

# ALD87系列设备技术参数

功能参数 Functional Specifications	ALD8720S	ALD8730S	ALD8730D
检测的电路板 Test Board	SMT回流炉后电路板检查 After reflow		
检测方法 Test Method	3D形状深度学习, TOC, Match, Short, IC, OCR, OCV, Location等多种国际领先算法, 系统根据不同检测点自动设定其参数 3D shape in-depth learning, many leading international algorithms as TOC, Match, Short, IC, OCR, OCV, Location, automatically set parameters according to different test dots		
摄像头 Camera	超高速智能数字工业相机+远心镜头 Super high speed intelligent digital industrial camera+Telecentric lens		
分辨率/视觉范围/速度 Resolution/Ranges/Speed	标配(Standard):14μm/Pixel 选配(Option):8μm/Pixel	FOV:56.00mm x 42.00mm FOV:32.00mm x 24.00mm	检测速度(Speed)<600ms/FOV 检测速度(Speed)≤400ms/FOV
光源 Light	3D彩色LED光源+数字编码LED光源 3D color LED light source + digital encoding LED light source		
3D检测高度 3D Detection Height	最大高度15mm, 高度分辨率0.7μm Maximum height 15mm, height resolution 0.7μm		
编程模式 Programming Mode	Gerber, CAD数据导入自动对应元件库 Gerber, CAD input automatically correspond to component library		
远程控制 Remote Control	在局域网内, 通过TCP/IP网络实现远程操作, 进行查看、启动或停止机器运行、修改程序等操作 Remote Control through TCP/IP. Check, start or stop the machine, or modify the procedures at any time.		
检测覆盖类型 Test Items	缺件、偏移、歪斜、立碑、侧立、翻件、错件、破损、反向、元件高度测量、起翘、锡多、锡少、虚焊、短路等外观不良 Poor appearance like missing, misalignment, skewed, billboard, mounting on side, overturn, wrong part, damaged, reversed, component height measurement, lifted, overflow, insufficient, pseudo soldering, short etc		
特别功能 Special Features	支持自动调取程序, 多连板多程序检测功能, 正反面程序检测功能 Support auto change program test, multiboards and multi programs test, two sides of programs test		
SPC和制程调控 SPC and program control	全程记录测试数据并进行统计和分析, 局域网内可通过远程控制或远程监控来查看生产状况和品质分析, 可输出Excel, Txt, Word等报表格式 Statistics and analysis of all test data, check production and quality analysis by remote control or remote monitoring in the LAN. Excel, Txt, etc. can be output.		
条码系统 Barcode System	自动条码识别 (1维或2维码) Auto read barcode (1 or 2 dimension)		
服务器模式 Server Mode	采用中心数据服务器, 可将数台AOI数据集中统一管理 Administrative data from many AOI through center server		
操作系统 Operation System	Windows 10 64位 专业版 Windows 10 64 Professional		
检查结果输出 Display/Output	23.6英寸触屏液晶显示器 23.6 inches LCD or other items		
系统参数 System Specifications			
PCB尺寸范围 PCB Size	50x50mm(Min)~510x500mm(Max) 50x50mm(Min)~510x500mm(Max)	50x50mm(Min)~620x550mm(Max) 50x50mm(Min)~620x550mm(Max)	50x50mm(Min)~620x330mm(Max) 50x50mm(Min)~620x330mm(Max)
双轨设备 Dual Track Equipment	1轨道固定, 2,3,4轨道可调节, 2,3轨道之间最小尺寸为95mm; 1,4轨道最大780mm, 单轨时: 轨道的最大宽度为850mm, 双轨时: 两轨道的最大宽度均为330mm(可测试宽度) 1 is fixed, and 2,3,4 is adjustable, The Min. size between 2 and 3 is 95mm; The Max. size between 1 and 4 is 780mm Single Track: The maximum width of the track is 850mm, Dual Track: Both the maximum width of the tracks are 330mm( width is testable)		
PCB厚度范围 PCB Thickness	0.2 to 5 mm 0.2 to 5 mm		
PCB夹紧系统边缘间隙 Clamping System Edge Clearance	TOP: 2.5 mm Bottom: 2.5 mm TOP: 2.5 mm Bottom: 2.5 mm		
最大PCB重量 Maximum PCB Weight	3KG 3KG		
PCB弯曲度 PCB Tolerance	<5mm 或 PCB对角线长度的2% <5 mm or 2% of PCB diagonal length		
PCB上下净高 PCB Height	PCB上面 (Top Side) : 40 mm PCB底部 (Bottom Side) : 85 mm PCB (Top Side): 40 mm PCB (Bottom Side): 85 mm		
Conveyor系统 Conveyor System	Bottom-up固定, 自动补偿PCB弯曲变形, 自动进、出板, 扁平皮带, 自动调节宽度 Bottom-up fixed, Automatic compensation to avoid distortion, auto-load and unload, flat belt, adjust the width automatically		
Conveyor离地高度 Conveyor Height	870 to 970mm 870 to 970mm		
Conveyor流向/时间 Conveyor Direction/ Time	软件设定为左→右 右→左 进板/出板时间: 4秒 Set the software as left→right or right→left In/out time: 4 sec		
XY平台驱动 XY Driver	丝杆及AC伺服马达驱动, PCB固定, Camera在X/Y方向移动, 每一台均通过CTQ认证 Screw and AC servo driver, PCB fixed, Camera moves in XY, approved with CTQ		
电源 Power Supply	AC230V 50/60 Hz 小于1.5KVA AC230V 50/60Hz less than 1.5KVA		
气压 Air Pressure	0.4~0.8 Mpa 0.4~0.8Mpa		
前后设备通讯 Equipment Communication	Smema Smema		
设备重量 Weight	约920KG About 920KG	约1300KG About 1300KG	约1350KG About 1350KG
设备外形尺寸 Dimension	1085x1275x1570mm (LxWxH) 不包括信号灯的高度 1085x1275x1570(LxWxH) (not including height of signal light)	1200x1665x1570mm (LxWxH) 不包括信号灯的高度 1200x1665x1570(LxWxH) (not including height of signal light)	1200x1665x1570mm (LxWxH) 不包括信号灯的高度 1200x1665x1570(LxWxH) (not including height of signal light)
环境温湿度 Humidity	10~35℃ 35~80% RH (无结露) 10~35℃ 35~80% RH(no dew)		
设备安规 Certificate	符合CE安全标准 According with CE standard		
选配项 Options	顶针; SPC维修站; 离线编程; 外接条码识别器; 双面显示器 (双轨选配) Support pins; SPC repair station; Offline program; External Barcode Scanner; Double-sided display(dual-track option)		

注: 以上参数为标准配置,若有特殊需要均可根据客户要求改进定制  
技术参数若有改变,恕不另行通知,最终解释权属ALeader所有

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# ALD87系列

## 为最高要求而生



面对微型结构如间距细小的QFN、LGA元件的检测，且具高可靠性品质要求，2D技术难以检测，神州视觉ALeader 3D AOI，高精度亦有大范围！充分运用DLP高亮度与高对比度的特性，完美诠释了超真实的3D视觉，克服了2D技术的不足。

In the face of the micro structure, such as the detection of QFN and LGA components with fine pitch, and with high reliability quality requirements, the 2D technology is difficult to detect. ALeader 3D AOI, not only high precision but also wide range! Full use of DLP high brightness and high contrast characteristics, perfect interpretation of the ultra real 3D vision, Overcome the shortage of 2D technology.

## 独特光学系统提供了准确、可靠而又不牺牲2D图像质量的3D测量

The unique optical system provides accurate and reliable 3D measurement without sacrificing the quality of 2D images

神州视觉ALeader研发的高精度亦大范围的独特技术，可同时获取高品质的2D图像及无阴影3D测量，涵盖了目前生产中最小元器件、焊点在内的检测需求。

The high precision and wide range of technology developed by ALeader can simultaneously obtain high quality 2D images and shadowless 3D measurements, covering the detection requirements of the smallest components and solder joints in current production.

- 多向环绕的全覆盖投影技术，确保最佳的3D检测能力
- 国际领先的专利算法，使每个FOV在0.3秒即可完成
- 3D数值化可优化SMT整个制程，实现更高的自动化
- 完善的IPC标准公共库、简易的操作界面，编程得心应手

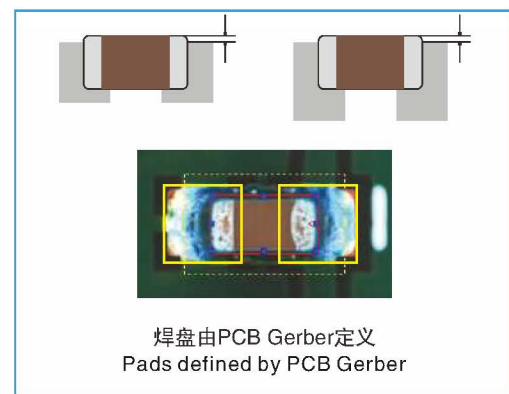
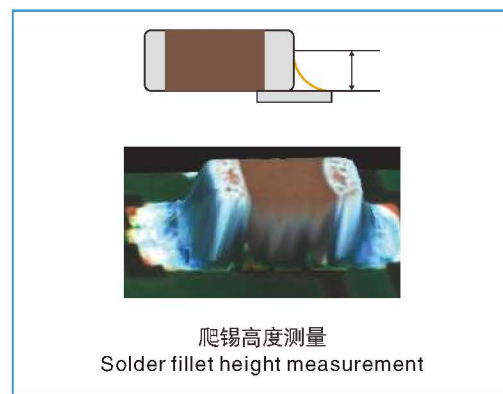
- Multi-directional full coverage projection technology to ensure optimal 3D inspection capability
- International leading patent algorithm, able to finish each FOV in 0.3 seconds
- 3D numeralization can optimize the whole process of SMT to achieve higher automation
- Perfect IPC Standard Public library, easy operation interface, programming convenient



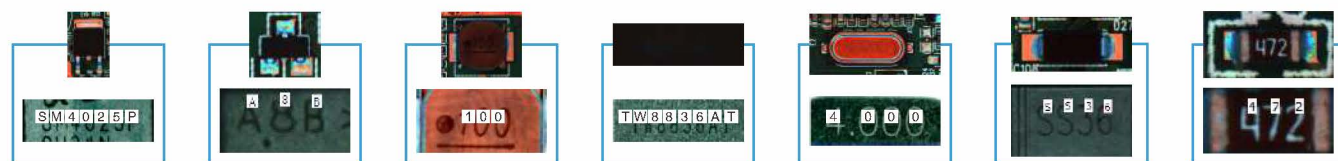
### 根据 IPC-610标准设定位移，爬锡高度测量的结果

Inspection result pass-fail criteria according to IPC-610 standards for shift, fillet height measurement

根据IPC级别设定公差（取决于焊盘尺寸）  
Tolerance according to IPC level (dependent on pad size)



### 行业最佳字符识别 Best-in-industry component marking recognition



## 简单的编程，友好和直观的用户界面

Easy programming, Friendly and intuitive user interface



- 料号和封装链接公用库
- 未知元件自动编程
- 无标准元件可简单快速定义
- IC引脚自动检测装置
- Central library with part number and package links
- Auto programming for known components
- Simple and fast definition for non-standard components
- Automatic setup for inspection of IC pins

- 超过90%程序可离线操作
- 一键解决OCV/OCR和主体颜色定义
- 轻松设置跳过元件
- 高效调试程序
- Over 90% of the program can be done offline
- One click solution for OCV/OCR and body colour definition
- Easy setup of skipped components
- Effective debugging procedures



## 检测结果确认

Inspection result verification

- 确保操作员不会漏过AOI检测到的不良
- 在PCB容易找到元件位置
- 清晰的元件顶部和三维交互图像进行可靠的验证
- 无真实的板需要来决定
- 回看检测历史
- 操作员反馈
- 多台AOI机器使用同一维修站的可能性
- Ensures the operator will not miss the defect detected by AOI
- Easy to find component location on PCB
- Clear component top and 3D interactive image for reliable verification
- No real board required to make a decision
- Inspection history review
- Operator feedback
- Possibility to use one repair station for multiple AOI machines



### 过程控制 Process control

- 实时SPC图表
- 历史回看及分析
- Cp, Cpk, GR&R
- 可溯性
- 报表
- Real time SPC charts
- History review and analysis
- Cp, Cpk, GR&R
- Traceability
- Reports

