



Product/Process Change Notice - PCN 13_0331 Rev. -

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.

PCN Title: Change of Bump Site, Bump and Laminate Material for ADSP-TS20xS Products

Publication Date: 29-Jan-2014

Effectivity Date: 29-Apr-2014 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release

Description Of Change

- 1) Bumping site is changing from IBM to ADI qualified subcontractor, Amkor, Taiwan.
- 2) Bump material is changing from high-lead(Pb) 97Pb/3Sn to lead(Pb)-free 98.2Sn/1.9Ag.
- 3) Under Bump Metalization (UBM) is changing from Ni to TiW/Cu/Ni.
- 4) Core material for laminate is changing from SLC-679F to SLC-679FG(R).

All bumping changes are internal to the package and do not affect the external solder ball materials.

Reason For Change

Changing bumping site and materials to conform to industry best practices for Pb-Free bumping.

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 different manufacturing locations.

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

Changes will have no impact on form, fit, functionality or reliability of the ADSP-TS20xS products.

Summary of Supporting Information

Qualification will be performed per ADI0012, Procedure for Qualification of New or Revised Processes. See attached Qualification Plan Summary.

Comments

Samples will be available in February 2014.

Supporting Documents

Attachment 1: Type: Qualification Plan Summary

ADI_PCN_13_0331_Rev_-_ADSP-TS20xQualPlan.docx

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**Added Parts On This Revision - Product Family / Model Number (12)**

| | | | | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| ADSP-TS201S / AD90813 | ADSP-TS201S / AD91146 | ADSP-TS201S / ADSP-TS201SABP-050 | ADSP-TS201S / ADSP-TS201SABP-060 | ADSP-TS201S / ADSP-TS201SABPZ050 |
| ADSP-TS201S / ADSP-TS201SABPZ060 | ADSP-TS201S / ADSP-TS201SYBP-050 | ADSP-TS201S / ADSP-TS201SYBPZ050 | ADSP-TS202S / ADSP-TS202SABPZ050 | ADSP-TS203S / ADSP-TS203SABP-050 |
| ADSP-TS203S / ADSP-TS203SABPZ050 | ADSP-TS203S / ADSP-TS203SBBPZ050 | | | |

Appendix B - Revision History

| Rev | Publish Date | Effectivity Date | Rev Description |
|------------|---------------------|-------------------------|------------------------|
| Rev. - | 29-Jan-2014 | 29-Apr-2014 | Initial Release |
| | | | |

Analog Devices, Inc.

DocId:2699 Parent DocId:None Layout Rev:7

| QUALIFICATION PLAN / STATUS | | | |
|--|--------------------------|-------------------|---|
| TEST | SPECIFICATION | SAMPLE SIZE | RESULTS |
| Temperature Cycle (TC)* | JEDEC <i>JESD22-A104</i> | 3 lots, 32/lot | In-process. Expected completion: Jan. 2014 |
| Unbiased HAST (UHST)* | JEDEC <i>JESD22-A118</i> | 3 lots, 32/lot | Pass |
| High Temperature Storage Life (HTSL) | JEDEC <i>JESD22-A103</i> | 1 lot, 32/lot | Pass |
| Electrostatic Discharge <i>Field-Induced Charged Device Model</i> | JEDEC <i>JESD22-C101</i> | 3/voltage | Pass ±500V |

*Preconditioned per JEDEC/IPC J-STD-020



Analog Devices, Inc. PCN Material Report (Proprietary Information)

| Existing Material | | Material Added | | Material Removed | |
|-------------------|----------------|----------------|--------------------|------------------|----------------|
| GENERICNUMBER | MATERIALNUMBER | GENERICNUMBER | MATERIALNUMBER | GENERICNUMBER | MATERIALNUMBER |
| | | ADSP-TS201S | AD90813 | | |
| | | ADSP-TS201S | AD91146 | | |
| | | ADSP-TS201S | ADSP-TS201SABP-050 | | |
| | | ADSP-TS201S | ADSP-TS201SABP-060 | | |
| | | ADSP-TS201S | ADSP-TS201SABPZ050 | | |
| | | ADSP-TS201S | ADSP-TS201SABPZ060 | | |
| | | ADSP-TS201S | ADSP-TS201SYBP-050 | | |
| | | ADSP-TS201S | ADSP-TS201SYBPZ050 | | |
| | | ADSP-TS202S | ADSP-TS202SABPZ050 | | |
| | | ADSP-TS203S | ADSP-TS203SABP-050 | | |
| | | ADSP-TS203S | ADSP-TS203SABPZ050 | | |
| | | ADSP-TS203S | ADSP-TS203SBBPZ050 | | |