CHANGE NOTIFICATION

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

November 19, 2013

Dear Sir/Madam: PCN# 111913

Subject: Notification of Change to LTC3100 Datasheet

Please be advised that Linear Technology Corporation has made a minor change to the LTC3100 specification in order to improve device manufacturability. The minimum value for the Maximum Duty Cycle of the Step-Up Converter has been decreased from 87% to 85%. No other functional or parametric specifications are affected. A redlined datasheet characteristics table is attached. Product shipped after December 23rd, 2013 will be tested to the new limit.

Should you have any further questions, please feel free to contact me at 408-432-1900 ext. 2077, or by email at JASON.HU@LINEAR.COM. If I do not hear from you by December 20th, 2013, we will consider this change to be approved by your company.

Sincerely,

Jason Hu
Quality Assurance Engineer

ELECTRICAL CHARACTERISTICS: STEP-UP CONVERTER

The ● denotes the specifications which apply over the full operating temperature range. Extended commercial grade: –40°C to 85°C, V_{INBST} = 1.2V, V_{BST} = 3.3V, T_A = 25°C, unless otherwise noted.

PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
N-Channel MOSFET Switch-On Resistance	V_{BST} = 3.3V			0.3		Ω
P-Channel MOSFET Switch-On Resistance	V_{BST} = 3.3V			0.4		Ω
N-Channel MOSFET Current Limit		●	700	850		mA
Maximum Duty Cycle	V_{FBBST} = 1.15V	●	~~87~~ 85	90		%
Minimum Duty Cycle	V_{FBBST} = 1.3V	●			0	%
Switching Frequency		●	1.2	1.5	1.8	MHz
RUNBST Input High Voltage		●	0.9			V
RUNBST Input Low Voltage		●			0.3	V
RUNBST Input Current	RUNBST = 1.2V			0.8	2	µA
Soft-Start Time				0.8		ms
PGBST Threshold, Falling	Referenced to Feedback Voltage			–8		%
PGBST Hysteresis	Referenced to Feedback Voltage			3		%
PGBST Voltage Low	5mA Load			65		mV
PGBST Leakage Current	PGBST = 5.5V			0.01	10	µA

ELECTRICAL CHARACTERISTICS: STEP-DOWN CONVERTER

The ● denotes the specifications which apply over the full operating temperature range. Extended commercial grade: –40°C to 85°C, V_{INBK} = 3.3V, T_A = 25°C, unless otherwise noted.

PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
Input Voltage Range		●	1.8		5.5	V
Output Voltage Adjust Range		●	0.61		5.5	V
Feedback Voltage		●	590	600	610	mV
Feedback Input Current	FBBK = 600mV			1	30	nA
Quiescent Current: Shutdown	Measured on V_{INBK}, RUNBK = 0V, V_{INBST} = 0V, V_{BST} = 0V Not Including Switch Leakage			0.01	1	µA
Quiescent Current: Active	Measured on V_{INBK} (Note 4), RUNBST = 0V			240	350	µA
Quiescent Current: Burst Mode Operation	Measured on V_{INBK}, FBBK = 620mV, MODE = OPEN, RUNBST = 0V			16	30	µA
N-Channel MOSFET Switch Leakage Current	V_{INBK} = SWBK = 5V			0.1	5	µA
P-Channel MOSFET Switch Leakage Current	SWBK = 0V, V_{INBK} = 5V			0.1	5	µA
N-Channel MOSFET Switch-On Resistance	V_{INBK} = 3.3V			0.45		Ω
P-Channel MOSFET Switch-On Resistance	V_{INBK} = 3.3V			0.55		Ω
P-Channel MOSFET Current Limit		●	340	450		mA
Maximum Duty Cycle	FBBK < 590mV	●	100			%
Minimum Duty Cycle	FBBK > 610mV	●			0	%
Switching Frequency		●	1.2	1.5	1.8	MHz