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Control No. PCN-20111

March 25, 2020

**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, an existing qualified factory in Japan for the fabricating of products listed in this notification.

**REASON FOR CHANGE**

Improve manufacturing flexibility and diversification of manufacturing sites.

**PRODUCTS AFFECTED**

Product Family	Part Numbers	Package
InnoSwitch3-CE	SC1537C, SC1546C-HC15, INN3162C-H101, INN3162C-H102, INN3162C-H113, INN3162C-H114, INN3163C-H101, INN3163C-H102, INN3163C-H113, INN3163C-H114, INN3164C-H101, INN3164C-H102, INN3164C-H107, INN3164C-H111, INN3164C-H113, INN3164C-H114, INN3165C-H101, INN3165C-H102, INN3165C-H103, INN3165C-H104, INN3165C-H105, INN3165C-H109, INN3165C-H113, INN3165C-H114, SC1533C	InSOP-24D
	SC1542K	eSOP-R16B
InnoSwitch3-CP	INN3264C-H201, INN3264C-H202, INN3264C-H220, INN3265C-H201, INN3265C-H202, INN3265C-H211, INN3265C-H214, INN3265C-H216, INN3274C-H201, INN3274C-H202, INN3275C-H201, INN3275C-H202, INN3275C-H202, INN3275C-H211, INN3275C-H213, SC1540C, SC1544C-H010, SC1544C, SC1548C-H016, SC1548C-H023, SC1548C-HC32, SC1549C-HC30, SC1606C-H016, SC1606C	InSOP-24D
InnoSwitch3-EP	INN3672C-H601, INN3672C-H602, INN3672C-H606, INN3673C-H601, INN3673C-H602, INN3673C-H606, INN3674C-H601, INN3674C-H602, INN3674C-H606, INN3675C-H601, INN3675C-H602, INN3675C-H603, INN3675C-H604, INN3675C-H605, INN3675C-H606	InSOP-24D
InnoSwitch3-Pro	INN3365C-H301, INN3365C-H302, INN3375C-H301, INN3375C-H302, SC1702C, SC1707C, SC1709C, SC1712C-H014	InSOP-24D
InnoSwitch3-LT	SC1565K, SC1567K0184, SC1567K, SC1652, SC1852K, SC1914K	eSOP-R16B
InnoSwitch3-MX	INN3464C0245, INN3464C-H401, INN3464C, INN3465C0245, INN3465C-H401, INN3465C, INN3475C, SC1881C-H401, SC1881C, SC1883C-H401, SC1883C	InSOP-24D

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Product Family	Part Numbers	Package
LYTSwitch-3	LYT3314D, LYT3315D, LYT3316D, LYT3318D, LYT3324D, LYT3325D, LYT3326D, LYT3328D	SO-16B
LYTSwitch-5	LYT5216D, LYT5218D, LYT5225D, LYT5226D, LYT5228D	SO-16B
LYTSwitch-6	LYT6063C, LYT6065C, LYT6073C, LYT6075C	InSOP-24D

**QUALIFICATION STATUS**

See Appendix 1 for the qualification report.

**EFFECT ON CUSTOMER**

No adverse impact is expected in the manufacturers' applications. There is no change to the datasheet.

**EFFECTIVE DATE**

June 25, 2020. This date is subject to change. Products fabricated at the current wafer foundry sites will continue to be shipped after the implementation of the above change.

**SAMPLE AVAILABILITY**

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

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*Appendix 1*  
*Reliability Engineering*  
*Qualification Report*

*Qualification Project: E195002*

**Project Title: InnoSwitch3 and LYTSwitch-6 Products Additional MOSFET Fabrication Site Qualification**

**Qual Summary:**

Reliability testing was performed to qualify Lapis Kagoshima as an additional wafer foundry for the power MOSFET used in select InnoSwitch3 and LYTSwitch-6 products (see Products Affected List). Reliability testing was performed on three lots of InnoSwitch3 lots and three lots of DL708BCR test vehicle for qualification of the MOSFET fabricated at the new site and all reliability. Stress tests were completed with acceptable results. Yield analysis and characterization were completed on representative products from each product family with acceptable results. Based on these results, Lapis Kagoshima is qualified for fabrication of the power MOSFET for the affected InnoSwitch3 and LYTSwitch-6 products.

Qualification Vehicles: INN3375C, DL708BCR (Kit Part, MOSFET in InSOP-24D package, controllers not connected)

**Reliability Test Descriptions and Conditions**

Test Name	Conditions	Reference Specification
DOPL (Dynamic Operating Life Test)	Tj=125°C, Vd <sub>(peak)</sub> =580V (80% Rated BVDSS)	EIA/JESD22-A108
THBT (Temperature Humidity Bias Test)	85°C, 85% RH, Vd=30V	EIA/JESD22-A101
TMCL (Temperature Cycle, Air to Air)	-40°C to +125°C, air to air	EIA/JESD22-A104
HTSL (High Temperature Storage Life)	Ta=150°C, unbiased	EIA/JESD22-A103
HALT (Humidity Accelerated Life Test)	DOPL at Tj=115°C, 85% RH, Vd <sub>(peak)</sub> =580V (80% Rated BVDSS)	Internal Standard
HTRB (High Temperature Reverse Bias)	Ta=150°C, Vd=580V, Vg=0V	EIA/JESD22-A108
HTGB (High Temperature Gate Bias)	Ta=150°C, Vg=20V, Vd=Vd=0V	EIA/JESD22-A108
MSL3 Preconditioning	24-hr 150°C Bake + 40-hr 60°C, 60% RH Moisture Soak + 3 Passes 260°C Solder Reflow	EIA/JESD22-A113

**DOPL (Dynamic Operating Life)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3375C	M8T066D	InSOP-24D	1000 hours	0/77
INN3375C	M8U003B	InSOP-24D	1000 hours	0/77
INN3375C	M8U183B	InSOP-24D	1000 hours	0/77

**THBT (Temperature Humidity Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3375C	M8T066D	InSOP-24D	MSL3 + 1000 hours	0/77
INN3375C	M8U003B	InSOP-24D	MSL3 + 1000 hours	0/77
INN3375C	M8U183B	InSOP-24D	MSL3 + 1000 hours	0/77

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**TMCL (Temperature Cycling)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3375C	M8T066D	InSOP-24D	MSL3 + 850 cycles	0/77
INN3375C	M8U003B	InSOP-24D	MSL3 + 850 cycles	0/77
INN3375C	M8U183B	InSOP-24D	MSL3 + 850 cycles	0/77

**HTSL (High Temperature Storage Life)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3375C	M8T066D	InSOP-24D	1000 hours	0/77
INN3375C	M8U003B	InSOP-24D	1000 hours	0/77
INN3375C	M8U183B	InSOP-24D	1000 hours	0/77

**HALT (Humidity Accelerated Life Test)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3375C	M8T066D	InSOP-24D	MSL3 + 500 hours	0/20
INN3375C	M8U003B	InSOP-24D	MSL3 + 500 hours	0/20
INN3375C	M8U183B	InSOP-24D	MSL3 + 500 hours	0/20

**HTRB (High Temperature Reverse Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
DL708BCR	M8W236A	InSOP-24D	1000 hours	0/45
DL708BCR	M8W112A	InSOP-24D	1000 hours	0/45
DL708BCR	M8W111A	InSOP-24D	1000 hours	0/45

**HTGB (High Temperature Gate Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
DL708BCR	M8W236A	InSOP-24D	1000 hours	0/45
DL708BCR	M8W112A	InSOP-24D	1000 hours	0/45
DL708BCR	M8W111A	InSOP-24D	1000 hours	0/45

**Conclusion:** Based on acceptable qualification results, Lapis Kagoshima is qualified for fabrication of the power MOSFET for selected InnoSwitch3 and LYTSwitch3 products (see Products Affected List).

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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 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](mailto:pcn@power.com) specifying the PCN# in the subject.

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