

COLOR 3D AOI

EAGLE 3D AOI Series



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■ 3D Automated Optical Inspection system

www.pemtron.com

EAGLE 3D AOI Series



Pemtron's fast and accurate 3D AOI for a complete defect detection and yield management solution.

EAGLE 3D AOI - TECHNOLOGY AND FEATURES

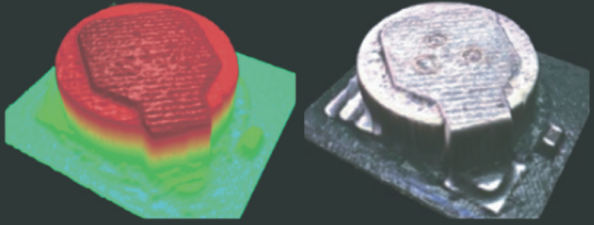
- ❖ Fully Automated 3D Inspection
- ❖ Quick and Easy Programming
- ❖ 3D Solution for Commonly Missed Defects
- ❖ Fast Inspection Times

See the Invisible World!

Complete 3D Measurement Solution

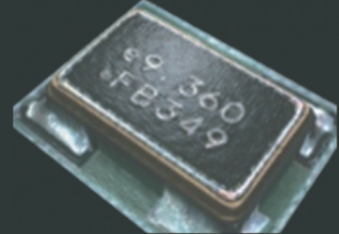
Shadow Free 3D Technology

Overcomes shadow problems on highly populated PCBs and high components

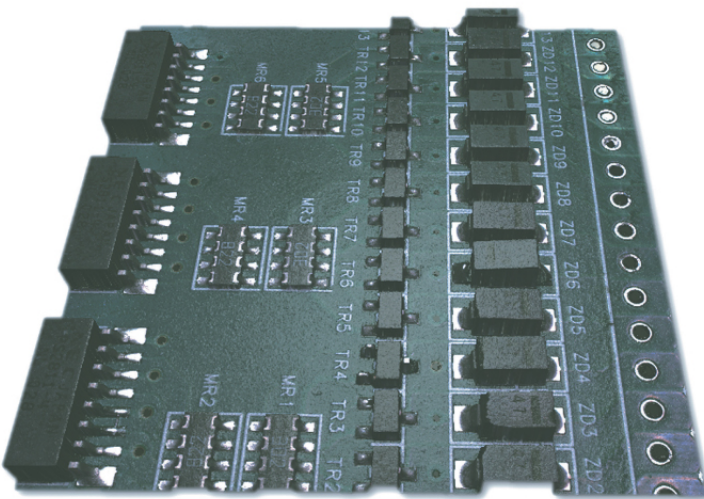


Optical Character Verification

Able to recognize every types of OCV by using color and pattern algorithm. Users can add & modify OCR font to optimize inspection condition.



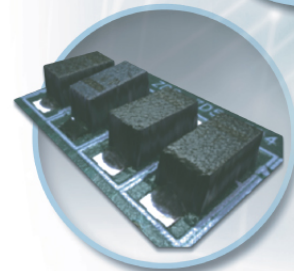
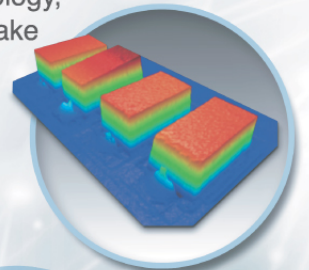
[3D Inspection Image]



3D Solder & Height Measurement

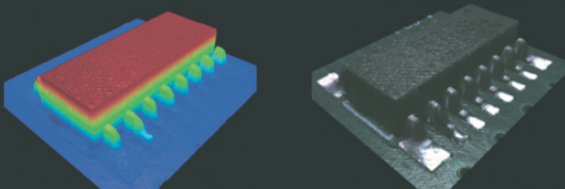
Using our advanced 3D technology, the EAGLE 3D AOI is able to take inspection to levels that are limited by conventional 2D systems.

Adding solder height, volume and part co-planarity inspection bring enhanced defect detection capabilities.



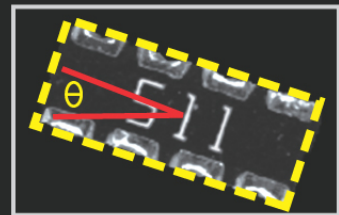
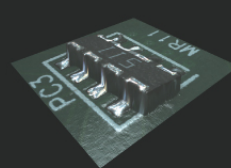
3D Lead inspection

3D measurement algorithms enable the EAGLE 3D AOI to measure height & volume of solder leads proving full-high quality 3D images.



Tilt & Rotate Measurement

Advanced algorithms can extract, detect and differentiate diverse component body patterns automatically.



See the Invisible World!

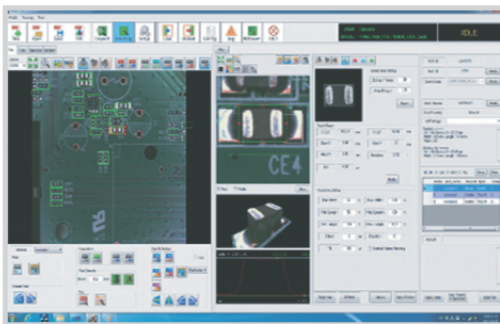
Technology and Features

Statistical Process Control



- Provides various tools and color charts for ease of view and reporting.
- Quality Control Management
- Networkable Auto Reporting Tools

Ease of use programming and real time debugging.



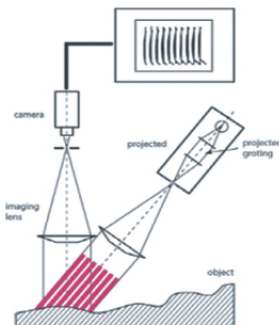
- Real time "on-the-fly" \pm debugging integration.
- Library Management System
- Easy CAD & Gerber Data Registration
TXT, CSV and XLS Compatible Formats

Statistical Process Control



Multi Projection

Multi-light projectors overcome specular reflections which is the basis of accurate and shadow-free 3D inspection.

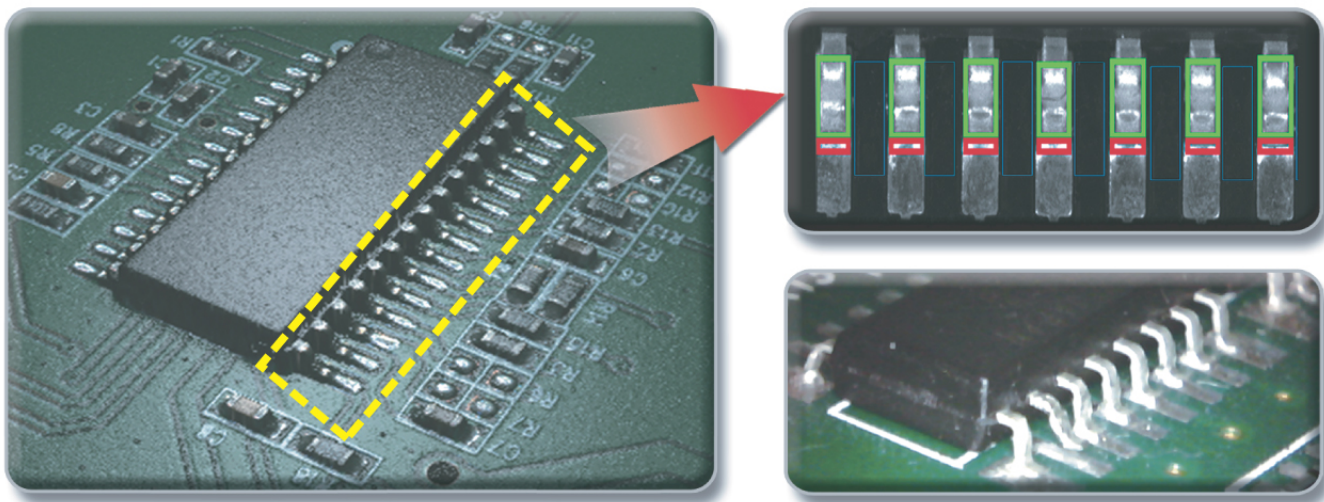


Proven Moire Technology

Over 10 years of integrating Phase Measurement Profilometry Technology into our solder paste inspection systems has proven the most advanced 3D technology available.

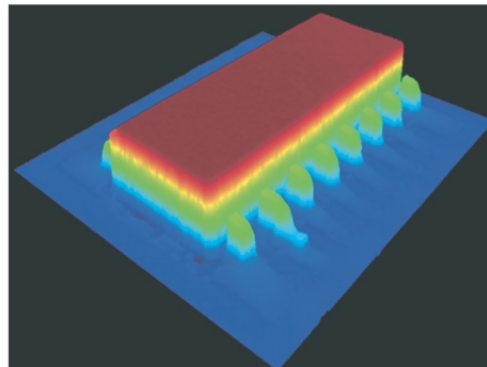
Technology and Features

State of the Art Inspection Solution for IC Leads



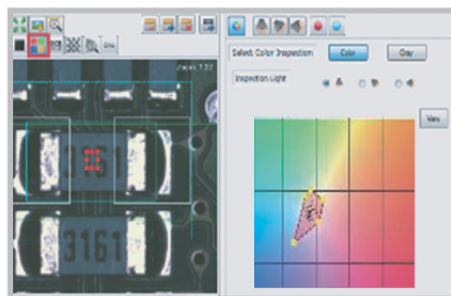
2D+3D Inspection IC Lead / Solder inspection

Lead and solder area can be distinguished through 2D&3D data gathering with Top, Middle, Bottom lighting source.



Ease of programming (Single Click Auto Teach Function)

- X & Y Training
- Solder Training
- OCV Training
- Lead Training



Pemtron's Auto Teach and Integration Tool provides users the ability to speed JOB (program) creation times.

EAGLE 3D AOI Series

■ SPECIFICATIONS

Model		EAGLE 3D – 8800			EAGLE 3D – 8800HS (High Speed)	
Camera		4MP			12MP	
X / Y Pixel Resolution		10um	15um	20um	10um	15um
Inspect Speed		6cm ² / sec	14cm ² / sec	25cm ² / sec	17cm ² / sec	28cm ² / sec
FOV (Field Of View)		20 x 20 mm	31 x 31 mm	41 x 41 mm	41 x 41 mm	61 x 46 mm
Height Range		0 – 5 mm				
Height Accuracy		2 μm				
Max. PCB Warpage		± 3 mm				
Motor Type		XY Linear Servo Motor				
Resolution		1 μm / Pulse				
Accuracy		± 3 μm				
PCB	Working Area	Standard	Min. 50 x 50 mm (2 x 2 inch) Max. 350 x 260 mm (13 x 10 inch)			
		Large	Min. 50 x 50 mm (2 x 2 inch) Max. 510 x 460 mm (20 x 18 inch)			
	Thickness		0.4 ~ 5.0 mm			
	Top Clearance		45 mm			
	Bottom Clearance		27 mm			
Conveyor system		SMEMA Standard, Auto Adjustable				
Electrical requirements		AC 220V ± 10%, 50 / 60Hz				
Power Consumption		3.5 KW (16.0A Max @ 220 AC)				
Operation Condition		Temperature: 0 ~ 40°C, humidity: 30 ~ 80% RH				
Control Method		Windows 7, 64 bit (PC based Control)				
Monitor		24" LED Panel				

* Above specifications are subject to change without notice due to products upgrades.



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