



Product/Process Change Notice - PCN 20_0301 Rev. -

Analog Devices, Inc. Three Technology Way Norwood, Massachusetts 02062-9106

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: LTM4639- Notification of Qualification of New Mold Compound and Substrate Change

Publication Date: 28-Sep-2020

Effectivity Date: 31-Dec-2020 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release

Description Of Change:

- A new substrate Design revision with addition of RC filter have been qualified for LTM4639. New substrate will be in use going forward.
- A new mold compound has been qualified in LTM4639, which is the next generation mold compound going forward. The new mold compound uses fine filler and facilitates the filling of tighter spaces.

Reason For Change:

- An RC filter was added to the supply voltage node of the internal OTP (Over Temperature Protection) comparator to eliminate the possibility of a false 'over temperature' shutdown of LTM4639. The change was verified on multiple lots without affecting other device characteristics.
- Higher density component assembly in a μ Module substrates require mold filling in tighter spaces between and underneath components. the new mold compound facilitates the task which also improves assembly yield.

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

The change is transparent in customer applications since there is no change in form, fit, function, quality or reliability of the product. The product datasheet is unchanged.

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

Product shipment of the product incorporating the new material will begin no sooner than effective date.

Summary of Supporting Information:

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

Supporting Documents

Attachment 1: Type: Qualification Results Summary

ADI_PCN_20_0301_Rev_-_ADI_PCN_LTM4639.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 (3)				
LTM4639 / LTM4639EY#PBF	LTM4639 / LTM4639IY	LTM4639 / LTM4639IY#PBF		

Appendix B - Revision History			
Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	28-Sep-2020	31-Dec-2020	Initial Release

Analog Devices, Inc.

DocId:8303 Parent DocId:None Layout Rev:7

Qualification Results Summary of LTM4637/LTM4639 with G311E Mold Compound

QUALIFICATION STATUS – LTM4637 BGA			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	1*77	Pass
Unbiased HAST (UHAST)*	JEDEC <i>JESD22-A102</i>	1*77	Pass
Thermal Shock (TS)*	JEDEC <i>JESD22-A106</i>	1*77	Pass
Solder Heat Resistance – MSL4 (SHR)*	JEDEC/IPC <i>J-STD-020</i>	1*231	Pass

*Preconditioned per JEDEC/IPC J-STD-020