



Product/Process Change Notice - PCN 09_0259 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: Datasheet Specification Change for ADSP-BF523/523C/525/525C/527/527C Blackfin Processors

Publication Date: 14-Dec-2009

Samples Available Date: N/A

Effectivity Date: 14-Dec-2009 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release

Description Of Change

Change in minimum VCO frequency (fVCO), minimum CLKIN frequency (fCKIN), and MSEL restrictions.

This change affects the ADSP-BF523/ADSP-523C/ADSP-525/ADSP-525C/ADSP-527/ADSP-527C Blackfin product generics and any special products derived from those generics.

1. The minimum VCO frequency (fVCO) specification in the datasheet table titled "Phase-Locked Loop Operating Conditions" is being changed according to the following:

Rev0 datasheet:
fVCO = 50MHz minimum

RevA datasheet:
fVCO = 60MHz minimum for commercial/industrial models
fVCO = 70MHz minimum for automotive models

2. The minimum CLKIN frequency (fCKIN) specification in the datasheet table titled "Clock and Reset Timing" is being changed according to the following:

Rev0 datasheet:
fCKIN = 10MHz minimum

RevA datasheet:
fCKIN = 12MHz minimum for commercial/industrial models
fCKIN = 14MHz minimum for automotive models

3. MSEL values 1,2,3 and 4 are not supported. This is corrected in the ADSP-BF52x Blackfin Processor Hardware Reference Revision 0.4 in the section titled "PLL Clock Multiplier Ratios".

Reason For Change

An intrinsic marginality was identified for the PLL on this device that requires updated specifications for minimum VCO frequency, minimum CLKIN frequency and MSEL setting. Operating the device outside of these updated specifications causes excessive jitter on VCO-derived clocks and can cause incorrect functional operation. All devices in this product family are affected.

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

The customer is required to meet the new VCO and CLKIN minimum frequencies and the MSEL restrictions. This change does not affect form or fit of the device.

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

No physical change will be made to the device. This is a change of electrical specification only.

Summary of Supporting Information

No Qualification is required.

Supporting Documents None

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 (26)

ADSP-BF523 / ADSP-BF523BBCZ-5A	ADSP-BF523 / ADSP-BF523KBCZ-5	ADSP-BF523 / ADSP-BF523KBCZ-6	ADSP-BF523 / ADSP-BF523KBCZ-6A	ADSP-BF523C / ADSP-BF523KBCZ-5C2	ADSP-BF523C / ADSP-BF523KBCZ-6C2
ADSP-BF525 / AD91157Z	ADSP-BF525 / ADSP-BF525BBCZ-5A	ADSP-BF525 / ADSP-BF525KBCZ-5	ADSP-BF525 / ADSP-BF525KBCZ-6	ADSP-BF525 / ADSP-BF525KBCZ-6A	ADSP-BF525C / ADSP-BF525KBCZ-5C2
ADSP-BF525C / ADSP-BF525KBCZ-6C2	ADSP-BF525W-02 / ADBF525WBBCZ402	ADSP-BF525W-02 / ADBF525WYBCZ402	ADSP-BF525W-02 / ADW95092Z-02	ADSP-BF525W-02 / ADW95094Z-02	ADSP-BF525W-02 / ADW95094Z-02RL
ADSP-BF527 / ADSP-BF527BBCZ-5A	ADSP-BF527 / ADSP-BF527KBCZ-5	ADSP-BF527 / ADSP-BF527KBCZ-6	ADSP-BF527 / ADSP-BF527KBCZ-6A	ADSP-BF527C / ADSP-BF527KBCZ-5C2	ADSP-BF527C / ADSP-BF527KBCZ-6C2
SST-RADIO / ADSST-DR-06Z	SST-VIDEO / ADSST-IP2000-02				

Appendix B - Revision History

Rev	Publish Date	Rev Description
Rev. -	14-Dec-2009	Initial Release

Analog Devices, Inc.

DocId:935 Parent DocId:825 Layout Rev:1