



Product/Process Change Notice - PCN 13_0303 Rev. A

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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: Assembly Transfer to Amkor Philippines and Test Transfer to STATS ChipPAC China of Select 5x5 LFCSP Products

Publication Date: 05-Jun-2014

Effectivity Date: 05-Jun-2014 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Update to include completed Test Correlation Reports
Modified the Title only of the Qualification Results Summary for clarification.

Description Of Change

ADI is transferring to qualified subcontractor Amkor Philippines for assembly and to subcontractor STATS ChipPAC China for test of select 5x5 LFCSP products.

The die attach is changing from Ablestik 3230 to Ablestik 8290. The mold compound is changing from Sumitomo G770 to Sumitomo G700. The package outline dimensions and wire diameter of each product will be maintained. See BOM attachment for details.

Reason For Change

ADI is transferring due to the closure of STATS ChipPAC Malaysia at the end of 2014.

ADI's assembly 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 after the transfer will be identified by assembly lot and the country of origin.

Summary of Supporting Information

Qualification has been performed per AEC-Q100, Stress Test Qualification for Integrated Circuits.
Test correlation and validation has been performed per ADI's standard site to site product transfer correlation procedure. See attached qualification report.

Supporting Documents

Attachment 1: Type: Qualification Results Summary

Attachment 2: Type: Test Correlation Report

ADI_PCN_13_0303_Rev_A_Test Correlation Report ADV7180.pdf

Attachment 3: Type: Detailed Change Description

ADI_PCN_13_0303_Rev_A_BOM.xlsx

Attachment 4: Type: Test Correlation Report

ADI_PCN_13_0303_Rev_A_Test Correlation Report ADV7182.pdf

Attachment 5: Type: Test Correlation Report

ADI_PCN_13_0303_Rev_A_Test Correlation Report ADV7280.pdf

Attachment 6: Type: Test Correlation Report

ADI_PCN_13_0303_Rev_A_Test Correlation Report ADV7281.pdf

Attachment 7: Type: Test Correlation Report

ADI_PCN_13_0303_Rev_A_Test Correlation Report ADV7282.pdf

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**Existing Parts - Product Family / Model Number (30)**

ADV7180 / AD55/055Z-0	ADV7180 / AD55/055Z-0RL	ADV7180 / ADV7180BCP32Z	ADV7180 / ADV7180BCP32Z-RL	ADV7180 / ADV7180KCP32Z
ADV7180 / ADV7180KCP32Z-RL	ADV7182 / ADV7182WBCPZ	ADV7182 / ADV7182WBCPZ-RL	ADV7280 / ADV7280BCPZ	ADV7280 / ADV7280BCPZ-M
ADV7280 / ADV7280BCPZ-M-RL	ADV7280 / ADV7280BCPZ-RL	ADV7280 / ADV7280KCPZ	ADV7280 / ADV7280KCPZ-M	ADV7280 / ADV7280KCPZ-M-RL
ADV7280 / ADV7280KCPZ-RL	ADV7280 / ADV7280WBCPZ	ADV7280 / ADV7280WBCPZ-M	ADV7280 / ADV7280WBCPZ-M-RL	ADV7280 / ADV7280WBCPZ-RL
ADV7281 / ADV7281WBCPZ	ADV7281 / ADV7281WBCPZ-M	ADV7281 / ADV7281WBCPZ-M-RL	ADV7281 / ADV7281WBCPZ-MA	ADV7281 / ADV7281WBCPZ-MA-RL
ADV7281 / ADV7281WBCPZ-RL	ADV7282 / ADV7282WBCPZ	ADV7282 / ADV7282WBCPZ-M	ADV7282 / ADV7282WBCPZ-M-RL	ADV7282 / ADV7282WBCPZ-RL

Appendix B - Revision History

Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	25-Nov-2013	23-Feb-2014	Initial Release
Rev. A	05-Jun-2014	05-Jun-2014	Update to include completed Test Correlation Reports Modified the Title only of the Qualification Results Summary for clarification.

Analog Devices, Inc.

DocId:2944 Parent DocId:None Layout Rev:7

Bill of Materials

Generic	Material List	Wire Size	DIE ATTACH EPOXY		MOLD COMPOUND	
			FROM	TO	FROM	TO
ADV7180	ADV7180BCP32Z ADV7180BCP32Z-RL ADV7180KCP32Z ADV7180KCP32Z-RL	1.0 mil	ABLESTIK 3230	ABLESTIK 8290	SUMITOMO G770	SUMITOMO G700
ADV7182	ADV7182WBCPZ ADV7182WBCPZ-RL					
ADV7280	ADV7280BCPZ ADV7280BCPZ-M ADV7280BCPZ-M-RL ADV7280BCPZ-RL ADV7280KCPZ ADV7280KCPZ-M ADV7280KCPZ-M-RL ADV7280KCPZ-RL ADV7280WBCPZ ADV7280WBCPZ-M ADV7280WBCPZ-M-RL ADV7280WBCPZ-RL					
ADV7281	ADV7281WBCPZ ADV7281WBCPZ-M ADV7281WBCPZ-MA ADV7281WBCPZ-MA-RL ADV7281WBCPZ-M-RL ADV7281WBCPZ-RL					
ADV7282	ADV7282WBCPZ ADV7282WBCPZ-M ADV7282WBCPZ-M-RL ADV7282WBCPZ-RL AD55/055Z-0 AD55/055Z-0RL					

TEST PRODUCT QUALIFICATION REPORT

TITLE:

Test Transfer of ADV7180 (LFCSP) from STATS
ChipPAC Malaysia (SCM) to STATS ChipPAC China
(SCC)

PCN NUMBER:

13_0303

REVISION:

A

DATE:

25 Apr 2014

PROJECT BACKGROUND

Test transfers are carried out to qualify STATS ChipPAC China (SCC) as an additional test site for ADI devices to support production. ADI is transferring due to the closure of STATS ChipPAC Malaysia (SCM) at the end of 2014.

SUMMARY

ADV7180 LFCSP will be transferred from SCM to SCC for test solution.

There is no change to the form, fit, function, quality or reliability between platforms.

This report documents the successful completion of the product test transfer requirements of ADV7180 LFCSP from SCM to SCC.

Test product qualification was performed according to Analog Devices Specification (ADI0012 / TST00137 / TST00095)

TEST AND PRODUCT INFORMATION

Device: ADV7180
Package: LFCSP-5x5x0.75
Leads: 32
Tester Platform: Catalyst
Handler: Delta Edge

Description and Test Results

Table 1 provides a description of the qualification tests conducted and corresponding test results for ADV7180 LFCSP. All the units have undergone electrical tests on both the sending and receiving sites on the same test platform. Any device that did not meet the electrical qualification requirements without further analysis and data to prove passing, the qualification would be considered failed.

Table 1. Test Product Transfer Qual Criteria

Generic	Package	Lot number	Lot Size	Sending Site	Receiving Site	Mean Shift =< 5%	Sigma Ratio =< 1.3
ADV7180	5x5x0.75 LFCSP	2633592.1P	100	SCM	SCC	Passed	Passed

The ADV7180 was qualified by running a qualification lot with 100 units both in SCM and SCC. Data between sites were analyzed as summarized in Table 1.

A passing result was recorded when the yield from receiving site met or exceeded yield from sending site as summarized in Table 2. Succeeding lots with increased quantity will be closely monitored once the device has started production run at SCC.

Table 2. Test Product Transfer Qualification Lot Run

GENERIC	Package	Lot number	Lot Size	Test Site	Results
ADV7180	5x5x0.75 LFCSP	2633592.1P	100	SCC	Passed

No valid rejects were encountered during the said evaluation in both sending and receiving sites.

Rejects Verifications

5 valid rejects tested in SCM and SCC having the same result.

Table 3. Setup verification using Reject units

Unit #	SCM	SCC
1	Failed	Failed
2	Failed	Failed
3	Failed	Failed
4	Failed	Failed
5	Failed	Failed

Conclusion

ADV7180 LFCSP handler correlation data on both sites are correlated. Data are already approved by PE and CY, it is acceptable. ADV7180 LFCSP device is now ready for transfer to SCC.

Approvals

TRB#9419

Test Product Engineer: Dave Walsh

Chute Yield Engineer: David Lane

Supporting Documents

Technical Review Board: TRB#9419

Additional Information

Homepage: <http://www.analog.com/en/index.html>

Datasheet: <http://www.analog.com/en/analog-to-digital-converters/video-decoders/adv7180/products/product.html>

Customer Service: http://www.analog.com/en/content/technical_support_page/fca.html

TEST PRODUCT QUALIFICATION REPORT

TITLE:

Test Transfer of ADV7182 (LFCSP) from STATS
ChipPAC Malaysia (SCM) to STATS ChipPAC China
(SCC)

PCN NUMBER:

13_0303

REVISION:

A

DATE:

9 May 2014

PROJECT BACKGROUND

Test transfers are carried out to qualify STATS ChipPAC China (SCC) as an additional test site for ADI devices to support production. ADI is transferring due to the closure of STATS ChipPAC Malaysia (SCM) at the end of 2014.

SUMMARY

ADV7182 LFCSP will be transferred from SCM to SCC for test solution.

There is no change to the form, fit, function, quality or reliability between platforms.

This report documents the successful completion of the product test transfer requirements of ADV7182 LFCSP from SCM to SCC.

Test product qualification was performed according to Analog Devices Specification (ADI0012 / TST00137 / TST00095)

TEST AND PRODUCT INFORMATION

Device: ADV7182
Package: LFCSP-5x5x0.75
Leads: 32
Tester Platform: Catalyst
Handler: Delta Edge

Description and Test Results

Table 1 provides a description of the qualification tests conducted and corresponding test results for ADV7182 LFCSP. All the units have undergone electrical tests on both the sending and receiving sites on the same test platform. Any device that did not meet the electrical qualification requirements without further analysis and data to prove passing, the qualification would be considered failed.

Table 1. Test Product Transfer Qual Criteria

Generic	Package	Lot number	Lot Size	Sending Site	Receiving Site	Mean Shift =< 5%	Sigma Ratio =< 1.3
ADV7182	5x5x0.75 LFCSP	2704375.1P	100	SCM	SCC	Passed	Passed

The ADV7182 was qualified by running a qualification lot with 100 units both in SCM and SCC. Data between sites were analyzed as summarized in Table 1.

A passing result was recorded when the yield from receiving site met or exceeded yield from sending site as summarized in Table 2. Succeeding lots with increased quantity will be

closely monitored once the device has started production run at SCC.

Table 2. Test Product Transfer Qualification Lot Run

GENERIC	Package	Lot number	Lot Size	Test Site	Results
ADV7182	5x5x0.75 LFCSP	2704375.1P	100	SCC	Passed

No valid rejects were encountered during the said evaluation in both sending and receiving sites.

Rejects Verifications

5 valid rejects tested in SCM and SCC having the same result.

Table 3. Setup verification using Reject units

Unit #	SCM	SCC
1	Failed	Failed
2	Failed	Failed
3	Failed	Failed
4	Failed	Failed
5	Failed	Failed

Conclusion

ADV7182 LFCSP handler correlation data on both sites are correlated. Data are already approved by PE and CY, it is acceptable. ADV7182 LFCSP device is now ready for transfer to SCC.

Approvals

TRB#9630

Test Product Engineer: Ronnie Desamero

Chute Yield Engineer: David Lane

Supporting Documents

Technical Review Board: TRB#9630

Additional Information

Homepage: <http://www.analog.com/en/index.html>

Datasheet: <http://www.analog.com/en/audiovideo-products/video-decoders/adv7182/products/product.html>

Customer Service: http://www.analog.com/en/content/technical_support_page/fca.html