

Xceed

New Generation **3DAOI**

3D Automatic Optical Inspection



PARMI
Pattern Recognition & Machine Intelligence

Xceed

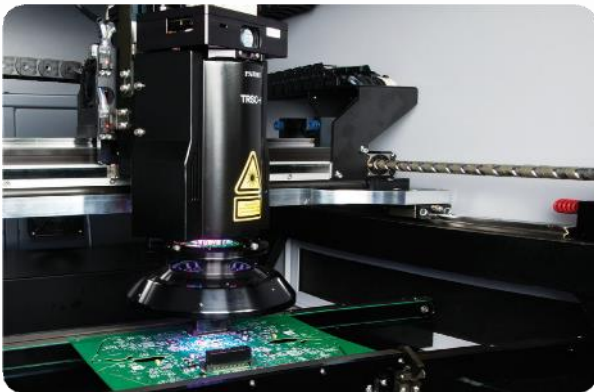
New Generation 3DAOI

High Accuracy & High Speed



3D AOI Sensor Head (TRSC-I)

- 4 Mega Pixel Telecentric Lens Fast Speed CMOS camera
- R.G.B LED 3 Stage Lightings
- Extra light (3.8kg), Compact Size ($\frac{1}{3}$ compare to Camera Sensor)
- Easy Calibration and Maintenance

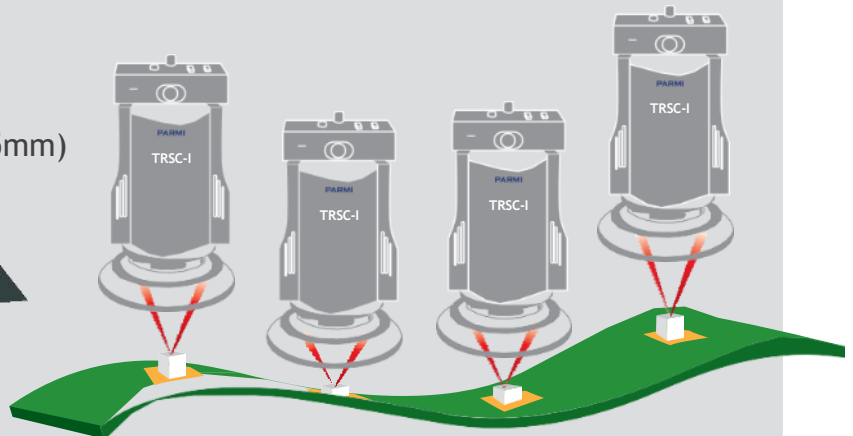
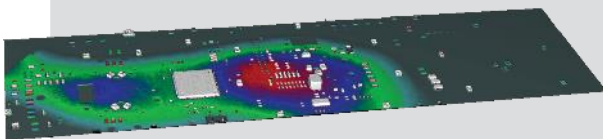


Laser Line Scan Method

- Accurate and Stable Measure with Laser Sheet Beam
- Soft Scan Motion by Applying Linear Scale
- Obtain 2D/3D Image to Inspect
- The Fastest Inspection Speed: $65\text{cm}^2/\text{sec}$ @ $14 \times 14\mu\text{m}$
- Cycle time: For PCB $260\text{mm(L)} \times 200\text{mm(W)}$
@10sec (Including Loading & Unloading Time)

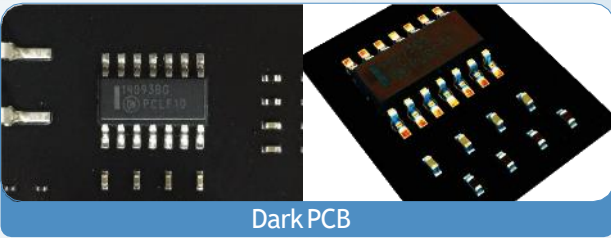
Warpage Tracking

- Real Time Z-axis control and take accurate measure on base
- Guarantee accuracy upto $10\text{mm}(\pm 5\text{mm})$ warpage

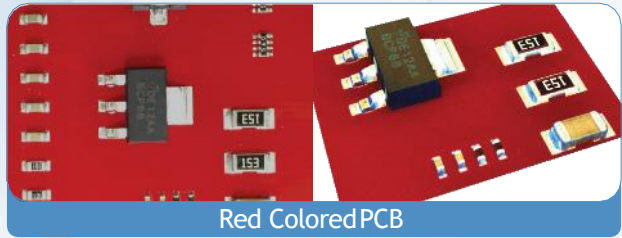


Smart Inspection

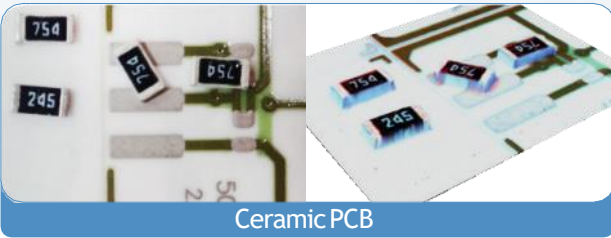
Inspection irrelevant to PCB texture, surface, and color



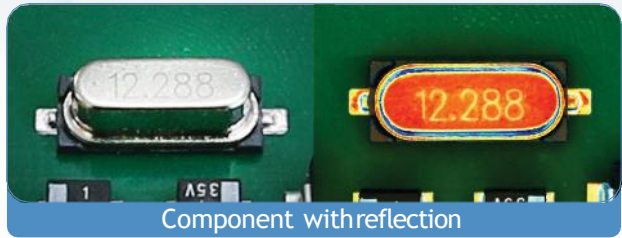
Dark PCB



Red Colored PCB



Ceramic PCB



Component with reflection

Real 3D Image

- Clear 3D Image with no Noise

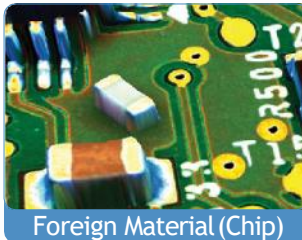
- Detect every defect type



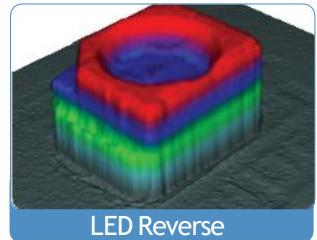
Lead Lift



Lift



Foreign Material (Chip)



LED Reverse



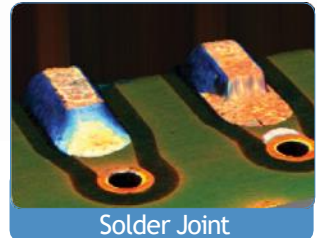
Misalignment



Bridge



Manhattan



Solder Joint

Eliminate Shadow Effect

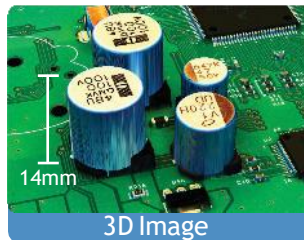
- Apply Dual Laser Projection
- Inspect low component near high component

Barcode & Badmark Scan Recognition

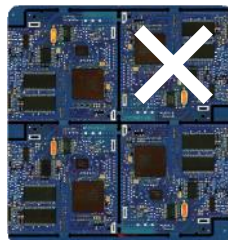
- Increase Process Efficiency by having Barcode, Badmark Recognition and Inspection at the same time.
(1D, 2D, QR, Laser Marking, and Printing Barcode)



Real Image



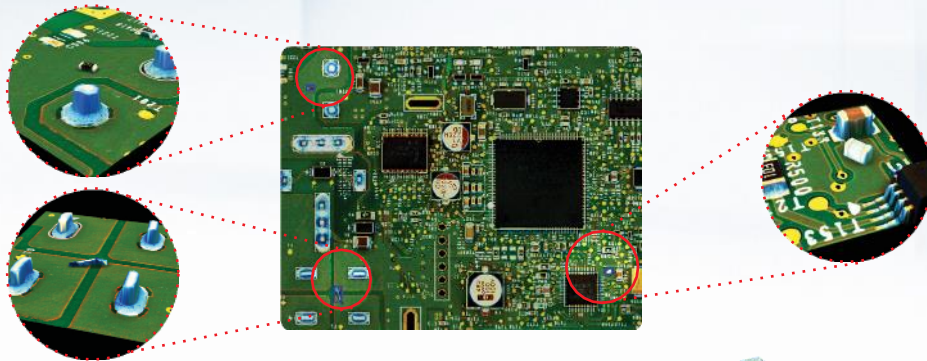
3D Image



018071 894821
2180001 884774

Foreign Material Inspection Solution

- Perform perfect inspection with 2D/3D Combination
- Foreign Material inspection outside Gerber Area (For Foreign Material, Solder Ball, Other Foreign Material)
- No complicated teaching needed, No increase in Cycle Time



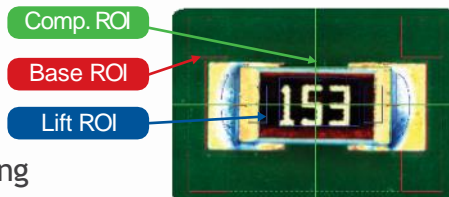
Inspect 40mm Max Height

- Inspect 40mm Max with Multi Scan
- Top Level in 3D Inspection Machine Industry



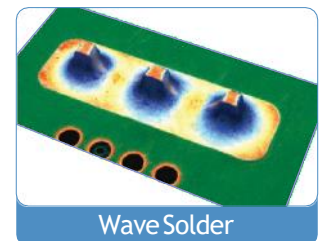
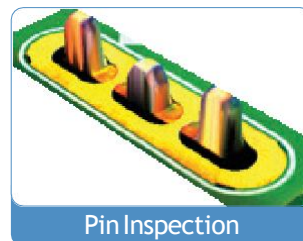
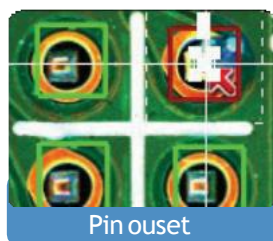
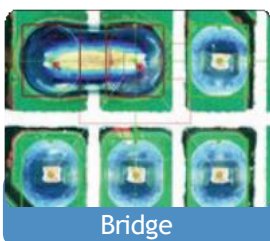
Maximize User Comfortability

- Fast and Easy Teaching Process
 - No need to set LED for each Component
 - 588 Components
 - Within 70min Teaching and Debugging
 - Component Type-Specific One Click Teaching
 - Basic Inspection Spec:
 - (Missing, Lift, Size, Misalignment, Side Mount, Manhattan, Upside down)
- Teaching without GerberData
- Realize 95% or higher Non-adjusted Ratio



Through Hole Technology Process Response (Press Fit, Connector Pin, Wave Solder)

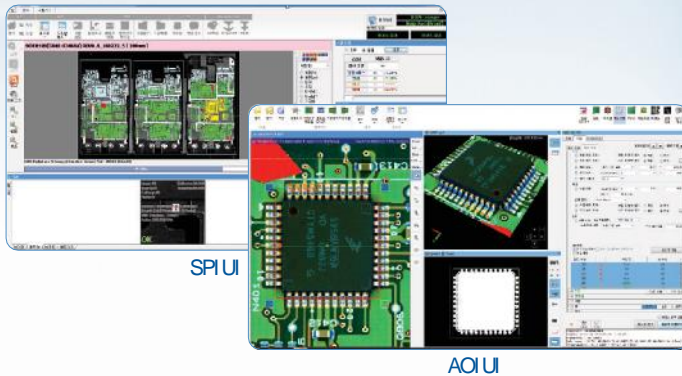
- Press Fit Inspection (Pin missing, Pin height, Pin outset)
- Wave Soldering Inspection (Missing, Solder, Bridge, Foreign Material etc.)



Easy Software

Friendly UI

- Same UI Configuration with SPI
- User-Specific UI Configuration with Docking Window
- Easy and Intuitive Method of Use



Veriworks

- Real Time Defect 2D/3D Image Analyzing Tool
- Provide Cross Section Profile Analyzing Tool
- Search Defect History with Barcode Scan



SPC

- Provide Information for Practical Statistical Process Analyzing
- Rapidly Monitor Mounter Accuracy
- Provide Variable and Statistical Information (Defect, Panel, Component, etc.)



xNet : Network Connectivity

- Analyze Defect Component with AOI and SPI's 2D/3D Image
- Run All Tasks in Web Browser (PC & Mobile Apps)
- One Screen Monitoring for All Machine Status (RMC)
- Manage Inspection Program Login Information
- Auto-Manage SPI & AOI S/W Version
- Analyze SPC Statistics
- Manage Component Library

