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Littelfuse, WX
East 1# Zhen Fa 6 Road
Shuo Fang Industrial Park
Wuxi, Jiangsu 214142

Product Qualification Report

To: Those who may concern

From: Haipeng Xu, Senior Product Engineer, Littelfuse, Wuxi

Date: Feb 12th, 2020 – Rev.A

Subject: **Qualification Test Result for 2nd Plating Source Suyang of Surface Mounted Automotive/Hi-rel TVS in Wuxi Site LFPCN41342**

Purpose:

This report is to inform the successful qualification test results of plating 2nd source Suyang associated with surface mounted automotive/Hi-rel TVS in Wuxi site.

Conclusion:

According to the qualification result, Littelfuse concluded that Suyang is qualified as the 2nd plating source for surface mounted automotive/Hi-rel TVS in Wuxi site.

Best Regards,

Haipeng Xu

Senior Product Engineer
Littelfuse Semiconductor

1. Qualification Test Vehicle

Part Number	Package Type	Product Type
TPSMB200CA	SMB	automotive
SMBJ16A-HRA	SMB	hi-rel
SMBJ30CA-001	SMB	hi-rel
TPSMD22A	SMC	automotive
TPSMC47CA	SMC	automotive
SMDJ7.5CA-HRA	SMC	hi-rel
SLD8S22A	SM-TO263	automotive

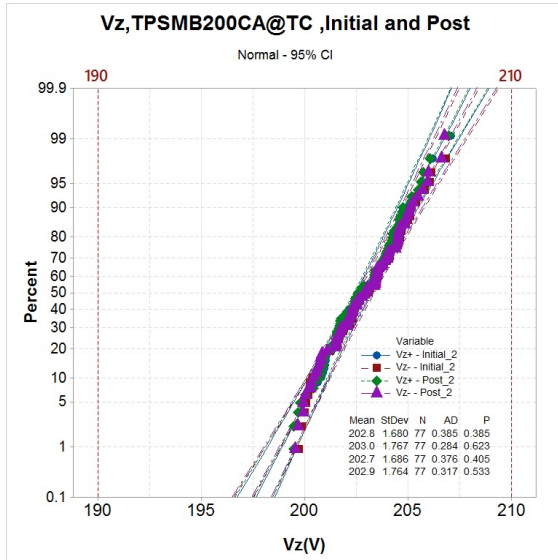
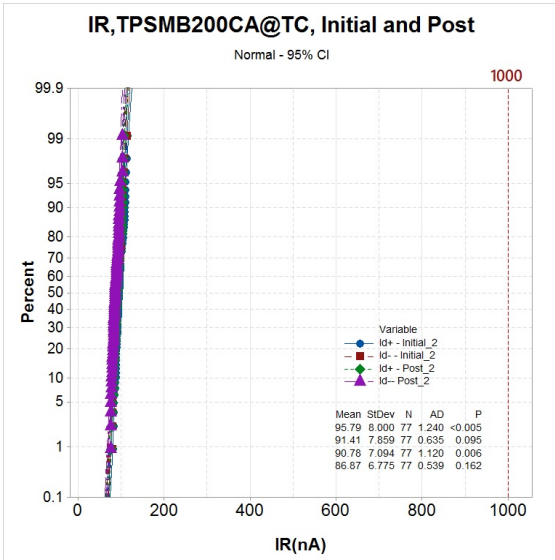
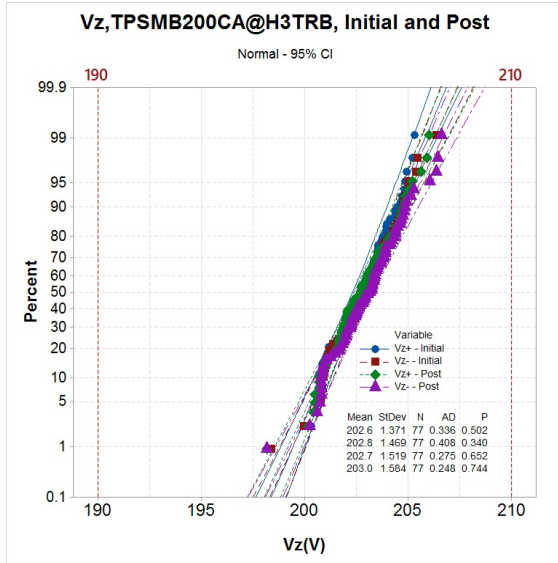
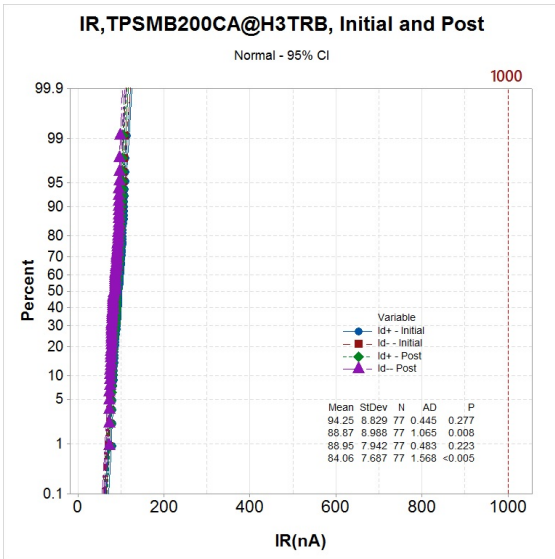
2. Qualification Test Items and Result Summary

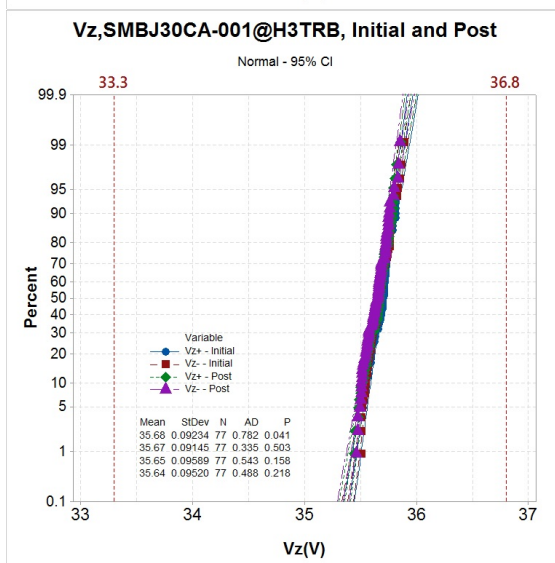
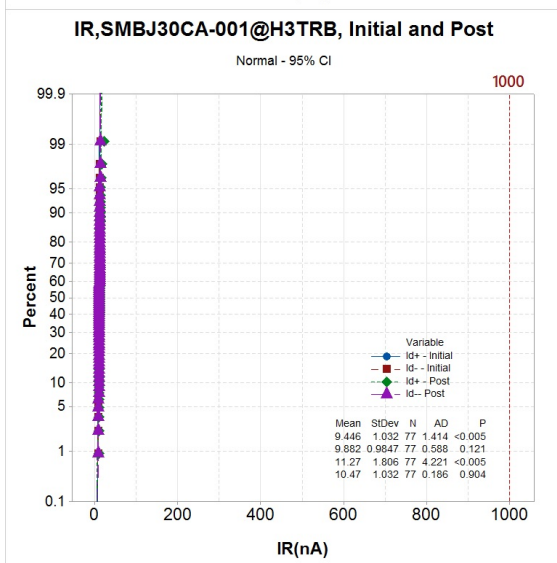
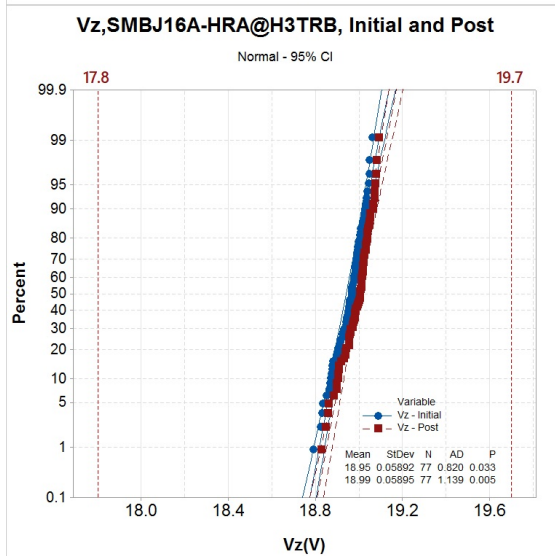
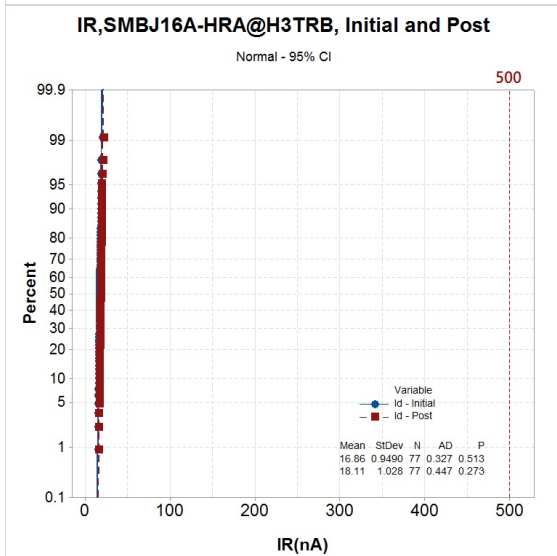
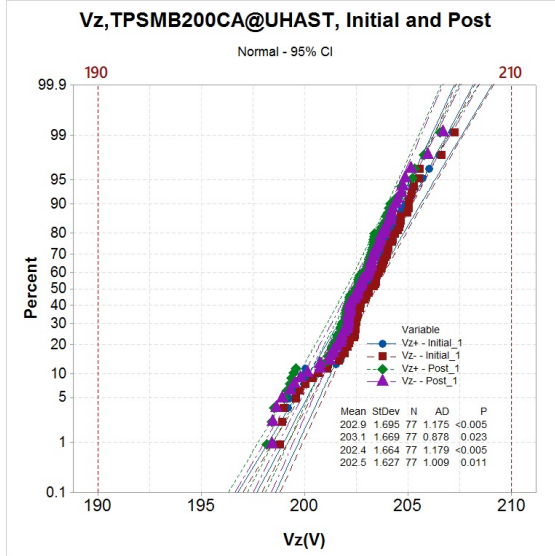
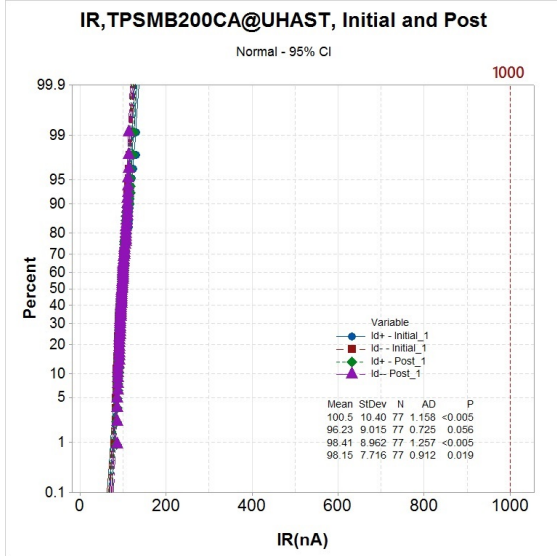
Reliability Test	Part Number	S. S	Test Condition	Test Ref #	Ref. Spec	Result Fail/Total
Pre-conditioning	TPSMB200CA	231	24hr 125°C bake, 168hrs 85°C/85% humidity storage, 3 times Reflow	127603	JESD22A-113	0/1155
	SMBJ16A-HRA	77		128412		
	SMBJ30CA-001	77		128846		
	TPSMD22A	231		130455		
	TPSMC47CA	154		127282		
	SMDJ7.5CA-HRA	154		128846		
	SLD8S22A	231		130160		
High Humidity High Temp. Reverse Bias (H3TRB)	TPSMB200CA	77	TA: 85°C, RH: 85%, 1000hr, Reverse biased at V _R or max 100V	127603	JESD22A-101	0/539
	SMBJ16A-HRA	77		128412		
	SMBJ30CA-001	77		128846		
	TPSMD22A	77		130455		
	TPSMC47CA	77		127282		
	SMDJ7.5CA-HRA	77		128846		
	SLD8S22A	77		130160		
Unbiased Highly Accelerated Stress Test (UHAST)	TPSMB200CA	77	96 hours at TA=130°C/85%RH.	127603	JESD22A-118	0/385
	TPSMD22A	77		130455		
	TPSMC47CA	77		127282		
	SMDJ7.5CA-HRA	77		128846		
	SLD8S22A	77		130160		
Temperature Cycling (TC)	TPSMB200CA	77	TA: -55°C to +150°C, dwell time >15mins, 1,000 cycle)	127603	JESD22A-104	0/231
	TPSMD22A	77		130455		
	SLD8S22A	77		130160		
Solderability	TPSMB200CA	10	245°C ± 5°C, 5 ± 0.5s	TINPWW001-F3	J-STD002	0/70
	SMBJ16A-HRA	10				
	SMBJ30CA-001	10				
	TPSMD22A	10				
	TPSMC47CA	10				
	SMDJ7.5CA-HRA	10				
	SLD8S22A	10				

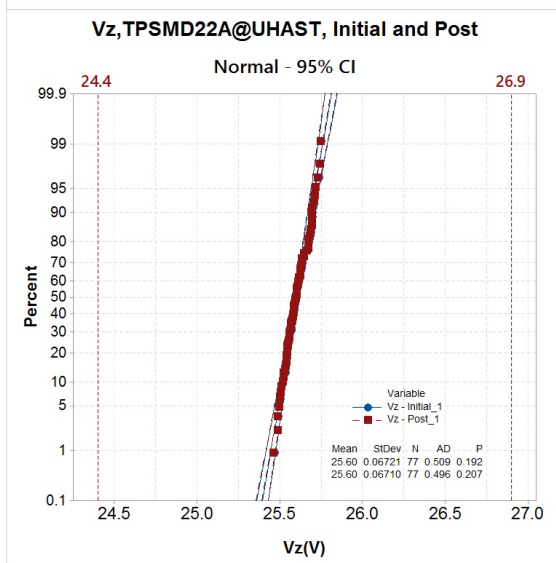
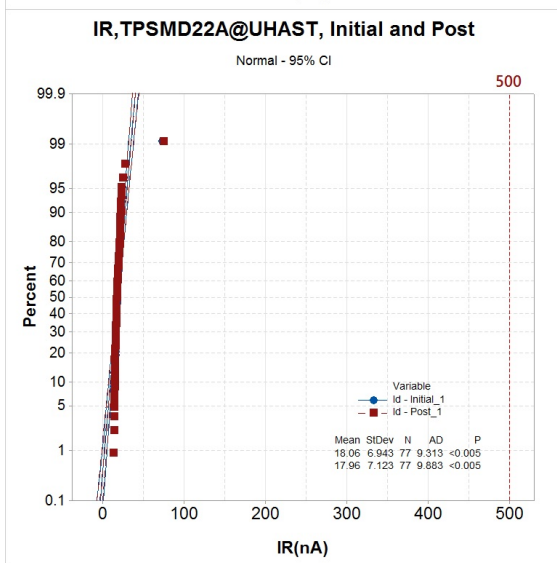
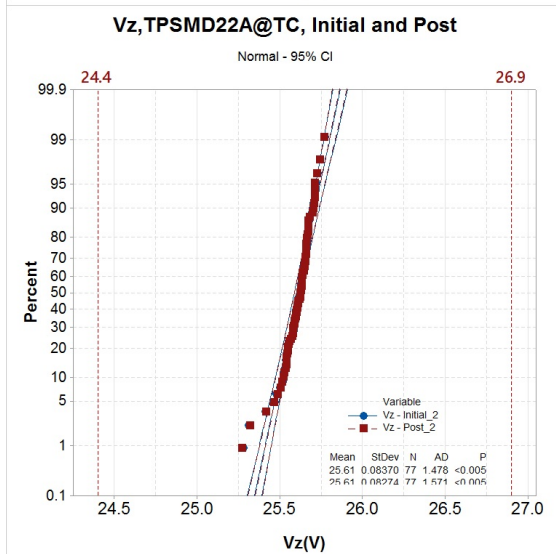
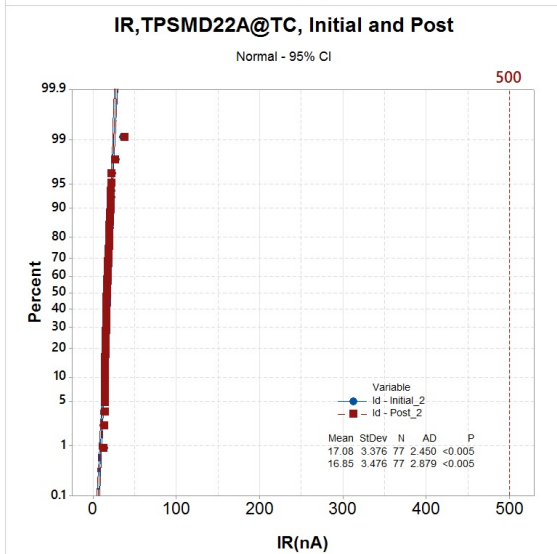
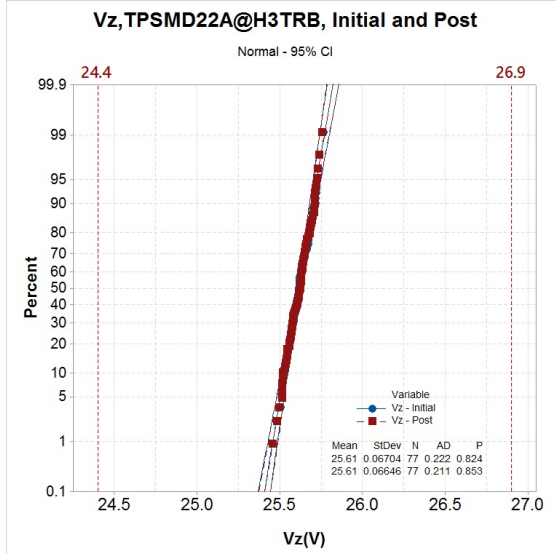
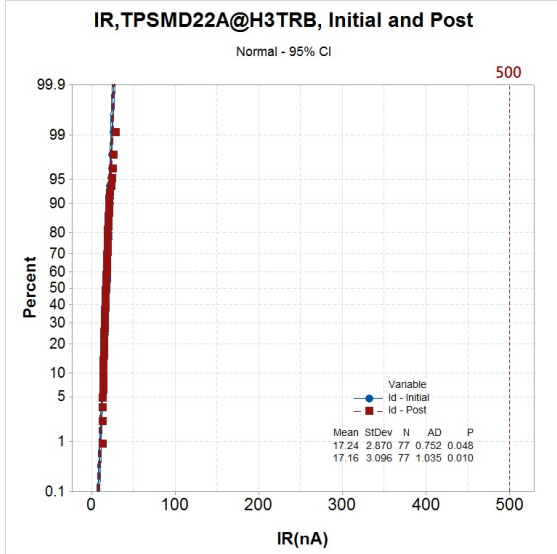
Appendix 1: Leakage drift and distribution in stress tests

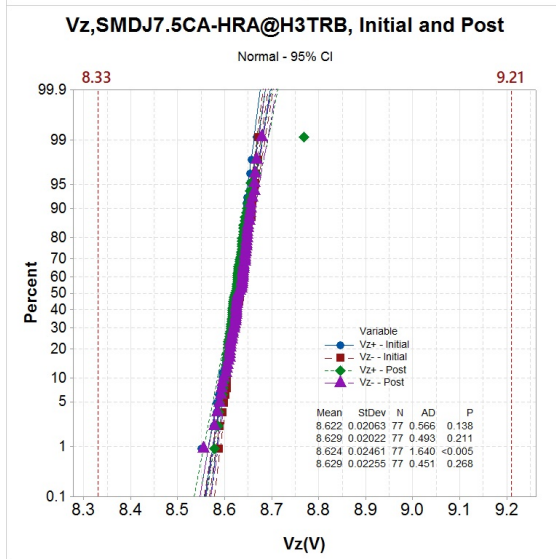
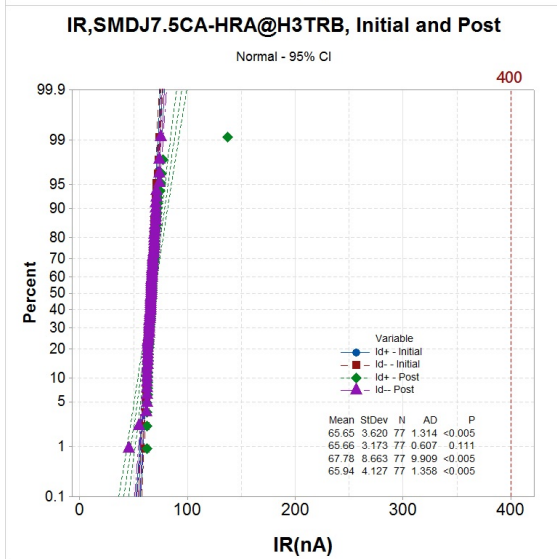
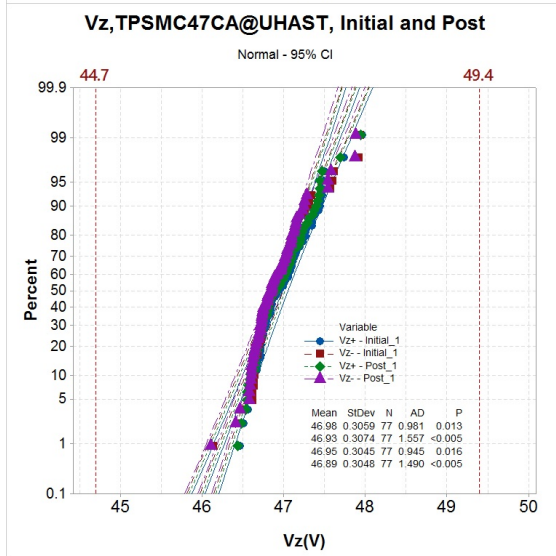
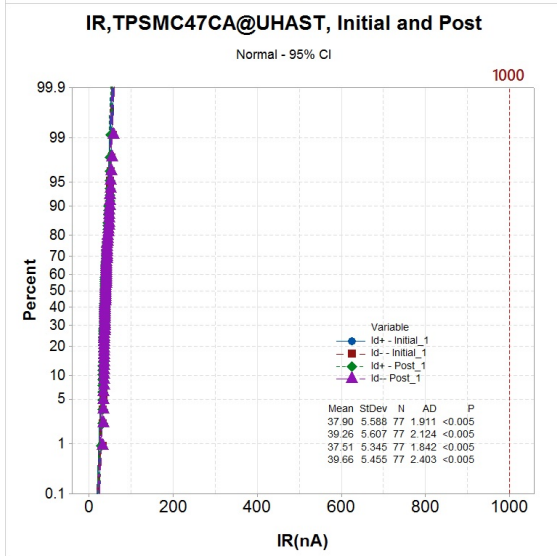
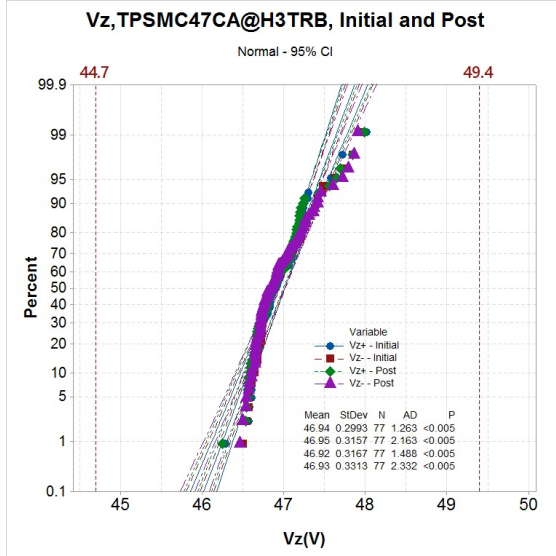
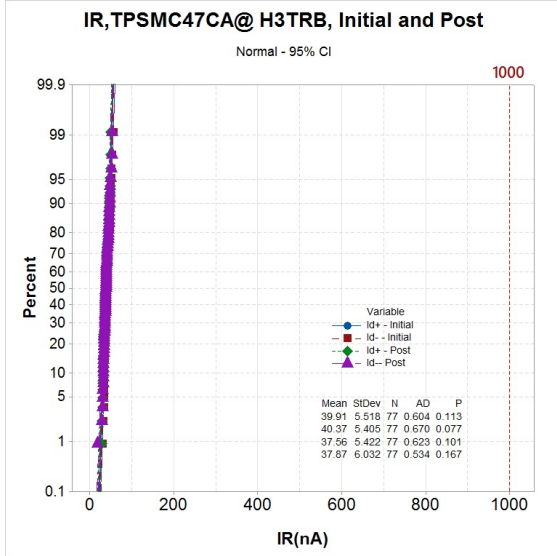
All qual vehicles pass reliability test and meet the drift requirement of AEC-Q101.

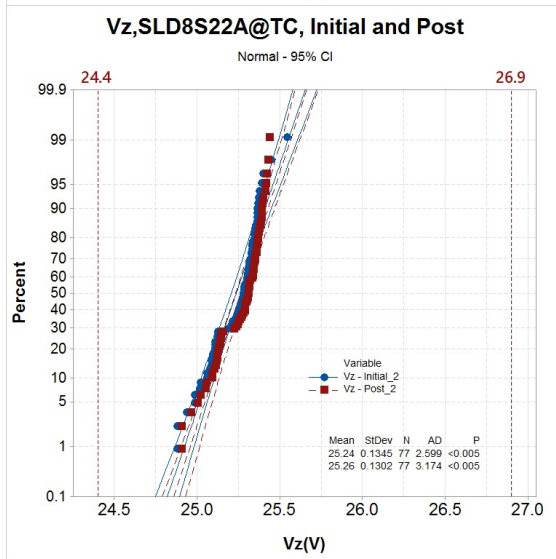
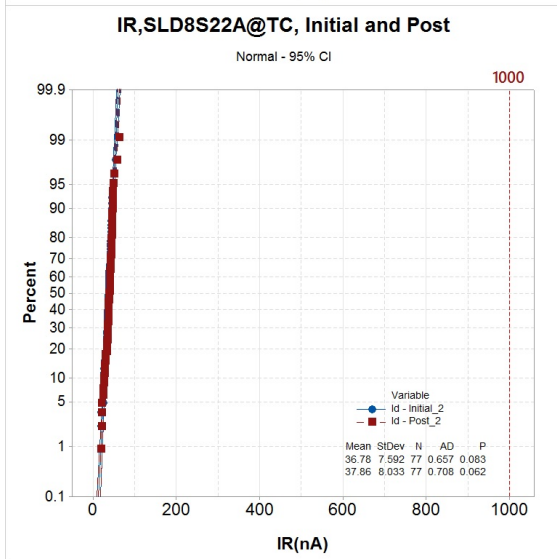
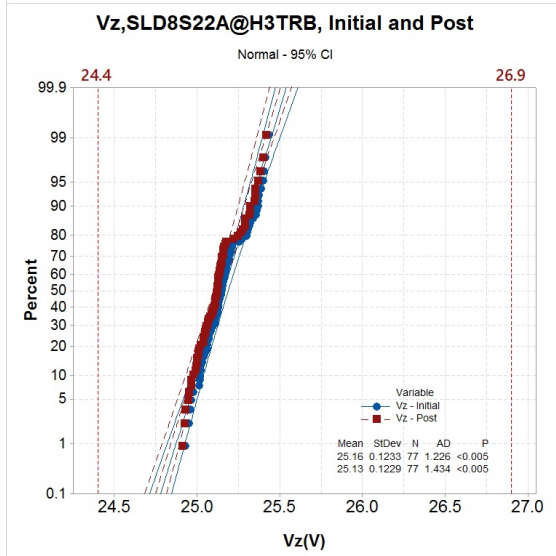
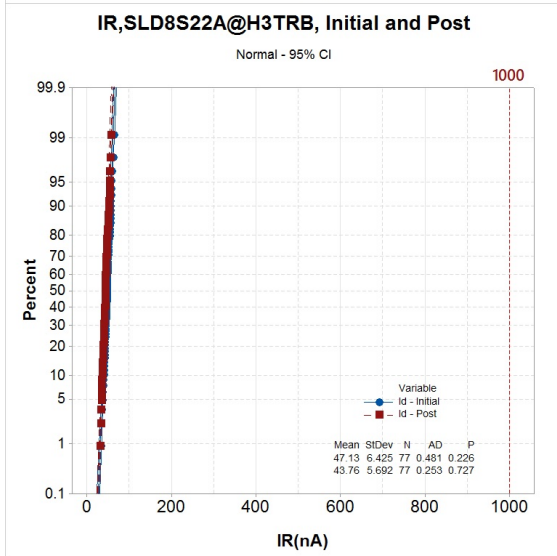
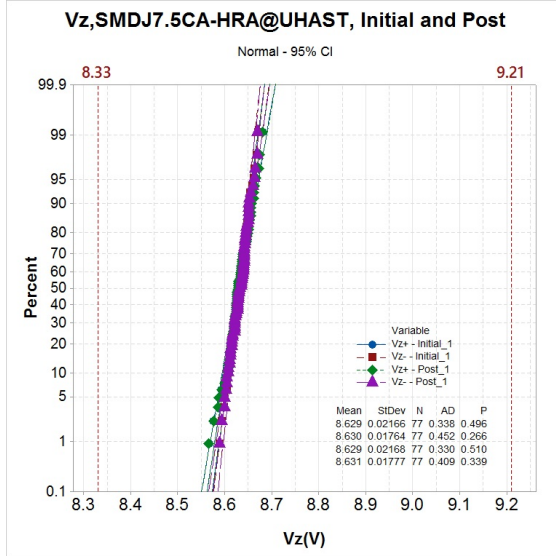
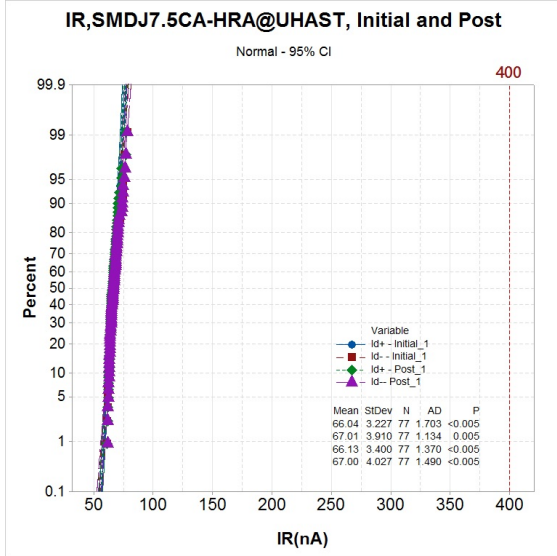
Note: The reference line is equal to or tighter than the specification defined in datasheet.

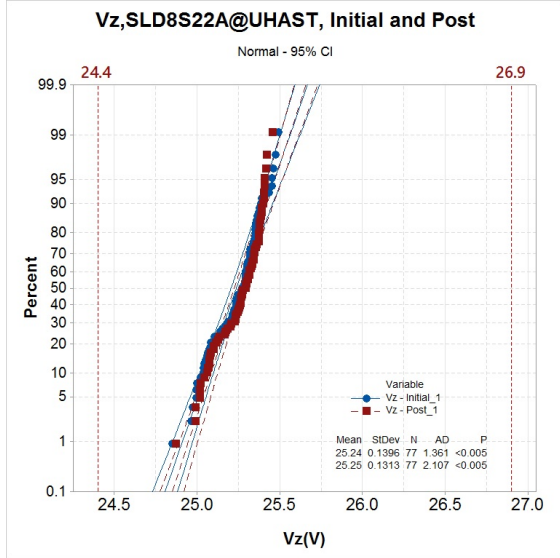
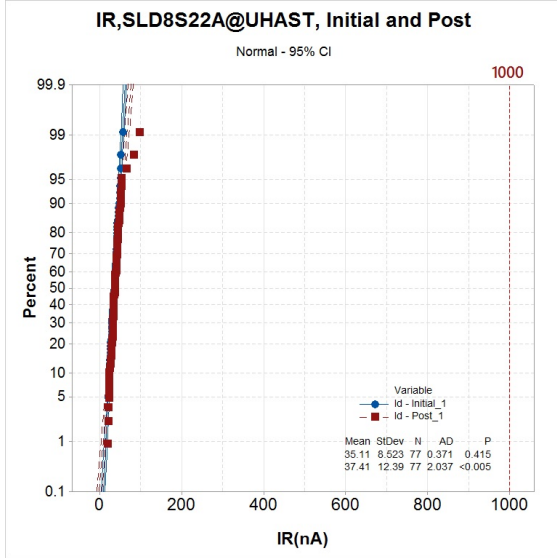














Certificate of Registration

This certifies that the Quality Management System of

Jiangyin Sunny Orient Technology Co.,Ltd.

No.8-6, Xiangyang Road, Xiangyang Village, Huashi Town,
Jiangyin City, Jiangsu Province, China214421

Has been assessed by NSF-ISR and found to be in conformance to the following standard(s):

IATF 16949:2016

Scope of Registration:
Manufacture of Electroplate Tin Parts

Exclusions: Product Design

	IATF Certificate Number: 0341773 Certificate Number: CNIAIF035193 Certificate Issue Date: 08-NOV-2018 Registration Date: 03-NOV-2018 Expiration Date*: 02-NOV-2021	 Carl Blazik, Director, Technical Operations & Business Units, NSF-ISR, Ltd.
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 *Company is audited for conformance at regular intervals. To verify registration call (888) NSF-9000 or visit our web site at www.nsf-ISR.org



Certificate of Approval

This is to certify that the Management System of:

Jiangyin Sunny Orient Technology Co., Ltd.

No.1 Xiangyang Road, Xiangyang Village, Huashi Town, Jiangyin City, Jiangsu Province 214421, China

Unified Social Credit Code: 9132020057818605902

has been approved by LRQA to the following standards:

ISO 9001:2015
GB/T 19001-2016



Rhett Wang - Area Operations Manager, Greater China
 Issued by: Lloyd's Register Quality Assurance (Shanghai) Co., Ltd.
 for and on behalf of: Lloyd's Register Quality Assurance Limited

Current issue date: 11 December 2018
 Expiry date: 10 December 2021
 Certificate identity number: 10157064

Original approval(s):
 ISO 9001 – 11 December 2012

Approval number(s): ISO 9001 – 0071560

The scope of this approval is applicable to:
 Assembly and testing of semiconductor discrete components and integrated circuits.



The certificate can be checked for validity on CMA website (www.cma.gov.cn) 30 working days after the date of issuance. This approval is subject to surveillance assessment carried out in accordance with the LRQA assessment and certification procedures.
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Appendix 2: Affected PN list

TPSMB			TPSMB-VR		
TPSMB7.5A	TPSMB56CA	TPSMB300CA-A	TPSMB6.5A-VR	TPSMB36A-VR	TPSMB160A-VR
TPSMB8.2A	TPSMB58A	TPSMB350A-A	TPSMB7.0A-VR	TPSMB36CA-VR	TPSMB160CA-VR
TPSMB9.1A	TPSMB58CA	TPSMB350CA-A	TPSMB7.5A-VR	TPSMB40A-VR	TPSMB170A-VR
TPSMB10A	TPSMB62A	TPSMB400CA-A	TPSMB8.0A-VR	TPSMB40CA-VR	TPSMB170CA-VR
TPSMB10CA	TPSMB62CA	TPSMB440CA-A	TPSMB8.5A-VR	TPSMB43A-VR	TPSMB180A-VR
TPSMB11A	TPSMB64A	TPSMB400A-A	TPSMB8.5CA-VR	TPSMB43CA-VR	TPSMB180CA-VR
TPSMB11CA	TPSMB64CA	TPSMB440A-A	TPSMB9.0A-VR	TPSMB45A-VR	TPSMB188A-VR
TPSMB12A	TPSMB68A	TPSMB480A-A	TPSMB9.0CA-VR	TPSMB45CA-VR	TPSMB188CA-VR
TPSMB12CA	TPSMB68CA	TPSMB480CA-A	TPSMB10A-VR	TPSMB48A-VR	TPSMB200A-VR
TPSMB13A	TPSMB75A	TPSMB510A-A	TPSMB10CA-VR	TPSMB48CA-VR	TPSMB200CA-VR
TPSMB13CA	TPSMB75CA	TPSMB510CA-A	TPSMB11A-VR	TPSMB51A-VR	TPSMB220A-VR
TPSMB15A	TPSMB82A	TPSMB520A-A	TPSMB11CA-VR	TPSMB51CA-VR	TPSMB220CA-VR
TPSMB15CA	TPSMB82CA	TPSMB520CA-A	TPSMB12A-VR	TPSMB54A-VR	TPSMB250A-VR
TPSMB16A	TPSMB91A	TPSMB530A-A	TPSMB12CA-VR	TPSMB54CA-VR	TPSMB250CA-VR
TPSMB16CA	TPSMB91CA	TPSMB530CA-A	TPSMB13A-VR	TPSMB58A-VR	TPSMB300A-VR
TPSMB18A	TPSMB100A	TPSMB540A-A	TPSMB13CA-VR	TPSMB58CA-VR	TPSMB300CA-VR
TPSMB18CA	TPSMB100CA	TPSMB540CA-A	TPSMB14A-VR	TPSMB60A-VR	TPSMB350A-VR
TPSMB20A	TPSMB110A	TPSMB550A-A	TPSMB14CA-VR	TPSMB60CA-VR	TPSMB350CA-VR
TPSMB20CA	TPSMB110CA	TPSMB550CA-A	TPSMB15A-VR	TPSMB64A-VR	TPSMB400A-VR
TPSMB22A	TPSMB120A	TPSMB600CA-A	TPSMB15CA-VR	TPSMB64CA-VR	TPSMB400CA-VR
TPSMB22CA	TPSMB120CA	TPSMB650CA-A	TPSMB16A-VR	TPSMB70A-VR	TPSMB440A-VR
TPSMB24A	TPSMB130A		TPSMB16CA-VR	TPSMB70CA-VR	TPSMB440CA-VR
TPSMB24CA	TPSMB130CA		TPSMB17A-VR	TPSMB75A-VR	
TPSMB27A	TPSMB150A		TPSMB17CA-VR	TPSMB75CA-VR	
TPSMB27CA	TPSMB150CA		TPSMB18A-VR	TPSMB78A-VR	
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TPSMB30CA	TPSMB160CA		TPSMB20A-VR	TPSMB85A-VR	
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TPSMB51CA	TPSMB250CA		TPSMB33A-VR	TPSMB150A-VR	
TPSMB56A	TPSMB300A-A		TPSMB33CA-VR	TPSMB150CA-VR	

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TPSMC12CA	TPSMC82CA	TPSMC11CA-VR	TPSMC51CA-VR	TPSMD11A	TPSMD48CA	SLD8S13A
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TPSMC62CA		TPSMC43CA-VR		TPSMD36CA		
TPSMC68A		TPSMC45A-VR		TPSMD40CA		
TPSMC68CA		TPSMC45CA-VR		TPSMD43CA		
TPSMC75A		TPSMC48A-VR		TPSMD45A		
TPSMC75CA		TPSMC48CA-VR		TPSMD45CA		

-1000		
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SMAJ15A-1000	SMCJ6.5CA-1000	SMDJ11A-1000
SMAJ20A-1000	SMCJ10A-1000	SMDJ11CA-1000
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SMBJ20CA-1000	SMDJ6.0CA-1000	5.0SMDJ43CA-1000
SMBJ36A-1000	SMDJ6.5A-1000	5.0SMDJ45A-1000
SMBJ36CA-1000	SMDJ6.5CA-1000	5.0SMDJ45CA-1000
SMBJ48A-1000	SMDJ7.0A-1000	5.0SMDJ60A-1000
SMBJ48CA-1000	SMDJ7.0CA-1000	5.0SMDJ60CA-1000
SMBJ150CA-1000	SMDJ7.5A-1000	



Expertise Applied | Answers Delivered

-HR			-HRA					
SMBJ5.0A-HR	SMCJ5.0A-HR	SMCJ154A-HR	SMBJ5.0A-HRA	SMBJ12CA-HRAT7	SMCJ90CA-HRA	SMCJ78CA-HRAT7	SMDJ78A-HRA	
SMBJ5.0CA-HR	SMCJ5.0CA-HR	SMCJ154CA-HR	SMBJ5.0CA-HRA	SMBJ15A-HRAT7	SMCJ100A-HRA	SMCJ85A-HRAT7	SMDJ85A-HRA	
SMBJ6.0A-HR	SMCJ6.0A-HR	SMCJ160A-HR	SMBJ6.0A-HRA	SMBJ15CA-HRAT7	SMCJ100CA-HRA	SMCJ85CA-HRAT7	SMDJ90A-HRA	
SMBJ6.0CA-HR	SMCJ6.0CA-HR	SMCJ160CA-HR	SMBJ6.0CA-HRA	SMBJ18A-HRAT7	SMCJ110A-HRA	SMCJ90A-HRAT7	SMDJ100A-HRA	
SMBJ6.5A-HR	SMCJ6.5A-HR	SMCJ170A-HR	SMBJ6.5A-HRA	SMBJ18CA-HRAT7	SMCJ110CA-HRA	SMCJ90CA-HRAT7	SMDJ110A-HRA	
SMBJ6.5CA-HR	SMCJ6.5CA-HR	SMCJ170CA-HR	SMBJ6.5CA-HRA	SMBJ30A-HRAT7	SMCJ120A-HRA	SMCJ100A-HRAT7	SMDJ120A-HRA	
SMBJ7.0A-HR	SMCJ7.0A-HR	SMDJ5.0A-HR	SMBJ7.0A-HRA	SMBJ30CA-HRAT7	SMCJ120CA-HRA	SMCJ100CA-HRAT7	SMDJ130A-HRA	
SMBJ7.0CA-HR	SMCJ7.0CA-HR	SMDJ5.0CA-HR	SMBJ7.0CA-HRA	SMBJ36A-HRAT7	SMCJ130A-HRA	SMCJ110A-HRAT7	SMDJ130A-HRA	
SMBJ7.5A-HR	SMCJ7.5A-HR	SMDJ6.0A-HR	SMBJ7.5A-HRA	SMBJ45A-HRAT7	SMCJ130CA-HRA	SMCJ110CA-HRAT7	SMDJ160A-HRA	
SMBJ7.5CA-HR	SMCJ7.5CA-HR	SMDJ6.0CA-HR	SMBJ7.5CA-HRA	SMBJ90CA-HRAT7	SMCJ150A-HRA	SMCJ120A-HRAT7	SMDJ170A-HRA	
SMBJ8.0A-HR	SMCJ8.0A-HR	SMDJ6.5A-HR	SMBJ8.0A-HRA	SMBJ6.0A-HRA-B	SMCJ150CA-HRA	SMCJ120CA-HRAT7	SMDJ5.0A-HRAT7	
SMBJ8.0CA-HR	SMCJ8.0CA-HR	SMDJ6.5CA-HR	SMBJ8.0CA-HRA	SMCJ5.0A-HRA	SMCJ160A-HRA	SMCJ130A-HRAT7	SMDJ5.0CA-HRAT7	
SMBJ8.5A-HR	SMCJ8.5A-HR	SMDJ7.0A-HR	SMBJ8.5A-HRA	SMCJ5.0CA-HRA	SMCJ160CA-HRA	SMCJ130CA-HRAT7	SMDJ6.0A-HRAT7	
SMBJ8.5CA-HR	SMCJ8.5CA-HR	SMDJ7.0CA-HR	SMBJ8.5CA-HRA	SMCJ6.0A-HRA	SMCJ170A-HRA	SMCJ150A-HRAT7	SMDJ6.0CA-HRAT7	
SMBJ9.0A-HR	SMCJ9.0A-HR	SMDJ7.5A-HR	SMBJ9.0A-HRA	SMCJ6.0CA-HRA	SMCJ170CA-HRA	SMCJ150CA-HRAT7	SMDJ6.5A-HRAT7	
SMBJ9.0CA-HR	SMCJ9.0CA-HR	SMDJ7.5CA-HR	SMBJ9.0CA-HRA	SMCJ6.5A-HRA	SMCJ160A-HRAT7	SMCJ160A-HRAT7	SMDJ6.5CA-HRAT7	
SMBJ10A-HR	SMCJ10A-HR	SMDJ8.0A-HR	SMBJ10A-HRA	SMCJ6.5CA-HRA	SMCJ5.0CA-HRAT7	SMCJ160CA-HRAT7	SMDJ7.0A-HRAT7	
SMBJ10CA-HR	SMCJ10CA-HR	SMDJ8.0CA-HR	SMBJ10CA-HRA	SMCJ7.0A-HRA	SMCJ6.0A-HRAT7	SMCJ170A-HRAT7	SMDJ7.0CA-HRAT7	
SMBJ11A-HR	SMCJ11A-HR	SMDJ8.5A-HR	SMBJ11A-HRA	SMCJ7.0CA-HRA	SMCJ6.0CA-HRAT7	SMCJ170CA-HRAT7	SMDJ7.5A-HRAT7	
SMBJ11CA-HR	SMCJ11CA-HR	SMDJ8.5CA-HR	SMBJ11CA-HRA	SMCJ7.5A-HRA	SMCJ6.5A-HRAT7	SMDJ5.0A-HRA	SMDJ7.5CA-HRAT7	
SMBJ12A-HR	SMCJ12A-HR	SMDJ9.0A-HR	SMBJ12A-HRA	SMCJ7.5CA-HRA	SMCJ6.5CA-HRAT7	SMDJ5.0CA-HRA	SMDJ8.0A-HRAT7	
SMBJ12CA-HR	SMCJ12CA-HR	SMDJ9.0CA-HR	SMBJ12CA-HRA	SMCJ8.0A-HRA	SMCJ7.0A-HRAT7	SMDJ6.0A-HRA	SMDJ8.0CA-HRAT7	
SMBJ13A-HR	SMCJ13A-HR	SMDJ10A-HR	SMBJ13A-HRA	SMCJ8.0CA-HRA	SMCJ7.0CA-HRAT7	SMDJ6.0CA-HRA	SMDJ8.5A-HRAT7	
SMBJ13CA-HR	SMCJ13CA-HR	SMDJ10CA-HR	SMBJ13CA-HRA	SMCJ8.5A-HRA	SMCJ7.5A-HRAT7	SMDJ6.5A-HRA	SMDJ8.5CA-HRAT7	
SMBJ14A-HR	SMCJ14A-HR	SMDJ11A-HR	SMBJ14A-HRA	SMCJ8.5CA-HRA	SMCJ7.5CA-HRAT7	SMDJ6.5CA-HRA	SMDJ9.0A-HRAT7	
SMBJ14CA-HR	SMCJ14CA-HR	SMDJ11CA-HR	SMBJ14CA-HRA	SMCJ9.0A-HRA	SMCJ8.0A-HRAT7	SMDJ7.0A-HRA	SMDJ9.0CA-HRAT7	
SMBJ15A-HR	SMCJ15A-HR	SMDJ12A-HR	SMBJ15A-HRA	SMCJ9.0CA-HRA	SMCJ8.0CA-HRAT7	SMDJ7.0CA-HRA	SMDJ10A-HRAT7	
SMBJ15CA-HR	SMCJ15CA-HR	SMDJ12CA-HR	SMBJ15CA-HRA	SMCJ10A-HRA	SMCJ8.5A-HRAT7	SMDJ7.5A-HRA	SMDJ10CA-HRAT7	
SMBJ16A-HR	SMCJ16A-HR	SMDJ13A-HR	SMBJ16A-HRA	SMCJ10CA-HRA	SMCJ8.5CA-HRAT7	SMDJ7.5CA-HRA	SMDJ11A-HRAT7	
SMBJ16CA-HR	SMCJ16CA-HR	SMDJ13CA-HR	SMBJ16CA-HRA	SMCJ11A-HRA	SMCJ9.0A-HRAT7	SMDJ8.0A-HRA	SMDJ11CA-HRAT7	
SMBJ17A-HR	SMCJ17A-HR	SMDJ14A-HR	SMBJ17A-HRA	SMCJ11CA-HRA	SMCJ9.0CA-HRAT7	SMDJ8.0CA-HRA	SMDJ12A-HRAT7	
SMBJ17CA-HR	SMCJ17CA-HR	SMDJ14CA-HR	SMBJ17CA-HRA	SMCJ12A-HRA	SMCJ10A-HRAT7	SMDJ8.5A-HRA	SMDJ12CA-HRAT7	
SMBJ18A-HR	SMCJ18A-HR	SMDJ15A-HR	SMBJ18A-HRA	SMCJ12CA-HRA	SMCJ10CA-HRAT7	SMDJ8.5CA-HRA	SMDJ13A-HRAT7	
SMBJ18CA-HR	SMCJ18CA-HR	SMDJ15CA-HR	SMBJ18CA-HRA	SMCJ13A-HRA	SMCJ11A-HRAT7	SMDJ9.0A-HRA	SMDJ13CA-HRAT7	
SMBJ20A-HR	SMCJ20A-HR	SMDJ16A-HR	SMBJ20A-HRA	SMCJ13CA-HRA	SMCJ11CA-HRAT7	SMDJ9.0CA-HRA	SMDJ14A-HRAT7	
SMBJ20CA-HR	SMCJ20CA-HR	SMDJ16CA-HR	SMBJ20CA-HRA	SMCJ14A-HRA	SMCJ12A-HRAT7	SMDJ10A-HRA	SMDJ14CA-HRAT7	
SMBJ22A-HR	SMCJ22A-HR	SMDJ17A-HR	SMBJ22A-HRA	SMCJ14CA-HRA	SMCJ12CA-HRAT7	SMDJ10CA-HRA	SMDJ15A-HRAT7	
SMBJ22CA-HR	SMCJ22CA-HR	SMDJ17CA-HR	SMBJ22CA-HRA	SMCJ15A-HRA	SMCJ13A-HRAT7	SMDJ11A-HRA	SMDJ15CA-HRAT7	
SMBJ24A-HR	SMCJ24A-HR	SMDJ18A-HR	SMBJ24A-HRA	SMCJ15CA-HRA	SMCJ13CA-HRAT7	SMDJ11CA-HRA	SMDJ16A-HRAT7	
SMBJ24CA-HR	SMCJ24CA-HR	SMDJ18CA-HR	SMBJ24CA-HRA	SMCJ16A-HRA	SMCJ14A-HRAT7	SMDJ12A-HRA	SMDJ16CA-HRAT7	
SMBJ26A-HR	SMCJ26A-HR	SMDJ20A-HR	SMBJ26A-HRA	SMCJ16CA-HRA	SMCJ14CA-HRAT7	SMDJ12CA-HRA	SMDJ17A-HRAT7	
SMBJ26CA-HR	SMCJ26CA-HR	SMDJ20CA-HR	SMBJ26CA-HRA	SMCJ17A-HRA	SMCJ15A-HRAT7	SMDJ13A-HRA	SMDJ17CA-HRAT7	
SMBJ28A-HR	SMCJ28A-HR	SMDJ22A-HR	SMBJ28A-HRA	SMCJ17CA-HRA	SMCJ15CA-HRAT7	SMDJ13CA-HRA	SMDJ18A-HRAT7	
SMBJ28CA-HR	SMCJ28CA-HR	SMDJ22CA-HR	SMBJ28CA-HRA	SMCJ18A-HRA	SMCJ16A-HRAT7	SMDJ14A-HRA	SMDJ18CA-HRAT7	
SMBJ30A-HR	SMCJ30A-HR	SMDJ24A-HR	SMBJ30A-HRA	SMCJ18CA-HRA	SMCJ16CA-HRAT7	SMDJ14CA-HRA	SMDJ20A-HRAT7	
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SMBJ36A-HR	SMCJ36A-HR	SMDJ28A-HR	SMBJ36A-HRA	SMCJ22CA-HRA	SMCJ18CA-HRAT7	SMDJ16CA-HRA	SMDJ24A-HRAT7	
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SMBJ40CA-HR	SMCJ40CA-HR	SMDJ30CA-HR	SMBJ40CA-HRA	SMCJ26A-HRA	SMCJ22A-HRAT7	SMDJ18A-HRA	SMDJ26CA-HRAT7	
SMBJ43A-HR	SMCJ43A-HR	SMDJ33A-HR	SMBJ43A-HRA	SMCJ26CA-HRA	SMCJ22CA-HRAT7	SMDJ18CA-HRA	SMDJ28A-HRAT7	
SMBJ43CA-HR	SMCJ43CA-HR	SMDJ33CA-HR	SMBJ43CA-HRA	SMCJ28A-HRA	SMCJ24A-HRAT7	SMDJ20A-HRA	SMDJ28CA-HRAT7	
SMBJ45A-HR	SMCJ45A-HR	SMDJ36A-HR	SMBJ45A-HRA	SMCJ28CA-HRA	SMCJ24CA-HRAT7	SMDJ20CA-HRA	SMDJ30A-HRAT7	
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SMBJ48A-HR	SMCJ48A-HR	SMDJ40A-HR	SMBJ48A-HRA	SMCJ30CA-HRA	SMCJ26CA-HRAT7	SMDJ22CA-HRA	SMDJ33A-HRAT7	
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SMBJ51A-HR	SMCJ51A-HR	SMDJ43A-HR	SMBJ51A-HRA	SMCJ33CA-HRA	SMCJ28CA-HRAT7	SMDJ24CA-HRA	SMDJ36A-HRAT7	
SMBJ51CA-HR	SMCJ51CA-HR	SMDJ43CA-HR	SMBJ51CA-HRA	SMCJ36A-HRA	SMCJ30A-HRAT7	SMDJ26A-HRA	SMDJ36CA-HRAT7	
SMBJ54A-HR	SMCJ54A-HR	SMDJ45A-HR	SMBJ54A-HRA	SMCJ36CA-HRA	SMCJ30CA-HRAT7	SMDJ26CA-HRA	SMDJ40A-HRAT7	
SMBJ54CA-HR	SMCJ54CA-HR	SMDJ45CA-HR	SMBJ54CA-HRA	SMCJ40A-HRA	SMCJ33A-HRAT7	SMDJ28A-HRA	SMDJ40CA-HRAT7	
SMBJ58A-HR	SMCJ58A-HR	SMDJ48A-HR	SMBJ58A-HRA	SMCJ40CA-HRA	SMCJ33CA-HRAT7	SMDJ28CA-HRA	SMDJ43A-HRAT7	
SMBJ58CA-HR	SMCJ58CA-HR	SMDJ48CA-HR	SMBJ58CA-HRA	SMCJ43A-HRA	SMCJ36A-HRAT7	SMDJ30A-HRA	SMDJ43CA-HRAT7	
SMBJ60A-HR	SMCJ60A-HR	SMDJ51A-HR	SMBJ60A-HRA	SMCJ43CA-HRA	SMCJ36CA-HRAT7	SMDJ30CA-HRA	SMDJ45A-HRAT7	
SMBJ60CA-HR	SMCJ60CA-HR	SMDJ51CA-HR	SMBJ60CA-HRA	SMCJ45A-HRA	SMCJ40A-HRAT7	SMDJ33A-HRA	SMDJ45CA-HRAT7	
SMBJ64A-HR	SMCJ64A-HR	SMDJ54A-HR	SMBJ64A-HRA	SMCJ45CA-HRA	SMCJ40CA-HRAT7	SMDJ33CA-HRA	SMDJ48A-HRAT7	
SMBJ64CA-HR	SMCJ64CA-HR	SMDJ54CA-HR	SMBJ64CA-HRA	SMCJ48A-HRA	SMCJ43A-HRAT7	SMDJ36A-HRA	SMDJ48CA-HRAT7	
SMBJ70A-HR	SMCJ70A-HR	SMDJ58A-HR	SMBJ70A-HRA	SMCJ48CA-HRA	SMCJ43CA-HRAT7	SMDJ36CA-HRA	SMDJ51A-HRAT7	
SMBJ70CA-HR	SMCJ70CA-HR	SMDJ58CA-HR	SMBJ70CA-HRA	SMCJ51A-HRA	SMCJ45A-HRAT7	SMDJ40A-HRA	SMDJ51CA-HRAT7	
SMBJ75A-HR	SMCJ75A-HR	SMDJ60A-HR	SMBJ75A-HRA	SMCJ51CA-HRA	SMCJ45CA-HRAT7	SMDJ40CA-HRA	SMDJ54A-HRAT7	
SMBJ75CA-HR	SMCJ75CA-HR	SMDJ60CA-HR	SMBJ75CA-HRA	SMCJ54A-HRA	SMCJ48A-HRAT7	SMDJ43A-HRA	SMDJ54CA-HRAT7	
SMBJ78A-HR	SMCJ78A-HR	SMDJ64A-HR	SMBJ78A-HRA	SMCJ54CA-HRA	SMCJ48CA-HRAT7	SMDJ43CA-HRA	SMDJ58A-HRAT7	
SMBJ78CA-HR	SMCJ78CA-HR	SMDJ70A-HR	SMBJ78CA-HRA	SMCJ58A-HRA	SMCJ51A-HRAT7	SMDJ45A-HRA	SMDJ60A-HRAT7	
SMBJ85A-HR	SMCJ85A-HR	SMDJ75A-HR	SMBJ85A-HRA	SMCJ58CA-HRA	SMCJ51CA-HRAT7	SMDJ45CA-HRA	SMDJ64A-HRAT7	
SMBJ85CA-HR	SMCJ85CA-HR	SMDJ78A-HR	SMBJ85CA-HRA	SMCJ60A-HRA	SMCJ54A-HRAT7	SMDJ48A-HRA	SMDJ70A-HRAT7	
SMBJ90CA-HR	SMCJ90A-HR	SMDJ85A-HR	SMBJ90CA-HRA	SMCJ60CA-HRA	SMCJ54CA-HRAT7	SMDJ48CA-HRA	SMDJ75A-HRAT7	
SMBJ100CA-HR	SMCJ90CA-HR	SMDJ90A-HR	SMBJ100CA-HRA	SMCJ64A-HRA	SMCJ58A-HRAT7	SMDJ51A-HRA	SMDJ78A-HRAT7	
SMBJ110CA-HR	SMCJ100A-HR	SMDJ100A-HR	SMBJ110CA-HRA	SMCJ64CA-HRA	SMCJ58CA-HRAT7	SMDJ51CA-HRA	SMDJ85A-HRAT7	
SMBJ120CA-HR	SMCJ100CA-HR	SMDJ110A-HR	SMBJ120CA-HRA	SMCJ70A-HRA	SMCJ60A-HRAT7	SMDJ54A-HRA	SMDJ90A-HRAT7	
SMBJ130CA-HR	SMCJ110A-HR	SMDJ120A-HR	SMBJ130CA-HRA	SMCJ70CA-HRA	SMCJ60CA-HRAT7	SMDJ54CA-HRA	SMDJ100A-HRAT7	
SMBJ150CA-HR	SMCJ110CA-HR	SMDJ130A-HR	SMBJ150CA-HRA	SMCJ75A-HRA	SMCJ64A-HRAT7	SMDJ58A-HRA	SMDJ110A-HRAT7	
SMBJ160CA-HR	SMCJ120A-HR	SMDJ150A-HR	SMBJ160CA-HRA	SMCJ75CA-HRA	SMCJ64CA-HRAT7	SMDJ58CA-HRA	SMDJ120A-HRAT7	
SMBJ170CA-HR	SMCJ120CA-HR	SMDJ160A-HR	SMBJ170CA-HRA	SMCJ78A-HRA	SMCJ70A-HRAT7	SMDJ60A-HRA	SMDJ130A-HRAT7	
	SMCJ130A-HR	SMDJ170A-HR	SMBJ6.0A-HRAT7	SMCJ78CA-HRA	SMCJ70CA-HRAT7	SMDJ60CA-HRA	SMDJ150A-HRAT7	
	SMCJ130CA-HR		SMBJ6.0CA-HRAT7	SMCJ85A-HRA	SMCJ75A-HRAT7	SMDJ64A-HRA	SMDJ160A-HRAT7	
	SMCJ150A-HR		SMBJ9.0A-HRAT7	SMCJ85CA-HRA	SMCJ75CA-HRAT7	SMDJ70A-HRA	SMDJ170A-HRAT7	
	SMCJ150CA-HR		SMBJ9.0CA-HRAT7	SMCJ90A-HRA	SMCJ78A-HRAT7	SMDJ75A-HRA	SMDJ12CA-HRA-B	

Qualification Result (Rev A)