



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

Control No. PCN-21152

April 28, 2021

**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 8-inch wafer fabrication is added as an alternative wafer fab production line of the low voltage power-switch die (LVFET) of the multi-die products listed in the table below. Seiko Epson, Sakata, Japan is one of the qualified 8-inch wafer fabrication sites of Power Integrations products.

**REASON FOR CHANGE**

Improve manufacturing flexibility and diversification of manufacturing sites.

**PRODUCTS AFFECTED**

Product Family	Part Number
InnoSwitch3-CP	INN3270C-H114-TL, INN3270C-H203-TL, INN3270C-H215-TL, INN3270C-H217-TL, INN3270C0255-H114-TL, INN3270C0255-H215-TL, INN3278C-H114-TL, INN3278C-H215-TL, INN3278C-H217-TL, INN3278C-H232-TL, INN3279C-H114-TL, INN3279C-H215-TL, INN3279C-H217-TL, INN3279C-H218-TL, INN3279C-H222-TL, SC1910C-TL, SC1933C-H114-TL, SC1933C-H215-TL, SC1933C-H217-TL, SC1933C-H218-TL, SC1936C-H114-TL, SC1936C-H215-TL, SC1936C-H217-TL, SC1957C-H004-TL, SC1957C-H005-TL, SC1972C-H058-TL
InnoSwitch3-EP	INN3670C-H605-TL, INN3670C-H606-TL, INN3670C-H615-TL, INN3678C-H605-TL, INN3678C-H606-TL, INN3679C-H605-TL, INN3679C-H606-TL, SC1933C-H025-TL, SC1933C-H605-TL, SC1933C-H606-TL, SC1936C-H605-TL, SC1936C-H606-TL
InnoSwitch3-MX	INN3470C-TL, INN3478C-TL, INN3479C-TL
InnoSwitch3-Pro	INN3370C-H302-TL, INN3370C-H309-TL, INN3370C-H310-TL, INN3370C0255-H302-TL, INN3378C-H302-TL, INN3378C0255-H302-TL, INN3378C-H311-TL, INN3379C-H302-TL, INN3379C-H308-TL, INN3370C-H313-TL, SC1919C-TL, SC1920C-TL, SC1922C-TL, SC1923C-H006-TL, SC1951C-H302-TL, SC1952C-H302-TL, SC1981C-TL, SC1992C-H055-TL
InnoSwitch4-CZ	INN4073C-H181-TL, INN4073C-H182-TL, INN4073C-H183-TL, INN4073C-H184-TL, INN4073C-H185-TL, INN4073C-H186-TL, INN4074C-H181-TL, INN4074C-H182-TL, INN4074C-H183-TL, INN4074C-H184-TL, INN4074C-H185-TL, INN4074C-H186-TL, INN4075C-H181-TL, INN4075C-H182-TL, INN4075C-H183-TL, INN4075C-H184-TL, INN4075C-H185-TL, INN4075C-H186-TL
LYTSwitch-6	LYT6070C-H125-TL, LYT6070C-H127-TL, LYT6070C-H129-TL, LYT6070C-H131-TL, LYT6070C-TL, LYT6078C-TL, LYT6079C-H125-TL, LYT6079C-H127-TL, LYT6079C-H129-TL, LYT6079C-H131-TL, LYT6079C-TL, SC1958C-TL

**CONFIDENTIAL**

**QUALIFICATION STATUS**

See Appendix 1 for the qualification report.

**EFFECT ON CUSTOMER**

No adverse impact is expected in customers' applications. The product meets the datasheet limits.

**EFFECTIVE DATE**

July 28, 2021. This date is subject to change. Products fabricated at the current locations will continue to be shipped after the addition.

**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. For manufacturers that request samples, an accommodation will be made in order to allow time of customer's qualification in a case-specific manner.

**CONFIDENTIAL**



Appendix 1  
Reliability Engineering  
Qualification Report

Qualification Project: E204904

<b>Project Title: Qualification of LVFET Die from SET Wafer Fab</b>
<b>Qual Summary:</b>  Reliability testing was performed to qualify LVFET die from SET (Seiko Epson, Sakata, Japan 8-inch wafer fab) for use with product families using PowiGaN switch technology. The PowiGaN switch is comprised of the LVFET and a GaN device in cascode configuration. Reliability testing was completed on three InnoSwitch3-MX qualification lots using the SET LVFET with passing results obtained. Yield and temperature characterization were performed on each product with acceptable results. Based on these results, the SET LVFET is qualified for use with InnoSwitch3-CP/EP, InnoSwitch3-MX, InnoSwitch3-Pro, InnoSwitch4-CZ and LYTSwitch-6 product families.
Qualification Vehicles: INN3478C, IN3479C, INN3470C

**Reliability Test Descriptions and Conditions**

Test Name	Conditions	Reference Specification
DOPL (Dynamic Operating Life Test)	Tj=125°C, Vd_peak=650V, Vsupply = VBP	EIA/JESD22-A108
HALT (Humidity Accelerated Life Test)	Vd = 520V ; Tj=115°C, 85% RH	Internal Standard
HTRB (High Temperature Reverse Bias)	Ta=150°C, Vd=520V, static off-state bias	EIA/JESD22-A108
THBT (Temperature Humidity Bias Test)	85°C, 85% RH, Vd=100V	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
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 Test)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45
INN3479C	M9P147A	INSOP-24D	MSL3 + 1000 hours	0/45
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45

**HALT (Humidity Accelerated Life Test)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/20
INN3479C	M9P147A	INSOP-24D	MSL3 + 1000 hours	0/20
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/20

CONFIDENTIAL

**HTRB (High Temperature Reverse Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45
INN3479C	M9P147A	INSOP-24D	MSL3 + 1000 hours	0/45
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45

**THBT (Temperature Humidity Bias)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45
INN3479C	M9P147A	INSOP-24D	MSL3 + 1000 hours	0/45
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45

**TMCL (Temperature Cycling)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3478C	M9P225A	INSOP-24B	MSL3 + 850 cycles	0/45
INN3479C	M9P147A	INSOP-24D	MSL3 + 850 cycles	0/45
INN3478C	M9P225A	INSOP-24B	MSL3 + 850 cycles	0/45

**HTSL (High Temperature Storage Life)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45
INN3479C	M9P147A	INSOP-24D	MSL3 + 1000 hours	0/45
INN3478C	M9P225A	INSOP-24B	MSL3 + 1000 hours	0/45

**Conclusion:** Based on these results, the SET LVFET is qualified for use with InnoSwitch3-CP/EP, InnoSwitch3-MX, InnoSwitch3-Pro, InnoSwitch4-CZ and LYTSwitch-6 product families..

<b>CONFIDENTIAL</b>
---------------------

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

**CONFIDENTIAL**