

OPTICAL AND IMAGING SYSTEM

1 Top view camera	XGA 3CCD camera (1024 x 768)
Lighting	Multi-segment, Multi-angle LED, White+RGB
Optical resolution	10,15,20um
Imaging method	High Speed Dynamic Imaging

IMAGING / INSPECTION SPEED

20um	72cm²/sec
15um	40cm²/sec
10um	18cm²/sec

PRE-/POST-REFLOW INSPECTION FUNCTIONS

Component	Missing, Shift, Skew, Tombstone, Billboard, Polarity, Marking
Solder joint	Insufficient/Excess solder, Bridge

X-Y TABLE AND CONTROL

High precision ball screw/Servo motor with DSP based motion controller	
X,Y axis resolution	1um

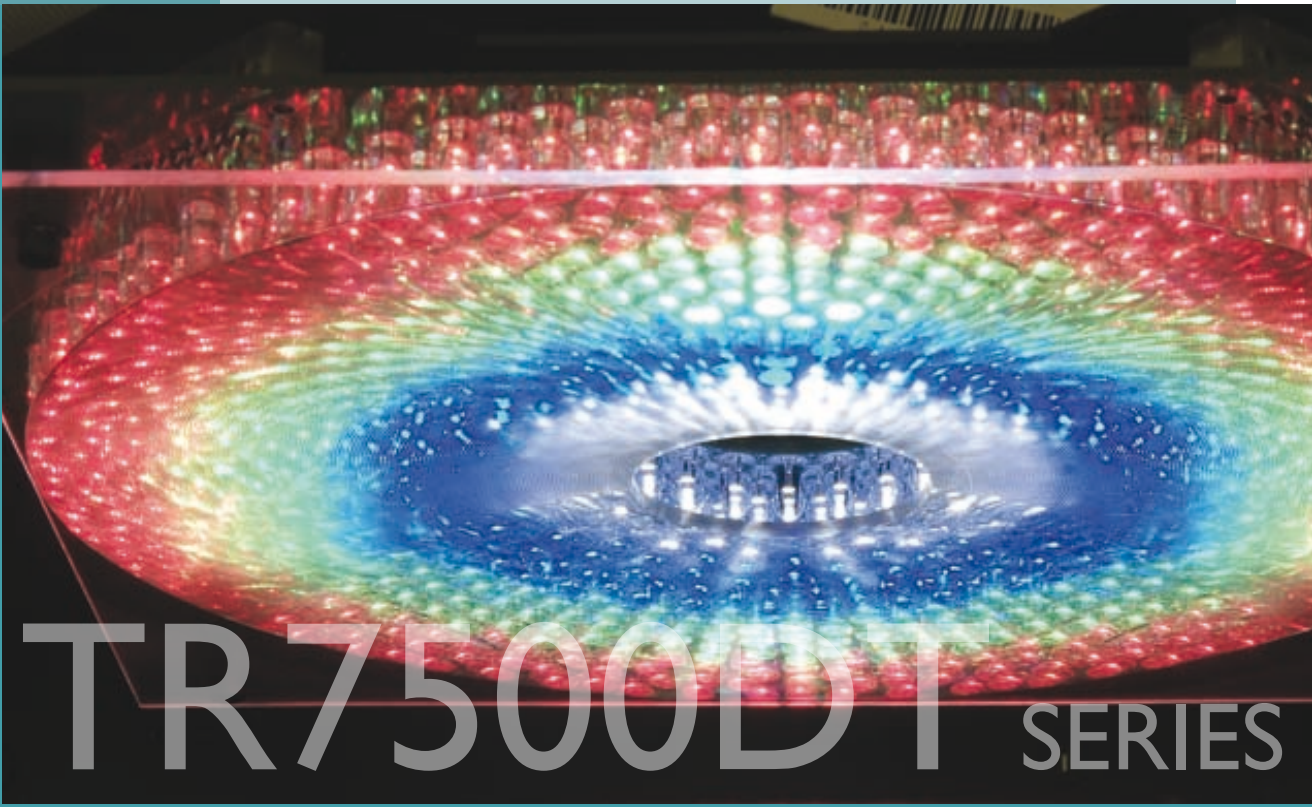
BOARD AND SYSTEM

Max. PCB size	
TR7500DT	330 x 250mm
TR7500DTL	510 x 460mm
Max. PCB thickness	3mm
Max. PCB Weight	
TR7500DT	1kg
TR7500DTL	3kg
PCB carrier/Fixing	
TR7500DT/DTL	Manual handling, motor-driven auto-clamping
Clearance (TR7500DT/DTL)	
Top	35mm
Bottom	40mm
Edge	3mm
Weight	
TR7500DT	230kg
TR7500DTL	350kg
Dimension	
TR7500DT	(W) 760mm x (D) 908mm x (H) 1341mm*
TR7500DTL	(W) 1028mm x (D) 1270mm x (H) 1585mm
Power supply	220V AC/10A, Single phase
Options	OCR, Barcode System, Off Line Editor, Repair Station, SPC System, YMS System, PC Table

* Width excluding monitor arm.

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T R 7 5 0 0 D T A O I



- HIGH RESOLUTION 3CCD CAMERA
- RGB+W MULTI-ANGLE LIGHTING CONTROL, COAXIAL LIGHTING
- ULTRA-HIGH-SPEED INSPECTION
- AUTO CLAMPING CONVEYOR SYSTEM
- 01005 COMPONENT/12 MIL FINE-PITCH READY
- DESIGNED FOR LEAD-FREE PCB ASSEMBLY
- ENHANCED DEFECT COVERAGE
- FAST, EASY PROGRAMMING



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C-7500DT-EN-0905

HIGH SPEED DESKTOP COLOR AOI OPTIMUM SOLUTION

BEST THROUGHPUT

Dynamic imaging technology provides vibration-free imaging of PCBs with high throughput. The inspection speed is less than 21 seconds for a M-size PCB (@20um, excluding fiducial mark finding and loading time). The TR7500DT is ideal for pre- or post-reflow inspection.

HIGH-RESOLUTION IMAGING SYSTEM

The new 3CCD XGA multiple color camera system and the high optical resolutions (10, 15, 20um) enable TR7500DT to capture up to 50 frames/sec of standard XGA format images (1024 x 768 pixel). With the high resolution of 10um, small components such as 01005 chips can be easily checked.

MODULARIZED CONTROL SYSTEM

The precision X-Y table, conveyor system, image acquisition, lighting system, and host PC are independent modules which allow easy diagnostics and maintenance of the system.

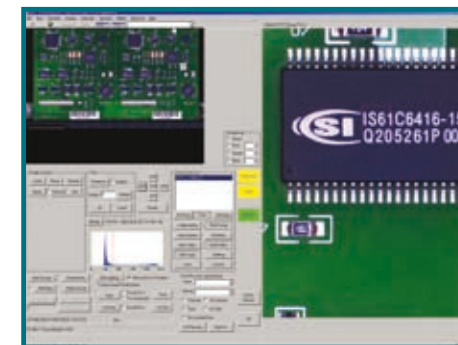
ADVANCED COLOR LIGHTING

The new RGB lighting control and the color imaging system instantly provide operators with easier visual verification on real images. The advanced color lighting system significantly provides accurate and better inspection results for solder fillet on small components such as 01005 and fine pitch leads.

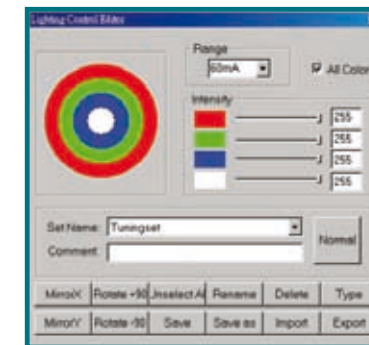


EASY PROGRAMMING ENVIRONMENT

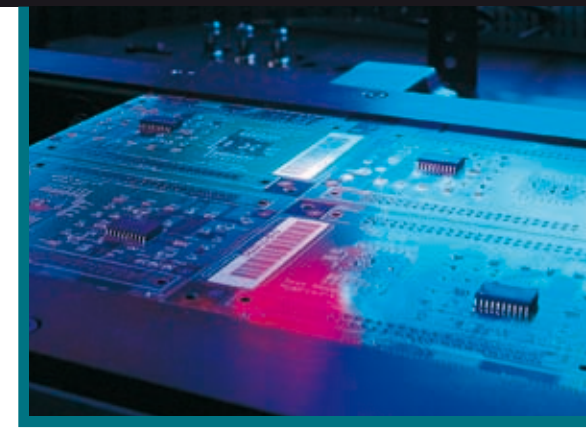
- Programming is easily done by using the data from a CAD file directly. The only mandatory data fields are component name, package type, X-position, Y-position, and rotation angle
- PCBs with special layouts also can be edited easily
- TRI provides a standard Model Library for most of the main component types and they are presented graphically for ease of use. This can greatly reduce the time of inspection box creation and parameter setting
- Accurate warp compensation and the multi-fiducial finding algorithm ensure the correct positioning of the inspection windows, which leads to accurate, repeatable defect detection



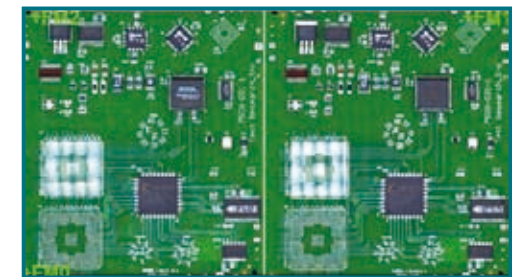
Color board view for better image clarity



Graphical lighting control editor



Built-in Model Library Function



Multi-Fiducial Function



Special Multi-board layout

YIELD MANAGEMENT SYSTEM*

- Testers enable process capability control
- Real time defect information integration and analysis
- Defect knowledge management

* Optional

