

## CHANGE NOTIFICATION



Linear Technology Corporation  
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(408) 432-1900

October 26, 2016

Dear Sir/Madam:

PCN#101716A

### **Subject: Notification of Change to LTC5800 Die**

Please be advised that Linear Technology Corporation has made a change to the LTC5800 die to improve device performance. The description of the change is as follows:

When supply power is applied at slower ramp rates, some LTC5800 devices may fail to boot even though the PoR threshold is lower than the internal V<sub>CORE</sub> regulator minimum bias condition. The failure mode prevents proper operation; however, it does not result in damage to the LTC5800. When devices are powered on at room temperature, devices may fail to boot for voltage ramp rates of lower than 0.5V/s through the V<sub>SUPPLY</sub> window of 1.5V to 1.7V. At -40°C devices may fail to boot for V<sub>SUPPLY</sub> ramp rates of lower than 0.75V/s through the 1.55V to 1.75V V<sub>SUPPLY</sub> window. Devices held in reset during power on through 1.75V or devices reset after the voltage has risen above 1.75 V will operate per specification following the negation of RESETn.

While ramp rates this slow are uncommon, Linear Technology has chosen to address the issue with a rolling change to the product. The change, removing one of the conditions to enabling an internal regulator, enables the regulator to turn on at a lower voltage, resulting in no measurable or observable degradation in the LTC5800's performance.

The change was qualified by performing characterization over the full operating temperature range. Extensive bench evaluations were conducted over a range of application conditions. Additionally, the revised product has successfully completed 1000 hours burn-in test without failures. The change will not have any impact on device form, fit, or function.

Product built using the improved design is targeted for shipment after December 17, 2016. Please provide an expeditious approval to this PCN, so that LTC can start to ship the new device. The list of affected part numbers is presented below in the table.

Affected part numbers
LTC5800IWR-XXXX
LTC5800HWR-XXXX
LTP5900IPC-WHMAXXX
LTP5901IPC-IPMAXXX
LTP5901IPC-IPRAXXX
LTP5901IPC-IPRBXXX
LTP5901IPC-IPRCXXX
LTP5901IPC-WHMAXXX
LTP5902IPC-IPMAXXX
LTP5902IPC-IPRAXXX
LTP5902IPC-IPRBXXX
LTP5902IPC-IPRCXXX
LTP5902IPC-WHMAXXX

Should you have any concerns, please contact me before December 17, 2016, at which time we will consider this change to be approved. Should you have any questions or concerns please contact your local Linear Technology Sales person or you may contact me at 408-432-1900 ext. 2077, or by e-mail at [JASON.HU@LINEAR.COM](mailto:JASON.HU@LINEAR.COM).

Sincerely,

Jason Hu  
Quality Assurance Engineer