

Product/ Process Change (PCN) Notification

PCN Number: CO-21451 Date Issued: September 14 th , 2018 PCN Effective Date: December 14 th , 2018 Product(s) Affected: PE42540 Sample Availability: September 14 th , 2018 Change Control Board Approval #: CO-21451	Contact: Elizabeth La Greca Title: Director, Sales Operations Phone: 1-858-795-0106 Email: pcn@psemi.com
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Change Category:

<input type="checkbox"/> Wafer Fabrication Process <input type="checkbox"/> Design/Mask Change <input type="checkbox"/> Singulation Process <input type="checkbox"/> Assembly Process <input checked="" type="checkbox"/> Electrical Test – location change <input checked="" type="checkbox"/> Manufacturing Site – assembly site change	<input type="checkbox"/> Shipping/Labeling <input type="checkbox"/> Equipment <input type="checkbox"/> Material <input type="checkbox"/> Product Specification <input type="checkbox"/> Product End of Life <input checked="" type="checkbox"/> Other - Ordering codes change
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Purpose of Change:

To transfer the PE42540 to a new package assembly site. Final test will be added at the new assembly location.

Description of Change:

Unisem Malaysia will become the new site for the PE42540 LGA assembly and test, replacing Amkor Technology Philippines for assembly as Amkor will discontinue the assembly tooling at this location.

Reliability, form, fit or function of the device is not affected by this change.

Beginning December 14th, 2018, all parts shipped to the customers will be manufactured through the Unisem manufacturing flow.

Ordering code changes:
 Original ordering codes (Amkor): PE42540E-Z, EK42540-06
 New ordering codes (Unisem): PE42540F-Z, EK42540-07

For more information, please contact PCN@psemi.com.

Product/ Process Change (PCN) Notification

Customer Acknowledgement of Receipt* :

<input type="checkbox"/> Change Denied <i>(Include explanation in comments section below)</i>	Name:	
	Title:	
	Company:	
	Date:	
	Signature:	
Customer Comments:		

***Customer Acknowledgement is based upon JEDEC Standard, JESD46D. Form # DOC-00558 Rev 2**
If there is a difference between JEDEC and specific customer requirements, customer requirements take precedence.

Part Number(s):	PE42540	Product Family:	RF Switch
Package Type:	32L 5x5 FCLGA	MSL Rating:	MSL 3
Technology Platform:	ULTRACMOS®5		
Reliability Summary:	Based on the results of reliability testing, the PE42540 has met the reliability requirements for Production.		

Table 1: Product Design Reliability Results

Test #	Test Performed	TEST METHOD/ Conditions	Duration	Sample Size	Result
1	High Temperature Operating Life (HTOL)	JESD22-A108; VDD= 3.55 V; VCTL= 3.55 V; T _A = T _J = 150 °C;	500 Hrs.	3 lots x 77	Pass
2	ESD Human Body Model (HBM)	MIL-STD-883 Model 3015.7 (All pins)	1.0 kV	1 lot x 3	Pass
3	ESD Human Body Model (HBM)	JS-001 / MIL-STD-883 3015.7 (RF Pins Only)	2kV	1 x 3	Pass
4	ESD Machine Model (MM)	JEDEC JESD22-A115	100V	1 x 3	Pass
5	ESD Charged Device Model (CDM)	JEDEC JESD22-C101	450V	1 x 3	Pass

Table 2: Package Reliability Results

Test	Test Performed	TEST METHOD/ Conditions	Duration	Sample Size	Result
6	High Temperature Storage Life (HTSL)	JESD22-A103; T _a = 150°C	1,000 hrs.	3 lots x 45	Pass
7	Moisture Sensitivity Level (MSL3)	JESD22-A113/J-STD-020 Moisture Soak at 30°C/ 60% RH. Reflow at 260°C.	192 hrs. 3x Reflow	3 x 15	Pass
8	Highly Accelerated Stress Test (HAST)	JESD22-A110; T _A = 110°C; RH= 85%; VDD= 3.55 V	264 hrs.	3 x 45	Pass
9	Temperature Cycling (TC)	JESD22-A104; T _A = -55°C to +125°C	1,000 cycls.	3 x 45	Pass
10	Physical Dimensions	JESD22-B100 / Subcon specs.	-	3 lots x 10 Devices	Pass
11	Die Shear	Mil-Std-883 M2019.8 / Subcon specs.	-	3 lots x 5 Devices	Pass
12	Solderability	JESD22-B102 / Subcon specs.	-	3 lots x 5 Devices	Pass

Technology Reliability Report (DOC-81028)