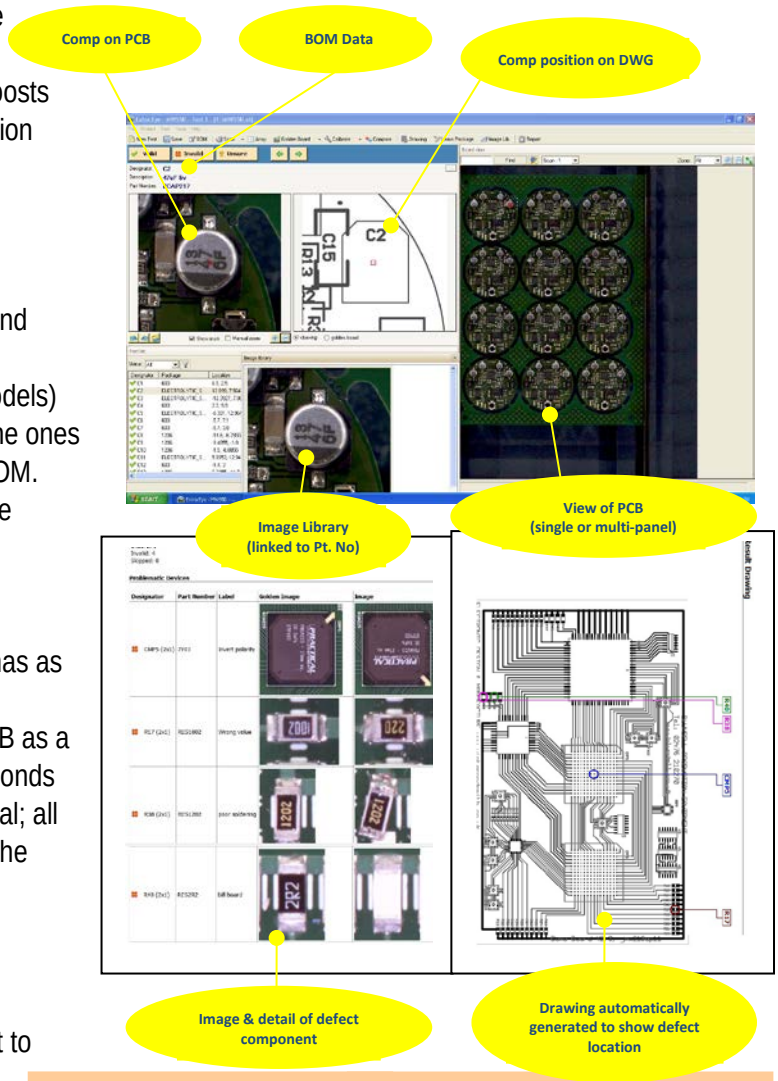
X-Series Extra Eye: Camera Based PCB Inspection System

Flexible and Versatile with fast ROI:

1. Extra Eye for FAI

First Article Inspection (FAI) is one of the most important steps of the PCB assembly process as every mistake from the Placement Machine setup multiplies into hundreds of incorrectly assembled PCBs if left unchecked. Therefore, it is extremely important to accomplish FAI with maximum accuracy.
Manually performing a FAI by cross referencing between BOM and assembly drawing is open to error and is very time consuming. When used in FAI mode, Extra Eye presents an image of the placed component with the related details from the BOM and assembly drawing, which aids the operator and as a result boosts inspection speed, reduces fatigue and ensures 100% inspection accuracy.

Easy to view Screen Shot & Summary Report



Working in around 5 minutes!

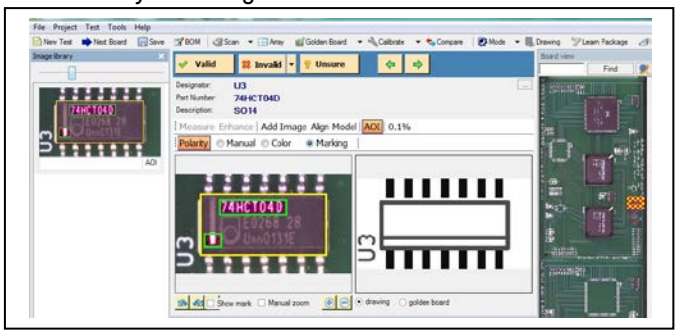
Validating a manufactured PCB is easy and straightforward:
Load the coordinate file (text format), BOM file (text format) and assembly drawing (PDF).
Scan the PCB (X-Model camera is x4 faster than scanner models)
Let the program navigate you through all the devices. Mark the ones that are wrongly placed or differ from the ones specified in BOM.
Print or email a report showing all invalid devices on top of the assembly drawing.

2. Compare to Golden Board Mode.

This second generation Camera based X-Series Extra Eye has as standard an Auto Compare Feature (Optical Character Recognition & Colour modes) that uses the FA Inspected PCB as a Golden Board in order to inspect the rest of the batch; 30 seconds for 1500 components. Programming for this function is minimal; all that is required is a single image of a Part Number added to the Component Library.

3. Optional AOI Mode

This final mode allows the user to build up multiple reference images for a single Part Number and specify areas of interest to automatically check against.



Model X3000

Max PCB Size: 330mm x 450mm
Max Component Height: 50mm

Model X4000

Max PCB Size: 500mmX540mm
Max Component Height: 50mm

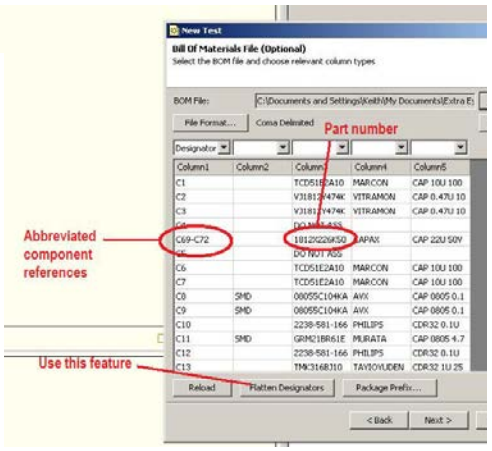
Technical Specification

- X-Y Axis Camera System
- 1100 DPI image Resolution
- SMT or PTH PCBs
- Single or multi-panel, with scrap circuit identification
- Fiducial Recognition
- OCR & Colour modes. Provides verification for correct value, presence, missing & polarity

Extra Eye employs simple, user friendly tools:

Data Import:

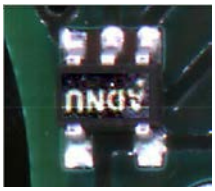
The import wizard creates templates to convert BOMs with abbreviated component references to single line items. Also allows user to specify which line to start import from and define field separators.



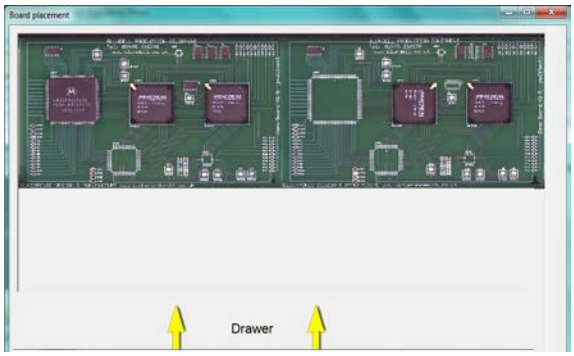
Component Marking:

A filter tool allows the user to simply draw over an area to improve clarity of laser etched parts.

Without Filter



With Filter Applied

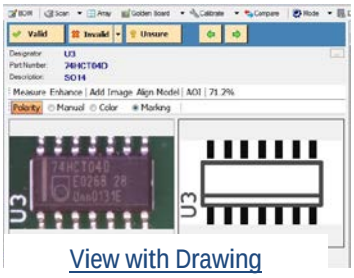


Visual indication for loading PCB

Inspection Options Manual:

Once verified a PCB can be used as a Golden Sample; simply toggle between drawing or Golden Board.

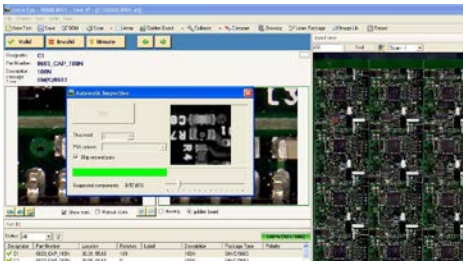
View with Golden PCB

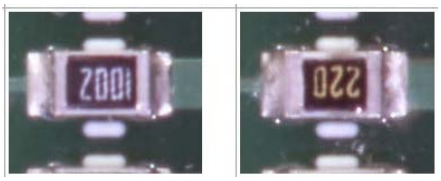


View with Drawing

Compare Mode / AOI:

Automatically identifies differences between Library Images and what is actually placed in the circuit location. AOI mode provides more inspection detail per Part Number.





Library Image Suspect Image

Two Algorithms (user defined) are used to identify Colour or Text Markings

- The Extra Eye is a professional solution to aid the manual inspection process for both SMT and PTH PCB assemblies. It also provides a low cost solution for camera based AOI for SMT
- It is simple to use and does not require a specialist technician to either program or operate.

For more information
EXTRA-EYE@EXTRA-EYE.COM
www.extra-eye.com