



## Product/Process Change Notice - PCN 09\_0028 Rev. A

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.

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

**PCN Title:** Material set change for 12x12mm CSP\_BGA package (Affects ADSP-BF531/BF531W, ADSP-BF532/BF532W and ADSP-BF533/BF533W generics)

**Publication Date:** 02-Sep-2009

**Samples Available Date:** 05-Oct-2009

**Effectivity Date:** 15-Jan-2010 (the earliest date that a customer could expect to receive changed material)

### Description Of Change

ADI is changing the laminate for the ADSP-BF531, ADSP-BF532, ADSP-BF533 12x12mm CSP\_BGA products to halogen-free materials (the other package materials are already halogen-free).

NOTE: Definition of halogen-free is: Bromine (Br) content = 900 ppm maximum, Chlorine (Cl) content = 900 ppm maximum, and combined Br and Cl content = 1500 ppm maximum.

### Reason For Change

To manufacture products which are environmentally friendly, align with industry and customer requests to move towards these materials (halogen-free), and will continue to meet Pb-free reflow conditions (Max. +255°C (+5/-0°C) peak).

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

This change of material set has no affect on electrical performance or thermal performance and has no impact on form, fit, function or reliability of the 12x12mm CSP\_BGA package.

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

### Summary of Supporting Information

Qualification will be performed per Analog Devices specification ADI-0012, Procedure for qualification for New or Revised Processes or Products. The Qualification plan is attached. The Qualification Report will be available after completion, upon request.

### Supporting Documents

**Attachment 1:** ADI\_PCN\_09\_0028\_Rev\_A\_HalFreeQualPlan.xls

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

<b>Americas:</b>	PCN_Americas@analog.com	<b>Europe:</b>	PCN_Europe@analog.com	<b>Japan:</b>	PCN_Japan@analog.com
				<b>Rest of Asia:</b>	PCN_ROA@analog.com

**Appendix A - Affected ADI Models**

**Existing Parts - Product Family / Model Number (145)**

ADSP-BF531 / ADSP-BF531SBBC-4RL	ADSP-BF531 / ADSP-BF531SBBC400	ADSP-BF531 / ADSP-BF531SBBCZ400	ADSP-BF531 / ADSP-BF531SBBCZ4RL	ADSP-BF531C / ADSP-BF531SBBC-C70	ADSP-BF531C / ADSP-BF531SBBC-C74
ADSP-BF531C / ADSP-BF531SBBC-C92	ADSP-BF531C / ADSP-BF531SBBCZC74	ADSP-BF531C / ADSP-BF531SBBCZC92	ADSP-BF531W / ADW95059Z-05	ADSP-BF531W / ADW95067Z-05	ADSP-BF531W / ADW95067Z-05RL
ADSP-BF531W / ADW95084Z-05	ADSP-BF531W / ADW95084Z-05RL	ADSP-BF531W / ADW95086-05RL	ADSP-BF531W-06 / ADBF531WBBC406	ADSP-BF531W-06 / ADBF531WBBC406RL	ADSP-BF531W-06 / ADBF531WBBCZ406
ADSP-BF531W-06 / ADBF531WBBCZ406RL	ADSP-BF531W-06 / ADBF531WYBC406RL	ADSP-BF531W-06 / ADBF531WYBCZ406	ADSP-BF531W-06 / ADW95059Z-06	ADSP-BF531W-06 / ADW95067Z-06RL	ADSP-BF531W-06 / ADW95086-06RL
ADSP-BF532 / ADSP-BF532SBBC400	ADSP-BF532 / ADSP-BF532SBBCZ400	ADSP-BF532C / ADSP-BF532SBBC-C11	ADSP-BF532C / ADSP-BF532SBBCZC11	ADSP-BF532C / ADSP-BF532SBBCZ-C76	ADSP-BF532W / ADW95050-04
ADSP-BF532W / ADW95050-05	ADSP-BF532W-06 / ADBF532WBBCZ406	ADSP-BF532W-06 / ADBF532WYBCZ406	ADSP-BF532W-06 / ADW95050-06	ADSP-BF532W-06 / ADW95050Z-06	ADSP-BF533 / AD91107Z
ADSP-BF533 / AD91110Z	ADSP-BF533 / AD91110Z-RL	ADSP-BF533 / ADSP-BF533SBBC-5V	ADSP-BF533 / ADSP-BF533SBBC500	ADSP-BF533 / ADSP-BF533SBBCZ-5V	ADSP-BF533 / ADSP-BF533SBBCZ500
ADSP-BF533 / ADSP-BF533SKBC-6V	ADSP-BF533 / ADSP-BF533SKBC600	ADSP-BF533 / ADSP-BF533SKBC750	ADSP-BF533 / ADSP-BF533SKBCZ-6V	ADSP-BF533 / ADSP-BF533SKBCZ600	ADSP-BF533C / AD91089Z
ADSP-BF533C / ADSP-BF533SBBC-C10	ADSP-BF533C / ADSP-BF533SBBC-C70	ADSP-BF533C / ADSP-BF533SBBC-C73	ADSP-BF533C / ADSP-BF533SBBCZ5VC	ADSP-BF533C / ADSP-BF533SBBCZC10	ADSP-BF533C / ADSP-BF533SBBCZC70
ADSP-BF533C / ADSP-BF533SKBC-C71	ADSP-BF533C / ADSP-BF533SKBC-C90	ADSP-BF533C / ADSP-BF533SKBCZ6VC	ADSP-BF533C / ADSP-BF533SKBCZC71	ADSP-BF533C / ADSP-BF533SKBCZC73	ADSP-BF533C / ADSP-BF533SKBCZC90
ADSP-BF533L / AD90828Z	ADSP-BF533L / ADSP-BF533SBBCZ400	ADSP-BF533W / ADW95040Z-05	ADSP-BF533W / ADW95044Z-05	ADSP-BF533W / ADW99017Z-05	ADSP-BF533W-06 / ADBF533WBBCZ506
ADSP-BF533W-06 / ADBF533WYBCZ406	ADSP-BF533W-06 / ADW95044Z-06	SST-AUDIO / ADSST-AUDIO-8010	SST-AUDIO / ADSST-BF-HMS-1050	SST-AUDIO / ADSST-BF-HMS-1055	SST-AUDIO / ADSST-BF-HMS-1057
SST-AUDIO / ADSST-BF-HMS-1058	SST-AUDIO / ADSST-BF-HMS-1060	SST-AUDIO / ADSST-BF-HMS-1065	SST-AUDIO / ADSST-BF-HMS-1066	SST-AUDIO / ADSST-DRM-01Z	SST-AUDIO / ADSST-HP-1000
SST-AUDIO / ADSST-MP3-9025	SST-AUDIO / ADSST-MP3-9026	SST-AUDIO / ADSST-MP3-9028	SST-AUDIO / ADSST-MP3-9030	SST-AUDIO / ADSST-MP3-9031PEAV	SST-AUDIO / ADSST-MPEG-1015Z
SST-AUDIO / ADSST-MPEG-1025Z	SST-AUDIO / ADSST-MPEG-8901Z	SST-AUDIO / ADSST-MPEG-BF531	SST-AUDIO / ADSST-MPEG-BF531Z	SST-AUDIO / ADSST-MPEG-BF533	SST-AUDIO / ADSST-MPEG-BF535Z
SST-GPS / ADSST-NAV-NERA	SST-GPS / ADSST-NAV2500	SST-GPS / ADSST-NAV2500HS	SST-GPS / ADSST-NAV2500Z	SST-GPS / ADSST-NAV2501	SST-GPS / ADSST-NAV2502
SST-GPS / ADSST-NAV2503	SST-GPS / ADSST-NAV2510	SST-GPS / ADSST-NAV2510Z	SST-GPS / ADSST-NAV2515Z	SST-GPS / ADSST-NAV2516	SST-GPS / ADSST-NAV2516Z
SST-GPS / ADSST-NAV2518	SST-GPS / ADSST-NAV2518Z	SST-GPS / ADSST-NAV2522Z	SST-MOD / ADSST-BMM-224Z	SST-MOD / ADSST-BMM-232	SST-MOD / ADSST-V32-BCS30
SST-MOD / ADSST-V34-BCM30	SST-MOD / ADSST-V34-BCS1205	SST-MOD / ADSST-V34-BCS1215	SST-MOD / ADSST-V34-BCS1215Z	SST-MOD / ADSST-V34-BCS1216	SST-MOD / ADSST-V34-BCS230Z
SST-MOD / ADSST-V34-BCS30	SST-MOD / ADSST-V34-BCS30Z	SST-MOD / ADSST-V34-BCS33	SST-MOD / ADSST-V90-BCS230Z	SST-MOD / ADSST-V90-BCS30Z	SST-MOD / ADSST-V90-BSM10
SST-MOD / ADSST-V90-BSM10Z	SST-RADIO / ADSST-DR-01Z	SST-RADIO / ADSST-DR-07Z	SST-RADIO / ADSST-DR-08Z	SST-RADIO / ADSST-WS-01Z	SST-VIDEO / ADSST-IP-1112-AF
SST-VIDEO / ADSST-IP1100-AF	SST-VIDEO / ADSST-IP2000-00	SST-VIDEO / ADSST-IP2150	SST-VIDEO / ADSST-NC8010	SST-VIDEO / ADSST-NC8016	SST-VIDEO / ADSST-NC8020
SST-VIDEO / ADSST-NC8026	SST-VIDEO / ADSST-NC8027	SST-VIDEO / ADSST-NC8032	SST-VIDEO / ADSST-NC8100	SST-VIDEO / ADSST-NC8116	SST-VIDEO / ADSST-NC8120
SST-VIDEO / ADSST-NC8126	SST-VIDEO / ADSST-NC8127	SST-VIDEO / ADSST-NC8128	SST-VIDEO / ADSST-NC8129	SST-VIDEO / ADSST-NC8130	SST-VIDEO / ADSST-NC8135
SST-VIDEO / ADSST-NC8136					

**Added Parts On This Revision - Product Family / Model Number (23)**

ADSP-BF531 / ADSP-BF531SBBC-4RL	ADSP-BF531C / ADSP-BF531SBBC-C74	ADSP-BF531W / ADW95059Z-05	ADSP-BF531W / ADW95067Z-05	ADSP-BF531W / ADW95084Z-05RL	ADSP-BF531W-06 / ADBF531WBBC406
ADSP-BF531W-06 / ADBF531WBBC406RL	ADSP-BF531W-06 / ADBF531WBBCZ406RL	ADSP-BF531W-06 / ADBF531WYBC406RL	ADSP-BF531W-06 / ADW95059Z-06	ADSP-BF531W-06 / ADW95067Z-06RL	ADSP-BF532W-06 / ADW95050Z-06
ADSP-BF533 / AD91110Z-RL	ADSP-BF533 / ADSP-BF533SKBC600	ADSP-BF533 / ADSP-BF533SKBC750	ADSP-BF533 / ADSP-BF533SKBCZ600	ADSP-BF533C / ADSP-BF533SBBCZ5VC	ADSP-BF533C / ADSP-BF533SKBC-C90
ADSP-BF533W / ADW95040Z-05	ADSP-BF533W / ADW95044Z-05	ADSP-BF533W / ADW99017Z-05	ADSP-BF533W-06 / ADW95044Z-06	SST-AUDIO / ADSST-MPEG-BF531	

**Appendix B - Revision History**

<b>Rev</b>	<b>Publish Date</b>	<b>Rev Description</b>
Rev. -	11-Mar-2009	Initial Release
Rev. A	02-Sep-2009	Effective date and samples date changed to reflect updated schedule. Additional models added to PCN revision.

Analog Devices, Inc.

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