



PROCESS CHANGE NOTIFICATION

PCN2214

Inductor Change in selected Enpirion Power SoC Devices

Change Description:

Intel® is notifying customers about a change of inductor in selected Intel Enpirion® PowerSoC Devices. There are no changes to form, fit and function. Qualification was performed that includes reliability and device performance assessment.

Table 1: Change Details

	Change From	Change To
Supplier	Maglayers	FDK
Size Dimension	3.2 mm X 2.6 mm	3.2 mm X 2.5 mm
Thickness	Max 0.7mm	Max 0.75 mm
Inductor Value	1.1 uH	1.0 uH
DC Resistance	0.11	0.055
Rs@5Mhz	2	0.5 typ
Current	1.0A max	1.5A Sat
Material	Multi-layer Ferrite Chip Inductor	Multi-layer Power Inductor
SRF	70 Mhz	90Mhz Typ
Inductance Tolerance	20%	25%
Termination Finish	Not specified (typ Ni/Sn)	Ag+ Ni/Sn

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

Products Affected:

Table 2

Product Family	Part Number
Enpirion Power SoC	EN5311QI
	EN5311QI-C
	EP5352QI
	EP5362QI
	EP5382QI

Recommended Action

Customers are requested to:

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

Please refer to the "Product Transition Dates" for the key milestones.

Upon implementation, Intel will ship either pre-change or post-change materials.

Product Transition Dates:

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

Table 3: Key Dates

<i>Milestone</i>	<i>Date</i>
Last date to acknowledge receipt of this notification ¹	July 22, 2022
Earliest change implementation	Dec 15, 2022

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.

Reason for Change:

The supplier has issued a discontinuance notification of the existing inductor. The qualification of the new inductor will enable fulfillment of the last time buy orders of these selected Enpirion devices (Refer to related [PDN2133](#))

Impact and Benefit of Change:

There is no impact to form, fit, function. Qualification will be performed for reliability and device performance assessment and to meet existing electrical and mechanical specifications.

(See Qualification Plan Section, Table 4).

Qualification Plan:

Vehicle device: EN5311QI.

Table 4: Reliability Test Result

Test	Time point	Conditions	Standard	# of Lots	Result
Temperature Cycle (TC) with Pre-conditioning (MSL3)	1000 Cycles	-55°C /125°C	JESD22-A104	3 lots/231 units	Pass
Device Validation Test	N/A	Vin=Vinmin to Vinmax Load= Loadmin to Loadmax Temp= -40C to +85 C	N/A	3 lots/30 units	Pass
Unbiased Highly Accelerated Stress Test (uHAST) with Pre-conditioning (MSL3)	96hrs	130°C / 85%RH	JESD22-A118	3 lots/231 units	Pass

High Temp Storage (HTS) with Pre-conditioning (MSL3)	1000hrs	150°C	JESD22-A103	3 lots/231 units	Pass
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Note: Preconditioning performed according to J-STD-020, MSL3 @ 260C reflow

Contact

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

Customer Notifications Subscription

If you would like to receive customer notifications by email, please follow the instructions in [ADV 2209](#)

Intel 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
04/15/2022	1.0.0	Initial Release
10/27/2022	1.1.0	Updated Table 4 with Reliability Test Result

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