

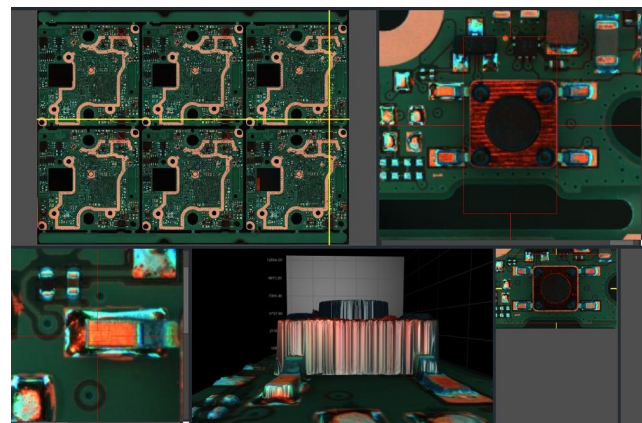
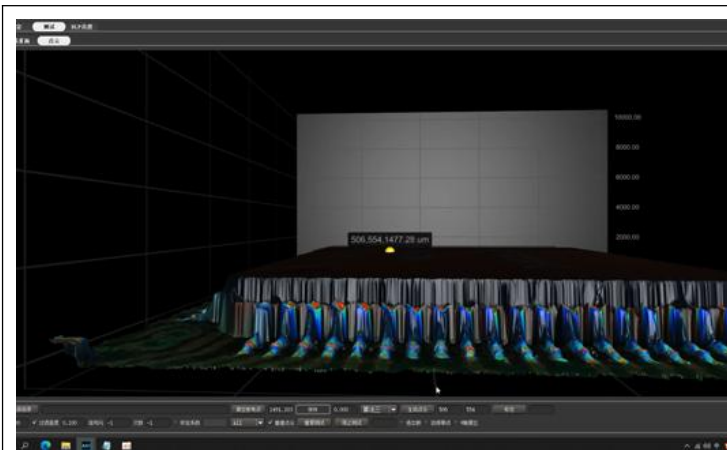
VCTA-S910 / D910 Online 3D AOI

Equipment that performs 2D & 3D image data analysis and inspection of SMT mounted parts and solder joints based on optical principles



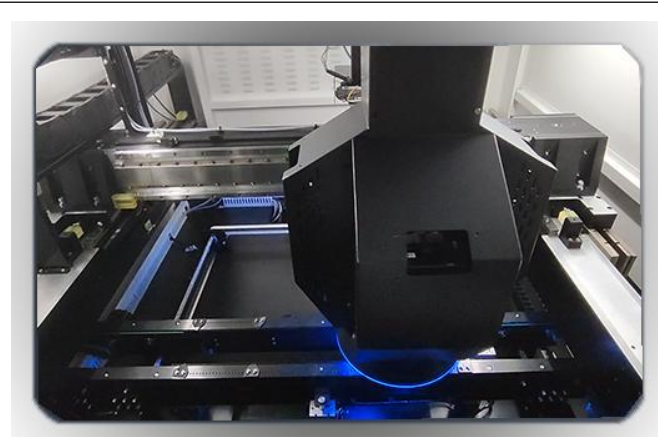
Integrated excellent detection algorithm, more targeted at IC pin floating/lifting

The unique 3D point cloud reconstruction technology can greatly improve the detection accuracy and detection capability, and can effectively cover the 2D detection blind area, IC pins that are difficult to detect in 2D, and the floating height of parts can achieve a 100% detection rate.



Imported 12-megapixel CoaxPress ultra-high-speed camera

Adopts high-resolution industrial lens, supports 189 frames/second acquisition frame rate, can achieve a minimum resolution of 8 μ m (standard 15 μ m), and has a large FOV annular WRGB light source to ensure the efficiency and effect of image acquisition.



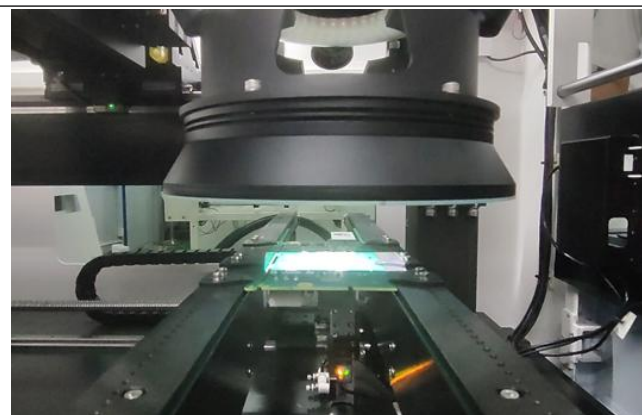
High-precision control platform


The motion platform adopts a linear motor structure, which moves at high speed, smoothly, without vibration and noise. It is combined with a high-precision grating ruler to form a fully closed-loop feedback system, and the repetitive motion accuracy can reach 1 μ m.

All adopt internationally renowned brands

Realize 360° digital projection without blind spots.

3D AOI comes standard with 4 sets of 1080P digital projection units, based on the N-step phase shift algorithm of moiré fringes, which can provide micron-level accuracy. Multi-frequency digital fringe projection is achieved through software control.



Accurate detection	
One person, multiple machines, intelligent communication The central server mode can collect the test information of all machines through the central control server, which is convenient for comprehensive management of production. Multiple devices only need one operator.	
Centralized control and data collection	
Technical Parameters	

类别 Category	项目 Item	规格参数 Specifications	
	型号 Model	S910	D910
影像系统 Vision System	摄像头 Camera	高速 CCD 摄像机, 1200 万像素 High-Speed CCD 12MP	
	镜头 Lens	工业镜头 Industrial Lens	
	投影单元 Projection system	4 向投影光栅 4 directional projection gratings	
	光源 Light	环形 RGBW 四色 LED 光源 Ring RGBW LED Light	
	光学解析度 Resolution	15 μ m (可选 12 μ m, 10 μ m, 8 μ m)	
	FOV	60mm*45mm(15 μ m) / 40*30mm (10 μ m)	
检测能力 Performance	3D 高度测量范围 3D Height measurement range	15 mm	
	高度分辨率 Height resolution	0.4 μ m	
	高度检测精度 Height Accuracy on a Certificated Target	\pm 3 μ m	
	XY 偏移检测精度 Shift Accuracy on X & Y Position	\pm 10 μ m	

	重复性和再现性 GR&R	<1%@3sigma	
	检测不良类型 Inspection Type	缺件、偏移、歪斜、立碑、侧立、翻件、极性反、错件、破损，多锡，少锡，短路，尺寸 Missing, shift, skewed, tombstone, billboard, overturned, reversed polarity, wrong, damaged, Overflow, insufficient, short, dimension.	
	板弯补偿 PCB Warpage	±5mm (2%)	
设备参数 Machine parameters	轨道形式 Conveyor Type		Double tracks, track 1 is fixed, tracks 2 and 3 are automatically adjusted, and track 4 is manually adjusted (tracks 1 and 4 have a maximum width of 690mm)
	检测基板尺寸范围 Board size range	The dual tracks can simultaneously enter and exit PCB sizes: 50×50 mm~510×320 mm, The single track can measure the maximum PCB size: 50×50mm~510×580mm A 2200mm long substrate can be detected by segmented progressive method (need to match the front and rear dual track docking stations to perform segmentation function)	
	零件上下限高 Top side/Bot side clearance	40 / 40 mm	
	轨道高度 Conveyor Height	900±20mm	
	尺寸(宽*深*高) Dimension (W*D*H)	1200 * 1520* 1656mm (高度不含三色报警灯)	
	重量 Weight	950kg	
	电源 Power supply	220±10%, 50/60Hz, 1.3KVA	
	气源 Air Supply	0.5mpa,40cm³/min	
	操作系统 Operation System	Windows 10 Pro	
	主机参数 PC parameters	CPU: Intel I9, RAM:128GB, HDD:1TB SSD+2TB HDD, GPU: GTX1060	
	显示器 Display	24" LED	

界面显示
Result

2D/3D 真彩图
2D/3D true color