



Product/Process Change Notice - PCN 19_0164 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: Notification of qualification of a new mold compound for the LTM4630 μ Module Regulator

Publication Date: 22-Jul-2019

Effectivity Date: 24-Oct-2019 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:
Initial Release

Description Of Change:

A new mold compound has been qualified in LTM4630 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:

Higher density component assembly in a μ Module substrate requires mold filling in tighter spaces between and underneath components. The new mold compound facilitates this 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 products. The product datasheet is unchanged.

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

Production 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 Results Summary.

Supporting Documents

Attachment 1: Type: Qualification Results Summary

ADI_PCN_19_0164_Rev_-_G311 Reliability data.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 (9)

LTM4630 / LTM4630EV#2LVPBF	LTM4630 / LTM4630EV#PBF	LTM4630 / LTM4630EV#PBF-ES	LTM4630 / LTM4630EY#PBF	LTM4630 / LTM4630IV#2LVPBF
LTM4630 / LTM4630IV#PBF	LTM4630 / LTM4630IY	LTM4630 / LTM4630IY#2LVPBF	LTM4630 / LTM4630IY#PBF	

Appendix B - Revision History

Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	22-Jul-2019	24-Oct-2019	Initial Release

Analog Devices, Inc.

DocId:6785 Parent DocId:6764 Layout Rev:7

RELIABILITY DATA					
G311E QUALIFICATION DATA					
6/26/2019					
• J-STD-020 MSL 3 PRECONDITIONING: 192h +30°C/60%R.H. SOAK, 3x REFLOW AT +250°C PEAK					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM8024	311 311	1843	1843		0 0
• J-STD-020 MSL 3 PRECONDITIONING: 192h +30°C/60%R.H. SOAK, 3x REFLOW AT +245°C PEAK					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4630	241	1846	1903		0
LTM4642	299	1903	1903		0
LTM4650	241 781	1846	1846		0 0
• J-STD-020 MSL 4 PRECONDITIONING: 96h +30°C/60%R.H. SOAK, 3x REFLOW AT +245°C PEAK					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4634	400	1813	1813		0
LTM4677	400	1903	1903		0
LTM4678	261 1,061	1840	1840		0 0
• HIGH TEMPERATURE STORAGE +150°C					
DEVICE	SAMPLE SIZE	OLDEST	NEWEST	K DEVICE HOURS AT	NUMBER OF FAILURES
LTM8024	77	1843	1843	77.00	0
LTM4634	50	1813	1813	25.00	0
LTM4642	49	1903	1903	49.00	0
LTM4677	50	1903	1903	75.00	0
LTM4678	50 276	1840	1840	75.00 301.00	0 0
• TEMP CYCLE FROM -55°C to +125°C⁽¹⁾					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM8024	77	1843	1843	77.00	0
LTM4630	80	1846	1903	40.00	0
LTM4634	84	1813	1813	84.00	0
LTM4642	85	1903	1903	42.50	0
LTM4650	80	1846	1846	40.00	0
LTM4677	100	1903	1903	200.00	0
LTM4678	77 583	1840	1840	77.00 560.50	0 0

**RELIABILITY DATA
G311E QUALIFICATION DATA**

6/26/2019

• THERMAL SHOCK FROM -55°C to +125°C ⁽¹⁾

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM8024	77	1843	1843	77.00	0
LTM4630	80	1846	1903	40.00	0
LTM4634	85	1813	1813	42.50	0
LTM4642	100	1903	1903	100.00	0
LTM4650	80	1846	1846	40.00	0
LTM4677	99	1903	1903	198.00	0
LTM4678	77	1840	1840	77.00	0
	598			574.50	0

• UNBIASED HIGHLY ACCELERATED STRESS TEST +110°C/85% R.H. ⁽¹⁾

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +130°C	NUMBER OF FAILURES
LTM8024	76	1843	1843	14.59	0
LTM4630	80	1846	1903	7.68	0
LTM4634	99	1813	1813	19.01	0
LTM4642	100	1903	1903	19.20	0
LTM4650	80	1846	1846	7.68	0
LTM4677	100	1903	1903	19.20	0
LTM4678	77	1840	1840	7.39	0
	612			87.36	0

• BIASED HIGHLY ACCELERATED STRESS TEST +130°C/85% R.H. ⁽¹⁾

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +130°C	NUMBER OF FAILURES
LTM8024	29	1843	1843	2.78	0
	29	1843	1843	2.78	0

(1) Environmental stress are preceded by J-STD-020 Preconditioning