

Notification Number:	20210423004	Notification Date:	May 7, 2021
Title:	Datasheet for ADC12DJ3200, ADC08DJ3200, and ADC12DJ2700		
Customer Contact:	Notification Manager	Dept:	Quality Services
Change Type: Electrical Specification			

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.



ADC12DJ3200

SLVSD97A – JUNE 2017 – REVISED APRIL 2020

Changes from Original (June 2017) to Revision A	Page
• Changed <i>Pin Functions</i> table listed in alphanumeric order by pin name.....	5
• Deleted reference to footnote below the <i>Recommended Operating Conditions</i> table and moved the information to the <i>Power-Down Mode</i> section.....	7
• Deleted note underneath the <i>Recommended Operating Conditions</i> table regarding reliable serializer operation. The information has moved to the <i>Power-Down Modes</i> section.....	10
• Changed <i>Electrical Characteristics - AC Specifications</i> table to include only the Dual-Channel Mode specifications and renamed the table to <i>Electrical Characteristics: AC Specifications (Dual-Channel Mode)</i> . Single-Channel Mode specifications have been split into a separate table for ease of reading.....	14
• Added <i>Electrical Characteristics: AC Specifications (Single-Channel Mode)</i> table to make the specification tables easier to read.....	17
• Changed figure order in <i>Typical Characteristics</i> section.....	25
• Added FG calibration to conditions of <i>ENOB vs Input Frequency</i> figure.....	25
• Changed title of <i>HD2, HD3, THD vs Input Frequency</i> figure.....	26
• Added $f_{CLK} = 3200$ MHz to conditions of <i>SNR, SINAD, SFDR vs Temperature</i> figure.....	31
• Added $f_{CLK} = 3200$ MHz to conditions of <i>HD2, HD3, THD vs Temperature</i> figure.....	31
• Changed title of <i>ENOB vs Temperature and Calibration Type</i> figure.....	31
• Added $f_{CLK} = 3200$ MHz to conditions of <i>ENOB vs Temperature and Calibration Type</i> figure.....	31
• Added $f_{CLK} = 3200$ MHz to conditions of <i>SNR, SINAD, SFDR vs Supply Voltage</i> figure.....	32
• Added $f_{CLK} = 3200$ MHz to conditions of <i>ENOB vs Supply Voltage</i> figure.....	32
• Added $f_{CLK} = 3200$ MHz to conditions of <i>HD2, HD3, THD vs Supply Voltage</i> figure.....	32
• Added $f_{CLK} = 3200$ MHz to <i>Supply Current vs Temperature</i> figure.....	33
• Added $f_{CLK} = 3200$ MHz to <i>Power Consumption vs Temperature</i> figure.....	34

• Changed <i>JMODE2</i> to <i>JMODE0</i> in <i>Background Calibration Core Transition (AC Signal)</i> figure	36
• Changed curve data for <i>Background Calibration Core Transition (AC Signal)</i> , <i>Background Calibration Core Transition (AC Signal Zoomed)</i> , <i>Background Calibration Core Transition (DC Signal)</i> , and <i>Background Calibration Core Transition (DC Signal Zoomed)</i> figures	36
• Changed <i>JMODE2</i> to <i>JMODE0</i> in <i>Background Calibration Core Transition (AC Signal Zoomed)</i> figure	36
• Changed product description in <i>Overview</i> section	37
• Added <i>Device Comparison</i> section	38
• Changed location of <i>Analog Reference Voltage</i> section	40
• Changed location of <i>Temperature Monitoring Diode</i> section	42
• Added requirement for at least 3 rising edges of SYSREF before SYSREF_POS output is valid	45
• Changed note in <i>Basic NCO Frequency Setting Mode</i> section	50
• Added sentence describing <i>Common NCO_RDIV Values (For 10-kHz Frequency Steps)</i> table	51
• Added clarification of NCO synchronization using DC-coupled SYSREF	51
• Added clarification of NCO synchronization using AC-coupled SYSREF	52
• Changed note in <i>Power-Down Modes</i> section to caution note explaining reliable serializer operation instead of the information being presented under the <i>Recommended Operating Conditions</i> table	71
• Changed the <i>Low-Power Background Calibration (LPBG) Mode</i> section to provide additional detail of how to operate the device in low-power background calibration mode	77
• Added clarity about offset calibration when both CAL_OS and CAL_BG are enabled	78
• Changed <i>Trimming</i> section to limit trimming to foreground (FG) calibration mode only to better reflect customer use cases and simplify the explanation	79
• Changed additional clarity to <i>Offset Filtering</i> section to explain the frequency domain impact of the feature	80
• Changed third sentence of SDI section to include <i>and multi-byte registers are always in little-endian format (least significant byte stored at the lowest address)</i>	81
• Added <i>ADC12DJ3200 Access Type Codes</i> table	87
• Changed description of bit 0 in <i>DEVCLK Timing Adjust Ramp Control Register</i> section	129
• Added <i>Application Information</i> section discussion	132
• Added <i>Reconfigurable Dual-Channel 2.5-GSPS or Single-Channel 5.0-Gsps Oscilloscope</i> section	135
• Changed <i>Top Layer Routing: Analog Inputs, CLK and SYSREF, DA0-3, DB0-3</i> to <i>Bottom Layer Routing: Additional CLK Routing, DA4-7, DB4-7</i> figures	142



Changes from Original (February 2018) to Revision A

Page

• Changed <i>Pin Functions</i> table listed in alphanumeric order by pin name	4
• Changed FFT plots in <i>Typical Characteristics</i> section to show improved look	23
• Changed product description in <i>Overview</i> section	33
• Changed <i>Device Comparison</i> section to include all devices in the family	34
• Changed location of <i>Analog Reference Voltage</i> section	36
• Changed location of <i>Temperature Monitoring Diode</i> section	38
• Added requirement for at least 3 rising edges of SYSREF before SYSREF_POS output is valid	40
• Changed note in <i>Power-Down Modes</i> section to caution note explaining reliable serializer operation instead of the information being presented under the <i>Pin Functions</i> table	54
• Changed the <i>Low-Power Background Calibration (LPBG) Mode</i> section to provide additional detail of how to operate the device in low-power background calibration mode	58
• Added clarity about offset calibration when both CAL_OS and CAL_BG are enabled	59
• Changed <i>Trimming</i> section to limit trimming to foreground (FG) calibration mode only to better reflect customer use cases and simplify the explanation	60
• Changed additional clarity to <i>Offset Filtering</i> section to explain the frequency domain impact of the feature	61

Changes from Original (January 2018) to Revision A	Page
• Changed <i>Pin Functions</i> table listed in alphanumeric order by pin name.	5
• Deleted reference to footnote below the <i>Pin Functions</i> table and moved the information to the <i>Power-Down Mode</i> section.	7
• Added <i>Operating free-air temperature</i> parameter to <i>Absolute Maximum Ratings</i> table	9
• Added <i>Storage temperature</i> parameter to <i>Recommended Operating Conditions</i> table	10
• Changed FFT plots in Typical Characteristics section to show improved look	25
• Changed product description in <i>Overview</i> section	35
• Changed <i>Device Comparison</i> section to include all devices in the family.	36
• Changed location of <i>Analog Reference Voltage</i> section.	38
• Changed location of <i>Temperature Monitoring Diode</i> section.	40
• Added requirement for at least 3 rising edges of SYSREF before SYSREF_POS output is valid.	43
• Added clarification of NCO synchronization using DC-coupled SYSREF.	49
• Added clarification of NCO synchronization using AC-coupled SYSREF.	50
• Changed note in <i>Power-Down Modes</i> section to caution note explaining reliable serializer operation instead of the information being presented under the <i>Pin Functions</i> table.	69
• Changed the <i>Low-Power Background Calibration (LPBG) Mode</i> section to provide additional detail of how to operate the device in low-power background calibration mode.	75
• Added clarity about offset calibration when both CAL_OS and CAL_BG are enabled.	76
• Changed <i>Trimming</i> section to limit trimming to foreground (FG) calibration mode only to better reflect customer use cases and simplify the explanation.	77
• Changed additional clarity to <i>Offset Filtering</i> section to explain the frequency domain impact of the feature.	78
• Added <i>ADC12DJ2700 Access Type Codes</i> table	85
• Added <i>Reconfigurable Dual-Channel 2.5-GSPS or Single-Channel 5.0-Gsps Oscilloscope</i> section	133
• Changed <i>Top Layer Routing: Analog Inputs, CLK and SYSREF, DA0-3, DB0-3</i> to <i>Bottom Layer Routing: Additional CLK Routing, DA4-7, DB4-7</i> figures	140

The datasheet number will be changing.

Device Family	Change From:	Change To:
ADC12DJ3200	SLVSD97	SLVSD97A
ADC08DJ3200	SLVSDR1	SLVSDR1A
ADC12DJ2700	SLVSEH9	SLVSEH9A

These changes may be reviewed at the datasheet links provided.

<http://www.ti.com/product/ADC12DJ3200>

<http://www.ti.com/product/ADC08DJ3200>

<http://www.ti.com/product/ADC12DJ2700>

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 notification:

None.			
Product Affected:			
ADC12DJ3200AAV	ADC12DJ3200AAVT	ADC12DJ3200ZEG	ADC12DJ3200ZEGT
ADC08DJ3200AAV	ADC08DJ3200AAVT	ADC12DJ2700AAV	ADC12DJ2700AAV
ADC12DJ2700ZEG	ADC12DJ2700ZEGT		

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