ANALOG DEVICES

Product/Process Change Notice - PCN 14_0041   Rev. -

Analog Devices, Inc.   Three Technology Way Norwood, Massachusetts 02062-9106

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:	AD5755/AD5735, AD5757/AD5737 and AD5755-1 - Change to Packet Error Checking Functionality and Recommended External Diode
Publication Date:	01-Apr-2014
Effectivity Date:	30-Jun-2014 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release

Description Of Change

The AD5755 Family consists of five products: AD5755, AD5755-1, AD5735, AD5737 and AD5757.
This PCN covers two changes.

Change 1. Change in the Packet Error Checking Feature (PEC):

a) AD5755-1, AD5757, and AD5737: To improve the robustness of the Packet Error Checking Feature, it is now enabled manually by enabling bit D12 ("PEC_Enable") in the software register (formerly User Program bit). The PEC feature will no longer be automatically enabled with a 32-bit command.
When bit D12 is enabled, only commands with a 32-bit frame are accepted (24-bit command and 8-bit frame check). There is no change to the polynomial used to calculate the 8-bit frame check.
The timing specifications have also been altered to extend some of the SPI timings to accommodate for the extra logic for the PEC robustness. See Timing Characteristics attachment.

b)AD5755 and AD5735: The PEC feature will continue to function as before. Packet Error Checking is enabled when a 32-bit command is issued to the device.

Change 2. Recommended Diode in the DC-to-DC converter:

All product datasheets will be updated to recommend the PD3S160 (Diodes Inc.) as the new recommended diode for the DC-to-DC converter. The new diode has a reduced leakage current at higher temperatures and results in higher efficiency. All datasheets will have new Typical Performance Characteristic plots to reflect this new recommended component.

Reason For Change

Packet Error Checking: The change in enabling the PEC and extension of Clear and Reset deglitch will result in a more robust PEC feature.

Recommended Diode: The new diode has a reduced leakage current at higher temperatures resulting in higher efficiencies.

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

No change in fit, form, and reliability of the parts.

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

The new products will be identified by date code 1425 onwards.

Summary of Supporting Information

The changes highlighted by this PCN will be documented in the following datasheet revisions:
Rev. D of the AD5755 datasheet
Rev. D of the AD5735 datasheet
Rev. F of the AD5755-1 datasheet
Rev. E of the AD5757 datasheet
Rev. D of the AD5737 datasheet

Supporting Documents

Attachment 1: Type: Qualification Report Summary

ADI_PCN_14_0041_Rev_-_PCN-QP-AD5737_AD5755-1_AD5757.docx

Attachment 2: Type: Revised Datasheet Specification

ADI_PCN_14_0041_Rev_-_Timing Characteristics Changes.jpg

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 (12)				
AD5735 / AD5735ACPZ	AD5735 / AD5735ACPZ-REEL7	AD5737 / AD5737ACPZ	AD5737 / AD5737ACPZ-RL7	AD5755 / AD5755ACPZ
AD5755 / AD5755ACPZ-REEL7	AD5755 / AD5755BCPZ	AD5755 / AD5755BCPZ-REEL7	AD5755-1 / AD5755-1ACPZ	AD5755-1 / AD5755-1ACPZ-REEL7
AD5757 / AD5757ACPZ	AD5757 / AD5757ACPZ-REEL7			

Appendix B - Revision History			
Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	01-Apr-2014	30-Jun-2014	Initial Release

Analog Devices, Inc.