



Product/Process Change Notice - PCN 20_0235 Rev. -

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This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

PCN Title: LTC2666-16 Datasheet Electrical Specification Change

Publication Date: 15-Jun-2020

Effectivity Date: 15-Jun-2020 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release

Description Of Change:

Minor changes to the LTC2666-16 Datasheet.

Electrical specifications of the datasheet were changed as shown in attached red mark-up datasheet.

Reason For Change:

To facilitate improvement in manufacturing capability.

Impact of the change (positive or negative) on fit, form, function & reliability:

The change described above has no impact on fit, form, function or reliability of the device.

Product Identification *(this section will describe how to identify the changed material)*

The product shipped after effectivity date will be tested to the new limit.

Summary of Supporting Information:

Changes will be reflected on the new product data sheet revision B. See changes on Electrical Characteristics table on page 4.

Supporting Documents

Attachment 1: Type: Datasheet Specification Comparison

ADI_PCN_20_0235_Rev_-_ADI PCN 20_0235 - LTC2666-16-PG4.pdf

For questions on this PCN, please send an email to the 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

Appendix A - Affected ADI Models

Added Parts On This Revision - Product Family / Model Number (6)

LTC2666 / LTC2666CUH-16#PBF	LTC2666 / LTC2666CUH-16#TRPBF	LTC2666 / LTC2666HUH-16#PBF	LTC2666 / LTC2666HUH-16#TRPBF	LTC2666 / LTC2666IUH-16#PBF
LTC2666 / LTC2666IUH-16#TRPBF				

Appendix B - Revision History

Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	15-Jun-2020	15-Jun-2020	Initial Release

Analog Devices, Inc.

DocId:8218 Parent DocId:8181 Layout Rev:7

ELECTRICAL CHARACTERISTICS

The ● denotes the specifications which apply over the full operating temperature range, otherwise specifications are at $T_A = 25^\circ\text{C}$. $V_{CC} = 5\text{V}$, $I_{OV_{CC}} = 5\text{V}$, $V^+ = 15\text{V}$, $V^- = -15\text{V}$, $V_{REF} = 2.5\text{V}$, V_{OUT} unloaded unless otherwise specified.

LTC2666-16/LTC2666-12

SYMBOL	PARAMETER	CONDITIONS	LTC2666-12			LTC2666-16			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	
DC Performance									
	Resolution		●	12		16			Bits
	Monotonicity	All Ranges (Note 3)	●	12		16			Bits
DNL	Differential Nonlinearity	All Ranges (Note 3)	●	± 0.05	± 0.5	± 0.2	± 1		LSB
INL	Integral Nonlinearity All Ranges (Note 3)	$V^+/V^- = \pm 15\text{V}$	●	± 0.2	± 1	± 2.2	± 4	± 5	± 5 LSB
		$V^- = \text{GND}$ (Note 3)	●	± 0.2	± 1	± 2.2	± 4	± 5	± 5 LSB
		C-Grade, I-Grade H-Grade	●	± 0.2	± 1	± 2.2	± 4	± 5	LSB
V_{OS}	Unipolar Offset Error	0V to 5V Range	●	± 1	± 2	± 1	± 2		mV
		0V to 10V Range	●	± 2	± 4	± 2	± 4		mV
	V_{OS} Temperature Coefficient	All Unipolar Ranges		1		1			ppm/ $^\circ\text{C}$
ZSE	Single-Supply Zero-Scale Error	All Unipolar Ranges, $V^- = \text{GND}$	●	2	5	2	5		mV
BZE	Bipolar Zero Error	All Bipolar Ranges	●	± 0.02	± 0.08	± 0.02	± 0.08		%FSR
		BZE Temperature Coefficient		1		1			ppm/ $^\circ\text{C}$
GE	Gain Error	All Ranges, External Reference	●	± 0.02	± 0.08	± 0.02	± 0.08		%FSR
		Gain Temperature Coefficient		2		2			ppm/ $^\circ\text{C}$
PSR	Power Supply Rejection All Ranges	$V_{CC} = 5\text{V}$, $\pm 10\%$		0.1		1			LSB/V
		$V^+/V^- = \pm 15\text{V}$, $\pm 5\%$		0.001		0.01			LSB/V

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS	
V_{OUT}	Output Voltage Swing	To V^- (Unloaded, $V^- = \text{GND}$)		$V^- + 0.004$		V	
		To V^+ (Unloaded, $V^+ = 5\text{V}$)		$V^+ - 0.004$		V	
		To V^- ($-10\text{mA} \leq I_{OUT} \leq 10\text{mA}$)	●		$V^- + 1.4$		V
		To V^+ ($-10\text{mA} \leq I_{OUT} \leq 10\text{mA}$)	●	$V^+ - 1.4$			V
	Load Regulation	$-10\text{mA} \leq I_{OUT} \leq 10\text{mA}$ (Note 4)	●	78	150	$\mu\text{V}/\text{mA}$	
R_{OUT}	DC Output Impedance	$-10\text{mA} \leq I_{OUT} \leq 10\text{mA}$ (Note 4)	●	0.078	0.15	Ω	
	DC Crosstalk (Note 5) 0V to 5V Range	Due to Full-Scale Output Change		± 1		μV	
		Due to Load Current Change		± 2		$\mu\text{V}/\text{mA}$	
		Due to Powering Down (per Channel)		± 4		μV	
I_{SC}	V^+/V^- Short-Circuit Output Current (Note 6)	$V_{CC} = 5.5\text{V}$, $V^+/V^- = \pm 15.75\text{V}$, $V_{REF} = 2.5\text{V}$, $\pm 10\text{V}$ Output Range					
		Code: Zero-Scale; Forcing Output to GND Code: Full-Scale; Forcing Output to GND	●	16 -40	42 -14.5	mA mA	

Reference

	Reference Output Voltage		2.495	2.5	2.505	V
	Reference Temperature Coefficient	(Note 7)		± 2	± 10	ppm/ $^\circ\text{C}$
	Reference Line Regulation	$V_{CC} \pm 10\%$		50		$\mu\text{V}/\text{V}$
	Reference Short-Circuit Current	$V_{CC} = 5.5\text{V}$, Forcing Output to GND		2.5		mA
	REFCOMP Pin Short-Circuit Current	$V_{CC} = 5.5\text{V}$, Forcing Output to GND		65		μA

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