



## Product/Process Change Notice - PCN 20\_0223 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 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:** OP07 Die Revision, Wafer Fabrication Site Transfer & Process Change

**Publication Date:** 22-Jul-2020

**Effectivity Date:** 24-Oct-2020 *(the earliest date that a customer could expect to receive changed material)*

**Revision Description:**

Initial Release.

**Description Of Change:**

- 1) Wafer fabrication site transfer from Analog Devices, USA to Analog Devices, Ireland.
- 2) Wafer fabrication process change from BIPOLAR to iPOLAR.
- 3) Layout has been revised to accommodate the fabrication process change. This includes the transistor layout, rerouting of circuitry and bond pad location.
- 4) Polyimide thickness is increasing from 17um to 18um

**Reason For Change:**

Migrating the OP07 to a newer process to improve capacity utilization to ensure longevity of the supply chain.

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

The new material will meet or exceed the performance of the existing material. There will be no changes to form, fit, function and reliability.

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

Cut-Over Date Code provided upon request.

**Summary of Supporting Information:**

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

**Supporting Documents**

**Attachment 1: Type:** Qualification Results Summary

ADI\_PCN\_20\_0223\_Rev\_-\_OP07\_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 (3)**

OP07 / OP07CSZ	OP07 / OP07CSZ-REEL	OP07 / OP07CSZ-REEL7		
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**Appendix B - Revision History**

<b>Rev</b>	<b>Publish Date</b>	<b>Effectivity Date</b>	<b>Rev Description</b>
Rev. -	22-Jul-2020	24-Oct-2020	Initial Release.

Analog Devices, Inc.

DocId:8204 Parent DocId:None Layout Rev:7

OP07 Die Revision, Wafer Fabrication Site & Process Change

**Qualification Results Summary of OP07 Die Revision, Wafer Fabrication Site & Process Change**

QUALIFICATION PLAN / STATUS			
TEST	SPECIFICATION	SAMPLE SIZE	RESULTS
Early Life Failure Rate (ELFR)	MIL-STD-883, M1015	4 x 500	Pass
High Temperature Operating Life (HTOL)	JEDEC <i>JESD22-A108</i>	3 x 77	Pass
Highly Accelerated Stress Test (HAST) <sup>1</sup>	JEDEC <i>JESD22-A110</i>	3 x 77	Pass
Solder Heat Resistance (SHR) <sup>1</sup>	JEDEC <i>J-STD-020</i>	1 x 30	Pass
Temperature Cycle (TC) <sup>1</sup>	JEDEC <i>JESD22-A104</i>	1 x 77	Pass
Unbiased Highly Accelerated Stress Test (UHAST) <sup>1</sup>	JEDEC <i>JESD22-A118</i>	1 x 77	Pass
Latch-Up	JEDEC <i>JESD78</i>	3/test	Pass ±200 mA, ±22.5 V
Electrostatic Discharge <i>Human Body Model</i> <sup>2</sup>	ESDA/JEDEC <i>JS-001-2011</i>	3/voltage	Pass ±2000 V
Electrostatic Discharge <i>Field-Induced Charged Device Model</i>	JEDEC <i>JESD22-A114</i>	3/voltage	Pass ±1250 V

<sup>1</sup> Preconditioned per JEDEC J-STD-020 Level 1

<sup>2</sup> HBM testing shows the OP07 passes at all level between 750 V and 2 kV, but failures occur at 500 V.