

Color 3D SPI

TROI-7700E Series

3D Inline Solder Paste Inspection System



TROI-7700E Series

Technology and Features

Dual Projection

Combination of 2D & 3D inspection eliminates common shadow problem with SPI systems.

64 bit Windows 7 Operation System

Fast & Stable Operating System for high density PCB.

User Friendly Graphical Interface

Self-developed Gerber Editor controls the main functions on one page which means it's eliminating the effort of switching between multiple screens. It is also possible to register or edit the data quickly and easily by any users.

Color 3D SPI

Conventional SPI methods could only calculate heights above silk print levels, but by using patented color enhancing algorithm TROI™ could overcome these problems.

In addition, a fully rotational 3D view of the solder form is displayed. This enables users to view a "life like" image of the pad eliminating the need to extract the board from the line to view the defect under a microscope.

High Speed & Performance

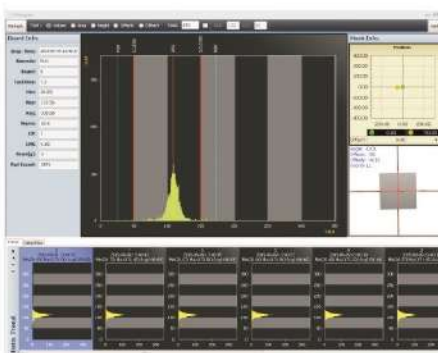
By improving the camera inspection speed, TROI™ show same performance as single projection.

SPI Standard Library

Base on the experience of AOI, PEMTRON firstly import the standard library for SPI. So can Link all the parameter in different programs be the same. When create new program, just one step to finish parameter setting for all pad, reduced the programming time.

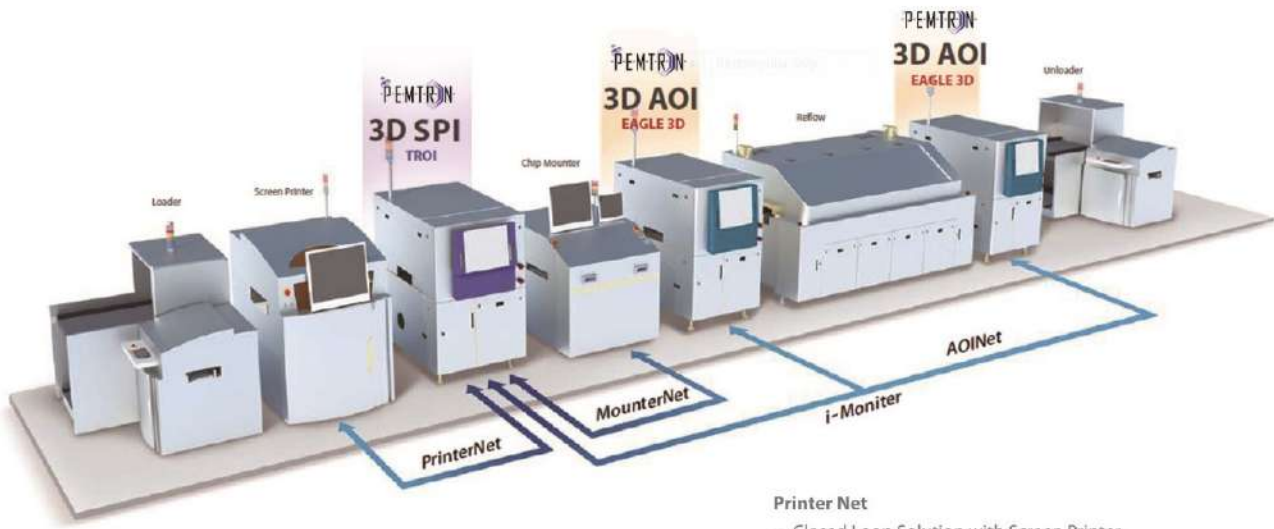
Enhanced SPC System

SPC system analyses the defective data and controls the process problems or the production rate at a look. SPC data can be saved in a various file format such as PDF, Excel, Image and etc as users like. Also with the enhanced SPC server function, data from multiple lanes can be controlled together or individually.



Real Time Process and Quality Control Solutions

Inspection Result Information Auto Sync.



Printer Net

- Closed Loop Solution with Screen Printer

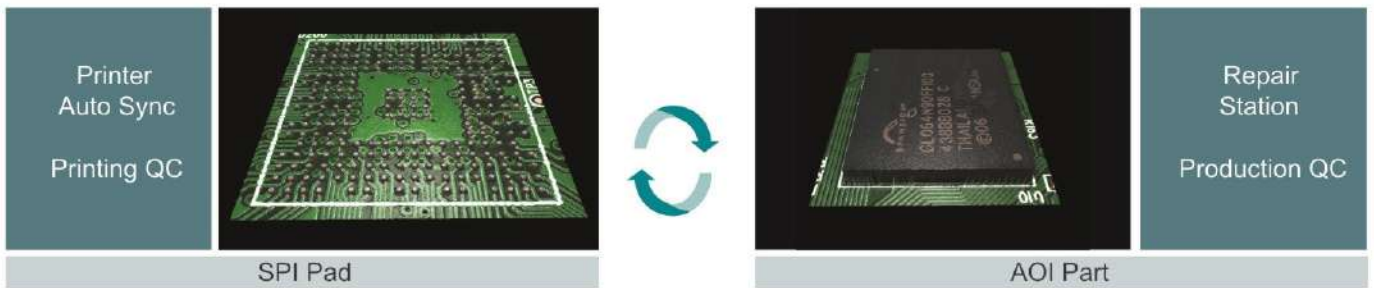
Mounter Net

- Closed Loop Solution with Mounter

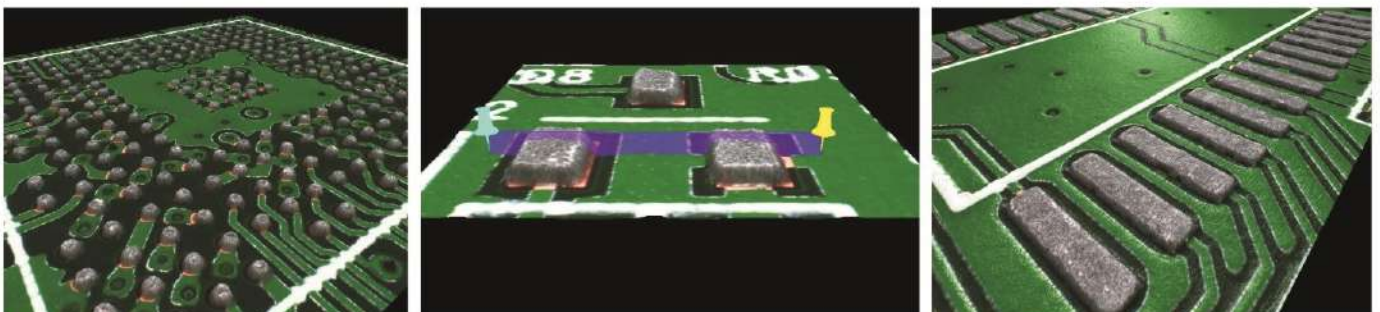
*Bad Mark Mounter Sync and Adaptive Process Control

TROI SPI & EAGLE 3D AOI closed loop function

- Real time defect confirm



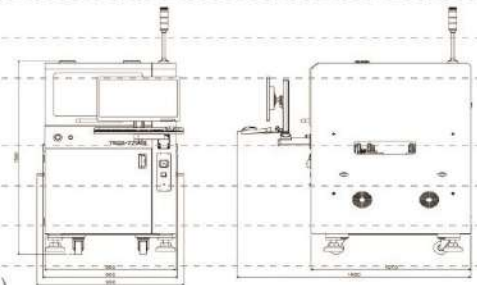
Realistic 3D Image



TROI™ Series (Solder Paste Inspection System)

SPECIFICATIONS

| Configuration | Standard Version | | | High Speed Version | | |
|-------------------------|--|---------------------------|---------------------------|-----------------------------|-------------------------|--------------------------|
| Camera | 4MP | | | 9MP | | |
| X/Y Pixel Resolution | 10um | 15um | 18um | 10um | 15um | 18um |
| Inspection Speed | 12.8 cm ² /Sec | 30.7 cm ² /Sec | 42.8 cm ² /Sec | 34 cm ² /Sec | 73 cm ² /Sec | 102 cm ² /Sec |
| FOV (Field Of View) | 20.5X20.5 mm | 30.7X30.7 mm | 36X36 mm | 30X30 mm | 45X45 mm | 54X54 mm |
| Model | TROI-7700E | | | TROI-7700EL | | |
| 2D Vision Algorithm | 2D : Vision Inspection Algorithm | | | | | |
| 3D Vision Algorithm | 3D : PMP (Phase Measuring Profilometry) Algorithm | | | | | |
| Measurements | Volume, Height, XY Position, Area | | | | | |
| Detection Types | Insufficient Paste, Excessive Paste, Shape Deformity, No Paste, Bridge 2D&3D, Paste Displacement | | | | | |
| Max. PCB Size | 330X330mm (10um, 15um, 18um) | | | 510X510mm(10um, 15um, 18um) | | |
| Min. PCB Size | 50 X 50mm | | | | | |
| Dimension / Weight | 900X1085X1545 mm / 580kg | | | 1100X1230X 1540mm / 730kg | | |
| Electrical Requirements | 220 ~ 240 Vac , 1 Phase, 50/60Hz | | | | | |
| Air Requirement | 5 Kg/cm ² | | | | | |
| Power Consumption | 1.4 KW(6.5 A Max) | | | 1.8 KW(8.0 A Max) | | |
| Thickness | 0.4 ~ 7.0 mm | | | | | |
| Bottom Clearance | 27 mm | | | | | |
| Height Range/Resolution | 0 ~ 450 um / 0.4 um | | | | | |
| Height Accuracy | 1 um | | | | | |
| Max PCB Warpage | +/- 5 mm | | | | | |
| Motor Type | Servo Motor + Ball Screw | | | | | |
| Control Units | PC(I7-7700, 1TB+500G, 16G memory) / Monitor (24 inches) | | | | | |
| | • Offline Editor | | • i-PEMTRON Closed Loop | | • i-Monitor SPC Station | |
| Option | • 3D Target (KTL) | | • 2D Glass Board JIG | | • Bottom Side Barcode | |
| | • NG Buffer | | • NG Conveyor | | • UPS • Shopfloor | |



* Specifications Subject To Change Without Notice



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