CHANGE NOTIFICATION

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

April 29, 2013

Dear Sir/Madam: PCN# 042913

Subject: Notification of Change to LT3689 Datasheet

Please be advised that Linear Technology Corporation has made a minor change to the LT3689 product datasheet to improve the parametric distribution metrics within the specification range. The changes are shown on the attached page of the marked up datasheet. There was no change made to the die. The product shipped after May 29, 2013 will be tested to the new limits.

Should you have any further questions, please feel free to contact me at 408-432-1900 ext. 2519, or by email at NGIRN@LINEAR.COM. If I do not hear from you by May 30th, 2013, we will consider this change to be approved by your company.

Sincerely,

Naib Girn
Quality Assurance Manager

ELECTRICAL CHARACTERISTICS

The ● denotes the specifications which apply over the full operating junction temperature range, otherwise specifications are at T_A = 25°C. V_{IN} = 12V, V_{OUT} = 5V, unless otherwise noted. (Note 3)

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
	V_{IN} Fixed Undervoltage Lockout		●		3.4	3.7	V
	V_{IN} Overvoltage Lockout		●	36	38	40	V
	Quiescent Current from V_{IN}	$V_{EN/UVLO}$ = 0.3V V_{OUT} = 3V, Not Switching V_{OUT} = 0V, Not Switching	 ● 		0.01 50 125	0.5 95 175	µA µA µA
	Quiescent Current from OUT	$V_{EN/UVLO}$ = 0.3V V_{OUT} = 3V, Not Switching (Note 7) V_{OUT} = 0V, Not Switching	 ● 		0.01 75 –5	0.5 150 –20	µA µA µA
	LT3689-5 Quiescent Current from V_{IN}	$V_{EN/UVLO}$ = 0.3V V_{OUT} = 5.5V (Note 8) V_{OUT} = 0V	 ● 		0.01 50 125	0.5 95 175	µA µA µA
	LT3689-5 Quiescent Current from OUT	$V_{EN/UVLO}$ = 0.3V V_{OUT} = 5.5V	 ●		8 95	16 150	µA µA
	LT3689 FB Voltage		 ●	0.790 0.780	0.800	0.812 0.812	V V
	LT3689-5 Output Voltage		 ●	4.950 4.900	5.000	5.050 5.100	V V
	LT3689 FB Pin Bias Current	V_{FB} = 0.800V	●		–30	–100	nA
	LT3689 FB Voltage Line Regulation	5V < V_{IN} < 36V			0.005		%/V
	LT3689-5 Output Voltage Line Regulation	5.5V < V_{IN} < 36V			0.005		%/V
f_{SW}	Switching Frequency	R_T = 4.02k R_T = 31.62k	● ●	~~1.84~~ 1.8 420	2 500	~~2.16~~ 2.2 540	MHz kHz
$t_{SW(OFF)}$	Switch Off-Time				120	160	ns
	Foldback Frequency	R_T = ~~4.22k, V_{OUT} = 0V~~ 4.02k, VFB = 0V			250		kHz
	Switch Current Limit (Note 4)		●	1.15	1.55	1.95	A
	Switch V_{CESAT}	I_{SW} = 0.8A			450		mV
	Switch Leakage Current				0.01	1	µA
	DA Current Limit			0.85	1.2	1.5	A
	Boost Schottky Reverse Leakage	V_{BST} = 12V, V_{OUT} = 0V			0.1	5	µA
	Minimum BST Above SW Voltage				1.8	2.5	V
	BST Pin Current	I_{SW} = 0.8A			15	25	mA
	EN/UVLO Threshold Voltage			1.150	1.260	1.350	V
	EN/UVLO Pin Current	$V_{EN/UVLO}$ = 1.35V $V_{EN/UVLO}$ = 1.15V	 	 2.5	0. 01 4.1	1 5.5	µA µA
	EN/UVLO Pin Current Hysteresis	I($V_{EN/UVLO}$ = 1.15V) – I($V_{EN/UVLO}$ = 1.35V)		2.8	3.8	4.8	µA
	SYNC Threshold Voltage			0.4	0.8	1	V
V_{RST}	Reset Threshold as % of V_{FB}		●	88	90	92	%
t_{RST}	Reset Timeout Period	C_{POR} = 8200pF	●	17	19	21	ms
t_{WDU}	Watchdog Upper Boundary	C_{WDT} = 1000pF	●	17	19	21	ms
t_{WDL}	Watchdog Lower Boundary	C_{WDT} = 1000pF	●	610	675	785	µs
V_{OL}	$\overline{RST}$, $\overline{WDO}$ Output Voltage Low	I_{SINK} = 2.5mA I_{SINK} = 100µA	● ●		0.15 0.05	0.4 0.3	V V
V_{OH}	$\overline{RST}$, $\overline{WDO}$ Output Voltage High (Note 6)		●	V_{OUT} –1			V