

Control No. PCN-21412

October 21, 2021

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

Power Integrations is adding X-Fab France SAS, located in Corbeil-Essonnes, Ile-De-France for the fabricating of the TinySwitch-4 and TinySwitch-LT products listed in this notification. There is no change in the wafer technology, bill of materials or final test program.

REASON FOR CHANGE

Improve manufacturing flexibility and diversification of manufacturing sites.

PRODUCTS AFFECTED

Product Family	Part Numbers	Package
TinySwitch-4	TNY284KG, TNY288KG, TNY288KG0152, TNY288KG0225, TNY290KG, TNY290KG0105, TNY290KG0152, TNY290KG0156	eSOP-12B
	TNY284PG, TNY288PG, TNY288PG0004, TNY288PG0164, TNY288PG0225, TNY288PG0246, TNY290PG, TNY290PG0105, TNY290PG0225	PDIP-8C
	SC1152DG, TNY178DG, TNY284DG, TNY288DG, TNY288DG0152, TNY288DG0202, TNY288DG0246	SO-8C
TinySwitch-LT	TNY178PN0242, TNY178PN0260, TNY180PN0242	PDIP-8C
	TNY178DG	SO-8C

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.

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EFFECTIVE DATE

January 21, 2022. 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: E210303

Project Title: TinySwitch-4 and TinySwitch-LT X-Fab France SAS Wafer Fab Qualification
Qual Summary:

Reliability testing was performed to qualify wafer fabrication for TinySwitch-4 and TinySwitch-LT products at X-Fab France SAS, located in Corbeil-Essonnes, Ile-De-France. Three TinySwitch-4 TNY290PG lots were subjected to a full set of reliability stress tests with passing results. Yield analysis and assembly-level testing were completed with acceptable results. Based on these results, TinySwitch-4 and TinySwitch-LT (see the Products Affected list above) are qualified for wafer fabrication at X-fab France SAS.

Qualification Vehicles: TNY290PG

Reliability Test Descriptions and Conditions

Test Name	Conditions	Reference Specification
DOPL (Dynamic Operating Life Test)	Tj=125°C, Vd _(peak) =580V, Vsupply = VBP	EIA/JESD22-A108-D
HTRB (High Temperature Reverse Bias Test)	Ta=150°C; Vd=580V, Vsupply = VBP	EIA/JESD22-A108-D
THBT (Temperature Humidity Bias Test)	85°C, 85% RH, Vd=30V, Vsupply = VBP	EIA/JESD22-A101-C
TMCL (Temperature Cycle, Air to Air)	-65°C to +150°C, air to air	EIA/JESD22-A104-E
HTSL (High Temperature Storage Life)	Ta=150°C; unbiased	EIA/JESD22-A103-D
HALT (Humidity Accelerated Life Test)	DOPL bias condition; Tj=115°C, 85% RH	Internal Standard

DOPL (Dynamic Operating Life)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
TNY290PG	AC051A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AC052A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AT735A	X-Fab France SAS	1000 hours	0 / 45

HTRB (High Temperature Reverse Bias)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
TNY290PG	AC051A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AC052A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AT735A	X-Fab France SAS	1000 hours	0 / 45

THBT (Temperature Humidity Bias)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
TNY290PG	AC051A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AC052A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AT735A	X-Fab France SAS	1000 hours	0 / 45

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HTSL (High Temperature Storage Life)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
TNY290PG	AC051A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AC052A	X-Fab France SAS	1000 hours	0 / 45
TNY290PG	AT735A	X-Fab France SAS	1000 hours	0 / 45

TMCL (Temperature Cycling)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
TNY290PG	AC051A	X-Fab France SAS	1000 cycles	0 / 45
TNY290PG	AC052A	X-Fab France SAS	1000 cycles	0 / 45
TNY290PG	AT735A	X-Fab France SAS	1000 cycles	0 / 45

HALT (Humidity Accelerated Life Test)

Product	Lot #	Wafer Fab	Test Duration	No. Failures/Sample Size
TNY290PG	AC051A	X-Fab France SAS	1000 hours	0 / 20
TNY290PG	AC052A	X-Fab France SAS	1000 hours	0 / 20
TNY290PG	AT735A	X-Fab France SAS	1000 hours	0 / 20

Conclusion: Based on these results, TinySwitch-4 and TinySwitch-LT are qualified for wafer fabrication at X-fab France.

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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

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

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