

## Product/Process Change (PCN) Notification

PCN Number: CO-40569

Date Issued: 20 Jun 2025

PCN Effective Date: 30 Jun 2025

Product(s) Affected: PE42443

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:

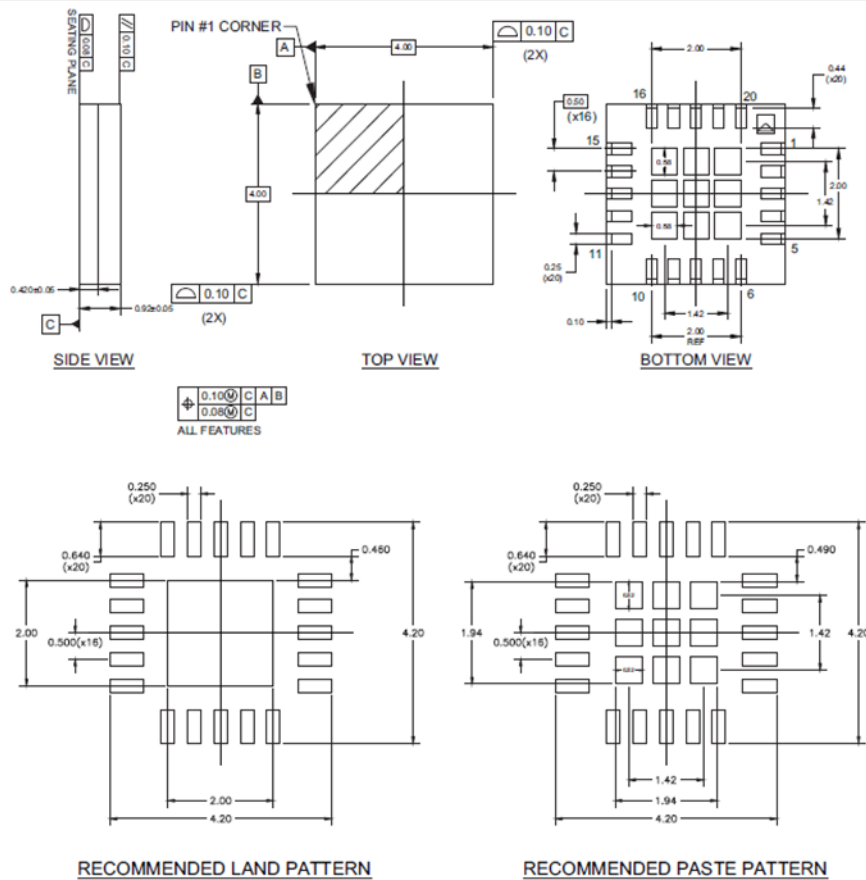
Design Optimization to improve manufacturability.

### Description of Change:

1. Ordering Code Change: the new optimized PE42443 will be available under new ordering code PE42443B-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. CDM ESD rating was increased from 500V to 750V
4. There is no change to other electrical or package dimensions/pinout specifications
5. 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	<b>Name:</b>	
	<b>Title:</b>	
	<b>Company:</b>	
	<b>Date:</b>	
	<b>Signature:</b>	
<b>Customer Comments:</b>		

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 customer requirements take precedence.**