

5245 Hellyer Avenue San Jose, CA 95138 U.S.A. (408) 414-9200

Control No. PCN-20131

May 8, 2020

## **PRODUCT/PROCESS CHANGE NOTIFICATION**

TYPE OF CHANGE:

🗌 Design

Manufacturing

Other

This notification is provided in accordance with Power Integrations policy of major change notification. If you have any questions or need further assistance, please contact your regional Power Integrations sales office.

#### **DESCRIPTION OF CHANGE**

Unisem (M) Berhad, Ipoh, Malaysia will be added as an alternative assembly and test site for SMD-8B products listed below. Unisem (M) Berhad, Ipoh, Malaysia is a qualified assembly and test site of Power Integrations products.

There is neither change in the Bill of Materials nor a change to the data sheet.

#### **REASON FOR CHANGE**

Improve manufacturing flexibility and diversification of manufacturing sites.

Product Family	Part Numbers
LinkSwitch	LNK500GN, LNK501GN, LNK520GN
LinkSwitch-HF	LNK353GN, LNK354GN
LinkSwitch-LP	LNK562GN, LNK563GN, LNK564GN
LinkSwitch-TN	LNK302GN, LNK302GN0004, LNK302GN0166, LNK302GNAU, LNK304GN, LNK304GN0004, LNK304GN0087, LNK304GN0166, LNK304GNAU, LNK305GN, LNK305GN0004, LNK305GN0105, LNK305GN0166, LNK305GNAU, LNK306GN, LNK306GN0004, LNK306GN0105, LNK306GN0152, LNK306GNAU, SC1145GG
LinkSwitch-XT	LNK362GN, LNK363GN, LNK363GN0152, LNK363GNAU, LNK364GN, LNK364GN0105, LNK364GN0209, LNK364GNAU
TOPSwitch-FX	TOP232GN, TOP233GN, TOP234GN
TOPSwitch-GX	TOP242GN, TOP243GN, TOP244GN, TOP245GN, TOP246GN
TinySwitch-II	CP1001GN, CP1002GN, TNY263GN, TNY263GN0105, TNY263GNAU, TNY264GN, TNY264GN0004, TNY264GN0152, TNY264GNAU, TNY265GN, TNY266GN, TNY266GN0004, TNY266GN0054, TNY266GN0152, TNY266GNAU, TNY267GN, TNY267GN0004, TNY267GN0087, TNY267GNAU, TNY268GN, TNY268GN0152, TNY268GN0166, TNY268GNAU

# PRODUCTS AFFECTED

#### **QUALIFICATION STATUS**

Please refer to Appendix 1 for the qualification data.

# CONFIDENTIAL

The information in this report contains confidential and proprietary information of Power Integrations and its manufacturing partners. By receiving this report, the customer agrees to use this information for the sole purpose of addressing the issues reviewed in this report and to keep the contents confidential. If it becomes necessary for the customer to disclose this information to a third party, a non-disclosure agreement, which provides reasonable and customary protection for the disclosed information, must be executed.

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# **EFFECT ON CUSTOMER**

There will be no adverse impact in manufacturers' applications.

## **EFFECTIVE DATE**

August 10, 2020. This date is subject to change. Current products from the existing assembly and test sites will continue to be shipped after implementation of the above changes.

# SAMPLE AVAILABILITY

Samples will be available 12 weeks from the date of request. Please send requests for samples within two weeks after receipt of this notification to the local Power Integrations sales office.

Qualification Project: E160604



Appendix 1 Reliability Engineering Qualification Report

# Project Title: Qualification of Unisem for SMD-8B Package Products

# **Qual Summary:**

Reliability testing was performed to qualify SMD-8B package products for assembly at Unisem in Ipoh, Malaysia. All required reliability tests were completed with passing results. Yield analysis and assembly-level testing were completed with acceptable results. Based on these results, Unisem is qualified for assembly of all SMD-8B package products.

Qualification Vehicles: TNY264GN, TNY268GN, LNK306GN, LNK3206G

#### **Reliability Test Descriptions and Conditions**

Test Name	Conditions	<b>Reference Specification</b>
TMCL (Temperature Cycle, Air to Air)	-65°C to +150°C, air to air	EIA/JESD22-A104
DOPL (Dynamic Operating Life Test)	Tj=125°C, Vd <sub>(peak)</sub> = 580V	EIA/JESD22-A108
HTRB (High Temperature Reverse Bias)	150°C, Vd = 580V, Vbp = 5.4V	EIA/JESD22-A101
THBT (Temperature Humidity Bias Test)	85°C, 85% RH, Vd=30V, Vbp = 5.4V	EIA/JESD22-A101
HALT (Humidity Accelerated Life Test)	DOPL at Tj=115°C, 85% RH	Internal Standard
HTSL (High Temperature Storage Life)	Ta=150°C, unbiased	EIA/JESD22-A103
MSL4 Preconditioning	24-hr 150C bake → 96-hr 30°C, 60% RH soak → 3 passes 260C solder reflow	IPC/JEDEC J-STD-020

# TMCL (Temperature Cycling)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
TNY264GN	0N494A	E131007	MSL4 + 1000 cycles	0/45
TNY268GN	0M315B	E131007	MSL4 +1000 cycles	0/45
LNK306GN	3Q757J	E143605	MSL4 +1000 cycles	0/45
LNK306GN	3Q757K	E143605	MSL4 +1000 cycles	0/45
LNK306GN	3Q757L	E143605	MSL4 +1000 cycles	0/45
LNK306GN	3R100F	E143605	MSL4 +1000 cycles	0/45
LNK306GN	3R100G	E143605	MSL4 +1000 cycles	0/45
LNK306GN	3R100H	E143605	MSL4 +1000 cycles	0/45
LNK3206G	4Q436F	E160604	MSL4 +1000 cycles	0/45

### DOPL (Dynamic Operating Life)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
LNK3206G	4Q436F	E160604	MSL4 +1000 hours	0/45

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## HTRB (High Temperature Reverse Bias)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
LNK3206G	4Q436F	E160604	MSL4 +1000 hours	0/45

## **THBT (Temperature Humidity Bias)**

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
LNK3206G	4Q436F	E160604	MSL4 +1000 hours	0/45

## HALT (Humidity Accelerated Life Test)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
LNK3206G	4Q436F	E160604	MSL4 +1000 hours	0/20

## HTSL (High Temperature Storage Life)

Product		Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
LNK32060	3	4Q436F	E160604	MSL4 +1000 hours	0/45

**Conclusion**: Based on passing qualification results, Unisem is approved for assembly of all Power Integrations SMD-8B package products.

## CUSTOMER ACKNOWLEDGEMENT

Power Integrations requests you acknowledge the receipt of the above-mentioned PCN. If no acknowledgment is received within 30 days of this notification, Power Integrations will assume the change is acceptable. Lack of any additional response within 90 days of this notification further constitutes acceptance of the change.

Power Integrations reserves the right to ship either version manufactured after the effective date.

If you have any questions or need further assistance, please contact your regional Power Integrations sales office. Otherwise, please check the box below, acknowledging the receipt of the PCN.

The indicated Product/Process Change Notification was received by the undersigned authority.

Name/Title:		
Signature:	Date:	
Email Address/Phone#:		
Company/Location:		
CUSTOMER COMMENTS		

Please email this signed form to <u>pcn@power.com</u> specifying the PCN# in the subject.