ScanINSPECT™

"Multi Purpose Optical Inspection System"

WHAT IS ScanINSPECT?

ScanINSPECT is a fully integrated, stand-alone process control, measurement and inspection workstation for use in many applications in multiple industries.

ScanINSPECT uses a PC Windows based software package integrated with a high-resolution, calibrated, A3 size flatbed scanner. This combination allows for inspection of parts at virtually any stage of production. Parts can be inspected versus Gerber data, CAD data or Golden parts.

PROCESS SETUP & CONTROL

ScanINSPECT can be used at many stages of production such as:

- New product introduction as a process setup tool to ensure all variables come together smoothly as a "virtual" product avoiding costly problems before full production starts with "real" products.
- Incoming inspection to ensure parts coming from suppliers meet the required quality specifications.
- An SPC sampling tool for high volume production to ensure the process stays in control.
- Inspect all parts in low volume production to ensure high quality and minimize costly rework and warranty returns.

MULTIPLE INDUSTRY TOOL

ScanINSPECT can be used in a variety of industries such as:

- Electronics
  - PCB Fabrication
  - PCB Assembly
  - Hybrid Microcircuits
  - Semiconductor
  - Stencil/Emulsion Screen Fabrication
- Photochemical Machining (PCM)
- Photovoltaics (Solar)
- Fuel Cells
- Textile
- Medical
- Automotive
- Aerospace
- Military
- Optical
- Life Sciences

MULTI-PURPOSE INSPECTION SYSTEM

ScanINSPECT is capable of performing many different types of inspection in a manufacturing facility. The system is ideal for 2D inspection of flat parts, but 2D inspection of 3D parts can be done under certain circumstances.

The combination of fast, easy programming and short inspection times allow for inspection of 100% of features on a part.

Flexible front and/or back lighting along with color or B&W imaging allow for the inspection of many types of parts. Parts with holes or cutouts can be easily inspected with backlighting and B&W imaging. Any feature that has a slight color difference relative to it's background can be inspected using color imaging and powerful color separation algorithms.

A few of the potential inspection applications are:

- Hole, slot and/or cut-out size, location, shape and orientation in a wide range of materials
- Artwork/Phototool – pin holes, mouse bites, feature size and shape on mylar, diazo, glass, chrome, etc.
- Printed Materials – missing, excess or incorrectly located screened or printed materials
- Dispensed Materials – missing, excess or incorrectly located materials
- Cleaned or Used Tooling or Parts – contamination, damage, wear, rework, etc.
- Inbound Q/A
- First piece
- Finished piece

SIMPLE OPERATION

The ScanINSPECT system can be quickly learned and is simple to operate. Operators can step between defects and zoom in and out to verify errors. Inspection reports can be easily generated.

SYSTEM FEATURES

WORKSTATION DESK SYSTEM

- Contact System
- Scanner Faces Up
- Part Faces Down
- Dry or Wet Parts with Standoffs
- Large Part Capability with Multiple Scans

SCANNING

- B&W or Color Imaging
- Top and/or Bottom Lighting
- NIST Glass Plate Calibration
- Automatic Raster to Gerber Alignment

MEASUREMENT AND INSPECTION FUNCTIONS

- Verify feature sizes to 0.0005” and feature absence/presence as small as 0.002” (0.050mm)
- User Defined or Automatic Inspection Accuracy Level Setting.
- Check Feature Size, Shape and Position.
- Check Gerber Image against Scanned Image
- Compare Gerber Image against Gerber Image
- Check Scanned Image against Scanned Image
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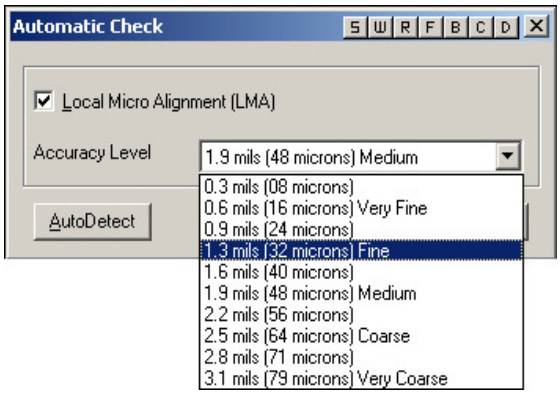
- Point to Point Measurement Functions
- Perform Area Inspection Function of Scanned Features

OUTPUTS

- Pass/Fail Inspection Report
- Rework File Generation
- HP-GL, DXF, PCX and TIFF Files
- SPC Log file



TECHNICAL SPECIFICATIONS

SCANNER

- High-Resolution Color Flatbed Scanner, Size A3: (400/1000/2000/3200*/4800* dpi)
- Calibrated Accuracy: ± 0.0015” (± 0.0381mm)
- A3-Scanning Bed Area: 11.7" x 16.5" (297mm x 419mm)
- Maximum Work Area: 32.0" x 32.0" (813mm x 813mm)

*Reduced scanning area for 3200 & 4800 dpi

COMPUTER*

- Pentium (3GHz or higher) Personal Computer
- 120 GB HD, 2 GB RAM
- CD-ROM (CD-RW for archive purposes)
- Monitor
- Printer
- Win XP Service Pack 2
- 2 available USB ports

*Recommended customer supplied minimum PC requirements.

ADDITIONAL SYSTEM COMPONENTS

- Precision NIST Certified Glass Calibration Grid
- ConvertPLUS CAM Software
- Software Protection Key
- Custom Transmissive Lighting Package
- Custom Workstation Desk
- Scanning Accessory Package

(**All specifications and designs subject to change without notice.)**

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