



Product/Process Change Notice - PCN 13_0117 Rev. A

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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.

Note: Revised fields are indicated by a red field name. See Appendix B for revision history.

PCN Title: Mask Change for ADE7878, ADE7868, ADE7858 and ADE7854 and Datasheet Update

Publication Date: 28-Oct-2013

Effectivity Date: 28-Oct-2013 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

This revision includes some changes to the product datasheet specification.
Attachment: Replaced Qual Plan Summary with Qualification Report Summary.

Description Of Change

A small group of transistor types have been changed from low to standard threshold voltage. Also, a deglitch circuit has been added to the oscillator design.

The datasheet updates are to clarify actual product performance and are not a result of the mask revision.
The following changes will be reflected in Revision G of the product datasheet:

- For Active and Reactive Energies, the phase error between channels is no longer specified.
- For Waveform Sampling, SNR has changed from 70dB to 74dB and SNDR has changed from 60 dB to 74dB.
- For the On-Chip Reference, reference error and output impedance are no longer specified. Also, temperature coefficient has changed from typical +10 and maximum +50 ppm/C to minimum -50, typical +/-5 and maximum +50 ppm/C.
- For CLKIN, crystal ESR is no longer specified. Also, CLKIN and CLKOUT Total Capacitance are no longer specified.

Reason For Change

New transistor types improve overall temperature performance. New deglitch circuit improves oscillator's immunity to external system noise.

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

There is no change to the fit or form, and the changes described above will have no negative impact on the quality or reliability of the devices.

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

An internal version register located at address 0xE707 can be read by the user and will have a value of 8.

Summary of Supporting Information

Qualification has been performed per ADI0012, Procedure for Qualification of New or Revised Processes. See attached Qualification Report Summary.

Supporting Documents

Attachment 1: Type: Qualification Report Summary

ADI_PCN_13_0117_Rev_A_ADE78xx_Qual Results.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

Existing Parts - Product Family / Model Number (11)

ADE7854 / ADE7854ACPZ	ADE7854 / ADE7854ACPZ-RL	ADE7858 / ADE7858ACPZ	ADE7858 / ADE7858ACPZ-RL	ADE7868 / ADE7868ACPZ
ADE7868 / ADE7868ACPZ-RL	ADE7878 / AD71129ACPZ	ADE7878 / AD71129ACPZ-RL	ADE7878 / ADE7878ACPZ	ADE7878 / ADE7878ACPZ-REF
ADE7878 / ADE7878ACPZ-RL				

Appendix B - Revision History

Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	01-Jul-2013	29-Sep-2013	Initial Release
Rev. A	28-Oct-2013	28-Oct-2013	This revision includes some changes to the product datsheet specification. Attachment: Replaced Qual Plan Summary with Qualification Report Summary.

Analog Devices, Inc.

DocId:2532 Parent DocId:None Layout Rev:7