



## Product/Process Change Notice - PCN 10\_0105 Rev. B

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:** Conversion to Laser Marking for the BGA Packages (Single Grades)

**Publication Date:** 16-Mar-2011

**Effectivity Date:** 15-Apr-2011 *(the earliest date that a customer could expect to receive changed material)*

### Revision Description:

Add back in parts inadvertently removed in Rev.A.

### Description Of Change

ADI will be converting the package top mark (or brand) from ink mark to laser mark for all lead counts and body sizes of the BGA packages.

Transition to laser mark will be dependent on inventory depletion of ink marked material and/or production release requirements.

### Reason For Change

ADI is already in production with laser mark for many package families i.e. Low pin counts and QFPs. The industry trend is toward ink mark elimination in favor of laser mark. This aligns with supplier direction and industry environmental initiatives.

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

No impact on fit, form, function & reliability.

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

Changed material can be identified by the top laser marking.

### Summary of Supporting Information

ADI has used laser mark in production for many years. Samples were obtained and evaluated for marking contrast using an Agilent MV8000 contrast measurement tool and also on test backend vision system performance based on current test site/s.

A sample of a BGA package is attached. There is no change in the bottom mark and only top mark ink (photo on the left) is converted to laser mark (photo on the right).

### Supporting Documents

**Attachment 1:** Type: Marking Comparison

ADI\_PCN\_10\_0105\_Rev\_B\_ADI Ink vs. Laser Marking Samples.ppt

**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 (68)**

AD5384 / AD5384BBC-3	AD5384 / AD5384BBC-3REEL7	AD5384 / AD5384BBC-5	AD5384 / AD5384BBC-5REEL7	AD6633 / AD6633BBCZ	AD6633 / AD6633CBCZ
AD6635 / AD6635BB	AD6636 / AD6636BBCZ	AD6636 / AD6636CBCZ	AD73422 / AD73422BB-40	AD73422 / AD73422BB-80	AD80057 / AD80057BKBC
AD80057 / AD80057BKBC-36	AD9891 / AD9891KBC	AD9895 / AD80067KBC	AD9895 / AD9895KBC	AD9895 / AD9895KBCRL	AD9929 / AD9929BBCZ
AD9929 / AD9929BBCZRL	AD9942 / AD9942BBCZ	AD9942 / AD9942BBCZRL	AD9972 / AD9972BBCZ	AD9972 / AD9972BBCZRL	AD9974 / AD9974BBCZ
AD9974 / AD9974BBCZRL	AD9992 / AD9992BBCZ	AD9992 / AD9992BBCZRL	AD9996 / AD9996BBCZ	AD9996 / AD9996BBCZRL	ADATE207 / ADATE207BBP
ADSP-21161N / AD91128Z	ADSP-21261 / ADSP-21261SKBC-150	ADSP-21262 / ADSP-21262SBBC-150	ADSP-21266SA-D / ADSST-AVR-1000	ADSP-21266SA-D / ADSST-AVR-1075	ADSP-21266SA-D / ADSST-AVR-1095
ADSP-21266SB-D / ADSST-AVR-1097	ADSP-21266SB-D / ADSST-AVR-1098	ADSP-21362W / ADW95025Z-RL	ADSP-21367-D / ADSST-AVR-1180	ADSP-BF523SSTD / ADSST-IP2000-02	ADSP-BF527SSTD / ADSST-DR-10Z
ADSP-BF531SSTD / ADSST-MPEG-BF531	ADSP-BF531SSTD / ADSST-MPEG-BF531Z	ADSP-BF531SSTD / ADSST-NAV2519Z	ADSP-BF531SSTD / ADSST-NAV2522Z	ADSP-BF531SSTD / ADSST-V34-BCS30Z	ADSP-BF531SSTD / ADSST-V90-BCS30Z
ADSP-BF531SSTD / ADSST-V90-BM3131BC	ADSP-BF531SSTD / ADSST-V90-BSM10Z	ADSP-BF532SSTD / ADSST-NAV2518	ADSP-BF532SSTD / ADSST-NAV2518Z	ADSP-BF533SSTD / ADSST-NAV2516	ADSP-BF533SSTD / ADSST-NAV2516Z
ADSP-BF534SSTD / ADSST-NAV2520	ADSP-BF536SSTD / ADSST-V32-BM3640BS	ADV202 / ADV202BBCZ-115	ADV202 / ADV202BBCZRL-115	ADV212 / ADV212BBCZ-115	ADV212 / ADV212BBCZ-150
ADV212 / ADV212BBCZRL-115	ADV212 / ADV212BBCZRL-150	ADV7495 / ADV7495-D0ST0	GAD53064 / AD53064-03	SST-21161N-D / ADSST-AUDIO-7065	SST-21161N-D / ADSST-AUDIO-7066
SST-21161N-D / ADSST-AUDIO-7067	SST-21161N-D / ADSST-AUDIO-7090				

**Added Parts On This Revision - Product Family / Model Number (141)**

AD53559 / AD53559-02BBC	AD53559 / AD53559-02BBC-RL7	AD5378 / AD5378ABC	AD5379 / AD11/2027-1	AD5379 / AD11/2027Z-2	AD5379 / AD11/2034-1
AD5379 / AD11/2034-2	AD5379 / AD11/2050Z-0	AD5379 / AD11/2054Z-0	AD5379 / AD5379ABC	AD5516 / AD5516ABC-1	AD5516 / AD5516ABC-2
AD5516 / AD5516ABC-3	AD5535 / AD5535ABC	AD6634 / AD6634BBC	AD6642 / AD6642BBCZ	AD6642 / AD6642BBCZRL	AD6657 / AD6657BBCZ
AD6657 / AD6657BBCZRL	AD80148A / AD80148ABBCZ	AD80148A / AD80148ABBCZRL	AD80157 / AD80157BBCZ	AD80157 / AD80157BBCZRL	AD80162 / AD80162BBCZ
AD80162 / AD80162BBCZRL	AD80190 / AD80190BBCZRL	AD80190A / AD80190ABBCZ	AD80190A / AD80190ABBCZRL	AD80209 / AD80209BBCZ	AD80209 / AD80209BBCZRL
AD80241 / AD80241BBCZ	AD80241 / AD80241BBCZRL	AD8488 / AD8488KBCZ	AD9356 / AD9356BBCZ	AD9356 / AD9356BBCZ-REEL	AD9393 / AD9393BBCZ-80
AD9393 / AD9393BBCZRL-80	AD9734 / AD9734BBC	AD9734 / AD9734BBCRL	AD9735 / AD9735BBC	AD9735 / AD9735BBCRL	AD9736 / AD9736BBC
AD9736 / AD9736BBCRL	AD9920A / AD80185BBCZ	AD9923 / AD80145BBCZ	AD9923 / AD80145BBCZRL	AD9923 / AD80151BBCZRL	AD9923 / AD9923BBCZ
AD9923 / ad9923BBCZRL	AD9923A / AD9923ABBCZ	AD9923A / AD9923ABBCZRL	AD9924 / AD9924BBCZ	AD9924 / AD9924BBCZRL	AD9926 / AD80135BBCZ
AD9926 / AD80135BBCZRL	AD9926 / AD9926BBCZ	AD9926 / AD9926BBCZRL	AD9927 / AD80153BBCZ	AD9927 / AD9927BBCZ	AD9927 / AD9927BBCZRL
AD9928 / AD9928BBCZ	AD9928 / AD9928BBCZRL	AD9972 / AD80144BBCZ	AD9977 / AD9977BBCZ	AD9977 / AD9977BBCZRL	AD9990 / AD80220BBCZ
AD9996 / AD80116BBCZ	AD9996 / AD80116BBCZRL	AD9996 / AD80118BBCZ	ADAS1128 / ADAS1128BBCZ	ADAS1128 / ADAS1128BBCZ-RL	ADDI7004 / AD80221BBCZ
ADDI9000 / AD80200BBCZ	ADDI9000 / ADDI9000BBCZ	ADDI9000 / ADDI9000BBCZRL	ADDI9002 / ADDI9002BBCZ	ADDI9002 / ADDI9002BBCZRL	ADSP-21160M / AD91164
ADSP-21161N / ADSP-21161NYCAZ110	ADSP-BF523C / ADSP-BF523KBCZ-5C2	ADSP-BF525 / ADSP-BF525ABCZ-5	ADSP-BF525C / ADSP-BF525KBCZ-5C2	ADSP-BF525W02 / ADBF525WBBCZ402	ADSP-BF525W02 / ADBF525WBBCZ402
ADSP-BF531W06 / ADW95067Z-06RL	ADSP-BF531W06 / ADW95086-06	ADSP-BF531W06 / ADW95086-06RL	ADSP-BF532W06 / ADW95050-06	ADSP-BF532W06 / ADW95050Z-06	ADSP-BF533W06 / ADW95044Z-06
ADSP-BF534LW3 / ADW95088Z-03	ADSP-BF534LW3 / ADW95088Z-03RL	ADSP-BF539FW5 / ADW95089Z-05	ADSP-BF539FW4B / ADW95013Z-04B	ADSP-BF539FW4B / ADW95013Z-04BRL	ADSP-BF542 / ADSP-BF542KBCZ-6A
ADSP-BF542M / ADSP-BF542MBBCZ-5M	ADSP-BF542W02 / ADW95085Z-02	ADSP-BF544L / ADSP-BF544MBBCZ-4A	ADSP-BF544M / ADSP-BF544MBBCZ-5M	ADSP-BF544W02 / ADBF544WBBCZ502	ADSP-BF547 / ADSP-BF547KBCZ-6A
ADSP-BF547M / ADSP-BF547MBBCZ-5M	ADSP-BF548M / ADSP-BF548MBBCZ-5M	ADSP-BF549MW3 / ADBF549WBBCZ5M03	ADSP-BF549W02 / ADW95093Z-02	ADSP-BF549W02 / ADW95097Z-02	ADSP-BF549W02 / ADW95097Z-02RL
ADSP-BF561 / AD91087Z-05	ADSP-BF561 / AD91145Z	ADSP-BF561 / AD91154Z	ADSP-BF561 / AD91156-05	ADUC7029 / ADUC7029BBCZ62	ADUC7029 / ADUC7029BBCZ62-RL
ADUC7029 / ADUC7029BBCZ62I	ADUC7029 / ADUC7029BBCZ62I-RL	ADUC7120 / ADUC7120BBCZ	ADUC7120 / ADUC7120BBCZ-RL	ADUC7121 / ADUC7121BBCZ	ADUC7121 / ADUC7121BBCZ-RL
ADV216 / ADV216BBCZ	ADV216 / ADV216BBCZRL	ADV226 / ADV226KBCZ	ADV226 / ADV226KBCZRL	ADV7470 / AD55/049Z-0	ADV7470 / AD55/049Z-U1.5
ADV7470 / AD55/049Z-U1.6	ADV7470 / AD55/049Z-U2	ADV7470 / AD55/049Z-U3	ADV7470 / AD55/049Z-U4	ADV7470 / AD55/049Z-U5	ADV7471 / AD55/050Z-0
ADV7471 / AD55/050Z-U1.5	ADV7471 / AD55/050Z-U2	ADV7471 / AD55/050Z-U3	ADV7471 / AD55/050Z-U5	ADV7602 / ADV7602BBCZ-1REEL	ADV7604 / ADV7604BBCZ-5
ADV7604 / ADV7604BBCZ-5P	ADV7840 / ADV7840KBCZ-5	GAD53104 / AD53104-01			

**Removed Parts On All Revisions - Product Family / Model Number (185)**

AD80214 / AD80214ABBCZ	AD80214 / AD80214BBCZ	AD80214 / AD80214BBCZRL	AD9920 / AD9920BBCZ	AD9920 / AD9920BBCZRL	AD9920A / AD9920ABBCZ
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AD9920A / AD9920ABBCZRL	AD9973 / AD9973BBCZ	AD9973 / AD9973BBCZRL	AD9990 / AD9990BBCZ	AD9990 / AD9990BBCZRL	ADDI7004 / ADDI7004ABBCZ
ADDI7004 / ADDI7004ABBCZRL	ADDI7004 / ADDI7004BBCZ	ADDI7004 / ADDI7004BBCZRL	ADDI9001 / ADDI9001BBCZ	ADDI9001 / ADDI9001BBCZRL	ADDI9003 / ADDI9003BBCZ
ADDI9003 / ADDI9003BBCZRL	ADDI9004 / ADDI9004BBCZ	ADDI9004 / ADDI9004BBCZRL	ADDI9004 / ADDI9004BBEZR	ADSP-21060 / ADSP-21060KBZ-160	ADSP-21060L / ADSP-21060LAB-160
ADSP-21061L / AD91018	ADSP-21061L / ADSP-21061LKBZ-160	ADSP-21062 / ADSP-21062KB-160	ADSP-21062L / AD91019	ADSP-21062L / ADSP-21062LABZ-160	ADSP-21065L / ADSP-21065LCCA-240
ADSP-21065L / ADSP-21065LKCA-240	ADSP-21160M / AD90752	ADSP-21160M / ADSP-21160MKBZ-80	ADSP-21160N / ADSP-21160NCB-100	ADSP-21161N / AD90774Z	ADSP-21161N / AD90776Z
ADSP-21161N / ADSP-21161NCCA-100	ADSP-21161N / ADSP-21161NKCA-100	ADSP-21161NW / AD95029	ADSP-21161NW / ADW95030	ADSP-21161NW / ADW95030-RL	ADSP-21161NW / ADW95035
ADSP-21161NW12 / AD90764Z	ADSP-21161NW12 / AD90764Z-RL	ADSP-21266SA / ADSP-21266SKBZ-2B	ADSP-21266SB / ADSP-21266SKBZ-2C	ADSP-21266SC / ADSP-21266SKBZ-2D	ADSP-21362 / ADSP-21362BBCZ-1AA
ADSP-21362W / AD21362WBBCZ104	ADSP-21362W / AD95025Z	ADSP-21362W / ADW95011Z-RL	ADSP-21362W / ADW95039	ADSP-21363 / ADSP-21363BBC-1AA	ADSP-21363W / AD21363WBBCZ105
ADSP-21363W / ADW95075Z-05B	ADSP-21363W / ADW95075Z-05BRL	ADSP-21364 / ADSP-21364BBC-1AA	ADSP-21364SC / AD90801	ADSP-21364SC / AD91084	ADSP-21364W / AD21364WBBCZ105
ADSP-21364W / ADW99014Z-05	ADSP-21365 / ADSP-21365BBCZ-1AA	ADSP-21366 / ADSP-21366BBC-1AA	ADSP-21366 / ADSP-21366KBC-1AR	ADSP-21366W5A / ADW95060Z-05A	ADSP-21367 / AD91115Z
ADSP-21367 / ADSP-21367BBP-2A	ADSP-21367 / ADSP-21367KBP-2A	ADSP-21367 / ADSP-21367KBPZ-3A	ADSP-21368 / ADSP-21368BBP-2A	ADSP-21368 / ADSP-21368KBPZ-3A	ADSP-21369 / ADSP-21369BBPZ-2A
ADSP-21369 / ADSP-21369KBPZ-3A	ADSP-2183 / ADSP-2183KCA-210	ADSP-2184N / ADSP-2184NKCA-320	ADSP-2185M / ADSP-2185MBCA-266	ADSP-2185N / ADSP-2185NBCA-320	ADSP-2187N / ADSP-2187NBCA-320
ADSP-2189M / ADSP-2189MKCA-300	ADSP-2191M / ADSP-2191MBCA-140	ADSP-2191M / ADSP-2191MKCA-160	ADSP-21990 / ADSP-21990BBC	ADSP-21992 / ADSP-21992BBC	ADSP-21992 / ADSP-21992YBC
ADSP-BF523 / ADSP-BF523KBCZ-5	ADSP-BF523 / ADSP-BF523KBCZ-6A	ADSP-BF525 / ADSP-BF525KBCZ-5	ADSP-BF525 / ADSP-BF525KBCZ-6A	ADSP-BF527 / ADSP-BF527KBCZ-5	ADSP-BF527C / ADSP-BF527KBCZ-5C2
ADSP-BF527SST / ADSP-BF527KBCZ-6AC	ADSP-BF531 / ADSP-BF531SBB400	ADSP-BF531 / ADSP-BF531SBB400	ADSP-BF531SST / ADSP-BF531SBBZC74	ADSP-BF531SST / ADSP-BF531SBBZC92	ADSP-BF531W / ADW95015-RL
ADSP-BF531W / ADW95067Z-05	ADSP-BF531W / ADW95067Z-05RL	ADSP-BF531W06 / ADBF531WBBC406	ADSP-BF531W06 / ADBF531WBBC406RL	ADSP-BF531W06 / ADBF531WBBCZ406	ADSP-BF531W06 / ADBF531WBBCZ406RL
ADSP-BF531W06 / ADBF531WBBCZ406	ADSP-BF531W06 / ADBF531WYBC406RL	ADSP-BF531W06 / ADBF531WYBCZ406	ADSP-BF532W06 / ADBF532WYBCZ406	ADSP-BF532W06 / ADBF532WYBCZ406	ADSP-BF533 / ADSP-BF533KBCZ600
ADSP-BF533L / ADSP-BF533SBB400	ADSP-BF533L / ADSP-BF533SBBZ400	ADSP-BF533W / ADW95044Z-05	ADSP-BF533W06 / ADBF533WBBCZ506	ADSP-BF533W06 / ADBF533WBBCZ506	ADSP-BF533W06 / ADBF533WYBCZ406
ADSP-BF534 / ADSP-BF534BBC-4A	ADSP-BF534 / ADSP-BF534BBCZ-4B	ADSP-BF534LW3 / ADBF534WBBCZ4A03	ADSP-BF534LW3 / ADBF534WBBCZ4B03	ADSP-BF534LW3 / ADBF534WYBCZ4B03	ADSP-BF534LW3 / ADW95017Z-03
ADSP-BF534LW3 / ADW95041-03	ADSP-BF534LW3 / ADW95041-03RL	ADSP-BF534LW3 / ADW95049Z-03	ADSP-BF534LW3 / ADW95053Z-03	ADSP-BF534LW3 / ADW95053Z-03RL	ADSP-BF534LW3 / ADW95057Z-03
ADSP-BF534LW3 / ADW95069Z-03	ADSP-BF534LW3 / ADW95073Z-03RL	ADSP-BF534LW3 / ADW99015Z-03	ADSP-BF534LW3 / ADW99016Z-03	ADSP-BF534LW3 / ADW99019Z-03	ADSP-BF535 / ADSP-BF535PBB-200
ADSP-BF535 / ADSP-BF535PKB-300	ADSP-BF535SST / ADSP-BF535PKB-C60	ADSP-BF536 / AD91092Z-03	ADSP-BF536 / AD91102Z-03	ADSP-BF536 / ADSP-BF536BBC-4A	ADSP-BF536 / ADSP-BF536BBCZ-3B
ADSP-BF536 / ADSP-BF536BBCZ-4B	ADSP-BF536SST / ADSP-BF536BBCZ-C70	ADSP-BF538 / ADSP-BF538BBCZ-4A	ADSP-BF539FW5 / ADBF539WBBCZ4F405	ADSP-BF539FW5 / ADBF539WBBCZ5F805	ADSP-BF539FW5 / ADW95081Z-05
ADSP-BF539W04 / ADW95045Z-04	ADSP-BF539W4B / ADW95027Z-04	ADSP-BF542 / ADSP-BF542BBCZ-5A	ADSP-BF542L / ADSP-BF542BBCZ-4A	ADSP-BF542W02 / ADBF542WBBCZ402	ADSP-BF542W02 / ADBF542WBBCZ502
ADSP-BF544 / ADSP-BF544BBCZ-5A	ADSP-BF547 / ADSP-BF547BBCZ-5A	ADSP-BF548 / ADSP-BF548BBCZ-5A	ADSP-BF549W02 / ADBF549WBBCZ502	ADSP-BF561 / AD91087Z	ADSP-BF561 / AD91121
ADSP-BF561 / ADSP-BF561SBB500	ADSP-BF561 / ADSP-BF561SBBZ-5A	ADSP-BF561 / ADSP-BF561SBBZ-6A	ADSP-BF561 / ADSP-BF561SBBZ500	ADSP-BF561 / ADSP-BF561SKB500	ADSP-BF561 / ADSP-BF561SKB600
ADSP-BF561 / ADSP-BF561SKBZ-5A	ADSP-BF561 / ADSP-BF561SKBZ-6A	ADSP-BF561 / ADSP-BF561SKBZ500	ADSP-BF561 / ADSP-BF561SKBZ600	ADSP-BF561 / ADSP-BF561SKBZ500	ADSP-BF561W05 / ADBF561WBBCZ505
ADSP-BF561W05 / ADBF561WBBCZ505	ADSP-BF561W05 / ADW95072Z-05	ADSP-BF561W05 / ADW95072Z-05RL	ADSP-BF561W05 / ADW95077Z-05	ADSP-BF561W05 / ADW95077Z-05RL	ADSP-BF561W05 / ADW95079-05
ADSP-BF561W05 / ADW95079-05RL	ADSP-TS101S / AD90807	ADSP-TS101S / AD91058	ADSP-TS101S / AD91091Z	ADSP-TS101S / ADSP-TS101SAB1-000	ADSP-TS101S / ADSP-TS101SAB1Z000
ADSP-TS101S / ADSP-TS101SAB2-000	SST-210 / ADSST-210BBZX	SST-21161N / ADSST-LINW-02	SST-21161N / ADSST-LINW-01	SST-21161N / ADSST-MEL-100	

#### Appendix B - Revision History

Rev	Publish Date	Rev Description
Rev. -	03-May-2010	Initial Release

Rev. A	24-Jan-2011	Remove models not affected by change
Rev. B	16-Mar-2011	Add back in parts inadvertently removed in Rev A.