

Product/Process Change Notification

N° 2021-073-A

Dear customer,

Please find attached our Infineon Technologies AG PCN:

Several changes affecting products TLE986x and TLE987x

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 2022-06-23.
- 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.”
Notwithstanding the aforesaid individual agreements shall prevail.

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/>

Infineon Technologies AG

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Registered office Neubiberg Commercial register Amtsgericht München HRB 126492

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Products affected

Please refer to attached affected product list PCN_2021-073-A_[customer-no].pdf

Detailed change information

Subject: Several changes affecting products TLE986x and TLE987x

Reason/Motivation: Infineon is extending manufacturing capabilities and will enable product families at external manufacturing partners.
 Infineon has continuously extended its production capacity to meet strongly increasing market demand. This extension includes not only building up of new fabs or new lines but also optimization of production location and usage of outsourcing if necessary.
 Infineon is ensuring business continuity and high supply security by optimizing and streamlining its production.

Description	Old	New
DATA SHEET: Change of datasheet parameters/electrical specification (min./max./typ. values) and/or AC/DC specification	Rev. 1.1	Rev. 2.0 (links see 5_cip21073_A)
DATA SHEET: Specification of additional parameters	Rev. 1.1	Rev. 2.0 (links see 5_cip21073_A)
DESIGN: Design changes in active elements	M9860B (Dresden)	M9860B (Dresden) AND M9860U (UMC)
DESIGN: Design changes in routing	M9860B (Dresden)	M9860B (Dresden) AND M9860U (UMC)
DESIGN: Firmware modification	M9860B (Dresden)	M9860B (Dresden) AND M9860U (UMC)
PROCESS - WAFER PRODUCTION: New wafer diameter	200 mm (Dresden)	200 mm (Dresden) AND 300 mm (UMC)
PROCESS - WAFER PRODUCTION: New final wafer thickness	220 μm (Dresden)	220 μm (Dresden) AND 230 μm (UMC)

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<p>PROCESS - WAFER PRODUCTION: New / change of metallization / vias / contacts</p>	<p>NiMoP</p>	<p>NiMoP AND Pro.Cu</p>
<p>PROCESS - WAFER PRODUCTION: Change in process technology not covered by any other type of change</p>	<p>Old process flow</p>	<p>Old process flow AND New process flows</p>
<p>PROCESS - WAFER PRODUCTION: Move all or parts of production to a different wafer fab site</p>	<p>Locations: Dresden Split Flow: Infineon Technologies Dresden GmbH, Dresden, Germany Infineon Technologies AG, Regensburg, Germany</p>	<p>Locations: Dresden Split Flow (200mm): Infineon Technologies Dresden GmbH, Dresden, Germany Infineon Technologies AG, Regensburg, Germany</p> <p>AND</p> <p>UMC Split Flow 1 (300mm): United Microelectronics Corporation, Tainan, Taiwan Infineon Technologies Dresden GmbH, Dresden, Germany</p> <p>AND</p> <p>UMC Split Flow 2 (300mm): United Microelectronics Corporation, Tainan, Taiwan Infineon Technologies Dresden GmbH, Dresden, Germany Infineon Technologies AG, Regensburg, Germany</p>
<p>PROCESS - ASSEMBLY: Change in leadframe dimensions</p>	<p>PG-VQFN-48-29/31 (Melaka)</p>	<p>PG-VQFN-48-29/31 (Melaka) AND PG-VQFN-48-79 (Amkor)</p>
<p>PROCESS - ASSEMBLY: Change of lead frame finishing material / area (internal)</p>	<p>PG-VQFN-48-29/31 (Melaka)</p>	<p>PG-VQFN-48-29/31 (Melaka) AND PG-VQFN-48-79 (Amkor)</p>
<p>PROCESS - ASSEMBLY: Die attach material</p>	<p>CRM1079S (Melaka)</p>	<p>CRM1079S (Melaka) AND CRM1085A (Amkor)</p>

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PROCESS - ASSEMBLY: Change of wire bonding	PG-VQFN-48-29: Au (Melaka) PG-VQFN-48-31: Cu (Melaka)	PG-VQFN-48-29: Au (Melaka) PG-VQFN-48-31: Cu (Melaka) PG-VQFN-48-79: PCC (palladium coated copper) (Amkor)
PROCESS - ASSEMBLY: Change of mold compound / encapsulation material	EME G700 (Melaka)	EME G700 (Melaka) AND EME G631 (Amkor)
PROCESS - ASSEMBLY: Change of product marking	without serial number above the date code in line 3 (Melaka)	without serial number above the date code in line 3 (Melaka) AND with serial number above the date code in line 3 (Amkor)
PROCESS - ASSEMBLY: Move all or parts of production to a different assembly site	Infineon Technologies (Malaysia) Sdn. Bhd., Melaka, Malaysia	Infineon Technologies (Malaysia) Sdn. Bhd., Melaka, Malaysia AND Amkor Technology, INC. Muntinlupa City, Philippines
EQUIPMENT: Production from a new equipment/tool which uses a different basic technology or which due to its unique form or function can be expected to influence the integrity of the final product	Infineon tool park	Infineon tool park AND SiFo and OSAT tool park
User manual update	User manual Rev. 1.6	User manual Rev. 1.7 (links see 5_cip21073_A)
BootROM user manual update	BootROM user manual Rev. 1.6	BootROM user manual Rev. 1.7 (links see 5_cip21073_A)

Product identification

Wafer lot numbers from Dresden start with ZAxXXXXX.
Wafer lot numbers from UMC start with 6HXXXXXX.
SP number and ordering part number are different (see 6_cip21073_A).

Anticipated impact of change

Based on the qualification performed, Infineon does not expect any negative impact on quality, function and reliability. No change in function expected. Assessment in application required!

DeQuMa-ID(s): SEM-DS-01 / SEM-DS-03 / SEM-DE-01 / SEM-DE-02 / SEM-DE-04 / SEM-PW-02 / SEM-PW-03 / SEM-PW-07 / SEM-PW-09 / SEM-PW-13 / SEM-PA-03 / SEM-PA-04 / SEM-PA-07 / SEM-PA-08 / SEM-PA-11 / SEM-PA-13 / SEM-PA-18 / SEM-EQ-01

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Attachments

PCN_2021-073-A_[customer-no].pdf	affected product list
5_cip21073_A	MyICP links (data sheets, user manual, BootROM user manual)
6_cip21073_A	SP list comparison

Time schedule

Final qualification report	available
First samples available	on request
Intended start of delivery [1]	2022-11-14
Last order date (LOD) [2]	2022-11-14
Last delivery date (LDD) [3]	2023-11-14

[1] Provided date or earlier after customer approval.

[2] Last date where orders for unchanged products will be accepted.

[3] Last date for delivery of unchanged products. Delivery of changed products can be earlier (see Intended start of delivery) and depends on approval.

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

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MyICP links
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Data sheets, user manual and BootRom user manual documentation

> MyICP links to the Infineon data base

Sales Code	Data sheet folder	Revision
TLE9868QXB20	MyICP (Link)	Rev. 2.0
TLE9877QXA40	MyICP (Link)	Rev. 2.0
TLE9877QXW40	MyICP (Link)	Rev. 2.0
TLE9879QXA40	MyICP (Link)	Rev. 2.0
TLE9879QXW40	MyICP (Link)	Rev. 2.0

Sales Code	User Manual	Revision
TLE986x	MyICP (Link)	Rev. 1.7
TLE987x	MyICP (Link)	Rev. 1.7

Sales Code	BootRom User Manual	Revision
TLE986x_TLE987x	MyICP (Link)	Rev. 1.7

TLE986x/7x UH step EMC test report



› The EMC tests at IBEE Zwickau reports are available for the customers at MyICP

FE site	EMC Report
UMC	UH step
Dresden	BF step



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Affected products sold to DIGI-KEY (4002348)

Sales name	SP number	OPN	Package	Customer part number
TLE9861QXA20	SP001583362	TLE9861QXA20XUM A2	PG-VQFN-48-31	TLE9861QXA20XUM A2
TLE9867QXA20	SP001583368	TLE9867QXA20XUM A2	PG-VQFN-48-31	TLE9867QXA20XUM A2
TLE9867QXA40	SP001583374	TLE9867QXA40XUM A2	PG-VQFN-48-31	TLE9867QXA40XUM A2
TLE9867QXW20	SP001380954	TLE9867QXW20XUM A1	PG-VQFN-48-29	TLE9867QXW20XUM A1
TLE9869QXA20	SP001583382	TLE9869QXA20XUM A2	PG-VQFN-48-31	TLE9869QXA20XUM A2
TLE9871QXA20	SP001583398	TLE9871QXA20XUM A2	PG-VQFN-48-31	TLE9871QXA20XUM A2
TLE9873QXW40	SP001380956	TLE9873QXW40XUM A1	PG-VQFN-48-29	TLE9873QXW40XUM A1
TLE9877QXA40	SP001583424	TLE9877QXA40XUM A2	PG-VQFN-48-31	TLE9877QXA40XUM A2
TLE9877QXW40	SP001380958	TLE9877QXW40XUM A1	PG-VQFN-48-29	TLE9877QXW40XUM A1
TLE9879-2QXA40	SP001611352	TLE98792QXA40XUM A1	PG-VQFN-48-31	TLE98792QXA40XUM A1
TLE9879QXA40	SP001583434	TLE9879QXA40XUM A2	PG-VQFN-48-31	TLE9879QXA40XUM A2
TLE9879QXW40	SP001380960	TLE9879QXW40XUM A1	PG-VQFN-48-29	TLE9879QXW40XUM A1

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Sales name	old SP number	old OPN	old Package	new SP number	new OPN	new Package
TLE9861QXA20	SP001583362	TLE9861QXA20XUMA2	PG-VQFN-48-31	SP001583362 SP004760524	TLE9861QXA20XUMA2 TLE9861QXA20XUMA3	PG-VQFN-48-31 PG-VQFN-48-79
TLE9867QXA20	SP001583368	TLE9867QXA20XUMA2	PG-VQFN-48-31	SP001583368 SP004760526	TLE9867QXA20XUMA2 TLE9867QXA20XUMA3	PG-VQFN-48-31 PG-VQFN-48-79
TLE9867QXA40	SP001583374	TLE9867QXA40XUMA2	PG-VQFN-48-31	SP001583374 SP004760530	TLE9867QXA40XUMA2 TLE9867QXA40XUMA3	PG-VQFN-48-31 PG-VQFN-48-79
TLE9867QXW20	SP001380954	TLE9867QXW20XUMA1	PG-VQFN-48-29	SP001380954 SP004760528	TLE9867QXW20XUMA1 TLE9867QXW20XUMA2	PG-VQFN-48-29 PG-VQFN-48-79
TLE9868QXB20	SP001404498	TLE9868QXB20XUMA2	PG-VQFN-48-31	SP001404498 SP004760532	TLE9868QXB20XUMA2 TLE9868QXB20XUMA4	PG-VQFN-48-31 PG-VQFN-48-79
TLE9869QXA20	SP001583382	TLE9869QXA20XUMA2	PG-VQFN-48-31	SP001583382 SP004760534	TLE9869QXA20XUMA2 TLE9869QXA20XUMA3	PG-VQFN-48-31 PG-VQFN-48-79
TLE9871QXA20	SP001583398	TLE9871QXA20XUMA2	PG-VQFN-48-31	SP001583398 SP004760538	TLE9871QXA20XUMA2 TLE9871QXA20XUMA3	PG-VQFN-48-31 PG-VQFN-48-79
TLE9873QXW40	SP001380956	TLE9873QXW40XUMA1	PG-VQFN-48-29	SP001380956 SP004760536	TLE9873QXW40XUMA1 TLE9873QXW40XUMA2	PG-VQFN-48-29 PG-VQFN-48-79
TLE9877QXA40	SP001583424	TLE9877QXA40XUMA2	PG-VQFN-48-31	SP001583424 SP004760542	TLE9877QXA40XUMA2 TLE9877QXA40XUMA3	PG-VQFN-48-31 PG-VQFN-48-79
TLE9877QXW40	SP001380958	TLE9877QXW40XUMA1	PG-VQFN-48-29	SP001380958 SP004760544	TLE9877QXW40XUMA1 TLE9877QXW40XUMA2	PG-VQFN-48-29 PG-VQFN-48-79
TLE9879-2QXA40	SP001611352	TLE98792QXA40XUMA1	PG-VQFN-48-31	SP001611352 SP004760550	TLE98792QXA40XUMA1 TLE98792QXA40XUMA2	PG-VQFN-48-31 PG-VQFN-48-79
TLE9879QXA40	SP001583434	TLE9879QXA40XUMA2	PG-VQFN-48-31	SP001583434 SP004760548	TLE9879QXA40XUMA2 TLE9879QXA40XUMA3	PG-VQFN-48-31 PG-VQFN-48-79
TLE9879QXW40	SP001380960	TLE9879QXW40XUMA1	PG-VQFN-48-29	SP001380960 SP004760552	TLE9879QXW40XUMA1 TLE9879QXW40XUMA2	PG-VQFN-48-29 PG-VQFN-48-79