

# EAGLE 3D 8800 Compact



3D Automated Optical Inspection System  
3D自动光学检测系统

[www.pemtron.com](http://www.pemtron.com)  
See the Invisible World.

## Technology and Features 技术特性

### Advanced High Speed Inspection and Measurement Technology

先进的高速度检测和测量技术

### Shadowfree Phase Measuring Profilometry 先进的高速度、高精度检测和测量技术

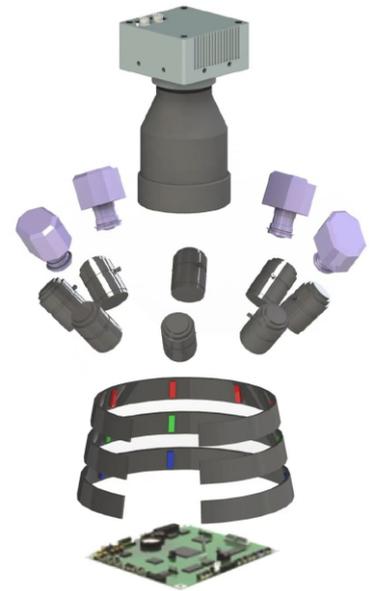
EAGLES 10MP 8+4 Projector 3D AOI inspect 100% of the PCB in 2D and 3D provide a completely optical inspection of PCB shadowfree and low false call maintaining a high flexibility in system functionality.

EAGLE 1千万8+4投射3D AOI系统对PCB进行100%的2D和3D全检。保障完全无阴影光学检测和低误报率，并保持高度灵活性的系统功能。

### Moiré Technology

Over 15 years of integrating phase measuring profilometry technology into our TROI solder paste inspection systems has proven the most advanced 3D technology available.

在Pemtron锡膏检测系统中已使用超过15年，相位轮廓测量技术足以证明3D技术的先进性及有效性



- 8+4Projection + three stage of 2D lighting
- 2D and 3D simultaneous inspection algorithms
- Telecentric lens provide higher accuracy and detection
- High speed GPU and image processing
- User friendly graphical interface
- Built in library management system
- Offline real time debug system (option)
- 8+4投射+3层2D光源
- 2D和3D同步检测算法
- 远心镜头提供高精度的检测
- 高配置GPU和图像处理
- 简单明了的用户界面
- 标准元件库管理系统
- 离线实时调试系统（选项）

### High Speed Inspection Technology

高速度检测技术

EAGLES high speed option inspect in 40.5cm<sup>2</sup>/s by utilizing an advanced network of more powerful GPU, controller boards and our proprietary developed 10MP 15um 180fps camera with telecentric lens.

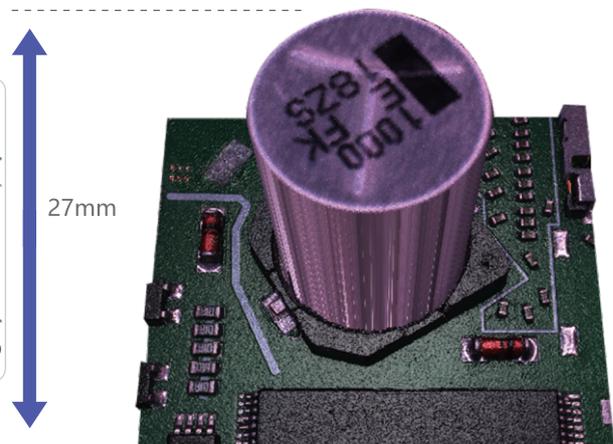
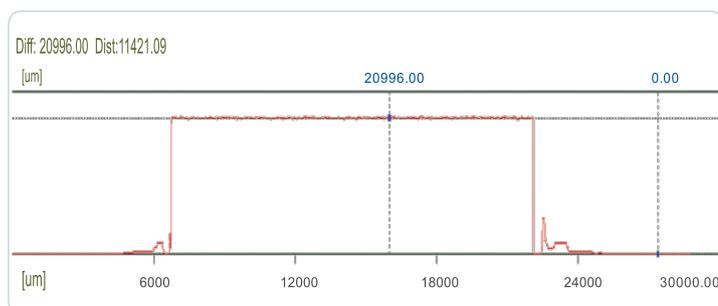
EAGLE采用独立自主的专业软件设计和高性能工控主机，拥有高效的运算能力及全面的硬件选配，进行最高效和稳定的测试。

### High Component Inspection Technology

高元件检测技术

EAGLES optional new 12-way projection technology provide an industry first 27mm component height inspection in 100% 3D.

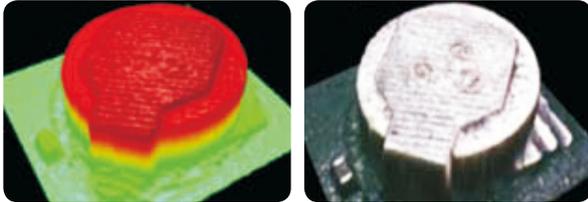
EAGLE选配全新的12方向3D投射技术可提供业界领先的27mm元件高度的全方位3D检查。



## Shadowless Phase Measuring 无阴影3D技术

Eliminates shadow issues on highly populated PCB and tall components.

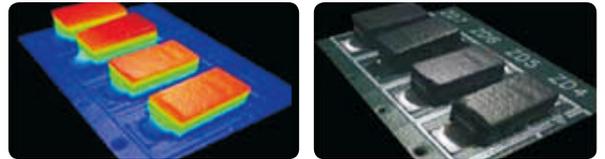
环状光源和多投射头能完全消除PCB测试时高密度阴影和高器件底部阴影所产生的影响。



## 3D Solder & Height Measurement 3D焊锡高度测量

Using our advanced 3D technology, the EAGLE is able to take inspection to levels that are limited by conventional 2D systems. Adding solder height, volume and part coplanarity inspection provide enhanced defect detection capabilities.

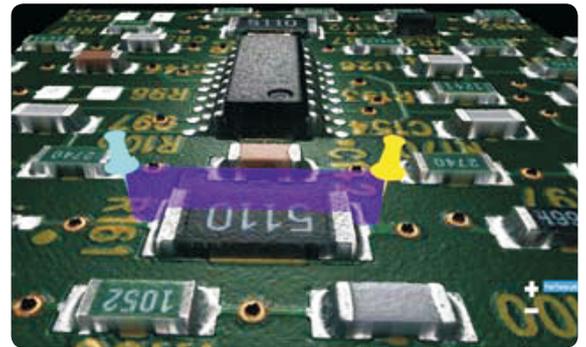
利用我们先进的3D技术, EAGLE 3D AOI能够检测到传统2D AOI无法到达的领域。增加了焊锡高度、体积以及元件共面性的测试项目, 大大提高了对不良产品的检测能力。



## Optical Character Recognition 光学字体核对

Recognizes component part characters by using color and pattern algorithms. Ability to add & modify OCR font to optimize inspection condition.

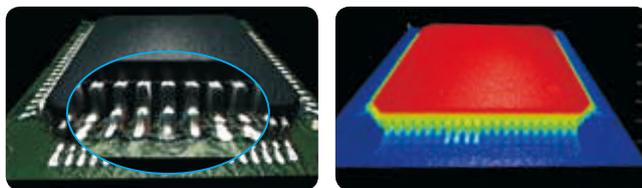
利用光学彩色抽色及建立样板比对的原理识别元件的Part Name能够增加和修改OCR字体来优化Part Name的检测能力, 更好的识别字体。



## 3D Lead Inspection 3D引脚检测

3D measurement algorithms enable the EAGLE to measure lead height and volume of solder proving full-high quality 3D image.

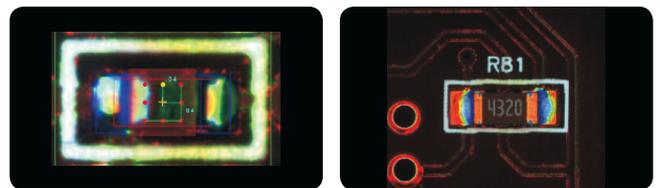
EAGLE 3D能够测量引脚高度、锡焊高度和体积, 并且提供高质量和真彩色3D图像。



## 2D RGB Algorithms 2D RGB算法

Through the RGB distinguish, operator can easily confirm the failures such as cold joint and lift lead.

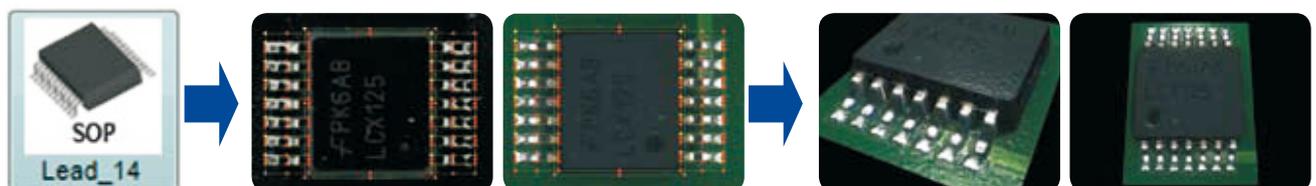
通过RGB颜色区分, 使操作者更轻易的区分空焊和翘脚等不良。



## Ease of programming (Auto Teach Function) 编程简易 (自动教学功能)

Advanced 3D imaging technology allows us to measure and recognize the geometric shapes of PCB components and automatically link them to our built in parts library.

先进的3D图像处理技术能精确识别和测量任何几何形状的元器件并自动更新到标准元器件库内, 编程简单, 调试快速。



## SPECIFICATIONS

Configuration	Compact Standard Version			Compact Pro Version		
Camera	10MP			12MP		
X/Y Pixel Resolution	10um	15um	18um	10um	15um	18um
Inpsection Speed	19.2 cm <sup>2</sup> /Sec	43.2cm <sup>2</sup> /Sec	61.5cm <sup>2</sup> /Sec	24cm <sup>2</sup> /Sec	54 cm <sup>2</sup> /Sec	77.7cm <sup>2</sup> /Sec
FOV (Field Of View)	32X30mm	48X45mm	57X54mm	40 x30mm	60X45mm	72x54mm
Model	EAGLE 3D 8800HS CPT	EAGLE 3D 8800HSL CPT	EAGLE 3D 8800HSD CPT	EAGLE 3D 8800HSDL CPT		
Max. PCB Size	330*250mm	510*460mm	Dual:330*280mm	Dual:510*330mm		
			Single:330*500mm	Single:510*600mm		
Min. PCB Size	50*50mm					
Dimension / Weight	920*1145*1550mm 725Kg	1100*1355*1550mm 850Kg	920*1590*1550mm 820Kg	1100*1630*1550mm 900Kg		
Electrical Requirements	220 ~ 240 Vac , 1 Phase, 50/60Hz					
Power Consumption	1.9KW / 9A	1.9KW / 9A	2.2KW / 10A	2.3KW 10A		
Thickness	0.4 ~ 7.0 mm		Equipment Size			
Top Clearance	Default: 50mm					
Bottom Clearance	Option: 50/60/70/100mm					
Height Range	0-27mm/15um (Option Z Axis)					
Height Accuacy	+/-3%					
Max PCB Warpage	+/-3mm					
Motor Type	SERVO MOTOR + ballscrew					
Conveyor Type	1 Stage Standard					

\* Specifications subject to change without notice.



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