CHANGE NOTIFICATION

Linear Technology Corporation
1630 McCarthy Blvd., Milpitas, CA 95035-7417
(408) 432-1900

March 04, 2015

Dear Sir/Madam: PCN#030415

Subject: **Notification of Qualification of Alternate Component for LTM4620 and LTM4620A uModule Regulators**

This notice is to inform you that Linear Technology has qualified alternate source power MOSFETs for use in the assembly of the LTM4620 and LTM4620A uModule regulators. There is no effect on customer applications since there is no change in form, fit, function, quality or reliability of the products. This qualification has been done to expand production capacity in order to provide greater supply assurance and reduced product lead times.

The new MOSFETs have been qualified through characterization of multiple LTM4620 and LTM4620A lots over the full operating junction temperature range and through rigorous engineering bench evaluations. Electrical and thermal performance of the alternate assemblies are identical. In addition, standard qualification tests were successfully completed, including power cycling, temperature shock, temperature cycling and high temperature operating life. The qualification results summary is attached. The list of affected part numbers is shown below.

List of part numbers affected:

LTM4620EV#PBF
LTM4620IV#PBF
LTM4620EY#PBF
LTM4620IY#PBF
LTM4620IY

LTM4620AEV#PBF
LTM4620AIV#PBF
LTM4620AEY#PBF
LTM4620AIY#PBF
LTM4620AIY

Customers requiring samples or additional data should contact Linear Technology within 30 days of the date of this notification. Production shipments of product incorporating the alternate assembly will begin no sooner than May 18, 2015.

Should you have any further questions, please feel free to contact me at 408-432-1900 ext. 2077, or by E-mail JASON.HU@LINEAR.COM. If I do not hear from you by June 4, 2015, we will consider this change approved by your company.

Sincerely,

Jason Hu
Quality Assurance Engineer

PACKAGE RELIABILITY DATA
LTM4620 / LTM4620A Power FET Alternate Source Qualification
2/13/2015

• OPERATING LIFE TEST AT +125°C

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT 125C	NUMBER OF FAILURES
LTM4620/LTM4620A	154 154	1411	1428	154.00	0 0

• POWER CYCLING: TJ FROM +50°C TO +100°C

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
LTM4620/LTM4620A	16 16	1411	1428	800.00	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
LTM4620	693 693	1428	1438		0 0

• EXTENDED PRECONDITIONING: 216h +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
LTM4620	100 100	1428	1438		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
LTM4620	238 238	1428	1428	238.00 238.00	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
LTM4620	231 231	1319	1428	231.00 231.00	0 0

• UNBIASED 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
LTM4620	224	1428	1438	14.11 14.11	0 0

• HIGH TEMPERATURE STORAGE +150°C

DEVICE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +150°C	NUMBER OF FAILURES
LTM4620	231 231	1428	1428	231.00 231.00	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 245°C