

Product/Process Change (PCN) Notification

PCN Number: CO-40506

Date Issued: 20 Jun 2025

PCN Effective 30 Jun 2025

Product(s) Affected: PE42444

Sample Availability: 20 Jun 2025

Change Control Board Approval #: CO-40225

To contact our team with questions or for more information:

1. Go to psemi.com.
2. Click the **Support** button.
3. Select the **Technical Support** tab and submit your request.

Change Category:

- ☐ Wafer Fabrication Process
- ☒ Design/Mask Change
- ☐ Singulation Process
- ☐ Assembly Process
- ☐ Electrical Test
- ☐ Manufacturing Site

- ☐ Shipping/Labeling
- ☐ Equipment
- ☐ Material
- ☒ Product Specification Datasheet Update
- ☐ Product End of Life
- ☐ Other

Purpose of Change:

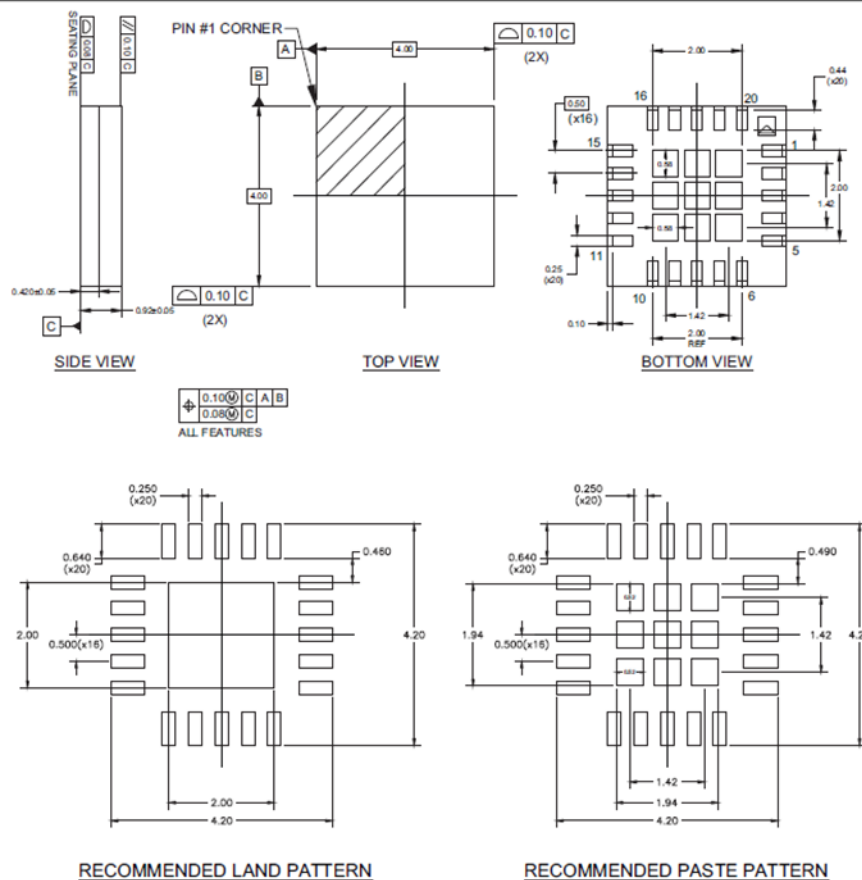
Design Optimization to improve manufacturability.

Description of Change:

1. Ordering Code Change: the new optimized PE42444 will be available under new ordering code PE42444B-Z.
2. Package Design was changed to provide more robust mechanical support to the die during the assembly process:
 - a. The bump layout & density was optimized. This does not affect the outside of the package.
 - b. A solder mask web layout design was added to the ground pad. This affects the solder pattern on the ground pad as is shown in figure below.
3. There is no change to other electrical or package dimensions/pinout specifications
4. The datasheet is updated to reflect the relevant changes

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Figure 15 • Package Mechanical Drawing for the 20-lead 4 x 4 mm LGA Package



***Customer Acknowledgement is based upon JEDEC Standard, JESD46D.** Form # DOC-00558 Rev 3
If there is a difference between JEDEC and specific customer requirements, customer requirements take precedence.

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Qualification Summary:

Item	Rel Test	Conditions	Sample Size	Finish
1	MSL3 Precondition	30C/60% RH, Reflow 260C 192hrs	15pcs x 3 lots	Complete/ PASS
2	uHAST	110C/85% RH, Vdd = 3.6V, 264hrs	45pcs x 3 lots	Complete/ PASS
3	Temp Cycling	Ta -55C to 125C, 500cyc	45pcs x 3 lots	Complete/ PASS
4	Temp Cycling	Ta -55C to 125C, 1000cyc	45pcs x 3 lots	Complete/ PASS
5	High Temp Storage	150C, 1000hrs	45pcs x 3 lots	Complete/ PASS
6	Multiple Reflow Thermal Stress	6X Reflow at 260C	2700pcs x 3 lots	Complete/ PASS

Customer Acknowledgement of Receipt*:

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

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