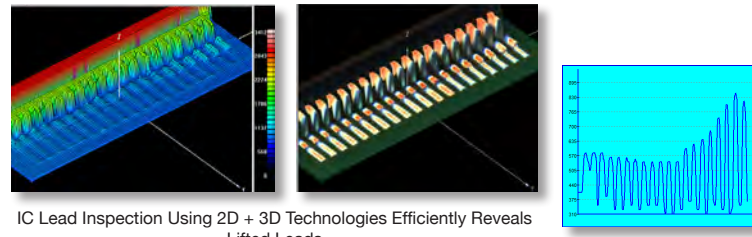


Laser 3D Technology (option)

Accurate laser sensor goes beyond other 3D technology boundaries. Its high measurement range ensures that components up to 20 mm high can be inspected with maximum precision. Working with laser light also eliminates problems with black or mirror-like components on low contrast background.

Interactive 3D models help operators quickly review found defects, such as lifted BGA components, IC leads, connectors, switches and other mounted devices for enhanced post-reflow inspection.



IC Lead Inspection Using 2D + 3D Technologies Efficiently Reveals Lifted Leads

Production Line Integrated Solution

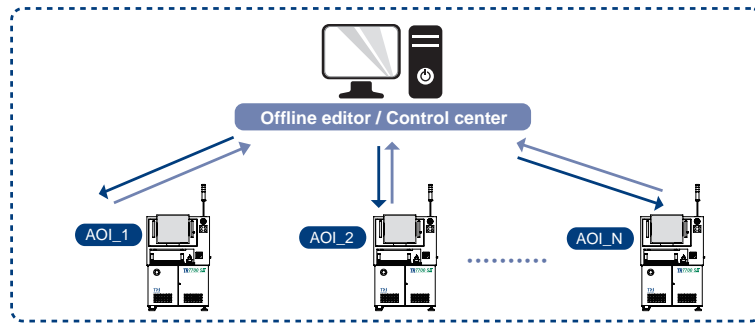
Centralized production line management increases operator productivity and response time. TRI's integrated solution includes the following four components.

- Offline Editor

This application allows for centralized independent adjustment and fine tuning of inspection algorithms on previously scanned images while providing immediate feedback. The completed program can then be uploaded to the in-line inspection machines to improve inspection stability and accuracy.

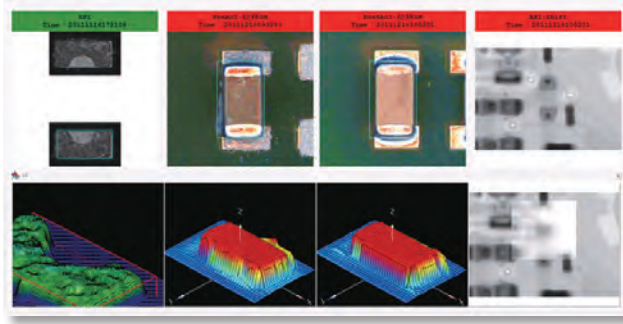
- Control Center

The core component at the heart of a production facility, the control center allows real-time monitoring and operation of multiple inspection machines across production lines.



- YMS Lite

TRI's lightweight yield management system provides live alarm monitoring and improved analysis of defective components by incorporating images and 3D data from TRI SPI, pre/post-reflow AOI and AXI systems.

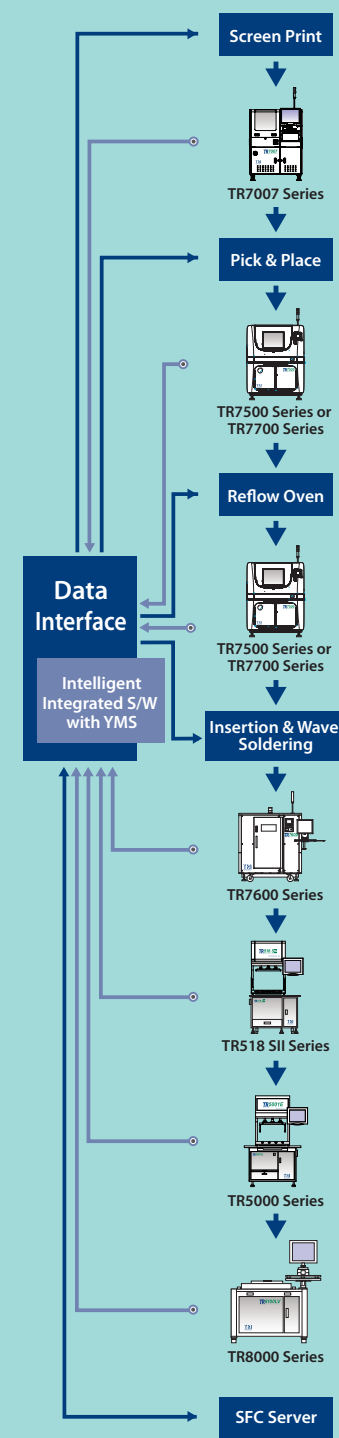


YMS Lite Defect Image Center

- Quality Validation

Automated good/failed image collection allows testing and verification of adjusted program parameters.

Yield Management System*



Data Flow Feedback Flow

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

* Optional

SPECIFICATIONS

Optical & Imaging System

Top View Camera	4MP high speed color camera
4 Angled View Cameras	High resolution color camera
3D Laser Sensor	High resolution and high measurement range (optional)
Lighting	Multi-phase RGB+W LED
Optical Resolution	10 or 15 μ m
Imaging Method	Dynamic Imaging (with true 3D profile measurement option)
3D Inspection Range	20 mm (optional)

Imaging/Inspection Speed

	2D	2D+3D (optional)
15 μ m	120 cm ² /sec	80 x A cm ² /sec
10 μ m	60 cm ² /sec	54 x A cm ² /sec

*A=(Panel width)/(Panel width+149mm)

Pre-/Post-Reflow Inspection Functions

Component Missing, Tombstone, Billboard, Polarity, Skew, Wrong Marking (OCV), Defective, Lifted Component

Solder Joint Insufficient/Excess Solder, Bridge, Through-hole Pins, Lifted Lead, Golden Finger Scratch/Contamination

X-Y Table & Control

Ballscrew + AC servo with DSP-based motion controller

X-Y Axis Resolution 1 μ m

PCB & Conveyor System

	TR7500M SIII	TR7500 SIII	TR7500 SIII ^{Plus}	TR7500 SIII DL
PCB Size	50 x 50 - 330 x 280 mm (1.97 x 1.97 - 13.0 x 11.0 in)	50 x 50 - 510 x 460 mm (1.97 x 1.97 - 11.8 x 18.1 in)		50 x 50 - 510 x 300 mm (1.97 x 1.97 - 20.0 x 11.8 in)

PCB Thickness 0.6 - 5 mm

PCB Transport Height 880 - 920 mm

Max. PCB Weight 3 kg (6.61 lbs)

PCB Carrier/Fixing Step motor driven & step motor clamping

Clearance

Top	25 mm (0.98 in)
Bottom	40 mm (1.58 in)
Edge	3 mm (0.12 in)

Dimensions

	TR7500M SIII	TR7500 SIII	TR7500 SIII ^{Plus}	TR7500 SIII DL
Dimensions (W x D x H)	850 x 1250 x 1500 mm (33.5 x 49.2 x 59.1 in) (not including signal tower, height: 520 mm)	1000 x 1555 x 1500 mm (39.4 x 61.2 x 59.1 in) (not including signal tower, height: 520 mm)	1100 x 1670 x 1550 mm (43.3 x 65.7 x 61.0 in) (not including signal tower, height: 520 mm)	1100 x 1770 x 1550 mm (43.3 x 69.7 x 61.0 in) (not including signal tower, height: 520 mm)

Weight 675 kg (1687 lbs) 960 kg (2116 lbs) 1030 kg (2270 lbs) 1150 kg (2535 lbs)

Power Requirement 200 - 240 V, single phase, 50/60 Hz 3 kVA

Air Requirement 0.6 MPa (87 psi)

Options

Barcode Scanner, Offline Editor, Auto Conveyor Width Adjustment, OCR & TRI's Yield Management System(YMS)

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Malaysia
TEL: +604-6461171
E-mail: trimy@tri.com.tw

C-7500 SIII-EN-1310



TR7500 SIII SERIES

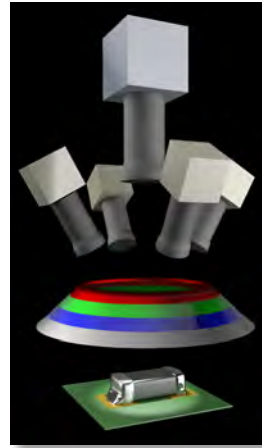


AUTOMATED
OPTICAL INSPECTION

TR7500 SIII FEATURES

TR7500 SIII AOI with Total Inspection Coverage

The TR7500 SIII AOI employs cutting edge multi-camera technology and new generation software to inspect every detail of components, solder joints and the entire PCB surface with maximum precision.

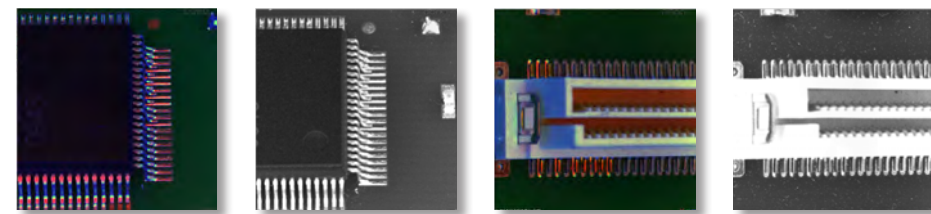
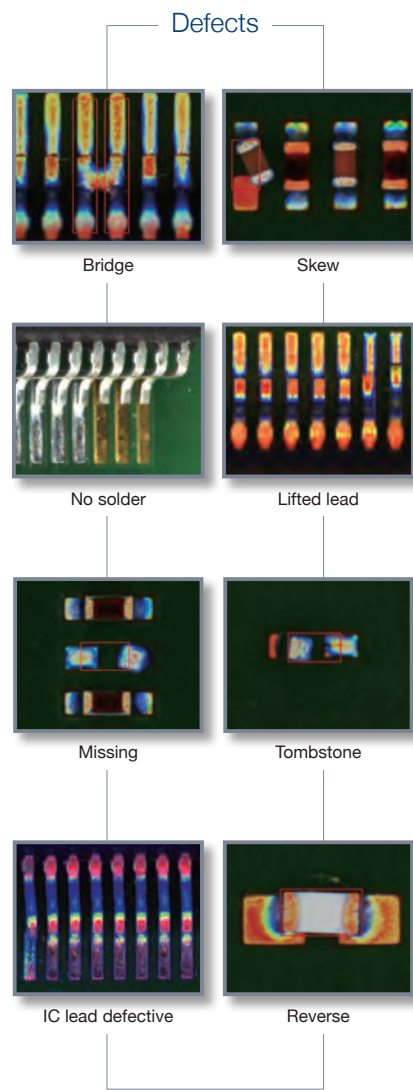


Complete Coverage at Full Speed

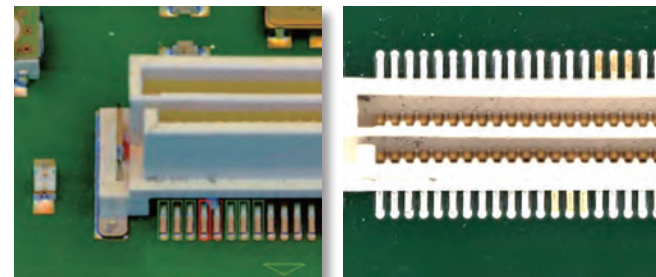
Combination of five multi-angle color cameras eliminates blind spots even on complex automotive and smartphone assemblies. TR7500 SIII inspection range covers everything from basic SMT components to complex connectors and hidden joints, and new imaging system helps identify challenging defects using multiple lighting phases without slowing down.

Multi Angle Color Cameras

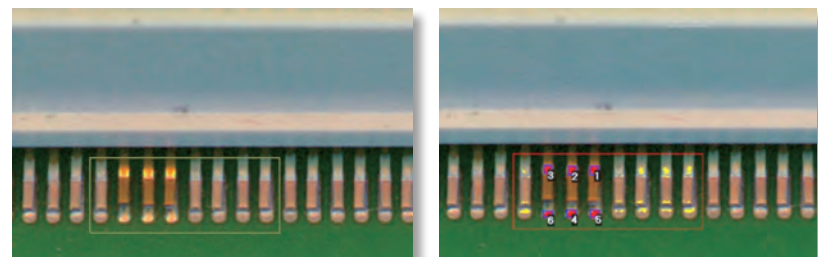
New generation color angle view cameras make side view inspection a breeze. Finding complex solder joint defects hidden from top view has never been easier, and new color space processing algorithms ensure reliable defect detection.



Color Angle View Cameras Easily Reveal Solder Joint Defects



Hidden bridge defect on connector joints can only be revealed by angle view camera.

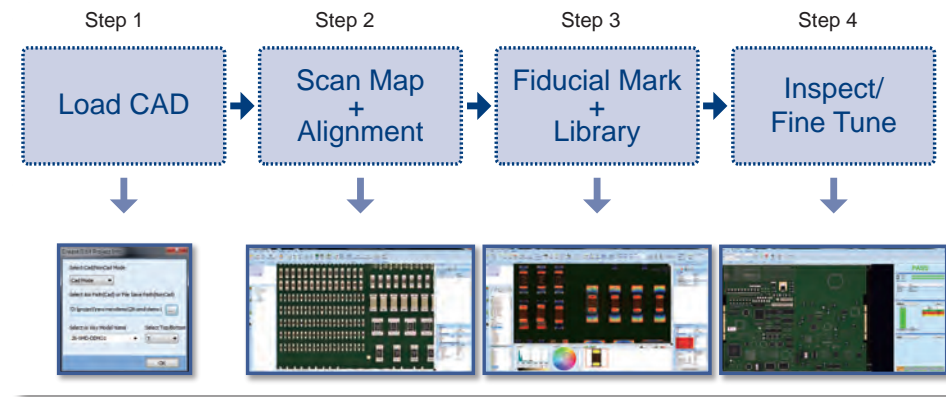


Lifted leads clearly identified using angle view camera.

Intelligent Easy Programming Interface

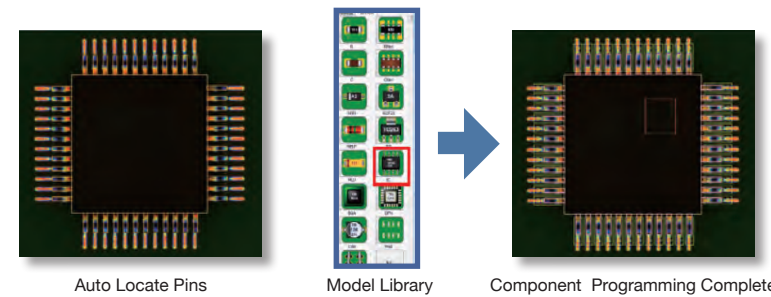
New intelligent programming process significantly reduces programming time using automated component library and integrated board warp compensation.

Programming Flowchart



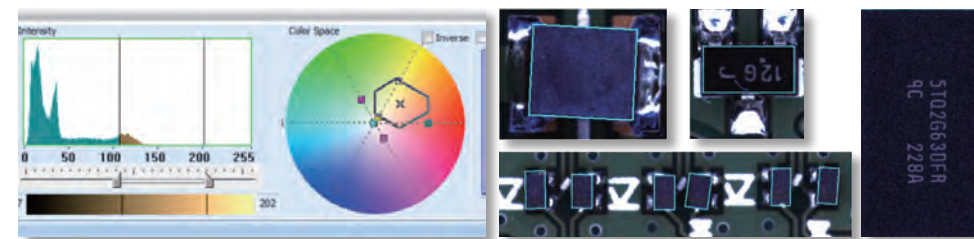
Auto Library + Model Library

Auto Library speeds up programming by automatically allocating inspection windows for IC leads.



New Color Space Algorithms

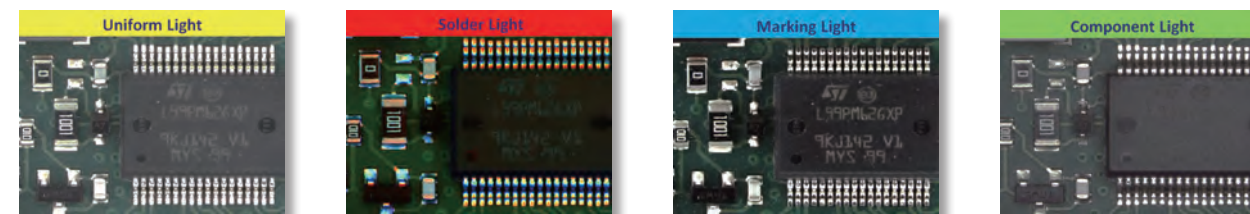
TRI's new adaptive algorithms use color space processing to increase inspection accuracy, reduce false calls and improve inspection results while reducing time necessary for inspection fine tuning and the number of alternative images required.



Color Differentiation Analysis for Black Resin Parts

Multi-phase Lighting

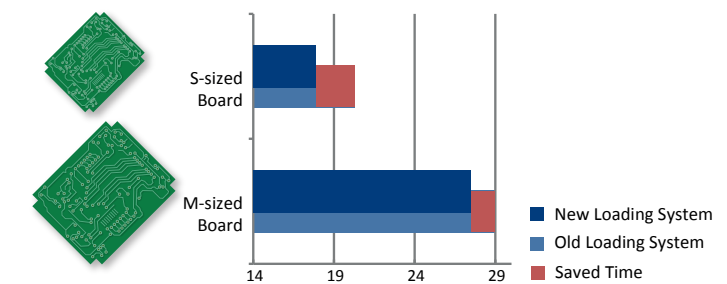
Four individual lighting phases improve inspection of individual defect types using specialized lighting conditions. High speed camera allows inspection at constant speed even with multiple lighting phases.



Intelligent Auto Conveyor System

IACS automatically optimizes board stopping position in the conveyor, reducing load and unload time by up to 2.5 seconds, depending on board size.

- Reduced load & unload time (saves 0.5-2.5 sec. per board.)



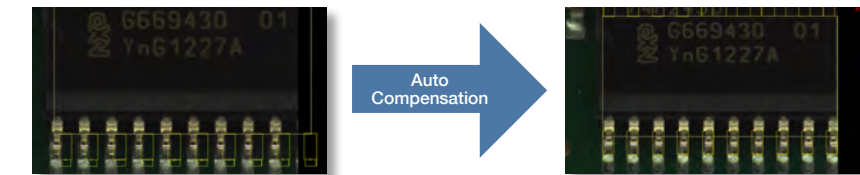
- Automatic adjustment of conveyor speed based on board size & weight saves time for manual adjustment and training.
- Automatic conveyor width adjustment (Optical direct adjustment system without returning to default position).

Automated Warp Compensation

Board warping reduces automated inspection stability and requires additional fine tuning. TR7500 SIII automatically compensates for any deformation and keeps inspection windows fully aligned.



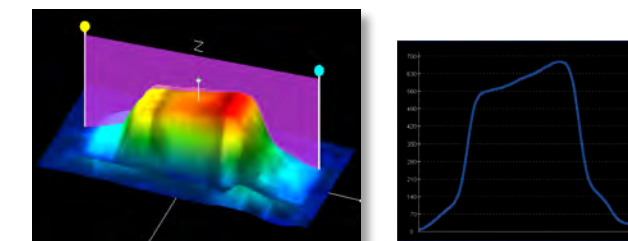
Board Warping



Automated Board Warping Compensation Effectively Realigns Inspection Window Position

TR7500 SIII^{Plus} 3D Inspection Option

The TR7500 SIII^{Plus} can combine the best of 2D and 3D technologies with new generation software to revolutionize PCB assembly inspection.



3D Inspection Reveals Defects on Both Small and Oversized Components

3D Inspection Upgrade for Unlimited Coverage

Combination of five multi-angle color cameras and true 3D profile measurement eliminates blind spots even on complex automotive and smartphone assemblies. TR7500 SIII 3D inspection range extends coverage from basic SMT components to large thru-hole capacitors, switches, connectors and hidden joints.

TR7500 SIII 3D SERIES



AUTOMATED
OPTICAL INSPECTION

Optical & Imaging System

Top View Camera	4MP high speed color camera
4 Angled View Cameras	High resolution color camera
3D Laser Sensor	High resolution and high measurement range
Lighting	Multi-phase RGB+W LED
Optical Resolution	10 or 15 μ m
Imaging Method	Dynamic Imaging with true 3D profile measurement
3D Inspection Range	20 mm

Imaging/Inspection Speed

	2D	2D+3D
15 μ m	120 cm ² /sec	80 x A cm ² /sec
10 μ m	60 cm ² /sec	54 x A cm ² /sec

*A=(Panel width)/(Panel width+149mm)

Pre-/Post-Reflow Inspection Functions

Component	Lifted Component, Missing, Tombstone, Billboard, Polarity, Skew, Wrong Marking (OCV), Defective
Solder Joint	Insufficient/Excess Solder, Bridge, Through-hole Pins, Lifted Lead, Golden Finger Scratch/Contamination

X-Y Table & Control

Ballscrew + AC servo with DSP-based motion controller	
X-Y Axis Resolution	1 μ m

PCB & Conveyor System

	TR7500 SIII 3D	TR7500 SIII 3D DL
PCB Size	50 x 50 – 510 x 460 mm (1.97 x 1.97 – 20.1 x 18.1 in)	50 x 50 – 510 x 250 mm x 2 lanes (1.97 x 1.97 – 20.1 x 9.84 in x 2 lanes) 50 x 50 – 510 x 550 x 1 lane (1.97 x 1.97 – 20.1 x 21.7 in x 1 lane)
PCB Thickness	0.6 - 5 mm	
PCB Transport Height	900 mm (35.43 in)	
Max. PCB Weight	3 kg (6.61 lbs)	
PCB Carrier/Fixing	Step motor driven/pneumatic clamping	
Clearance		
Top	25 mm (0.98 in)	
Bottom	40 mm (1.58 in)	
Edge	3 mm (0.12 in)	

Dimensions

	TR7500 SIII 3D	TR7500 SIII 3D DL
Dimensions	(W) 1100 x (D) 1670 x (H) 1550 mm (not including signal tower, signal tower height: 520 mm)	(W) 1100 x (D) 1770 x (H) 1550 mm (not including signal tower, signal tower height: 520 mm)
Weight	1030 kg (2271 lbs)	1150 kg (2535 lbs)
Power Requirement	200 – 240 V, single phase, 50/60 Hz 3 kVA	
Air Requirement	0.6 MPa (87 psi)	

Options

Barcode Scanner, Offline Editor, OCR & TRI's Yield Management System(YMS), YMS Lite



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TEL: +81-3-6273-0518
FAX: +81-3-6273-0519
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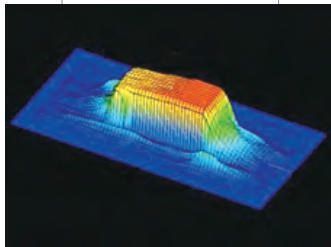
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768-1 Wonsi-Dong, Danwon-Gu,
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TEL: +82-31-470-8858
FAX: +82-31-470-8859
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Malaysia

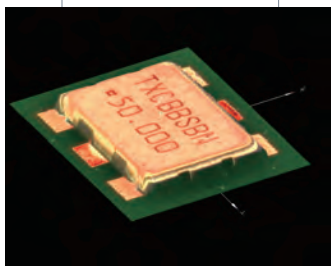
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Malaysia
TEL: +604-6461171
E-mail: trimy@tri.com.tw

TR7500 SIII 3D FEATURES

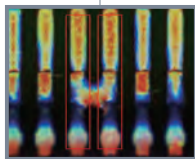
Defects



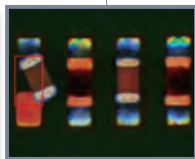
Lifted Components



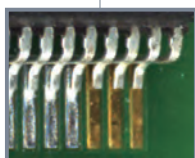
Metal-cased Reflective Components



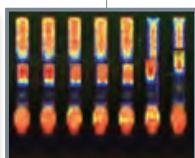
Bridge



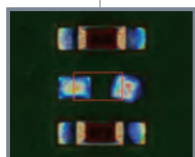
Skew



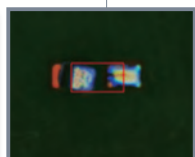
No solder



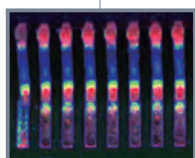
Lifted lead



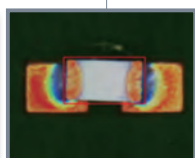
Missing



Tombstone



IC lead defective



Reverse

TR7500 SIII 3D AOI with Total Inspection Coverage

The TR7500 SIII 3D AOI combines the best of 2D and 3D technologies with new generation software to revolutionize PCB assembly inspection.

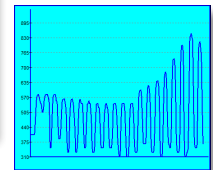
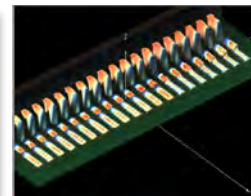
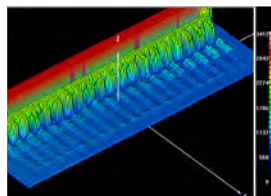
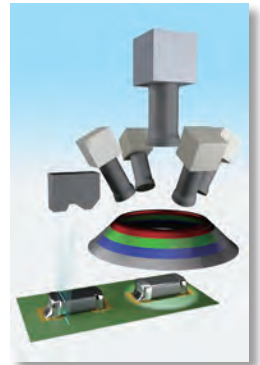
Complete Coverage at Full Speed

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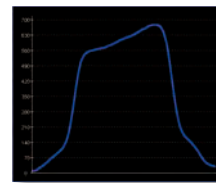
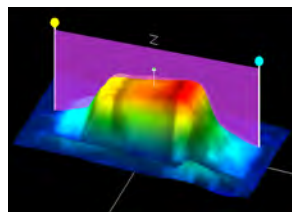
3D Inspection

Accurate laser sensor goes beyond other 3D technology boundaries. Its high measurement range ensures that components up to 20 mm high can be inspected with maximum precision. Working with laser light also eliminates problems with black or mirror-like components on low contrast background.

Interactive 3D models help operators quickly review found defects, such as lifted BGA components, IC leads, connectors, switches and other mounted devices for enhanced post-reflow inspection.



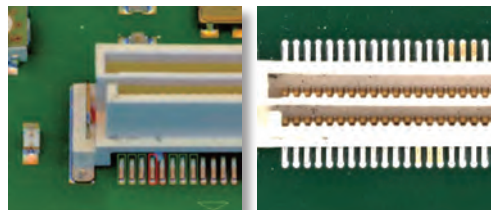
IC Lead Inspection Using 2D + 3D Technologies Efficiently Reveals Lifted Leads



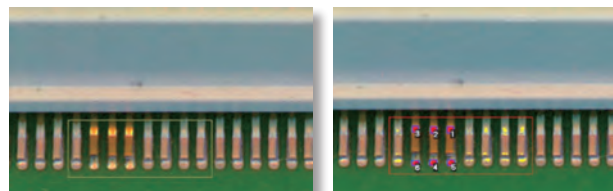
3D Chip Inspection Reveals Defects on Both Small and Oversized Components

Multi Angle Color Cameras

New generation color angle view cameras make side view inspection a breeze. Finding complex solder joint defects hidden from top view has never been easier, and new color space processing ensures reliable defect detection.



Hidden bridge defect on connector joints can only be revealed by angle view camera.

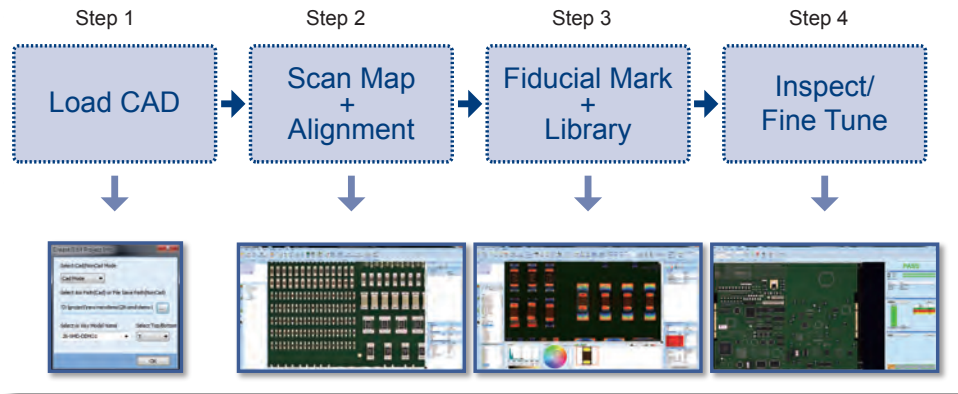


Lifted leads clearly identified using angle view camera.

Intelligent Easy Programming Interface

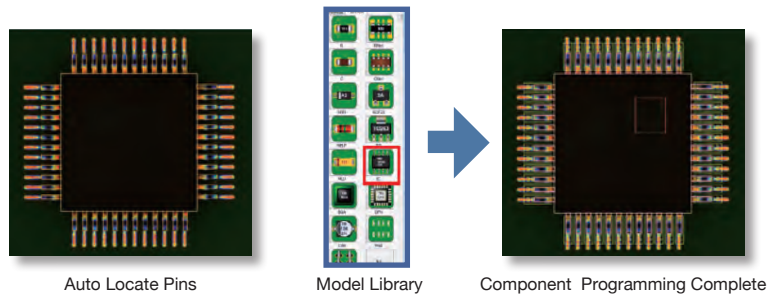
New intelligent programming process significantly reduces programming time using automated component library and integrated board warp compensation.

Programming Flowchart



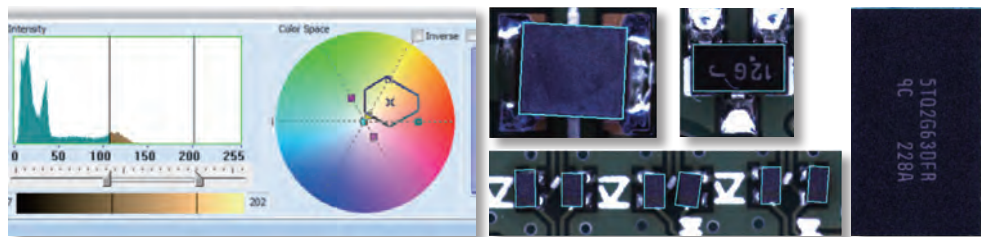
Auto Library + Model Library

Auto Library speeds up programming by automatically allocating inspection windows for IC leads.



New Color Space Algorithms

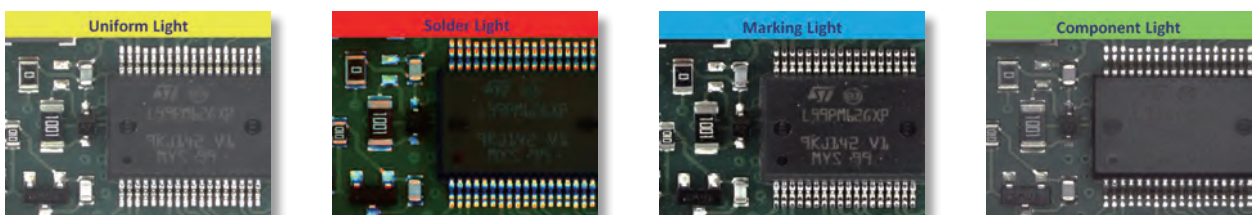
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Color Differentiation Analysis for Black Resin Parts

Multi-phase Lighting

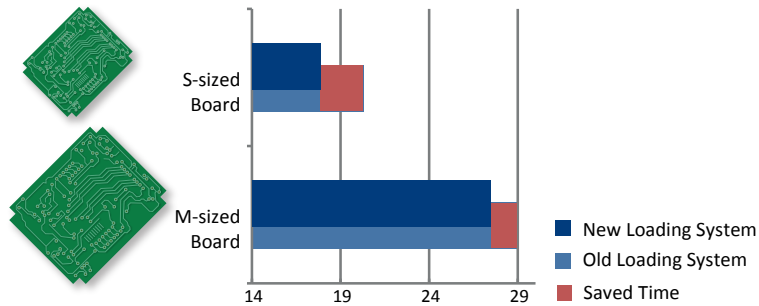
Four individual lighting phases improve inspection of individual defect types using specialized lighting conditions. High speed camera allows inspection at constant speed even with multiple lighting phases.



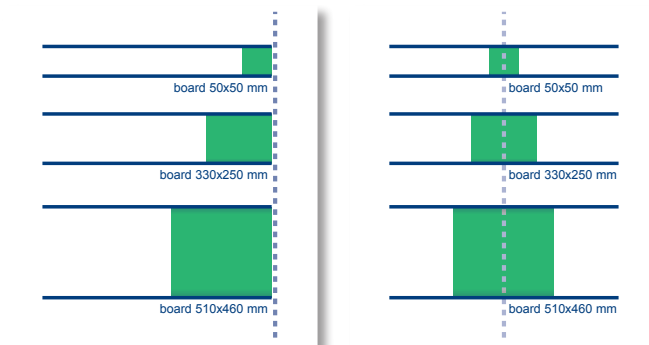
Intelligent Auto Conveyor System

IACS automatically optimizes board stopping position in the conveyor, reducing load and unload time by up to 2.5 seconds, depending on board size.

- Reduced load & unload time (saves 0.5-2.5 sec. per board.)



- Automatic adjustment of conveyor speed based on board size & weight saves time for manual adjustment and training.
- Automatic conveyor width adjustment (Optical direct adjustment system without returning to default position).

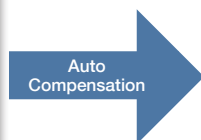


Auto Warp Compensation

Board warping reduces automated inspection stability and requires additional fine tuning. TR7500 SIII automatically compensates for any warping and keeps inspection windows fully aligned.



Board Warping



Automated Board Warping Compensation Effectively Readjusts Inspection Window Position

Production Line Integrated Solution

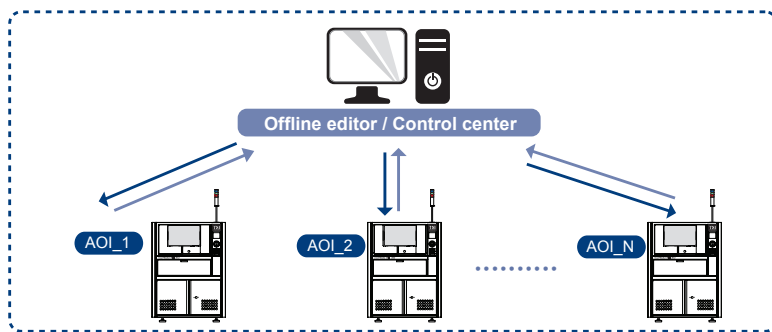
Centralized production line management increases operator productivity and response time. TRI's integrated solution includes the following four components.

- Offline Editor

This application allows for centralized independent adjustment and fine tuning of inspection algorithms on previously scanned images while providing immediate feedback. The completed program can then be uploaded to the in-line inspection machines to improve inspection stability and accuracy.

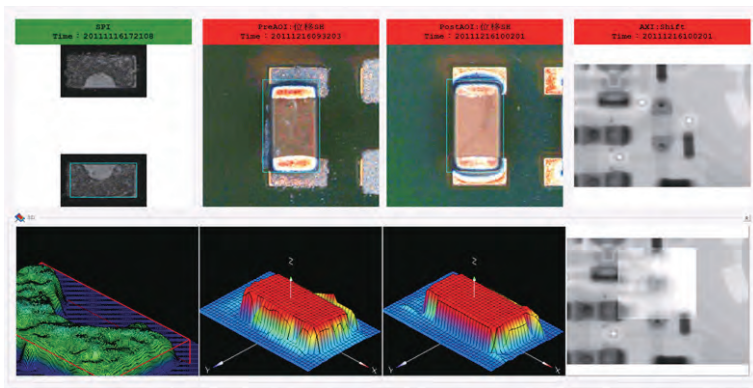
- Control Center

The core component at the heart of a production facility, the control center allows real-time monitoring and operation of multiple inspection machines across production lines.



- YMS Lite

TRI's lightweight yield management system provides live alarm monitoring and improved analysis of defective components by incorporating images and 3D data from TRI SPI & pre/post-reflow AOI.

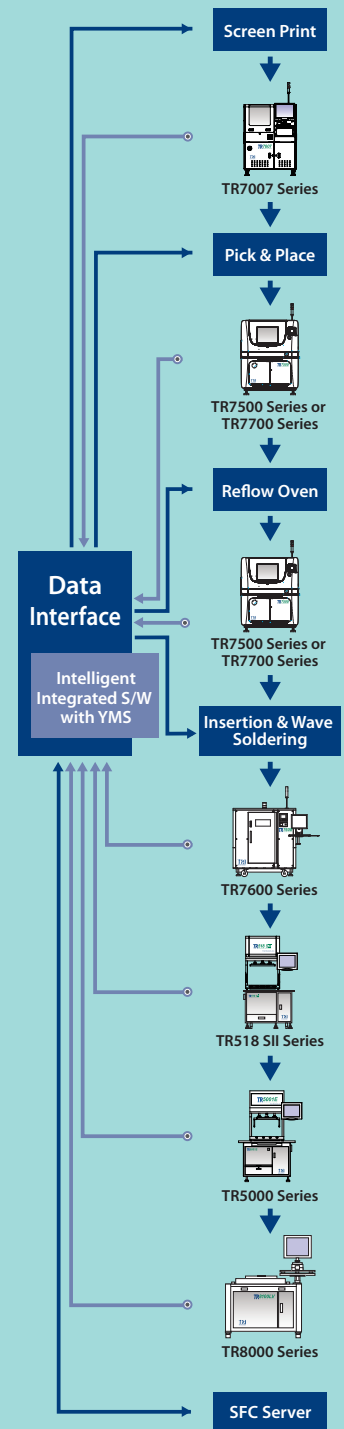


YMS Lite Defect Image Center

- Quality Validation

Automated good/failed image collection allows testing and verification of adjusted program parameters.

Yield Management System*



Data Flow Feedback Flow

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

* Optional

SPECIFICATIONS

Optical & Imaging System

Top View Camera	4 Mpx high speed color camera
Lighting	Multi-phase RGB+W LED
Optical Resolution	10 or 15 μ m
Imaging Method	Dynamic Imaging

Imaging/Inspection Speed

15 μ m	120 cm ² /sec (18.6 in ² /sec)
10 μ m	60 cm ² /sec (9.3 in ² /sec)

Pre-/Post-Reflow Inspection Functions

Component	Missing, Tombstoning, Billboarding, Polarity, Rotation, Shift, Wrong Marking (OCV), Defective, Upside Down, Extra Component
Solder Joint	Excess Solder, Insufficient solder, Bridging, Through-hole Pins, Lifted Lead, Golden Finger Scratch/Contamination

X-Y Table & Control

Ballscrew + AC servo with motion controller	
X-Y Axis Resolution	1 μ m

PCB & Conveyor System

Min. PCB Size	50 x 50 mm (1.97 x 1.97 in)	
	TR7700 SIII DT	TR7700L SIII DT
Max. PCB Size	330 x 250 mm (13.0 x 9.84 in)	510 x 460 mm (20.1 x 18.1 in)
Max. PCB Thickness	3 mm (0.12 in)	
Max. PCB Weight	3 kg (6.61 lbs)	
PCB Carrier/Fixing	Motor Driven Clamping	
Clearance		
Top	25 mm (0.98 in)	25 mm (0.98 in)
Bottom	100 mm (3.94 in)	50 mm (1.97 in)
Edge	3 mm (0.12 in)	3 mm (0.12 in)
Dimensions (W) x (D) x (H)	800 x 1100 x 1350 mm (31.5 x 43.3 x 53.2 in)	980 x 1290 x 1400 mm (38.6 x 50.8 x 55.1 in)
Weight	340 kg (750 lbs)	385 kg (849 lbs)
Power Requirement	200 - 240 V, single phase, 50/60 Hz 2 kVA	

Options

Barcode Scanner, Repair Station, Offline Editor, OCR, TRI's Yield Management System (YMS), YMS Lite, Support Pin



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TRI 德律 **TRI INNOVATION**

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C-7700 SIII DT-EN-1405



TR7700 SIII DT SERIES



DESKTOP AUTOMATED
OPTICAL INSPECTION

TR7700 SIII DT FEATURES

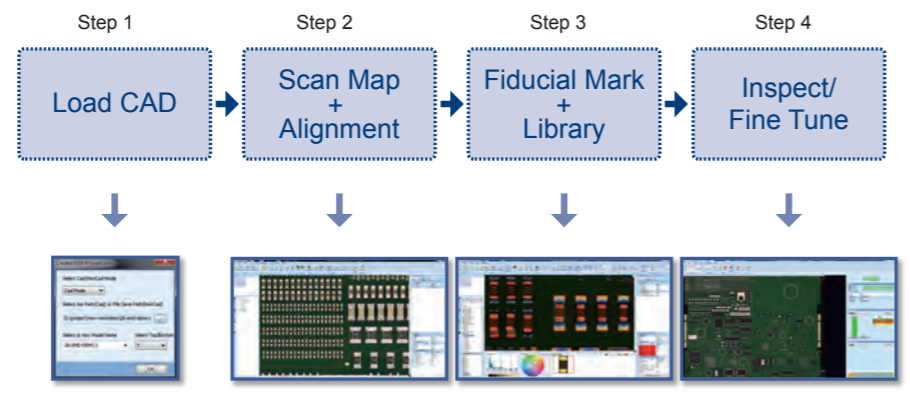
Premium Desktop AOI with World Class Performance

TR7700 SIII DT captures high precision full PCB panel images in unprecedented detail using TRI's exclusive multi-phase lighting. Next generation inspection software combines excellent defect detection and easy programming into a state-of-the-art desktop AOI solution.

Intelligent Easy Programming Interface

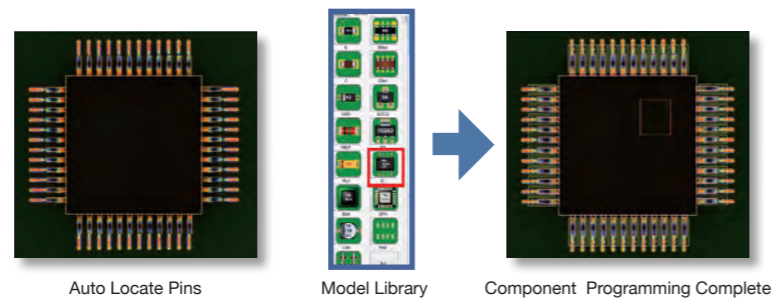
New intelligent programming process significantly reduces programming time using automated component library and integrated board warp compensation.

Programming Flowchart



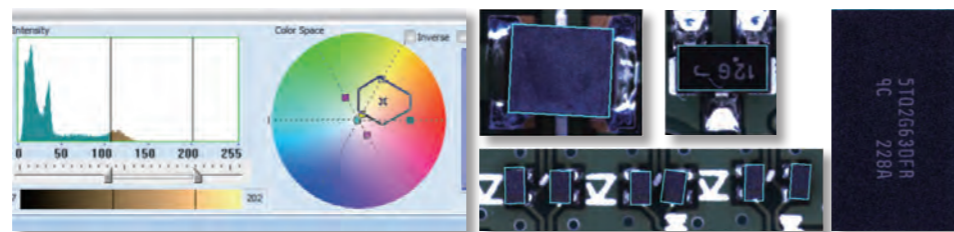
Auto Library + Model Library

Auto Library speeds up programming by automatically allocating inspection windows for IC leads.

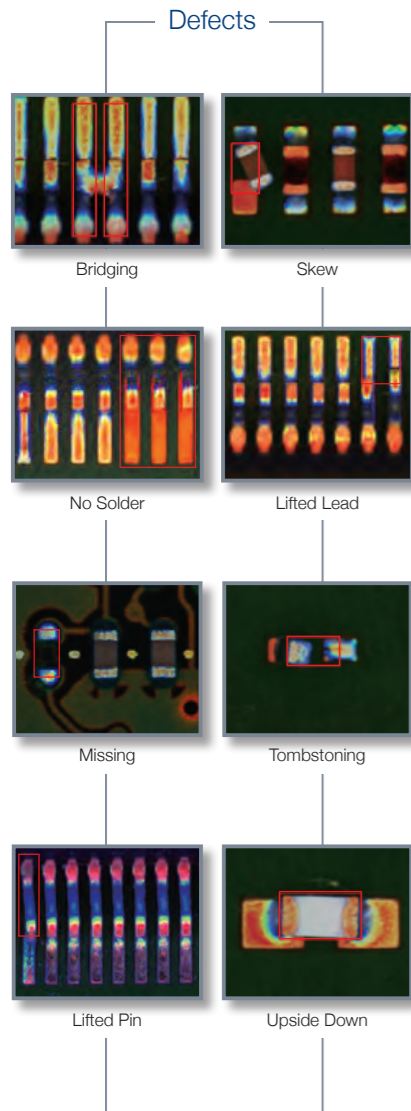


New Color Space Algorithms

TRI's new adaptive algorithms use color space processing to increase inspection accuracy, reduce false calls and improve inspection results while reducing time necessary for inspection fine tuning and the number of alternative images required.

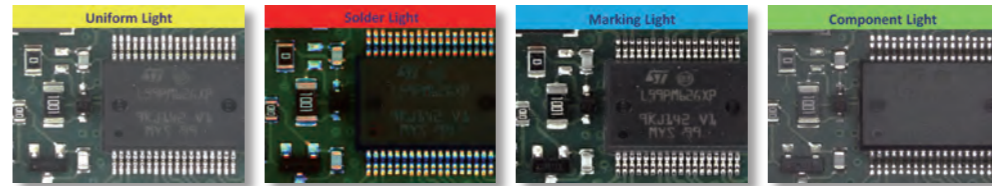


Color Differentiation Analysis for Black Resin Parts



High Speed with Multi-phase Lighting

Four individual lighting phases improve inspection of individual defect types using specialized lighting conditions. High speed camera allows inspection at constant speed even with multiple lighting phases.



Flexible multi-board Merging & Speedy Inspection

- Simultaneous access to multiple component information for easy programming.
- Saves multi-fiducial mark scanning time for multi-board programs.

Auto-clamping Conveyor System

Single button PCB loading and unloading reduces operator workload and improves board loading time.

High Speed Ballscrew X-Y Motion Drive

Servo motor with high precision control helps deliver stable and reliable inspection results.

SMT Line Integration

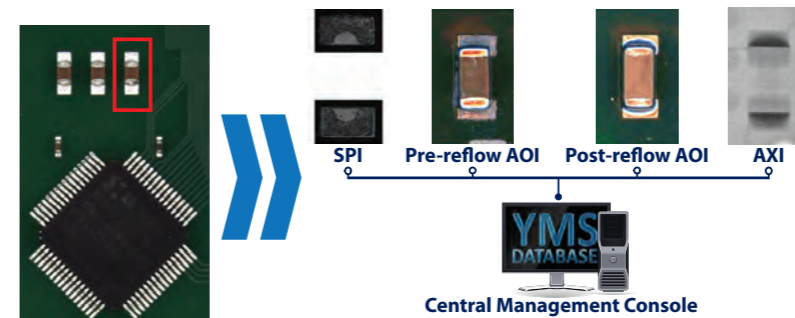
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• YMS Lite

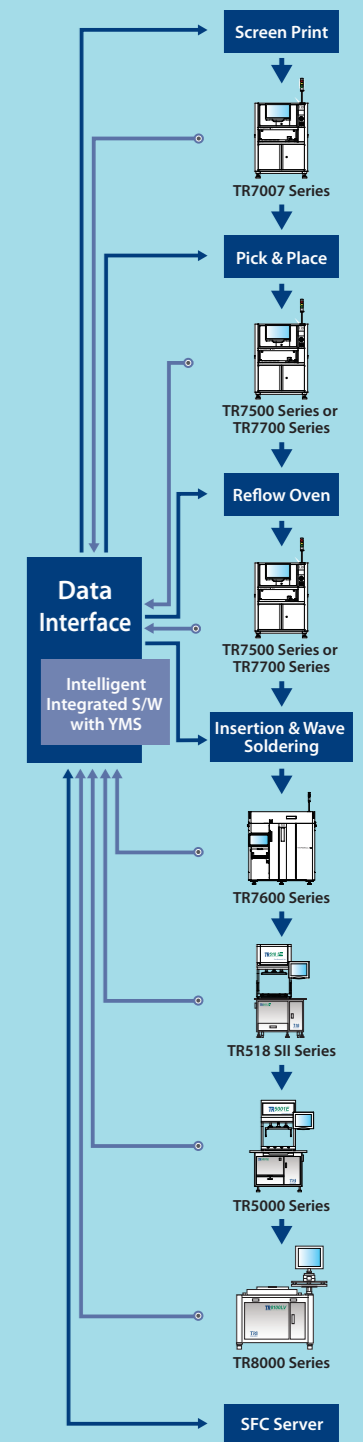
TRI's Yield Management System links inspection data from SPI, AOI and AXI systems to trace defect roots throughout the PCB assembly line. Modular architecture provides centralized inspection management, real time defect monitoring with analysis and defect knowledge management necessary to identify problems and implement solutions to maximize production yields.



• Quality Validation

Fully automated collection of good/failed images from a complete production run allows testing, tuning and verification of adjusted program parameters without reloading tested boards. This allows engineers to save inspection time when fine tuning and significantly speeds up New Product Introduction (NPI).

Yield Management System*



Data Flow — Feedback Flow —

- Inspection results and data integration
 - Real time SPC and production yield management
 - Quality reports and closed loop tracking
 - Support defect component analysis and improvements
 - Knowledge Management (KM)
 - Productivity and Quality Management
- * Optional

SPECIFICATIONS

Optical & Imaging System

Camera Type	4 MP camera	
Optical Resolution	10 µm or 15 µm (factory setting)	
Field of View	10 µm	20.0 x 20.0 mm (0.79 x 0.79 in)
	15 µm	30.0 x 30.0 mm (1.18 x 1.18 in)

Inspection Functions

Defects Detected	Insufficient Paste, Excessive Paste, Shape Deformity, Missing Paste & Bridging
Measurement	Height, area, volume and offset

Mechanical Stage

X-axis linear motor and linear scale with DSP-based motion controller	
XY Resolution	0.5 µm
Z Resolution	1 µm

Inspection Speed

10 µm	Up to 90 cm ² /sec (14.0 in ² /sec)
15 µm	Up to 200 cm ² /sec (31.0 in ² /sec)

Inspection Performance

Volume Repeatability	Calibration Target (at 3 σ) <1% on TRI certification target
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Height Repeatability	Calibration Target (at 3 σ) <1% on TRI certification target
	Solder GR&R (± 50% Tolerance) <<10% at 6 σ

Effective Depth of Focus	± 5 mm (± 0.10 in)
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Height Resolution	0.4 µm
Height Accuracy	1.5 µm on certification target
Max. Solder Paste Size	12800 x 10240 µm at 10 µm
Min. Solder Paste Size	100 x 100 µm at 10 µm
Min. Solder Paste Pitch	100 µm
Max. Height Range	10 µm 600 µm 15 µm 550 µm



PCB and Conveyor System

	TR7007M SII Plus	TR7007 SII Plus
PCB Size	50 x 50 - 350 x 350 mm (1.97 x 1.97 - 13.8 x 13.8 in)	50 x 50 - 510 x 460 mm (1.97 x 1.97 - 20.1 x 18.1 in)
PCB Thickness	0.6 - 6 mm	
PCB Transport Height	880 - 920 mm	
Max. PCB Weight	3 kg (6.61 lbs)	
PCB Carrier/Fixing	Belt/Pneumatic	
Clearance		
Top	40 mm	
Bottom	40 mm	
Edge	3 mm	

Dimensions

	TR7007M SII Plus	TR7007 SII Plus
Dimensions (W x D x H)	1000 x 1555 x 1500 mm (39.4 x 61.2 x 59.1 in) (not including signal tower, height: 520 mm)	1100 x 1570 x 1550 mm (43.3 x 61.8 x 61.0 in) (not including signal tower, height: 520 mm)
Weight	870 kg (1918 lbs)	950 kg (2094 lbs)
Power Requirement	200 - 240 V, single phase, 50/60 Hz 3 kVA	
Air Requirement	0.6 MPa (87 psi)	

Optional

SPC, Offline Editor, Gerber Tool, Barcode Scanner (linear & 2D) and Support Pins, Closed Loop Function, Dual Lane, Y-Axis Linear Motor, TRI's Yield Management System (YMS), YMS Lite, Auto Conveyor Width Adjustment

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C-7007 SII PLUS-EN-1402



TR7007 SII Plus SERIES



3D SOLDER
PASTE INSPECTION

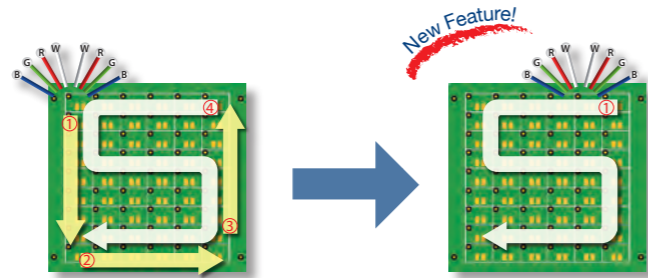
TR7007 SII Plus FEATURES

TR7007 SII Plus

Highly Accurate shadow-free SPI solution with class-leading inspection performance and easy programming brings maximum value to your production line.

Unmatched Speed & Throughput

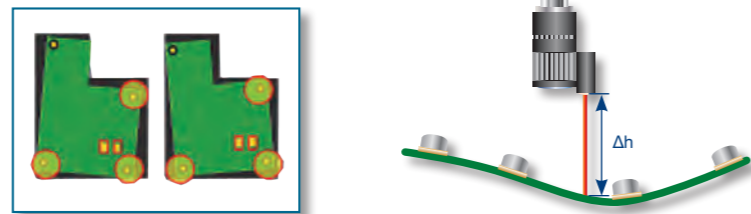
Industry-leading inspection speed using TRI's Dynamic Imaging technology keeps up with the production line beat without slowing down for even the most complex boards with multiple local fiducial marks. TRI's unique solution guarantees perfect results while reducing expensive cycle time.



TRI's Color Imaging needs to scan only one Fiducial Mark on every board, saving cycle time.

Stable and Reliable Performance

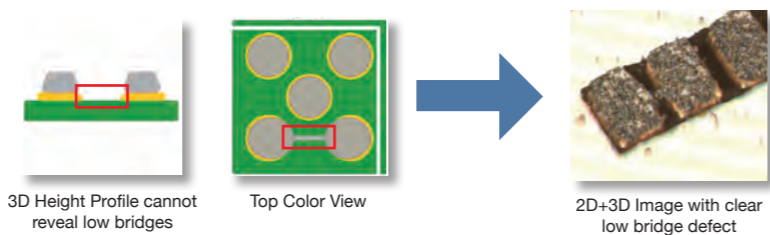
Fully optimized for maximum stability, the TR7007 SII Plus delivers reliable inspection results 24 hours a day, and automatically compensates for manufacturing tolerances and board warp.



Reliable warp compensation and local fiducial marks guarantee stable results under any conditions.

Unique Low Bridge Inspection

World's first inspection of low solder paste bridges under 30 µm ensures no printing defects are missed, and guarantees accurate results under any conditions.



3D Height Profile cannot reveal low bridges

Top Color View

2D+3D Image with clear low bridge defect

Intuitive SPC Display

Full panel maps and real color images allow engineers to quickly monitor and diagnose problematic areas on the stencil, saving management time and reducing rework costs.

SPC

Statistical Report

Multi-panel Histogram

Solder Height Distribution

3D Color Image

SPC 2D Real Image Query

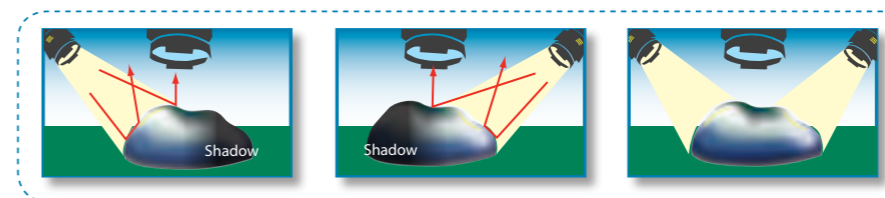
Easy Automated Programming

Rapid automated 5-step programming interface ensures fast changeovers, minimal idle time and helps reduce operator work load.



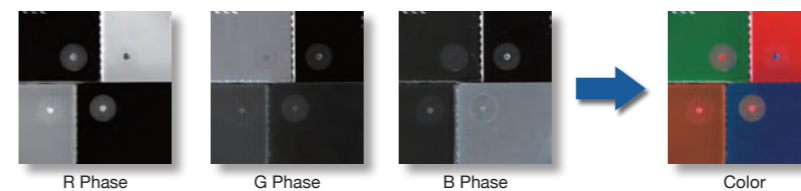
Shadow Free Inspection Technology

Dual projection design and intelligent software ensure the TR7007 SII Plus delivers completely shadow-free inspection results and eliminates problems with specular reflections.



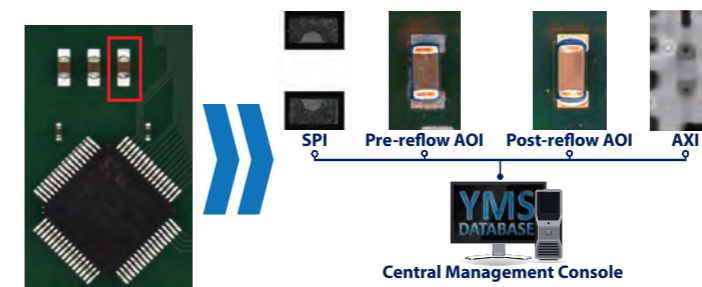
Multi-Color Vision for any PCB

Multi-phase color lighting guarantees accurate inspection results on any PCB color and finish combination, without sacrificing inspection speed.



SMT Line Integration

TRI's Yield Management System links inspection data from SPI, AOI and AXI systems to trace defect roots throughout the PCB assembly line. Modular architecture provides centralized inspection management, real time defect monitoring with analysis and knowledge management necessary to identify problems and implement solutions to maximize production yields.



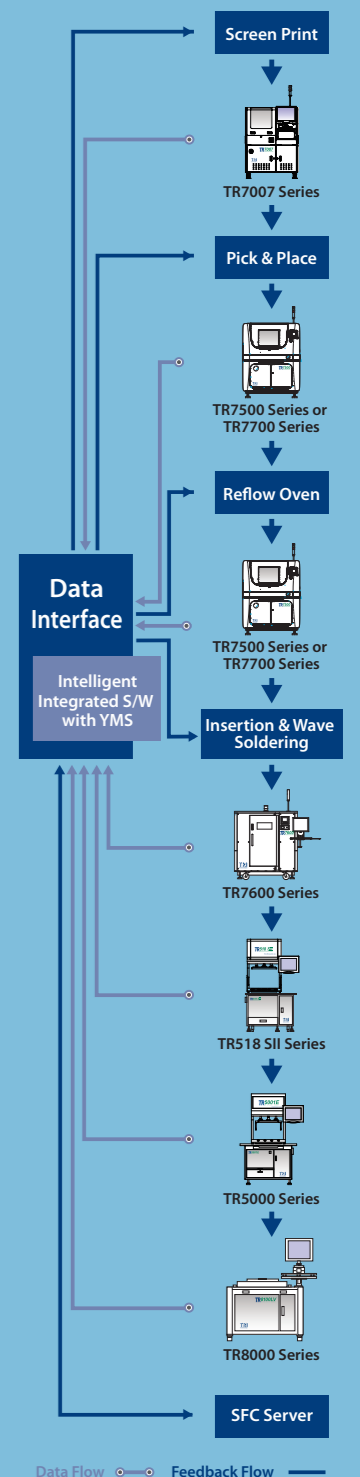
Closed Loop Function

TRI SPI systems share inspection results with connected SMT line equipment to help improve production yields and stabilize production quality while minimizing line stops and reducing production costs.

High Production Value = Maximum Cost Savings

- Industry Leading Inspection Speed
- Early Defect Detection
- 98% Rework Cost Reduction
- Stable and Reliable Results
- Enhanced 100% Defect Coverage

Yield Management System*



- Inspection results and data integration
- Real time SPC and production yield management
- Quality reports and close loop tracking
- Support defect component analysis and improvements
- Knowledge Management (KM)
- Productivity and Quality Management

* Optional