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Control No. PCN-18402

October 12, 2018

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

Power Integrations is adding Lapis Kagoshima, Japan factory for the fabricating of the products listed in this notification. There is no change in the wafer technology, bills of materials or final test program.

REASON FOR CHANGE

Addition of an alternative production line for increased manufacturing capacity and flexibility.

PRODUCTS AFFECTED

Product Family	Part Numbers	Package
InnoSwitch	SC1205K1, SC1229K, SC1229K0044, SC1229K1	eSOP-R16B
InnoSwitch-CH	INN2005K0044	eSOP-R16B
InnoSwitch-CP	INN2215K	eSOP-R16B

QUALIFICATION STATUS

Refer to Appendix 1 for the qualification data.

EFFECT ON CUSTOMER

No adverse impact is expected in manufacturers' applications and there is no change in the datasheet. The product will be guaranteed to meet the datasheet limits.

EFFECTIVE DATE

January 14, 2019. This date is subject to change. Products assembled at the current wafer fab site will continue to be shipped after implementation of the above change.

SAMPLE AVAILABILITY

Samples will be available 12 weeks from the date of request.

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Project Title: Qualification for InnoSwitch Products Lapis Kagashima Wafer Fab
Qual Summary:

Reliability testing was performed on three InnoSwitch lots to qualify wafer fabrication of these products in the Lapis Kagoshima, Japan wafer fab. All required reliability tests were completed with passing results. Yield analysis and assembly-level testing were completed with acceptable results. Based on these results, the Kagoshima fab is qualified for wafer fabrication of all InnoSwitch products (InnoSwitch, InnoSwitch-CH and InnoSwitch-CP).

Qualification Vehicles: INN2215K

Reliability Test Descriptions and Conditions

Test Name	Conditions	Reference Specification
DOPL (Dynamic Operating Life Test)	T _j =125°C, V _{d(peak)} =580V	EIA/JESD22-A108
THBT (Temperature Humidity Bias Test)	85°C, 85% RH, V _d =30V, V _{bp} = V _{Shunt}	EIA/JESD22-A101
TMCL (Temperature Cycle, Air to Air)	-40°C to +125°C, air to air	EIA/JESD22-A104
HALT (Humidity Accelerated Life Test)	T _j =115°C, 85% RH, V _{d(peak)} =580V	Internal Standard
HTSL (High Temperature Storage Life)	T _a =150°C, unbiased	EIA/JESD22-A103
MSL3 Preconditioning	24-hr 150C bake → 192-hr 30°C, 60% RH soak → 3 passes 260C solder reflow	IPC/JEDEC J-STD-020

DOPL (Dynamic Operating Life)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
INN2215K	7D970A	E182601	MSL3 + 1000 hours	0/77
INN2215K	7F426A	E182601	MSL3 + 1000 hours	0/77
INN2215K	7G051A	E182601	MSL3 + 1000 hours	0/77

THBT (Temperature Humidity Bias)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
INN2215K	7D970A	E182601	MSL3 + 1000 hours	0/77
INN2215K	7F426A	E182601	MSL3 + 1000 hours	0/77
INN2215K	7G051A	E182601	MSL3 + 1000 hours	0/77

TMCL (Temperature Cycling)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
INN2215K	7D970A	E182601	MSL3 + 850 cycles	0/77
INN2215K	7F426A	E182601	MSL3 + 850 cycles	0/77
INN2215K	7G051A	E182601	MSL3 + 850 cycles	0/77

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HTSL (High Temperature Storage Life)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
INN2215K	7D970A	E182601	MSL3 + 1000 hours	0/77
INN2215K	7F426A	E182601	MSL3 + 1000 hours	0/77
INN2215K	7G051A	E182601	MSL3 + 1000 hours	0/77

HALT (Humidity Accelerated Life Test)

Product	Lot #	Rel Reference #	Test Duration	No. Failures/Sample Size
INN2215K	7D970A	E182602	MSL3 + 1000 hours	0/20
INN2215K	7F426A	E182602	MSL3 + 1000 hours	0/19 (Note 1)
INN2215K	7G051A	E182602	MSL3 + 1000 hours	0/20

Note 1: Sample size reduced as S/N 20 was damaged by faulty transformer on HALT board.

Conclusion: Based on these results, the Lapis Kagoshima fab is qualified for wafer fabrication of all InnoSwitch products (InnoSwitch, InnoSwitch-CH and InnoSwitch-CP).

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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 pcn@power.com specifying the PCN# in the subject.

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