



PROCESS CHANGE NOTIFICATION

PCN1918

Bill of Materials (BOM) Change for Selected Intel® Enpirion® PowerSoC Devices

Change Description:

Intel® Programmable Solutions Group is notifying customers of change in capacitor which is a part of the internal BOM for selected Intel Enpirion® PowerSoC Devices. There are no changes to device performance, functionality or thermal characteristics. The product datasheet remains the same.

Table 1: Change to Bill of Materials (BOM)

	Change From	Change To
Capacitance Value	0.22uF	0.1uF

Note: The rest of the BOM remains the same

Products Affected:

Table 2

Product Family	Package – Pin Count
Enpirion PowerSoC	QFN-Q100 and Q152

The list of affected Ordering Part Numbers (OPNs) can be downloaded here:

<https://www.intel.com/content/dam/www/programmable/us/en/pdfs/literature/pcn/pn1918-opn-list.xlsx>

Recommended Action

Customers are requested to:

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

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

Upon implementation, Intel may continue to ship pre-change material until inventory is depleted.

Product Transition Dates:

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

Table 3

<i>Milestone</i>	<i>Date</i>
Last date to acknowledge receipt of this notification ¹	January 15, 2020
Estimated earliest shipment date of changed products ²	March, 2020

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 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 existing capacitor material supplier is discontinuing production of 0.22uF capacitor, hence, a replacement capacitor of the closest value of 0.1uF from a different supplier is being qualified.

Impact and Benefit of Change:

There are no changes to device performance, functionality, and thermal characteristics. The product datasheet remains the same. Characterization has been performed using the 0.1uF capacitor.

Additional qualification will be performed to further evaluate the quality and reliability performance of the implemented change (See Qualification Test Plan, Table 3).

Qualification Plan:

Refer to Table 3 for Qualification test plan. Testing estimated to complete by December 2019.

Table 3: Reliability Test Plan

Category	Stress Tests	JEDEC Standard	Conditions	Stress Duration	# of lots	Sample Size per lot	Total Qty
Package Stress Tests	High Temperature Storage Life with Pre-cond (MSL3)	JESD22-A103	150°C	168 Hrs 500 Hrs 1000 Hrs	3 lots	77	231
	Temperature Cycle with Pre-cond (MSL3)	JESD22-A104	-55°C to 125°C Condition B,	200 cycles 700 cycles 1000 cycles	3 lots	77	231
	Unbiased HAST with Pre-cond (MSL3)	JESD22-A118	130°C/85%RH	96 hrs	3 lots	77	231
Device Characterization	Device Validation Test	N/A	Vin = Vinmin to Vinmax Load = Iloadmin to Iloadmax Temp: -40 to + 85 deg C	N/A	3 lots	30	90

Note: All units are subjected to moisture preconditioning MSL3 and 3x reflows at 260°C peak temperature prior to UHAST, HTS and TCB

Table 3a: Vehicle Devices:

Package Type	Package-Pin Count	Base Die
Enpirion Power SoC	QFN; Q100	EM2130H01QI
	QFN; Q152	EM2260P01QI
	QFN; Q152	EM2280P01QI

Contact

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

Customer Notifications Subscription

Customers that have subscribed to Intel Programmable solutions Group (PSG) 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 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
11/22/2019	1.0.0	Initial Release

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Ordering Part Number

EM2030L01QI

EM2040N01QI

EM2120H01QI

EM2120L01QI

EM2130H01QI

EM2130L01QI

EM2130L02QI

EM2140P01QI

EM2260P01QI

EM2280P01QI

EM2121L01QI

EM2121H01QI