Product/process change notification

PCN N° 2022-003-A

Dear customer,

Please find attached our Infineon Technologies AG PCN:

Capacity extension for dedicated OptiMOS™5 80V & 100V products by introduction of 300mm wafer diameter at Infineon Technologies Austria AG, Austria & Infineon Technologies, Dresden for TO252 packages

Important information for your attention:

- Please respond to this PCN by indicating your decision on the approval form, sign it and return to your sales partner before **2022-11-08**
- Infineon aligns with the widely recognized JEDEC STANDARD **"JESD46",** which stipulates: **"Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change."**

Your prompt reply will help Infineon to assure a smooth and well-executed transition. If Infineon does not hear from your side by the due date, we will assume your full acceptance to this proposed change and its implementation.

Your attention and response to this matter is greatly appreciated.

On 16 April 2020, Infineon acquired Cypress.
We are now in the process of merging and consolidating our tools and processes for PCN, Information Notes, Errata and Product Discontinuance.
For further details, please visit our website:
https://www.infineon.com/cms/en/about-infineon/company/cypress-acquisition/

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▶ Products affected

Please refer to attached affected product list 1_cip22003_a

▶ Detailed change information

Subject

Introduction of 300mm wafer diameter at Infineon Technologies Dresden GmbH and Infineon Technologies Austria AG

Reason

Next phase of Front End capacity expansion by introduction of 300mm wafer diameter to support continuous increasing customer demand

Description

	Old	New
Wafer Production Site & Wafer Test	■ Infineon Technologies Austria AG, Villach, Austria (200mm)	■ Infineon Technologies Austria AG, Villach, Austria (200mm & 300mm) *and* ■ Infineon Technologies Dresden GmbH, Germany (300mm)
Wafer lot number	■ VExxxxxx (Villach,200mm)	■ VExxxxxx (Villach,200mm) VFxxxxxx (Villach,300mm) *and* ■ ZFxxxxxx (Dresden,300mm)

▶ Product identification

External traceability is assured via waferlot number & country of diffusion on the product barcode label

▶ Impact of change

NO change on electrical, thermal parameters and reliability as proven via product qualification and characterization

NO change in existing datasheet parameters

NO change in quality and reliability. Processes are optimized to meet product performance according to already applied Infineon specification

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▶ Attachments

1_cip22003_a	affected product list
2_cip22003_a	qualification report

▶ Time schedule

■ Final qualification report	available
■ First samples available	on request
■ Intended start of delivery	2022-12-05 or earlier based on customer approval

If you have any questions, please do not hesitate to contact your local sales office.

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Affected products sold to FUTURE ELECTRONICS INC. (4000624)

Sales name	SP number	OPN	Package	Customer part number
IPD046N08N5	SP001475652	IPD046N08N5ATMA1	PG-TO252-3	IPD046N08N5ATMA1
IPD050N10N5	SP001602184	IPD050N10N5ATMA1	PG-TO252-3	IPD050N10N5ATMA1

RESTRICTED

Qualification Test Report

PCN N^{o} 2022-003-A **Date: 2022-01-17**

Capacity extension for dedicated OptiMOS™5 80V & 100V products by introduction of 300mm wafer diameter at Infineon Technologies Austria AG, Austria & Infineon Technologies, Dresden for TO252 packages

Reason for choosing the following test vehicles:

IPD050N10N5 Biggest OptiMOS™5 100V chip in PG-TO252-3 in 300mm wafer diameter at Infineon Technologies Austria AG, Austria
IPD046N08N5 Biggest OptiMOS™5 80V chip in PG-TO252-3 in 300mm wafer diameter at Infineon Technologies Dresden, Germany

Scope of qualification:

Release of dedicated OptiMOS™5 80V & 100V products by introduction of 300mm wafer diameter at Infineon Technologies Austria AG, Austria & Infineon Technologies, Dresden for TO252 packages

Assessment of Q-Results:

PASS

Stress test	Abbreviation	Test conditions	Readout	IPD050N10N5	IPD046N08N5
				fails / stressed	fails / stressed
MSL Preconditioning JESD22-A113	**PC**	MSL 1	0h	0 / 484	0 / 484
Temperature Cycling JESD22-A104	**TC**	with preconditioning T=-55°C till 150°C	1000 x	0/77	0/77
Unbiased Temperature/Humidity JESD22-A118	**UHAST**	with preconditioning Ta = 130 °C, RH = 85%	96 h	0/77	0/77
High Humidity High Temp. Reverse Bias JESD22-A101	**H3TRB**	with preconditioning T = 85 °C RH = 85% VDS = 80% of VDS max	1000 h	0 / 77	0 / 77
High Temperature Reverse Bias JESD22-A108	**HTRB**	with preconditioning Tj = 175 VDS=VDS max	1000 h	0 / 77	0 / 77
High Temperature Gate stress JESD22-A108	**HTGS**	with preconditioning Ta = 175 °C VGS = ±20 V	1000 h	0 / 77	0 / 77
Intermitted Operational Life Test MIL-STD 750/Meth.1037	**IOL**	Delta T = 100 K n = 15000 cyc	1000 h	0 / 77	0 / 77