

CHANGE NOTIFICATION



Analog Devices, Inc.
1630 McCarthy Blvd., Milpitas CA
(408) 432-1900

February 22, 2018

PCN_022218

Dear Sir/Madam:

Subject: Notification of Change for the LTM4622 and LTM4622A μ Module Regulators

Please be advised that Analog Devices, Inc., Milpitas, California has made changes to the LTM4622 and LTM4622A dual μ Module regulators:

1) Improved substrate material to reduce moisture sensitivity during reflow process:

- The new substrate material has higher Tg (glass transition temperature), higher modulus, lower CTE (Coefficient of Thermal Expansion) and lower moisture absorption.
- The new substrate material is more robust to moisture compared to the existing material and has passed MSL3 testing which is an improvement over the existing rating of MSL4. ADI still labels these devices as MSL4 and will be collecting periodic MSL3 test data from the production lots and once adequate data has been collected over many months, the change from MSL4 to MSL3 classification will be announced.
- The new substrate material has already been qualified at Analog Devices and used in other μ Module power products.

2) Minor layout modification to minimize decoupling of noise between two channels:

This change only applies to the LTM4622 which was released much earlier than the LTM4622A. The LTM4622A was released with the new layout as explained below.

- Internal layout of the input voltage is separated in two with an addition of an internal decoupling capacitor between the inputs.
- The previous internal layout combined both inputs as one.
- The pin configuration on the data sheet has been updated. See figure 1.
- The new LTM4622 is drop-in functional compatible with the older version and can be placed on the existing PCB with no change needed to the layout or circuit components.

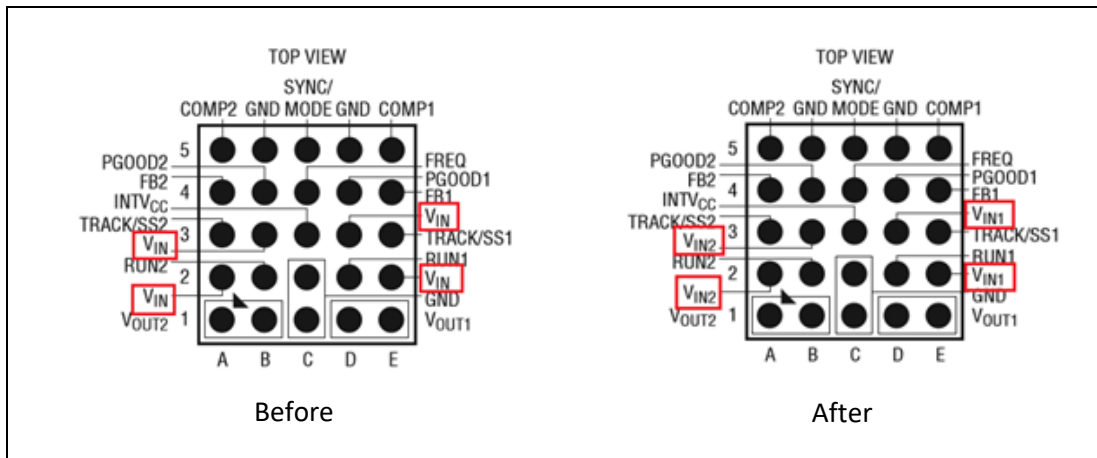


Figure 1: Vin pad label before and after change (Note: The layouts are identical.)

The substrate changes have been qualified by performing characterization over the full operating temperature range and by rigorous engineering evaluation. In addition, standard qualification tests were successfully completed, including MSL 3 Precondition, Temperature Cycle and Thermal Shock. The qualification results summary is attached. The change will not have any impact on device form, fit, or function. Product built using the new substrate will be shipped with a datecode of approximately 1838.

Should you have any questions or concerns please contact your local Analog Devices sales representatives or you may contact me at 408-432-1900 ext. 2077, or by e-mail at JASON.HU@ANALOG.COM. If we do not hear from you by April 22, 2018, we will consider this change to be approved by your company.

Sincerely,

Jason Hu
Quality Assurance Engineer

For questions on this PCN, please contact Jason Hu or you may send an email to your 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
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List of Affected Part Numbers			
Part#	Part Marking	Package Type	Datecode (Approx.)
LTM4622EV#PBF	LTM4622V	LGA	1838
LTM4622IV#PBF			
LTM4622EY#PBF	LTM4622Y	BGA	
LTM4622IY#PBF			
LTM4622IY			
LTM4622IY#3LTPBF			
LTM4622EY#3LTPBF			
LTM4622IY#3LF			
LTM4622IY#3LFPBF			
LTM4622EY#3LFPBF			
LTM4622IV#3LLPBF			
LTM4622EV#3LLPBF			
LTM4622EV#2MDPBF			
LTM4622EV#3KVPBF			
LTM4622IV#3KVPBF			
LTM4622AEV#PBF	LTM4622AV	LGA	
LTM4622AIV#PBF			
LTM4622AEY#PBF	LTM4622AY	BGA	
LTM4622AIY#PBF			
LTM4622AIY			



PACKAGE RELIABILITY DATA					
LTM4622 Substrate Modification					
2/5/2018					
• J-STD-020 MSL 3 PRECONDITIONING: 192h +30°C/60%R.H. SOAK, 3x REFLOW AT +260°C PEAK					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4622A	352 352	1742	1746		0 0
• EXTENDED PRECONDITIONING: 216h +30°C/60%R.H. SOAK, 3x REFLOW AT +260°C PEAK					
DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE		NUMBER OF FAILURES
LTM4622A	98 98	1742	1742		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
LTM4622A	50 50	1742	1742	50.00 50.00	0 0
• 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
LTM4622A	50 50			25.00 25.00	0 0
(1) Environmental stress are preceded by J-STD-020 Level 3 Preconditioning: 192h 30°C/60% R.H. soak, followed by 3x Reflow at 260°C					