

Control No. PCN-20422

November 2, 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

Lapis Semiconductor Company Limited, Miyagi, Japan, an existing qualified wafer fabrication site, will be added as an alternative site for the products listed in this notification.

#### REASON FOR CHANGE

Improvement in the manufacturing capacity and flexibility.

#### PRODUCTS AFFECTED

Product Family	Part Number	Package
LinkSwitch-XT2	LNK3604D	SO-8C
	LNK3604G	SMD-8C
	LNK3604P	PDIP-8C

#### QUALIFICATION STATUS

Refer to Appendix 1 for the qualification data.

#### EFFECT ON CUSTOMER

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

#### EFFECTIVE DATE

February 2, 2021. This date is subject to change. Products fabricated at the current wafer fabrication site will continue to be shipped after implementation of the above change.

#### SAMPLE AVAILABILITY

Samples will be available 8 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.

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**Project Title: LinkSwitch-XT2 Lapis Miyagi Wafer Fab Transfer Qualification**

**Qual Summary:**

Reliability testing was performed to qualify Lapis Miyagi (Japan) for wafer fabrication of LinkSwitch-XT2 products. Reliability testing was performed using a LinkSwitch-TN2 product which is highly similar to the LinkSwitch-XT2. Three lots of LNK3206G were subjected to a full suite of reliability stress tests with passing results in all cases. Representative LinkSwitch-XT2 products were subjected to yield and temperature characterization testing with acceptable results. Based on these results, LinkSwitch-XT2 products are now qualified for wafer fabrication at Lapis Miyagi.

Qualification Vehicle: LNK3206G

**Reliability Test Descriptions and Conditions**

Test Name	Conditions	Reference Specification
DOPL (Dynamic Operating Life Test)	T <sub>j</sub> =125°C, V <sub>d(peak)</sub> =580V	EIA/JESD22-A108
THBT (Temperature Humidity Bias Test)	85°C, 85% RH, V <sub>d</sub> =100V	EIA/JESD22-A101
TMCL (Temperature Cycle, Air to Air)	-40°C to +125°C, air to air	EIA/JESD22-A104
Unbiased Highly Accelerated Stress Test (UHAST)	T <sub>a</sub> =130°C, 85% RH, unbiased	EIA/JESD22-A102
Power Temperature Cycle (PTC)	-40°C to +125°C, air to air, V <sub>d</sub> =100V	EIA/JESD22-A105
HTSL (High Temperature Storage Life)	T <sub>a</sub> =150°C, unbiased	EIA/JESD22-A103
MSL3 Preconditioning	24-hr 150°C Bake + 192-hr 30°C, 60% RH Moisture Soak + 3 Passes 260°C Solder Reflow	EIA/JESD22-A113

**DOPL (Dynamic Operating Life Test)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LNK3206G	8S529A	SMD-8C	1000 hours	0/77
LNK3206G	8T175A	SMD-8C	1000 hours	0/77
LNK3206G	8T524A	SMD-8C	1000 hours	0/77

**THBT (Temperature Humidity Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LNK3206G	8S529A	SMD-8C	MSL3 + 1000 hours	0/77
LNK3206G	8T175A	SMD-8C	MSL3 + 1000 hours	0/77
LNK3206G	8T524A	SMD-8C	MSL3 + 1000 hours	0/77

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**THBT (Temperature Humidity Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LNK3206G	8S529A	SMD-8C	MSL3 + 1000 hours	0/77
LNK3206G	8T175A	SMD-8C	MSL3 + 1000 hours	0/77
LNK3206G	8T524A	SMD-8C	MSL3 + 1000 hours	0/77

**TMCL (Temperature Cycling)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LNK3206G	8S529A	SMD-8C	MSL3 + 850 cycles	0/77
LNK3206G	8T175A	SMD-8C	MSL3 + 850 cycles	0/77
LNK3206G	8T524A	SMD-8C	MSL3 + 850 cycles	0/77

**Unbiased Highly Accelerated Stress Test (UHASt)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LNK3206G	8S529A	SMD-8C	MSL3 + 96 hours	0/77
LNK3206G	8T175A	SMD-8C	MSL3 + 96 hours	0/77
LNK3206G	8T524A	SMD-8C	MSL3 + 96 hours	0/77

**Power Temperature Cycle (PTC)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LNK3206G	8T524A	SMD-8C	MSL3 + 96 hours	0/45

**HTSL (High Temperature Storage Life)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LNK3206G	8S529A	SMD-8C	1000 hours	0/45

**Conclusion:** Based on these results, LinkSwitch-XT2 products are now qualified for wafer fabrication at Lapis Miyagi.

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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**

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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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