



Product/Process Change Notice - PCN 22_0290 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:	LT3922-1 Die Revision
Publication Date:	13-Mar-2023
Effectivity Date:	15-Jun-2023 <i>(the earliest date that a customer could expect to receive changed material)</i>
Revision Description:	2023-03-07: Updated Change description; Initial Release

Description Of Change:

- Prevent BST cap depletion during the PWM OFF time: Implemented by providing a trickle-charge path from VOUT to BOOST during the PWM off time
- Enforce BST refresh at the beginning of the PWM operation: The bottom power switch of the boost converter which will energize the BST capacitor will be enforced to turn on longer at the beginning of every PWM operation. Because this action recharges the BST capacitor, we call it BST refresh time. During this BST refresh time, the peak current comparator will be deactivated. After this BST refresh time, and the BST capacitor current will be very small, and therefore the peak current comparator will not be prematurely triggered by the BST capacitor current.
- To facilitate change, circuits pertaining to SHORTLED fault condition ($V_{OUT} < V_{IN} - 2V$) were repurposed and function is no longer available.

Reason For Change:

The peak current comparator in the LT3922-1 can trip prematurely at the beginning of the PWM operation with 100nF BST cap. This premature trip can cause the reverse-recovery in the body-diode of the internal BST switch.

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

Fit and form are not impacted. Improved robustness of PWM operation with larger caps by repurposing circuits from a rarely used FAULT function.

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

By Date Code

Summary of Supporting Information:

Test correlation and validation has been performed per ADI's standard product site to site and/or platform change correlation procedure. See attached Qualification Report.

Supporting Documents

Attachment 1: Type: Qualification Results Summary

[ADI_PCN_22_0290_Rev - RQR10962A.pdf...](#)

Attachment 2: Type: Datasheet Specification Comparison

[ADI_PCN_22_0290_Rev - lt3922-1_ds_changes.pdf...](#)

Attachment 3: Type: Delta Qualification Matrix

[ADI_PCN_22_0290_Rev - PCN 22_0290-Delta-Qualification-Matrix-ZVEI-5_0...](#)

Note: If applicable, the device material declaration will be updated due to material change.

ADI Contact Information:

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.

Americas:	Europe:	Japan:	Rest of Asia:
PCN_Americas@analog.com	PCN_Europe@analog.com	PCN_Japan@analog.com	PCN_ROA@analog.com

Appendix A - Affected ADI Models:

Added Parts On This Revision - Product Family / Model Number (12)

LT3922-1 / LT3922EUFD-1#PBF	LT3922-1 / LT3922EUFD-1#TRPBF	LT3922-1 / LT3922EUFD-1#VPBF	LT3922-1 / LT3922EUFD-1#VTRPBF	LT3922-1 / LT3922HUFD-1#PBF
LT3922-1 / LT3922HUFD-1#TRPBF	LT3922-1 / LT3922HUFD-1#VPBF	LT3922-1 / LT3922HUFD-1#VTRPBF	LT3922-1 / LT3922IUF-1#PBF	LT3922-1 / LT3922IUF-1#TRPBF
LT3922-1 / LT3922IUF-1#VPBF	LT3922-1 / LT3922IUF-1#VTRPBF			

Appendix B - Revision History:			
Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	13-Mar-2023	15-Jun-2023	2023-03-07: Updated Change description; Initial Release