



RS Simmons Co., LLC
PCB Optical Inspection

SimmScope II

Semi-Automatic Optical Inspection for PCBAs

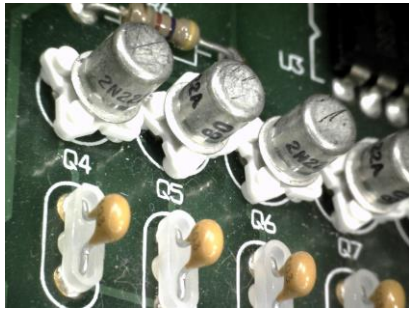
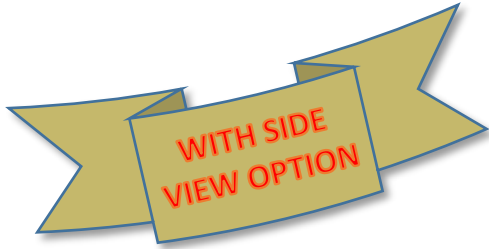


Image Captured with
Optional Side View Camera



SimmScope II 1818 w/ Side View

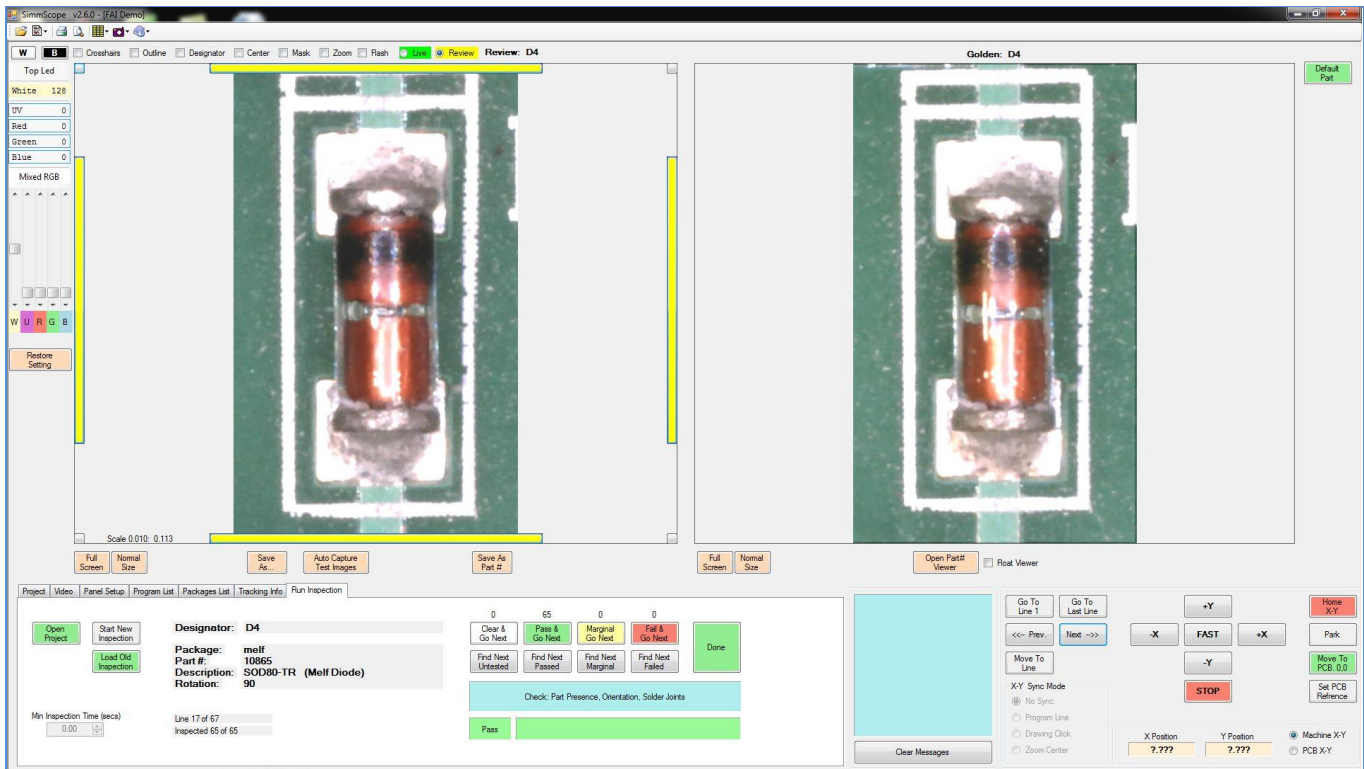
The **SimmScope** is a semi-automatic optical inspection and image archiving system for printed circuit board assemblies. It significantly increases the speed and accuracy of manual visual inspections, and is a fraction of the price of a fully automated AOI. Programming can be done in a matter of minutes using the integrated Gerber, XY Placement List, and Bill of Materials import features. There is also a utility for simple matrix type scanning and inspecting of the board.

The **SimmScope** is a powerful inspection tool for:

- High Reliability applications (MIL-Spec, Medical, Automotive)
- Hi-Mix Low-Volume operations
- First Article Inspection
- Solder Joints and Tall Thru-hole Parts
- Photo Documentation
- Conformal Coating
- Assembly Line Auditing
- Cleanliness/FOD/Tin Whisker detection

Description:

- The system automatically moves a digital microscope to the inspection points, sets the lighting, camera height and angle, zooms to the region of interest, and displays a live image of the inspection area.
- The Golden Board images for the area are displayed next to the live image for visual comparison by the operator. Unlike AOI, the operator makes all of the pass/fail decisions.
- For difficult inspection points, the lighting can be adjusted using the graphical interface.
- The images are automatically captured and can be stored as part of a post inspection report.
- The inspection can be done by component, by board region, or by a combination of both.
- Inspect for part presence, rotation, polarity, registration, text, solder, solder paste, bent leads, bent pins, jumpers, cut traces, or any other top down or side visual feature on the PCB



System Specifications (subject to change)

Base Model	SimmScope II 1812	SimmScope II 1818	SimmScope II 2418
Standard Digital Microscope	Color 1.3M Pixel (1280 x 1024) 20x to 90x Adjustable Mag., 1600 to 7400 dpi, .8" to .17" FOV Top Down 8 White LED with Adjustable Polarization		
Optional Digital Microscopes	Color 5M Pixel (2592 x 1944) 20x to 90x Adjustable Mag., 3200 to 14800 dpi, .8" to .17" FOV Top Down 8 White LED with no Polarization Also Available: 1.3 or 5MP 10x to 20x Adjustable. Mag, 1.6" to .8" FOV		
Optional Lighting	Programmable White, Red, Green, Blue, and UV LED Side Lighting		
Top Clearance	Varies with Magnification Setting and Lighting (2" to 6"). Typically 3" top clearance depending on actual setup.		
Bottom Clearance	Typically 3" bottom clearance depending on the actual setup. More if needed with Mechanical Adjustment.		
Inspection Area	18" x 12"	18" x 18"	24" x 18"
Dimensions	27.5" W x 20" L 24" H	27.5" W x 26" L 24" H	33.5" W x 26" L 24" H
Side View Option	The Side View option adds programmable side view from any direction and up to 50 degrees incidence. Board clearance is 2" max depending on actual setup. Machine dimensions differ from above.		
Other Options	Desktop or Floor Standing, Drawer or SMEMA conveyor, Manual or Programmable Width Control		

Designed and built in the USA.

RS Simmons Co., LLC
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SimmScope II
Semi-Automatic Optical Inspection
For SMT & THT Printed Circuit Board Assemblies

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SimmScope_II