



SHENZHEN TAKACHIHO TECHNOLOGY CO., LTD.

Fast, Accurate, Steady, Tactical

AI+3D AOI TH400-X



○ **AI 3D AOI**



Takachiho

AI 3D AOI

真3D+全2D+AI 一次检测所有缺陷

True 3D+Full 2D+AI detects all defects at one time



设备特点 EQUIPMENT CHARACTERISTICS

最新自研 AAM 绝对精度测量系统, 精确检测01005元件焊点不良

The latest self-developed AAM absolute precision measuring system, accurate detection of solder joint defects in 01005 components.

多角度光源配合高分辨率相机和远心镜头, 大幅度提升检测效果

Multi-angle light source with high resolution camera and telecentric lens, greatly improve the detection effect

高精度运动系统, 确保高速运动下的走停精度

High-precision motion system ensures precise positioning during high-speed movements

可根据工厂需求对接集成 MES 系统

Can be integrated with MES according to factory requirements.

强大的 SPC 软件, 提供丰富准确的数据统计

Powerful SPC (Statistical Process Control) software provides rich and accurate data statistics.

一体式铸造, 高刚性平台

Integrated casting, high-rigidity platform

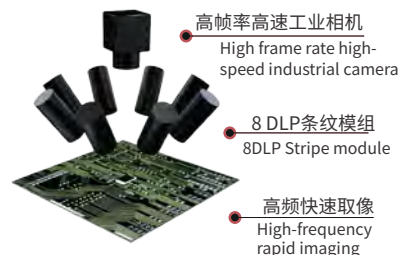
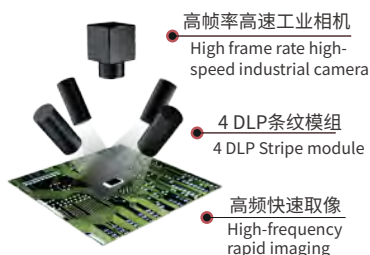
真3D检测 TRUE 3D DETECTION

小角度4路或8路投影系统, 更大程度消除小间距遮挡

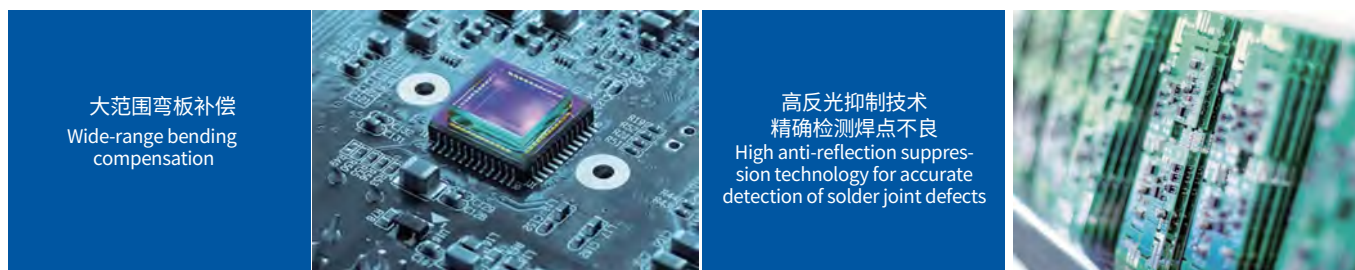
突破性摩尔条纹算法, 进一步减少CT时间

Small Angle 4-way or 8-way projection system, eliminate small spacing occlusion to a greater extent

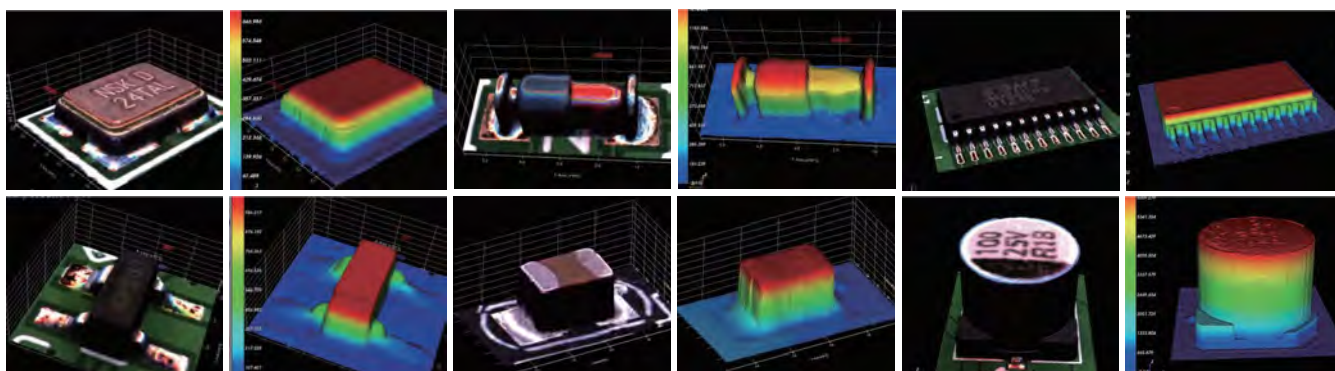
Breakthrough Morie fringe algorithm to further reduce CT



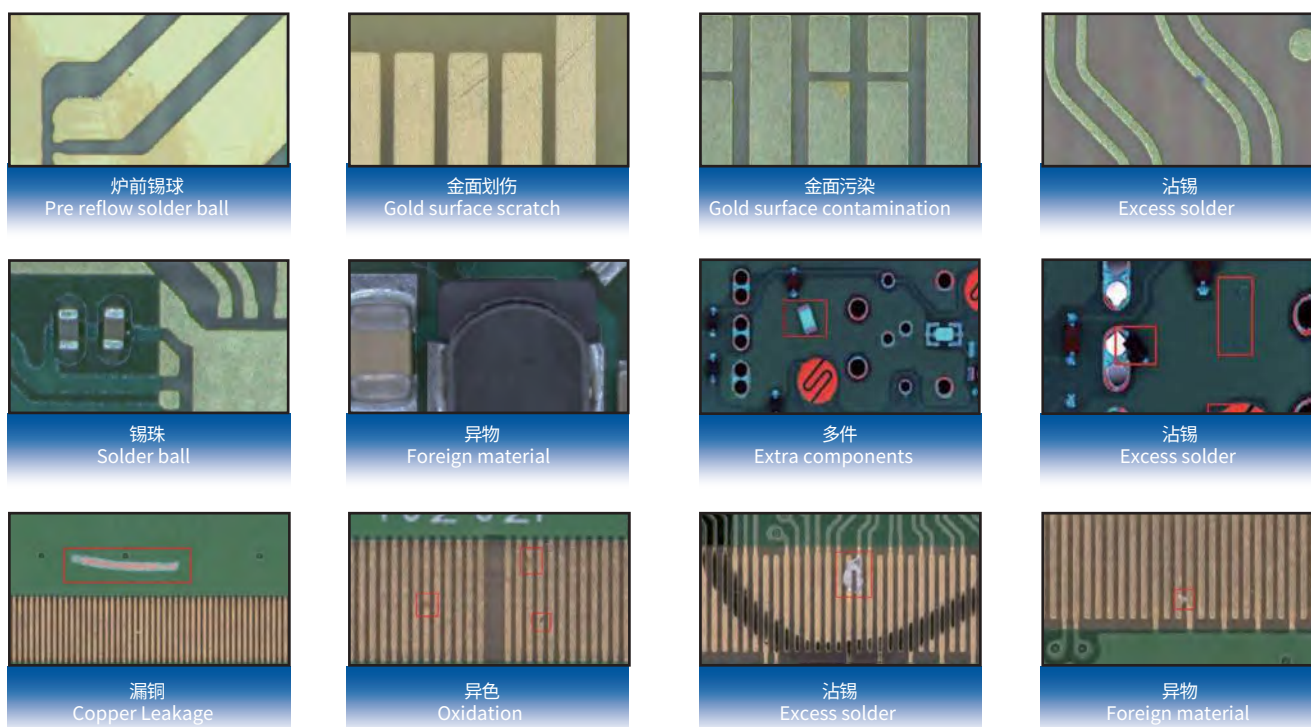
硬件特色 HARDWARE FEATURES



3D 检测效果 3D INSPECTION EFFECT



AI可检测缺陷 AI DETECTABLE DEFECTS

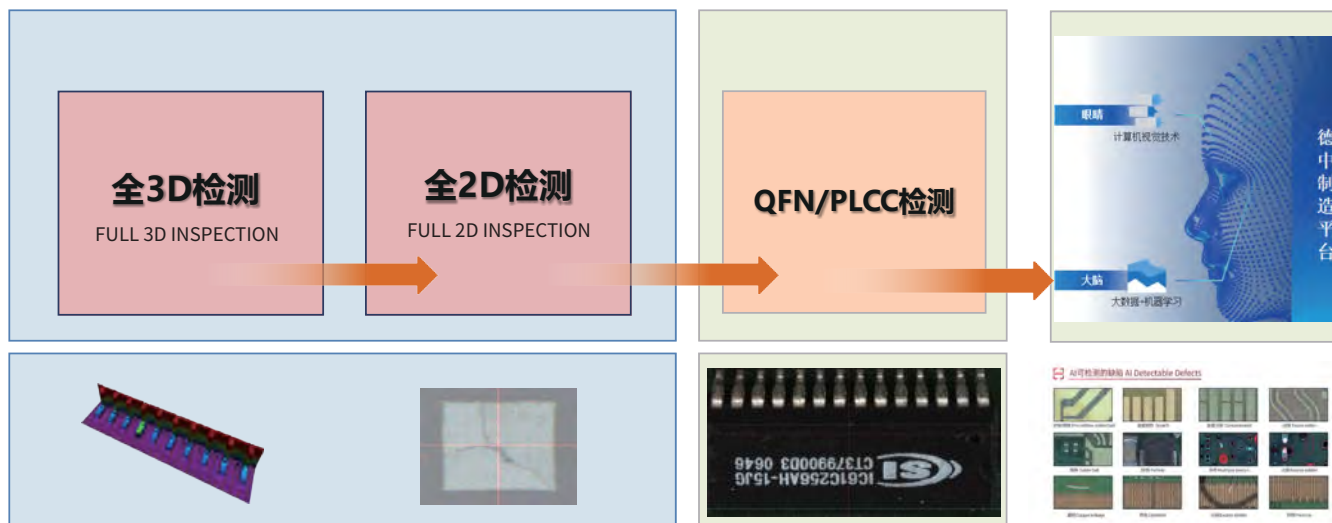




3D AOI检测方案 3D AOI SOLUTION

将3D+2D+AI快速编程+AI金手指检测+AI智能复判系统进行深度融合的新一代检测技术, 已成为业界最佳的3D AOI检测方案。

It is a latest generation inspection technology that deeply integrates 3D+2D, AI rapid programming, AI "Golden Finger" inspection, and AI intelligent rejudgment systems. It has become the best 3D AOI solution.



AI检测系统架构 AI DETECTION SYSTEM STRUCTURE





	Model	TH 400 X
视觉系统 Vision system	成像 Imaging	12MP, Optional 21MP
	分辨率 Resolution	10 μ m/15 μ m
	FOV尺寸 FOV size	40mm*30mm/60mm*45mm
	速度 Speed	30cm ² /s 67.5cm ² /s
	镜头类型 Lens Types	远心镜头 Telecentric lens
	投影头 Projector	4 projector, optional 8 projector
	灯源 Light	RGB+W
	量测高度 Measure height	25mm,Optional 40mm
运动机构 Motion mechanism	精度 Accuracy	丝杆精度 Screw accuracy: $\pm 1\mu$ m; 定位精度 Positioning accuracy: $\pm 10\mu$ m
	XY马达控制系统 XY axle control	AC伺服马达 AC Servo motor
	Z轴实时升降板弯补偿	标配 Standard configuration
	流向Flow to	左到右; 右到左; 右到右; 左到左。可定制 Left to right; Right to left; Right to right; Left to left. Customizable
	轨道高度Track height	900 $\pm$ 30mm
检查规格 Optional function	基板尺寸Substrate size	400*400mm
	检查项目Inspection items	缺件、偏移、反向、浮高、侧立、立碑、焊点不良、锡珠、氧化污染、异物、划伤等 Missing, offset, reverse, floating, sideways, tombstones, poor solder joints, tin beads, oxidation contamination, mal-shapes、particle, etc.
	AI检查项目 AI Inspection items	金面划伤、金面污染、漏铜、异色、沾锡、多件、锡球等 Metal surface scratches, metal surface pollution, copper leakage, discoloration, tin staining, multiple pieces, tin balls, etc.
重复性 Repeatability	重复精度Repeatability	4Sigma: 高度height < 1 μ m;体积volume < 1%; 面积area < 1%
	检测重复性Gage R&R	< 10%
软件部分 Software	标配软件 Standard configuration SW	MES; 离线编程, 相机识别条码, 维修站, SPC, 控制中心。 MES; Off line ; barcode ; Repair ; SPC ; Control center .
	选配软件 Option SW	支持MES定制 Support MES customization
设备信息 Equipment information	电源Power Supply	AC220V, 3KW
	气压Pressure	0.4-0.6MPa, 5L/min
	设备尺寸/重量 size/Weight	1000*1640*1670mm, 800KG
	接口方式Port type	标准SMEMA接口, 支持OK/NG信号输出. Standard SMEMA interface
选配功能 Option Funtions	人工智能 Artificial intelligence	AI大数据训练中心 AI Data Training Center
	辅助功能 Auxiliary function	远程集中复判、外置条码读取、OCR识别 Remote centralized review, Barcode reading, OCR recognition
电脑配置 Computer configuration	电脑类型Type of Computer	高性能工控机 High performance industrial computer
	CPU	Intel i7 or higher
	内存\显存 Memory & GPU	64GB or higher; 8GB or higher
	硬盘容量 Hard drive capacity	1TB SSD + 6TB SSD
	显示器 Displayer	24" LCD monitor
	操作系统 Operating System	Win10 Enterprise Edition



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