacturing environment.

- Large board capability (24" x 24") expands manufacturing process latitude.
- Shared library allows program portability across lines for copy-exact needs.
- Off-line programming maximizes productivity by allowing for program creation off the factory floor.
- Real-time, Web-based SPC and defect monitoring tools allow for complete integration into even the most advanced production facilities.

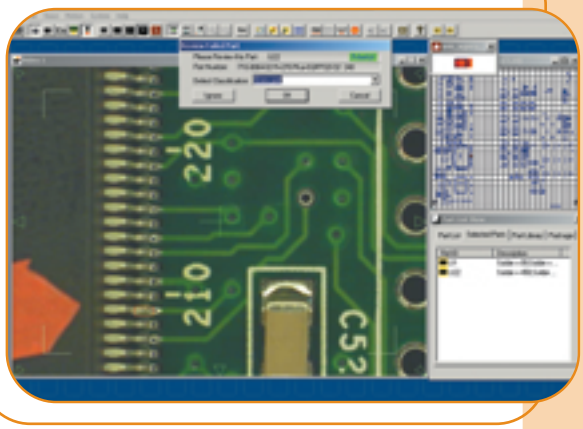
SUPERIOR TECHNOLOGY

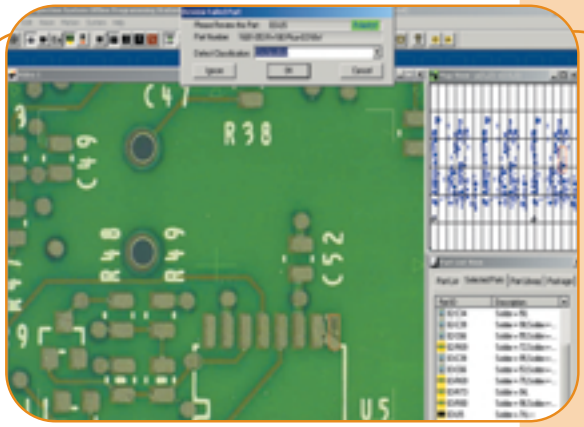
The SV-7550's defect detection technology is at the forefront of the industry.

- Superior Vision Software offers a range of features from pattern recognition to advanced image processing techniques.
- High-resolution cameras with variable magnification allow inspection of the smallest components without sacrificing throughput.
- Color cameras eliminate traditional monochrome image processing limitations by adding hue and saturation as defect parameters.
- Multiple lighting configurations allow for defect-specific illumination options.

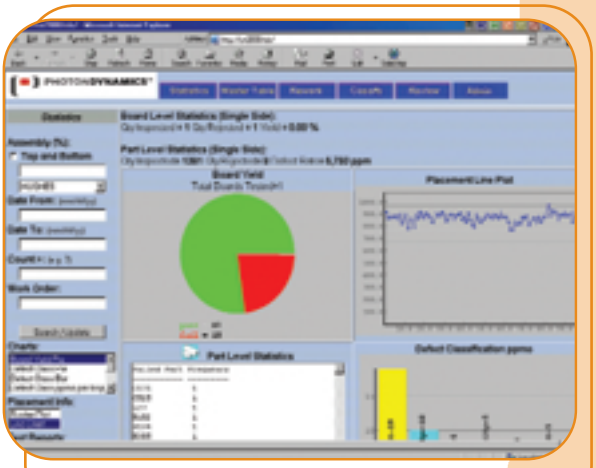
The SV-7550 brings value to the assembly operation by identifying defects early in the process. Analysis of defect data allows process engineers to evaluate defect trends and determine root cause and corrective action quickly and cost effectively.

Solder defect detection





Paste defect detection



Real-time, Web-based SPC

SUPERIOR VISION 7550

HIGH-SPEED, COLOR AOI FOR PRINTED WIRING ASSEMBLIES

SPECIFICATIONS

INSPECTION CAPABILITIES		
Throughput/Speed:	>217,000 components per hour.	
Maximum Board Size:	24" x 24" (610 mm x 610 mm).	
Top/Bottom Clearance:	2" (50 mm) top, 2" (50 mm) bottom.	
Minimum Component Size:	0201.	
Defects Detected:	Component:	missing, wrong, polarity, tombstone, billboard, skew.
	Lead:	bent, lifted, bridging.
	Solder:	solder balls, insufficient, no solder.
Line Placement:	Pre-reflow, post-reflow and post-wave.	
Typical Programming Time:	<1 hour.	
SOFTWARE		
Algorithms:	Normalized template matching and rule-based algorithms.	
CAD Input:	Pick and place data, CAD x-y data.	
CAD Translation Package:	Excel, CircuitCam, Unicam, CIMBridge and Fabmaster.	
Skill Level Required:	Technician or operator.	
SPC:	Real-time outputs reporting first pass yield, defect by classification, reference designator and part with remote monitoring option.	
Operating System:	Windows NT v4.0 or later.	
HARDWARE		
Material Handling:	SMEMA standard, dual direction conveyor.	
Lighting:	Side and top lighting.	
Imager:	Multiple mega-pixel color cameras.	
Processing Unit:	Intel Pentium-based processor.	
Network:	10/100 Base T.	
Options:	Zip drive, UPS, printer.	
OPTIONS-PERIPHERALS		
Barcode Reader:	Barcodes are read automatically during inspection as a standard feature. Barcodes may also be read off-line via optional handheld scanner.	
Rework Station:	For in-line or off-line verification and subclassification of defects.	
Off-line Programming:	Remote station that enables CAD manipulation, template training and off-line program generation.	
PHYSICAL SPECIFICATIONS		
Power:	110 VAC (230 optional), 50/60 Hz, 15 amps maximum/7 amps nominal.	
Air:	80 PSI, 1.0 CFM, Filtered.	
Footprint:	60" x 59" x 79" (1,524 mm x 1,499 mm x 2,007 mm).	
Weight:	1,900 lbs. (862 kg).	
Machine Installation:	<2 hours — typical.	
Optional Support:	24/7 support, extended warranties available.	

CE

ABOUT US

Photon Dynamics, Inc. is a leading global supplier of integrated yield management solutions for the display, electronics and glass markets. Founded in 1986, Photon Dynamics has sales offices and customer support services in San Jose and Aliso Viejo, California; Austin, Texas; Beijing, China; Eindhoven, The Netherlands; Hsinchu and Taipei, Taiwan; Markham, Ontario, Canada; Redhill, Surrey, UK; Seoul, Korea; and Tokyo, Japan.

FOR MORE INFORMATION:
Electronics: 949 448 0443
Corporate: 408 360 3550

www.photondynamics.com