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新技术引领新发展

股票代码: 839448





COMPANY PROFILE ...

公司概况

厦门思泰克智能科技股份有限公司(SINIC-TEK Intelligent Technology Co., Ltd.)主要以电子装配行业 (PCBA)制造和半导体 (Semiconductor) 制造中的三维无损光学检测系统软 / 硬件的开发、生产、销售及增值服务为主营。

思泰克智能科技股份有限公司汇集有数十名电子装配行业资深工程 人员、软硬件开发人员,不断研发新产品、满足全球客户多样化需 求,在服务客户的过程中,实现自身的快速发展。

思泰克推出的桌面型T系列、在线机Nova、S8080、S8030、Hero、Ultra、FPC、LED细间距、1.2/1.5米系列机型,满足了客户各类电子产品、各种产品尺寸、各种器件大小的不同需求,通过差异化配置、提供高精度、高速度、全功能、简易操作的经典产品,得到广大客户的赞誉。

思泰克以"新技术、新服务、新发展"为理念,正成功创建具有世界一流水平的中国自主品牌电子装配检测系统。

SINIC-TEK Intelligent Technology Co., Ltd. specializes in development, production, sales and value-added service on the software and hardware of 3D none destructive inspection system applied in PCBA and Semiconductor industry.

With dozens of senior engineers, hardware and software development engineers, Sinic-tek Intelligent Technology Co., Ltd. constantly developing new products to meet customers' requirement. We realize our own rapid development in the process of serving customers.

Sinic-tek launched desktop T series, inline machine-Nova, S8080, S8030, Hero, Ultra, FPC, LED fine pitch, 1.2/1.5m series models to meet customer's different products and size requirement. We provide classic machines of high-precision, high-speed, full-featured and simple operation through differentiated configuration, and get the praise of our customers.

With the vision of "New Technology, New Service and New Development", SINIC-TEK is committed to establish a China's own brand of world-class electronic assembly inspection system.

SINIC-TEK is committed to establish a China's own brand of world-class electronic assembly inspection system and make successful story continue.



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High Efficiency, High Speed, Stabilization 高效 快速 稳定

可编程结构光栅技术 (PSLM) PROGRAMMABLE SPATIAL LIGHT MODULATION

独创的可编程结构光栅使用软件即可对光栅的周期进行调制。取消了机械驱动及传动部分,大大提高了设备的精度及适用范围(检测高度可达±1200um),避免了机械磨损和维修成本。

The own developed PSLM device can modulate the cycle of the light grating by using the software. Greatly improve the accuracy and scope of application by eliminate the mechanical drive and moving parts. (The detection height can reach up to ± 1200um), and avoid mechanical wear and maintenance costs.

相位调制轮廓测量技术 (PMP) PHASE MODULATION PROFILERMETRY

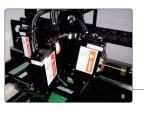
通过全色光的相位调制,提供了超高的高度检测分辨率 (0.37um),4 至 8 次 的采样数量保证了超高的重复性精度。配合高精度的丝杆和导轨达到完美的检测效果。

Through the phase modulation of full light spectrum, provide a height resolution down to (0.37um), the number of 4-8 times sampling ensure high repeatability. Use high-precision ball screw and linear guide rail to realize perfect detection result.













3D 同步结构光技术 (D-Lighting) 3D DIFFUSE LIGHTING

同步结构光的使用完美解决锡膏检测中阴影部分的影响,完美处理高对 比度的基板,如黑色基板,陶瓷基板等。

Using of the Synchronous structure light can solve the problem of the effect from the shadow of Solder Paste Inspection, and deal with the high contrast board like black board, and the ceramic board.

有源真彩色二维光源(RGB Tune) ACTIVE RGB 2D LIGHT SOURCE

专利的 RGB Tune 技术通过单独拍摄红绿蓝三原色照片并结合独特的颜色过滤算法,完美的解决桥接误判和相对基准面不确定的问题,并同时提供 2D/3D 测量结果和彩色的锡膏图片。

Patented RGB Tune technology takes Red, Green and Blue images and with unique filter algorism, to solve solder bridge detection false alarm and relative zero surface uncertain issue. In the mean time, provide the 2D/3D detection results and colored images solder paste.

高解析度高速图像处理单元 HIGH RESOLUTION AND HIGH FRAME RATE IMAGE PROCESSING UNIT

超高帧率工业相机 (5M/6.5M/10M/12M) 确保对微小元件的快速检测,可提供6-20um不同解析度镜头,满足客户不同产品和检测速度的要求。

The ultra-high frame rate industrial camera (5M/6.5M/10M/12M) ensures fast inspection of tiny components and can provide 6-20um different resolution lenses to meet customers' different product and inspection speed requirements.

高精度一体式控制平台 HIGH ACCURATE HARDWARE PLATFORM

高强度的钢制一体式结构,标配的伺服电机配合高精度研磨级滚珠丝杆及导轨,运动高速,平稳。选配的直线电机和高精度光栅尺可以对03015元件锡膏进行超精准的快速测量,重复精度可以达到1um。

High rigid strength steel frame combines with close loop servo control and high precision level ball screw makes high speed and steady positioning. Optional linear motor and precision gratting ruler is capable of detecting the solder paste of 03015 compoent in high accuracy and high speed, the repeat repeatability could reaches to 1 um.

Z轴实时动态补偿能力 Z AXIS REALTIME COMPENSATION CAPABILITY

PSLM的特性对硬质PCB的翘曲变化进行实时跟踪并Z轴动态实时调整。

The characteristics of PSLM provide the real-time dynamic tracking on the rigid PCB.

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五分钟编程和一键式操作 5 MINUTES PROGRAMMING AND ONE PRESS OPERATION

通过导入 Gerber 模块和友好的程序编制界面,使得任何水平的工程师都可以在五分钟左右独立快速准确的进行编程编制。对于操作人员设计的一键式操作也大大减轻了培训压力。

The engineers with any levels can independently make accurate program in five minutes through Gerber importing module and the friendly programming interface. One-button operation by the operator is designed to reduce the training efforts dramatically.

强大的过程分析 (SPC) POWERFUL STATISTIC PROCESS CONTROL SOFTWARE

实时 SPC 信息显示,提供给使用者强有力的品管支持。完整多样的 SPC 工具,让使用者一目了然。 并支持不同格式的数据输出。

Real-time SPC information display, provide the powerful quality control tools to the users. The complete and variety SPC tools ,allow users easily to analyzing the measurement results. Support different data format export requirement.

远心镜头实现静态补偿

Telecentric Lens for Static Compensation

针对FPCB(柔性PCB),目前最好解决方案是配备远心镜头(低畸变、无 斜视、大景深)实现对FPC的静态补偿,增强检测能力的同时,有效降低因 恢弯带来的误报。选配的同轴光源,可以大幅提高喷锡板、镀金板、软板及 不规则Mark点的识别率。

For FPCB, the best solution is equipped with telecentric lens (low distortion, no squinting, large depth of field) and realizes static compensation for FPC.tt will enhance detection capabilities and reduce misinformation due to plate bending at the same time. Optional coaxial light source can significantly improve the recognition rate of HASL, gold-coated plates, soft board and Irrequiatr Mark point.

胶水检测 GLUE INSPECTION

可编程结构光栅 (PSLM) 的特性使得最大检测高度可以到达±1200um,结合RGB Tune技术可以对非透明类的胶水工艺进行高精度的三维检测,包括漏印,溢印,多胶,少胶,形状不良,并显示真彩色的二维及三维图像。

PSLM 3D measurement can reach ±1200um,with RGB Tune function is capable of high accurate measuring of none transparent glue process, include missing, overflow, excess, shape and combination view of 2D/3D images

动态多拼板 Mark 点识别 Multi Array Mark Detection

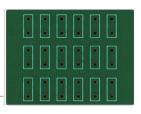
对于多拼版中的基准点动态识别,无需对每个拼版的基准点——识别, 大大节约了检测时间。

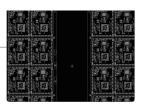
For multi-array PCB mark, use dynamic capture function, there is no need to capture image one by one and reduce detect time dramatically.



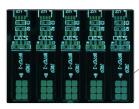


















配合印刷机的闭环控制(Close-Loop) Close Loop with Printer

共享实时检测数据给印刷机,实时调整印刷工艺。

Share real time measurement result with printer, adjust printer parameter in time automatically.

坏板飞行识别功能(Bad-Mark) Fly Detection on Bad Mark

自动准确的识别坏板标记,并实时反馈到贴片机,提升贴装效率。

Automatically on the fly detect PCB bad mark, feed the info into pick and placement machine in real time control loop, improve the mounting efficiency.

多样化的条码识别功能(Bar-Code Recognition) MULTI OPTIONAL BARCODE FUNCTION

可以选用主相机或外置条码读取装置读取一维及二维条码,并支持手工输入条 码功能。

Both camera barcode and external 1D/2D barcodes are supported, also provide manual key in function.

三点照合(Traceability) THREE STAGE MAPPING TRACEABILITY

配合炉前 AOI 和炉后 AOI 等 SMT 生产线上的检测设备,形成全闭环的品质控制体系。并可以将数据同步到 ERP 等质量控制系统中去。

Collaborate with pre and post AOI equipment in SMT line, forms close loop process and quality control system. And capable to integrate and synchronize the data to customer ERP quality module.

离线编程 OFF-LINE PROGRAMMING

通过离线编程软件快速导入Gerber,一键式CAD数据拼接。

Provide offline Gerber import function rapidly, one button CAD matching function.

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PRODUCT PROFILE

丰富多样的在线型平台

Online platform rich

InSPIre系列、S系列、FPC系列在线设备除了标准A平台及标准 B 平台以外,还提供超大板及双轨平台,多投影头配置。

InSPire series, S series, FPC series inline machine provide not only standard A and B platform, but also ultra large size and dual lane with multi projection head configuration.











NEW TECHNOLOGY NEW DEVELOPMENT

新技术引领新发展

Product Features

- The use of PSLM combined with the PMP to achieve 100% high-precision solder paste 3D measurement in SMT production line. Using PSLM technology, changed the traditional way of generating 3D Struct Light, the traditional glass grating moire (Moiré) required mechanically driven by a piezoelectric motor (PZT). By using PSLM, no need glass grating and mechanical parts any more. The elimination of the mechanical drive and moving parts, greatly improving the ease of use and avoid mechanical wear and reduce maintenance costs.
- By using the Stop & Catch methods combined with multiple image acquisition, realize highly repeatable 3D results on the solder paste measurement. Compared to conventional scanning just take one pictures only on the solder paste a scan sampling, multiple image acquisition greatly enhancing the accuracy and reliable test results.
- Patented D-Lighting technology achieves full light spectrum detect ability. It is perfect solution to solve the shadow effect and reduce noise interference during 3D measurement.
- Gerber data conversion and import, achieve automatic detection of the entire board. Manual "Teach" function realize user-friendly programming and test job generation in case of no Gerber data situation.
- The maximum detectable height increased from the traditional ± 350um to ± 1200um, not only can detect solder paste, also applies to the detection of opaque objects such as red glue and black epoxy and other none transparent object.
- Friendly and simple user interface, five minutes of programming and one key operation.
- Powerful "Statistical Process Control (SPC)", provide a plenty of tools, user-friendly real-time monitoring, reduce defects caused by poor solder paste printing and improve final product quality.

运用可编程结构光栅(PSLM)结合相位调制轮廓测量技术(PMP)实

产品特点

- 现对 SMT 生产线中精密印刷焊锡膏进行 100% 的高精度三维测量。

 可编程结构光栅 (PSLM) 的应用,从此改变了传统由陶瓷压电马达(PZT)驱动摩尔纹(Moiré)玻璃光栅的形式。取消了机械驱动及传动部分,大大提高了使用的使捷性、避免了机械磨损和昂贵的维修成本。
- 高精度超高帧数的工业相机,配合精密的研磨级丝杆和导轨,实现高速 稳定的检测。
- 采用专利技术的 D-Lighting 结合专利的 RGB Tune 光源不仅的完美 解决了三维测量中的阴影效应干扰,还能有效的避免常规锡膏检测中的 常见的锡膏桥接误判和基准面不准的问题。
- 在线型各系列设备可以灵活的配置不同的方案对应单轨,双轨,单头, 多头等丰富多样化的客户要求。
- Gerber 数据转换及导入,实现全板自动检测。人工 Teach 功能方便 使用者在没有 Gerber 数据时的编程及检测。
- 最大可检测高度由传统的 ±350um 增加到 ±1200um,不仅可以检测 锡膏,也适用于红胶和黑胶等不透明物体的检测。
- 友好简洁的操作界面,实现五分钟编程一键式操作。
- 强大的过程统计软件 (SPC),提供丰富的工具,方便使用者实时监控生产中的问题,减少由于锡膏印刷不良造成的缺陷,从而有效的提升产品质量。

技术参数/Parameters				
平台 Platform	单轨平台	双轨平台	超大板平台	
测量原理 Measurement Principle	3D 白光 PSLM PMP(可编程结构光栅相位调制轮牌测量技术,俗称摩尔条纹技术) 3D white light PSLM PMP(Programmable Spatial Light Modulation,commonly known as moire fringe technology)			
测量项目 Measurements	体积,面积,高度,XY偷移,形状(volume,acreage,height, XY offset, shape)			
校測不良类型 Detection of Non - Performing Types	編印、夕锡、多锡、连锡、偷位、形状不良、板雨污染 (missing print,insufficient tin, excessive tin, bridging, offset, mal-shapes, surface contamination)			
相机像素 Camera Pixel	5M/6.5M/10M/12M			
镜头类型 Lens Types	远心镜头 telecentric lens			
镜头解析度 Lens Resolution	4、5、6、7、8、9、10、7、8、10、12、13.5、15、16.5、18、20um(不同相机可选择搭配不同解析度镜头)			
精度 Accuracy	XY方向; 10um(选配光栅尺可达1um); 高度: 0.37um			
重复精度 Repeatability	高度: 小于1um (6Sigma); 体积/面积: 小于1% (6Sigma)			
检测重复性 Gage R&R	«10%			
检测速度 Inspection Speed	0.5/0.45/0.4/0.35/0.3秒/FOV			
检测头数量 Quantity of Inspection Head	Single Head ,可选Twin-Head /Tri-Head			
基准点检测时间 Mark-point Detection Time	0.5sec/piece			
最大检测高度 Maximun Measuring Height	±550um (± 1200um *选件)			
弯曲PCB最大測量高度 Maximun Measuring Height of PCB Warp	±Smm			
最小焊盘间距 Minimum Pad Spacing	100um(焊盘高度为150um的焊盘为基准)			
最小测量大小 Smallest Measuring Size	长方形: 100um; 閏形: 120um			
最大PCB载板尺寸 Maximum Loading PCB Size	X510 x Y505mm; X650 x Y550mm	X470 x Y350mm X470 x Y550mm X630 x Y300mm X650 x Y550mm;	X1200 x Y550mm X1500 x Y650mm	
最大PCB檢測尺寸 Maximum Testing PCB Size	X460 x Y460mm; X630 x Y550mm	X450 x Y300mm X450 x Y550mm X630 x Y300mm X630 x Y550mm;	X1200 x Y550mm X1500 x Y650mm	
定动轨设置 Flixble or Fixed Orbit Setting	前定轨(后定轨*选件)	1轨固定,2、3、4轨活动	前定轨(后定轨*选件)	
轨道宽度调整 Orbit Width Adjustment	手动和自动(前定轨或后定轨)			
工程统计数据 Engineering Statistics	Histogram; Xbar-R Chart; Xbar-S Chart; CP&CPK %Gage Repartability Data; SPI Daily/Weekly/Monthly Reports			
Gerber和CAD导入 Gerber & CAD Data Imput	女持Gerber格式 (274x, 274d) (support Gerber format); 人工Teach模式 (manual Teach model); CAD X/Y, Part No., Package Type等导入 (CAD X/Y, Part No., Package Type imput)			
操作系统支持 Operating System Support	Windows 7 Professional (64位)			
设备规格 Equipment Diemension and Weight	S型: L1000xW1350xH1560mm; L型: L1200xW1500xH1560mm	D型: L1000xW1350xH1560mm; DL型: L1200xW1350xH1560mm	1200型: L1890xW1330xH1560mm 1500型: L2190xW1430xH1530mm	
选配件 Options	相机条码、成部1D/2D Barcode扫描枪、Badmark功能、印制机闭环控制、离线编程、维修工作站、 1带4集中管控软件、网络SPC软件、胶水检测会件、同编Mark点相机、UPS不问斯电源、超声波感应器、万能夹边			



丰富多样的离线型平台

Rich off-line Equipment

T系列桌面型设备提供中型,大型及超大型平台配置。

T series table top equipment provide medium, large and ultra large size platform configuration.







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NEW TECHNOLOGY NEW DEVELOPMENT

新技术引领新发展

Product Features

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- ± 350um to ± 1200um, not only can detect solder paste, also applies to the detection of opaque objects such as red glue and black epoxy and other none transparent object.
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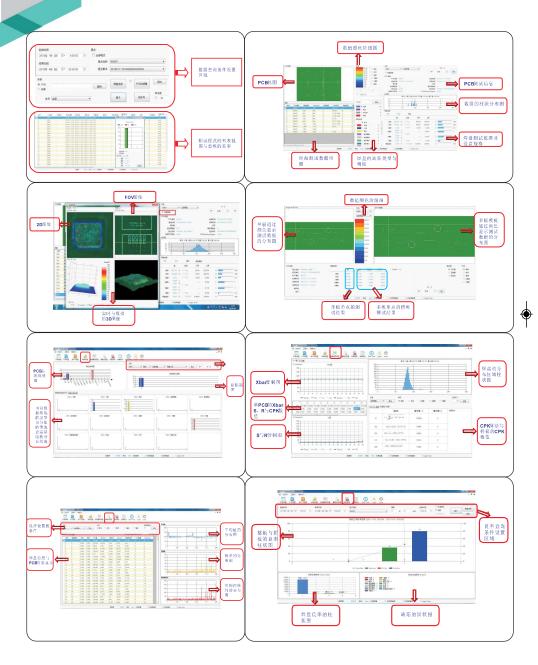
产品特点

- 运用可编程结构光栅(PSLM)结合相位调制轮廓测量技术(PMP)实现对SMT生产线中精密印刷焊锡膏进行100%的高精度三维测量。
- 可编程结构光栅(PSLM)的应用,从此改变了传统由陶瓷压电马达 (PZT)驱动摩尔纹(Moiré)玻璃光栅的形式。取消了机械驱动及传动部分,大大提高了使用的便捷性,避免了机械磨损和维修成本。
- 采用步进检测 (Stop & Catch) 结合多次采样的方式,即在运动停止时 对锡膏进行多次拍照采样处理,相比常规扫描方式 (Scanning) 在运动 中拍照只对焊膏进行一次扫描采样,大大增强了检测结果的准确性和可 信性.
- 采用专利技术的 (D-Lighting) 结合易于调节的全色光谱完美解决三维测量中的阴影效应干扰。
- 编程采用 Gerber 数据转换及导入形式,实现全板自动检测。人工 Teach 功能方便使用者在无 Gerber 数据时的编程及检测。
- 最大可检测高度由传统的 ±350um 増加到 ±1200um,不仅可以检测 锡膏,也适用于红胶和黑胶等不透明物体的检测。
- 友好简洁的操作界面,实现五分钟编程一键式操作。
- 强大的过程统计软件 (SPC),提供丰富的工具,方便使用者实时监控生产中的问题,减少由于锡膏印刷不良造成的缺陷,从而有效的提升产品 [后]

技术参数/Parameters				
型号 Model	T-1010a	T-300	T-400	
测量原理 Measurement Principle	3D 白光 PSLM PMP (可编程结构光栅相位调制轮廓测量技术,俗称摩尔条纹技术) 3D white light PSLM PMP(Programmable Spatial Light Modulation,commonly known as moire fringe technology)			
测量项目 Measurements	体积,面积,高度,XY偏移,形状 (volume, acreage, height, XY offset, shape)			
检测不良类型 Detection of Non - Performing Types	編印,少锡,多锡,连锡,偏移,形状不良 (missing print,insufficient tin, excessive tin, bridging, offset, mal-shapes, surface contamination)			
相机像素 Camera Pixel	1.3M	5M	5M	
镜头解析度 Lens Resolution	20um / 18um	16um (13um as option)	16um (13um as option)	
可测最小元件 /Minimum element	0402	0201 (01005 as option)	0201 (01005 as option)	
视野尺寸 FOV Size	26*20mm	30*30mm	30*30mm	
高度Height Accuracy	0.37um			
XY 精度 Accuracy	XY 方向 (XY direction) : 15um;		XY 方向 (XY direction) : 10um;	
重复精度 Repeatability	体积: 小于1um(3 Sigma); 面积: 小丁1%(3 Sigma) volume: <1um(3 Sigma); acreage: <1%(3 Sigma)			
检测重复性 Gage R&R	<10%			
检测速度 Inspection Speed	1.5sec/FOV 0.5sec/FOV		ec/FOV	
检测头数量 Quantity of Inspection Head	Single Head Single Head (Twin-Heads as opt		Single Head (Twin-Heads as optipon)	
基准点检测时间 Mark-point Detection Time	0.5 sec/piece			
最大检测高度 Maximun Meauring Height	±350um ±		±550um	
弯曲PCB最大测量高度 Maximun Measuring Height of PCB Warp	±2mm ±5m;		±5mm	
最小焊盘间距 Minimum Pad Spacing	150um (pad height of 150um as the reference)			
最小測量大小 Smallest Measuring Size	长方形(rectangle): 150um; 國形(round): 200um			
最大PCB载板尺寸 Maximum Loading PCB Size	X350 x Y250 mm	X460 x Y350 mm	X700 x Y600 mm (1000 x 600mm as optipon)	
定动轨设置 Fixed or Flexible Orbit Settin	左定執 left orbit	前定轨 front orbit	前定執 front orbit	
工程统计数据 Engineering Statistics	Histogram; Xbar-R Chart; Xbar-S Chart; CP&CPK %Gage Repartability Data; SPI Daily/Weekly/Monthly Reports			
Gerber和CAD导入 Gerber & CAD Data Import	支持Gerber格式(274x,274d)support Gerber format;人工Teach模式 manual Teach model;CAD X/Y,Part No.,Package Type等导入 (CAD X/Y,Part No.,Package Type imput)			
操作系统支持 Operating System Support	Windows 7 Professional (32/∯ 32 bit)			
设备规格 Equipment Diemension and Weight	630 x 480 x 540mm; 75KG	810 x 930 x 530mm; 125KG	1500 x 1100 x 600mm; 345KG	
选配件 Options	1D/2D Barcode扫描枪; UPS不间断电源; 工作台 (除下3010a外) 1D/2D Barcode scanner:UPS continuous power supply;workstation (T-3010a except)			







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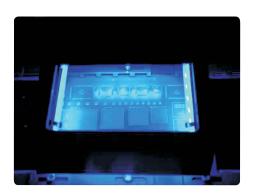
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根据仪器型号规格不同,参数会发生变化,由于持续开发产品, 因此参数规格若有变化恕不另行通知,请以实物为准。

The parameters will be varying for different model and standard, as parameters are subject to change due to continuous development without prior notice. Please refer for actual product.



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