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Control No. PCN-17251 **July 20, 2017**

PRODUCT/PROCESS CHANGE NOTIFICATION

TYPE OF CHANGE: ☐ **Design** ☒ **Manufacturing** ☐ **Other**

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

DESCRIPTION OF CHANGE

Seiko Epson, Sakata, Japan is added as an alternative wafer fab site for *TopSwitch™-HX* and *TopSwitch™-JX* products listed below. Seiko Epson, Sakata, Japan is one of the qualified wafer fab sites of Power Integrations products. There is neither change in technology nor the bill of materials.

REASON FOR CHANGE

Improve manufacturing flexibility and diversification of manufacturing sites.

PRODUCTS AFFECTED

Family	Part Numbers	Package
TopSwitch™-HX	TOP253EG, TOP253EN, TOP253ENAU, TOP253EN0004, TOP253EN0105	eSIP-7C
	TOP253GN	SMD-8C
	TOP253PG, TOP253PN, TOP253PNAU, TOP253PN0004, TOP253PN0105, TOP253PN0152, TOP253PN0166;	PDIP-8C
TopSwitch™-JX	TOP264EG, TOP266EG, TOP266EGAU, TOP266EG0004, TOP267EG, TOP267EG0068, TOP271EG	eSIP-7C
	TOP264KG, TOP266KG, TOP267KG, TOP271KG	eSOP-12B
	TOP264VG, TOP264VGAU, TOP266VG, TOP266VGAU, TOP266VG0054, TOP267VG, TOP267VGAU, TOP267VG0054, TOP267VG0068, TOP271VG	eDIP-12B

QUALIFICATION STATUS

See Appendix 1 for the qualification report.

EFFECT ON CUSTOMER

No adverse impact is expected in customers' applications. The product will be guaranteed to meet the datasheet limits.

EFFECTIVE DATE

October 20, 2017. This date is subject to change. Products fabricated at the current locations will continue to be shipped after the addition.

SAMPLE AVAILABILITY

Samples are available upon request.

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Appendix 1
Reliability Engineering
Qualification Report

Qualification Project: E172410

Project Title: TopSwitch-HX and TopSwitch-JX Seiko Epson Wafer Fabrication Qualification

Summary:

TOPSwitch-HX and TOPSwitch-JX products were subjected to reliability stress testing to qualify wafer fabrication in the the Seiko Epson (SEC), Sakata, Japan six inch wafer fab. Each qualification lots passed all selected reliability stress tests. A representative selection of devices across each product family were selected and subjected to full temperature characterization, yield and applications analysis with acceptable results obtained.

Based on these results, all TOPSwicth-HX and TOPSwitch-JX products are now approved for wafer fabrication in the Seiko Epson six inch wafer fab.

Reliability Test Descriptions and Conditions

Test Name	Conditions	Reference Specification
DOPL (Dynamic Operating Life Test)	Tj=125°C, Switching Powe Supply Configuration, Vd(peak) = 560V	EIA/JESD22-A108D
HTRB (High Temp Reverse Bias Test)	Ta=150°C; off-state bias, Vd = 560V	EIA/JESD22-A108D
THBT (Temperature Humidity Bias Test)	85°C, 85% RH; off-state bias, Vd = 30V	EIA/JESD22-A101C
TMCL (Temperature Cycle, Air to Air)	-40°C to +125°C, air-to=air	EIA/JESD22-A104D
HALT (Highly Accelerated Life Test	DOPL at Ta = 85°C, 85% RH, Tj=115C	EIA/JESD22-A103D

DOPL (Dynamic Operating Life)

Product	Lot	Package	Test Duration	Failures/Sample Size
TOP261EG	0Z058D	eSIP-7C	1000 hours	0/47
TOP261EG	3R218D	eSIP-7C	1000 hours	0/47
TOP261EG	3T907B	eSIP-7C	1000 hours	0/47
TOP261EG	3T907C	eSIP-7C	1000 hours	0/47
TOP267VG	4X816A	eSOP-12	1000 hours	0/47
TOP253PG	4X846A	PDIP-8C	1000 hours	0/47

HTRB (High Temperature Reverse Bias)

Product	Lot	Package	Test Duration	Failures/Sample Size
TOP261EG	0G127I	eSIP-7C	1000 hours	0/47
TOP261EG	0M636C	eSIP-7C	1000 hours	0/47
TOP261EG	0Z058D	eSIP-7C	1000 hours	0/47

THBT (Temperature Humidity Bias)

Product	Lot	Package	Test Duration	Failures/Sample Size
TOP261EG	0G127A	eSIP-7C	1000 hours	0/47
TOP261EG	0G127I	eSIP-7C	1000 hours	0/47
TOP261EG	0Z058D	eSIP-7C	1000 hours	0/47

TMCL (Temperature Cycling)

Product	Lot	Package	Test Duration	Failures/Sample Size
TOP261EG	0A357I	eSIP-7C	850 cycles	0/47
TOP261EG	0Z058D	eSIP-7C	850 cycles	0/47
TOP261EG	5Z117A	eSIP-7C	850 cycles	0/47

HALT (Highly Accelerated Life Test)

Product	Lot	Package	Test Duration	Failures/Sample Size
TOP261EG	0G127I	eSIP-7C	1000 hours	0/20
TOP261EG	0Z058D	eSIP-7C	1000 hours	0/20
TOP261EG	0Z058D	eSIP-7C	1000 hours	0/20
TOP261EG	3R218D	eSIP-7C	1000 hours	0/20

Conclusion: Based on the above qualification results, all TOPSwicth-HX and TOPSwicth-JX products are now approved for wafer fabrication in the Seiko Epson (SEC) six inch fab in Sakata, Japan

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 until the inventory of the earlier version has been depleted.

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

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