CHANGE NOTIFICATION

Analog Devices, Inc.
1630 McCarthy Blvd., Milpitas CA
(408) 432-1900

March 19, 2018   PCN_031618

Dear Sir/Madam:

Subject: Notification of Change to LTC7851, LTC7851-1 Datasheet

Please be advised that Analog Devices, Inc. Milpitas, California has made a minor change to the LTC7851, LTC7851-1 product datasheet to facilitate improvement in our manufacturing capability. The changes are shown on the attached page of the marked up datasheet. There was no change in form, fit, function, quality or reliability of the product. The product shipped after May 19, 2018 will be tested to the new limits.

Should you have any questions or concerns please contact your local Analog Devices sales representatives or you may contact me at 408-432-1900 ext. 2077, or by e-mail at JASON.HU@ANALOG.COM. If I do not hear from you by May 19, 2018, we will consider this change to be approved by your company.

Sincerely,

Jason Hu
Quality Assurance Engineer

For questions on this PCN, please contact Jason Hu or you may send an email to your regional contacts below or contact your local ADI sales representatives.			
Americas: PCN_Americas@analog.com	**Europe:** PCN_Europe@analog.com	**Japan:**	PCN_Japan@analog.com
		Rest of Asia:	PCN_ROA@analog.com

LTC7851/LTC7851-1

ELECTRICAL CHARACTERISTICS
The ● denotes the specifications which apply over the specified operating junction temperature range, otherwise specifications are at T$_A$ = 25°C (Note 2). V$_{CC}$ = 5V, V$_{RUN1,2,3,4}$ = 5V, V$_{FREQ}$ = V$_{CLKIN}$ = 0V, V$_{FB}$ = 0.6V, f$_{OSC}$ = 600kHz, unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS		MIN	TYP	MAX	UNITS
Current Sense Amplifier							
V$_{ISENSE(MAX)}$	Maximum Differential Current Sense Voltage (V$_{ISNSP}$ – V$_{ISNSN}$)	LTC7851		50	~~50~~		mV
		LTC7851-1		150	~~180~~		mV
A$_{V(ISENSE)}$	Voltage Gain	LTC7851			20		V/V
		LTC7851-1			4		V/V
V$_{CM(ISENSE)}$	Input Common Mode Range			–0.3		V$_{CC}$ – 0.5	V
I$_{ISENSE}$	SENSE Pin Input Current	V$_{CM}$ = 1.5V			100		nA
V$_{IAVG}$	Zero Current I$_{AVG}$ Pin Voltage	V$_{ISNSP}$ = V$_{ISNSN}$			500		mV
V$_{OS}$	Current Sense Input Referred Offset	LTC7851	●	–1		1	mV
		LTC7851-1	●	–3		3	mV
Oscillator and Phase-Locked Loop							
f$_{OSC}$	Oscillator Frequency	V$_{CLKIN}$ = 0V					
		V$_{FREQ}$ = 0V	●	520	600	680	kHz
		V$_{FREQ}$ = 5V	●	0.85	1	1.15	MHz
		V$_{CLKIN}$ = 5V					
		R$_{FREQ}$ < 24.9k		370	~~200~~ 180		kHz
		R$_{FREQ}$ = 36.5k			~~600~~ 570		kHz
		R$_{FREQ}$ = 48.7k			~~1~~ 970		MHz kHz
		R$_{FREQ}$ = 64.9k		1.9	~~1.45~~ 1.4		MHz
		R$_{FREQ}$ = 88.7k			2.1		MHz
		Maximum Frequency		3			MHz
		Minimum Frequency				0.25	MHz
I$_{FREQ}$	FREQ Pin Output Current	V$_{FREQ}$ = 0.8V		18.5	20	21.5	μA
t$_{CLKIN(HI)}$	CLKIN Pulse Width High	V$_{CLKIN}$ = 0V to 5V		100			ns
t$_{CLKIN(LO)}$	CLKIN Pulse Width Low	V$_{CLKIN}$ = 0V to 5V		100			ns
R$_{CLKIN}$	CLKIN Pull Up Resistance				20		kΩ
V$_{CLKIN}$	CLKIN Input Threshold	V$_{CLKIN}$ Falling			0.8		V
		V$_{CLKIN}$ Rising			2		V
V$_{FREQ}$	FREQ Input Threshold	V$_{CLKIN}$ = 0V					
		V$_{FREQ}$ Falling			1.5		V
		V$_{FREQ}$ Rising			2.5		V
V$_{OL(CLKOUT)}$	CLKOUT Low Output Voltage	I$_{LOAD}$ = –500μA			0.2		V
V$_{OH(CLKOUT)}$	CLKOUT High Output Voltage	I$_{LOAD}$ = 500μA			V$_{CC}$ – 0.2		V
θ$_2$ – θ$_1$	Channel 2 to Channel 1 Phase Relationship				180		Deg
θ$_3$ – θ$_1$	Channel 3 to Channel 1 Phase Relationship				90		Deg
θ$_4$ – θ$_1$	Channel 4 to Channel 1 Phase Relationship				270		Deg
θ$_{CLKOUT}$ – θ$_1$	CLKOUT to Channel 1 Phase Relationship				45		Deg
PWM Output							
PWM	PWM Output High Voltage	I$_{LOAD}$ = 500μA	●	V$_{CC}$ – 0.5			V
	PWM Output Low Voltage	I$_{LOAD}$ = –500μA	●			0.5	V
	PWM Output Current in Hi-Z State					±5	μA
	PWM Maximum Duty Cycle				91.5		%

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For more information www.linear.com/LTC7851

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