



Product/Process Change Notice - PCN 16_0033 Rev. B

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This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (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: Assembly Relocation to Stats ChipPAC Jiangyin and Test Transfer to Stats ChipPAC Singapore of Select QFP Products

Publication Date: 08-Aug-2016

Effectivity Date: 06-Nov-2016 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Added qualification results for LQFP Automotive devices.
Update LQFP_EP and MQFP qual plan summary with new expected completion date.

Description Of Change

The Assembly manufacturing of select LQFP, LQFP_EP, MQFP, TQFP, and TQFP_EP products is relocating from STATS ChipPAC China Shanghai to STATS ChipPAC China Jiangyin. The testing will move from STATS ChipPAC China Shanghai to STATS ChipPAC Singapore. The package outline dimensions and BOM of each product will be maintained.

Rev B effectivity date applies to LQFP_EP and MQFP qual plan summary with new expected completion date.

Reason For Change

ADI Assembly is transferring to STATS ChipPAC China Jiangyin and Test will move to STATS ChipPAC Singapore due to the relocation of STATS ChipPAC China Shanghai at the end of September 2017.

ADI's assembly and test subcontractors manufacture products using Analog Devices specified manufacturing flows, materials, process controls and monitors, ensuring the same level of quality and reliability on products they receive from the new site.

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

The transfer will have no impact on the form, fit, function and reliability of the devices.

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

The parts that will be assembled and tested after the transfer will be identified by assembly lot and the country of origin.

Summary of Supporting Information

Qualifications are in process per AEC-Q100, Stress Test Qualification for Integrated Circuits. See attached Qualification Plans and Summaries. Test Correlation and validation will be performed, see the attached Test Qual Plan.

Comments

During the transition to the new assembly and test site, products will be assembled and tested from either the current or the new assembly and test site once qualified.

Supporting Documents

Attachment 1: Type: Qualification Results Summary

ADI_PCN_16_0033_Rev_B_Qual Results Summary for TQFP and TQFP_EP.pdf

Attachment 2: Type: Qualification Results Summary

ADI_PCN_16_0033_Rev_B_Qual Results Summary for LQFP Automotive.pdf

Attachment 3: Type: Qualification Plan

ADI_PCN_16_0033_Rev_B_Qual Plan Summary for LQFP_EP and MQFP Automotive.pdf

Attachment 4: Type: Test Correlation Plan

ADI_PCN_16_0033_Rev_B_Test Correlation Plan.ppt

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.

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 (330)

AD1833A / AD58003Z-0	AD1833A / AD58003Z-0REEL	AD1835A / AD1835AASZ	AD1835A / AD1835AASZ-REEL	AD1836A / AD1836AASZ
AD1836A / AD1836AASZRL	AD1836A / AD1836ACSZ	AD1836A / AD71022ASZRL	AD1836A / AD71023CSZ	AD1836A / AD71023CSZRL
AD1836A / AD71053ACSZ	AD1836A / AD71053ACSZRL	AD1838A / AD1838AASZ	AD1838A / AD1838AASZ-REEL	AD1893 / AD1893JSTZ
AD1893 / AD1893JSTZRL	AD1928 / AD1928YSTZ	AD1928 / AD1928YSTZ-RL	AD1928 / AD71069YSTZ	AD1928 / AD71069YSTZ-RL
AD1931 / ADW80036BSTZ	AD1931 / ADW80036BSTZRL	AD1933 / AD1933WBSTZ	AD1933 / AD1933WBSTZ-RL	AD1933 / AD1933YSTZ
AD1933 / AD1933YSTZ-RL	AD1933 / AD71077YSTZ	AD1933 / AD71077YSTZ-RL	AD1934 / AD1934WBSTZ	AD1934 / AD1934WBSTZ-RL
AD1934 / AD1934YSTZ	AD1934 / AD1934YSTZ-RL	AD1934 / AD71074YSTZ	AD1934 / AD71074YSTZ-RL	AD1934 / ADW80034BSTZ
AD1934 / ADW80034BSTZRL	AD1937 / AD1937WBSTZ	AD1937 / AD1937WBSTZ-RL	AD1938 / AD1938WBSTZ	AD1938 / AD1938WBSTZ-RL
AD1938 / AD1938YSTZ	AD1938 / AD1938YSTZRL	AD1938 / AD71058YSTZ	AD1938 / AD71058YSTZRL	AD1938 / AD71064YSTZ
AD1938 / AD71064YSTZ-RL	AD1938 / AD71072YSTZ	AD1938 / AD71072YSTZ-RL	AD1938 / ADW80015BSTZ	AD1938 / ADW80015BSTZ-RL
AD1938 / ADW80021BSTZ	AD1938 / ADW80021BSTZ-RL	AD1938 / ADW80029BSTZ	AD1938 / ADW80029BSTZ-RL	AD1939 / AD1939WBSTZ
AD1939 / AD1939WBSTZ-RL	AD1939 / AD1939YSTZ	AD1939 / AD1939YSTZRL	AD1939 / AD71070YSTZ	AD1939 / AD71070YSTZRL
AD1939 / ADW80002YSTZ	AD1939 / ADW80002YSTZ-RL	AD1939 / ADW80007YSTZ	AD1939 / ADW80007YSTZ-RL	AD1939 / ADW80012BSTZ
AD1939 / ADW80012BSTZ-RL	AD1940 / AD1940YSTZ	AD1940 / AD1940YSTZRL	AD1940 / AD71037YSTZ	AD1940 / AD71037YSTZRL
AD1940 / AD71055YSTZ	AD1940 / AD71055YSTZRL	AD1940 / AD71065YSTZ	AD1940 / AD71065YSTZ-RL	AD1940 / AD71071YSTZ
AD1940 / AD71071YSTZ-RL	AD1940 / ADW80003YSTZ	AD1940 / ADW80003YSTZ-RL	AD1940 / ADW80006YSTZ	AD1940 / ADW80006YSTZ-RL
AD1941 / AD1941YSTZ	AD1941 / AD1941YSTZRL	AD1941 / AD71094BSTZ	AD1941 / AD71094BSTZ-RL	AD1953 / AD1953YSTZ
AD1953 / AD1953YSTZRL	AD1953 / AD71021YSTZ	AD1953 / AD71021YSTZRL	AD1954 / AD1954YSTZ	AD1954 / AD1954YSTZRL
AD1954 / AD1954YSZ	AD1974 / AD1974WBSTZ	AD1974 / AD1974WBSTZ-RL	AD1974 / AD1974YSTZ	AD1974 / AD1974YSTZ-RL
AD1981BW / AD1981BWBSTZ-REEL	AD1981BW / ADW95032Z-02RL	AD1981BW / ADW95074Z-02RL	AD2S1000 / AD2S1000YSTZ	AD2S1200 / AD2S1200WSTZ
AD2S1200 / AD2S1200YSTZ	AD6623 / AD6623ASZ	AD7339 / AD7339BSZ-REEL	AD7346 / AD7346ASTZ	AD7346 / AD7346ASTZ-RL
AD7605-4 / AD7605-4BSTZ	AD7605-4 / AD7605-4BSTZ-RL	AD7616 / AD7616BSTZ	AD7616 / AD7616BSTZ-RL	AD7617 / AD7617BSTZ
AD7617 / AD7617BSTZ-RL	AD7618 / AD7618BSTZ	AD7618 / AD7618BSTZ-RL	AD7723 / AD7723BSZ	AD7723 / AD7723BSZ-REEL
AD7724 / AD7724ASTZ	AD7724 / AD7724ASTZ-REEL	AD7864 / AD7864ASZ-1	AD7864 / AD7864ASZ-1REEL	AD7864 / AD7864ASZ-2
AD7864 / AD7864ASZ-2REEL	AD7864 / AD7864ASZ-3	AD7864 / AD7864BSZ-1	AD7864 / AD7864BSZ-1REEL	AD9240 / AD9240ASZ
AD9240 / AD9240ASZRL	AD9241 / AD9241ASZ	AD9241 / AD9241ASZRL	AD9243 / AD9243ASZ	AD9243 / AD9243ASZRL
AD9388A / AD9388ABSTZ-170	AD9388A / AD9388ABSTZ-5P	AD9388A / AD9388ABSTZ-A5	AD9709 / AD9709ASTZ	AD9709 / AD9709ASTZRL
AD9751 / AD9751ASTZ	AD9751 / AD9751ASTZRL	AD9753 / AD9753ASTZ	AD9753 / AD9753ASTZRL	AD9755 / AD9755ASTZ
AD9755 / AD9755ASTZRL	AD9763 / AD80154ASTZRL	AD9763 / AD9763ASTZ	AD9763 / AD9763ASTZRL	AD9765 / AD80140ASTZRL
AD9765 / AD9765ASTZ	AD9765 / AD9765ASTZRL	AD9767 / AD80178ASTZ	AD9767 / AD9767ASTZ	AD9767 / AD9767ASTZRL
AD9772A / AD9772AASTZ	AD9772A / AD9772AASTZRL	AD9852 / AD9852ASTZ	AD9854 / AD9854ASTZ	AD9856 / AD9856ASTZ
AD9857 / AD9857ASTZ	AD9874 / AD9874ABST	AD9874 / AD9874ABSTRL	AD9879 / AD9879BSZ	AD9969 / AD9969JSTZ
ADAS1000 / ADAS1000BSTZ	ADAS1000 / ADAS1000BSTZ-RL	ADAS1000-2 / ADAS1000-2BSTZ	ADAS1000-2 / ADAS1000-2BSTZ-RL	ADAS1000-3 / ADAS1000-3BSTZ
ADAS1000-3 / ADAS1000-3BSTZ-RL	ADAS1000-4 / ADAS1000-4BSTZ	ADAS1000-4 / ADAS1000-4BSTZ-RL	ADAU1328 / ADAU1328BSTZ	ADAU1401 / AD71073YSTZ
ADAU1401 / AD71073YSTZ-RL	ADAU1401 / ADAU1401YSTZ	ADAU1401 / ADAU1401YSTZ-RL	ADAU1401A / ADAU1401AWBSTZ	ADAU1401A / ADAU1401AWBSTZ-RL
ADAU1401A / ADW80010BSTZ	ADAU1401A / ADW80010BSTZ-RL	ADAU1401A / ADW80013BSTZ	ADAU1401A / ADW80013BSTZ-RL	ADAU1401A / ADW80017BSTZ
ADAU1401A / ADW80017BSTZ-RL	ADAU1401A / ADW80018BSTZ	ADAU1401A / ADW80018BSTZ-RL	ADAU1421 / ADW10005Z-1	ADAU1443 / ADW80023BSTZ
ADAU1443 / ADW80023BSTZ-RL	ADAU1446 / ADAU1446YSTZ-3A	ADAU1446 / ADAU1446YSTZ-3A-RL	ADAU1446 / ADW80008YSTZ	ADAU1446 / ADW80008YSTZ-RL
ADAU1446 / ADW80011BSTZ	ADAU1446 / ADW80011BSTZ-RL	ADAU1446 / ADW80020BSTZ	ADAU1446 / ADW80020BSTZ-RL	ADAU1701 / ADAU1701JSTZ
ADAU1701 / ADAU1701JSTZ-RL	ADAU1702 / ADAU1702JSTZ	ADAU1702 / ADAU1702JSTZ-RL	ADAU1962 / ADAU1962WBSTZ	ADAU1962 / ADAU1962WBSTZRL
ADAU1962 / ADW80031BSTZ	ADAU1962 / ADW80031BSTZ-RL	ADAU1962A / ADAU1962AWBSTZ	ADAU1962A / ADAU1962AWBSTZ-RL	ADAU1962A / ADAU1962AWXSTZ
ADAU1966 / ADAU1966WBSTZ	ADAU1966 / ADAU1966WBSTZRL	ADAU1966A / ADAU1966AWBSTZ	ADAU1966A / ADAU1966AWBSTZ-RL	ADAU71067-CS / ADAU71067Z-CS
ADAU71067-CS / ADAU71067Z-CSRL	ADAU71068-CS / ADAU71068Z-CS	ADAU71068-CS / ADAU71068Z-CSRL	ADAU71078-CS / ADAU71078Z-CS	ADAU71078-CS / ADAU71078Z-CSRL
ADAU71087-CS / ADAU71087Z-CS	ADAU71087-CS / ADAU71087Z-CSRL	ADAV4601 / AD55043Z-1	ADAV4601 / ADAV4601BSTZ	ADAV4622 / AD55044Z-1
ADAV4622 / ADAV4622BSTZ	ADAV801 / ADAV801ASTZ	ADAV801 / ADAV801ASTZ-REEL	ADAV803 / ADAV803ASTZ	ADAV803 / ADAV803ASTZ-REEL
ADDI7006 / ADDI7006BSUZ	ADDI7006 / ADDI7006BSUZRL	ADF7030-1 / ADF7030-1BSTZN	ADF7030-1 / ADF7030-1BSTZN-RL	ADMC401 / ADMC401BSTZ
ADSP-21367-D / ADSST-AVR-1146	ADSP-21367-D / ADSST-AVR-1147	ADSP-21367-D / ADSST-AVR-1166	ADSP-21367-D / ADSST-AVR-1169	ADSP-21367-D / ADSST-AVR-1177
ADSP-21992 / ADSP-21992BSTZ	ADSP-BF531SSTD / ADSST-SB-1011	ADV3014 / ADV3014KSTZ	ADV7120 / ADV7120KSTZ30	ADV7120 / ADV7120KSTZ30-REEL

ADV7120 / ADV7120KSTZ50	ADV7123 / AD55048Z-0	ADV7123 / ADV7123JSTZ240	ADV7123 / ADV7123JSTZ240-RL	ADV7123 / ADV7123JSTZ330
ADV7123 / ADV7123KSTZ140	ADV7123 / ADV7123KSTZ140-RL	ADV7123 / ADV7123KSTZ50	ADV7125 / AD55035Z-0REEL	ADV7125 / ADV7125JSTZ240
ADV7125 / ADV7125JSTZ330	ADV7125 / ADV7125KSTZ140	ADV7125 / ADV7125KSTZ50	ADV7125 / ADV7125KSTZ50-REEL	ADV7125 / ADV7125WBSTZ170
ADV7125 / ADV7125WBSTZ170-RL	ADV7172 / ADV7172KSTZ	ADV7172 / ADV7172KSTZ-REEL	ADV7173 / ADV7173KSTZ	ADV7173 / ADV7173KSTZ-REEL
ADV7180 / ADV7180BST48Z	ADV7180 / ADV7180BST48Z-RL	ADV7180 / ADV7180BSTZ	ADV7180 / ADV7180BSTZ-REEL	ADV7180 / ADV7180KST48Z
ADV7180 / ADV7180KST48Z-RL	ADV7180 / ADV7180WBST48Z	ADV7180 / ADV7180WBST48Z-RL	ADV7180 / ADV7180WBSTZ	ADV7180 / ADV7180WBSTZ-REEL
ADV7180 / ADW10004-0REEL	ADV7180 / ADW10008Z-0	ADV7180 / ADW10008Z-0REEL	ADV7181C / ADV7181CBSTZ	ADV7181C / ADV7181CBSTZ-REEL
ADV7181C / ADV7181CWBSTZ	ADV7181C / ADV7181CWBSTZ-REEL	ADV7184 / ADV7184BSTZ	ADV7188 / ADV7188BSTZ	ADV7189B / ADV7189BBSTZ
ADV7189B / ADV7189BKSTZ	ADV7194 / ADV7194KSTZ	ADV7320 / ADV7320KSTZ	ADV7321 / ADV7321KSTZ	ADV7322 / ADV7322KSTZ
ADV7322 / ADV7322KSTZ-REEL	ADV7340 / ADV7340BSTZ	ADV7341 / ADV7341BSTZ	ADV7342 / ADV7342BSTZ	ADV7343 / ADV7343BSTZ
ADV7344 / ADV7344BSTZ	ADV7401 / ADV7401BSTZ-110	ADV7401 / ADV7401BSTZ-80	ADV7401 / ADV7401KSTZ-140	ADV7401 / ADV7401WBSTZ-110
ADV7403 / ADV7403BSTZ-110	ADV7403 / ADV7403KSTZ-140	ADV7405 / AD55039Z-0	ADV7441A / ADV7441ABSTZ-110	ADV7441A / ADV7441ABSTZ-170
ADV7441A / ADV7441ABSTZ-5P	ADV7493B / AD55037Z-3	ADV7499B / AD55034Z-1	ADV7511W / ADV7511WBSWZ	ADV7511W / ADV7511WBSWZ-RL
ADV7513 / ADV7513BSWZ	ADV7611 / ADV7611BSWZ	ADV7611 / ADV7611BSWZ-P	ADV7611 / ADV7611BSWZ-P-RL	ADV7611 / ADV7611BSWZ-RL
ADV7611 / ADV7611WBSWZ	ADV7611 / ADV7611WBSWZ-RL	ADV7612 / ADV7612BSWZ	ADV7612 / ADV7612BSWZ-P	ADV7612 / ADV7612WBSWZ
ADV7619 / AD55061Z-0	ADV7619 / ADV7619KSVZ	ADV7619 / ADV7619KSVZ-P	ADV7622 / ADV7622BSTZ	ADV7622 / ADV7622BSTZ-RL
ADV7623 / ADV7623BSTZ	ADV7623 / ADV7623BSTZ-P	ADV7623 / ADV7623BSTZ-P-RL	ADV7623 / ADV7623BSTZ-RL	ADV7800 / AD55052Z-0
ADV7800 / AD55054Z-0	ADV7800 / ADV7800BSTZ-150	ADV7800 / ADV7800BSTZ-80	ADV7802 / ADV7802BSTZ-150	ADV7802 / ADV7802BSTZ-80

Appendix B - Revision History

Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	24-Feb-2016	01-Sep-2016	Initial Release
Rev. A	06-May-2016	01-Sep-2016	Added qualification results for TQFP and TQFP_EP commercial devices.
Rev. B	08-Aug-2016	06-Nov-2016	Added qualification results for LQFP Automotive devices. Update LQFP_EP and MQFP qual plan summary with new expected completion date.

Analog Devices, Inc.

DocId:3761 Parent DocId:None Layout Rev:7

**Assembly Relocation to STATS ChipPAC Jiangyin and
Test Transfer to STATS ChipPAC Singapore of Select QFP Products**

**Automotive Qualification Plan Summary for LQFP_EP and
MQFP at STATS ChipPAC China Jiangyin**

TEST	SPECIFICATION	SAMPLE SIZE	EXPECTED COMPLETION DATE
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 32	October 2016
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	3 x 11	October 2016
Temperature Humidity and Bias Test (THB)*	JEDEC <i>JESD22-A101</i>	3 x 32	October 2016
Unbiased Highly Accelerated Stress Test (uHAST)*	JEDEC <i>JESD22-A118</i>	3 x 32	October 2016
High Temperature Storage (HTS)	JEDEC <i>JESD22-A103</i>	1 x 32	October 2016
Electrostatic Discharge <i>Field Induced Charge Device Model</i>	JEDEC <i>JESD22-C101</i>	3/voltage	October 2016

* These samples will be subjected to preconditioning (per J-STD-020 Level 3) prior to the start of the stress test. Level 3 preconditioning consists of the following: 1. Bake – 24 hours at 125°C; 2. Soak – unbiased soak for 192 hours at 30°C, 60%RH; 3. Reflow – three passes through a reflow oven with a peak temperature of 260°C. TC samples will be subjected to wire-pull test after 500 cycles where results should be within specification limits.

**Assembly Relocation to STATS ChipPAC Jiangyin and
Test Transfer to STATS ChipPAC Singapore of Select QFP Products**

**Automotive Qualification Results Summary for
LQFP at STATS ChipPAC China Jiangyin**

TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 77	PASS
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	3 x 11	PASS
Highly Accelerated Stress Test (HAST)*	JEDEC <i>JESD22-A110</i>	3 x 77	PASS
Unbiased Highly Accelerated Stress Test (uHAST)*	JEDEC <i>JESD22-A118</i>	3 x 77	PASS
High Temperature Storage (HTS)	JEDEC <i>JESD22-A103</i>	1 x 77	PASS
Electrostatic Discharge <i>Field Induced Charge Device Model – All Pins</i>	JEDEC <i>JESD22-C101</i>	3/voltage	PASS ±500V
Electrostatic Discharge <i>Field Induced Charge Device Model – Corner Pins</i>	JEDEC <i>JESD22-C101</i>	3/voltage	PASS ±750V

* These samples were subjected to preconditioning (per J-STD-020 Level 3) prior to the start of the stress test. Level 3 preconditioning consists of the following: 1. Bake – 24 hours at 125°C; 2. Soak – unbiased soak for 192 hours at 30°C, 60%RH; 3. Reflow – three passes through a reflow oven with a peak temperature of 260°C. TC samples were subjected to wire-pull test after 500 cycles where results passed within specification limits.

**Assembly Relocation to STATS ChipPAC Jiangyin and
Test Transfer to STATS ChipPAC Singapore OF Select QFP Products**

**Qualification Results Summary for
TQFP and TQFP_EP at STATS ChipPAC China Jiangyin**

TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Temperature Cycle (TC)*	JEDEC <i>JESD22-A104</i>	3 x 32	PASS
Solder Heat Resistance (SHR)*	JEDEC/IPC <i>J-STD-020</i>	3 x 11	PASS
Unbiased Highly Accelerated Stress Test (uHAST)*	JEDEC <i>JESD22-A118</i>	3 x 32	PASS
Electrostatic Discharge <i>Field Induced Charge Device Model</i>	JEDEC <i>JESD22-C101</i>	3/voltage	PASS ± 1250V

* Preconditioned per JEDEC/IPC J-STD0020