



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

Control No. PCN-22111

October 12, 2022

PRODUCT/PROCESS CHANGE NOTIFICATION

TYPE OF CHANGE: Design Manufacturing Other

This notification is being 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

Alternative PowiGaN Switch option will be added to Seiko Epson, Sakata, Japan, an existing qualified wafer fabrication site, for the product families listed in the table below.

REASON FOR CHANGE

Capacity Expansion.

PRODUCTS AFFECTED

Product Family	Ordering Part Number	Package Type
ClampZero	CPZ1076M, CPZ1076M-TL	MinSOP-16A
InnoSwitch3	INN3278C-H114-TL , INN3278C-H215-TL, INN3278C-H217-TL, INN3278C-H232-TL, INN3678C-H605-TL, INN3678C-H606-TL, INN3678C0209-H606-TL, INN3678C0253-H606-TL, INN3279C-H114-TL, INN3279C-H215-TL, INN3279C-H217-TL, INN3279C-H218-TL, INN3279C-H222-TL, INN3279C-H235-TL, INN3679C-H605-TL, INN3679C-H606-TL, SC1910C-TL, SC1910C-H056-TL, SC1933C-H025-TL, SC1933C-H114-TL, SC1933C-H215-TL, SC1933C-H217-TL, SC1933C-H218-TL, SC1933C-H605-TL, SC1933C-H606-TL	InSOP-24D
InnoSwitch3-MX	INN3478C-TL, INN3479C-TL	InSOP-24D
InnoSwitch3-PD	INN3878C-H801-TL, INN3878C-H802-TL, INN3878C-H804-TL, INN3879C-H801-TL, INN3879C-H803-TL	InSOP-24D

CONFIDENTIAL

Product Family	Ordering Part Number	Package Type
InnoSwitch3-Pro	INN3378C-H302-TL, INN3378C-H311-TL, INN3378C0255-H302-TL, INN3379C-H302-TL, INN3379C-H308-TL, SC1800C-H064-TL, SC1810C-H076-TL, SC1920C-TL, SC1992C-H055-TL, SC1951C-H302-TL	InSOP-24D
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	InSOP-24D
LYTSwitch-6	LYT6078C-TL, LYT6079C-TL, LYT6079C-H125-TL, LYT6079C-H127-TL, LYT6079C-H129-TL, LYT6079C-H131-TL	InSOP-24D
LYTSwitch-8	LYT8378C-TL, LYT8678C-TL, LYT8878C-TL	InSOP-24B
MinE-CAP	MIN1072M, MIN1072M-TL	MinSOP-16A

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 parameters.

EFFECTIVE DATE

January 2, 2023. The 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 on November 11, 2022. Please send the request for samples within two weeks after receipt of this notification to the local Power Integrations sales office.

CONFIDENTIAL



Appendix 1
Reliability Engineering
Qualification Report

Qualification Project: E214501

Project Title: Seiko Epson PowiGaN Switch Qualification**Qual Summary:**

Reliability testing was performed to qualify wafer fabrication of PowiGaN switches at the Seiko Epson wafer fab in Sakata, Japan. Six InnoSwitch3-MX and InnoSwitch3-Pro qualification lots were subjected to a full suite of reliability stress tests with passing results obtained. Yield analysis and assembly-level testing were completed with acceptable results. Based on these results, Seiko Epson, Sakata is qualified for wafer fabrication of PowiGaN switches.

Qualification Vehicles: INN3479C, INN3378C, INN3379C

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)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
INN3479C	M9V136A	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136C	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136D	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578H	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3378C	M9H578I	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578F	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45

HTRB (High Temperature Reverse Bias)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
INN3479C	M9V136A	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136C	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136D	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578H	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3378C	M9H578I	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578F	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45

THBT (Temperature Humidity Bias)

CONFIDENTIAL

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
INN3479C	M9V136A	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136C	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136D	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578H	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3378C	M9H578I	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578F	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45

HTSL (High Temperature Storage Life)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
INN3479C	M9V136A	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136C	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3479C	M9V136D	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578H	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3378C	M9H578I	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45
INN3379C	M9H578F	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 45

TMCL (Temperature Cycling)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
INN3479C	M9V136A	Seiko Epson, Sakata	MSL3 + 850 cycles	0 / 45
INN3479C	M9V136C	Seiko Epson, Sakata	MSL3 + 850 cycles	0 / 45
INN3479C	M9V136D	Seiko Epson, Sakata	MSL3 + 850 cycles	0 / 45
INN3379C	M9H578H	Seiko Epson, Sakata	MSL3 + 850 cycles	0 / 45
INN3378C	M9H578I	Seiko Epson, Sakata	MSL3 + 850 cycles	0 / 45
INN3379C	M9H578F	Seiko Epson, Sakata	MSL3 + 850 cycles	0 / 45

HALT (Humidity Accelerated Life Test)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
INN3479C	M9V136A	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 20
INN3479C	M9V136C	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 20
INN3479C	M9V136D	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 20
INN3379C	M9H578H	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 20
INN3378C	M9H578I	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 20
INN3379C	M9H578F	Seiko Epson, Sakata	MSL3 + 1000 hours	0 / 20

Conclusion: Based on these results, Seiko Epson in Sakata, Japan is qualified for wafer fabrication of PowiGaN switches.

CONFIDENTIAL

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

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

CONFIDENTIAL