

Product/process change notification

PCN N° 2022-100-A

Dear customer,

Please find attached our Infineon Technologies AG PCN:

Introduction of an additional wafer production location at Infineon Technologies Austria AG Villach, Austria for CoolMOS™ CFD7A 650V products

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 **2023-06-15**
- 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.

Infineon Technologies AG

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Registered office Neubiberg Commercial register Amtsgericht München HRB 126492

Product/process change notification

PCN N° 2022-100-A

► Products affected

Please refer to attached affected product list
“pcn_2022-100-A_[customer-no].pdf”

► Detailed change information

Subject Introduction of an additional wafer production location at Infineon Technologies Austria AG, Villach, Austria for CoolMOS™ CFD7A 650V products.

Reason Additional capacity to ensure continuity of supply and enable flexible manufacturing

Description

<u>Old</u>	<u>New</u>
■ Infineon Technologies Dresden GmbH, Dresden, Germany	■ Infineon Technologies Dresden GmbH, Dresden, Germany or
	■ Infineon Technologies Austria AG, Villach, Austria

► Product identification

Traceability via Baunumber, Lot number; external traceability: Product Barcode Label

► Impact of change

No impact on electrical performance. Quality and reliability verified by qualification. There is no change in form, fit and function

► Attachments

“pcn_2022-100-A_[customer-no].pdf” affected product list
2_cip22100_a Qualification report

► Time schedule

■ Final qualification report	available
■ First samples available	on request
■ Intended start of delivery	2023-11-30

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

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Introduction of an additional wafer production location at Infineon Technologies Austria AG
Villach, Austria for CoolMOS™ CFD7A 650V products



Affected products sold to FUTURE ELECTRONICS INC. (4000624)

Sales name	SP number	OPN	Package	Customer part number
IPBE65R050CFD7A	SP005339090	IPBE65R050CFD7AAT MA1	PG-TO263-7-11	IPBE65R050CFD7AATMA 1

RESTRICTED

Qualification Test Report



PCN N° 2022-100-A

Date: 2023-04-28

Introduction of an additional wafer production location at Infineon Technologies Austria AG Villach, Austria for CoolMOS™ CFD7A 650V products

Reason for choosing the following test vehicles:

IPB65R050CFD7A CFD7A technology in TO263-3, big chip size, SMD
 IPB65R115CFD7A CFD7A technology in TO263-7, medium chip size, SMD
 IPB65R230CFD7A CFD7A technology in TO263-3, small chip size, SMD
 IPW65R022CFD7A CFD7A technology in TO247-3, big chip size, THD
 IPW65R050CFD7A CFD7A technology in TO247-3, medium chip size, THD
 IPW65R230CFD7A CFD7A technology in TO247-3, small chip size, THD

Scope of qualification:

CFD7A CoolMOS™ automotive products produced at Villach

Assessment of Q-Results:

pass automotive grade according to AEC Q101

Stress test	Abbreviation	Test conditions	Readout	IPB65R050CFD7A	IPB65R115CFD7A	IPB65R230CFD7A	IPW65R022CFD7A	IPW65R050CFD7A	IPW65R230CFD7A
				fails / stressed	fails / stressed	fails / stressed	fails / stressed	fails / stressed	fails / stressed
MSL Preconditioning JESD22-A113 / AEC-Q101	PC	MSL 1		0 / 462	0 / 462	0 / 462	-	-	-
Temperature Cycling JESD22-A104	TC*	-55°C - +150°C	1000 cyc	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77
Unbiased Temperature/Humidity JESD22-A118	UHAST*	Ta = 130°C, RH = 85%	96 h	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77
High Humidity High Temp. Reverse Bias JESD22-A101	H3TRB*	T = 85°C RH = 85% V = 100 V	1000 h	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77
High Temperature Reverse Bias acc. AEC-Q101; add. MIL-STD-750-1 M1038 Method A	HTRB*	Ta ≥ 150°C V ≥ 80% V _{ds} max	1000 h	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77
High Temperature Gate stress JESD22-A108	HTGS*	Ta = 150°C Vg = ±20 V	1000 h	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77
Intermittent Operational Life Test MIL-STD 750/Meth.1037	IOL*	Delta T = 100 K	15000 cyc	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77	0 / 77
ESD human body model AEC-Q100-002	ESD	HBM		Class 2 (2000V to < 4000V)	Class 2 (2000V to < 4000V)	Class 2 (2000V to < 4000V)	Class 2 (2000V to < 4000V)	Class 2 (2000V to < 4000V)	Class 2 (2000V to < 4000V)
ESD charge device model AEC-Q100-011	ESD	CDM		Class C3 (>1000V)	Class C3 (>1000V)	Class C3 (>1000V)	Class C3 (>1000V)	Class C3 (>1000V)	Class C3 (>1000V)
Resistance to Solder Heat JESD22 B106	RSH	3x Solder dipping @ 270°C, 7s (for Pb free)		-	-	-	0 / 30	-	-
Electrical Parameter Assessment JESD86	ED	Ta = -40°C/25°C/150°C		0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30

* PC is done only for SMD Packages before UHAST, TC, IOL, HTGS, HTRB and H3TRB stress tests