Product/Process Change Notice - PCN 20_0182 Rev. -

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This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

PCN Title: LTC4013 Die Revision and Data Sheet Change

Publication Date: 08-Jun-2020

Effectivity Date: 10-Sep-2020 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:
Initial Release

Description Of Change:

The internal logic circuit has been corrected to ensure that only a power cycle, commanded restart from ENAB or battery replacement will trigger the restart of the battery charger after a low battery fault is declared by the low battery timer circuit. In addition , Electrical specifications of the datasheet were changed as shown in attached red mark-up datasheet.

Reason For Change:

Corrected a problem with Low Battery Termination Retry. The LTC4013 may retry charging after it has terminated due to a low battery timeout, which occurred under specific conditions as mentioned below.
If a cell, or series stack of cells, fails to reach the low battery threshold voltage before the low battery termination timer has expired (tEOC/8), the LTC4013 would terminate charging as described in the datasheet. After an additional low battery timeout period (tEOC/8), however, the LTC4013 would retry charging the battery with the low battery charging current (C/5). Following another low battery timeout period, charging would once again terminate, and the cycle would repeat indefinitely. This condition only occurs if the timer pin is active (i.e. TMR pin has a capacitor rather than being tied to GND).

Impact of the change (positive or negative) on fit, form, function & reliability:

No change to fit, form, or reliability. Improved functionality.

Product Identification *(this section will describe how to identify the changed material)*

The parts that will be assembled with the new die will be identified by the date code.

Summary of Supporting Information:

Qualification has been performed per Industry Standard Test Methods. See attached Qualification Results Summary.

Supporting Documents

Attachment 1: Type: Datasheet Specification Comparison

ADI_PCN_20_0182_Rev_-_4013fa_2-21-2020_Redline.pdf

Attachment 2: Type: Qualification Results Summary

ADI_PCN_20_0182_Rev_-_LTC4013_PCN_20_0182_Rel_report.pdf

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.			
Americas: PCN_Americas@analog.com	**Europe:** PCN_Europe@analog.com	**Japan:** PCN_Japan@analog.com	**Rest of Asia:** PCN_ROA@analog.com

Appendix A - Affected ADI Models				
Added Parts On This Revision - Product Family / Model Number (4)				
LTC4013 / LTC4013EUFD#PBF	LTC4013 / LTC4013EUFD#TRPBF	LTC4013 / LTC4013IUFD#PBF	LTC4013 / LTC4013IUFD#TRPBF	

Appendix B - Revision History			
Rev	**Publish Date**	**Effectivity Date**	**Rev Description**
Rev. -	08-Jun-2020	10-Sep-2020	Initial Release

PCN 20_0182: LTC4013 Die Revision and Data Sheet Change

Qualification Results Summary of LTC4013 Die Revision and Data Sheet Change

QUALIFICATION PLAN / STATUS			
TEST	**SPECIFICATION**	**SAMPLE SIZE**	**RESULTS**
High Temperature Operating Life (HTOL)*	JEDEC *JESD22-A108*	**77**	**Pass**
Latch-Up	JEDEC *JESD78*	**6**	**Pass**
Electrostatic Discharge *Human Body Model*	ESDA/JEDEC *JS-001*	**3/voltage**	**Pass 3000V**
Electrostatic Discharge *Field-Induced Charged Device Model*	JEDEC *JESD22-C101*	**3/voltage**	**Pass 1000V**

*Preconditioned per JEDEC/IPC J-STD-020