



## Product/Process Change Notice - PCN 08\_0024 Rev. C

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.

Note: Revised fields are indicated by a red field name. See Appendix B for revision history.

**PCN Title:** Gyro Process Transfer  
**Publication Date:** 30-Nov-2009  
**Samples Available Date:** 31-Aug-2009  
**Effectivity Date:** 30-Oct-2009 (the earliest date that a customer could expect to receive changed material)

### Description Of Change

ADI has decided to close the 6" Cambridge wafer fab by the end of October 2009 to better align its internal manufacturing capability. This decision affects the wafer fabrication process location of the Gyro products which includes the following steps:

- Sensor creation
- Metallization
- Sensor release
- Cap wafer formation
- Cap – Sensor wafer bonding

All of the above process steps will be transferred from ADI Cambridge, MA USA to ADI's internal wafer fabrication site at Wilmington, MA USA.

In conjunction with the capping line transfer the following change is also planned for the cap wafer:

- The cap's bond pad metallization will be changed from 1% AlCu to 0.5% AlCu

Wilmington is currently a qualified location that fabricates the BiMOS portion of the iMEMS accelerometers and was the original site where the MEMS process was developed. This change will not affect the form, fit or function of the devices.

### Reason For Change

ADI wafer fabs share many of the same process tools, equipment, and associated unit process steps. This standardization has facilitated process transfers between different internal ADI wafer fabs in past years, allowing ADI to proactively manage manufacturing assets, technology development, and continuous improvement initiatives. For these reasons, ADI is consolidating front-end manufacturing operations. Products transferring to Wilmington will incorporate the qualified and proven enhancements detailed above to provide standardized manufacturing flows.

Quality and reliability levels, electrical performance, and package dimensions will not be affected by these changes. All transferred product will have comparable or improved manufacturing process capabilities.

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

Quality and reliability levels, electrical performance, and package dimensions will not be affected by these changes. All transferred product will have comparable or improved manufacturing process capabilities.

### Summary of Supporting Information

Qualifications have been performed per AEC Q100 automotive standard. See attached reports.  
Reliability report 7410 covers the fab process transfer of XRS150 and XRS300 gyro families.  
Reliability report 7411 covers the fab process transfer of XRS610 and XRS620 families of gyros.  
Reliability report 7505 covers the cap bonding process of XRS620 family of gyros.

### Supporting Documents

- Attachment 1:** ADI\_PCN\_08\_0024\_Rev\_C\_7410 iMEMS2 Qual Report.pdf  
**Attachment 2:** ADI\_PCN\_08\_0024\_Rev\_C\_7411 iMEMS3 Qual Report.pdf  
**Attachment 3:** ADI\_PCN\_08\_0024\_Rev\_C\_7505 iMEMS Capping Qual Report.pdf  
**Attachment 4:** ADI\_PCN\_08\_0024\_Rev\_C\_Gyro New Finished Goods Part Numbers.xlsx

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 (27)**

ADXRS150 / AD22304	ADXRS150 / ADXRS150ABG	ADXRS150 / ADXRS150ABG-REEL	ADXRS150 / ADXRS150EB	ADXRS300 / ADXRS300ABG	ADXRS300 / ADXRS300ABG-REEL
ADXRS300 / ADXRS300ABG-REEL-1	ADXRS300 / ADXRS300EB	ADXRS610 / AD22305	ADXRS610 / ADXRS610BBGZ	ADXRS610 / ADXRS610BBGZ-RL	ADXRS610 / ADXRS610X
ADXRS612 / ADXRS612BBGZ	ADXRS612 / ADXRS612BBGZ-RL	ADXRS612 / ADXRS612X	ADXRS613 / ADXRS613BBGZ	ADXRS613 / ADXRS613BBGZ-RL	ADXRS613 / ADXRS613X
ADXRS614 / ADXRS614BBGZ	ADXRS614 / ADXRS614BBGZ-RL	ADXRS614 / ADXRS614X	ADXRS620 / ADW22307Z	ADXRS620 / ADW22307Z-RL	ADXRS620 / ADXRS620WBBGZ
ADXRS620 / ADXRS620WBBGZ-RL	ADXRS622 / ADXRS622WBBGZ	ADXRS622 / ADXRS622WBBGZ-RL			

**Added Parts On This Revision - Product Family / Model Number (2)**

ADXRS620 / ADXRS620WBBGZ	ADXRS620 / ADXRS620WBBGZ-RL
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**Removed Parts On All Revisions - Product Family / Model Number (16)**

ADXRS401 / ADXRS401ABG	ADXRS401 / ADXRS401ABG-REEL	ADXRS401 / ADXRS401EB	ADXRS401 / ADXRS401JBG	ADXRS401 / ADXRS401JBG-REEL	ADXRS610 / AD22305-RL
ADXRS610 / AD22305X	ADXRS610 / AD22305Z1-RL	ADXRS610 / AD22305Z2-RL	ADXRS610 / ADXRS611X	ADXRS610 / EVAL-AD22305	ADXRS610 / EVAL-AD22305X
ADXRS610 / EVAL-ADXRS610Z	ADXRS612 / EVAL-ADXRS612Z	ADXRS613 / EVAL-ADXRS613Z	ADXRS614 / EVAL-ADXRS614Z		

**Appendix B - Revision History**

<b>Rev</b>	<b>Publish Date</b>	<b>Rev Description</b>
Rev. -	13-Jun-2008	Initial Release
Rev. A	14-Jul-2009	Add Capping Changes, new date of Cambridge Closure, update parts list
Rev. B	02-Nov-2009	Add New Finished Goods Parts List and completed 7505 Qualification Report. Add and remove parts.
Rev. C	30-Nov-2009	Revising the new finished goods parts list. Removing and adding parts.

Analog Devices, Inc.

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