



PROCESS CHANGE NOTIFICATION

PCN1909

Alternate Assembly Site for Selected Enpirion® Power SoC Devices

Change Description:

Intel Programmable Solutions Group (“Intel PSG”, formerly Altera) is announcing the qualification of Unisem as a new assembly site for selected Enpirion devices EQC1241Q1 & EP5348UI.

Unisem is a long-time qualified, high-volume assembly site for several Intel PSG product families.

Table 1: Assembly Site Change

	Current Site	New Site
Assembly Site	Hana	Unisem
Country of Origin	Thailand	Malaysia

Please see Table 2 for the specific Bill of Materials (BOM) changes.

Table 2: Changes to Bill of Materials (BOM)

Part Number	Affected Material	Change From	Change To
EP5348UI	Die Attach	Ablebond 2025D	Ablebond 84-3J
	Mold Compound	CEL9220HF series	G770 series
EQC1241QI	Die Attach	Henkel 8008 epoxy	Henkel 8200C epoxy
	Wire Bond	Cu 1.0 mil diameter	Cu 0.9 mils diameter
	Mold Compound	CEL9220HF series	G770 series

Note: The rest of the Bill of Materials (BOM) remains the same.

Products Affected:

Table 3

Product Family	Part Number	Package – Pin Count
Enpirion Power SoC	EQC1241QI	QFN - 24
	EP5348UI	QFN -14

Recommended Action

Customers are requested to:

1. Acknowledge receipt of this notification.
2. Review this change, and at the earliest convenience, inform us of any questions or concerns.

Please refer to the “Product Transition Dates” for the key milestones.

Upon implementation, Intel will ship materials from either Hana or Unisem.

Product Transition Dates:

Customers are requested to take note of the key dates shown in the table below.

Table 4

Milestone	Date
Last date to acknowledge receipt of this notification ¹	August 26, 2019
Estimated earliest shipment date of changed products ²	October 26, 2019

Note 1: J-STD-046, section 3.2.3.1b, stipulates that lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.

Note 2: Effective the earliest ship date listed above, Intel PSG may begin the shipment of changed products.

Intel reserves the right to continue shipment of pre-change product after the change implementation date, and customers will receive shipments of either pre-change or post-change product.

Reason for Change:

The qualification of an additional production assembly site for the affected devices supports supply chain risk mitigation.

Impact and Benefit of Change:

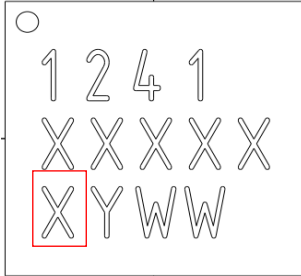
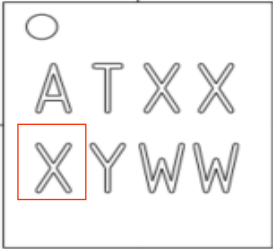
The change will not impact the form, fit, and function of the product. Product datasheet and package specifications remain the same.

Additional qualification has been performed to further evaluate the quality and reliability performance of Unisem for the products specific to this PCN (See Qualification Data Section, Table 6A & 6B).

Method to Identify Change Product:

The assembly site of a device can be identified by the lettering on the bottom left hand corner of the top mark.

Table 5

EQC1241QI	EP5348UI
 <p>X= Supplier Trace Code</p> <p>Current Top Mark (Hana)</p> <p>X= H for Hana</p> <p>New Top Mark (Unisem)</p> <p>X= U for Unisem</p>	 <p>X= Supplier Trace Code</p> <p>Current Top Mark (Hana)</p> <p>X= H for Hana</p> <p>New Top Mark (Unisem)</p> <p>X= U for Unisem</p>

Upon implementation Intel PSG will ship materials from either Hana or Unisem.

Qualification Data:

Qualification testing was performed to further evaluate the quality and reliability performance of Unisem for the products specific to this PCN (See Table 6A & 6B)

Table 6A: EQC1241QI Unisem Qualification Data

Test	Time Point	Conditions	# of Lots	SS/lot	Results
Pre-Conditioning	MSL 3	per J-STD-020, MSL3 @ 260C, 3X reflow cycles	3	72	0/216 Pass
Unbiased Highly Accelerated Stress Test (uHAST)	96hrs	130°C / 85%RH	3	45	0/135 Pass
Temperature Cycle Test (TCB)	1000 cycles	-55°C /125°C	3	25	0/75 Pass
High Temperature Storage Life (HTSL)	1000hrs	150°C	3	25	0/75 Pass

Table 6B: EP5348UI Unisem Qualification Data

Test	Time Point	Conditions	# of Lots	SS/lot	Results
Pre-Conditioning	MSL 3	per J-STD-020, MSL3 @ 260C, 3X reflow cycles	3	112	0/336 Pass
Unbiased Highly Accelerated Stress Test (uHAST)	96hrs	130°C / 85%RH	3	45	0/135 Pass
Temperature Cycle Test (TCB)	1000 cycles	-55°C /125°C	3	45	0/135 Pass

Note: Preconditioning performed before UHAST & TCB

Contact

For more information, please contact your Sales representative or Customer Quality Engineering (CQE) in your region, or submit a Service Request at the [My Intel](#) support page.

Customer Notifications Subscription

Customers that have subscribed to Intel PSG's customer notification mailing list will receive the PCN document automatically via email.

If you would like to receive customer notifications by email, please subscribe to our customer notification mailing list at:

<https://www.intel.com/content/www/us/en/programmable/my-intel/mal-emailsub/technical-updates.html>

Intel PSG references J-STD-046 guidelines for PCN.

In accordance with J-STD-046, this change is deemed acceptable to the customer if no acknowledgement is received within 30 days from date of notification.

Revision History

Date	Rev	Description
07/12/2019	1.0.0	Initial Release

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