

PCN Number:	20170914001	PCN Date:	September 18, 2017
Title:	Datasheet for AFE4300		
Customer Contact:	PCN Manager	Dept:	Quality Services
Change Type:			
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design
<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Data Sheet
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
		<input type="checkbox"/>	Wafer Bump Site
		<input type="checkbox"/>	Wafer Bump Material
		<input type="checkbox"/>	Wafer Bump Process
		<input type="checkbox"/>	Wafer Fab Site
		<input type="checkbox"/>	Wafer Fab Materials
		<input type="checkbox"/>	Wafer Fab Process

Notification Details

Description of Change:

Texas Instruments Incorporated is announcing an information only notification. The product datasheet(s) is being updated as summarized below. The following change history provides further details.



AFE4300

SBAS586C – JUNE 2012 – REVISED SEPTEMBER 2017

Changes from Revision B (June 2013) to Revision C

Page

• Added <i>Device Information</i> table, <i>ESD Ratings</i> table, <i>Feature Description</i> section, <i>Device Functional Modes</i> section, <i>Programming</i> section, <i>Application and Implementation</i> section, <i>Power Supply Recommendations</i> section, <i>Layout</i> section, <i>Device and Documentation Support</i> section, and <i>Mechanical, Packaging, and Orderable Information</i> section	1
• Changed <i>Body Composition</i> Features bullet: changed 375 to 247.5 in <i>Excitation Source</i> sub-bullet and deleted <i>Dynamic Range</i> sub-bullet	1
• Changed TQFP to LQFP throughout document	1
• Deleted <i>Package Information</i> section	4
• Changed <i>Pin Functions</i> table title	4
• Changed <i>clock</i> to <i>serial clock</i> in SCLK pin description of <i>Pin Functions</i> table	5
• Changed VSENSE to VSENSEM in pins 41 and 42 in <i>Pin Functions</i> table	5
• Changed AVSS parameter name to <i>Ground</i> from <i>Supply voltage</i> in <i>Recommended Operating Conditions</i> table	6
• Changed symbol R1 to R_{FB1} in <i>Electrical Characteristics: Front-End Amplification (Weight-Scale Signal Chain)</i> table	7
• Changed typical specification of DAC full-scale voltage parameter from 1 to 1.05 in <i>Electrical Characteristics: Body Composition Measurement Front-End</i> table	8
• Changed <i>Electrical Characteristics: Digital Input/Output</i> table title	9
• Changed multiplication signs (×) to minimum and maximum specifications of <i>Electrical Characteristics: Digital Input/Output</i> table	9
• Changed x-axis unit from μArms to μApk in <i>BCM DAC Output Current Distribution</i> figure	11
• Changed Functional Block Diagram: swapped positions of RP1, RP0 and RN1, RN0 pins	12
• Changed <i>BCM in AC Rectifier Mode</i> figure: swapped positions of RP1, RP0 and RN1, RN0 pins	15
• Changed <i>AC Rectification</i> section: changed <i>images</i> to <i>high-frequency images</i> in second paragraph, VDACC to VDACCOUT in Equation 5, and changed third paragraph	16
• Changed third paragraph of <i>AC Rectification</i> section: deleted (<i>still within the 500-μArms limit</i>) from fourth sentence, changed last sentence	16
• Changed <i>BCM in I/Q Demodulator Mode</i> figure: swapped positions of RP1, RP0 and RN1, RN0 pins	17

• Changed <i>Operating Modes</i> section	20
• Changed <i>negative input</i> to <i>output</i> in descriptions of IOOTP[5:0] and RP[1:0] and <i>output</i> to <i>negative input</i> in descriptions of IOUTN[5:0] and RN[1:0] in ISW_MUX register	26
• Changed bit 9 to DAC9 from 0 in BCM_DAC_FREQ register and changed bit count in bit descriptions to reflect this change	27
• Changed $f_{CLK} = 1 \text{ MHz}$ to $f_{CLK} = 1.024 \text{ MHz}$ in BCM_DAC_FREQ register	27
• Changed <i>Component Values Corresponding to Figure 12</i> table: changed title of second column from <i>Suggested Value</i> to <i>Illustrative Value</i> , R3, R4 illustrative value to 10 k Ω from 100 k Ω , and changed table footnote	30
• Changed 1 MHz to 1.024 MHz in <i>Example Value</i> column of <i>Weight Scale Design Requirements</i> table	32
• Deleted touch from list of possible power-up interrupts in third paragraph of <i>Detailed Design Procedure</i> section	33
• Changed first sentence of <i>Application Curve</i> section to reference Figure 15	33
• Changed <i>capacitor</i> to <i>capacitances</i> in last bullet of <i>Layout Guidelines</i> section	35

The datasheet number will be changing.

Device Family	Change From:	Change To:
AFE4300	SBAS586B	SBAS586C

These changes may be reviewed at the datasheet links provided.

<http://www.ti.com/product/AFE4300>

Reason for Change:

To accurately reflect device characteristics.

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

No anticipated impact. This is a specification change announcement only. There are no changes to the actual device.

Changes to product identification resulting from this PCN:

None.

Product Affected:

AFE4300PN	AFE4300PNR		
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For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
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