

# Product/Process Change Notice - PCN 22\_0234 Rev. A

Analog Devices, Inc. One Analog Way, Wilmington, MA 01887, USA

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: AD7124-4 Metal Edit and Assembly Site Change. Applies to TSSOP package only

Publication Date: 17-May-2023

Effectivity Date: 17-May-2023 (the earliest date that a customer could expect to receive changed material)

**Revision Description:** Added changeover datecode

### **Description Of Change:**

### Metal Edits to improve

- 1. Performance at -40'C with low power supply when there are large steps in the common mode voltage to the PGA.
- 2. Prevent a reset of the device when the analog input on a channel is outside the datasheet operating conditions and converting the internal 20mV diagnostic on another channel.

#### Other changes

- 1. ID Register value changed to 0x07
- 2. When V\_20MV\_P/V\_20MV\_M is selected as the analog input to the ADC, the absolute voltage on V\_20MV\_M will be at AVSS which may cause the AINM\_UV\_ERR flag to be set (if AINM\_UV\_ERR\_EN=1). So, if the AINM\_UV\_ERR check is enabled, the user should ignore the value of AINM\_UV\_ERR when the channel V\_20MV\_P/V\_20MV\_M is being measured.
- 3. The re-designed silicon includes a pre-charge buffer which ensures that the first conversion after switching channels is settled. On the current silicon, there is no pre-charge buffer so at fast output data rates, the first conversion may not be completely settled if large resistive loads are placed on the analog input.
- 4. An additional excitation current of 100nA is included on the part. Setting the Excitation Current bits to b111 enables the 100nA current. This setting generated a 1mA excitation current on the previous silicon.
- 5. The excitation currents, if enabled, remain active in standby mode. The currents were automatically disabled in standby mode on the previous silicon.

## Assembly Move:

1. Assembly location has changed from Amkor Philippines to ASE Chung Li.

#### Rev A

Changeover datecode is 2315

#### **Reason For Change:**

Improve robustness and performance of the part and ensure continuity of supply.

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

No change to fit, form, function and reliability of the device.

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

Changes will be reflected in the following Datasheet Revisions. AD7124-4 datasheet rev E

Changeover datecode is 2315

# **Summary of Supporting Information:**

Qualification has been performed per Industry Standard Test Methods. See attached Qualification Results.

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# **Supporting Documents**

Attachment 1: Type: Other

ADI PCN 22 0234 Rev A RQR10951A.pdf...

Note: If applicable, the device material declaration will be updated due to material change.

## **ADI Contact Information:**

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

| Americas:               | Europe:               | Japan:               | Rest of Asia:      |
|-------------------------|-----------------------|----------------------|--------------------|
| PCN Americas@analog.com | PCN Europe@analog.com | PCN Japan@analog.com | PCN ROA@analog.com |

# **Appendix A - Affected ADI Models:**

# Existing Parts - Product Family / Model Number (4)

AD7124-4 / AD70/030Z-0RL7

AD7124-4 / AD7124-4BRUZ

AD7124-4 / AD7124-4BRUZ-RL

AD7124-4 / AD7124-4BRUZ-RL7

| Appendix B - Revision History: |              |                         |                           |  |
|--------------------------------|--------------|-------------------------|---------------------------|--|
| Rev                            | Publish Date | <b>Effectivity Date</b> | Rev Description           |  |
| Rev                            | 27-Feb-2023  | 01-Jun-2023             | Initial Release           |  |
| Rev. A                         | 17-May-2023  | 17-May-2023             | Added changeover datecode |  |