

CHANGE NOTIFICATION



Linear Technology Corporation
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April 18, 2014

Dear Sir/Madam:

PCN# 041814

Subject: Notification of Change to LTC6804-1/LTC6804-2 Die

Please be advised that Linear Technology Corporation has made a change to the die of the subject devices to fix an application related problem. Current parts may exhibit failures of the WRCOMM and/or the WRCFG commands when using the isoSPI serial interface. The WRCOMM command is used when GPIO pins 3, 4 and 5 are used for SPI or I2C operation. The WRCFG command is used to change the Configuration Register Group, which controls a broad range of LTC6804 behavior including the LTC6804 cell discharge pins.

Failures of the WRCOMM or WRCFG result in no change to the corresponding COMM or CFG registers. Reading these registers will confirm if a failure has occurred. This problem is temperature dependent. Less than 1% of the current parts are expected to have a WRCFG failure at temperatures below 85°C and less than 20% will have a WRCFG failure at 105°C. Less than 1% of the current parts will have a WRCOMM failure at 25°C and more than 50% will have a WRCOMM failure at 85°C. Parts that exhibit failures will return to normal operation when temperatures recede. This condition is possible due to an internal race condition from a circuit connection error.

A metal layer mask change has addressed this problem. The revised product is currently undergoing high temperature operating life (HTOL) stress, which will be successfully completed through 2000 hours before production release; currently, it has passed 1000 hours. Product built using the new die will be shipped with a datecode of 1414 or later.

A single RESERVE bit in the LTC6804 memory has been changed to identify the LTC6804 revision. Specifically, BIT3 of register STBR5 has been changed from 0 (old revision) to 1 (new revision):

Table 44. Status Register Group B

REGISTER	RD/WR	BIT 7	BIT 6	BIT 5	BIT 4	BIT 3	BIT 2	BIT 1	BIT 0
STBR0	RD	VD[7]	VD[6]	VD[5]	VD[4]	VD[3]	VD[2]	VD[1]	VD[0]
STBR1	RD	VD[15]	VD[14]	VD[13]	VD[12]	VD[11]	VD[10]	VD[9]	VD[8]
STBR2	RD	C40V	C4UV	C30V	C3UV	C20V	C2UV	C10V	C1UV
STBR3	RD	C80V	C8UV	C70V	C7UV	C60V	C6UV	C50V	C5UV
STBR4	RD	C120V	C12UV	C110V	C11UV	C100V	C10UV	C90V	C9UV
STBR5	RD	REV[3]	REV[2]	REV[1]	REV[0]	RSVD	RSVD	MUXFAIL	THSD

0 (old revision)
1 (new revision)

Confidential Statement
This change notice is for Linear Technology's Customers only.
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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 19, 2014, we will consider this change approved by your company.

Sincerely,

Jason Hu
Quality Assurance Engineer