

# SPECIFICATIONS

## Optical & Imaging System

Top View Camera	4MP high speed color camera
Lighting	RGB+W LED
Optical Resolution	10 or 15 µm
Imaging Method	Dynamic Imaging

## Imaging/Inspection Speed

15 µm	120 cm <sup>2</sup> /sec (18.6 in <sup>2</sup> /sec)
10 µm	60 cm <sup>2</sup> /sec (9.3 in <sup>2</sup> /sec)

## Pre-/Post-Reflow Inspection Functions

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 µm

## PCB & Conveyor System

	TR7700 SIII DT	TR7700L SIII DT
PCB Size	50 x 50 mm - 330 x 250 mm (1.97 x 1.97 in - 12.9 x 9.84 in)	50 x 50 mm - 510 x 460 mm (1.97 x 1.97 in - 20.0 x 18.0 in)
PCB Thickness	3 mm (0.11 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 (0.11 in)	3 mm (0.11 in)
Dimensions (W) x (D) x (H)	800 x 1100 x 1350 mm ø1.5 x 43.3 x 53.0 in)	980 x 1290 x 1400 mm (38.6 x 50.8 x 55.1 in)
Weight	340 kg	385 kg
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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C-7700 SIII DT-EN-1310

**TRONIK**

**TRI**  
innovation

# TR7700 SIII DT SERIES



DESKTOP AUTOMATED  
OPTICAL INSPECTION

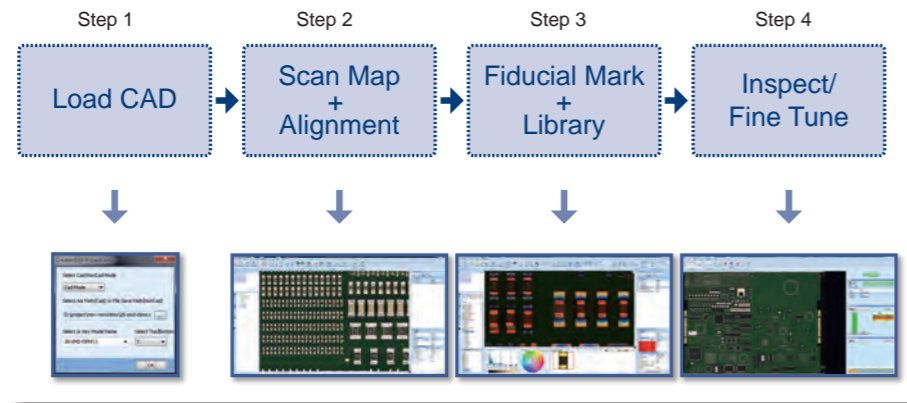
# TR7700 SIII DT FEATURES

## 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.

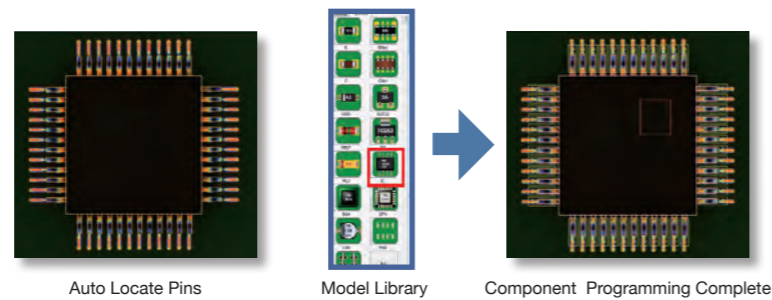
## Intelligent Easy Programming Interface

Programming Flowchart



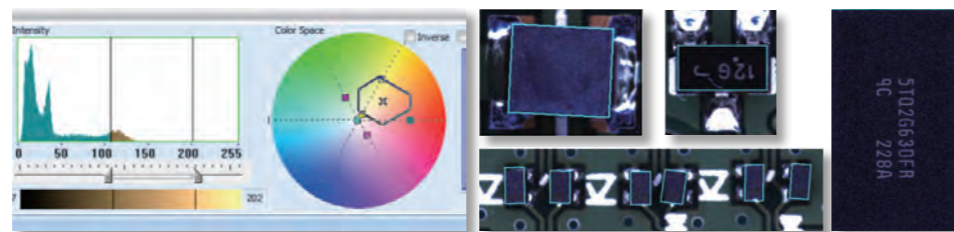
## Auto Library + Model Library

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



## New Color Space Algorithms

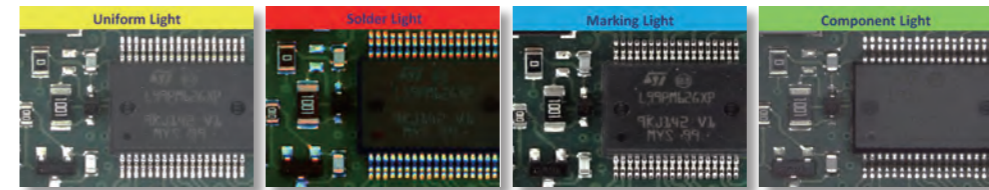
TRI's new adaptive algorithms use color space processing to increase inspection accuracy, reduce false calls and improve inspection results while reducing time necessary for inspection fine tuning and the number of alternative images required.



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.



## 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

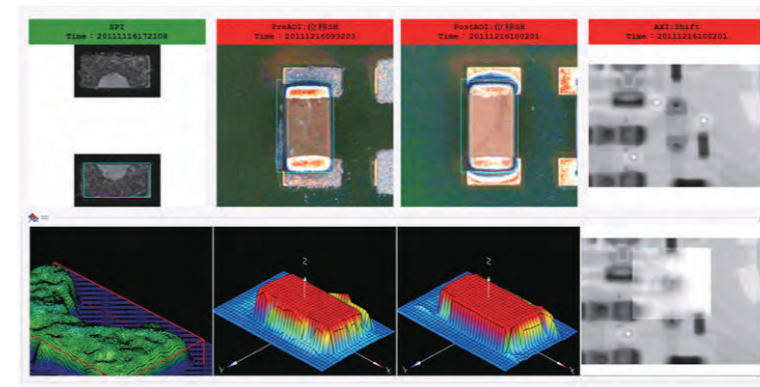
## High Speed Ballscrew X-Y Motion Drive

## Offline Editor

- Multi-panel image 'pre-scan' function
- 100% offline program editing
- Remote monitoring (based on adjustable settings)
- Automatically updated parameter modifications

## 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.

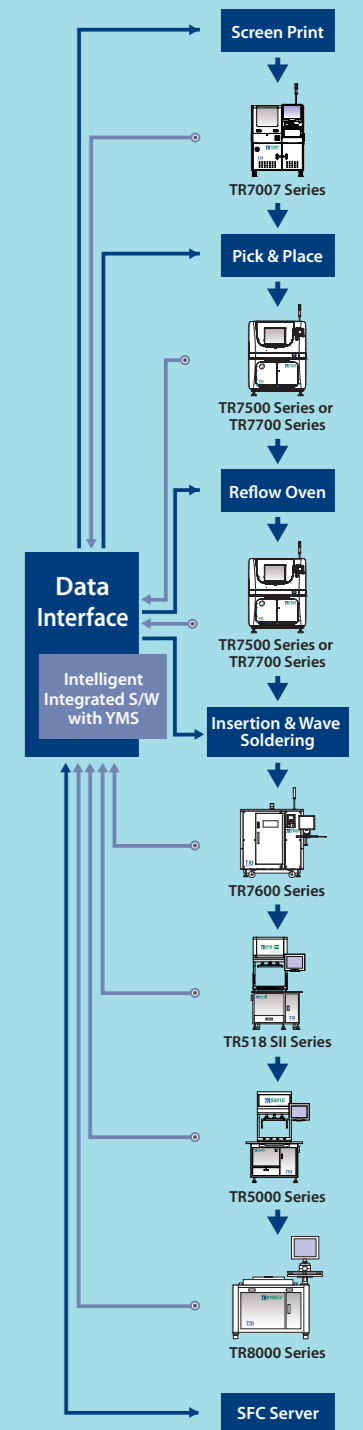


YMS Lite Defect Image Center

## 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

