CHANGE NOTIFICATION

LINEAR TECHNOLOGY

Linear Technology Corporation
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(408) 432-1900

March 18, 2014

Dear Sir/Madam: PCN# 031814

Subject: **Notification of Change to LTC3639 Die**

Please be advised that Linear Technology Corporation has made a minor change to the LTC3639 die. A minor mask revision was made to eliminate a potential race/timing condition in the internal digital control logic that can be triggered by on-chip electrical noise in an LTC3639 application circuit. When the issue occurs, the LTC3639 may get stuck in a condition where switching stops with its internal bottom MOSFET held on, discharging the output voltage of the DC/DC regulator. In this case, the LTC3639 and its output voltage do not recover until the RUN pin or VIN pin is toggled through its shutdown/under-voltage lockout threshold. For current production silicon, the problem is triggered by a unique set of operating conditions including input voltage and temperature. The range of conditions that triggers the issue is very narrow, varies from unit to unit and may be intermittent.

Product specifications are unaffected and the datasheet remains unchanged. The die change was qualified by performing characterization over the full operating junction temperature range and through rigorous engineering evaluation across a broad range of applications conditions. Optical comparison of old versus new masks and electronic error checking were performed to verify the changes. The revised product is currently undergoing high temperature operating life (HTOL) stress, which will be successfully completed through 1000 hours before production release; currently, it has passed 500 hours. Samples of the revised die are available now upon request.   Product built using the new die will be shipped with a datecode of approximately 1412.

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 May 19, 2014, we will consider this change approved by your company.

Sincerely,

Jason Hu
Quality Assurance Engineer