

Product / Process Change Notification



N° 2007-089-A

PL=12

Infineon goes Green and Kulim:

Implementation of an 8 inch (200mm) Green version and an alternative wafer fab for Infineon®DOPL products TLE4270, TLE4270D, TLE4270G and TLE4270S

Attached you find the process change notification PCN-N° **2007-089-A**.
Please forward this information to all affected customers as soon as possible.

If we receive no response to the contrary until **2. January 2008** at the latest we assume, that your customers have been informed and are in agreement with our outlined intentions.

JEDEC STANDARD "JESD46-C" stipulates: "Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change."

For PCN sample ordering, please use the Infineon Sample Request (ISaR) tool, and include the PCN number as reference.

Complete customer information, e.g.: product list, Customer Info Package is available on the Infineon intranet at:

http://goto.infineon.com/ci_docs/

Please address any questions on this issue to PCN author:

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Dear Customer,

Please find attached our INFINEON Technologies PCN:

Infineon goes Green and Kulim:

Implementation of an 8 inch (200mm) Green version (RoHS compliant) and an alternative wafer fab for Infineon® DOPL products TLE4270, TLE4270D, TLE4270G and TLE4270S

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 **2. January 2008**.
- Infineon aligns with the widely-recognized JEDEC STANDARD "JESD46-C", which stipulates: "Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change."

Your prompt reply will help Infineon Technologies 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.

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SUBJECT OF CHANGE:

Implementation of an 8 inch (200mm) RoHS compliant version and an alternative wafer fab for DOPL products TLE4270, TLE4270D, TLE4270G and TLE4270S at Infineon Technologies Kulim, Malaysia.

No change of parameters in the product data sheet except ESD hardness (HBM).

PRODUCTS AFFECTED:

Products:

- TLE4270D
- TLE4270G
- TLE4270S
- TLE4270

Packages:

- P-TO252-5
- P-TO263-5
- P-TO220-5
- P-TO220-5

REASON OF CHANGE:

New environmentally friendly materials will be introduced to meet customer requirements and the demands of the European Union Directive on the Restriction of the use of Hazardous Substances (**RoHS**) and the Directives of Waste Electrical and Electronic Equipment (**WEEE**).

Due to raising volume for certain products and therefore to secure supply, Infineon needs to extend its chip manufacturing capacity. Hence the wafer fab Infineon Technologies Kulim, Malaysia, will in addition be implemented as **2nd wafer fab (dual site)** beside Infineon Technologies Villach, Austria.

For more information please refer to addendum [3_CIP07089_A](#).

DESCRIPTION OF CHANGE:

OLD

NEW

■ Wafer fab

Infineon Technologies Austria AG,
Villach, Austria

Infineon Technologies Austria AG,
Villach, Austria
or
Infineon Technologies (Kulim) Sdn.
Bhd, Kulim, Malaysia

■ Wafer technology

Wafer diameter 150mm / 6"

Wafer diameter 200mm / 8"

150mm / 6" toolset

200mm / 8" capable toolset

Standard metal stack

Robust metal stack

Standard passivation without
polyimide

Robust passivation including
polyimide

■ Wafer test

Infineon Technologies Austria AG,
Villach, Austria

Infineon Technologies Austria AG,
Villach, Austria
or
Infineon Technologies (Kulim) Sdn.
Bhd, Kulim, Malaysia

or

or

Infineon Technologies Asia Pacific
Pte . Ltd., Singapore, Singapore

Infineon Technologies Asia Pacific
Pte . Ltd., Singapore, Singapore
or
Infineon Technologies (Malaysia)
Sdn. Bhd, Malacca, Malaysia

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■ **Product**

Sales description:

- TLE4270D
- TLE4270G
- TLE4270S
- TLE4270

Sales description:

- TLE4270-2D
- TLE4270-2G
- TLE4270-2S
- TLE4270-2

■ **Package**

Standard layout

- P-TO-220-5
(MSL1 @ 220°C)
- P-TO-263-5
(MSL1 @ 220°C)
- P-TO-252-5
(MSL1 @ 235°C)
- No adhesion promoter
- Die attach:
SnAg25Sb10 (P-TO-220/263)
PbSn2Ag2,5 (P-TO-252)
- Mold Compound:
MP 195 H, KMC 180-7 (P-TO-220/263)
EME 6300 SR (P-TO-252)
- Plating final surface:
SnPb 80/20
- Bondwire diameter:
60µm (P-TO-220/263)
50µm (P-TO-252)

Robust layout

- PG-TO220-5
(MSL1 acc. to JESD-020C)
- PG-TO263-5
(MSL1 acc. to JESD-020C)
- PG-TO252-5
(MSL1 acc. to JESD-020C)
- Adhesion promoter
- Die attach:
PbSn2Ag2,5
- Mold Compound:
CEL9220HF10
- Plating final surface:
pure Sn
- Bondwire diameter:
75µm

■ **SP number**

TLE4270D: SP000012195
TLE4270G: SP000011794
SP000011795
TLE4270S: SP000011793
TLE4270: SP000011792

TLE4270-2D: SP000304937
TLE4270-2G: SP000304929
TLE4270-2S: SP000304936
TLE4270-2: SP000304935

■ **ESD hardness (HBM)**

4 kV

2 kV

PRODUCT IDENTIFICATION:

- On Packing Level:
 - "PK" logo is either printed on the Barcode product label or as a sticker on the product packing
 - Package name will change from P-TO to PG-TO with the "G" indicating that the product is green
 - Wafer lot numbers of Villach will start with Vxxxxxxx, lot numbers of Kulim with 1xxxxxxx
 - New sales description
- On Product Level:
 - "G" in front of the date code
 - Wafer lot numbers of Villach will start with Vxxxxxxx, lot numbers of Kulim with 1xxxxxxx
 - New sales description
- On Datasheet level:
 - RoHS logo on datasheet
 - Package name will be PG-TO with the "G" indicating that the product is green
 - New sales description

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For an overview see also addendum 3_CIP07089_A

TIME SCHEDULE:

Final qualification report:	Available, please refer to attached document 2_CIP07089_A
First samples available:	Available upon request
Start of delivery:	May 2008 onwards. Delivery of changed products possible starting February 2008 onwards, on customer request earlier.
Last order date of unchanged product:	May 2009
Last delivery of unchanged product:	November 2009

ASSESSMENT:

No impact on parameters and reliability proven via technology and product qualification. Processes are optimized to meet product performance according to specification.

DOCUMENTATION:

2_CIP07089_A	Final qualification report
3_CIP07089_A	Additional information on RoHS compliance, wafer fab Infineon Technologies Kulim, Malaysia and logistics
4_CIP07089_A	Data Sheets