



Product/Process Change Notice - PCN 10_0238 Rev. -

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This notice is to inform you of a change that will be made to certain ADI products (see Material Report). Any issues with this PCN or requirements to qualify the change (additional data or samples) must be sent to ADI within 30 days of publication date. ADI contact information is listed below.

PCN Title: Die Revision and Datasheet Changes for ADE7854, ADE7858, ADE7868, ADE7878 Products

Publication Date: 15-Nov-2010

Effectivity Date: 13-Feb-2011 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release

Description Of Change

Die revision will incorporate anomaly fixes and silicon improvements. Datasheet will be modified to reflect these improvements.

1. Updated Version register from 0x02 to 0x04
2. Added write protection of the registers located in the DSP Data Memory RAM (addresses between 0x4380 and 0x43BE). By default, write protection is not enabled making Version 0x04 and Version 0x02 parts compatible.
 - 2a. To enable write protection, write 0xAD to an 8-bit register located at address 0xE7FE, followed by a write of 0x80 to an 8-bit register located at address 0xE7E3.
 - 2b. To disable write protection, write 0xAD to an 8-bit register located at address 0xE7FE, followed by a write of 0x00 to an 8-bit register located at address 0xE7E3.
3. Added support for negative values for AIRMSOS, AVRMSOS, BIRMSOS, BVRMSOS, CIRMSOS, CVRMSOS and NIRMSOS registers
4. Removed delay in initialization of CF1DEN, CF2DEN and CF3DEN registers
5. Read-only RMS registers (AVRMS, BVRMS, CVRMS, AIRMS, BIRMS, CIRMS, and NIRMS) can now be read without delays between reads
6. Corrected a typographical error in the datasheet: typical Signal-to-Noise-and-Distortion Ratio (SINAD) specification is 60dB. There is no SINAD performance difference between Version 0x02 and Version 0x04 silicon.

Reason For Change

Improved performance and robustness.

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

No impact on fit, form and reliability.
Functional backwards compatibility is maintained.

Summary of Supporting Information

Qualification is in process per ADI0012, Procedure for Qualification of New or Revised Processes. See attached Qualification Plan.

Supporting Documents

Attachment 1: Type: Qualification Plan Summary

ADI_PCN_10_0238_Rev_-_QualPlan_ADE7878 rev F.pdf

For questions on this PCN, send email to the regional contacts below or contact your local ADI sales representative

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 (9)

ADE7854 / ADE7854ACPZ	ADE7854 / ADE7854ACPZ-RL	ADE7858 / ADE7858ACPZ	ADE7858 / ADE7858ACPZ-RL	ADE7868 / ADE7868ACPZ	ADE7868 / ADE7868ACPZ-RL
ADE7878 / AD71099ACPZ	ADE7878 / ADE7878ACPZ	ADE7878 / ADE7878ACPZ-RL			

Appendix B - Revision History

Rev	Publish Date	Rev Description
Rev. -	15-Nov-2010	Initial Release

Analog Devices, Inc.

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