



Product/Process Change Notice - PCN 17_0146 Rev. -

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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.

PCN Title: ADuM1200W/ADuM1201W Die Revision, Assembly Site Transfer, Alternate Fab source, Test Platform Migration and MSL Rating Change

Publication Date: 12-Sep-2017

Effectivity Date: 11-Dec-2017 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release

Description Of Change

Die:

1. Increased pulse width of disable signal for refresh block. Increased separation between falling edge of disable signal for refresh block and first refresh high pulse. Increased separation between consecutive pulses on rising edge and refresh high pulses.
2. Reduced internal propagation delay time of receiver circuitry.
3. Additional layer of polyimide passivation on top of the non-coil die.

Assembly Site:

1. ADI has qualified and will be utilizing assembly subcontractor ASE Chungli, Taiwan for 8L SOIC_N Isolator products. ADI has qualified ASE Chungli's standard bill of materials in the SOIC_N package.

Test Platform:

1. The high voltage test platform used to verify the insulation performance of the ADuM1200W/ADuM1201W products during production will be migrated from the Harris-Tuvey 9464 to the Mess-& Prüfsysteme GmbH (MPS) PD test system.
2. The test platform used to verify the CMOS circuitry performance of the ADuM1200W/ADuM1201W products will be migrated from the CTS5040 to the Teradyne Microflex.

Alternate Fab Source

1. Alternate Fab Source for ISO TC (Coil) start silicon die, to enable additional wafer fabrication capacity.
2. CMOS processing is capable of moving, as needed, from TSMC to ADLK for TC (Coil) Die only. Coil post-processing remaining in ADLK.

Moisture Sensitivity Level (MSL):

1. Change of Moisture Sensitivity Level rating from MSL1 to MSL3. Dry pack procedures required as per J-STD-033.

Reason For Change

Die:

1. Increase manufacturability to ensure continuity of supply.
2. Minimize total device propagation delay change from original version of the product.
3. Polyimide offers the following advantages: improved ESD robustness, enhanced protection against die scratches, package stresses, surface ESD/EOS events and radiation.

Assembly Site:

1. To align with ADI's isolator manufacturing strategy. The use of ADI qualified ASE Chungli as an assembly site for this package will ensure continued source of product supply. ADI's assembly subcontractors manufacture our products using Analog Devices specified manufacturing flows, process controls and monitors. This assures that our customers receive the same level of quality and reliability on products they receive from qualified ADI manufacturing locations.

Test Platform:

1. To maintain future continuity of supply and gain the ability to datalog high voltage production test measurements. ADI is currently relying on an aging high voltage test platform (Harris-Tuvey 9464) for the ADuM120xW products.
2. To ensure continuity of supply and support ADI's manufacturing strategy to move away from the aging CTS5040 test platform.

Alternate Fab Source

1. To align with ADI's isolator manufacturing strategy. Ensures additional wafer fabrication capacity.

Moisture Sensitivity Level (MSL):

1. To align with other automotive iCoupler products.

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

No change to fit, form, or reliability.

The test sequence, methodology and coverage remain unchanged on the new platforms.

Summary of Supporting Information

Qualification has been performed per AEC-Q100, Stress Test Qualification for Integrated Circuits. See attached Qualification Results Summary. Test correlation and validation has been performed, see attached Test Correlation reports.

Supporting Documents

Attachment 1: Type: Detailed Change Description

ADI_PCN_17_0146_Rev_-_Rev_E_Material Set Changes SOIC_N of Isolator at ASE CHUNGLI.pdf

Attachment 2: Type: Test Correlation Report

ADI_PCN_17_0146_Rev_-_ADuM1200_01_HT_2_MPS_TestCorrelationReport_PCN_rev1.pdf

Attachment 3: Type: Test Correlation Report

ADI_PCN_17_0146_Rev_-_ADUM1200W_1201W_SOIC_N_Autom_CTS_2_Flex_Test Correlation Report_rev1.pdf

Attachment 4: Type: Qualification Results Summary

ADI_PCN_17_0146_Rev_-_ADuM120xW_Automotive_Qualification_Results_Summary.pdf

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**Added Parts On This Revision - Product Family / Model Number (22)**

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|-------------------------------|-------------------------------|-------------------------------|-----------------------------|-------------------------------|
| ADUM1200 / ADUM1200WSRZ | ADUM1200 / ADUM1200WSRZ-RL7 | ADUM1200 / ADUM1200WTRZ | ADUM1200 / ADUM1200WTRZ-RL7 | ADUM1200 / ADUM1200WTRZ55 |
| ADUM1200 / ADUM1200WTRZ55-RL7 | ADUM1200 / ADUM1200WURZ | ADUM1200 / ADUM1200WURZ-RL7 | ADUM1201 / ADUM1201WSRZ | ADUM1201 / ADUM1201WSRZ-RL7 |
| ADUM1201 / ADUM1201WSRZ55 | ADUM1201 / ADUM1201WSRZ55-RL7 | ADUM1201 / ADUM1201WTRZ | ADUM1201 / ADUM1201WTRZ-RL7 | ADUM1201 / ADUM1201WTRZ35 |
| ADUM1201 / ADUM1201WTRZ35-RL7 | ADUM1201 / ADUM1201WTRZ53 | ADUM1201 / ADUM1201WTRZ53-RL7 | ADUM1201 / ADUM1201WTRZ55 | ADUM1201 / ADUM1201WTRZ55-RL7 |
| ADUM1201 / ADUM1201WURZ | ADUM1201 / ADUM1201WURZ-RL7 | | | |

Appendix B - Revision History

| Rev | Publish Date | Effectivity Date | Rev Description |
|------------|---------------------|-------------------------|------------------------|
| Rev. - | 12-Sep-2017 | 11-Dec-2017 | Initial Release |

Analog Devices, Inc.

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