



Product/Process Change Notice - PCN 22_0253 Rev. -

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.

PCN Title: Addition of UTAC Thailand as an Alternate Assembly Site for SOT23, SC70 and TSOT Packages/Devices

Publication Date: 11-Oct-2022

Effectivity Date: 13-Jan-2023 *(the earliest date that a customer could expect to receive changed material)*

Revision Description:

Initial Release.

Description Of Change:

- (1) ADI will be utilizing UTAC Thailand (UT3) as an alternate assembly site for SOT23, SC70 and TSOT.
- (2) Change in mold compound from Hitachi CEL8240HF10LX to Sumitomo G600.
- (3) Change in die attach material from Hysol QMI519 conductive to Ablestik 84-1LMISR4 conductive.

Reason For Change:

Adding UTAC Thailand (UT3) as an alternate site to ensure continuous supply in order to meet volume requirements.

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

There is no expected change in device functionality, fit, form or reliability.

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

Parts assembled in UTAC Thailand (UT3) will be identified by Assembly Lot number and Date Code.

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_22_0253_Rev_-_Reliability Report Number 20152.pdf

Attachment 2: Type: Detailed Change Description

ADI_PCN_22_0253_Rev_-_Material Set Change for SC70 SOT23 TSOT.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 (34)				
AD1580 / AD1580ARTZ-REEL7	AD1580 / AD1580BRTZ-REEL7	AD1582 / AD1582ARTZ-REEL7	AD1582 / AD1582BRTZ-REEL7	AD1583 / AD1583BRTZ-REEL7
AD5160 / AD5160BRJZ10-RL7	AD8027 / AD8027ARTZ-REEL7	AD8031 / AD8031ARTZ-REEL7	AD8057 / AD8057ARTZ-REEL7	AD8061 / AD8061ARTZ-REEL
AD8061 / AD8061ARTZ-REEL7	AD8065 / AD8065ARTZ-REEL7	AD8091 / AD8091ARTZ-R7	AD8211 / AD8211YRJZ-RL7	AD8515 / AD8515ARTZ-REEL
AD8515 / AD8515ARTZ-REEL7	AD8531 / AD8531ARTZ-REEL7	AD8541 / AD8541ARTZ-REEL	AD8541 / AD8541ARTZ-REEL7	AD8591 / AD8591ARTZ-REEL7
AD8601 / AD8601ARTZ-REEL	AD8601 / AD8601ARTZ-REEL7	AD8605 / AD8605ARTZ-REEL7	AD8628 / AD8628ARTZ-REEL7	ADA4432-1 / ADA4432-1BRJZ-R7
ADA4807-1 / ADA4807-1ARJZ-R7	ADA4851-1 / ADA4851-1YRJZ-RL7	ADA4891-1 / ADA4891-1ARJZ-R7	ADA4897-1 / AD45259-R7	ADCM361 / ADCMP361YRJZ-REEL7
ADP3330 / ADP3330ARTZ3.3-RL7	ADP3331 / ADP3331ARTZ-REEL7	ADR280 / ADR280ARTZ-REEL7	TMP36 / TMP36GRTZ-REEL7	

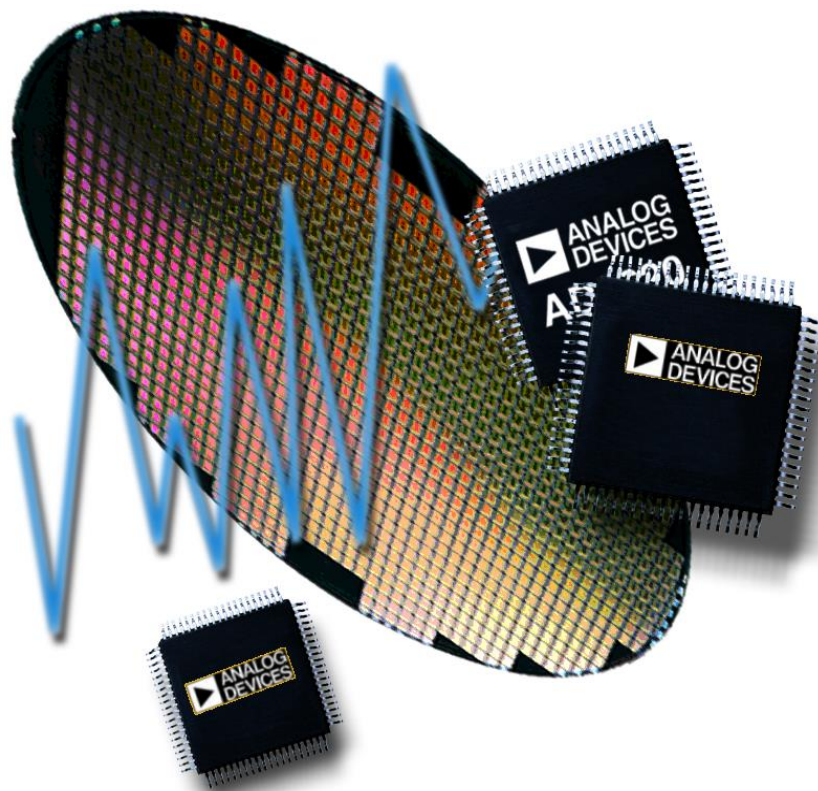
Appendix B - Revision History			
Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	11-Oct-2022	13-Jan-2023	Initial Release.

Analog Devices, Inc.

DocId:10045 Parent DocId:None Layout Rev:8

Material Set Change:

Assembly Site	Carsem	UTAC
Wire	1.0 Au	1.0 Au
Die Attach	Hysol QMI519 Ablestik 8006NS	Ablestik 84-1LMISR4 Ablestik 8006NS
Mold Compound	Hitachi CEL8240HF10LX	Sumitomo G600
Plating	100% Matte Sn Pre-plated	100% Matte Sn Pre-plated



Reliability Report

Report Title: Reliability Data for Discrete Packages at UT3 Qualification

Report Number: 20152

Revision: A

Date: 22 September 2022

Summary

This report documents the available reliability data to qualify the discrete packages (SC70, SOT23 and TSOT) at UTAC Thailand (UT3).

Table 1: Die/Fab Product Characteristics

Product Characteristic	Product used for Substitution Data					
Generic/Root Part #	MAX5383EZT+T	MAX8877EZK+	MAX8863TEUK+	MAX4714EXT+T	MAX8881EUT18+T	MAX9618AXA+T
Die Id	DA78Y	PX50Y	PW84W	AH80Z	PY17X-1Z	OY41Z

Table 2: Package/Assembly Product Characteristics

Product Characteristic	Products used for Substitution Data					
Generic/Root Part #	MAX5383EZT+T	MAX8877EZK+	MAX8863TEUK+	MAX4714EXT+T	MAX8881EUT18+T	MAX9618AXA+T
Package	6L-TSOT	5L-TSOT	5L-SOT23	6L-SC70-SP	6L-SOT23	8L-SC70-COL
Body Size (mm)	1.60 x 2.90 x 0.87	1.60 x 2.90 x 0.80	1.60 x 2.90 x 1.15	1.25 x 2.00 x 0.90	1.60 x 2.90 x 1.15	2.20 x 2.40 x 1.10
Assembly Location	UTAC (UT3)	UTAC (UT3)	UTAC (UT3)	UTAC (UT3)	UTAC (UT3)	UTAC (UT3)
MSL/Peak Reflow Temperature (°C)	1 / 260°C	1 / 260°C	1 / 260°C	1 / 260°C	1 / 260°C	1 / 260°C
Mold Compound	Sumitomo G600	Sumitomo G600	Sumitomo G600	Sumitomo G600	Sumitomo G600	Sumitomo G600
Die Attach	Ablestik 84-1LMISR4	Ablestik 84-1LMISR4	Ablestik 84-1LMISR4	Ablestik AB8006NS	Ablestik AB8006NS-2X	Ablestik 2X-8000NS
Leadframe Material	Copper	Copper	Copper	Copper	Copper	Copper
Lead Finish	Matte Sn	Matte Sn	Matte Sn	NiPdAu	NiPdAu	NiPdAu
Wire Bond Material/Diameter (mils)	4N Au / 1.0	4N Au / 1.0	4N Au / 1.0	4N Au / 1.0	4N Au / 1.0	4N Au / 1.0

Table 3: Package/Assembly Test Results

Test Name	Spec	Conditions	Generic/Root Part #	Lot #	Fails/SS
Solder Heat Resistance (SHR) ¹	J-STD-020	MSL-1	MAX5383EZT+ T	S3JAEA004Q7	0/300
				S3JAEA004Q8	0/300
				S3JAEA004Q9	0/300
			MAX8877EZK+	JM2AGA078Q1	0/300
				JM2AGA078Q2	0/300
				JM2AGA078Q3	0/300
			MAX8863TEUK +	ZVZAGA097Q1	0/150
				ZVZAGA097Q2	0/150
				ZVZAGA097Q3	0/150
			MAX4714EXT+ T	Q3V0AA028Q1	0/250
				Q3V0AA028Q2	0/250
				Q3V0AA028Q3	0/250
			MAX8881EUT1 8+T	D7GBGA037Q1	0/250
				D7GBGA037Q2	0/250
				D7GBGA037Q3	0/250
			MAX9618AXA+ T	SC3ZAQ001Q1	0/250
				SC3ZAQ001Q2	0/250
				SC3ZAQ001Q3	0/250
Solderability	JESD22-B102	Soldering Temp of 245°C, Single Duration	MAX8881EUT1 8+T	D7GBGA037Q1	0/15
				D7GBGA037Q2	0/15
				D7GBGA037Q3	0/15
			MAX4714EXT+ T	Q3V0AA028Q1	0/15
				Q3V0AA028Q2	0/15
				Q3V0AA028Q3	0/15
Highly Accelerated Temperature and Humidity Stress Test (HAST) ¹	JESD22-A110	130C 85%RH 33.3 psia, Biased, 100 Hours	MAX5383EZT+ T	S3JAEA004Q7	0/45
				S3JAEA004Q8	0/45

Test Name	Spec	Conditions	Generic/Root Part #	Lot #	Fails/SS
			MAX8863TEUK +	S3JAEA004Q9	0/45
				ZVZAGA097Q1	0/45
				ZVZAGA097Q2	0/45
				ZVZAGA097Q3	0/45
			MAX9618AXA+ T	SC3ZAQ001Q1	0/45
				SC3ZAQ001Q2	0/45
				SC3ZAQ001Q3	0/45
Temperature, Humidity, Bias (THB) ¹	JESD22-A101	85°C 85%RH, Biased, 1000 Hours	MAX4714EXT+ T	Q3V0AA028Q1	0/45
				Q3V0AA028Q2	0/45
				Q3V0AA028Q3	0/45
			MAX8881EUT1 8+T	D7GBGA037Q1	0/45
				D7GBGA037Q2	0/45
				D7GBGA037Q3	0/45
Temperature Cycling (TC) ¹	JESD22-A104	- 65°C/+150°C, 500 Cycles	MAX5383EZT+ T	S3JAEA004Q7	0/77
				S3JAEA004Q8	0/77
				S3JAEA004Q9	0/77
		- 65°C/+150°C, 1000 Cycles	MAX8877EZK+	JM2AGA078Q1	0/77
				JM2AGA078Q2	0/77
				JM2AGA078Q3	0/77
			MAX8863TEUK +	ZVZAGA097Q1	0/77
				ZVZAGA097Q2	0/77
				ZVZAGA097Q3	0/77
			MAX4714EXT+ T	Q3V0AA028Q1	0/77
				Q3V0AA028Q2	0/77
				Q3V0AA028Q3	0/77
			MAX8881EUT1 8+T	D7GBGA037Q1	0/77
				D7GBGA037Q2	0/77

Test Name	Spec	Conditions	Generic/Root Part #	Lot #	Fails/SS
			MAX9618AXA+ T	D7GBGA037Q3	0/77
				SC3ZAQ001Q1	0/77
				SC3ZAQ001Q2	0/77
				SC3ZAQ001Q3	0/77
High Temperature Storage Life (HTSL) ¹	JESD22-A103	150°C, 1000 Hours	MAX5383EZT+ T	S3JAEA004Q7	0/77
				S3JAEA004Q8	0/77
				S3JAEA004Q9	0/77
			MAX4714EXT+ T	Q3V0AA028Q1	0/77
				Q3V0AA028Q2	0/77
				Q3V0AA028Q3	0/77
			MAX8881EUT1 8+T	D7GBGA037Q1	0/77
				D7GBGA037Q2	0/77
				D7GBGA037Q3	0/77
High Temperature Storage Life (HTSL)			MAX8863TEUK +	ZVZAGA097Q1	0/77
				ZVZAGA097Q2	0/77
				ZVZAGA097Q3	0/77

¹These samples were subjected to preconditioning at MSL 1 with 3x reflow peak temp of 260°C prior to the start of the stress test.

Approvals

Reliability Engineer: Jordan Placido