



## Product/Process Change Notice - PCN 22\_0035 Rev. -

Analog Devices, Inc. One Analog Way, Wilmington, MA 01887

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:** LTC6810-1, LTC6810-2 Die Revision

**Publication Date:** 11-Apr-2022

**Effectivity Date:** 14-Jul-2022 *(the earliest date that a customer could expect to receive changed material)*

### Revision Description:

Initial Release

### Description Of Change:

Please be advised that Analog Devices has made minor changes to the LTC6810-1/LTC6810-2 product die to address the following two issues listed below:

1. On earlier revisions, the DCTO (discharge timeout) read back value is incorrectly reported for a period of up to 100ms immediately after writing the DCTO value. On the new revision, the DCTO readback value is correct immediately after writing.
2. Changes have been made to metal-metal capacitor structures and to metal interconnect routing to improve manufacturability, quality, and reliability. Numerous metal-metal capacitors were changed from lateral capacitors to vertical capacitors. Likewise, metal interconnects throughout the design have been adjusted to increase spacing where possible.

None of these changes affect the electrical specification table of the datasheet.

### Reason For Change:

To improve manufacturability, quality and reliability.

The vertical capacitor design is more robust and less likely to fail due to random wafer fabrication defects than the present lateral capacitor design. The change was initiated as part of ADI's continuous Quality Improvement efforts.

### 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 result.

### Comments

The only changes are those listed in the "Description of Change" section. Circuit changes were made using metal layers only. The die change was qualified by performing characterization over the full operating temperature range and through rigorous engineering evaluation. In addition, the product completed HTOL, ESD and Latch Up stress testing.

### Supporting Documents

**Attachment 1: Type:** Qualification Results Summary

ADI\_PCN\_22\_0035\_Rev\_-\_LTC6810 PCN Report.pdf

**Attachment 2: Type:** Delta Qualification Matrix

ADI\_PCN\_22\_0035\_Rev\_-\_LTC6810\_PCN-Delta-Qualification-Matrix-ZVEI-5\_0\_9.xlsm

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:**  
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PCN\_ROA@analog.com

**Appendix A - Affected ADI Models**

**Added Parts On This Revision - Product Family / Model Number (8)**

LTC6810-1 / LTC6810HG-1#3ZZPBF	LTC6810-1 / LTC6810HG-1#3ZZTRPBF	LTC6810-1 / LTC6810IG-1#3ZZPBF	LTC6810-1 / LTC6810IG-1#3ZZTRPBF	LTC6810-2 / LTC6810HG-2#3ZZPBF
LTC6810-2 / LTC6810HG-2#3ZZTRPBF	LTC6810-2 / LTC6810IG-2#3ZZPBF	LTC6810-2 / LTC6810IG-2#3ZZTRPBF		

**Appendix B - Revision History**

<b>Rev</b>	<b>Publish Date</b>	<b>Effectivity Date</b>	<b>Rev Description</b>
Rev. -	11-Apr-2022	14-Jul-2022	Initial Release

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