DDM Novastar
Automated Production Systems

Semi-Automatic Optical Inspection Systems (SOI)

NovaScope Semi-automatic Optical Inspection System (SOI)

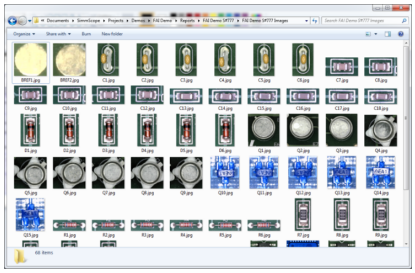
Your Economic Solution for control of your Inspection Process. Perfect fit for low volume assembly, and prototype applications, especially those with unique board features.

- Less operator fatigue
- Less board handling
- 100% accuracy
- 100% traceability
- 100% operator control
- Benefits outway cost

The NovaScope 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 & inspecting of the board.

The **NovaScope** 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 for traceability
- Conformal Coating Inspections
- Assembly Line Auditing
- Cleanliness/FOD/Tin Whisker detection



Automatic Photo Archiving for every inspection - for traceability

How it works:

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 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. Inspections can be performed for many reasons: verify part presence, rotation, polarity, registration, text, solder, solder paste,

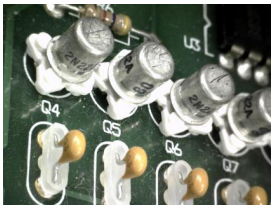


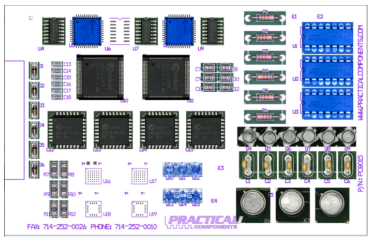
Image Captured w/Optional Side View Camera System

bent leads, bent pins, jumpers, cut traces, or any other top down or side visual feature on the PCB.

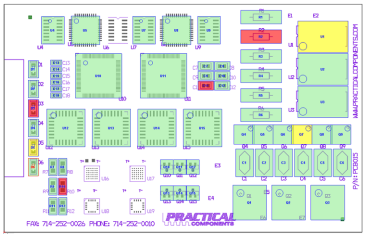
NovaScope Semi-auto Optical Inspection

With complete control of your inspection process, you won't miss a spot. The camera can be programed to move sequentially, detecting Abense or Presence of hardware, scews, wire routings, foreign objects, damage and debris.

Or, if you just want to pick out problem areas for 'speed' of efficiency - that's OK too. Programs can be run to search designated areas of the board, vs the selection of individual components.



Hybrid Image showing inspection point overlaid onto the Gerber as background.



Interactive graphics - showing inspection by component.

System Specifications

Base Model	Model NS-1818 (Standard)	Model NS-1818-AV (Angle-View)
Camera View	Top Down view	Multi-Directional camera position system with top down and 8 programmable oblique views
Standard Digital Microscope	Color 5M Pixel (2592 x 1944) 10x to 20x Adjustable Magnification. (Typical 15X) Optional range of 20x to 50x.	
Top and Bottom Clearance	Typically 2” top and bottom clearance, depending on the actual setup.	
Lighting	Programmable White Lighting	Programmable White, Red, Green, and Blue Side Lighting
X-Y Positioning Speed	8” Per second	8” Per second
Inspection Area	18” x 18” with pull-out drawer	18” x 18” with pull-out drawer
Dimensions	40” W x 36” L 24” H	40” W x 36” L 24” H
Side View Option	No side views with standard top down model	Programmable side view from any direction and up to 50 degrees incidence. Board clearance is up to 2” max.
Also Included	Brand Name Tower PC, Window 7 Pro, pre-configured, plus 27" 4K video monitor	
Other Options	Desktop or Floor Standing, Drawer or SMEMA conveyor, Manual or Programmable Width Control	

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