



瞬雷电子工厂简介

SPSEMI Factory Introduction



质量体系认证Quality System Certification

Certificate of Registration



This is to certify that the Quality Management System of

Shanghai JinKe Semiconductor Equipment Co., Ltd.
(Building 1, Zone B), No. 135, Lane 1421, Zhuanxing Road, Minhang District, Shanghai City, 201108, China.

applicable to

The manufacture of transient suppression diodes, semiconductor discharge tubes

has been assessed and registered by
NQA, Warwick House, Houghton Hall Park, Houghton Regis, Dunstable LU5 5ZX, Bedfordshire, England

against the provisions of

IATF 16949 : 2016

(Clause 8.3 product design of IATF 16949 : 2016 is justifiably excluded)

This registration is subject to the company maintaining a quality management system, to the above standard, which will be monitored by NQA

M Combs
Managing Director



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NQA Certificate No: T 10932
IATF Certificate No: 0334087
Date: 16 September 2018
Valid Until: 15 September 2021
Version: 1



This is to certify that the Quality Management System of

Shanghai Jinke Semiconductor Equipment Co., Ltd.

Unified Social Credit Code : 9131000607257099Y

Operation Address : (Area B, Building 1) No.135, Lane 1421, East Zhuanxing Road, Zhuanqiao Town, Minhang District, Shanghai, China

Registered Address : (Area B, Building 1) No.135, Lane 1421, Zhuanxing Road, Minhang District, Shanghai, China

applicable to

Production and sales of diode

has been assessed and registered by NQA against the provisions of

ISO 9001:2015

This registration is subject to the company maintaining a quality management system, to the above standard, which will be monitored by NQA.

Certified Clients shall accept regular surveillance assessments, the validity of certificates shall be maintained for the positive result of audit.

The information of this certificate can be checked on CNCA's website (www.cnca.gov.cn)
SNQA's website : www.snqa.com.cn

M Combs
Managing Director

Certificate Number **40923**

Date: 14 May 2015
Previous Certificate Expiry: 14 May 2018
Reissue Date: 14 June 2018
Valid Until: 14 May 2021
EAC Code: 19



Certificate of Registration



Mes系统 Mes System

The screenshot displays the Mes System interface for Shanghai Jinke Semiconductor Equipment Co., Ltd. The main window shows a production order form with the following details:

- 操作人员: 王小慧
- 日期: 2018-11-19
- 客户代码: CHT
- 客户订单: B18082402
- 封装别: SOD123
- 产品规格: TVSF13AGP
- 尺寸: 45mil
- 入库日期: 2018-11-09
- 制令单号: QJK181025-005
- 生产批号: GTI050409-05
- 当前工序: 焊接
- 备注: (empty)

The BOM (物料清单) details are as follows:

物料检查	名称	物料代码	物料名称	数量	单位
需检查	框架	B-LF-005-004	SOD123上框架 D20108036Y	1	K
需检查	框架	B-LF-005-005	SOD123下框架 D80001200 (1	K
	锡膏	C-S0-001-002	锡膏	3.06	g

The process conditions (工艺条件) section is currently empty.

The control items (管制项目) section includes:

管制项目	内容	单位	必填
框架/引线型号:	SOD123下框架 D80001200 (0.2)		<input checked="" type="checkbox"/>
框架/引线批号:	AU13		<input checked="" type="checkbox"/>
框架/引线批号:	AU16		<input checked="" type="checkbox"/>
锡膏/焊片供应商:	晨日		<input checked="" type="checkbox"/>
锡膏/焊片规格:	ES-650-4H(200g)		<input checked="" type="checkbox"/>
焊片/锡膏批号:	IFJ192372JRC		<input checked="" type="checkbox"/>

At the bottom of the form, there is a large blue button labeled "开单" (Open Order).

产品生产全流程采用Mes系统管控，更全面的可追溯性管理，强大的数量管控功能，Barcode扫描，工艺流程，BOM防错管理等。



产品品质管控 Product Quality Control



氮气柜储存芯片

尺寸测量	5Pcs/批
外观检查	AQL II
电性测试	100pcs/批

VMS-3020H
二次元测量仪





产品品质管控 Product Quality Control



芯片进料检验
VC -168-5.0KE
浪涌能力测试

雷击浪涌发生器
SG-728G





产品品质管控 Product Quality Control



HTRB 高温反偏设备
可自动实时记录高温下的电性数据



PCT压力锅设备



产品品质管控 Product Quality Control

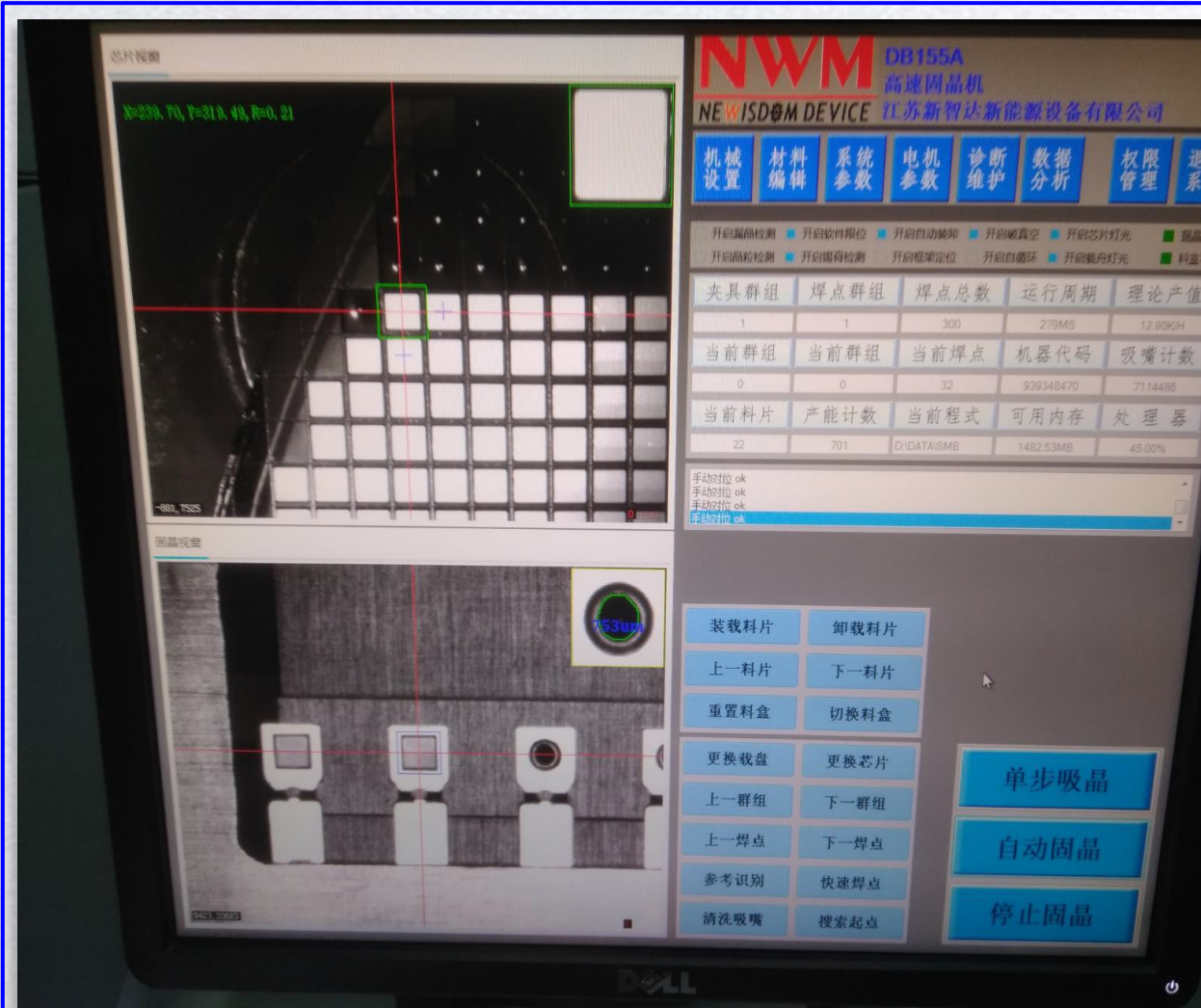


原物料搭配查检、锡膏量检查、组装芯片后位置检查、设备参数检查等
1次/4H

	高速固晶机
X/Y 放置	$\pm 50\mu\text{m}$
芯片尺寸	$> 0.8\text{mm}$



产品品质管控 Product Quality Control

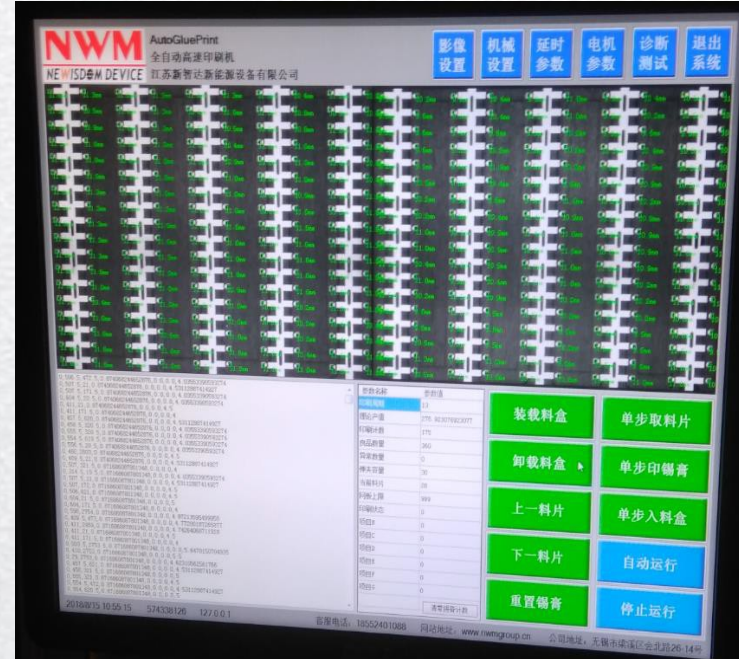


原物料搭配查检、锡膏量检查、组装芯片后位置检查、设备参数检查等
1次/4H

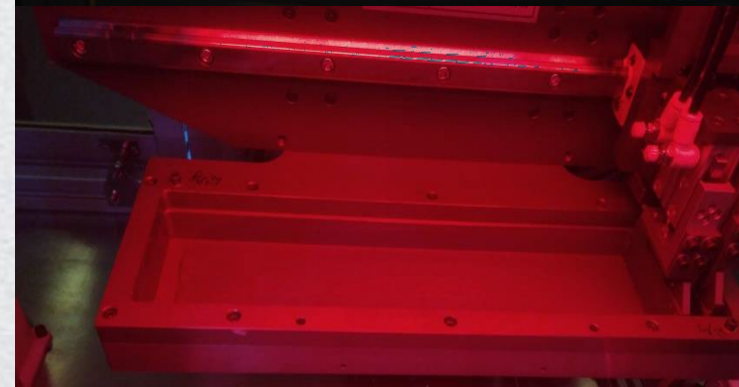
锡膏量100%检测
芯片旋转角度检测
设备自动上/料



产品品质管控 Product Quality Control



全自动高速网印合片机
自动上下料及100%锡膏量检测





产品品质管控 Product Quality Control



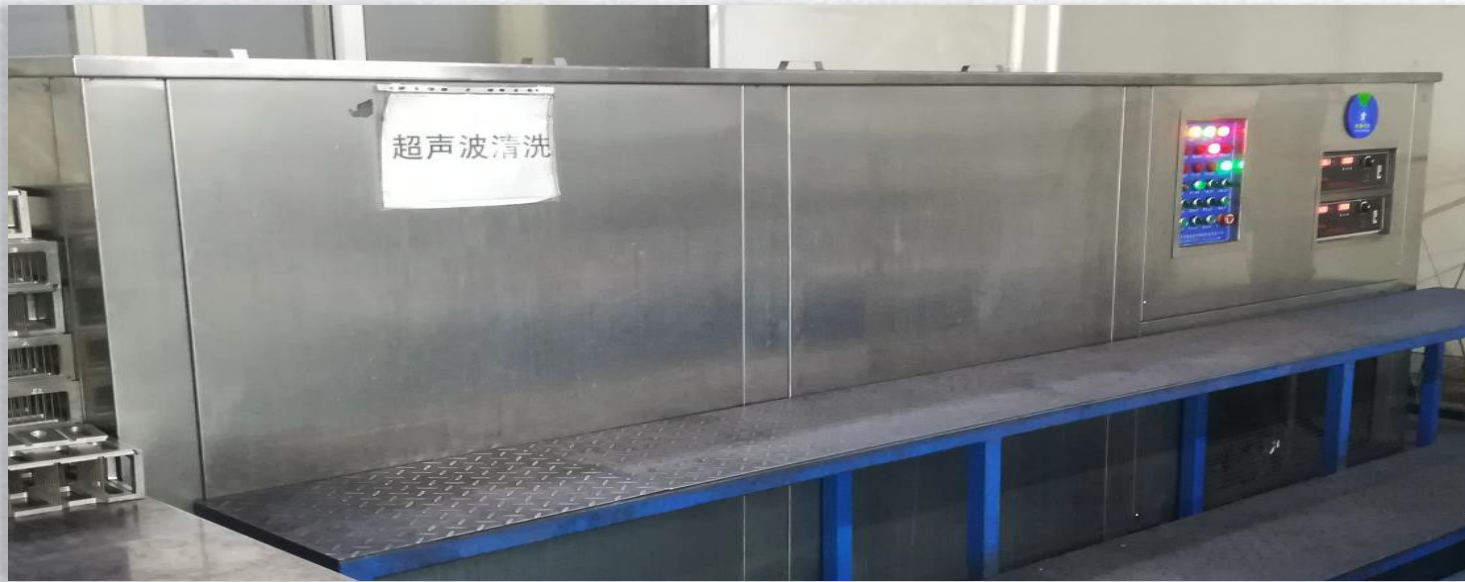
炉温量测监控：1次/月
焊接炉参数检查：1次/4H

自主研发真空焊接炉
可编程数显控制
实时记录炉温曲线
极小的焊接空洞率





产品品质管控 Product Quality Control



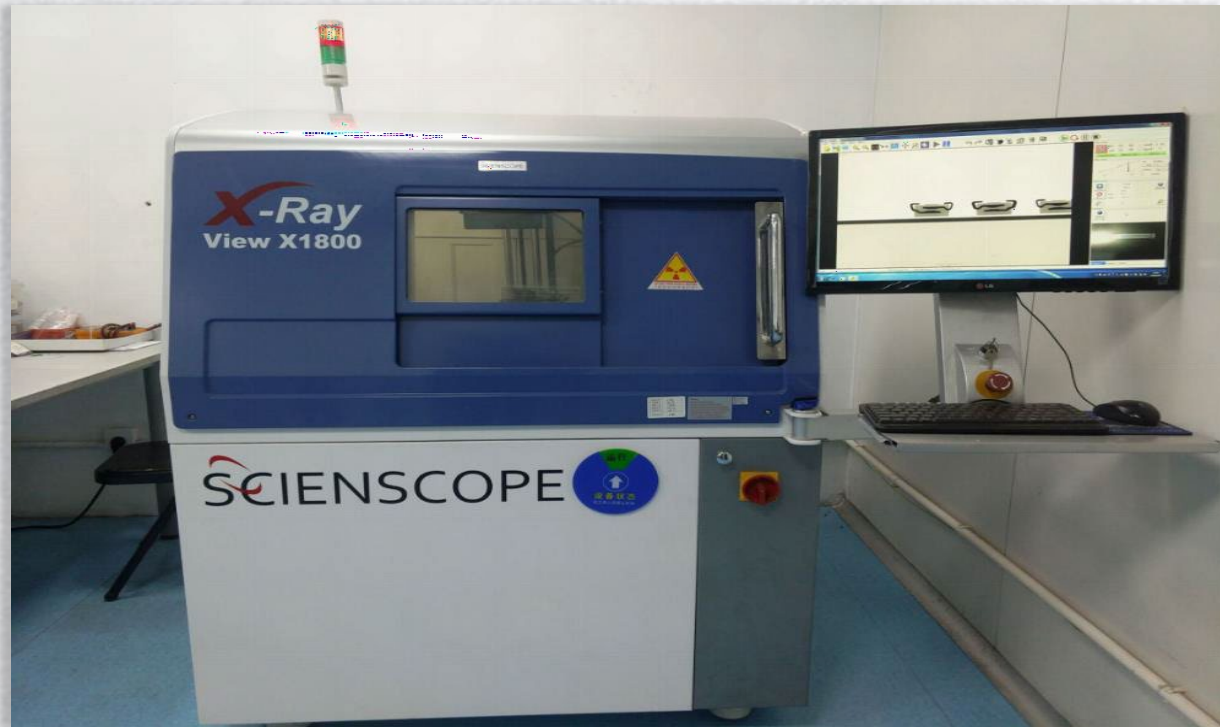
设备参数: 1次/批
清洗效果: 1次/4H

超声波清洗
对不同尺寸产品
选用不同的超声清洗功率



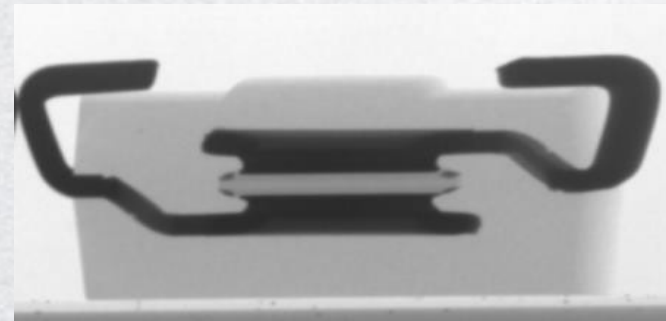


产品品质管控 Product Quality Control



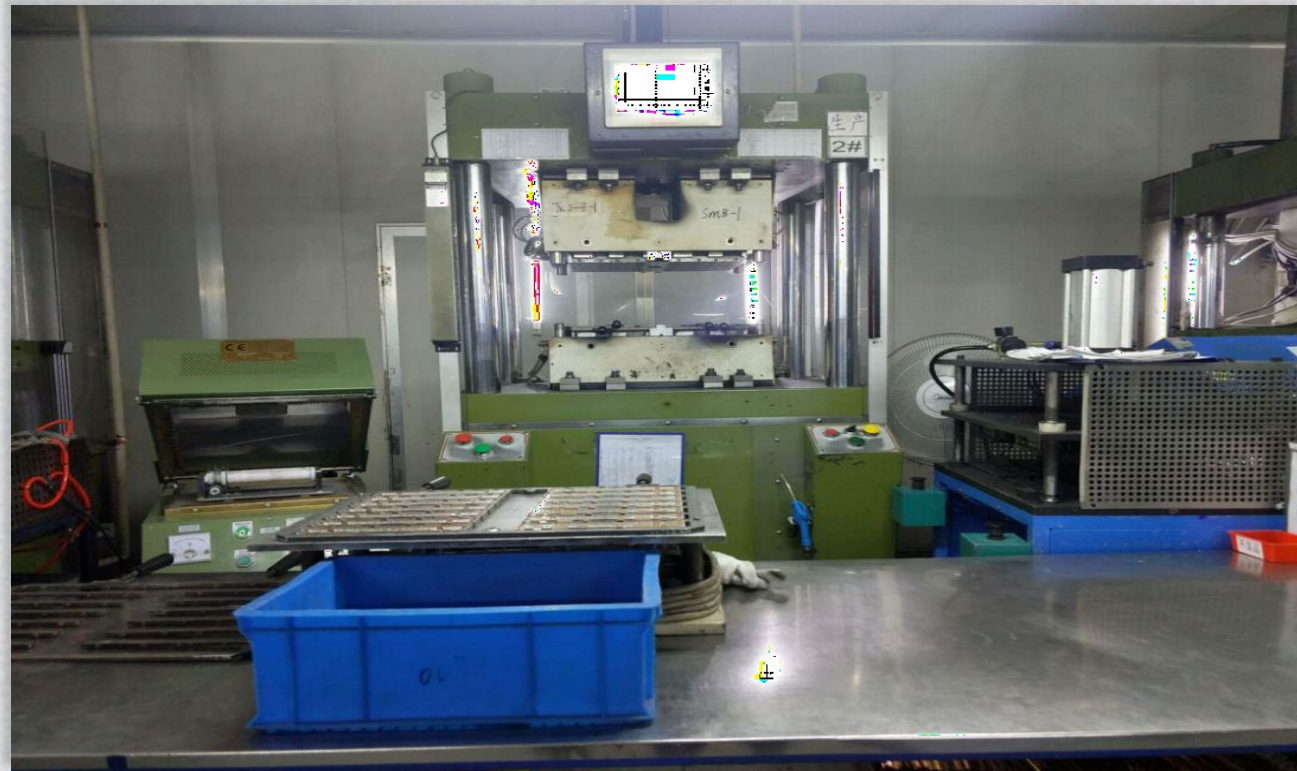
焊接锡珠：1次/6H
焊接气孔：1次/6H

X-RAY
自动计算量测焊接空洞





产品品质管控 Product Quality Control



台湾KK成型压机

模温测量: 1次/ 6H
参数设定: 1次/ 4H
外观检查: 1次/ 4H



产品品质管控 Product Quality Control

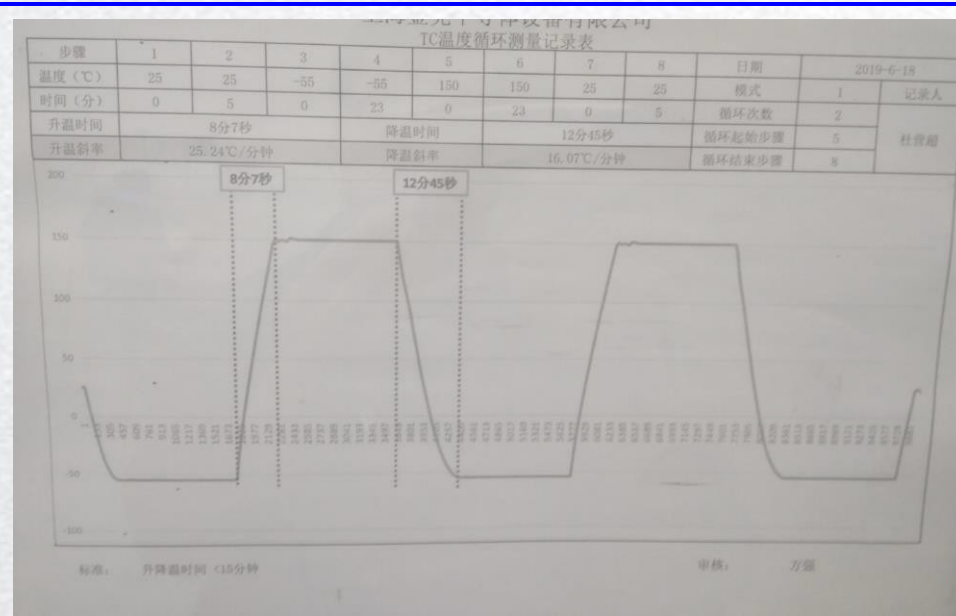


自动切弯脚机
材料防反切的报警功能

尺寸测量：1次/3H
外观检查：1次/3H



产品品质管控 Product Quality Control



温度测量: 1次/月

HITACHI 高低温循环
产品100%经过 T/C冲击
提前筛选出有隐患的产品



产品品质管控 Product Quality Control



参数检查: 1次/班
炉温测量: 1次/月

产品电镀前100%过回流焊
模拟客户上板的温度,
提前剔除有隐患产品





产品品质管控 Product Quality Control



外观检查：500Pcs/批
可焊性：11Pcs/送货批
镀层厚度：SPC管控

委外电镀



产品品质管控 Product Quality Control



TMTT
自动测试、印字、编带
系统

参数设定：1次/4H
盖带拉力：1次/班
印字外观：1次/4H
降料抽测：1批/次





产品品质管控 Product Quality Control



TMTT

自动测试、印字、编带系统

所有测试机均采用台北TTK系列测试设备

具备高速且十分精确地测试结果

所有测试机均有Self check功能

Mes系统防错功能

Self Check: 1次/批
电脑自动执行



产品品质管控 Product Quality Control

SPAC TMTT System ver:6.8.15(build:5) User: TMTT-13 (Supervisor)

Customer: 075S Device: SMAJ15CA Mode: 9

Lot NO: Add Time

Input	Output	Yield	RC Ratio	RC	Yield-A
0	0	0	0	0	0
RC-A	RC Ratio-A	RC-B	RC Ratio-B		Yield-B
0	0	0	0		0

Server Monitor Request ID: 192.168.1.30 Port: 22220

Line	Status	Machine	Start/Time	Operator	Customer	Device	Lot	INPUT	OUTPUT	YIELD	RC
1	Start	2020_05_12_19_32_01	2020_05_12_22_11_03	User: Operator (Operator)	075S	PVC15CA	---				
2	TMTT-01	2017_03_27_17_51_18	2017_03_27_17_54_08	User: Operator (Operator)	0225	SS000MM BH	---				
3	TMTT-02	2020_05_12_18_33_30		User: Operator (Operator)	075S	SMAJ0A8	T8074039-01-01	767	783	91.66%	0.28%
4	TMTT-03	2020_05_12_17_37_37		User: Operator (Operator)	075S	TEC20CA	T2004026-01-01	3548	3337	94.05%	0.09%
5	TMTT-04	2020_05_12_18_34_01		User: Operator (Operator)	0685	SAC-17CA	20-03-5497-01-01	1572	1584	96.95%	0.00%
6	TMTT-05	2020_05_12_17_54_52		User: Operator (Operator)	0685	SMAJL5CA	C-2003302-01-01	7136	7028	98.49%	0.04%
7	TMTT-06	2020_05_12_19_38_09		User: Operator (Operator)	3587	SK54-3G	060295-02-01	437	337	77.12%	0.23%
8	TMTT-07	2020_05_12_19_32_36		User: Operator (Operator)	7376	H0030H	SC52003193-00-01	1158	1155	98.49%	0.00%
9	TMTT-08			User: Operator (Operator)							
10	TMTT-09	2020_05_12_08_57_40		User: Operator (Operator)	0952	P1530MLA	200327-01-01	27425	26760	97.61%	0.04%
11	TMTT-10	2020_05_12_14_52_09		User: Operator (Operator)	075S	T5A24B-SC	FC-20200512-09	37410	33700	90.08%	2.44%
12	TMTT-11	2020_05_12_15_34_00	2020_05_12_17_38_36	User: Operator (Operator)	S200	SMAJL5CA	---				
13	TMTT-12	2020_05_12_09_43_10	2020_05_12_15_46_23	User: Operator (Operator)	7376	DS170405-LF	---				
14	TMTT-13	2019_01_25_14_55_31	2019_01_25_14_36_14	User: Operator (Operator)	0685	SMAJL5CA	C-2004014-02-01	0	0		
15	TMTT-14	2020_05_12_17_36_55		User: Operator (Operator)	0685	PS3000A	X-P300370-01-01	20579	20301	98.63%	0.00%
16	TMTT-15			User: Operator (Operator)	C157	SMAJ0GP	---				
17	TMTT-16	2020_05_12_18_21_20	2020_05_12_18_48_54	User: Operator (Operator)	0975	SMAJ15CA-W	---				

名称	修改日期	类型	大小
■ Axial	2019/12/7 9:05	文件夹	
■ TMTT-01	2020/4/21 10:35	文件夹	
■ TMTT-02	2019/11/14 15:51	文件夹	
■ TMTT-03	2020/4/20 15:19	文件夹	
■ TMTT-04	2020/3/15 10:22	文件夹	
■ TMTT-05	2020/4/28 16:55	文件夹	
■ TMTT-06	2019/11/14 16:34	文件夹	
■ TMTT-07	2019/11/14 16:50	文件夹	
■ TMTT-08	2020/4/8 12:19	文件夹	
■ TMTT-09	2019/12/23 1:36	文件夹	
■ TMTT-10	2020/4/23 6:37	文件夹	
■ TMTT-11	2020/4/17 7:07	文件夹	
■ TMTT-12	2019/11/14 17:35	文件夹	
■ TMTT-13	2020/5/11 21:54	文件夹	
■ TMTT-14	2020/4/8 18:09	文件夹	
■ TMTT-15	2019/11/25 19:22	文件夹	
■ TMTT-16	2020/4/21 16:29	文件夹	

SPAC测试数据管理系统:

- *远程服务器管理所有测试规格
- *自动动态PAT规格
- *远程良率时时监控/警报停机功能
- *服务器管理/备份所有测试数据

良率警报2

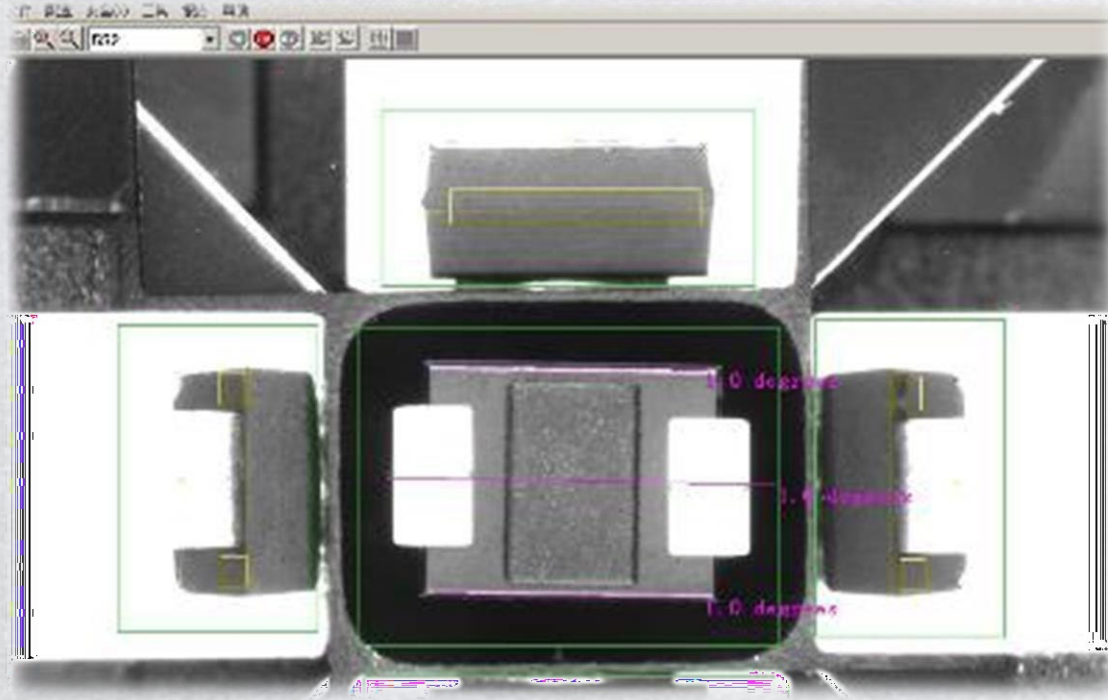
3 Sigma distribution Config

Qty=8094 VR1(V) LSL=16.75 USL=18.46
Sigma=0.405 @IB=1.000mA CPK=0.67

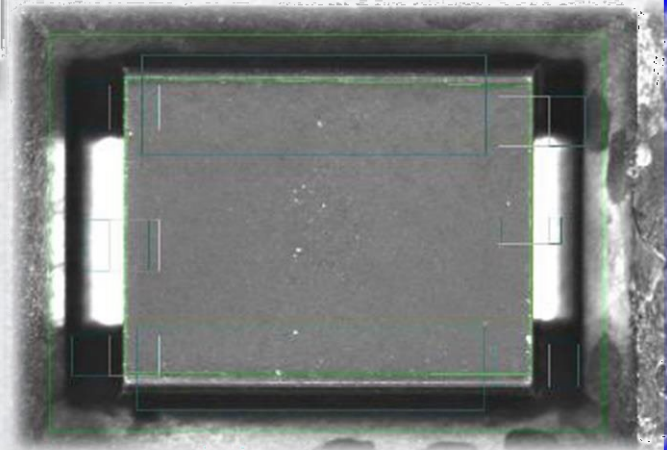
The histogram shows a normal distribution of data points. The x-axis represents voltage (V) from 15.95 to 19.18. The y-axis represents the number of pieces (pcs) from 0 to 4,000. The distribution is centered around 17.56V. The Lower Specification Limit (LSL) is at 16.75V and the Upper Specification Limit (USL) is at 18.46V. The process spread is indicated by -3S and +3S lines.



产品品质管控 Product Quality Control



所有TMTT测试系统均搭配3D5S/SI
检测CCD，产品100%经过CCD外
观检测，剔除外观瑕疵品。





THANK YOU
