



Revision 1.2.0  
PCN Issue Date: 11/22/2019  
Rev 1.2.0 Issue Date: 06/26/2020

# PROCESS CHANGE NOTIFICATION

## PCN1918

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

This is not a new PCN issuance. This is an update to PCN1918; please see the [revision history](#) table for information specific to this update

#### Change Description:

Intel® is notifying customers about qualifying an additional capacitor type as an alternate source for selected Intel Enpirion® PowerSoC Devices. This is a part of the internal BOM. 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)

	Current Capacitor	Added Alternate Capacitor
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/pcn1918-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**

<b><i>Milestone</i></b>	<b><i>Date</i></b>
Last date to acknowledge receipt of this notification <sup>1</sup>	January 15, 2020
Earliest change implementation <sup>2</sup>	July, 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 change implementation date listed above, Intel may begin the shipment of changed products. Customers may receive shipment of products with either capacitor.

## Reason for Change:

The existing capacitor material supplier indicated potential discontinuance of 0.22uF capacitor production. As part of supply risk mitigation, an alternate capacitor from a different supplier (the closest value is 0.1uF) 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 was performed to further evaluate the quality and reliability performance of the implemented change (See Qualification Result, Table 4a).

## Qualification Data:

**Table 4a: Reliability Test Result**

Reliability Stress	JEDEC Standard	Condition	# of Lots	Sample Size	Lot # EU789	Lot # VAABC0011L (SFH03)	Lot # VAABC0011M (SFH04)
Preconditioning	JESD22-A113 & J-STD-020	Bake 24hrs @ 125C 30°C/60%RH 192 Hrs 3x Reflow at 260°C	3	240 units / lot	0/240	0/240	0/240
High Temperature Storage Life	JESD22-A103	150°C, 1000 hours,	3	77 units / lot	0/77	0/77	0/77
Temperature Cycle	JESD22-A104	-55°C to +125°C / 1000 cycles Condition B	3	77 units / lot	0/77	0/77	0/77
Unbiased HAST	JESD22-A118	130°C/85%RH, 96hrs	3	77 units / lot	0/77	0/77	0/77
Device Validation Test	Standard Processing	Vin = Vin min to Vin max Load = Iloadmin to Iloadmax Temperature: -40 to + 85 deg C	3	30 units / lot	0/30	0/30	0/30
Mechanical Shock Test	JESD22B104	A (1500G, 0.5mS, Drop-6 axis)	3	39 units / lot	0/39	0/39	0/39
Vibration Test	JESD22B103	Test Condition 1, 20G, 20-2000Hz, 4 sweeps for each of 3 axes	3	39 units / lot	0/39	0/39	0/39

Lid Shear Test	-	11x17 >15Kg consider pass 23x18 >21Kg consider pass	3	5 units/lot	0/5	0/5	0/5
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Note: All units are subjected to moisture preconditioning MSL3 and 3x reflows at 260°C peak temperature prior to UHAST, HTS and TCB

#### Table 4b: 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>

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*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.*

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## Revision History

Date	Rev	Description
11/22/2019	1.0.0	Initial Release
04/03/2020	1.1.0	<ul style="list-style-type: none"><li>• Change description in table 1.</li><li>• Change earliest implementation date in table 3.</li><li>• Update to the qualification completion date in table 4.</li></ul>
06/26/2020	1.2.0	Added Reliability Test Result <b>Table 4a</b>

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