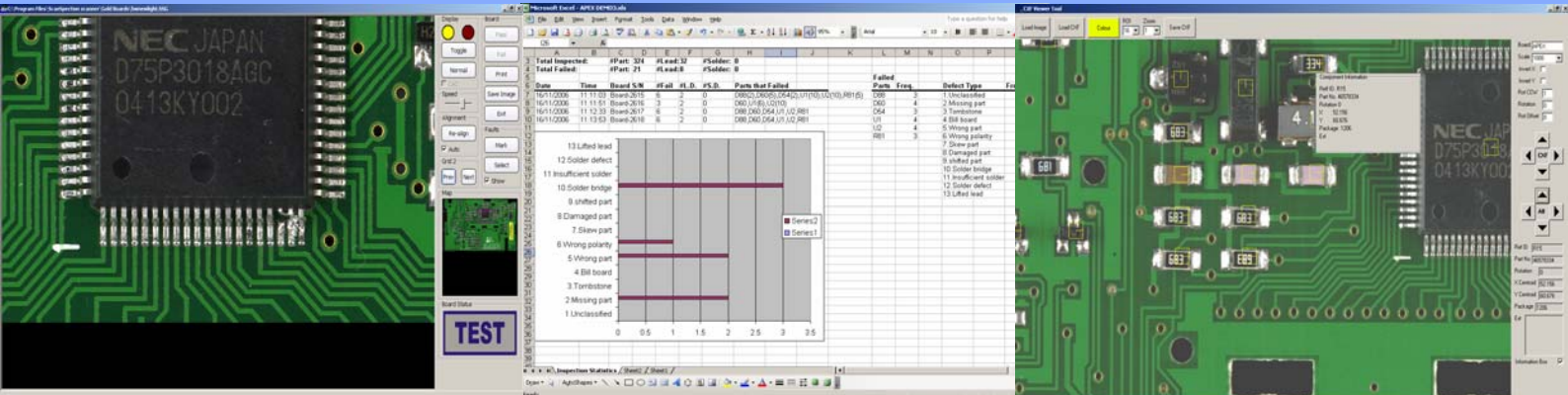


YesTek Limited

Yield Enhancement Systems



**Assisted
Optical
Inspection
SS15000IC**

ScanSpection Optical Inspection

ScanSpection the revolutionary scanner system, for the inspection of low to medium volume PCB Assemblies were programming is not required. The system compares between a known good (Gold) board and a sample board.

The system automatically aligns and flips between the two images testing the board using a predefined test routine for the board under inspection. The "Test Board" function allows the comparison of specific areas of the board ensuring a precise and consistent method of test from inspector to inspector.

Highlighting defects using "Fault Markers" & "Classifications" not only lets you see the fails on screen but allow the operator to print the image with all the faults defined. This information can be tagged to the board & used for rework purposes. Additionally this information can be called up at a later date in report format and used for the creation of high level SPC reporting or defect analysis. The systems flexibility allows the inspection of Tracks, Solder Balls and any Non PCB Devices such as Mechanical Assemblies.

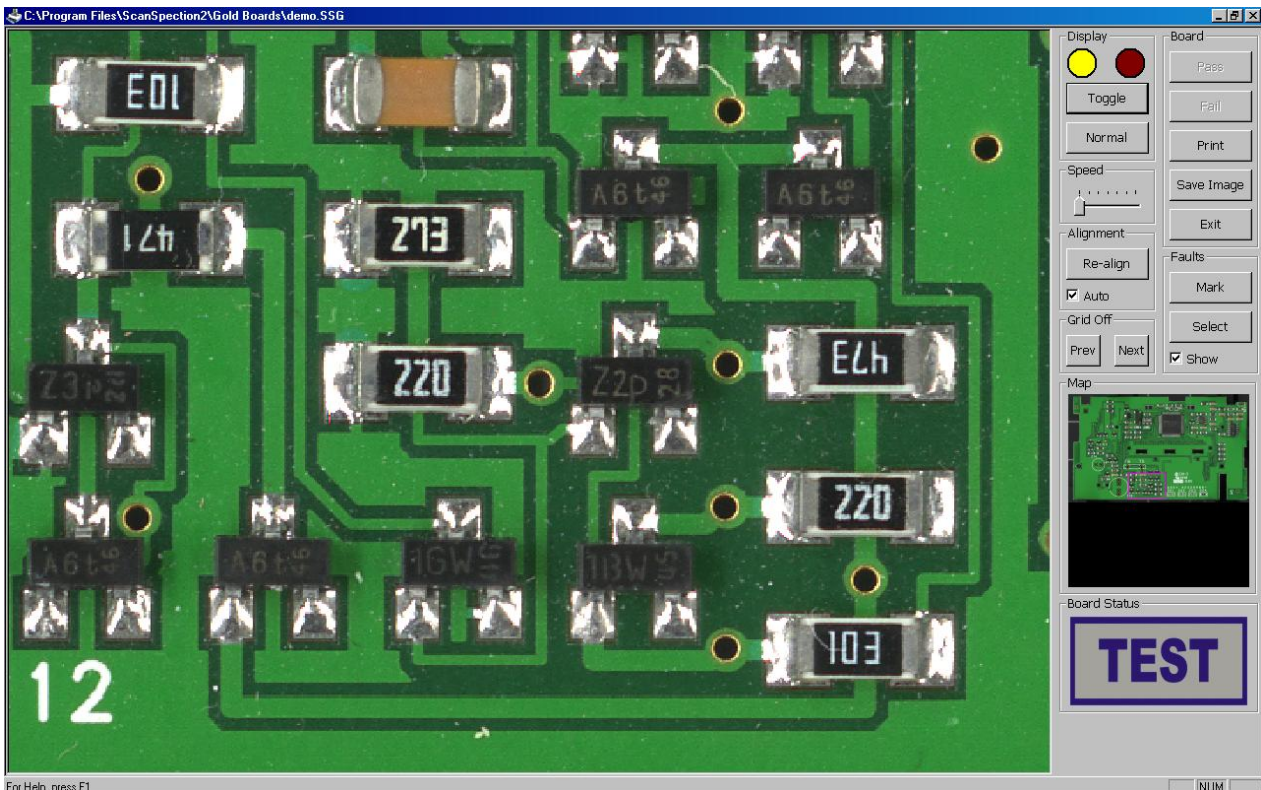
The systems are available as a low cost top loader and a competitively priced drawer loading version.



Creating Gold Boards

This simple user friendly interface allows operators with very little PC knowledge to create test programs in minutes rather than hours.

The operator chooses two fiducial marks on the PCB for auto alignment or manual alignment during the test. After this, the creation of a default test routine can be applied or customised to suit the board type. The program is then saved remembering the board position for future inspections. Another great advantage is the board image is stored digitally eliminating the need to retain sample gold boards between production runs, this also reduces the time spent locating the sample board prior to the next production run.

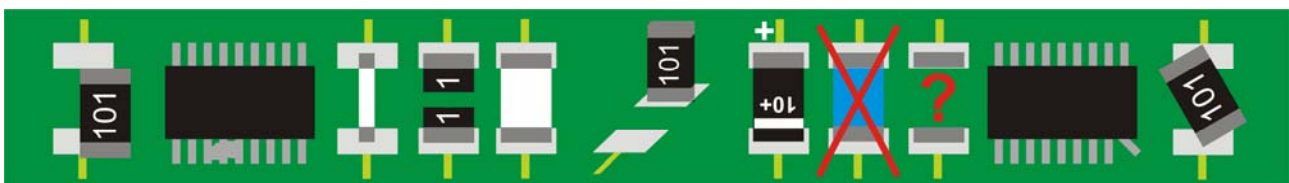


Board Testing

The operator chooses the board for inspection and is presented with a preview image detailing the board type and orientation. Once selected the user is prompted to position the board supports in the grid position learned during gold board creation. After the UUT has been scanned and aligned the operator steps through the predefined test routine. The board will display a failed status until all grids have been inspected and no faults have been highlighted. All pass and fail information is recorded prior to inspection of the next unit.

Typical Faults Found

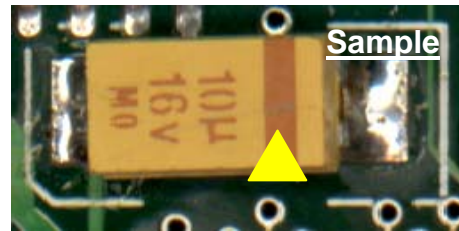
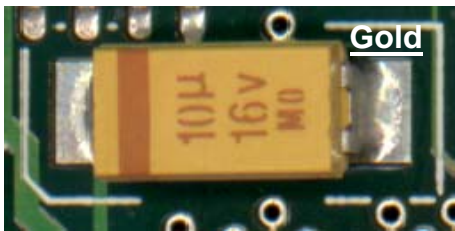
Find Typical manufacturing defects - Shifted, Misplaced, Billboard, Tombstone, Bridging, Inverted, Wrong Polarity, Wrong Part, Missing, Bent Lead, Skewed and even Damaged.



Fault Reporting and Rework

All faults can be classified, stored, printed and highlighted on screen for rework purposes or future analysis. The advantage of the scanned image allows you to remove the UUT from the system and mark up the faults whilst still viewing the faulty board on screen. This screen image can be saved, tagged and printed with the fault report, allowing the board to be sent for rework with the fault information attached.

The fault reports can be viewed on screen or exported to another application to output the statistics allowing managers from within the organisation to view the history at any given time.



Report

Board: YesTek Gold User: Supervisor From: Monday 07 June 2004 To: Monday 07 June 2004

Board ID	Operator	Test Date	Test Result	Time
000000000001	SUPERVISOR	07/04/2004	Passed at	19:17
000000000002	SUPERVISOR	07/04/2004	Passed at	19:20
000000000003	SUPERVISOR	07/04/2004	Passed at	19:23
000000000004	SUPERVISOR	07/04/2004		
		Fault at (41.6, 7.1)mm.	Resistor, Incorrect Orientation, R15	
		Fault at (146.3, 32.1)mm.	IC, Incorrect Orientation, U4	
		Fault at (70.4, 104.4)mm.	Capacitor, Missing, C10	
			CLOSED at 19:33	

EXIT

Offline Programming and Testing

Offline programming and testing is available, but generally not required as ScanSpection rarely encounters bottlenecks when programming and testing. The benefit of this feature is when you have volume running through the system and you require a first off inspection from another process, by simply scanning the UUT and saving the image it allows you to take this image to an offline PC and review it without impacting production. The same procedure can be applied when creating a new gold board.

YesTek Ltd - Specification

Specification

	A3 System	
Board Size	630mm x 495mm	
Inspection Area	420mm x 300mm	
Component Height	Up to 50mm	
Resolution	1200 DPI	
Lighting	Cold Cathode	
Power Requirements	110.240 Vac 5/10 A	
PC	Pentium 4 or better	
	1026 Mb RAM	
	40 Gb Hard Drive	
	CD/R	
	Network Card	
	LCD Monitor	
Operating System	Windows 2000, XP, Vista 32	
Software	ScanSpection Comparator Software	
	CAD Viewer Software	
Dimensions (mm)	700mm x 555mm x 305mm	
Options	Offline Programming	
	Offline Inspection	

YesTek Limited
Yield Enhancement Systems
Unit P Minerva Works
Johnstone
Renfrewshire
PA5 8HP UK
Tel: +44 (0) 1505 321528
info@yestek.co.uk
www.yestek.co.uk