Product/process change notification

PCN N° 2021-178-A

Dear customer,

Please find attached our Infineon Technologies AG PCN:

Introduction of alternate lead frame base material affecting TSNP 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 **2021-12-22**
- 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/

Infineon Technologies AG
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Management Board: Dr. Reinhard Ploss (CEO), Dr. Helmut Gassel, Jochen Hanebeck, Constanze Hufenbecher, Dr. Sven Schneider
Registered Office: Neubiberg
Commercial Register: München HRB 126492

Product/process change notification

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Products affected	Please refer to attached affected product list 1_cip21178_A

Detailed change information

Subject	Introducing new lead frame base material C7025 at JCET, which is already a qualified material for Infineon product, to assure supply continuity.
Reason	JCET Group's lead frame supplier, HAESUNG DS CO., LTD. (HDS), has announced discontinuation of supplying lead frame with EFTEC as base material.

Description

Old	New
■ LF base material = **EFTEC64T**	■ LF base material = **EFTEC64T** *or* **C7025**

Product identification	Internal traceability ensured via lot number & date code. No change in SP ordering number.
Impact of change	**No** change on package outline dimensions **No** impact on solderability, thermal and electrical parameters **No** impact on quality, function and reliability as proven in process qualification
Attachments	1_cip21178_A affected product list 3_cip21178_A additional information

Time schedule

■ Final qualification report	2022-01-31
■ First samples available	Refer to 3_cip21178_A
■ Intended start of delivery	2022-02-15

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

Customer Information Package

PCN 2021-178-A

3_cip21178_A

Introduction of alternate lead frame base material affecting TSNP products

Motivation and scope of change

- JCET Group's lead frame supplier, HAESUNG DS CO., LTD. (HDS), has announced discontinuation of supplying lead frame with EFTEC as base material.
  - Introducing new lead frame base material C7025 at JCET, which is already a qualified material for Infineon product, to assure supply continuity.

- Affected are all TSNP products currently being introduced and produced at JCET Group Co., Ltd, Jiangyin, China.

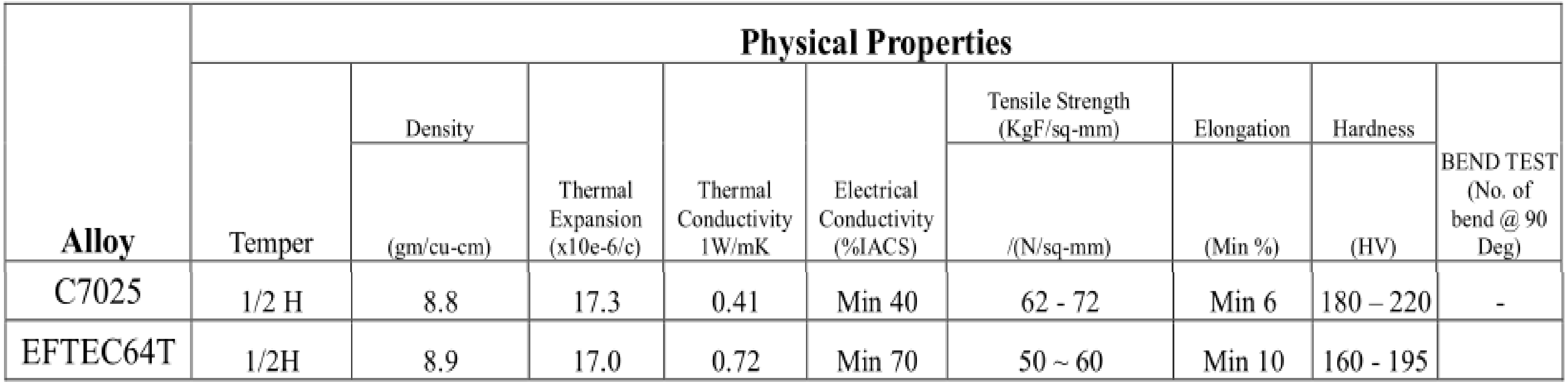
Current	New
LF base material = EFTEC64T	LF base material = EFTEC64T or C7025

  - **NO** change on LF geometry design and plating structure
  - **NO** change to products form, fit and function

Affected products

Sales name	SP number	OPN	Package	Samples available date	Intended delivery date
BGA 5H1BN6 E6327	SP001777994	BGA5H1BN6E6327XTSA1	TSNP-6-10	On-request	15-Feb-2022
BGA 824N6 E6329	SP002478900	BGA824N6E6329XTSA1	TSNP-6-10	31-Dec-2021	15-Feb-2022
BGA 855N6 E6327	SP002337750	BGA855N6E6327XTSA1	TSNP-6-10	10-Dec-2021	15-Feb-2022
BGS 12WN6 E6327	SP002203570	BGS12WN6E6327XTSA1	TSNP-6-10	10-Dec-2021	15-Feb-2022
BGA 9C1MN9 E6327	SP002367712	BGA9C1MN9E6327XTSA1	TSNP-9-6	17-Dec-2021	15-Feb-2022
BGA 9V1MN9 E6327	SP002367704	BGA9V1MN9E6327XTSA1	TSNP-9-6	17-Dec-2021	15-Feb-2022

Material properties comparison



	Physical Properties								
Alloy	Temper	Density (gm/cu-cm)	Thermal Expansion (x10e-6/c)	Thermal Conductivity 1W/mK	Electrical Conductivity (%IACS)	Tensile Strength (KgF/sq-mm) /(N/sq-mm)	Elongation (Min %)	Hardness (HV)	BEND TEST (No. of bend @ 90 Deg)
C7025	1/2 H	8.8	17.3	0.41	Min 40	62 - 72	Min 6	180 – 220	-
EFTEC64T	1/2H	8.9	17.0	0.72	Min 70	50 ~ 60	Min 10	160 - 195	

Material	**Chemical Composition (%)**									
	Cu	Fe	P	Zn	Pb	Ni	Si	Mg	Cr	Sn
C7025	Bal.	-	-	-	-	2.20~4.20	0.25~1.20	0.05~0.30	-	-
EFTEC64T	Bal.	-	-	0.18~0.26	-	-	-	-	0.20~0.30	0.23~0.27

Notification from LF base material supplier

HAESUNG DS

HAESUNG DS CO., LTD.
(Haesung 2^{nd} Bldg) 8F 508, Teheran-ro
Gangnam-gu, Seoul 135-725, Korea
Tel : +82-70-4761-0067 / Fax: +82-70-4761-0008

Notification for Discontinuation of Furukawa's Material Supply

Dear JCET Group,

We first convey our deepest gratitude toward your continued support and opportunity which have resulted in successful business so far.

Today, we give you a notice regarding the raw materials. We was informed that Furukawa, a Japanese raw material manufacturer, could not receive additional orders of raw material. It is currently impossible to estimate when the order will be received again. Accordingly, the most affected material is EFTEC material, and we are currently supplying some EFTEC material products to JCET.

We truly apologize that share the news of the sudden discontinuation. We have looked for other ways, but at present we have not found a way to be provided with EFTEC materials.

Accordingly, we request to change the raw material from EFTEC to C194, C7025 for the several affected products. Under the current circumstances, if the raw material is not changed, additional orders for the models can no longer be accepted.

Once again, we apologize to notice the bad news. Please check, and if there is any progress in this situation, we will share it with you right away.

Looking forward to your warm understanding and contact us if any question or inquiry. Thank you.

Yours Sincerely,

Simon Jang

Senior Director / Lead Frame Sales

- Furukawa informed HDS will stop to supply base material EFTEC64T,
- Furukawa is the single source HDS can buy EFTEC64T

Part of your life. Part of tomorrow.

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Sales name	SP number	OPN	Package
BGA 5H1BN6 E6327	SP001777994	BGA5H1BN6E6327XTSA1	TSNP-6-10
BGA 824N6 E6329	SP002478900	BGA824N6E6329XTSA1	TSNP-6-10
BGA 855N6 E6327	SP002337750	BGA855N6E6327XTSA1	TSNP-6-10
BGS 12WN6 E6327	SP002203570	BGS12WN6E6327XTSA1	TSNP-6-10
BGA 9C1MN9 E6327	SP002367712	BGA9C1MN9E6327XTSA1	PG-TSNP-9-6
BGA 9V1MN9 E6327	SP002367704	BGA9V1MN9E6327XTSA1	PG-TSNP-9-6